

MEMORANDUM

Date: December 12, 2022

To: Darren Anderson, Carson City Public Works

From: NCE

Subject: East William Street Environmental Feasibility Study Project:
Biological Resources Technical Memorandum

The Carson City Public Works Department (City) is implementing combined projects for the East William Complete Streets and Utility Undergrounding (Project). These projects are combined for purposes of environmental compliance; therefore, referred to herein as a single Project. The boundaries of the 1.5-mile Project are North Carson Street to the west and Interstate (I-) 580 to the east. The area of focus for this technical memorandum is biological resources and habitat. This technical memorandum (tech memo) is an update to the memo delivered to Carson City Public Works dated April 1, 2022, to include results of the field survey.

PROJECT DESCRIPTION

The Project is within Carson City, Nevada, and situated within Sections 8-9 and 16-17 of Township 15 North, Range 20 East of the Mount Diablo Principal Meridian (**Figure 1**, figures provided in **Appendix A**). East William Street is classified as a minor arterial and provides access to and connection between Carson City's downtown core, I-580, and United States (US) Route 50. Major signalized intersections within the Project include North Carson Street, North Stewart Street, North Roop Street, North Saliman Road, and I-580. An additional traffic signal at Gold Dust West Way provides access to large commercial complexes. The road currently consists of two lanes in each direction with center turning lanes between North Carson Street and east of North Saliman Road, where it transitions to three lanes in each direction to east of I-580.

The land use is predominantly commercial through the corridor with a variety of customer-centered businesses and offices, including drug stores, restaurants, banks, grocery stores, Nevada State offices, and a church. Mills Park, an approximately 50-acre park owned and operated by the City, borders East William Street to the south between North Roop Street and North Saliman Road. Single and multifamily residential areas are adjacent to the commercial properties but do not directly front East William Street.

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The Project will provide roadway, bicycle, pedestrian, safety, beautification, and utility improvements to East William Street, creating an efficient multimodal roadway along one of Carson City's primary commercial corridors.

The Project specifically includes pavement rehabilitation and reconstruction treatments throughout the corridor, access management infrastructure to improve safety and circulation for commercial driveways and side streets, enhanced street lighting, a signalized pedestrian crossing, bus stop amenities to support a planned transit line along the corridor, electric vehicle charging stations at Mills Park, sidewalk infrastructure to establish compliance with the Americans with Disabilities Act (ADA), traffic signal infrastructure upgrades, added bike facilities, landscaping and streetscape beautification, undergrounding of overhead power and communication lines and upgrades to water, sewer, and storm water utility systems, including low-impact-development (LID) storm water infrastructure.

Existing street lighting along the Project corridor comprises of streetlights owned and operated by NV Energy. These lights are typically "night-guard" style lights on wooden utility poles on the south side of East William Street and approximately 25-foot steel light poles with roadway cobra head luminaires on the north side. The Project includes pedestrian scale lighting from North Carson Street to North Stewart Street consisting of 12-foot post-top-lantern-style luminaire, installed approximately 90-feet apart and 30-inches behind back of curb, as space allows for Americans with Disabilities clear path. Lights will be installed along both sides of the roadway in this section.

Cobra head luminaires will be installed from North Stewart Street to I-580, consisting of steel poles and roadway luminaires. These poles follow Nevada Department of Transportation specifications for Type 7 (single head) and Type 14 (dual head) poles, consisting of a 28.5-foot-high pole with a 15-feet mounting arm, at a 34.5-foot luminaire mounting height. Typical poles will be a single head Type 7 pole, with dual head Type 14 poles installed along Mills Park to provide additional lighting along the park pathway and parking areas.

Spacing of the light facilities will depend on the final scope of the lighting system. If lights are installed along both sides of the roadway, spacing can be approximately 275 feet. However, if lighting is only installed on the south side, the spacing will need to be reduced to approximately 175 feet. Lights will be installed at back of sidewalk, or outside of the clear zone where sidewalks are offset from the edge of roadway. Type 7 and Type 14 poles will be breakaway poles. Exact distribution and spacing will be determined by photometric calculations based on the streetscape layout. Photometric performance will be designed to meet the Illuminating

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Engineering Society (IES)-recommended practice guide for roadway lighting; RP-8-18 "Roadway Lighting" (IES 2018).

Pedestrian facilities will be reconstructed to comply with ADA accessibility requirements. Improvements will include removal of obstructions, widening of sidewalks, installation of ramps and bulb-outs, additional crosswalks, and other pedestrian improvements, all intended to provide a more inviting and safer walking environment. Physical signal modifications are anticipated at cross-streets along William Street due to sidewalk widening and other pedestrian improvements. Signal modifications may require excavation to a depth up to fourteen feet below ground surface. The Project includes dedicated bicycle lanes throughout the project area.

Existing landscaping will be preserved where possible. Landscaping elements including planter softscape areas with trees and hardscape areas of varying textures will be installed throughout the project area. Some medians will feature planter softscape areas. Landscaping selected for installation will be consistent with the Carson City Plant List and Tree List.

Overhead utilities between North Carson Street and Saliman Road may be relocated to remove obstructions within the sidewalks. Buildings currently served by overhead utilities will be converted to underground service. Aging subsurface utilities including sewer and water will be replaced. In addition, drainage improvements including catch basins, storm drain main and laterals, and low impact development improvements will be implemented throughout the project area. Interconnect conduits for future fiber optic communications will be installed. Storm drain improvements and utility relocations may require excavation to a depth varying from two to twelve feet below ground surface.

Project improvements are located within existing rights-of-way as identified in **Figure 2**. Permanent and temporary construction easements on up to 30 parcels are proposed. The permanent easements are required for pedestrian ramp, sidewalk, utilities, and signal modification improvements. The temporary construction easements are required for construction of sidewalk improvements, pedestrian ramps, bus stops, landscaping, lighting, driveway transitions, utilities, grading, and signal modifications. Staging areas will be located on paved or previously disturbed areas (**Figure 2**).

Currently, a preliminary design of the proposed Project is available. Final project design is anticipated by Summer 2023. Right-of-way activities would occur in 2023. Utility relocation and project construction would occur in 2024.

Proposed Project activities were evaluated for potential impact to biological resources, as described below.

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GENERAL HABITAT WITHIN PROJECT AREA

The habitat within the project area is characterized as urban, with the developed footprint of East William Street making up the majority of the project area. Mills Park is an urban park with mature cottonwood trees (*Populus fremontii*), a meandering artificial drainage, and frequently mowed grass lawns located south of the project boundary adjacent to the central portion of the project area. There is also open space, previously disturbed by ranching activities, east of Carson High School, which may provide habitat for various wildlife species. The project does not propose any direct impacts to the above-mentioned habitats; however, these open spaces provide potential corridors for wildlife species to occur adjacent to the project area.

RESULTS OF SPECIAL STATUS SPECIES DATABASE SEARCH

A wide variety of taxa native to the state of Nevada have low population numbers, limited distributions, or are otherwise vulnerable to extinction or extirpation within the state and are therefore protected by state and federal laws. Although they may include ecologically significant units and sub-species, as well as species, these taxa are collectively referred to as special status species (SSS).

Relevant information was reviewed to assess the likelihood of special status species to occur within the project area and the results are summarized in **Table 1** below.

The following references and background information was reviewed:

- *Nevada Division of Natural Heritage* (NDNH). 2022. Personal communication with Eric Miskow to request information on special status species occurrence data within or near project area.
- *Nevada Department of Wildlife* (NDOW). 2022. Personal communication with Jinna Larkin to request information on special status species occurrence data within or near project area.
- Information for Planning and Conservation (IPaC). 2022. United States Fish and Wildlife Service. Accessed online.

The results of the database research were used to assess the presence of SSS and their habitats in the vicinity of the project. In addition, a determination was made, based on the database research, regarding the potential for each species to occur within the vicinity of the project area. These determinations are presented in **Table 1** below and were confirmed by the reconnaissance-level field survey. Species that are known to occur in the region, but do not have adequate habitat within the project area or geographic or constructed barriers blocking migratory corridors between known populations and the project site, were listed as *absent* or *unlikely*. Species that have suitable habitat present within the project area were listed as *possible*.

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Table 1: List of Special Status Species that May Occur in the Vicinity of the Project Area.

Common Name Scientific Name	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Insects				
Carson wandering skipper <i>Pseudocopaeodes eunus obscurus</i>	FE	-	Grassland habitats on alkaline substrates. Adult flight season occurs primarily from June to mid-July. The species lays eggs on salt grass (<i>Distichlis spicata</i>).	Unlikely. Salt grass habitat is present east of Carson High School. Species may occur as a transient.
Monarch butterfly <i>Danaus plexippus</i>	FCE	-	Western population (west of the rocky mountains) travels inland to breeding areas throughout the west. Overwintering sites are generally within 1.5 miles of the California coast. Females lay eggs on milkweed plants.	Unlikely. Breeding or overwintering habitat is not present within the project area but may occur as a transient during migration periods.
Amphibians				
Sierra Nevada yellow-legged frog <i>Rana sierrae</i>	FE	-	Lakes, ponds, marshes, meadows, and streams at elevations ranging from 4,500 to 12,000 feet. Species is highly aquatic and is rarely found more than 3.3 feet from water.	Absent. Aquatic habitat is absent within the project area.
Mammals				
Mule Deer <i>Odocoileus hemionus</i>	-	PM	Open grasslands, parklands, or forest edge ecosystems. Mule deer thrive in habitats that have a combination of early-stage plant growth, mixed-species plant communities, and diverse and extensive shrub growth. A mixture of plant communities provides better forage than any single species.	Possible. Species may move through the project area as a transient, may occupy open space adjacent to the project area such as Mills Park.

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Sources:	<u>Federally Listed Species (Federal):</u>	<u>Nevada State Listed Species (NV):</u>
United States Fish and Wildlife Service	FE = Federally Endangered	CE = Critically Endangered Plant
Nevada Natural Heritage Program	FT = Federally Threatened	EF = Endangered Fish
Nevada Department of Wildlife	FSC = Species of Concern	PM = Protected Mammal
	PT = Proposed Threatened	TM = Threatened Mammal
	FCE = Candidate for Endangered	<u>Nevada Natural Heritage Program:</u>
	FPD = Proposed for Delisting	CI = Critically Imperiled

SURVEY METHODS

An NCE scientist conducted a SSS reconnaissance-level field survey on September 14, 2022, to evaluate habitat and identify the presence or absence of SSS in the project area based on database searches. The survey weather conditions were 62-74°F, no precipitation, 50% cloud cover and light smoke haze, and 0-5 mph wind. The survey occurred between 0830 and 1130. Survey equipment included binoculars, a smartphone running the ESRI ArcGIS Field Maps application that provided access to project web maps, and a Kestrel 3000 pocket weather meter. The survey involved walking the project area ensuring 100% coverage for potential rare plants, observing animal tracks and sign, observing and listening for birds and other animals, documenting presence or absence of SSS and their habitats, and documenting plant communities and existing conditions in the project area.

FINDINGS

Mule deer (*Odocoileus hemionus*), an NDOW protected game mammal, have the potential to occur within the project area. The mule deer habitat within the project area is marginal considering existing development, but mule deer are known to forage and move through urbanized grassy areas of Carson City, such as Mills Park. However, Mills Park has poor connectivity to open spaces reducing the likelihood of mule deer occurring in the project area. The presence of other SSS plants or animals is unlikely within the project area considering the project's location within a fully developed urban roadway corridor and surrounding urban development. Ongoing disturbance from traffic, noise, and urban development within the project area itself make for poor-quality habitat and make potential for special status species occurrence within the project area unlikely.

Trees, shrubs, and urban structures within and near the project area, including staging areas, may provide suitable nesting habitat for migratory birds and tree-nesting raptors. If a migratory bird, regardless of its federal or state status, were to

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nest within or near the site prior to or during proposed construction activities, such activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of special-status or non-special status migratory birds, including tree-nesting raptors, or result in mortality of individual birds constitute a violation of the Federal Migratory Bird Treaty Act (16 U.S.C., scc. 703, Supp. I, 1989) which prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. Nevada Revised Statute "NRS 503.620" provides state protection to birds included in the federal Migratory Bird Treaty Act.

The United States Fish and Wildlife Service (USFWS) recommends completing all project activities, such as tree and shrub removal, that could result in migratory bird take outside the migratory bird nesting season. November through February is a suitable timeframe for completing tree and shrub removal to minimize the potential to impact nesting birds. If construction must occur during the nesting season (March – October), or a nesting season defined by local resource agencies, the City's contractor should utilize a qualified biologist to survey nesting bird habitat within the project area no more than 14 days prior to the beginning of tree removal activities. A copy of the survey shall be submitted to the City prior to the start of construction activities.

If nesting birds are detected within the project area during the survey, consultation with the NDOW and the USFWS is recommended to establish avoidance or minimization measures during construction. Avoidance measures could include the establishment of a suitable activity-free buffer around all active nests. The precise dimension of the buffer shall be determined at that time and may vary depending on location and species. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged. The avoidance or minimization plan shall be submitted to the project owner for review and approval prior to the start of construction activities. These measures will ensure that no nesting birds are disturbed by construction activities.

Big brown bat (*Eptesicus fuscus*) and Mexican free-tailed bat (*Tadarida brasiliensis*) have been observed in the vicinity of the project area (NDOW 2022). Based on NCE's data request to NDOW, there were no known roosting sites or habitat within the project area. It is reasonable to assume construction activities associated with the project will not impact unknown urban roosting sites, and any bats roosting near the project are likely acclimated to significant noise and human activity throughout the day.

Nevada Division of Natural Heritage identified no at-risk taxa in the project area but disclosed potential habitat for the Carson Valley monkeyflower (*Erythranthe*

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carsonensis) and Merriam's shrew (*Sorex merriami*) in the project area. These are a BLM sensitive species and taxon determined to be vulnerable by the NDNH, respectively. NDNH species or their habitats were not observed during the survey.

Finally, noxious weeds are required to be controlled and removed by landowners with supervision over streets, alleys, lanes, and right of ways (NRS 555.150). Plant species listed as noxious weeds in the project area are required to be removed in a manner specified by the State Quarantine Officer. Noxious weeds, specifically tall whitetop (*Lepidium latifolium*), were observed just outside of the project area during the survey. Noxious weeds have a potential to occur on site during ground disturbance and stockpiling.

Most plants in the project area include various ornamental trees and shrubs. Complete lists of plants and wildlife observed during the reconnaissance-level field survey are presented in **Table 2** and **Table 3**. Plant diversity seen on this list is primarily contributed by plants observed in Mills Park and the open space east of Carson High School, as the majority of the project area is pavement, sidewalk, and ornamental landscaped areas.

Table 2: List of plant species observed during the reconnaissance-level field survey

Scientific Name	Common Name	Native: Y, N
<i>Acer negundo</i>	box elder	Y
<i>Acer tataricum</i>	Tatarian maple	N
<i>Agropyron cristatum</i>	crested wheatgrass	N
<i>Ambrosia acanthicarpa</i>	annual bursage	Y
<i>Arrhenatherum elatius</i>	tall oat grass	N
<i>Artemisia tridentata</i>	common sagebrush	Y
<i>Bromus tectorum</i>	cheatgrass	N
<i>Catalpa bignonioides</i>	southern catalpa	N
<i>Centromadia pungens</i>	common spikeweed	Y
<i>Cichorium intybus</i>	chicory	N
<i>Cirsium vulgare</i>	bull thistle	N
<i>Deinandra fasciculata</i>	clustered tarweed	Y
<i>Distichlis spicata</i>	inland saltgrass	Y
<i>Elaeagnus angustifolia</i>	Russian olive	N
<i>Elymus hispidus</i>	intermediate wheatgrass	N
<i>Ericameria nauseosa</i>	rubber rabbitbrush	Y
<i>Erodium cicutarium</i>	red stemmed filaree	N
<i>Euthamia occidentalis</i>	western goldenrod	Y

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Scientific Name	Common Name	Native: Y, N
<i>Hordeum jubatum</i>	foxtail barley	Y
<i>Juncus</i> sp.	rush	Y
<i>Juniperus horizontalis</i>	creeping juniper	Y
<i>Lactuca serriola</i>	prickly lettuce	N
<i>Lepidium latifolium</i>	perennial pepperweed	N
<i>Lepidium perfoliatum</i>	clasping pepperweed	N
<i>Malva neglecta</i>	dwarf mallow	N
<i>Melilotus alba</i>	white sweetclover	N
<i>Parthenocissus heptaphylla</i>	sevenleaf creeper	N
<i>Persicaria maculosa</i>	spotted ladysthumb	N
<i>Pinus sylvestris</i>	Scotch pine	N
<i>Plantago major</i>	common plantain	N
<i>Populus fremontii</i>	Fremont cottonwood	Y
<i>Portulaca oleracea</i>	common purslane	N
<i>Rumex crispus</i>	curly dock	N
<i>Salix</i> sp.	willow	Y
<i>Schoenoplectus acutus</i>	hardstem bulrush	Y
<i>Tanacetum vulgare</i>	common tansy	N
<i>Trifolium pratense</i>	red clover	N
<i>Typha latifolia</i>	broadleaf cattail	Y

Table 3: List of wildlife species observed during the reconnaissance-level field survey.

Scientific Name	Common Name	Native: Y, N
<i>Branta canadensis</i>	Canada goose	Y
<i>Buteo jamaicensis</i>	red-tailed hawk	Y
<i>Columba livia</i>	rock pigeon	N
<i>Corvus brachyrhynchos</i>	American crow	Y
<i>Haemorhous mexicanus</i>	house finch	Y
<i>Poecile gambeli</i>	mountain chickadee	Y
<i>Spinus psaltria</i>	lesser goldfinch	Y
<i>Streptopelia decaocto</i>	Eurasian collared dove	N
<i>Sturnus vulgaris</i>	European starling	N

Attachments:

APPENDIX A: FIGURES

Figure 1: Project Location Map

Figure 2: Project Detail Map

APPENDIX B: USFWS INFORMATION FOR PLANNING AND CONSULTATION REPORT

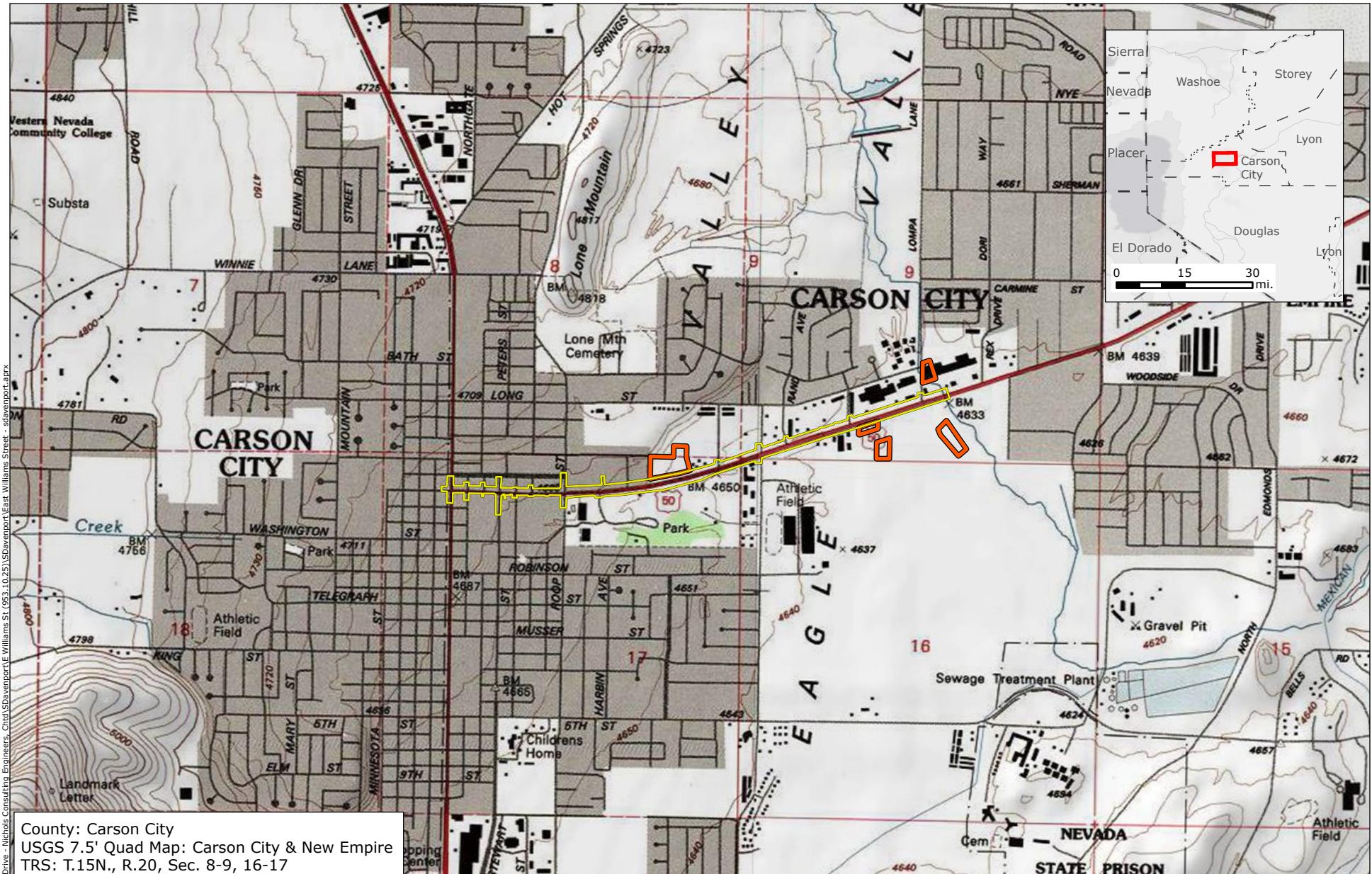
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Appendix A Figures

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Legend

- Project Area
- Potential Staging Area


East William Complete Streets and Utility Undergrounding Project
Project Vicinity Map

 1:24,000
 0 1,000 2,000 ft.

FIGURE
1
SOURCE
 ESRI USGS Topography Basemap

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DATE
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REVISED
 12/7/2022

APPROVED
 jhall



Legend

- Project Area
- Potential Staging Area



East William Complete Streets and Utility Undergrounding Project

Project Detail Map

SOURCE
Carson City Ortho Imagery

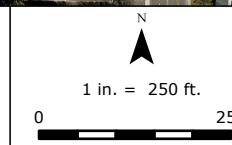
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DATE
1/25/2022

REVISED
12/7/2022

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**FIGURE
2a**


Legend

- Project Area
- Potential Staging Area


East William Complete Streets and Utility Undergrounding Project
Project Detail Map

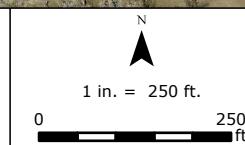
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 Carson City Ortho Imagery

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 sdavenport

 DATE
 1/25/2022

 REVISED
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FIGURE
2b



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Legend	
	Project Area
	Potential Staging Area



East William Complete Streets and Utility Undergrounding Project

Project Detail Map

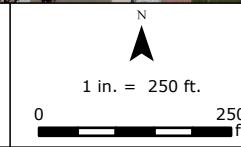


FIGURE
2c

SOURCE Carson City Ortho Imagery	JOB NUMBER 953.10.25	DRAWN sdavenport	DATE 1/25/2022	REVISED 12/7/2022	APPROVED jhall
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Legend

- Project Area
- Potential Staging Area



East William Complete Streets and Utility Undergrounding Project

Project Detail Map

SOURCE
Carson City Ortho Imagery

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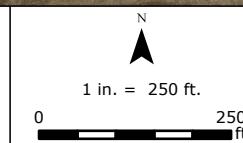


FIGURE
2d

Appendix B USFS Information for Planning and Consultation Report

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
Phone: (775) 861-6300 Fax: (775) 861-6301
<http://www.fws.gov/reno/>

In Reply Refer To:

February 03, 2022

Project Code: 2022-0002726

Project Name: East William Street Rehabilitation Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list indicates threatened, endangered, proposed, and candidate species and designated or proposed critical habitat that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act of 1973, as amended (ESA, 16 U.S.C. 1531 *et seq.*), for projects that are authorized, funded, or carried out by a Federal agency. Candidate species have no protection under the ESA but are included for consideration because they could be listed prior to the completion of your project. Consideration of these species during project planning may assist species conservation efforts and may prevent the need for future listing actions. For additional information regarding species that may be found in the proposed project area, visit <http://www.fws.gov/nevada/es/ipac.html>.

The purpose of the ESA 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 ESA 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 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. Guidelines for preparing a Biological Assessment can be found at: http://www.fws.gov/midwest/endangered/section7/ba_guide.html.

If a Federal action 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>.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this species list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally listed, proposed, 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 ESA, 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

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- 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:

Reno Fish And Wildlife Office

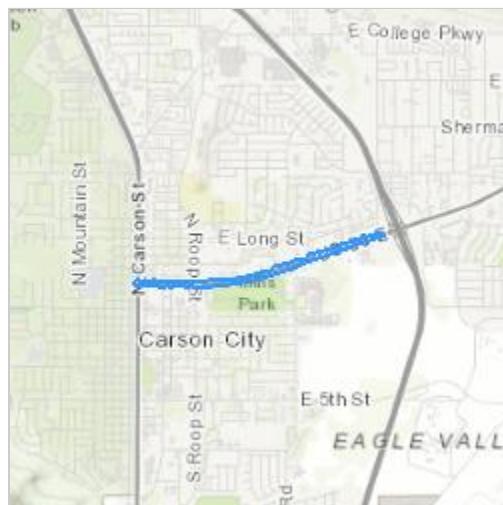
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
(775) 861-6300

Project Summary

Project Code: 2022-0002726
Event Code: None
Project Name: East William Street Rehabilitation Project
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Carson City (City) proposes to reconstruct and rehabilitate East William Street from Carson Street to the I-580 Interchange. Proposed improvements include partial reconstruction of the roadway; installation of new curbs, gutters, sidewalks, and multi-use pathways; Americans with Disabilities Act upgrades; Access Management revisions; utility replacements; and landscaping. The effort is funded by State Planning and Research Funding; therefore, compliance with Federal and State environmental regulations will be required.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.1723557,-119.74960844909565,14z>



Counties: Carson City County, Nevada

Endangered Species Act Species

There is a total of 3 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.

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.

Amphibians

NAME	STATUS
Sierra Nevada Yellow-legged Frog <i>Rana sierrae</i>	Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: <https://ecos.fws.gov/ecp/species/9529>

Insects

NAME	STATUS
Carson Wandering Skipper <i>Pseudocopaeodes eunus obscurus</i>	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/674	

Monarch Butterfly *Danaus plexippus* Candidate
No critical habitat has been designated for this species.
Species profile: <https://ecos.fws.gov/ecp/species/9743>

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.

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.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Cassin's Finch <i>Carpodacus cassini</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15

NAME	BREEDING SEASON
Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds May 15 to Aug 10
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

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.

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 (|)

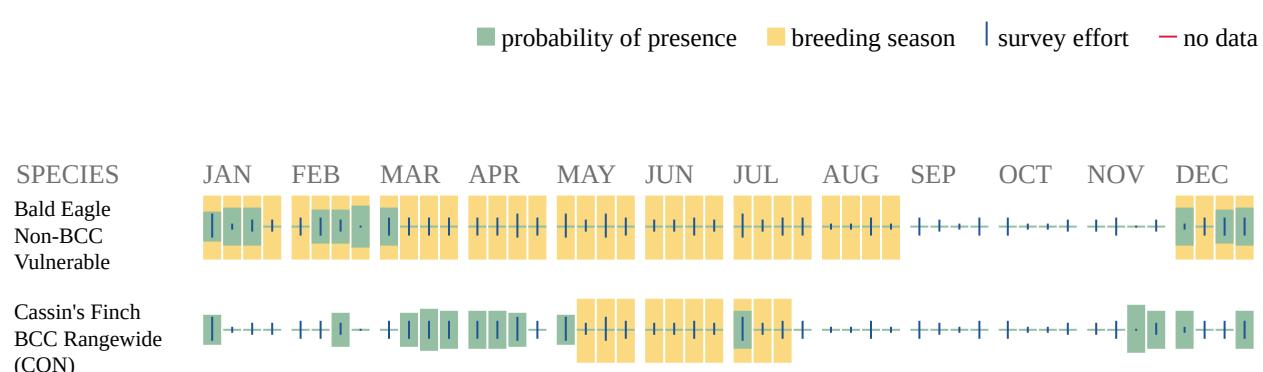
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

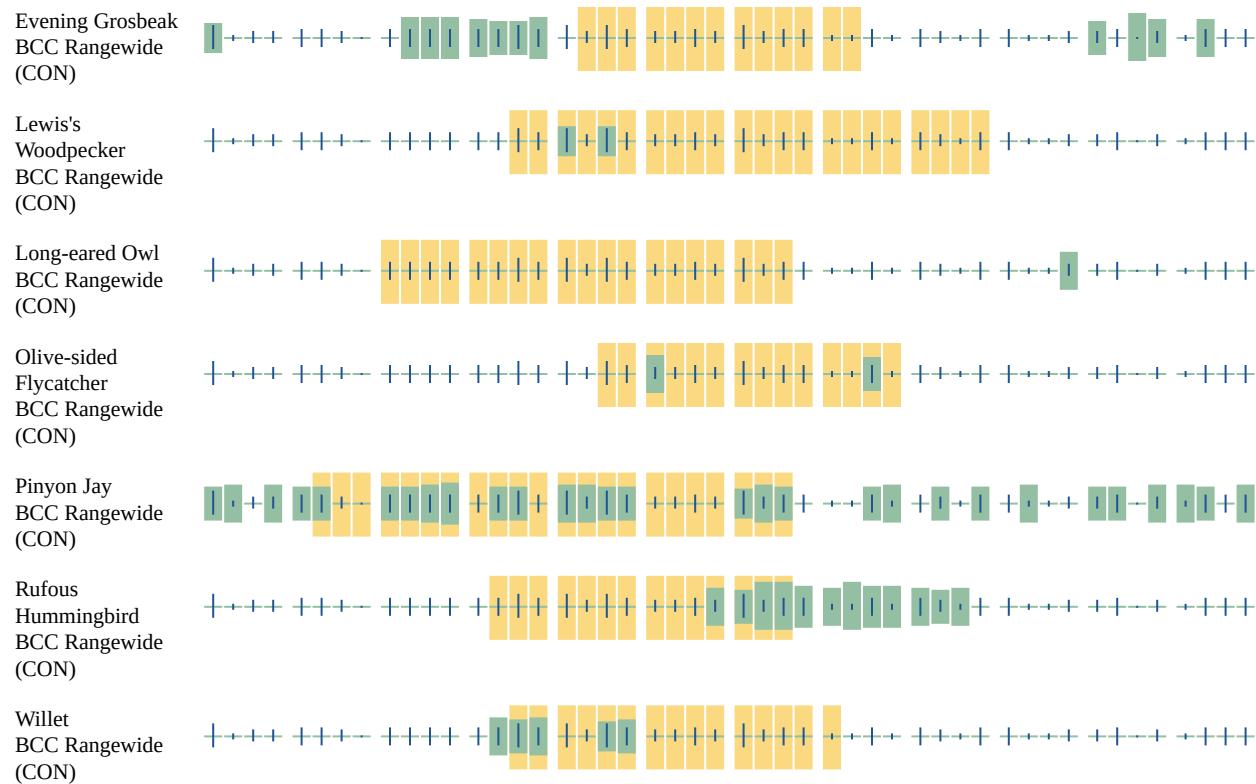
No Data (-)

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.





Additional information can be found using the following links:

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

Migratory Birds FAQ

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

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

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.