

Wildlife Inventory Report
7200 West
SR-201 to 700 North
Salt Lake County, Utah
June 2018

Prepared for:
Salt Lake County

Prepared by:



Wetland Resources
182 East 300 North
Logan, Utah 84321



InterWest Wildlife and Ecological Services
11255 North 2000 East
Richmond, UT 84333

TABLE OF CONTENTS

1.0	Introduction	1
2.0	Wildlife Survey Methods	1
3.0	Habitats	2
3.1.1	Pasture	2
3.1.2	Emergent Wetlands.....	2
3.1.3	Playa	2
3.1.4	Water.....	2
3.1.5	Ditches.....	3
4.0	Threatened and Endangered Species	3
4.1.1	Canada lynx.....	3
4.1.2	Yellow-billed Cuckoo.....	3
4.1.3	June Sucker	4
4.1.4	Critical Habitat.....	4
5.0	Raptors	4
5.1.1	Bald Eagles	6
5.1.2	Golden Eagles.....	6
5.1.3	American Kestrel	6
5.1.4	Barn Owl.....	6
5.1.5	Burrowing Owl	7
5.1.6	Great Horned Owl.....	7
5.1.7	Northern Harrier	7
5.1.8	Peregrine Falcon.....	7
5.1.9	Red-tailed Hawk	7
5.1.10	Short-eared owl	8
5.1.11	Swainson’s Hawk.....	8
6.0	Migratory Birds	8
6.1.1	Black Rosy-finch	10
6.1.2	Brewer’s Sparrow.....	10
6.1.3	Clark’s Grebe	10
6.1.4	Green-tailed Towhee.....	10
6.1.5	Lesser Yellowlegs	10
6.1.6	Long-billed Curlew	10
6.1.7	Marbled Godwit	10
6.1.8	Olive-sided Flycatcher.....	10
6.1.9	Sage Thrasher	10
6.1.10	Virginia’s Warbler	11
6.1.11	Willet	11

6.1.12	Willow Flycatcher.....	11
7.0	Wildlife Survey Results.....	11
7.1	Habitats	11
7.1.1	Pasture	11
7.1.2	Wetlands	11
7.1.3	Playa	11
7.1.4	Water	12
7.1.5	Ditches.....	12
7.2	Threatened and Endangered Species.....	13
7.2.1	Canada Lynx.....	13
7.2.2	Yellow-billed Cuckoo.....	13
7.2.3	June Sucker	14
7.3	Raptors	14
7.3.1	Bald Eagle.....	14
7.3.2	Golden Eagle	14
7.3.3	American Kestrel	14
7.3.4	Barn Owl.....	14
7.3.5	Burrowing Owl	15
7.3.6	Great Horned Owl.....	15
7.3.7	Northern Harrier	15
7.3.8	Peregrine Falcon.....	15
7.3.9	Red-tailed Hawk	15
7.3.10	Short-eared owl	15
7.3.11	Swainson’s Hawk.....	15
7.4	Migratory Birds.....	16
8.0	REFERENCES.....	18
	Appendix A - Project Maps	
	Appendix B - IPaC Trust Resource Report	
	Appendix C - Migratory Bird Conservation Actions	
	Appendix D. Qualifications	

1.0 INTRODUCTION

A wildlife survey was conducted in May 2018 for a potential new roadway at 7200 West between State Route 201 (SR-201) and 700 North in Salt Lake County, Utah (Appendix A, Map 1). The wildlife report was prepared for Lochner Engineering who is providing environmental and engineering services for Salt Lake County on the project. The project area includes some stretches of existing paved and gravel roads, a portion of the old Salt Lake County Landfill, and other currently vacant lands. Existing land use adjacent to the roadways is mostly commercial, industrial, and agricultural. The project area includes the potential right-of-way (ROW), and three buffers surrounding the ROW: a 300 foot buffer for migratory bird surveys; a quarter mile buffer for some ground nesting raptors (mainly owl surveys); and a half mile buffer for most diurnal raptor surveys.

2.0 WILDLIFE SURVEY METHODS

Migratory bird surveys were completed on the project site and within a 300 foot buffer surrounding the project site to locate and document any nesting birds in the vicinity of the project site and document suitable nesting habitat within the buffer. Owl surveys and habitat mapping were completed on the project site and within a quarter mile spatial disturbance buffer surrounding the project site (Romin and Muck, 2002). Raptor surveys were completed on the project site and within a half mile spatial disturbance buffer surrounding the project site (Romin and Muck, 2002). This wildlife report addresses the habitat present for wildlife species identified in the U.S. Fish and Wildlife Service (USFWS) IPaC report (Appendix B) and the Utah Natural Heritage Center database (UCDC 2018).

Habitats on the project area include commercial, industrial, pasture, water, emergent wetlands, irrigation ditches, and playa. A search for previously documented occurrences of federal and state species within the project area was conducted and a request was made to the Utah Division of Wildlife Resources Utah Natural Heritage Data Center Species Diversity Database. The results are presented in this report.

The project area was surveyed in May 2018 for federal and state listed wildlife species by foot and vehicle, ensuring that the entire project area and associated buffers around the proposed project area were thoroughly covered. Any observations of species or their signs were documented and recorded. A half mile raptor buffer was established around the Project Area and surveys for raptor nests were conducted within these buffer zones by vehicle, and on foot where necessary, using binoculars and a spotting scope and utilizing terrain for better vantage points. Access was not allowed on some private land outside the 300 foot migratory bird survey buffer, but these areas were thoroughly surveyed for raptors from locations where access was available. All potential nesting habitats within the raptor buffer were examined for nests or potential nests. Habitat outside the 300 foot migratory bird survey buffer was not thoroughly documented at this time as this area was just for raptor surveys. The burrowing owl survey included locating suitable nesting habitat for burrowing

owls within a quarter mile buffer surrounding the project area. Each raptor nest encountered was spatially documented, and condition, substrate, and habitat type were recorded.

Wildlife surveys for federal listed species (USFWS) and Utah sensitive species involved documenting suitable habitat for these species. Habitat suitable to any of the wildlife species known to occur in Salt Lake County were noted and discussion specific to each potential species are included within the results section of this report. Wildlife surveys were conducted by Glen Gantz, his vita is provided in Appendix D.

3.0 HABITATS

There are five habitat types that pertain to wildlife utilization of the project area (Appendix A, Maps 2 through 5). These habitats are discussed in detail below.

3.1.1 Pasture

The pasture habitat occurs throughout the project area. Grass species are the dominant plants in the pasture habitat type. Some of the pastures are currently being used for livestock grazing.

3.1.2 Emergent Wetlands

Wetland habitat also occurs along the entire project area and many of the wetlands are associated with open water and ditches. The emergent wetlands within the project area include marsh and wet meadow wetland types. There are several smaller wetland habitat areas along the project area that are not represented in the wildlife report because the small size minimizes the function of these wetlands for wildlife. They are included in the wetland delineation report. Wetlands outside of the unbuffered project area were not delineated and are not presented in the wildlife report.

3.1.3 Playa

Playa habitats also occur along the entire project area, but the largest complexes are concentrated in the northern portion, just south of I-80. Playa habitats are sparsely vegetated but may contain pickleweed (*Salicornia rubra*), iodinebush (*Allenrolfea occidentalis*), Greasewood (*Sarcobatus vermiculatus*), and Saltgrass (*Distichlis spicata*).

3.1.4 Water

There are numerous open water habitats in the project area including inundated playa areas, permanent ponds within the I-80 interchange, stormwater detention basins, and stock ponds.

3.1.5 Ditches

The project area includes numerous irrigation and drainage ditches that provide wildlife habitat for some species.

4.0 THREATENED AND ENDANGERED SPECIES

Three federally listed threatened and endangered wildlife and fish species (Table 1) were included in the USFWS IPaC report for the project location and buffers (Appendix B). The species include the yellow-billed Cuckoo (*Coccyzus americanus*), Canada lynx (*Lynx canadensis*), and June sucker (*Chasmistes liorus*). There is no designated nor proposed critical habitat within or near the project area for any of the three listed species.

Table 1. USFWS list of threatened and endangered wildlife and fish species within the project area.

Common Name	Scientific Name	Status	Potential to Occur in the Project Area
Canada lynx	<i>Lynx canadensis</i>	Threatened	None; no suitable habitat in the project area
Western yellow-billed cuckoo	<i>Coccyzus americanus</i>	Threatened	None; no suitable habitat in the project area
June sucker	<i>Chasmistes liorus</i>	Endangered	None; no suitable habitat in the project area

Source: USFWS IPaC report (Appendix B)

4.1.1 Canada lynx

The Canada lynx is listed as a threatened species. This species is associated with montane coniferous forests dominated by spruce and fir species. The Canada lynx is a highly specialized predator of snowshoe hares and requires large, contiguous forest habitats that support snowshoe hare populations (USFWS 2009).

4.1.2 Yellow-billed Cuckoo

The yellow-billed cuckoo is a USFWS threatened species. The yellow-billed cuckoo is known to occur in the western United States, including Utah, and north into Canada and south into Mexico (Halterman et al. 2015). The yellow-billed cuckoo's habitat preference includes forested stream sides dominated by cottonwood (*Populus* spp.) and willow (*Salix* spp.) species composed of dense, low, shrubby vegetation. The project area is on the fringe of the yellow-billed cuckoo breeding range in Utah and deviates from habitat requirements documented in published scientific literature (Parrish et al 1999). In Utah, yellow-billed

cuckoos use and nest within areas comprised of small cottonwood galleries with an understory of Russian olive (*Elaeagnus angustifolia*) with occasional inclusions of tamarisk (*Tamarisk ramosissima*) (USFWS, 2015; Howe 2013; Maxfield 2013). Yellow-billed cuckoos have also been documented in Utah using Russian olive stands with no over-story (Maxfield 2013).

4.1.3 June Sucker

The June sucker is listed as an endangered species. This fish species is endemic to Utah Lake and the Provo River, and nowhere else in the world (USFWS 2018).

4.1.4 Critical Habitat

There are no proposed or designated critical habitats within the project area.

5.0 RAPTORS

Raptors (eagles, hawks, owls, etc.) are migratory birds and are protected under several federal and state legal mandates, the most important being the Migratory Bird Treaty Act (MBTA), 16 U.S.C. 703-712, but also the Eagle Protection Act, 16 U.S.C. 668, the Endangered Species Act (ESA), 16 U.S.C. 1531-1543, and The Wildlife Resources Code of Utah, Title 23, Utah State Code. These laws apply to federal, state, tribal and private land.

In order to allow development and manage raptors protected under federal law, the Utah Field Office of the USFWS has developed comprehensive guidelines specific to Utah. The document is referred to as the *Utah Raptor Guidelines* (Romin and Muck 2002). In order to protect raptors and simultaneously allow for development, spatial and seasonal buffers were developed. Surveys are recommended within these spatial buffers to locate any raptor nests and monitor these nests during the nesting season. “The buffers represent optimal conditions for protecting nesting and roosting under a wide range of conditions and project activities. They are not site specific and allow for the type and duration of the project activities in context of local habitat and site conditions to be considered” (Romin and Muck 2002).

The spatial buffers for the most common nesting raptors in Utah is either ¼ or ½ mile. The start of the nesting season is generally early February for great-horned owls, late March for hawks, and late April or early May for Swainson’s hawks and burrowing owls. The nesting season ends at the end of August for most of the common raptors.

The spatial and seasonal buffers only apply to occupied raptor nests. Monitoring raptor nests throughout the nesting season can determine if a raptor nest is occupied any time during the nesting season. Consultation with federal, state, and tribal agencies is required for raptor nesting issues. The wildlife surveys conducted for this project included locating raptor nests within the project area and the surrounding buffer.

Per the *Utah Raptor Guidelines* (Romin and Muck 2002), exceptions may be granted for occupied raptor nests if there are extenuating circumstances such as: a raptor moves in during construction, which may show that the individual has some level of tolerance to disturbance (commonly red-tailed and Swainson’s hawks), or a nest that is close to the limit of the spatial buffer is occupied and there are some visual barriers so that the nest is not in direct line-of-sight of the development. The USFWS and/or Utah Division of Wildlife Resources may require some monitoring of nests granted an exception.

The USFWS IPaC report (Appendix B) lists two species of raptors that may occur in the project area (Table 2). In addition, nine additional raptor species are known to nest on or near the project area are listed in Table 3 (UCDC 2018; Sorenson et al. 2016)

Table 2. USFWS list of raptor species that may occur within the project area.

Common Name	Scientific Name	Season	Potential to Occur in the Project Area
Bald eagle	<i>Haliaeetus leucocephalus</i>	Wintering	Low; no nesting or roosting habitat. May use for foraging (carrion).
Golden eagle	<i>Aquila chrysaetos</i>	Year-round	Low; no nesting or roosting habitat. May use for foraging.

Source: USFWS IPaC report (Appendix B)

Table 3. Additional raptor species known to nest on or near the project area.

Common Name	Scientific Name	Season	Potential to Occur in the Project Area
American kestrel	<i>Falco sparverius</i>	Year-round	High; limited nesting habitat. Suitable foraging habitat present.
Barn owl	<i>Tyto alba</i>	Year-round	Low; may use for foraging.
Burrowing owl	<i>Athene cunicularia</i>	Summer Breeding	High; nesting and foraging habitat present.
Great horned owl	<i>Bubo virginianus</i>	Year-round	High; nesting and foraging habitat present.
Northern harrier	<i>Circus cyaneus</i>	Year-round	High; nesting and foraging habitat present.
Peregrine falcon	<i>Falco peregrinus</i>	Year-round	Low; may use for foraging.

Common Name	Scientific Name	Season	Potential to Occur in the Project Area
Red-tailed hawk	<i>Buteo jamaicensis</i>	Year-round	High; nesting and foraging habitat present.
Short-eared owl	<i>Asio flammeus</i>	Year-round	High; nesting and foraging habitat present.
Swainson's hawk	<i>Buteo swainsoni</i>	Summer breeding	High; nesting and foraging habitat present.

Source: UCDC 2018, Sorenson et al. 2016, Glen Gantz, personal observation

5.1.1 Bald Eagles

Bald eagle breeding habitat is usually close to lakes, rivers, reservoirs or other bodies of water that contain their primary food sources of fish and waterfowl. Nests are usually large and placed in the most dominant tree in the area, but are also placed on cliffs. Winter habitat is again primarily associated with waterfowl and fish, but they also inhabit upland areas where other food resources like carrion and rabbits are available (NatureServe 2018).

5.1.2 Golden Eagles

Golden eagles inhabit open and semi-open country, such as high desert scrub, shrub steppe, sagebrush, pinyon-juniper, cliffs, grasslands, and coniferous forests, often in broken, hilly, and mountainous regions (Baicich and Harrison, 2005; Ehrlich et al., 1988; NatureServe, 2018). Jackrabbits constitute the majority of their prey in many areas and is supplemented with cottontail rabbits, ground squirrels, marmots, other mammals, birds, insects, and carrion (Ehrlich et al., 1988; NatureServe 2018). Golden eagles commonly nest on cliffs, but sometimes in trees (juniper in Utah), on steep hillsides, and on the ground. They often have several alternative nests in the general area.

5.1.3 American Kestrel

American kestrels inhabit open habitats including prairies, deserts, agricultural lands, and open woodlands, riparian woodlands, and urban areas. Kestrels nest in cavities in trees created naturally or by woodpeckers, holes in buildings or cliffs, and rarely magpie nests. Nesting boxes are commonly used. Their diet consists of mainly insects, mice, birds, snakes, and lizards in summer (NatureServe 2018).

5.1.4 Barn Owl

Barn owls inhabit open grasslands and agricultural pastures and fields in remote areas and areas inhabited by humans. They also forage in these habitats where their primary prey is small mammals, especially voles. Barn owls are cavity nesters and commonly nest in

manmade and naturel cavities in buildings, caves, cliff crevices, hollow trees, and agricultural structures (NatureServe 2018).

5.1.5 Burrowing Owl

Burrowing owls inhabit open grasslands, prairie, shrubsteppe, and open areas like airports and golf courses, but are also found in areas with sparse high desert shrub habitat in Utah (Baicich and Harrison, 2005; Ehrlich et al., 1988; USFWS, 2017). Burrowing owls often live and nest in burrows created by prairie dogs, ground squirrels, badgers, and are capable of modifying, enlarging, and digging their owl burrows (NatureServe, 2018). They also spend a significant amount of time above ground on low perches such as dirt mounds, shrubs, and fence posts (NatureServe, 2018). Burrowing owls are opportunistic feeders, feeding primarily on insects and small rodents and often birds and amphibians; often, however, burrowing owls will pursue any potential prey they can physically handle (NatureServe, 2018; USFWS, 2017).

5.1.6 Great Horned Owl

Great horned owls inhabit a variety of habitats from forests to shrublands to deserts. Nest sites include tree nests created by other raptors, squirrels, or magpies, cliff ledges and crevices, tree cavities, and human structures. They are opportunistic feeders but feed mainly on mammals from mice to rabbits and birds (NatureServe, 2018).

5.1.7 Northern Harrier

Northern harriers inhabit a wide range of open habitats including shrubsteppe, meadows, pastures, grasslands, and agricultural lands. Harriers are ground nesters, building their nest near shrubs, tall grasses, and reeds. Harriers feed mainly on small mammals, especially voles, but also birds, reptiles, amphibians, large insects, and carrion (NatureServe, 2018).

5.1.8 Peregrine Falcon

Peregrine falcons inhabit open area, mountains, mature forests, and urban areas where there are suitable cliffs or structures for nesting. They occur in shrubsteppe, agricultural lands, grasslands, and desert environments in the west. Usually nests are built on ledges of cliffs and buildings, but peregrine falcons will also use stick nests of other species or the ground in tundra locations ((NatureServe, 2018). Peregrines primarily feed on birds, including waterfowl. Prey is hunted while soaring by initiating a dive to strike the prey (NatureServe, 2018).

5.1.9 Red-tailed Hawk

Red-tailed hawks inhabit deserts to forests, including agricultural lands and shrublands. They usually nest in trees, but also use cliffs in the west. They are opportunistic feeders, preying on rodents, rabbits, birds, and reptiles (NatureServe, 2018).

5.1.10 Short-eared owl

Short-eared owls inhabit large area of open land with short vegetation for nesting and foraging including shrubsteppe, meadows, pastures, grasslands, and agricultural lands. They nest on the ground, often next to or under a bush or bunch of grass. Short-eared owls feed mainly on rodents, but also other small mammals (NatureServe, 2018).

5.1.11 Swainson's Hawk

Swainson's hawks prefer open areas of agricultural fields and shrublands with large trees for nesting. They have adapted to agricultural habitats. They nest in trees and on utility poles. They mainly feed on small mammals during the breeding season. Swainson's hawks are migratory in northern Utah (NatureServe, 2018).

6.0 MIGRATORY BIRDS

The Migratory Bird Treaty Act makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The migratory bird species protected by the Act are listed in 50 CFR 10.13. The USFWS has developed a document titled "Migratory Bird Conservation Actions for Projects to Reduce the Risk of Take during the Nesting Season" (Appendix C).

Migratory birds are known to nest in vegetation along highway right-of-ways and on manmade structures, including bridges and under pass structures. Clearing of suitable nesting substrate during the nesting season, generally April 1 through August 31, would result in increased risk of take under the MBTA.

The USFWS IPaC report (Appendix B) lists 12 species of migratory birds that are Birds of Conservation Concern and may occur in the project area (Table 4) in addition to the two raptor species which are also migratory birds (USFWS IPaC, Appendix A).

Table 4. USFWS list of migratory bird species that may occur within the project area.

Common Name	Scientific Name	Season	Status	Potential to Occur in the Project Area
Black Rosy-finch	<i>Leucosticte atrata</i>	Year-round	Bird of conservation concern	Low; no nesting or foraging habitat present, possible winter habitat on site
Brewer's Sparrow	<i>Spizella breweri</i>	Breeding	Bird of conservation concern	Low; suitable nesting and foraging habitat on site
Clark's Grebe	<i>Aechmophorus clarkii</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Green-tailed Towhee	<i>Pipilo chlorurus</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Lesser Yellowlegs	<i>Tringa flavipes</i>	Transient	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Long-billed Curlew	<i>Numenius americanus</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Marbled Godwit	<i>Limosa fedoa</i>	Transient	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Sage Thrasher	<i>Oreoscoptes montanus</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Virginia's Warbler	<i>Vermivora virginiae</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Willet	<i>Tringa semipalmata</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site
Willow Flycatcher	<i>Empidonax traillii</i>	Breeding	Bird of conservation concern	Low; no nesting or foraging habitat present on site

Source: USFWS IPaC report (Appendix B)

6.1.1 Black Rosy-finch

Black rosy-finches inhabit alpine areas, rock and talus slopes, croplands, grasslands and shrublands. They may also use fields, croplands, and urban environments in winter and during migration (NatureServe 2018).

6.1.2 Brewer's Sparrow

Brewer's sparrows are strongly associated with sagebrush-dominated shrublands, seldom in pinon-juniper or coniferous forests (NatureServe 2018).

6.1.3 Clark's Grebe

Clark's grebes are associated with wetlands, lakes, and marshes. They nest along the water's edge in tall plants (NatureServe 2018).

6.1.4 Green-tailed Towhee

Green-tailed towhees are primarily a mountain species associated with shrublands and riparian scrub, especially sagebrush (NatureServe 2018).

6.1.5 Lesser Yellowlegs

Lesser yellowlegs are associated with wetlands, meadows, marshes, lakes and ponds. They are a transient species in the project area and nest in more northern latitudes (NatureServe 2018).

6.1.6 Long-billed Curlew

Long-billed curlews are associated with short-grass, mixed prairie, and pasture-wet meadow complexes. They build their nests on the ground in low grass (NatureServe 2018).

6.1.7 Marbled Godwit

Marbled godwits inhabit wetlands, marshes, and seasonally flooded meadows. They are a transient species in the project area. They nest in more northern latitudes and build ground nests in short grass (NatureServe 2018).

6.1.8 Olive-sided Flycatcher

Olive-sided flycatchers inhabit open forests year round and usually nest in trees (NatureServe 2018).

6.1.9 Sage Thrasher

Sage thrashers are strongly associated with sagebrush (NatureServe 2018).

6.1.10 Virginia's Warbler

Virginia's warblers breed in woodland and shrubland habitats (NatureServe 2018).

6.1.11 Willet

Willetts are associated with wetland habitats and short grasslands for nesting. They nest on the ground in short grass or open areas (NatureServe 2018).

6.1.12 Willow Flycatcher

Willow flycatchers are strongly associated with multi-storied riparian habitat, especially willow species (NatureServe 2018).

7.0 WILDLIFE SURVEY RESULTS

7.1 HABITATS

The habitats are discussed in detail below in reference to the wildlife species that utilize the area. The species observed in each habitat type during the field surveys are presented in Tables 5 and 6, and the habitats are all shown on Maps 2 through 5 in Appendix A.

7.1.1 Pasture

There are seven pasture habitat areas within the project area totaling approximately 242 acres within the 300 foot migratory bird buffer. Thirty one species were observed in pasture habitats (Table 5).

7.1.2 Wetlands

There are at least nine wetland habitat areas within the project area totaling approximately 61 acres within the 300 foot migratory bird buffer. Eighteen species were observed in wetland habitats (Table 5). There are several smaller wetland habitat areas along the project area that are not represented in the wildlife report because the small size minimizes the function of these wetlands for wildlife.

7.1.3 Playa

There are ten playa habitat areas within the project area totaling approximately 146 acres within the 300 foot migratory bird buffer. Four species were observed in playa habitats (Table 6).

7.1.4 Water

There are nine open water areas within the project area totaling approximately 14 acres within the 300 foot migratory bird buffer. Twenty four species were observed in the open water habitats (Table 6).

7.1.5 Ditches

There are at least five irrigation ditches and drains that intersect the project area, some of which intersect the area more than once. The species observed in the ditches are the same as for the open water (Table 6).

Table 5. Species observed in the Pasture and Wetland habitat types.

Pasture	Wetland
American kestrel Barn swallow Black-billed magpie Brewer’s blackbird Brewer’s sparrow Burrowing owl Cattle egret Common grackle Common raven European starling Golden eagle Great horned owl Horned lark Killdeer Lark sparrow Long-billed curlew Mourning dove N. flicker N. harrier Red-tailed hawk Red-winged blackbird Ringed-necked pheasant Sandhill crane Short-eared owl Swainson’s hawk Turkey vulture Vesper sparrow W. Kingbird W. meadowlark Willet Yellow-headed blackbird	American avocet Black-necked stilt Brewer’s blackbird Cattle egret Forester’s tern Franklin’s gull Great blue heron Killdeer Long-billed curlew MacGillivray’s warbler N. harrier Red-necked phalarope Red-winged blackbird Sandhill crane Short-eared owl White-faced ibis Willet Yellow-headed blackbird

Table 6. Species observed in the Playa and Open Water/Ditch habitat types.

Playa	Open Water & Ditches
American avocet Black-necked stilt California gull Snowy plover	American avocet American white pelican Bank Swallow Black-necked stilt Brewer’s blackbird Canada goose Cinnamon teal Cliff swallow Common grackle Double-crested cormorant Forester’s tern Franklin’s gull Gadwall Great blue heron Killdeer Long-billed curlew Mallard Northern harrier Northern pintail Northern shoveler Red-necked phalarope Red-winged blackbird Western grebe Yellow-headed blackbird

7.2 THREATENED AND ENDANGERED SPECIES

7.2.1 Canada Lynx

There is no suitable habitat within the project area or in the vicinity for Canada lynx. There are no known historical occurrences of Canada lynx in the immediate area (UCDC 2018). The project area contains no coniferous forest habitat.

7.2.2 Yellow-billed Cuckoo

The project area is within the potential geographic distribution for yellow-billed cuckoo. There is no suitable habitat on the project site for yellow-billed cuckoos and there are no known previous occurrences of yellow-billed cuckoos on or near the project area (UCDC 2018).

7.2.3 June Sucker

There is no suitable habitat within the project area for June suckers. There are no known historical occurrences of June suckers in the immediate area (UCDC 2018).

7.3 RAPTORS

There is potential foraging habitat for both species of eagles listed in the USFWS IPaC report. Both bald and golden eagles have been observed within the project buffer (UCDC 2018, personal observation). There is limited habitat for above ground nesting raptors on the project area and within the half mile raptor survey buffer of the project area. The dominant tree species in the half mile buffer of the project site is Russian olive (*Elaeagnus angustifolia*) and few of these are large enough to support a raptor nest. There is suitable habitat for ground nesting raptor species like northern harriers and short-eared owls.

7.3.1 Bald Eagle

There is suitable foraging habitat on the project area and within the one mile spatial buffer of the project area. No bald eagle nests were located within one mile of the project area during the field survey and there are no previously known nests within a mile of the project area (UCDC 2018). Bald eagles have been observed in the area foraging during the winter (personal observation).

7.3.2 Golden Eagle

There are no cliff nesting sites and few trees large enough to support a golden eagle nest within the half mile buffer of the project area. There is the potential for ground nesting and nesting in the few available trees. The project area is suitable golden eagle foraging habitat and golden eagles were observed foraging during the field surveys. No golden eagle nests were located within half mile of the project area during the field survey and there are no previously known nests within a half mile of the project area (UCDC 2018).

7.3.3 American Kestrel

American kestrels were observed during the wildlife surveys, and while no nests were located in the project area, it is likely that they are nesting either on the project area or adjacent to it. They are also documented to be nesting in the general vicinity (personal observation).

7.3.4 Barn Owl

Barn owls were not observed during the wildlife surveys and no nests were located in the project area. They are known to nest on bridge structures near the project area (personal observation; UCDC 2018).

7.3.5 Burrowing Owl

Burrowing owls were observed during the wildlife surveys and potential nest sites were located in the project area. They are also documented to be nesting near the project area (personal observation).

7.3.6 Great Horned Owl

Great horned owls were observed during the wildlife surveys and while no nests were located in the project area it is likely that they are nesting either on the project area or adjacent to it. They are also documented to be nesting near the project area (personal observation).

7.3.7 Northern Harrier

Northern harriers were observed during the wildlife surveys and while no nests were located in the project area it is likely that they are nesting either on the project area or adjacent to it. They are also documented to be nesting near the project area (personal observation).

7.3.8 Peregrine Falcon

Peregrine falcons were not observed during the wildlife surveys and no nests were located in the project area. They are not known to nest in the area (UCDC 2018).

7.3.9 Red-tailed Hawk

Red-tailed hawks were observed during the wildlife surveys and an active nest was located in the project area during the wildlife field surveys. It is located in a power transmission pole near I-80.

7.3.10 Short-eared owl

Short-eared owls were observed during the wildlife surveys and a nest site was located in the project area. They are also documented to be nesting near the project area (personal observation).

7.3.11 Swainson's Hawk

Swainson's hawks were observed during the wildlife surveys and while no nests were located in the project area it is likely that they are nesting either on the project area or adjacent to it. They are also documented to be nesting near the project area (personal observation).

7.4 MIGRATORY BIRDS

The project area contains suitable habitat for some of the 12 migratory bird species listed in the USFWS IPaC Report and presented in Table 4. Also listed in Table 4 is their potential to occur in the project area. Three of the species listed in Table 4 were observed during the wildlife field surveys and are listed in **bold** type in Table 7 below. In addition, Table 7 lists 52 species of migratory birds observed within the project area and their observed or potential breeding status.

Table 7. Migratory birds observed within the project area and their status.

Common Name	Breeding Status
American avocet	Nesting
American kestrel	Likely
American white pelican	No
Bank swallow	Maybe
Barn swallow	Likely
Black-billed magpie	Nesting
Black-necked stilt	Nesting
Brewer's blackbird	Likely
Brewer's sparrow	Nesting
Burrowing owl	Nesting
California gull	No
Canada goose	Maybe
Cattle egret	Maybe
Cinnamon teal	Nesting
Cliff swallow	Nesting
Common grackle	Nesting
Common raven	Nesting
Double-crested cormorant	Not likely
European starling	Nesting
Forster's tern	Not likely
Franklin's gull	No
Gadwall	Nesting
Golden eagle	Not likely
Great blue heron	Likely
Great horned owl	Likely
Horned lark	Nesting
Killdeer	Nesting
Lark sparrow	Nesting
Long-billed curlew	Nesting
MacGillivray's warbler	Likely
Mallard	Nesting

Mourning dove	Likely
Northern flicker	Nesting
Northern harrier	Nesting
Northern pintail	Nesting
Northern shoveler	Nesting
Red-necked phalarope	No
Red-tailed hawk	Nesting
Red-winged blackbird	Nesting
Ringed-necked pheasant	Nesting
Sandhill crane	Likely
Short-eared owl	Nesting
Snowy plover	Likely
Swainson's hawk	Nesting
Turkey vulture	No
Vesper sparrow	Nesting
Western grebe	Not likely
Western kingbird	Nesting
Western meadowlarks	Nesting
White-faced ibis	Not likely
Willet	Nesting
Yellow-headed blackbird	Nesting

8.0 REFERENCES

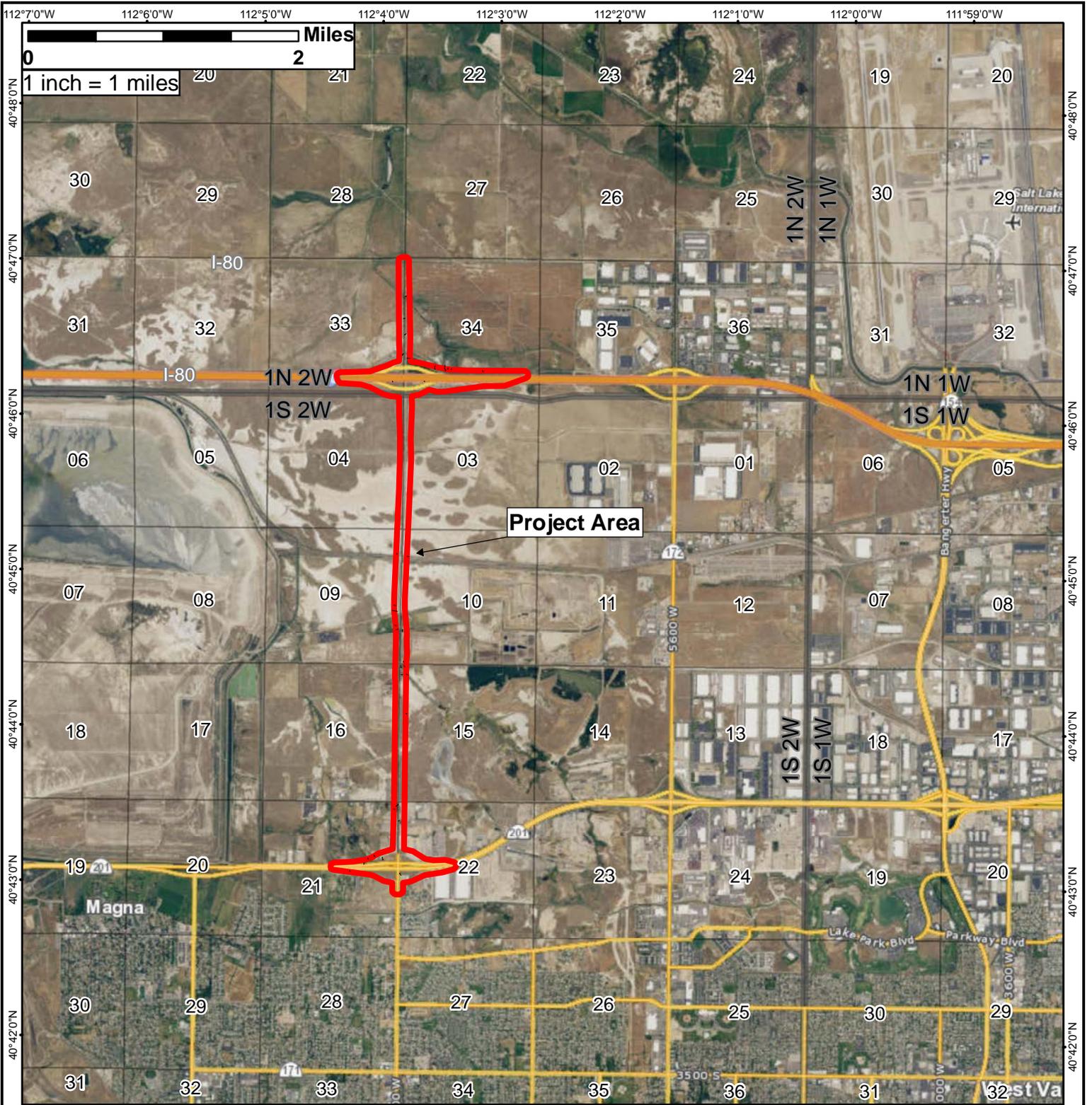
- Baicich, P. J., and C. J. O. Harrison. 2005. A guide to the nests, eggs, and nestlings of North American Birds, Second Ed. Academic Press, San Diego. 347 pp.
- Ehrlich, P. R., D. S. Dobkin, and D. Wheye. 1988. The birder's handbook: a field guide to the natural history of North American birds. Simon and Shuster, Inc., New York. xxx + 785 pp.
- Halterman, M.D., M.J. Johnson, J.A. Holmes and S.A. Laymon. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo: U.S. Fish and Wildlife Techniques and Methods, 45 p.
- Howe, F., Utah Division of Wildlife Resources. 2013. Personal communication with Glen Gantz. November 2013.
- Maxfield, B., Utah Division of Wildlife Resources. 2013. Personal communication with Glen Gantz. November 2013.
- NatureServe. 2018. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://explorer.natureserve.org>. (Accessed: April 11, 2018).
- Parrish, J. R., F. P. Howe, and R. E. Norvell. 1999. Utah Partners in Flight draft conservation strategy. UDWR publication number 99-40. Utah Partners in Flight Program, Utah Division of Wildlife Resources, Salt Lake City.
- Romin, L. and J. Muck. 2002. Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances. U.S. Fish and Wildlife Service. Salt Lake City, Utah. 42pp.
- Sorensen, E., H. Hoven, T. Homayoun, J. Eckles, S. Senner, and B. Trusty. 2016. Utah State Correctional Facility Site Assessment Report. Unpublished report submitted to Utah Division of Facilities Construction and Management.
- Utah Conservation Data Center (UCDC). 2018. Utah Division of Wildlife Resources, online <https://dwrcdc.nr.utah.gov/rsgis2/Search/Display.asp?FINm=laniludo>. (Accessed: April 11, 2018).
- USFWS. 2009. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Contiguous United States Distinct Population Segment of the Canada Lynx; Final Rule. 74 Federal Register 36 (February 25, 2009), pp. 8616.
- USFWS. 2015. Guidelines for the identification of suitable habitat for WYBCU in Utah. https://www.fws.gov/utahfieldoffice/Documents/June%202015_Guidelines%20for%20the%20Identification%20of%20Suitable%20Habitat%20for%20WYBCU%20in%20Utah.pdf

USFWS. 2017. ECOS Environmental Conservation Online System. Species profile for Burrowing Owl (*Athene cunicularia*).
<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=9737> . Retrieved March 2017.

USFWS. 2018. ECOS Environmental Conservation Online System. Species profile for June Sucker (*Chasmistes liorus*).
<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=4133> . Retrieved April 2018.

APPENDIX A - PROJECT MAPS





Project Location

7200 West
SR-201 to I-80

Sections 27, 28, 33, 34,
in T1N, 2W, S.L.B.&M.
Sections 3, 4, 9, 10, 15, 16, 21, 22,
in T1S, 2W, S.L.B.&M.

Legend

 Project Area

Projection:

NAD 83 UTM Zone 12N

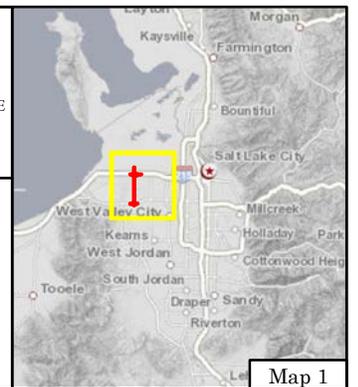
Source:

2018 Google Imagery

Survey Performed by
Todd Sherman

 Wetland Resources, Inc.

Created: 5/6/2018
Author: CMM



Map 1

Due to the sensitivity of wildlife resources, figures showing specific nesting locations have been removed.

APPENDIX B - IPAC TRUST RESOURCE REPORT

IPaC Information for Planning and Consultation U.S. Fish & Wildlife Service

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

Salt Lake County, Utah



Local office

Utah Ecological Services Field Office

☎ (801) 975-3330

📠 (801) 975-3331

2369 West Orton Circle, Suite 50
West Valley City, UT 84119-7603

<http://www.fws.gov>

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

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 species

¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

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

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

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

Mammals

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3652	Threatened

Birds

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is proposed critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
June Sucker <i>Chasmistes liorus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4133	Endangered

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses <i>Spiranthes diluvialis</i> 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.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

¹ and the Bald and Golden Eagle Protection Act².

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

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

Additional information can be found using the following links:

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

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

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

NAME

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

Bald Eagle *Haliaeetus leucocephalus*

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

Black Rosy-finch *Leucosticte atrata*

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

<https://ecos.fws.gov/ecp/species/9460>

Breeds Jun 15 to Aug 31

Brewer's Sparrow *Spizella breweri*

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/9291>

Breeds May 15 to Aug 10

Clark's Grebe *Aechmophorus clarkii*

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

Breeds Jan 1 to Dec 31

Golden Eagle *Aquila chrysaetos*

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/1680>

Breeds Dec 1 to Aug 31

Green-tailed Towhee *Pipilo chlorurus*

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/9444>

Breeds May 1 to Aug 10

Lesser Yellowlegs *Tringa flavipes*

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

<https://ecos.fws.gov/ecp/species/9679>

Breeds elsewhere

<p>Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511</p>	Breeds Apr 1 to Jul 31
<p>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</p>	Breeds elsewhere
<p>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</p>	Breeds May 20 to Aug 31
<p>Sage Thrasher <i>Oreoscoptes montanus</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/9433</p>	Breeds Apr 15 to Aug 10
<p>Virginia's Warbler <i>Vermivora virginiae</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441</p>	Breeds May 1 to Jul 31
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 5
<p>Willow Flycatcher <i>Empidonax traillii</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/3482</p>	Breeds May 20 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 $0.05/0.25 = 0.2$.
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 (-)

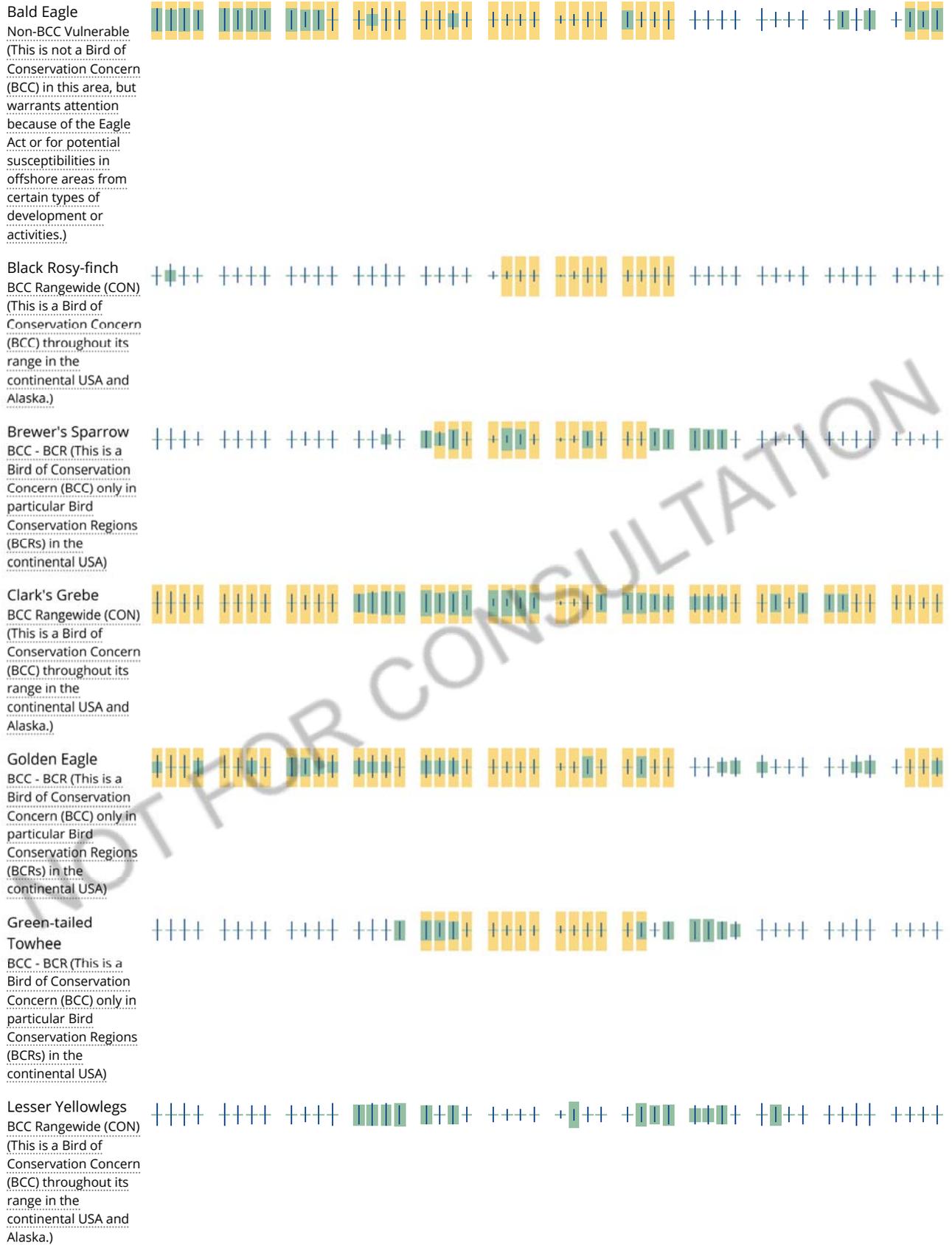
A week is marked as having no data if there were no survey events for that week.

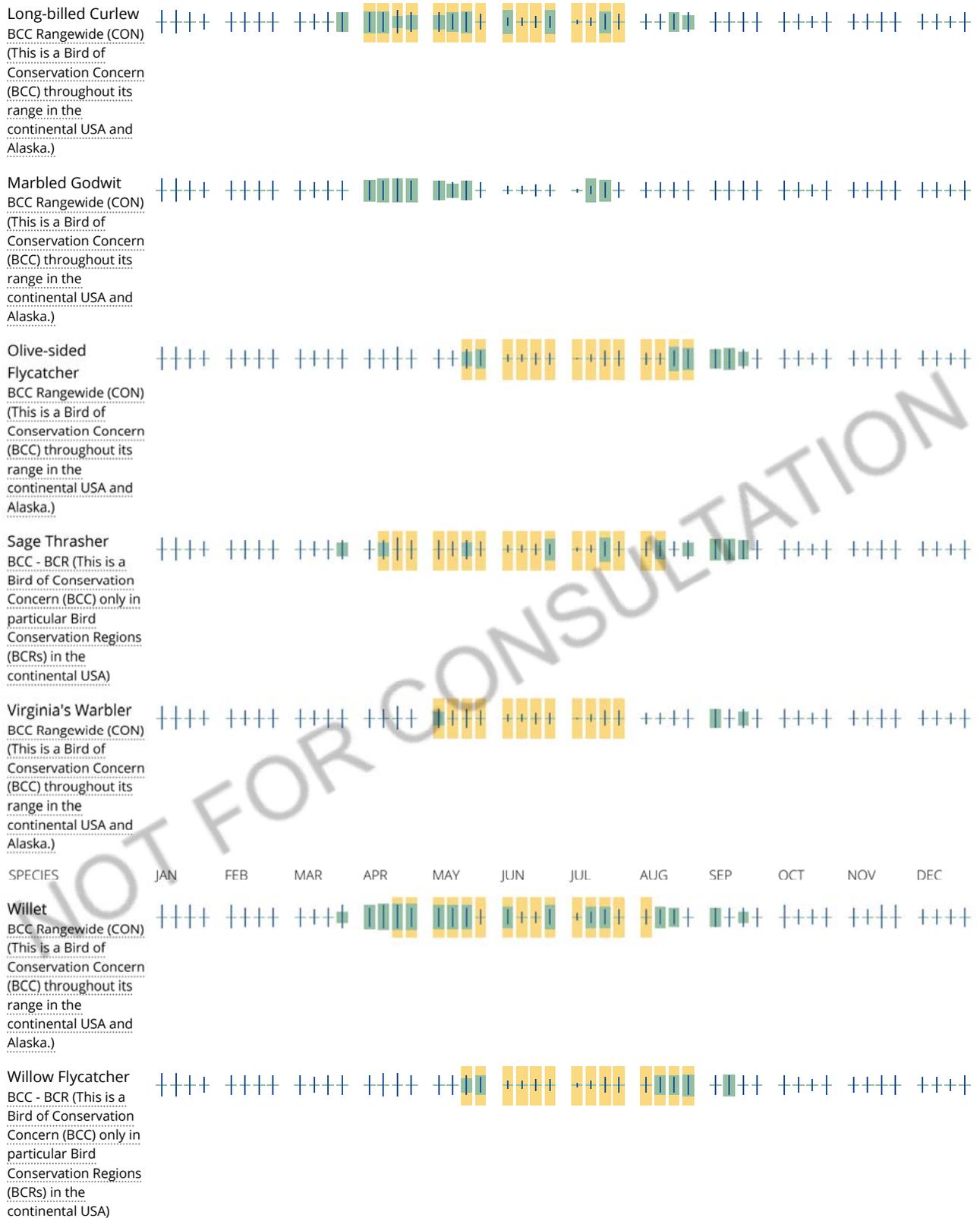
Survey Timeframe

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.

■ probability of presence
 ■ breeding season
 | | survey effort
 - - no data

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





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

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

their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

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

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

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

Data limitations

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

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

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

Data exclusions

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

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or

local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

APPENDIX C - MIGRATORY BIRD CONSERVATION ACTIONS

Migratory Bird Conservation Actions for Projects to Reduce the Risk of Take during the Nesting Season*

U.S. Fish and Wildlife Service (USFWS) Region 6, Migratory Bird Management

June 2014

Goal: Avoid take of migratory birds and/or minimize the loss, destruction, or degradation of migratory bird habitat while completing the proposed project or action. Under the Migratory Bird Treaty Act (MBTA) take is defined as “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture or collect” a migratory bird (50 CFR § 10.12). **

1. Determine if the proposed project or action will involve below- and/or above-ground construction or habitat-altering activities, because recommended practices and timing of surveys could differ accordingly.
2. If the proposed project or action includes a reasonable likelihood that take of migratory birds will occur, then complete the project or those actions expected to take migratory birds outside of their nesting season to the greatest extent possible. Examples of actions that may take migratory birds include, clearing or cutting of vegetation, burning vegetation, driving or parking equipment on vegetation that may harbor nesting birds, etc. The primary nesting season for migratory birds varies greatly among species and geographic locations, but generally extends from early April to mid-July. However, the maximum time period for the migratory bird nesting season can extend from early January through late August. Due to this variability, project proponents should consult with the USFWS for specific nesting seasons of birds in your project or action area. As early as possible please consult the USFWS in the planning stages of your project for other input on conservation measures to avoid and minimize the take of migratory birds.
3. Complete all project activities that could result in migratory bird take outside the maximum migratory bird nesting season (early January through late August) to the greatest extent possible. If this is not possible, then avoid any habitat alteration, removal, or destruction during the primary nesting season for migratory birds (early April to mid-July).
4. If a proposed project or action includes the potential for take of migratory birds and/or the loss or degradation of migratory bird habitat, and work cannot occur outside the migratory bird nesting season (either the maximum or primary nesting season), project proponents should provide USFWS with an explanation for why work has to occur during the migratory bird nesting season. Further, in these cases, project proponents also should demonstrate that all efforts to complete work outside the migratory bird nesting season were attempted, and that the reasons work needs to be completed during the nesting season were beyond the proponent’s control.
5. Where project work must occur during the migratory bird nesting season, project proponents should utilize a qualified biologist to survey those portions of the project area during the nesting season (but prior to the project or action occurring) to determine if migratory birds are present and nesting in those areas. These bird surveys should occur no more than 7-10 days prior to when work actually begins on the project site. In addition to conducting surveys during the nesting season, entities may also benefit from conducting surveys during the previous nesting season. Such surveys will serve to inform the likely presence of nesting migratory birds in the proposed project or work area. While individual migratory

birds will not necessarily return to nest at the exact site as in previous years, a survey in the nesting season the year before the project or action allows the company to become familiar with bird species and numbers present in the project area well before the nesting season in the year of proposed action. Migratory bird surveys also should be completed during the best timeframe for detecting the presence of nesting migratory birds, using accepted bird survey protocols. USFWS Offices can be contacted for recommendations on appropriate survey guidance. Project proponents should also be aware that results of migratory bird surveys are subject to spatial and temporal variability.

6. If no migratory birds are found nesting in proposed project or action areas immediately prior to the time when construction and associated activities are to occur, then proceed with your project activity as planned.

7. If migratory birds are present and nesting in the proposed project or action area, contact your nearest USFWS Ecological Services Field Office and/or USFWS Regional Migratory Bird Management Office for guidance on appropriate next steps to avoid and minimize impacts to (and take of) migratory birds associated with the proposed project or action. Although bald and golden eagles are protected under MBTA they are also covered under BGEPA. Please consult USFWS if there are eagles or eagle nests in or near your proposed project area ***.

* Note: these recommended conservation measures assume that there are no Endangered or Threatened migratory bird species present in the project/action area, or any other Endangered or Threatened animal or plant species, or any designated critical habitat for Endangered or Threatened species present in this area. If Endangered or Threatened species or designated critical habitat are present, or they could potentially be present, and the project/action may affect these species or designated critical habitat for them, then consult with your nearest USFWS Ecological Services Office before proceeding with any project/action.

** The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, and transportation, (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. While the MBTA has no provision for allowing unauthorized take, the USFWS realizes that some birds may be killed during construction or through other project activities, even if all known reasonable and effective measures to protect birds are used. The USFWS Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and industries that have taken effective steps to avoid take of migratory birds and by encouraging others to implement measures to avoid take of migratory birds. It is not possible to absolve individuals, companies, or agencies from liability even if they implement bird mortality avoidance, or other similar protective measures. However, the Office of Law Enforcement focuses its resources on investigating and undertaking enforcement actions against individuals and companies that take migratory birds without identifying and implementing all reasonable, prudent, and effective measures to avoid that take. Companies are encouraged to work closely with USFWS biologists to identify available protective measures when developing project plans and/or avian protection plans, and to implement those measures prior to/during construction or similar activities.

*** Also note that Bald and Golden Eagles receive additional protection under the Bald and Golden Eagle Protection Act (BGEPA). BGEPA prohibits the take, possession, sale, purchase, barter, offer to sell, purchase, or barter, transport, export or import, of any Bald or Golden Eagle, alive or dead, including

any part, nest, or egg, unless allowed by permit. BGEPA also defines take to include “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb,” 16 U.S.C. 668c, and includes criminal and civil penalties for violating the statute. Further, activities that would disturb Bald or Golden Eagles are prohibited under BGEPA. “Disturb” means to agitate or bother a Bald or Golden Eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an Eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. If a proposed project or action would occur in areas where nesting, feeding, or roosting eagles occur, then project proponents may need to take additional conservation measures to achieve compliance with BGEPA. New regulations (50 CFR § 22.26 and § 22.27) allow the take of bald and golden eagles and their nests, respectively, to protect interests in a particular locality provided that the USFWS finds that such take is compatible with the goal of maintaining stable or increasing eagle breeding populations. However, consultation with the USFWS Migratory Bird, Ecological Services, and Law Enforcement programs will be required before a permit may be issued.

APPENDIX D. QUALIFICATIONS

GLEN GANTZ – WILDLIFE BIOLOGIST and COMMERCIAL PILOT

Mr. Gantz is a Certified Wildlife Biologist and commercial pilot with 35 years of experience leading and conducting wildlife surveys throughout the United States, with the last 25 years focused in the Intermountain west. He has 25 years of experience conducting aerial surveys and aerial telemetry studies in the Intermountain west and is an experienced mountain pilot. Mr. Gantz has been conducting both aerial and terrestrial wildlife surveys in Utah for the past 18 years, with the past several years focusing on projects for the energy industry. Wildlife surveys are focused mainly on raptors and migratory birds, as well as threatened, endangered and sensitive species. Mr. Gantz led the wildlife surveys on 240 miles of the Ruby Pipeline in Wyoming, Utah, and portions of Nevada from 2009 to 2011. This project included:

- Conducting and managing greater sage-grouse lek surveys and monitoring these leks;
- Surveying and weekly monitoring of raptor nest via helicopter;
- Conducting migratory bird nest surveys;
- Conducting pygmy rabbit surveys, including telemetry monitoring and scientific study design
- Mapping white-tailed prairie dog towns and surveying burrowing owl and black-footed ferret in the mapped towns
- Conducting yellow-billed cuckoo surveys

Mr. Gantz manages the biological data for the wildlife surveys including data transfer to/from GPS units and GIS. He also compiles summaries and results of field data, produces maps for field use and reports, and prepares NEPA documents, including Biological Assessments, Biological Reports and wildlife portions of EIS. Mr. Gantz is trained in Mexican Spotted Owl surveys, Utah Prairie Dog surveys, Southwestern Willow Flycatcher surveys, Black-footed Ferret surveys, as well as several other endorsements. Mr. Gantz holds a B.S. in Wildlife Science from The Pennsylvania State University, University Park Pennsylvania and an M.S. in Wildlife Ecology from Utah State University, Logan Utah.