



August 5, 2025

U.S Fish and Wildlife Service
Colorado Ecological Services Field Office
134 Union Boulevard, Suite 670
Lakewood, CO 80228

**RE: Technical Assistance / Effects Determination Concurrence Request
Challenger at Kettle Creek Development
El Paso County, Colorado**

To Whom It May Concern:

This request for technical assistance from the U.S. Fish and Wildlife Service (USFWS) is being submitted in accordance with the requirements for informal Section 7 consultation pursuant to 50 CFR § 402.13. Challenger Homes (“Proponent”) is planning to construct the Kettle Creek housing development (“Project”), to be located northeast of the intersection of Old Ranch Road and Kettle Creek Road in Colorado Springs, Colorado (**Attachment A: Site Location Map**). The Project will be constructed on approximately 17.45 acres in El Paso County Parcels No. 6228001006, No. 6228001010, and No. 6228001009. The Project will consist of R-Flex Medium housing (i.e., low- to medium-density attached and/or detached housing), as well as attendant features such as parking, utilities, open spaces, and trails. The Project is located west of Kettle Creek, which has Designated Critical Habitat (DCH) for the federally threatened Preble’s meadow jumping mouse (*Zapus hudsonius preblei* or Preble’s). A portion of the site (approximately 2.25 acres) is within Preble’s DCH. Because the Project does not have a federal nexus, the Critical Habitat designation is not a factor; however, there is suitable habitat for Preble’s along Kettle Creek that overlaps the site which could be affected by site development. The section of Kettle Creek abutting the site was previously assessed in 2024 for a neighboring project, Cottages at Kettle Creek, and received concurrence from USFWS for a determination of “Unlikely to Affect” under TAILS number 06E24000-2021-TA-0170. The Project is abutting the Cottages at Kettle Creek project, along a contiguous portion of Kettle Creek.

Pursuant to Section 7 of the Endangered Species Act (ESA) and 50 CFR § 402.13, Bristlecone Ecology, LLC (“B.E.”) has prepared this request for technical assistance and concurrence with our determination of effects for listed species with the potential to be affected by the proposed Project. Because DCH is not a factor, B.E. has used the generally accepted methodology for determining the potential extents of Preble’s habitat as 300-feet from the ordinary high-water mark (OHWM) – see **Attachment B: Preble’s Meadow Jumping Mouse Habitat Extents**. The same methodology was applied to the Cottages project to the immediate south. The Project is in the early stages of design and final plans are not yet available, but one proposed layout is attached (see **Attachment C: Preliminary Site Plan**). Supporting information is provided in the following sections, including a description of the Project and anticipated environmental impact area (EIA) for federally listed species and their respective habitats.

After reviewing the lists of threatened, endangered, proposed, and candidate species/critical habitat provided by the USFWS’ Information for Planning and Consultation (IPaC) tool and considering the effects of the proposed activity within the anticipated EIA, B.E. has determined that species warranting protection under the ESA may be affected, but are unlikely to be adversely affected, by the subject activity for the following reasons:



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- A qualified ecologist with B.E. has determined that the Project does not have a federal nexus and the Critical Habitat designation for the 2.25 acres of the site within DCH does not apply.
- A qualified ecologist with B.E. has determined a portion of the Project overlaps with presumed upland habitat for Preble’s, as determined using the 300-foot buffer of the OHWM, and that the primary constituent elements (PCEs) indicating suitable habitat are present within this portion of the Project site.
- A qualified ecologist with B.E. has determined that direct, indirect, and cumulative effects on federally protected species and their habitats will be avoided entirely or kept to a minimal level through Project design.
- A qualified ecologist with B.E. has determined that there is no potential to impact any other federally protected species/critical habitat and has provided supporting documentation.

Listed Species Reviewed

B.E. reviewed the USFWS’ IPaC database for information regarding the potential for threatened, endangered, proposed, and candidate species to occur at the Project site (see **Attachment D: IPaC Resource List**). IPaC identified six species as having the potential to occur at the site or be affected by development of the site (**Attachment D**). One of these species – piping plover (*Charadrius melodus*)– is listed under a conditional effects analysis and only needs to be considered if a project will involve water depletions in the N. Platte, S. Platte, or Laramie River basins. The Project is located in the Arkansas River basin and thus will not affect this species. The five remaining species listed in the IPaC query were the federally threatened Preble’s meadow jumping mouse, Eastern black rail (*Laterallus jamaicensis* ssp. *jamaicensis*), and Ute ladies’-tresses orchid (*Spiranthes diluvialis* or ULTO); and two species proposed for listing as threatened and endangered, respectively – monarch butterfly (*Danaus plexippus*) and Suckley’s Cuckoo Bumblebee (*Bombus suckleyi*). Each species is discussed individually in the table below (**Table 1: Federally Listed T&E Species Potentially Impacted by the Project**). Species potentially affected or those requiring additional information are discussed in greater detail in the sections below.

Table 1. Federally Listed T&E Species Potentially Impacted by the Project (USFWS 2024)

Common Name	Scientific Name	Habitat Requirements and Likelihood of Impacts	Federal Status ¹
Mammals			
Preble’s meadow jumping mouse	<i>Zapus hudsonius preblei</i>	Inhabits well-developed riparian corridors with a nearby water source and adjacent, relatively undisturbed grassland communities. Riparian habitat includes a dense combination of grasses, forbs, and shrubs; a taller shrub and tree canopy may be present. Has been found to regularly use uplands at least as far as 100 meters beyond the 100-year floodplain. A portion of the site is within designated Critical Habitat, but the Project will not have a federal nexus. Approximately 1.62 acres on the east side of the site is within 300 feet of the OHWM. Likelihood of impacts: May affect, but unlikely to adversely affect. Preble’s habitat with adequate PCEs overlaps a portion of the site along the eastern boundary. PCEs are present to the east (offsite) along Kettle Creek, but habitat suitability decreases further west. A 300-foot buffer of OHWM of Kettle Creek was used to determine the extent of Preble’s habitat on the site, and the Project was designed to avoid developing in this area. Additional discussion is provided below.	FT

¹ FE = Federally Endangered; FT = Federally Threatened; C = Candidate for Listing

Table 1 (cont.). Federally Listed T&E Species Potentially Impacted by the Project (USFWS 2024)

Common Name	Scientific Name	Habitat Requirements and Likelihood of Impacts	Federal Status ¹
Birds			
Piping plover	<i>Charadrius melodus</i>	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska. Likelihood of impacts: None. The Project is not within the river basins listed for a conditional effects analysis.	FT
Eastern black rail	<i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i>	Eastern black rail is a subspecies of black rail that occurs east of the Rocky Mountains in North America. Black rails are small, cryptic marsh/wetland specialists, and depend entirely upon these habitats. Requires dense overhead cover (usually cattails [<i>Typha</i> spp.] or bulrushes [<i>Schoenoplectus</i> / <i>Scirpus</i> spp.]) and moist to saturated soils. Eastern black rails have been expanding their range in Colorado. Likelihood of impacts: None; no suitable marsh habitat is available on-site.	FT
Insects			
Monarch butterfly	<i>Danaus plexippus</i>	Monarch butterflies require milkweeds (<i>Asclepias</i> spp.) as a host plant. This species is proposed for listing as threatened under the ESA. The USFWS is currently reviewing the petition to list the species. There are no statutory requirements for proposed species until the decision to list has been made. Likelihood of impacts: Unlikely; milkweeds were not observed within the Project footprint. Some milkweeds may be present east of the site along Kettle Creek, but these areas will not be affected by site development.	C
Suckley's Cuckoo Bumble Bee	<i>Bombus suckleyi</i>	Suckley's cuckoo bumblebee is a social parasite that relies entirely on other species of bumblebees as hosts. The last confirmed sighting in the U.S. was in 2016 in Oregon (USFWS 2024). May be found anywhere robust bumblebee colonies are present. While there are no requirements until a listing decision is made, due diligence is encouraged. Likelihood of impacts: Unlikely; site development is unlikely to adversely affect bumblebee host colonies.	P
Flowering Plants			
Ute ladies'-tresses orchid	<i>Spiranthes diluvialis</i>	Primarily occurs along seasonally flooded river terraces, sub-irrigated or spring-fed abandoned stream channels, and lakeshores. May also occur along irrigation canals, berms, levees, irrigated meadows, gravel pits, borrow pits, and other human-modified wetlands. There are no known populations in El Paso County, and the site is above the elevation threshold (6,500 feet) where populations have been detected in Colorado. There are no wetlands, wet meadows, or other suitable habitats on the site; since the Project will develop only uplands, surveys for ULTO are not required per USFWS 1992 and Fertig <i>et al.</i> 2005. Likelihood of impacts: None; site is above the elevation threshold where species have been detected and there are no known populations in El Paso County. No suitable habitats requiring a survey are present.	FT

¹ FE = Federally Endangered; FT = Federally Threatened; C = Candidate for Listing; P = Proposed Endangered

B.E. assessed the Project site for potential habitat to support eastern black rail, ULTO, monarch butterfly, Suckley's cuckoo bumblebee, and Preble's meadow jumping mouse. There was no habitat present for any of the species listed in the IPaC query except Preble's meadow jumping mouse. Because a portion of the site overlaps with designated Critical Habitat, is within 300 feet of Kettle Creek's OHWM, and had sufficient PCEs to support Preble's, B.E. assumed any mice present in Kettle Creek could access the site's grasslands. A site reconnaissance further clarified the suitability of the site to support Preble's, with areas



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closer to Kettle Creek having a higher habitat suitability than areas further west and higher in elevation above the creek. Because of the potential to affect, this species is discussed in greater detail below.

Preble's Meadow Jumping Mouse

Preble's are found in the Front Range along well-developed riparian corridors with a perennial stream between 4,600 and 7,600 feet in elevation (USFWS 2018). Preble's mice hibernate for much of the year, entering dormancy in September or October and emerging the following May. Hibernation occurs outside of the active stream channel and alluvial floor in adjacent upland areas, though mice have also been found hibernating in the 100-year floodplain (Shenk and Silvert 1999, Schorr 2001). Upland habitats provide refuge and forage for the mouse, particularly during flood events, which are infrequently necessary to maintain a preferred shrubby vegetation canopy. Preble's constructs nests using forbs, grasses, and other available plant material, sometimes building multiple nests (Ryon 2001). Nests are typically located under well-developed shrubs or clumps of vegetation.

A portion of the site is within 300 feet of the Kettle Creek OHWM, and the habitat onsite as well as offsite along Kettle Creek to the east possess the PCEs necessary to support Preble's. PCEs/habitat suitability at the site declines the further west one moves from Kettle Creek, as the ground is higher, access is steeper, the site is less vegetated overall, and the shrubs preferred by Preble's are absent. There are very few shrubs on the site that could provide preferred habitat for Preble's (see **Attachment E: Photographic Log**). The generally accepted methodology of 300 feet from an occupied stream's OHWM was used to determine the extent of Preble's habitat on the site, as it was during the Cottages project assessment to the south (**Attachment B** and **Attachment C**). This extent varied somewhat from the Critical Habitat line, which was mapped between 310 and 390 feet from Kettle Creek's OHWM. Generally, it was determined that habitat quality at the site was suitable but not preferred except where shrubs were present. The site contains perhaps seventeen total shrubs, most of them along the eastern property line. Only two of these shrubs will be removed, and they are located more than 200 meters (~664 feet) from Kettle Creek.

The Proponent has designed the Project to avoid developing within 300 feet of Kettle Creek's OHWM, thereby avoiding direct impacts to Preble's and Preble's habitat. This approach is consistent with the approach used in the Cottages at Kettle Creek project to the immediate south, which had only minor disturbance within 300 feet of the Kettle Creek OHWM and was determined "not reasonably certain to adversely affect" Preble's mice. By avoiding development in the 300-foot buffer of the OHWM as well as preserving the majority (roughly 90%) of the few existing shrubs within the Project site, the Project will likely avoid any direct impacts to Preble's.

To avoid any potential indirect effects from development, the Proponent plans to construct a fence along the habitat boundary and post signs identifying the area as a habitat preservation zone and prohibiting entry, as was done for the previous project. In addition, the Project will use the existing detention pond and outfall into Kettle Creek that was approved for the Cottages project, thus avoiding further direct or indirect impacts from additional outfall structures and point source runoff.

Determination of Effects

B.E.'s desktop review and on-site habitat assessment concluded that development of the Project is unlikely to affect threatened, endangered, proposed, or candidate species, or their respective habitats. In particular, the Project will not affect Preble's meadow jumping mouse, based on the avoidance and minimization measures employed to limit habitat disturbance. There will be no permanent habitat loss,



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and there will be no temporary disturbance within Preble's habitat. No entry into Preble's habitat will be permitted during construction, and workers will receive training prior to commencing construction activities. No other listed species or their habitats were present at the site, and downstream effects are not anticipated.

As such, it is B.E.'s professional opinion that development of the site is unlikely to adversely affect Preble's. B.E. requests concurrence with this determination in accordance with the informal ESA consultation process pursuant to 50 CFR § 402.13. Should you disagree with this assessment, please do not hesitate to contact Bristlecone Ecology. Thank you for your attention to this matter.

Sincerely,

Bristlecone Ecology, LLC

Daniel Maynard
Owner/Ecologist



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References

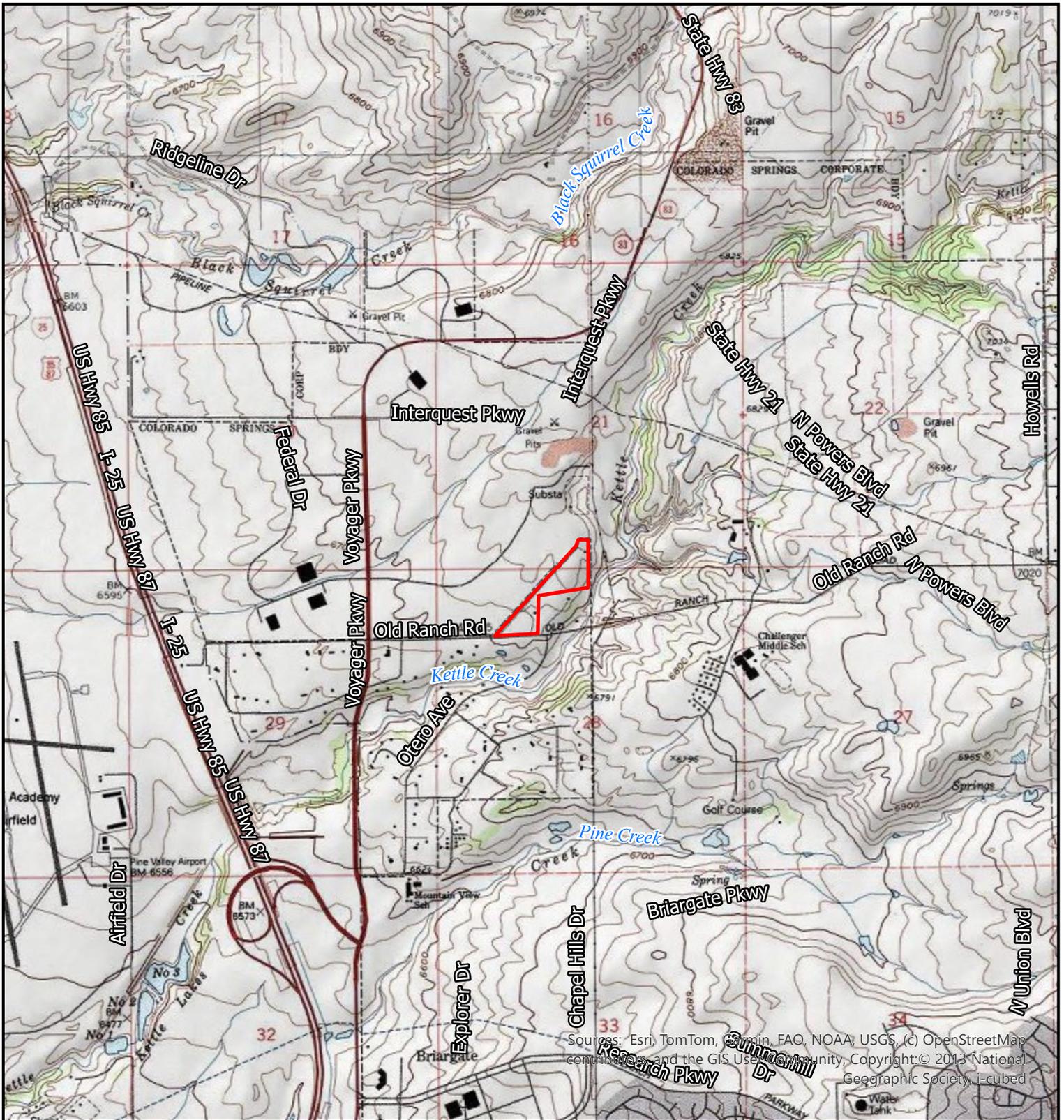
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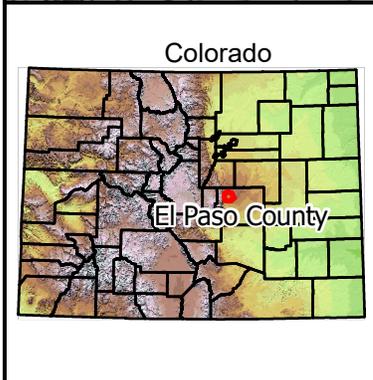
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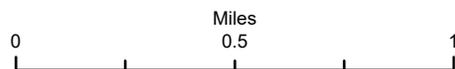
ATTACHMENT A:
SITE LOCATION MAP



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community. Copyright © 2013 National Geographic Society, i-cubed



 Project Area (17.5 acres)



1:27,642

Challenger at Kettle Creek

Site Location Map

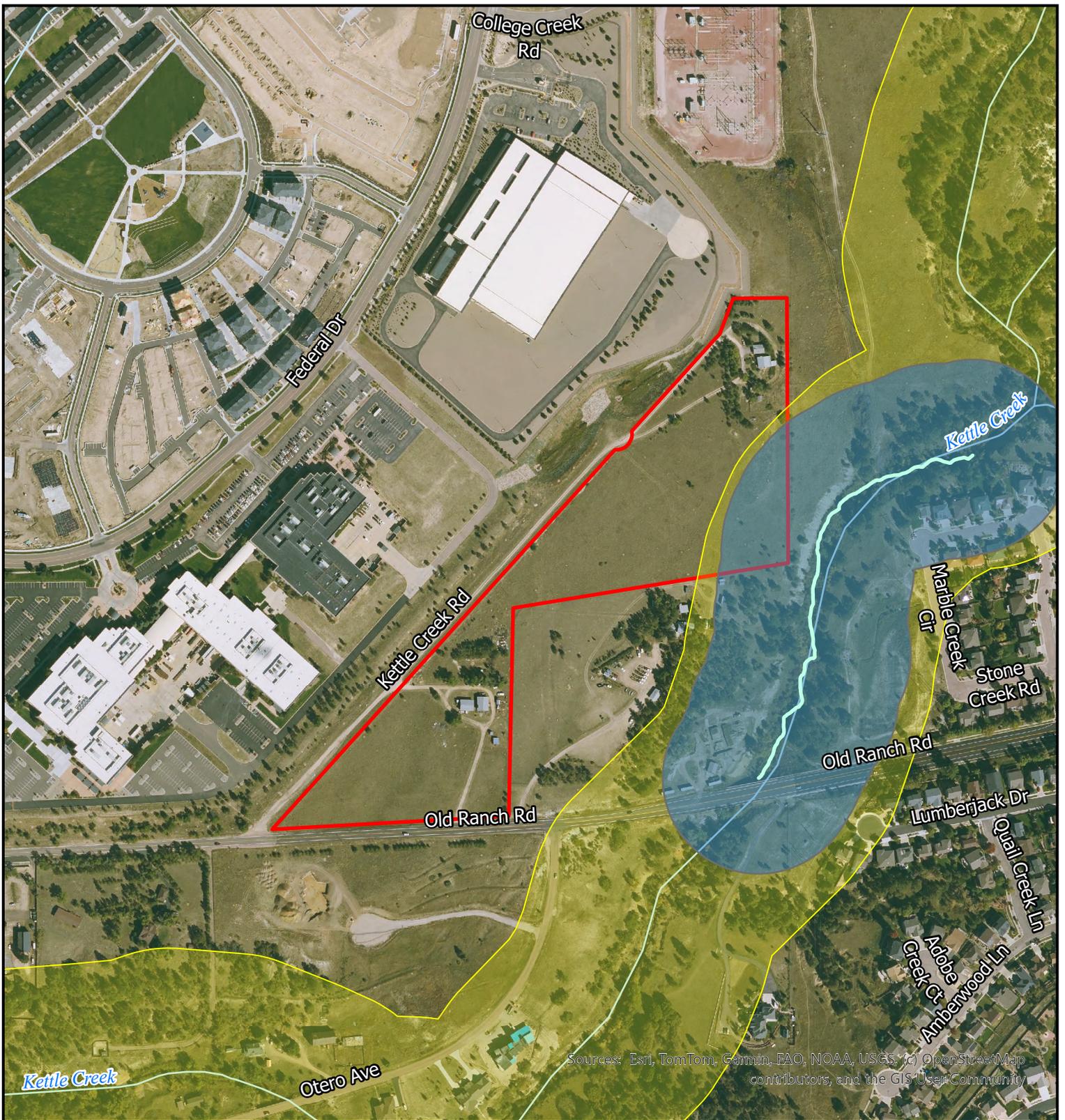




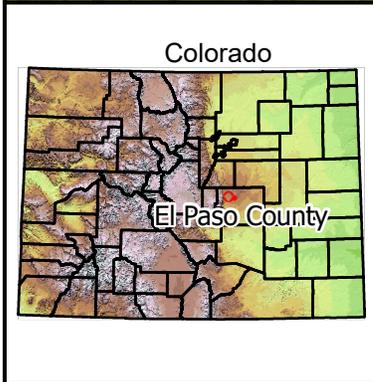
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ATTACHMENT B:
PREBLE'S MEADOW JUMPING MOUSE HABITAT EXTENTS



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community



- Project Area (17.5 acres)
- Kettle Creek Ordinary High Water Mark (OHWM)
- OHWM 300-foot Buffer
- PMJM Critical Habitat

0 500 1,000

Feet

1:5,000

Kettle Creek

Preble's Meadow
Jumping Mouse
Habitat Extents

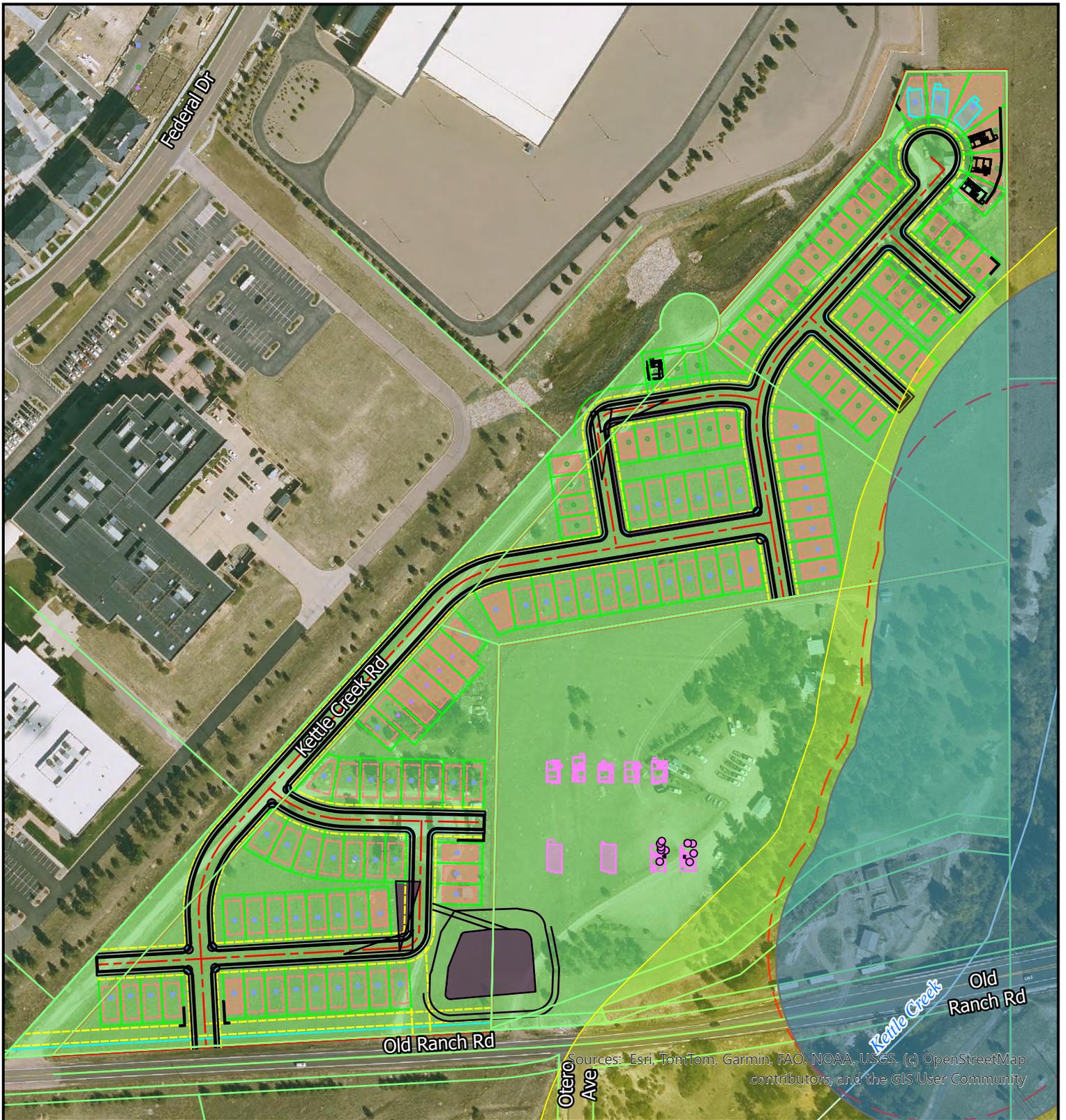
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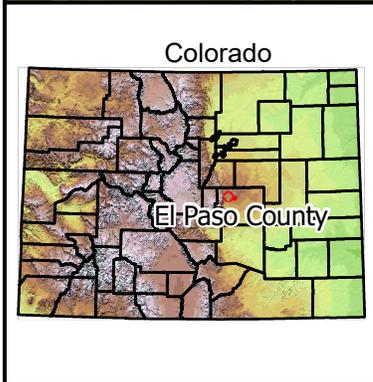
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ATTACHMENT C:
PRELIMINARY SITE PLAN



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community



- Project Area (17.5 acres)
- PMJM Critical Habitat
- OHWM 300-foot Buffer

1:2,702

Challenger at Kettle Creek

Site Plan in Relation to PMJM Habitat

bristlecone ecology



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ATTACHMENT D:
IPAC RESOURCE LIST

IPaC resource list

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

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

Location

El Paso County, Colorado



Local office

Colorado Ecological Services Field Office

☎ (303) 236-4773

📠 (303) 236-4005

MAILING ADDRESS

Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486

PHYSICAL ADDRESS

1 Denver Federal Center
Bldg 53 Room Fw100}
Denver, CO 80225-0001

NOT FOR CONSULTATION

Endangered species

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

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

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

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

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

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

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

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

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

Mammals

NAME	STATUS
Preble's Meadow Jumping Mouse <i>Zapus hudsonius preblei</i> Wherever found There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/4090	Threatened

Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Piping Plover <i>Charadrius melodus</i> This species only needs to be considered if the following condition applies: <ul style="list-style-type: none"> Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska. There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found There is proposed critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses <i>Spiranthes diluvialis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2159	Threatened

Critical habitats

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

This location overlaps the critical habitat for the following species:

NAME	TYPE
Preble's Meadow Jumping Mouse <i>Zapus hudsonius preblei</i> https://ecos.fws.gov/ecp/species/4090#crithab	Final

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Oct 15 to Jul 31
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "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.

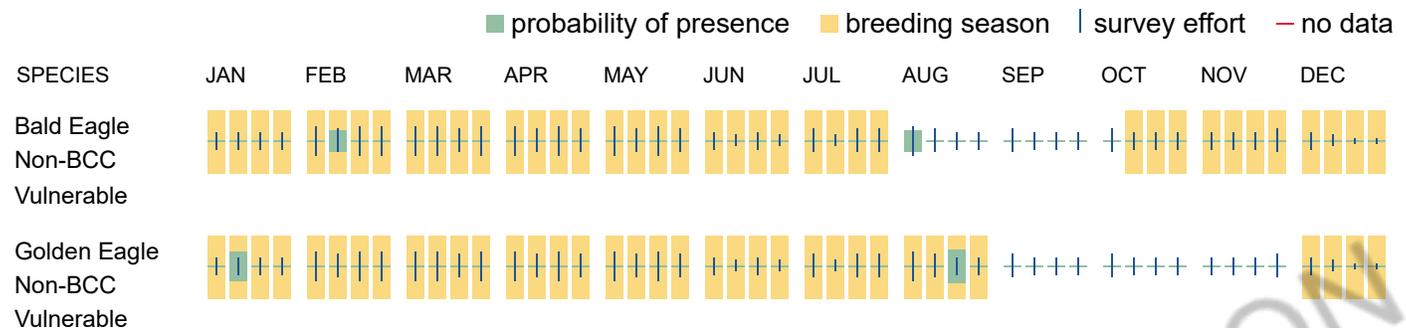
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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 & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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 an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 line or no data line (red horizontal) 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 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 and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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.

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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 $0.05/0.25 = 0.2$.

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.

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.

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.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC

<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Jul 31
Broad-tailed Hummingbird <i>Selasphorus platycercus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 25 to Aug 21
Chestnut-collared Longspur <i>Calcarius ornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 10

- Chimney Swift** *Chaetura pelagica* Breeds Mar 15 to Aug 25
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
- Ferruginous Hawk** *Buteo regalis* Breeds Mar 15 to Aug 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/6038>
- Golden Eagle** *Aquila chrysaetos* Breeds Dec 1 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/1680>
- Grasshopper Sparrow** *Ammodramus savannarum perpallidus* Breeds Jun 1 to Aug 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/8329>
- 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>
- Lewis's Woodpecker** *Melanerpes lewis* Breeds Apr 20 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9408>
- Long-billed Curlew** *Numenius americanus* Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/5511>
- Northern Harrier** *Circus hudsonius* Breeds Apr 1 to Sep 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/8350>

Pectoral Sandpiper *Calidris melanotos*

Breeds elsewhere

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

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.

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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "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.

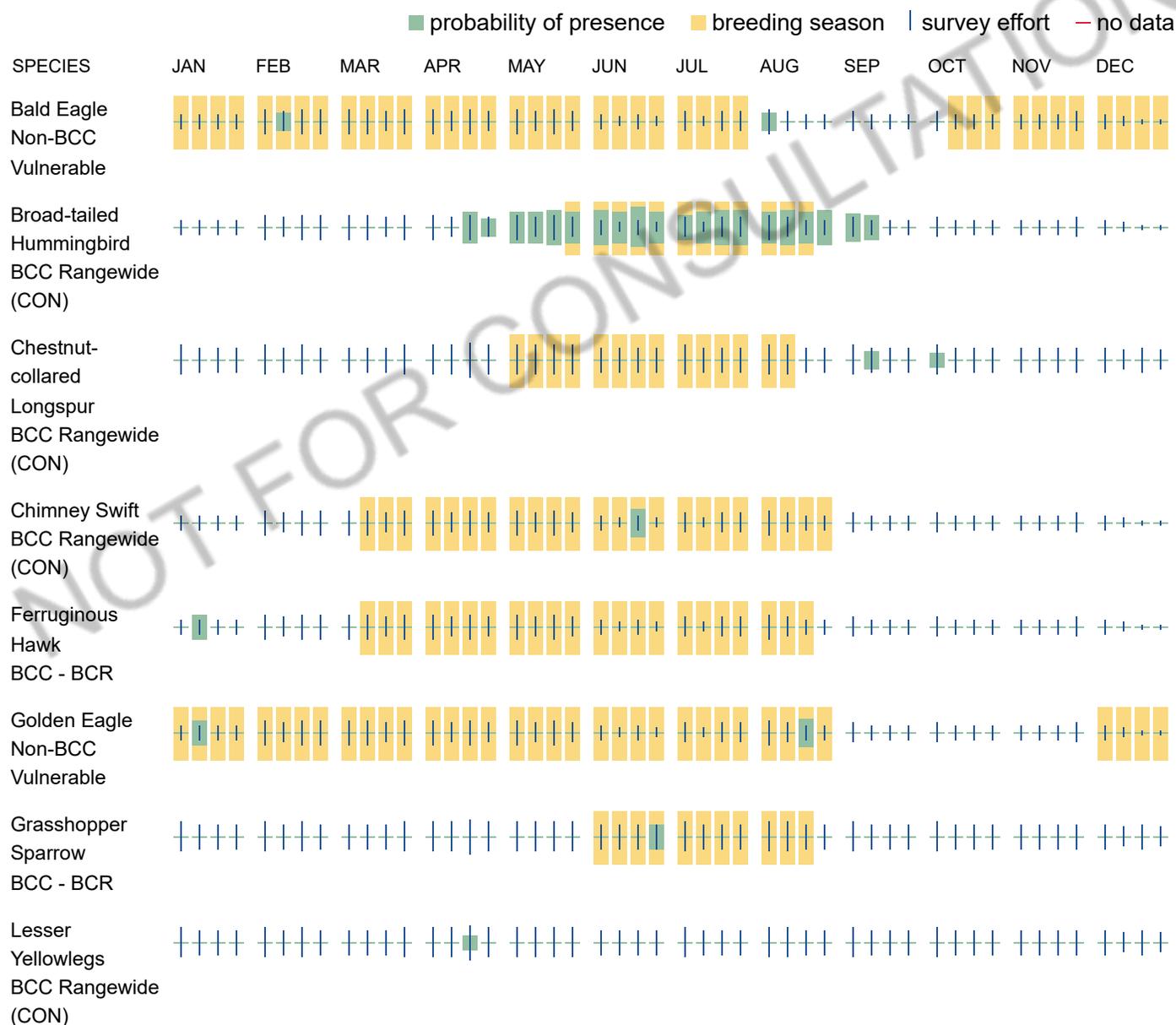
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

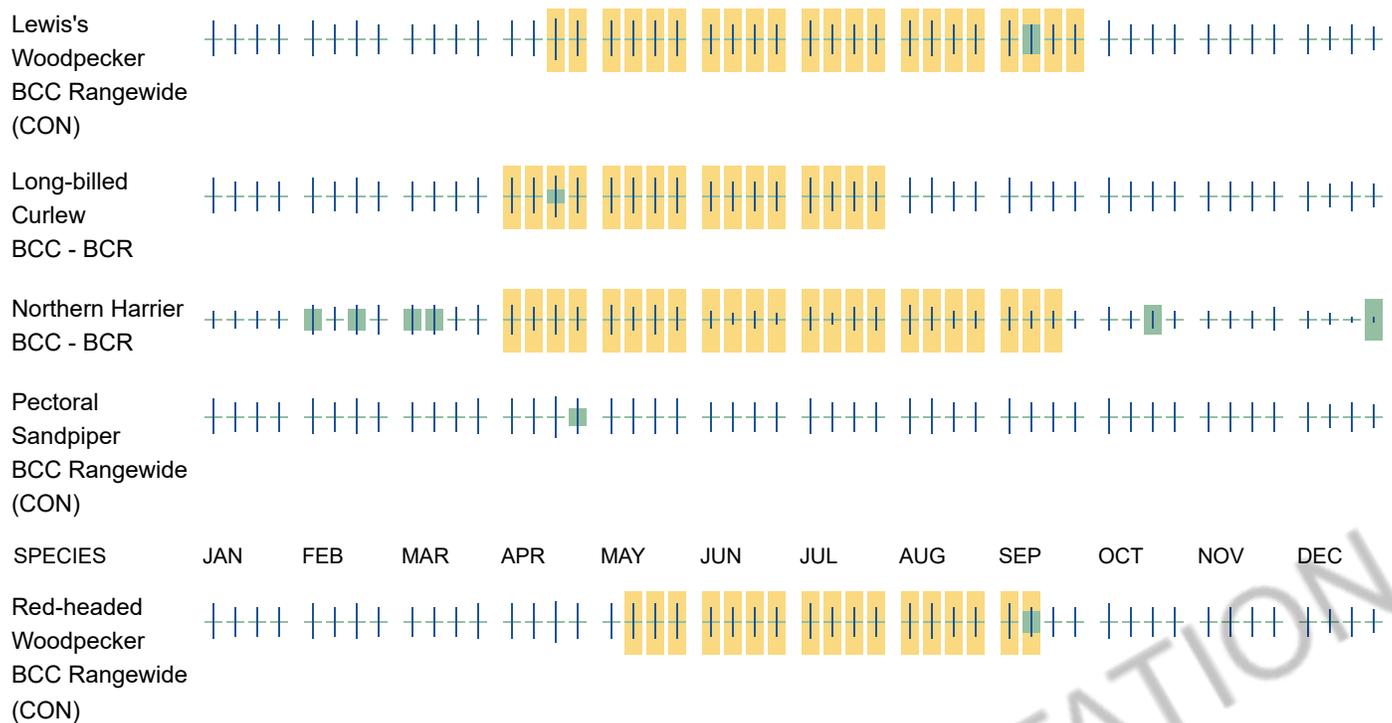
No Data (-)

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.





Migratory Bird FAQs

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

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

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) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection 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, and to verify survey effort when no results present, please visit the [Rapid Avian Information](#)

[Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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

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

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

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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 [Bald and Golden Eagle Protection 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 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 BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

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.

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 look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 does not represent all birds present in your project area. 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 and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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 $0.05/0.25 = 0.2$.

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.

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.

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.

Facilities

Wildlife refuges and fish hatcheries

Refuge and fish hatchery information is not available at this time

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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



Technical Assistance / Effects Determination Concurrence Request
Challenger at Kettle Creek Development
El Paso County, Colorado

August 5, 2025

ATTACHMENT E:
PHOTOGRAPHIC LOG

August 5, 2025



Photo 1 - View facing southeast into the main channel of Kettle Creek (offsite), to the east of the northern half of the site.

August 5, 2025



Photo 2 - View facing southeast of the fence line along the eastern edge of the Project area near Kettle Creek. A few shrubs that exist along the edge of the Project area, which may provide habitat for Preble's, can be seen along fence line. Assuming Preble's can access this part of the site from Kettle Creek, this is the most suitable habitat that exists within the Project area.

August 5, 2025



Photo 3 – Another view toward Kettle Creek to the east of the site, with a lone three-leaf sumac (*Rhus trilobata*) in relatively undisturbed uplands. One of the few shrubs on the site, which area generally found closer to Kettle Creek.

August 5, 2025



Photo 4 - Photo taken near the west side of the site showing the typical, though sometimes weedy, grasslands that dominate the site. Wheatgrasses (*Elymus* spp. and *Pascopyrum smithii*) dominate this portion of the grasslands, along with other typical Foothills Grasslands species including buffalograss (*Bouteloua dactyloides*), blue grama (*Bouteloua gracilis*), and prairie junegrass (*Koeleria macrantha*) – all suitable grassland species for Preble’s.

August 5, 2025



Photo 5 - Another view, facing west and taken in the southern portion of the Project area, of typical grasslands that make up the majority of the site. These conditions do not make for suitable habitat for any of the listed species reviewed except Preble's.

August 5, 2025



Photo 6 - Photo facing southeast of the southern parcel, along the western Project area edge where there are no shrubs and very few trees save for a few ponderosa pines. The viewer is more than 400 meters from Kettle Creek at this location.