



Prepared for:	City of Henderson, Nevada	Project Name:	I-215 Beltway Widening Project – Pecos Road to Stephanie Street
Copy to:	Nevada Department of Transportation		
Prepared by:	Kay Nicholson, Jacobs		
Date:	October 11, 2023		

1. Introduction

The City of Henderson (City) proposes to widen the Interstate 215 Bruce Woodbury Beltway (I-215) from Pecos Road to Stephanie Street in the City of Henderson, Clark County, Nevada. This section of I-215 freeway is one of the primary east-west freeway corridors in the Las Vegas Valley and connects the City of Henderson to the rest of the Las Vegas Valley. The I-215 Beltway Widening Project (Project) involves widening of I-215, ramp reconstruction, and local road improvements to the interchanges with I-215 at Pecos Road/St. Rose Parkway and Green Valley Parkway. The Project would also reconstruct ramps at the Valle Verde Drive and Stephanie Street interchanges. Figure 1-1 shows the Project location and study area.

The Project is being completed with funding from Clark County. However, because I-215 is within Nevada Department of Transportation (NDOT) right-of-way, an NDOT encroachment permit is required to construct the improvements. The interstate system is under the jurisdiction of the Federal Highway Administration (FHWA) providing a federal nexus to prepare an environmental document to comply with the National Environmental Policy Act of 1969 (NEPA). Thus, in compliance with NEPA, the City is preparing documentation to evaluate the potential environmental impacts of the project. This technical memorandum presents potential impacts to biological resources associated with the No Action Alternative and the Preferred Alternative and identifies measures to mitigate impacts.

2. Project Description

I-215 serves as an important connection between the City of Henderson and the surrounding Las Vegas metropolitan area. The Pecos Road/St. Rose Parkway and Green Valley Parkway interchanges with I-215 provide access to and from the residential and commercial developments at the west edge of the City. Clark County and the City have experienced significant population growth over the last decade. Between 2010 and 2020, Clark County's population grew by over 300,000 residents (an increase of about 20 percent) and the City's population grew by over 60,000 residents (an increase of about 25 percent) (U.S. Census Bureau 2010 and 2020). The regional population is projected to continue to grow.

This segment of I-215 currently experiences congestion due to existing roadway deficiencies and the regional population growth, which has increased current traffic volumes that exceed the roadway's capacity. In addition, existing roadway deficiencies result in increased travel time and contribute to accidents. By 2050, if no improvements are made on I-215 in the Project area, severe congestion with average speeds of less than 15 miles per hour is expected in both the morning and afternoon peak periods in some areas.

The proposed Project would widen I-215 from Pecos Road to Stephanie Street, improve interchanges and ramps, and construct a pedestrian bridge over Green Valley Parkway near Village Walk Drive. The purpose of the Project is to eliminate existing roadway deficiencies and provide transportation improvements to serve existing and future traffic demand.



Other improvements are described as follows:

- Pecos Road/St. Rose Parkway Interchange
 - Eastbound I-215 exit ramp: Construct additional right-turn lane to St. Rose Parkway for a total of two right-turn lanes.
 - Eastbound I-215 entrance ramp: The movement from northbound St. Rose Parkway to the entrance ramp will be free flow. This eastbound entrance ramp will have four receiving lanes: two from the northbound to eastbound movement and two from the southbound to eastbound movement. Eventually, two of the four lanes will drop before merging onto the freeway as a two-lane ramp.
 - Westbound I-215 exit ramp: Widen to two lanes and construct additional left-turn lane, resulting in three left-turn lanes.
 - Along St. Rose Parkway extending to south of the St. Rose Parkway/Paseo Verde Parkway intersection: Extend the northbound outside lane to provide more capacity for vehicles turning right to the I-215 eastbound entrance ramp.
- Green Valley Parkway Interchange
 - Reconstruct interchange as a diverging diamond interchange. Does not require widening of the existing bridge.
 - Reconfigure all ramps to allow for the diverging diamond interchange.
 - Construct one extra approach lane on each exit ramp for a total of two eastbound and two westbound lanes on- and off-ramps.
 - Construct a pedestrian bridge over Green Valley Parkway near Village Walk Drive to remove the east-west at-grade crosswalks (across Green Valley Parkway), enhancing safety for vulnerable road users and improving traffic operations.
- Valle Verde Drive interchange
 - Widen off-ramps from I-215 to two lanes.
- Stephanie Street interchange
 - Widen westbound entrance ramp and eastbound exit ramps to two lanes.

Additionally, the Preferred Alternative would:

- Reconstruct bike trails affected by the Project.
- Reconstruct sound walls and storm drainage facilities, such as storm drain inlets and pipes.
- Construct other ancillary roadway improvements to improve the safety of users of I-215 such as outside shoulders, barrier rails, and retaining walls, as well as pavement markings.
- Install traffic control devices and modify bridge underdeck and ramp lighting.
- Not require any new right-of-way (ROW) along I-215 and all proposed work along I-215 would occur within existing NDOT ROW.¹
- Not convert any existing land uses.

¹ Approximately 1.43 acres of ROW would be required along Green Valley Parkway and up to 0.26 acre of ROW along St. Rose Parkway. These are both City of Henderson streets.



4. Methods

This section discusses the data sources and methods used for evaluating potential Project-related impacts to special-status species and migratory birds.

Throughout this technical memorandum, the term “Project limits” is used to represent the Project footprint. The term “action area” represents all areas to be affected directly or indirectly by the proposed Project and not merely the immediate area involved in the action. The Project-specific action area encompasses a 500-foot buffer around the Project limits to account for effects that extend beyond the Project limits, such as noise and dust. The term “Project vicinity” is used to denote a more expansive landscape context.

4.1 Federally Listed Species

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) decision support system was accessed on January 20, 2023, to obtain an official list of federally threatened, endangered, proposed, and candidate species, as designated under the federal Endangered Species Act of 1973, as amended (16 *United States Code* [U.S.C.] § 1531 et seq.; ESA), along with designated and proposed critical habitat potentially present in the Project vicinity (USFWS 2023, Project Code: 2023-0036030; Attachment B).

Additionally, a shapefile identifying special-status species occurrences within 5 miles of the Project limits was requested from the Nevada Division of Natural Heritage (NDNH) and was received from NDNH on January 23, 2023 (Miskow, pers. comm. 2023). The list of special-status species included in the NDNH dataset is provided in Attachment C.

The USFWS and NDNH species lists were reviewed to identify habitat types used by each species. Then, a site visit was conducted to identify habitat types present within the action area, paying particular attention to the presence of habitat for any special-status species.

Potential impacts to special-status species were analyzed by comparing habitat types used by these species to habitat types present to determine if any special-status species would be expected to occur in the action area.

4.2 Migratory Birds

USFWS is responsible for the protection of migratory bird species through the Migratory Bird Treaty Act of 1918 (MBTA) (16 U.S.C. 703-712). The IPaC report (USFWS 2023) includes a list of migratory birds that are of particular concern because they are designated as USFWS birds of conservation concern or warrant special attention in the Project location. However, this is not a complete list of migratory birds expected to be present in the action area. During a site visit for the Project, habitat for migratory birds was noted.

Potential impacts to migratory birds were analyzed by identifying whether habitat for migratory birds would be lost or destroyed as a result of Project activities.

5. Existing Conditions

This section provides an overall habitat description within the action area, including vegetation community types, topography, and hydrology. The following subsections describe existing conditions specific to special-status species and migratory birds.

The action area is located in the Las Vegas metropolitan area within the Basin and Range physiographic province, which is characterized by a series of northwest to southeast trending mountain ranges separated by alluvial valleys. The Project limits and surrounding action area are entirely urbanized. Within the I-215 corridor, the ground has been covered with rock or paved over. Where the Project limits extend from I-215 onto cross streets (i.e.,



Green Valley Parkway and St. Rose Parkway), landscaped vegetation is present, including date palm trees (*Phoenix dactylifera*), Russian olive (*Elaeagnus angustifolia*), chaste tree (*Vitex agnus-castus*), brittlebush (*Encelia farinosa*), and various ornamental flowers. No waterbodies or associated riparian or wetland vegetation are present. Elevation in the action area ranges from 1,900 to 2,200 feet.

5.1 Federally Listed Species

Table 5-1 identifies the federally listed, proposed, and candidate species and critical habitats included in the USFWS IPaC report or NDNH database. Habitat type and potential occurrence for each species are also identified. The NDNH dataset includes no records for species protected under the ESA within the action area, though yellow-billed cuckoo and Yuma Ridgway’s rail occurrences were documented in the Project vicinity within 5 miles of the action area.

Table 5-1. ESA-listed Species Potentially Present in the Action Area

Species	ESA Status	Habitat	Potential for Occurrence
Birds			
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	This species is found in dense riparian woodland communities along rivers, streams, lakesides, and wetlands below 8,500 feet elevation. Prefers dense canopy cover, large volume of understory foliage, and surface water during midsummer.	None. No perennial water sources or riparian vegetation are present in the action area.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Threatened	This species uses large contiguous patches of multilayered riparian habitat, such as cottonwood-willow gallery forests along rivers and streams below 6,600 feet in elevation.	None. No perennial water sources or riparian vegetation are present in the action area.
Yuma Ridgway’s (clapper) rail (<i>Rallus obsoletus (=longirostris) yumanensis</i>)	Endangered	This species uses freshwater or brackish marshes with wet substrate and stands of cattail and giant bulrush. Stands may also include common reed or salt cedar. Found at elevations below 4,500 feet.	None. No perennial water sources or emergent wetland vegetation are present in the action area.
Reptiles			
Mojave desert tortoise (<i>Gopherus agassizii</i>)	Threatened	This species is found in sandy flats to rocky foothills, including alluvial fans, washes, and canyons. Often found in creosote scrub communities.	None. No suitable sandy habitat for digging burrows or other potential shelter sites are present in the action area.
Insects			
Monarch butterfly (<i>Danaus plexippus</i>)	Candidate	This species lays its eggs on milkweed (primarily <i>Asclepias</i> spp.), its obligate host plant. During migration, monarchs require blooming nectar plants.	Moderate. No milkweed for egg laying is present; however, this species may forage on blooming nectar plants in the action area during migration.

Sources: USFWS 2023; Miskow, pers. comm. 2023.

5.2 Migratory Birds

The IPaC resource list includes six migratory birds identified as USFWS birds of conservation concern that may occur within the action area (USFWS 2023, Attachment B). These species, as well as additional birds that are protected under the MBTA, may be found nesting in vegetation within the action area.



6. Impacts Assessment

This section describes impacts identified for the No Action Alternative and the Preferred Alternative.

6.1 No Action Alternative Impacts

6.1.1 Federally Listed Species

Blooming nectar plants provide foraging habitat for the monarch butterfly in the action area and this butterfly may occur within the action area during migration. However, there are no ground-disturbing activities associated with the No Action Alternative. The No Action Alternative would result in no direct or indirect effects to the monarch butterfly.

6.1.2 Migratory Birds

Trees associated with landscaped vegetation present in the action area provide suitable nesting habitat for migratory birds. However, there are no ground-disturbing activities associated with the No Action Alternative and no trees would be impacted or removed. Therefore, the No Action Alternative would result in no direct or indirect effects to migratory birds.

6.2 Preferred Alternative Impacts

6.2.1 Federally Listed Species

Foraging habitat for the monarch butterfly is present in the action area and this butterfly may occur within the action area during migration. The Preferred Alternative would remove a small amount of blooming nectar plants. However, the loss of nectar plants would not affect the ability of monarch butterflies to forage in the Project vicinity due to the abundance of blooming nectar plants available in the vicinity. The Preferred Alternative would have a negligible to minor impact to the monarch butterfly.

6.2.2 Migratory Birds

Trees and shrubs associated with landscaped vegetation present in the action area provide suitable nesting habitat for migratory birds. The Preferred Alternative is expected to result in removal of vegetation that migratory birds may use for nesting. Therefore, the Preferred Alternative could impact nesting migratory birds and mitigation measures would be implemented to prevent or reduce those impacts.

7. Mitigation Measures

Temporary and permanent impacts to migratory birds could occur as a result of the Preferred Alternative. Table 7-1 presents the measures that will be implemented to mitigate anticipated impacts of the Preferred Alternative.



Table 7-1. Mitigation Measures

Resource	Impact	Mitigation Commitment	Responsible Party	Timing/Phase that Mitigation will be Implemented
Migratory birds	Tree removal could impact nesting migratory birds.	For any vegetation removal occurring between February 15 and September 30 (i.e., the migratory bird nesting season), a qualified biologist will conduct a nest search and determine that no active nests are present before the vegetation is removed.	RTC Contractor	During construction, within 1 week prior to any vegetation removal occurring between February 15 and September 30

8. Required Permits

No permits for biological resources would be required.

9. Agency/Stakeholder Coordination

Special-status species lists were obtained from USFWS and NDNH in January 2023, as discussed in Section 4 of this technical memorandum.

10. References

Miskow, Eric, Nevada Division of Natural Heritage. 2023. Personal communication (email) with Jacobs of Project-Specific Geospatial Dataset of Special-Status Species. January.

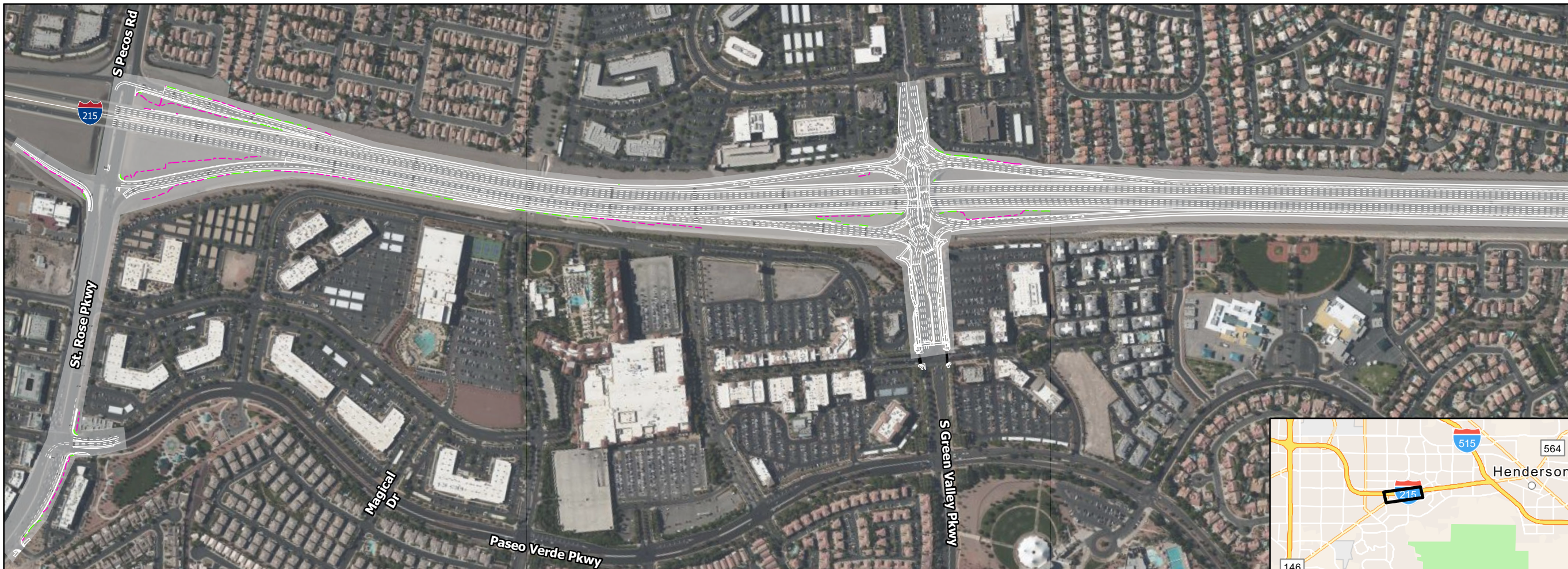
U.S. Census Bureau. 2010. Decennial Census of Population and Housing. <https://www.census.gov/programs-surveys/decennial-census/decade.2010.html>.

U.S. Census Bureau. 2020. 2016-2020 American Community Survey 5-Year Estimates. https://data.census.gov/table?q=demographics&g=0500000US32003_1600000US3231900&tid=ACSDP5Y2020.DP05.

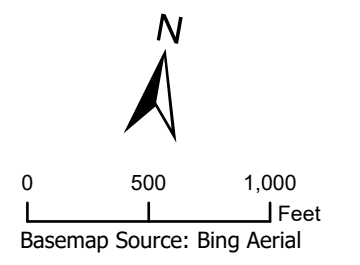
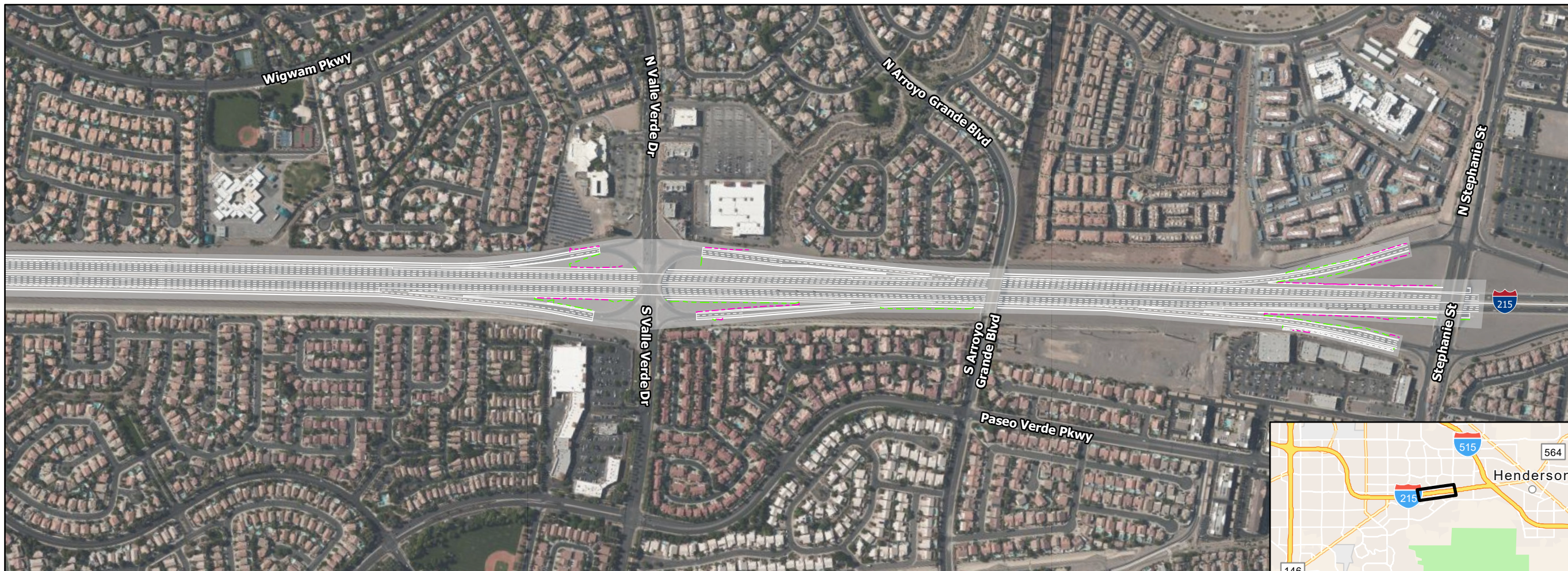
U.S. Fish and Wildlife Service (USFWS). 2023. Information for Planning and Consultation (IPaC) Species List. Accessed January 2023. <https://ipac.ecosphere.fws.gov/>.



Attachment A
Map of Preferred Alternative



- Legend**
- Proposed Roadway
 - - - Proposed Cut
 - - - Proposed Fill



Preferred Alternative
 I-215 City of Henderson
 Clark County, Nevada



Attachment B
U.S. Fish and Wildlife Service Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Southern Nevada Fish And Wildlife Office
4701 N. Torrey Pines Drive
Las Vegas, NV 89130-2301
Phone: (702) 515-5230 Fax: (702) 515-5231

In Reply Refer To:
Project Code: 2023-0036030
Project Name: I-215 Henderson Project

January 20, 2023

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

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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

Attachment(s):

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

Southern Nevada Fish And Wildlife Office

4701 N. Torrey Pines Drive
Las Vegas, NV 89130-2301
(702) 515-5230

Project Summary

Project Code: 2023-0036030

Project Name: I-215 Henderson Project

Project Type: Road/Hwy - Maintenance/Modification

Project Description: The City of Henderson, in cooperation with the Nevada Department of Transportation and the Federal Highway Administration, is proposing to widen the Clark County Interstate 215 Bruce Woodbury Beltway from Pecos Road to Stephanie Street in Henderson, Clark County, Nevada.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@36.0270983,-115.06428750994797,14z>



Counties: Clark County, Nevada

Endangered Species Act Species

There is a total of 4 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.

Birds

NAME	STATUS
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Desert Tortoise <i>Gopherus agassizii</i> Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

Insects

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

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](#).

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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
Black-chinned Sparrow <i>Spizella atrogularis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10

NAME	BREEDING SEASON
Golden Eagle <i>Aquila chrysaetos</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/1680	Breeds Dec 1 to Aug 31
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 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 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 $0.05/0.25 = 0.2$.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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 list of migratory birds that potentially occur in my specified location?

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

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

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

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and

how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

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

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

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.

FRESHWATER POND

- [PUBF](#)

RIVERINE

- [R4SBC](#)
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Attachment C
Nevada Division of Natural Heritage Species List



Table C-1. Special-Status Species List Provided by the Nevada Division of Natural Heritage

Common Name	Scientific Name
Banded Gila monster	<i>Athene cunicularia hypugaea</i>
Western burrowing owl	<i>Athene cunicularia hypugaea</i>
Yellow-billed cuckoo	<i>Coccyzus americanus</i>
Yuma Ridgway's rail	<i>Rallus obsoletus yumanensis</i>