

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.

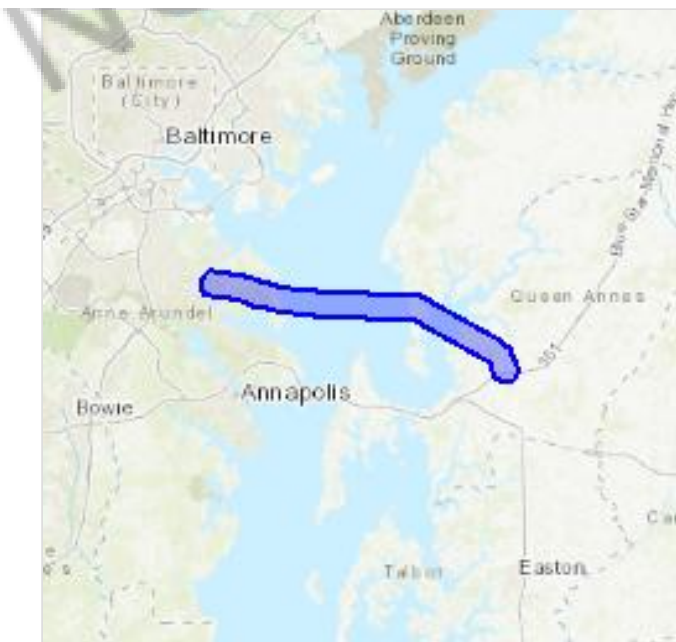
Project information

NAME

Bay Bridge Crossing Study Corridor 06

LOCATION

Anne Arundel, Kent and Queen Anne's counties, Maryland



DESCRIPTION

The Maryland Transportation Authority (MDTA), in coordination with the Federal Highway Administration (FHWA), is preparing a Tier I Environmental Impact Statement (EIS) for the Chesapeake Bay Crossing Study (CBCS) in accordance with the National Environmental Policy Act (NEPA). The purpose of the Tier I study is to identify the preferred location for addressing congestion on the Chesapeake Bay Bridge, and to estimate the financial viability of a preferred corridor location.

Local office

Chesapeake Bay Ecological Services Field Office

☎ (410) 573-4599

📠 (410) 266-9127

177 Admiral Cochrane Drive
Annapolis, MD 21401-7307

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

<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>

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. Log in to IPaC.
2. Go to your My Projects list.

3. Click PROJECT HOME for this project.
4. 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.
 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

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

This species only needs to be considered if the following condition applies:

- Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9045>

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

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

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

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

NAME

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

Bald Eagle *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

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

<https://ecos.fws.gov/ecp/species/1626>

Black Rail *Laterallus jamaicensis*

Breeds Mar 1 to Sep 15

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

<https://ecos.fws.gov/ecp/species/7717>

Black Scoter *Melanitta nigra*

Breeds elsewhere

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.

Black Skimmer *Rynchops niger*

Breeds May 20 to Sep 15

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

<https://ecos.fws.gov/ecp/species/5234>

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Breeds May 15 to Oct 10

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

<https://ecos.fws.gov/ecp/species/9399>

Bobolink *Dolichonyx oryzivorus*

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

Breeds May 20 to Jul 31

Bonaparte's Gull *Chroicocephalus philadelphia*

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 elsewhere

Brown Pelican *Pelecanus occidentalis*

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/6034>

Breeds Jan 15 to Sep 30

Buff-breasted Sandpiper *Calidris subruficollis*

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

<https://ecos.fws.gov/ecp/species/9488>

Breeds elsewhere

Canada Warbler *Cardellina canadensis*

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

Breeds May 20 to Aug 10

Cerulean Warbler *Dendroica cerulea*

Breeds Apr 29 to Jul 20

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

<https://ecos.fws.gov/ecp/species/2974>

Clapper Rail *Rallus crepitans*

Breeds Apr 10 to Oct 31

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

Common Loon *gavia immer*

Breeds Apr 15 to Oct 31

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/4464>

Common Tern *Sterna hirundo*

Breeds May 10 to Sep 10

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/4963>

Double-crested Cormorant *phalacrocorax auritus*

Breeds Apr 20 to Aug 31

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/3478>

Dunlin *Calidris alpina arctica*

Breeds elsewhere

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

Eastern Whip-poor-will *Antrostomus vociferus*

Breeds May 1 to Aug 20

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

Golden Eagle *Aquila chrysaetos*

Breeds elsewhere

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>

Golden-winged Warbler *Vermivora chrysoptera*

Breeds May 1 to Jul 20

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

<https://ecos.fws.gov/ecp/species/8745>

Great Black-backed Gull *Larus marinus*

Breeds Apr 15 to Aug 20

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.

Gull-billed Tern *Gelochelidon nilotica*

Breeds May 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/9501>

Herring Gull *Larus argentatus*

Breeds Apr 20 to Aug 31

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.

Hudsonian Godwit *Limosa haemastica*

Breeds elsewhere

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

Kentucky Warbler *Oporornis formosus*

Breeds Apr 20 to Aug 20

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

King Rail *Rallus elegans*

Breeds May 1 to Sep 5

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

<https://ecos.fws.gov/ecp/species/8936>

Least Tern *Sterna antillarum*

Breeds Apr 20 to Sep 10

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

Lesser Yellowlegs *Tringa flavipes*

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/9679>

Long-tailed Duck *Clangula hyemalis*

Breeds elsewhere

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/7238>

Nelson's Sparrow *Ammodramus nelsoni*

Breeds May 15 to Sep 5

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

Northern Gannet *Morus bassanus*

Breeds elsewhere

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.

Prairie Warbler *Dendroica discolor*

Breeds May 1 to Jul 31

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

Prothonotary Warbler *Protonotaria citrea*

Breeds Apr 1 to Jul 31

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

Red-breasted Merganser *Mergus serrator*

Breeds elsewhere

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.

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

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

Red-necked Phalarope *Phalaropus lobatus*

Breeds elsewhere

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.

Red-throated Loon *Gavia stellata*

Breeds elsewhere

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

Ring-billed Gull *Larus delawarensis*

Breeds elsewhere

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.

Royal Tern *Thalasseus maximus*

Breeds Apr 15 to Aug 31

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.

Ruddy Turnstone *Arenaria interpres morinella*

Breeds elsewhere

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

Rusty Blackbird *Euphagus carolinus*

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

Breeds elsewhere

Seaside Sparrow *Ammodramus maritimus*

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

Breeds May 10 to Aug 20

Semipalmated Sandpiper *Calidris pusilla*

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

Breeds elsewhere

Short-billed Dowitcher *Limnodromus griseus*

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

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

Breeds elsewhere

Snowy Owl *Bubo scandiacus*

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

Breeds elsewhere

Surf Scoter *Melanitta perspicillata*

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 elsewhere

Whimbrel *Numenius phaeopus*

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/9483>

White-winged Scoter *Melanitta fusca*

Breeds elsewhere

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.

Willet *Tringa semipalmata*

Breeds Apr 20 to Aug 5

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

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

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

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 (I)

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.

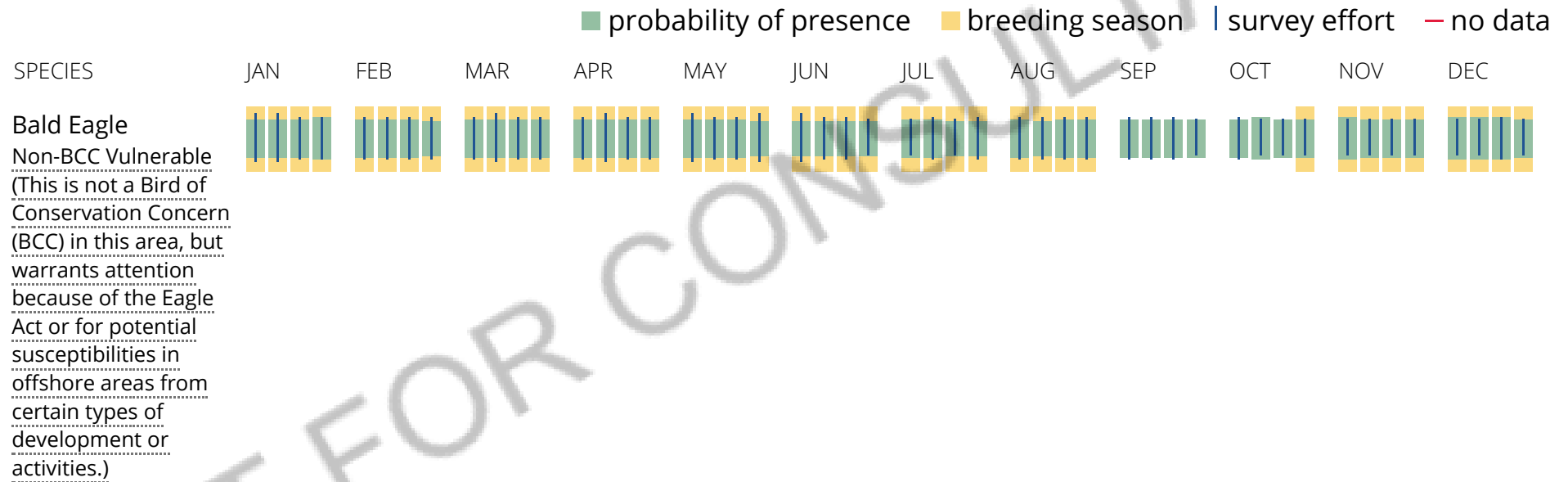
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

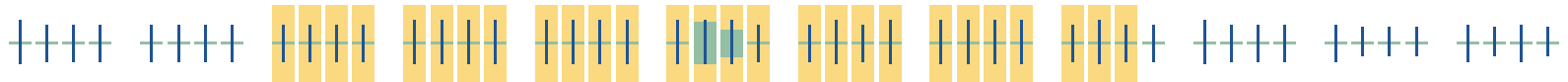
A week is marked as having no data if there were no survey events for that week.

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.



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



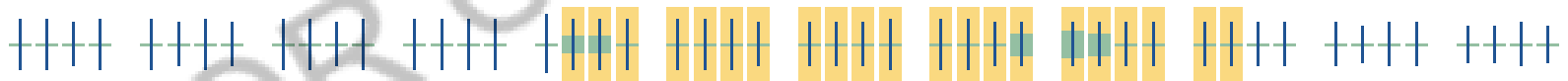
Black Scoter
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



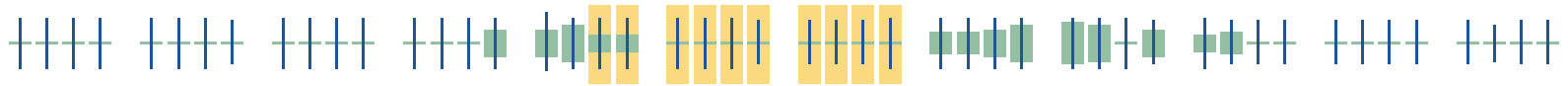
Black Skimmer
BCC Rangewide (CON)
(This is a Bird of
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Alaska.)



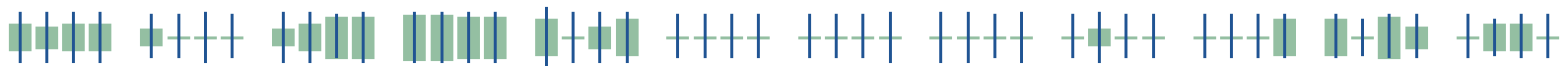
Black-billed Cuckoo
BCC Rangewide (CON)
(This is a Bird of
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Alaska.)



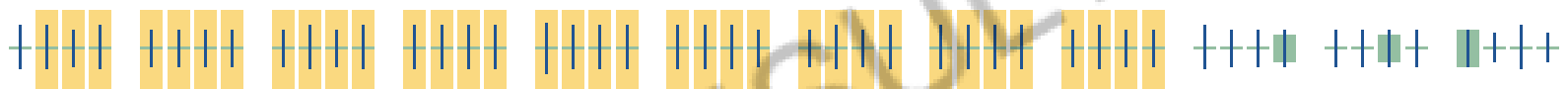
Bobolink
BCC Rangewide (CON)
(This is a Bird of
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Bonaparte's Gull
Non-BCC Vulnerable
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Brown Pelican
Non-BCC Vulnerable
(This is not a Bird of
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because of the Eagle
Act or for potential
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offshore areas from
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development or
activities.)



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



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



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



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



SPECIES

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

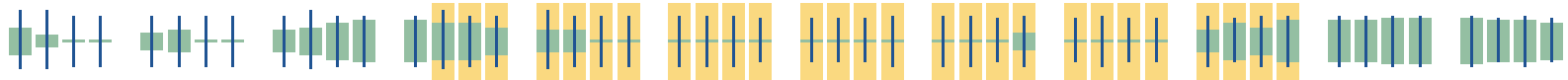
SEP

OCT

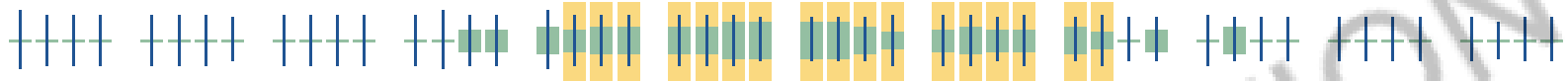
NOV

DEC

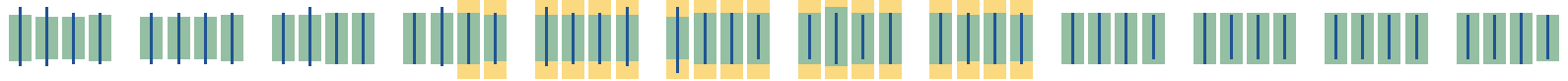
Common Loon
Non-BCC Vulnerable
(This is not a Bird of
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Act or for potential
susceptibilities in
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activities.)



Common Tern
Non-BCC Vulnerable
(This is not a Bird of
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Act or for potential
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activities.)



Double-crested
Cormorant
Non-BCC Vulnerable
(This is not a Bird of
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(BCC) in this area, but
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Act or for potential
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development or
activities.)



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



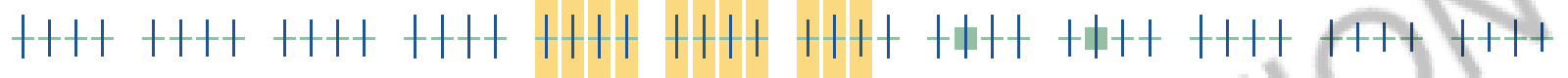
Eastern Whip-poor-
will
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



Golden Eagle
Non-BCC Vulnerable
(This is not a Bird of
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Golden-winged
Warbler
BCC Rangewide (CON)
(This is a Bird of
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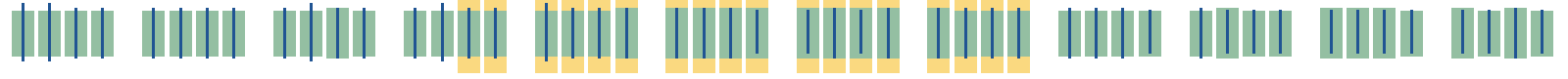
Great Black-backed
Gull
Non-BCC Vulnerable
(This is not a Bird of
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Gull-billed Tern
BCC Rangewide (CON)
(This is a Bird of
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continental USA and
Alaska.)



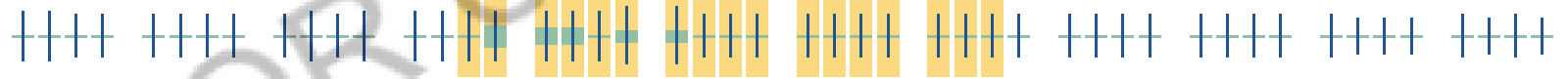
Herring Gull
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



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



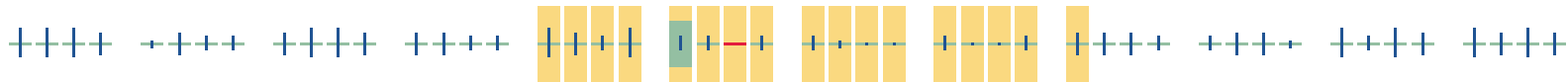
Kentucky Warbler
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



SPECIES

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

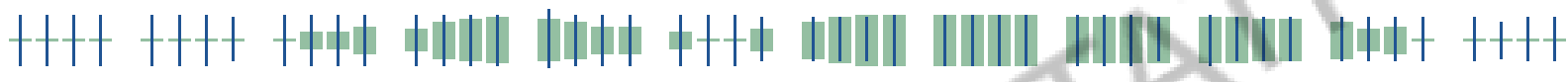
King Rail
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



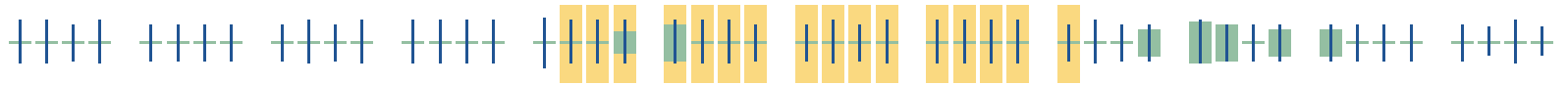
Lesser Yellowlegs
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



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



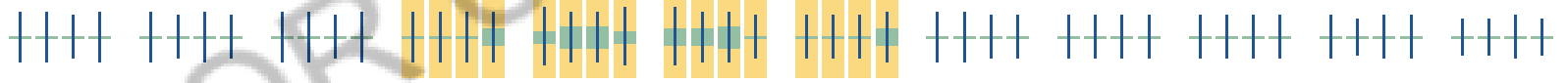
Northern Gannet
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



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



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



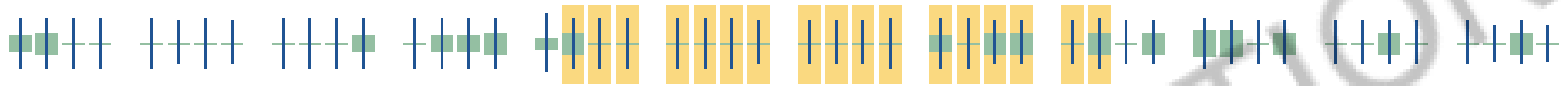
Red-breasted
Merganser

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



Red-headed
Woodpecker

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



Red-necked
Phalarope

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



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

SPECIES

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

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

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

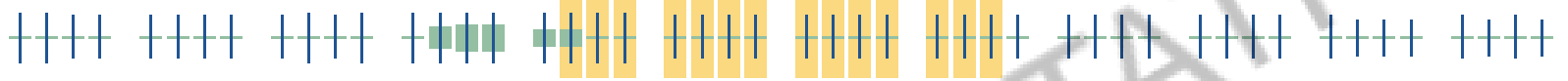
Ruddy Turnstone
BCC - BCR (This is a
Bird of Conservation
Concern (BCC) only in
particular Bird
Conservation Regions
(BCRs) in the
continental USA)



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



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



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



Short-billed
Dowitcher

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



Snowy Owl

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



Surf Scoter

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



Whimbrel

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

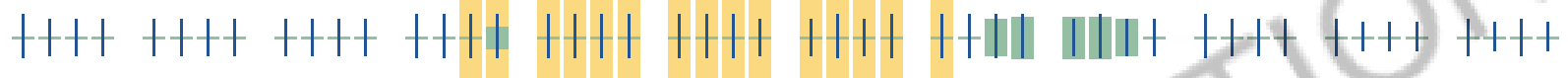


White-winged
Scoter

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



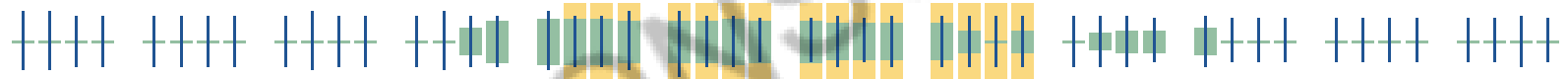
Willet
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



SPECIES

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

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



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

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding

their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) 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](#).

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

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.

Project information

NAME

Bay Bridge Crossing Study Corridor 07

LOCATION

Anne Arundel and Queen Anne's counties, Maryland



DESCRIPTION

The Maryland Transportation Authority (MDTA), in coordination with the Federal Highway Administration (FHWA), is preparing a Tier I Environmental Impact Statement (EIS) for the Chesapeake Bay Crossing Study (CBCS) in accordance with the National Environmental Policy Act (NEPA). The purpose of the Tier I study is to identify the preferred location for addressing congestion on the Chesapeake Bay Bridge, and to estimate the financial viability of a preferred corridor location.

Local office

Chesapeake Bay Ecological Services Field Office

☎ (410) 573-4599

📠 (410) 266-9127

177 Admiral Cochrane Drive
Annapolis, MD 21401-7307

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

<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>

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. Log in to IPaC.
2. Go to your My Projects list.

3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

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

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

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
 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

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

This species only needs to be considered if the following condition applies:

- Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9045>

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

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

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

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

NAME

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

Bald Eagle *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

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

<https://ecos.fws.gov/ecp/species/1626>

Black Scoter *Melanitta nigra*

Breeds elsewhere

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.

Black Skimmer *Rynchops niger*

Breeds May 20 to Sep 15

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

<https://ecos.fws.gov/ecp/species/5234>

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Breeds May 15 to Oct 10

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

<https://ecos.fws.gov/ecp/species/9399>

Black-legged Kittiwake *Rissa tridactyla*

Breeds elsewhere

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.

Bobolink *Dolichonyx oryzivorus*

Breeds May 20 to Jul 31

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

Bonaparte's Gull *Chroicocephalus philadelphia*

Breeds elsewhere

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.

Brown Pelican *Pelecanus occidentalis*

Breeds Jan 15 to Sep 30

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/6034>

Buff-breasted Sandpiper *Calidris subruficollis*

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/9488>

Canada Warbler *Cardellina canadensis*

Breeds May 20 to Aug 10

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

Cerulean Warbler *Dendroica cerulea*

Breeds Apr 29 to Jul 20

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

<https://ecos.fws.gov/ecp/species/2974>

Clapper Rail *Rallus crepitans*

Breeds Apr 10 to Oct 31

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

Common Loon *Gavia immer*

Breeds Apr 15 to Oct 31

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/4464>

Common Tern *Sterna hirundo*

Breeds May 10 to Sep 10

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/4963>

Double-crested Cormorant *phalacrocorax auritus*

Breeds Apr 20 to Aug 31

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/3478>

Dunlin *Calidris alpina arctica*

Breeds elsewhere

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

Eastern Whip-poor-will *Antrostomus vociferus*

Breeds May 1 to Aug 20

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

Golden Eagle *Aquila chrysaetos*

Breeds elsewhere

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>

Golden-winged Warbler *Vermivora chrysoptera*

Breeds May 1 to Jul 20

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

<https://ecos.fws.gov/ecp/species/8745>

Great Black-backed Gull *Larus marinus*

Breeds Apr 15 to Aug 20

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.

Herring Gull *Larus argentatus*

Breeds Apr 20 to Aug 31

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.

Hudsonian Godwit *Limosa haemastica*

Breeds elsewhere

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

Kentucky Warbler *Oporornis formosus*

Breeds Apr 20 to Aug 20

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

King Rail *Rallus elegans*

Breeds May 1 to Sep 5

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

<https://ecos.fws.gov/ecp/species/8936>

Least Tern *Sterna antillarum*

Breeds Apr 20 to Sep 10

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

Lesser Yellowlegs *Tringa flavipes*

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/9679>

Long-tailed Duck *Clangula hyemalis*

Breeds elsewhere

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/7238>

Nelson's Sparrow *Ammodramus nelsoni*

Breeds May 15 to Sep 5

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

Northern Gannet *Morus bassanus*

Breeds elsewhere

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.

Pomarine Jaeger *Stercorarius pomarinus*

Breeds elsewhere

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.

Prairie Warbler *Dendroica discolor*

Breeds May 1 to Jul 31

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

Prothonotary Warbler *Protonotaria citrea*

Breeds Apr 1 to Jul 31

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

Purple Sandpiper *Calidris maritima*

Breeds elsewhere

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

Red-breasted Merganser *Mergus serrator*

Breeds elsewhere

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.

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

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

Red-necked Phalarope *Phalaropus lobatus*

Breeds elsewhere

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.

Red-throated Loon *Gavia stellata*

Breeds elsewhere

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

Ring-billed Gull *Larus delawarensis*

Breeds elsewhere

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.

Royal Tern *Thalasseus maximus*

Breeds Apr 15 to Aug 31

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.

Ruddy Turnstone *Arenaria interpres morinella*

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

Breeds elsewhere

Rusty Blackbird *Euphagus carolinus*

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

Breeds elsewhere

Seaside Sparrow *Ammodramus maritimus*

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

Breeds May 10 to Aug 20

Semipalmated Sandpiper *Calidris pusilla*

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

Breeds elsewhere

Short-billed Dowitcher *Limnodromus griseus*

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

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

Breeds elsewhere

Snowy Owl *Bubo scandiacus*

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

Breeds elsewhere

Sooty Tern *Onychoprion fuscatus*

Breeds Mar 10 to Jul 31

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.

Surf Scoter *Melanitta perspicillata*

Breeds elsewhere

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.

Whimbrel *Numenius phaeopus*

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/9483>

White-winged Scoter *Melanitta fusca*

Breeds elsewhere

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.

Willet *Tringa semipalmata*

Breeds Apr 20 to Aug 5

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

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

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 (—)

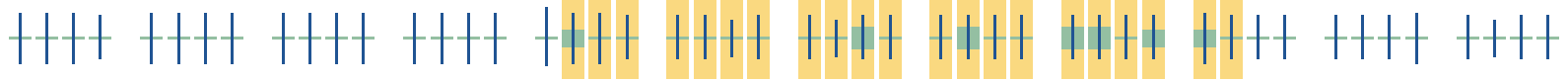
A week is marked as having no data if there were no survey events for that week.

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.



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



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



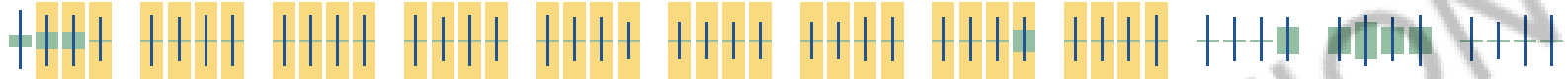
Bobolink
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



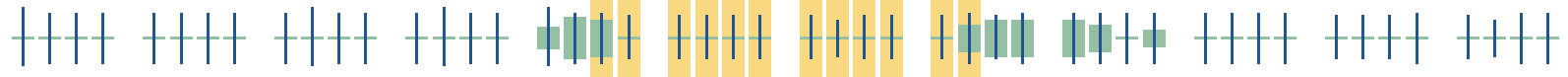
Brown Pelican
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



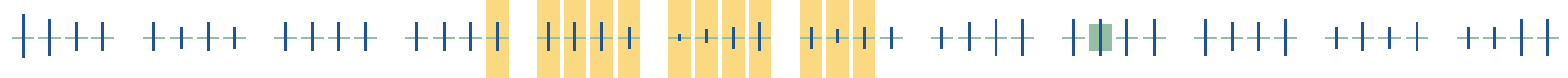
Buff-breasted
Sandpiper
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



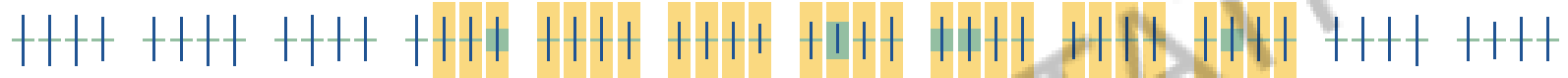
Canada Warbler
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



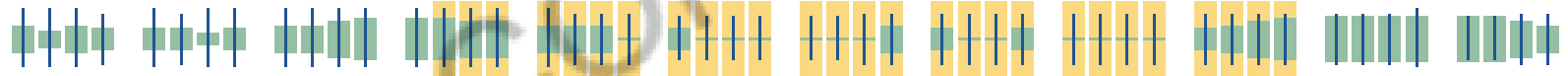
Clapper Rail
BCC - BCR (This is a
Bird of Conservation
Concern (BCC) only in
particular Bird
Conservation Regions
(BCRs) in the
continental USA)



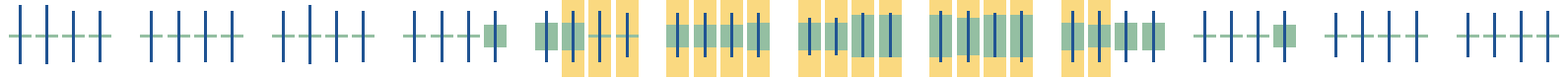
SPECIES

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

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



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



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

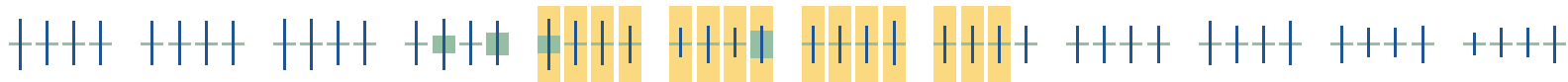


Dunlin
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Eastern Whip-poor-will

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



Golden Eagle

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



Golden-winged Warbler

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



Great Black-backed
Gull



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

Herring Gull

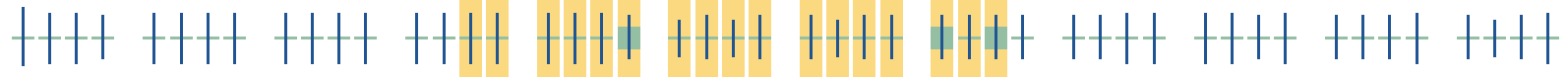


Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
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because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)

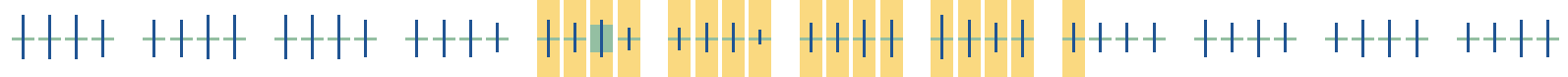
Hudsonian Godwit
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



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



SPECIES

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FEB

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JUL

AUG

SEP

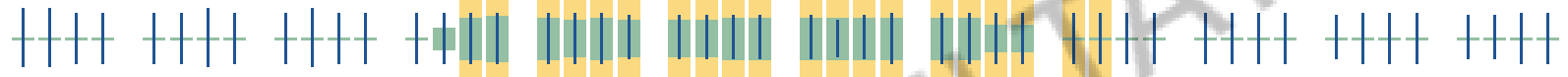
OCT

NOV

DEC

Least Tern

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



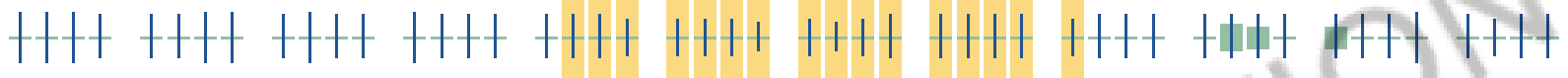
Lesser Yellowlegs
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



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



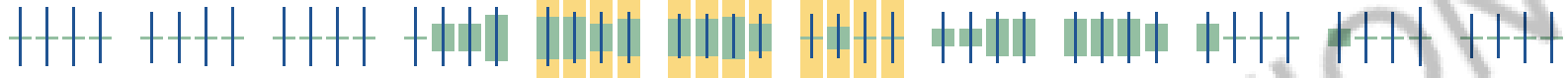
Northern Gannet
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



Pomarine Jaeger
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
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because of the Eagle
Act or for potential
susceptibilities in
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activities.)



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



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



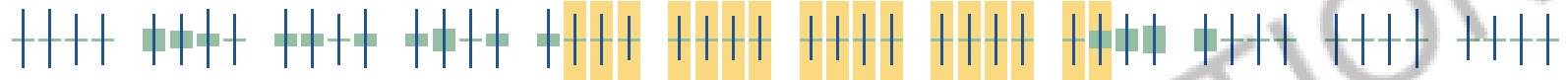
Purple Sandpiper
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



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



Red-necked
Phalarope
Non-BCC Vulnerable
(This is not a Bird of
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because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



SPECIES

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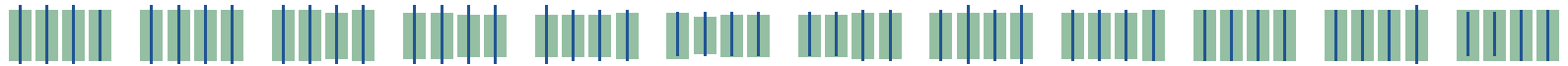
NOV

DEC

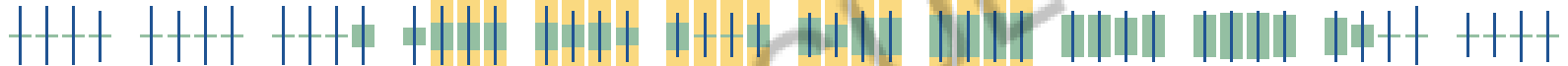
Red-throated Loon
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
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continental USA and
Alaska.)



Ring-billed Gull
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
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because of the Eagle
Act or for potential
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certain types of
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activities.)



Royal Tern
Non-BCC Vulnerable
(This is not a Bird of
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(BCC) in this area, but
warrants attention
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Act or for potential
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offshore areas from
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development or
activities.)



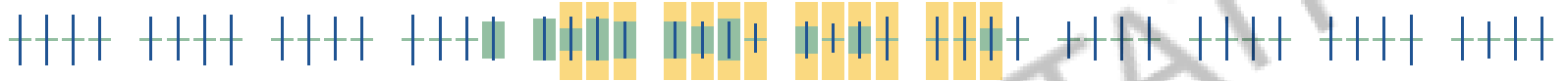
Ruddy Turnstone
BCC - BCR (This is a
Bird of Conservation
Concern (BCC) only in
particular Bird
Conservation Regions
(BCRs) in the
continental USA)



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



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



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



Short-billed
Dowitcher

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



Snowy Owl

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



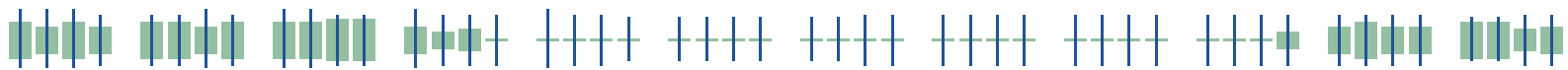
Sooty Tern

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

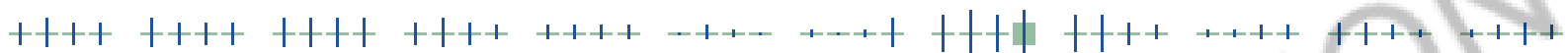


8

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



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



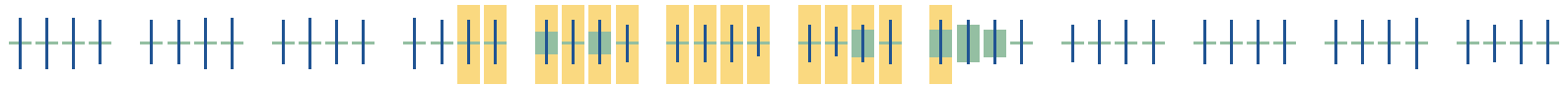
SPECIES

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

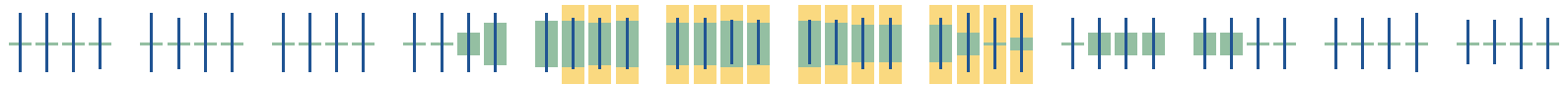
White-winged
Scoter
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



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



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



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

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

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

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.

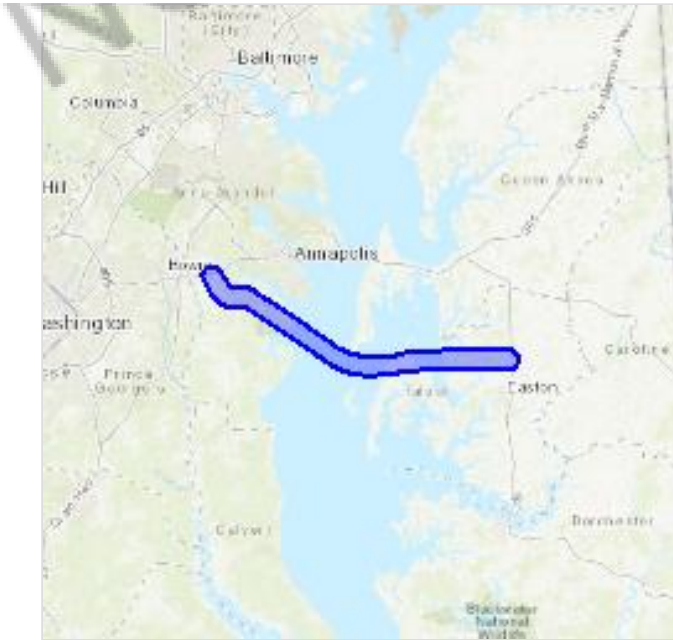
Project information

NAME

Bay Bridge Crossing Study Corridor 08

LOCATION

Anne Arundel, Queen Anne's and Talbot counties, Maryland



DESCRIPTION

The Maryland Transportation Authority (MDTA), in coordination with the Federal Highway Administration (FHWA), is preparing a Tier I Environmental Impact Statement (EIS) for the Chesapeake Bay Crossing Study (CBCS) in accordance with the National Environmental Policy Act (NEPA). The purpose of the Tier I study is to identify the preferred location for addressing congestion on the Chesapeake Bay Bridge, and to estimate the financial viability of a preferred corridor location.

Local office

Chesapeake Bay Ecological Services Field Office

☎ (410) 573-4599

📠 (410) 266-9127

177 Admiral Cochrane Drive
Annapolis, MD 21401-7307

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

<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>

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. Log in to IPaC.
2. Go to your My Projects list.

3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

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

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

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
 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

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

This species only needs to be considered if the following condition applies:

- Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9045>

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

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

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

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

NAME

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

American Oystercatcher Haematopus palliatus

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

<https://ecos.fws.gov/ecp/species/8935>

Breeds Apr 15 to Aug 31

Bald Eagle *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

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

<https://ecos.fws.gov/ecp/species/1626>

Black Scoter *Melanitta nigra*

Breeds elsewhere

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.

Black Skimmer *Rynchops niger*

Breeds May 20 to Sep 15

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

<https://ecos.fws.gov/ecp/species/5234>

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Breeds May 15 to Oct 10

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

<https://ecos.fws.gov/ecp/species/9399>

Bobolink *Dolichonyx oryzivorus*

Breeds May 20 to Jul 31

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

Bonaparte's Gull *Chroicocephalus philadelphia*

Breeds elsewhere

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.

Brown Pelican *Pelecanus occidentalis*

Breeds Jan 15 to Sep 30

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/6034>

Buff-breasted Sandpiper *Calidris subruficollis*

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/9488>

Canada Warbler *Cardellina canadensis*

Breeds May 20 to Aug 10

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

Cerulean Warbler *Dendroica cerulea*

Breeds Apr 29 to Jul 20

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

<https://ecos.fws.gov/ecp/species/2974>

Clapper Rail *Rallus crepitans*

Breeds Apr 10 to Oct 31

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

Common Loon *gavia immer*

Breeds Apr 15 to Oct 31

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/4464>

Common Tern *Sterna hirundo*

Breeds May 10 to Sep 10

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/4963>

Double-crested Cormorant *phalacrocorax auritus*

Breeds Apr 20 to Aug 31

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/3478>

Dunlin *Calidris alpina arctica*

Breeds elsewhere

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

Eastern Whip-poor-will *Antrostomus vociferus*

Breeds May 1 to Aug 20

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

Evening Grosbeak *Coccothraustes vespertinus*

Breeds elsewhere

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

Golden Eagle *Aquila chrysaetos*

Breeds elsewhere

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>

Golden-winged Warbler *Vermivora chrysoptera*

Breeds May 1 to Jul 20

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

<https://ecos.fws.gov/ecp/species/8745>

Great Black-backed Gull *Larus marinus*

Breeds Apr 15 to Aug 20

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.

Gull-billed Tern *Gelochelidon nilotica*

Breeds May 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/9501>

Herring Gull *Larus argentatus*

Breeds Apr 20 to Aug 31

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.

Hudsonian Godwit *Limosa haemastica*

Breeds elsewhere

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

Kentucky Warbler *Oporornis formosus*

Breeds Apr 20 to Aug 20

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

Least Tern *Sterna antillarum*

Breeds Apr 20 to Sep 10

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

Lesser Yellowlegs *Tringa flavipes*

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/9679>

Long-tailed Duck *Clangula hyemalis*

Breeds elsewhere

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/7238>

Nelson's Sparrow *Ammodramus nelsoni*

Breeds May 15 to Sep 5

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

Northern Gannet *Morus bassanus*

Breeds elsewhere

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.

Prairie Warbler *Dendroica discolor*

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

Breeds May 1 to Jul 31

Prothonotary Warbler *Protonotaria citrea*

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

Breeds Apr 1 to Jul 31

Purple Sandpiper *Calidris maritima*

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

Breeds elsewhere

Red-breasted Merganser *Mergus serrator*

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 elsewhere

Red-headed Woodpecker *Melanerpes erythrocephalus*

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

Breeds May 10 to Sep 10

Red-necked Phalarope *Phalaropus lobatus*

Breeds elsewhere

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.

Red-throated Loon *Gavia stellata*

Breeds elsewhere

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

Ring-billed Gull *Larus delawarensis*

Breeds elsewhere

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.

Royal Tern *Thalasseus maximus*

Breeds Apr 15 to Aug 31

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.

Ruddy Turnstone *Arenaria interpres morinella*

Breeds elsewhere

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

Rusty Blackbird *Euphagus carolinus*

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

Breeds elsewhere

Seaside Sparrow *Ammodramus maritimus*

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

Breeds May 10 to Aug 20

Semipalmated Sandpiper *Calidris pusilla*

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

Breeds elsewhere

Short-billed Dowitcher *Limnodromus griseus*

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

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

Breeds elsewhere

Snowy Owl *Bubo scandiacus*

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

Breeds elsewhere

Surf Scoter *Melanitta perspicillata*

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 elsewhere

Whimbrel *Numenius phaeopus*

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/9483>

White-winged Scoter *Melanitta fusca*

Breeds elsewhere

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.

Willet *Tringa semipalmata*

Breeds Apr 20 to Aug 5

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

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

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

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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

Survey Effort (|)

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

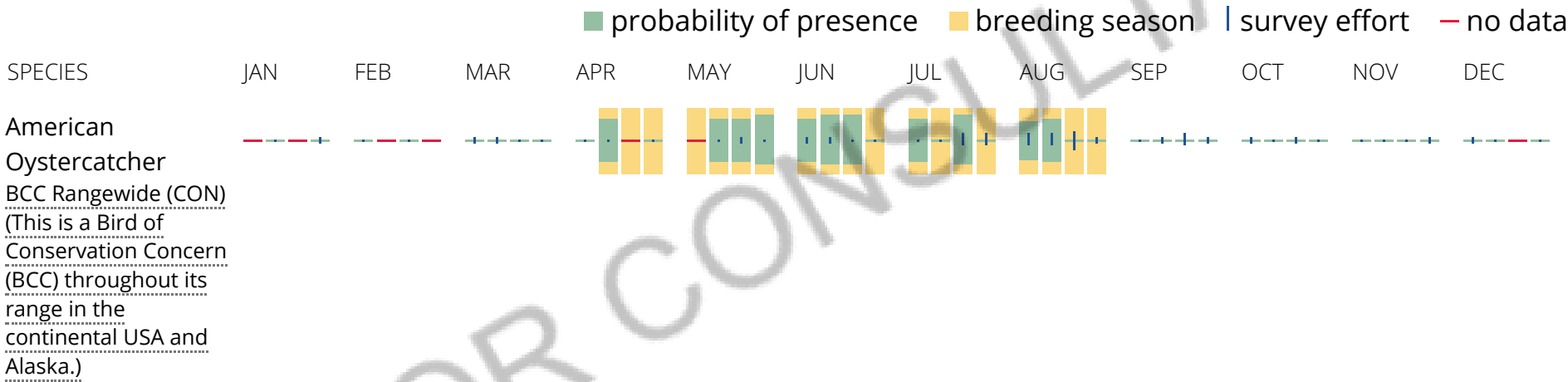
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

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

Survey Timeframe

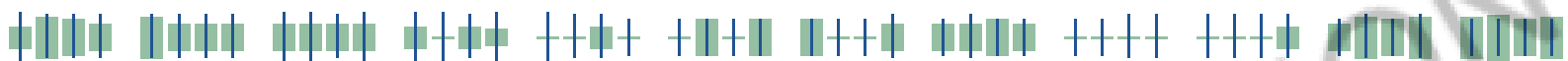
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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



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



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



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



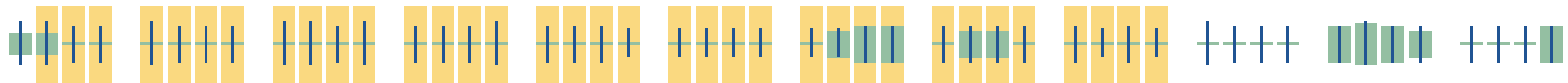
Bobolink
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



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



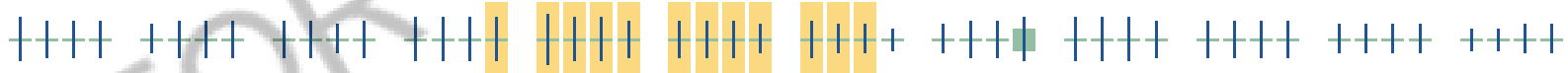
Buff-breasted
Sandpiper
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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

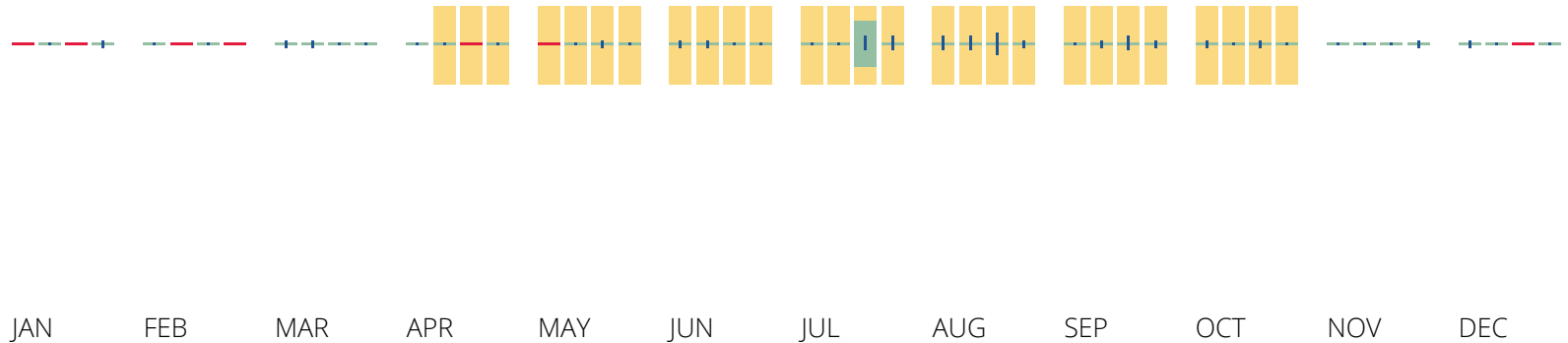


Cerulean Warbler
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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

SPECIES



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



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



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



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



Eastern Whip-poor-
will
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



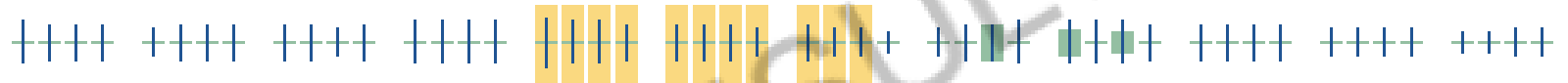
Evening Grosbeak
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



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



Great Black-backed
Gull

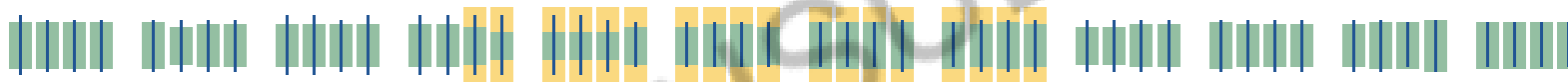
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



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



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



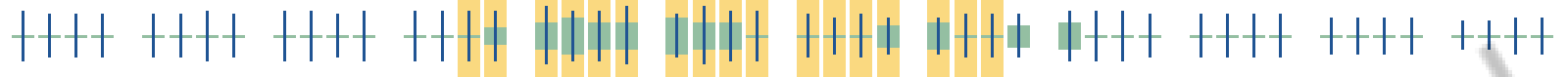
Hudsonian Godwit
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



SPECIES

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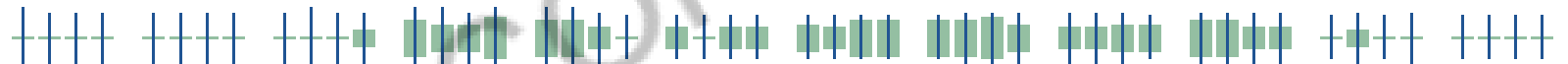
Kentucky Warbler
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



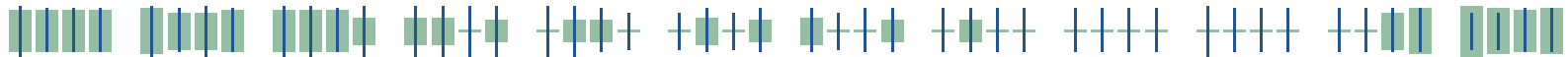
Least Tern
BCC - BCR (This is a
Bird of Conservation
Concern (BCC) only in
particular Bird
Conservation Regions
(BCRs) in the
continental USA)



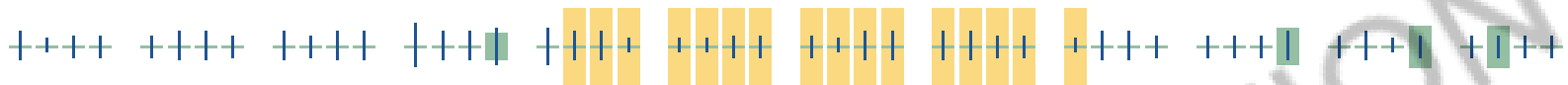
Lesser Yellowlegs
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



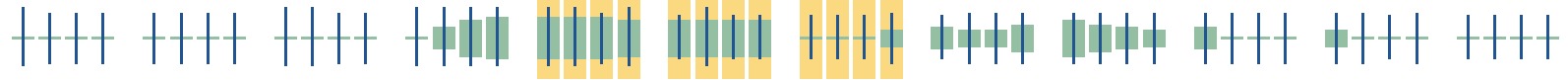
Nelson's Sparrow
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



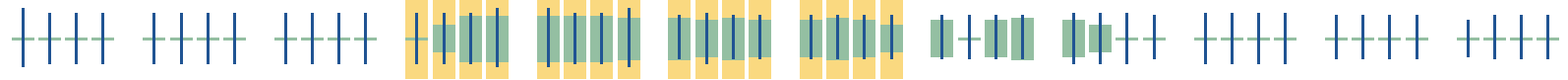
Northern Gannet
Non-BCC Vulnerable
(This is not a Bird of
Conservation Concern
(BCC) in this area, but
warrants attention
because of the Eagle
Act or for potential
susceptibilities in
offshore areas from
certain types of
development or
activities.)



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



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



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



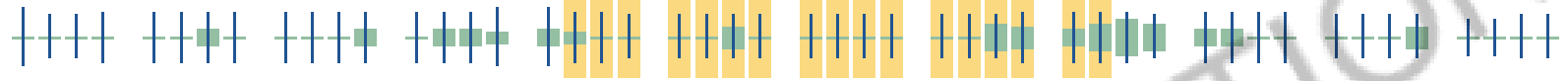
Red-breasted
Merganser

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



Red-headed
Woodpecker

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



Red-necked
Phalarope

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



SPECIES

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

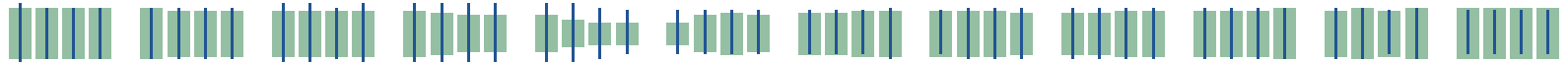
NOV

DEC

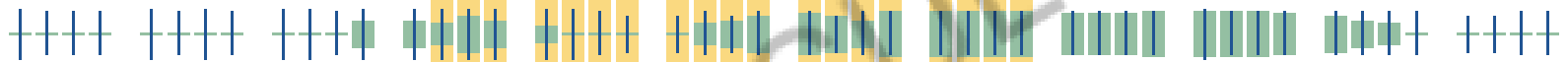
Red-throated Loon
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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



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



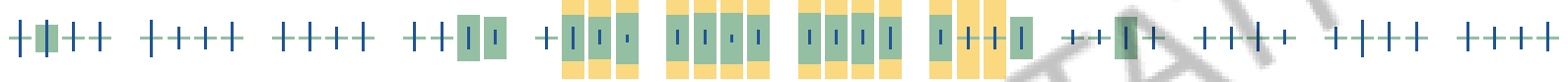
Ruddy Turnstone
BCC - BCR (This is a
Bird of Conservation
Concern (BCC) only in
particular Bird
Conservation Regions
(BCRs) in the
continental USA)



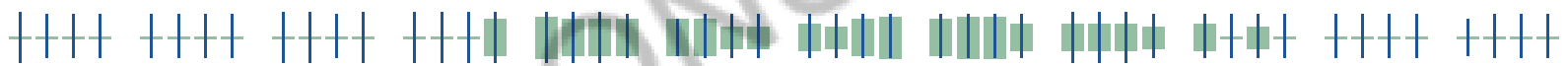
Rusty Blackbird
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



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

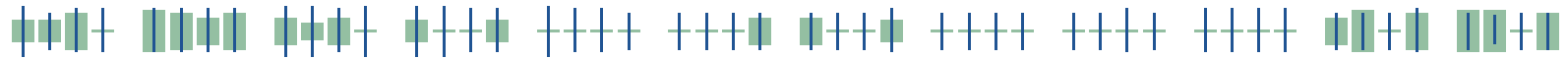


Semipalmated
Sandpiper
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the
continental USA and
Alaska.)



White-winged
Scoter

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



SPECIES

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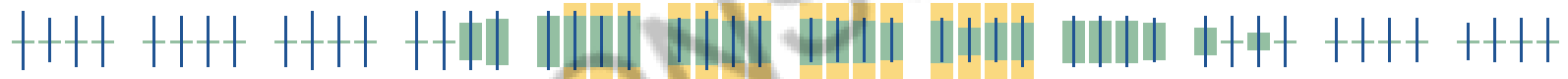
Willet

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



Wood Thrush

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



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

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding

their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) 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](#).

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



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

<http://www.fws.gov/chesapeakebay/>
<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>

In Reply Refer To:

March 03, 2020

Consultation Code: 05E2CB00-2020-SLI-0607

Event Code: 05E2CB00-2020-E-01806

Project Name: Bay Bridge Crossing Study Corridor 06

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office

177 Admiral Cochrane Drive

Annapolis, MD 21401-7307

(410) 573-4599

Project Summary

Consultation Code: 05E2CB00-2020-SLI-0607

Event Code: 05E2CB00-2020-E-01806

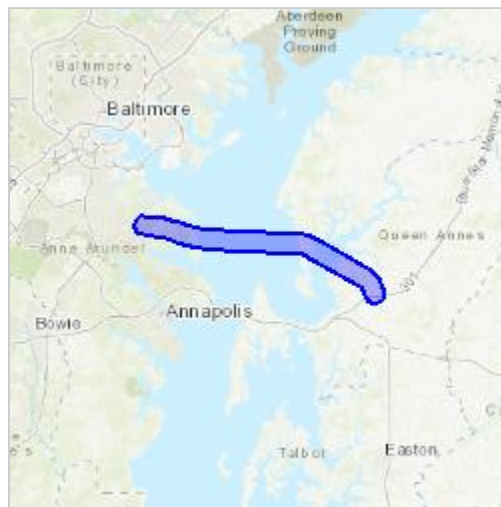
Project Name: Bay Bridge Crossing Study Corridor 06

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The Maryland Transportation Authority (MDTA), in coordination with the Federal Highway Administration (FHWA), is preparing a Tier I Environmental Impact Statement (EIS) for the Chesapeake Bay Crossing Study (CBCS) in accordance with the National Environmental Policy Act (NEPA). The purpose of the Tier I study is to identify the preferred location for addressing congestion on the Chesapeake Bay Bridge, and to estimate the financial viability of a preferred corridor location.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.069495938713274N76.17115630415269W>



Counties: Anne Arundel, MD | Kent, MD | Queen Anne's, MD

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [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.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i>	Threatened
No critical habitat has been designated for this species.	
This species only needs to be considered under the following conditions:	
Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key	
Species profile: https://ecos.fws.gov/ecp/species/9045	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

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.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

<http://www.fws.gov/chesapeakebay/>
<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>

In Reply Refer To:

March 03, 2020

Consultation Code: 05E2CB00-2020-SLI-0608

Event Code: 05E2CB00-2020-E-01807

Project Name: Bay Bridge Crossing Study Corridor 07

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office

177 Admiral Cochrane Drive

Annapolis, MD 21401-7307

(410) 573-4599

Project Summary

Consultation Code: 05E2CB00-2020-SLI-0608

Event Code: 05E2CB00-2020-E-01807

Project Name: Bay Bridge Crossing Study Corridor 07

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The Maryland Transportation Authority (MDTA), in coordination with the Federal Highway Administration (FHWA), is preparing a Tier I Environmental Impact Statement (EIS) for the Chesapeake Bay Crossing Study (CBCS) in accordance with the National Environmental Policy Act (NEPA). The purpose of the Tier I study is to identify the preferred location for addressing congestion on the Chesapeake Bay Bridge, and to estimate the financial viability of a preferred corridor location.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.99579024319924N76.37445613043636W>



Counties: Anne Arundel, MD | Queen Anne's, MD

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [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.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i>	Threatened
No critical habitat has been designated for this species.	
This species only needs to be considered under the following conditions:	
Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key	
Species profile: https://ecos.fws.gov/ecp/species/9045	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

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.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.



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<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>

In Reply Refer To:

March 03, 2020

Consultation Code: 05E2CB00-2020-SLI-0609

Event Code: 05E2CB00-2020-E-01808

Project Name: Bay Bridge Crossing Study Corridor 08

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

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Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office

177 Admiral Cochrane Drive

Annapolis, MD 21401-7307

(410) 573-4599

Project Summary

Consultation Code: 05E2CB00-2020-SLI-0609

Event Code: 05E2CB00-2020-E-01808

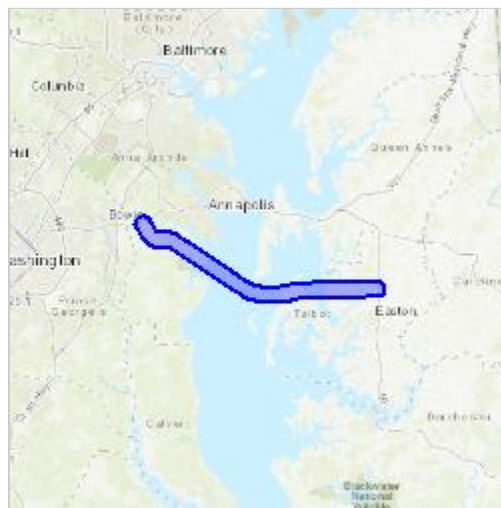
Project Name: Bay Bridge Crossing Study Corridor 08

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The Maryland Transportation Authority (MDTA), in coordination with the Federal Highway Administration (FHWA), is preparing a Tier I Environmental Impact Statement (EIS) for the Chesapeake Bay Crossing Study (CBCS) in accordance with the National Environmental Policy Act (NEPA). The purpose of the Tier I study is to identify the preferred location for addressing congestion on the Chesapeake Bay Bridge, and to estimate the financial viability of a preferred corridor location.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.88693862373424N76.5095633933588W>



Counties: Anne Arundel, MD | Queen Anne's, MD | Talbot, MD

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [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.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

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.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

April 13, 2020

To: Gwen Gibson
From: Lori Byrne

RE: Bay Bridge Crossing: Proposed Corridors 6, 7, & 8

The Wildlife and Heritage Service (WHS) has potential concerns for impacts to rare, threatened and endangered (RT&E) species from each of the proposed corridors as shown in the shapefiles provided to us on April 1, 2020. Further coordination with WHS may be warranted in order to develop avoidance and minimization measures, including the potential for surveys in some situations.

Corridor 6

This corridor encompasses a number of nontidal wetlands in an area of Anne Arundel County near MD Route 177 which are known to support RT&E species and are collectively known as **Mountain Road Bogs**. Activities proposed within the contributing drainage areas to these wetlands have the potential to impact the RT&E species. These areas are:

- Upper Magothy Marshes – located in the Upper Magothy River adjacent to Catherine Avenue, this area is designated as a habitat protection area by the local jurisdiction's Critical Area program and supports an occurrence of state rare Spongy Arrowhead (*Sagittaria spatulata*).
- Main Creek Bog – located above the headwaters of Main Creek, north of MD Route 177, this area is designated as a habitat protection area by the local jurisdiction's Critical Area program and supports state-listed endangered Brown-fruit Rush (*Juncus pelocarpus*) and state-listed threatened Leatherleaf (*Chamaedaphne calyculata*).
- South Gray's Bog – located south of MD Route 177, this area is designated as a habitat protection area by the local jurisdiction's Critical Area Program and supports occurrences of Leatherleaf, Brown-fruit Rush and state rare Switch Cane (*Arundinaria tecta*). South Gray's Bog is also a wetland designated in state regulations as a Nontidal Wetlands of Special State Concern (NTWSSC). NTWSSCs are regulated, along with their 100-foot upland buffers, by Maryland Department of the Environment.
- Cockey Creek Swamp – located at the upper end of Cockey Creek near Luke Road, this wetland is designated in state regulations as an NTWSSC and supports an occurrence of Switch Cane.
- Blackhole Creek Bog – located off Blackhole Creek near Shady Lane, this wetland is designated in state regulations as an NTWSSC and supports an occurrence of Leatherleaf.

- Fresh Pond – located on north side of MD Route 177, in the Lake Shore area, this wetland is designated in state regulations as an NTWSSC. Records for these RT&E species have been documented in Fresh Pond:

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>
<i>Chamaedaphne calyculata</i>	Leatherleaf	Threatened
<i>Castanea dentata</i>	American Chestnut	Rare
<i>Eriocaulon parkeri</i>	Seven-angle Pipewort	Endangered
<i>Sarracenia purpurea</i>	Northern Pitcherplant	Threatened
<i>Utricularia cornuta</i>	Horned Bladderwort	Highly Rare
<i>Juncus pelocarpus</i>	Brown-fruit Rush	Endangered
<i>Nehalennia integricolis</i>	Southern Sprite	Highly Rare
<i>Nehalennia gracilis</i>	Sphagnum Sprite	Rare
<i>Erythrodiplox minuscula</i>	Little Blue Dragonlet	Highly Rare
<i>Nannothemis bella</i>	Elfin Skimmer	Endangered
<i>Ladonia exusta</i>	White Corporal	Endangered

- North Gray's Bog Complex – located south of MD Route 177 this wetland complex is between Hickory Point Road and Maryland Avenue, and contains wetlands designated in state regulations as NTWSSCs. Records for these RT&E species have been documented in North Gray's Bog Complex:

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>
<i>Chamaedaphne calyculata</i>	Leatherleaf	Threatened
<i>Arundinaria tecta</i>	Switch Cane	Rare
<i>Carex exilis</i>	Coast Sedge	Endangered
<i>Juncus pelocarpus</i>	Brown-fruit Rush	Endangered
<i>Sarracenia purpurea</i>	Northern Pitcherplant	Threatened

- There are two other wetlands in the Jacobsville area of Anne Arundel County that support state rare Switch Cane. One is located at Magothy Road Bridge at MD Route 100, and one south of Woods Road in the Lake Shore area.

Waterfowl Concentration Areas – These are recognized areas of open water and wetlands adjacent to land that are utilized by significant numbers of ducks, geese, and swans for feeding and resting during the winter months. These areas, in close proximity to the shore are vital as they provide SAV, clams and other invertebrates that serve as primary food sources for many of these birds. In this corridor they are found along the shoreline of the Chesapeake Bay on Anne Arundel County and Kent County sides and the Chester River in Kent County. If there is to be any construction of water-dependent facilities please contact Josh Homyack of the Wildlife and Heritage Service at (410) 827-8612 x100 or josh.homyack@maryland.gov for further technical assistance regarding waterfowl.

Delmarva Fox Squirrel Habitat - In Queen Anne's County along Mill Stream Branch there is known habitat for this species with In Need of Conservation status in Maryland. Delmarva fox squirrel habitat is generally characterized as forests with relatively mature trees, either hardwoods or loblolly pine, with a relatively sparse understory. If there is to be development in the forested areas near here, then protection of Delmarva fox squirrel habitat should be considered within the Critical Area. The WHS recommends the following general guidelines for conservation in these cases:

1. As much contiguous forested acreage as possible should be retained.

2. If clearing is necessary, at least 25% of the suitable forested area should remain unaltered or a minimum of 10 acres whichever is greater.
3. This unaltered Delmarva fox squirrel habitat should be retained as a contiguous forested tract, not as small disjunct parcels.
4. Required forested buffers, such as buffers along streams or nontidal wetlands, should be expanded to at least 100 feet and preferably 300 feet in width.
5. Retention of mast producing trees such as oaks, hickories and beech is encouraged.

Corridor 7

Rucker's Ravine – this wetland is located in the Pines-on-Severn community in Anne Arundel County and is designated as an NTWSSC. It supports an occurrence of state-listed threatened Glade Fern (*Homalosorus pycnocarpus*). Activities proposed within the contributing drainage area to this wetland have the potential to impact the RT&E species.

There are several **Great Blue Heron colonies** documented in this proposed corridor that may be impacted. Such colonies are generally afforded protection in the Chesapeake Bay Critical Area during their breeding season (15 February through 31 July) and within a ¼-mile radius of the colony site. Routine surveys for this species have not been conducted by WHS since 2013, so it is possible that the colonies have become inactive or grown in size. Surveys to determine the location of active colony sites may be warranted at later stages of planning. The general locations of these colonies are known to be: South of Sandy Point State Park in Anne Arundel County, and in Queen Anne's County: Marshy Creek, Little Queenstown Creek, Cox Creek, Byrons Cove on Piney Creek, and Wye River South of Hickory Ridge.

There is a habitat protection area located between the Exit 32 Interchange and Mezick Pond at **Sandy Point State Park**. This area is designated as a habitat protection area due to the presence of rare breeding birds. There are historical records for the Least Tern (*Sternula antillarum* – state threatened), Black Rail (*Laterallus jamaicensis* – state endangered) and Sora (*Porzana carolina* – state rare).

Waterfowl Concentration Areas – These are recognized areas of open water and wetlands adjacent to land that are utilized by significant numbers of ducks, geese, and swans for feeding and resting during the winter months. These areas, in close proximity to the shore are vital as they provide SAV, clams and other invertebrates that serve as primary food sources for many of these birds. In this corridor they are found along the shoreline of Whitehall Creek, Meredith Creek and the Chesapeake Bay south of the bridge in Anne Arundel County, and in Queen Anne's County on shoreline of the Chesapeake Bay north of the bridge, and in Prospect Bay in Queen Anne's County. If there is to be any construction of water-dependent facilities please contact Josh Homyack of the Wildlife and Heritage Service at (410) 827-8612 x100 or josh.homyack@maryland.gov for further technical assistance regarding waterfowl.

Bay Bridge – Several protected bird species utilize man-made structures associated with the William Preston Lane Jr. Memorial Bridge:

- Various species of waterbirds utilize the pier "islands" as nesting sites during their breeding season. Such colonies are afforded protection under Critical Area regulations. Documented breeding species on these islands include Great Egret, Snowy Egret, Cattle Egret, and Black-crowned Night-Heron. The cumulative breeding season for these species is April 1 through August 15 of any given year.

Construction or human presence within the immediate area of the pier islands during the breeding season can cause nest abandonment and result in death of eggs or young, and should be avoided.

- Structures underneath the actual roadway of the bridge (near the suspension span) have provided nesting sites for the American Peregrine Falcon (*Falco peregrinus anatum*). This species has In Need of Conservation status in Maryland, and is also protected by the Migratory Bird Treaty Act. Bridge construction or repair work within the immediate area of the nesting peregrine falcons can disturb the birds and can cause nest abandonment. This could result in the death of eggs or young. A time-of-year restriction on bridge repair or construction in the immediate area of the peregrine falcon nests should be observed for any work within the immediate area of active nest sites beginning March 1 and ending June 30 of any given year.

Several **rooftop colonies of Least Terns** have been documented in the Stevensville area of Queen Anne's County in this corridor. This species has threatened state status as a breeding bird in Maryland, although direct impacts to these sites are unlikely unless buildings are proposed for removal.

Delmarva Fox Squirrel Habitat - In Queen Anne's County in the area north of US 50 from Winchester Creek to Little Queenstown Creek there is known habitat for this species with In Need of Conservation status in Maryland. Delmarva fox squirrel habitat is generally characterized as forests with relatively mature trees, either hardwoods or loblolly pine, with a relatively sparse understory. If there is to be development in the forested areas near here, then protection of Delmarva fox squirrel habitat should be considered within the Critical Area. The Wildlife and Heritage Service recommends the following general guidelines for conservation in these cases:

1. As much contiguous forested acreage as possible should be retained.
2. If clearing is necessary, at least 25% of the suitable forested area should remain unaltered or a minimum of 10 acres whichever is greater.
3. This unaltered Delmarva fox squirrel habitat should be retained as a contiguous forested tract, not as small disjunct parcels.
4. Required forested buffers, such as buffers along streams or nontidal wetlands, should be expanded to at least 100 feet and preferably 300 feet in width.
5. Retention of mast producing trees such as oaks, hickories and beech is encouraged.

Corridor 8

Glebe Creek Woods - located in the Glebe Creek area of Anne Arundel County, this area is designated as a habitat protection area by the local jurisdiction's Critical Area Program and supports an occurrence of state-listed endangered Few-flowered Tick-trefoil (*Hylodesmum pauciflorum*). This species could potentially occur in other parts of the corridor if the appropriate habitat of "mesic floodplain forests over rich alluvium" is present.

Copperville Wet Woods – located in Talbot County in the Copperville area along Miles River Neck there is a rare natural community type documented. While there are currently no records for RT&E species in this site, it has potential to support yet undiscovered RT&E occurrences, and we would encourage avoiding impacts to this wetland system.

Third Haven Woods – located along Goldsborough Neck Road in Talbot County there is a rare community type of wet woods documented which supports an occurrence of the Dytiscid Beetle (*Hoperius planatus*). We would encourage avoiding impacts to this wetland system.

Waterfowl Concentration Areas – These are recognized areas of open water and wetlands adjacent to land that are utilized by significant numbers of ducks, geese, and swans for feeding and resting during the winter months. These areas, in close proximity to the shore are vital as they provide SAV, clams and other invertebrates that serve as primary food sources for many of these birds. In this corridor they are found along the shoreline of Beards Creek, Glebe Creek, Rhode River, Ramsay Lake and nearby Chesapeake Bay shore, all in Anne Arundel County, Eastern Bay in Talbot/Queen Anne's Counties, and Porter Creek, Woodland Creek, Leeds Creek, and Miles River in Talbot County. If there is to be any construction of water-dependent facilities please contact Josh Homyack of the Wildlife and Heritage Service at (410) 827-8612 x100 or josh.homyack@maryland.gov for further technical assistance regarding waterfowl.

Delmarva Fox Squirrel Habitat - In Talbot County north of Easton there is known habitat for this species with In Need of Conservation status in Maryland. Delmarva fox squirrel habitat is generally characterized as forests with relatively mature trees, either hardwoods or loblolly pine, with a relatively sparse understory. If there is to be development in the forested areas near here, then protection of Delmarva fox squirrel habitat should be considered within the Critical Area. The Wildlife and Heritage Service recommends the following general guidelines for conservation in these cases:

1. As much contiguous forested acreage as possible should be retained.
2. If clearing is necessary, at least 25% of the suitable forested area should remain unaltered or a minimum of 10 acres whichever is greater.
3. This unaltered Delmarva fox squirrel habitat should be retained as a contiguous forested tract, not as small disjunct parcels.
4. Required forested buffers, such as buffers along streams or nontidal wetlands, should be expanded to at least 100 feet and preferably 300 feet in width.
5. Retention of mast producing trees such as oaks, hickories and beech is encouraged.