

Exhibit C- Appellants

Section 2 Notes for Basis for Environmental Assessment Summary T2-2019-12701

1. Need for an Environmental Assessment

See exhibit A, B , C for consultation from USFWS regarding the threatened species in our area, see map

Exhibit A page 9 below Species list from the USFWS for woodard/seidl rd area

Exhibit B page 18 below Ipac planning and consultation for environmental impact on wildlife

Exhibit C page 30 below Best Practices for Cell tower siting. USFWS

Notes about NEPA and that an interested party can raise aesthetic concerns” see below”

1/ Case referenced from NEPA regarding cell tower opposition for lack of EA

https://docs.fcc.gov/public/attachments/DA-16-223A1_Rcd.pdf

2/ FCC notes on why/criteria for a EA must be done.

Email response from FCC

From: Erica Rosenberg <Erica.Rosenberg@fcc.gov>

To: jo_annesv@comcast.net

Cc: Belinda Nixon <Belinda.Nixon@fcc.gov>

Date: 09/11/2020 2:30 PM

Subject: questions about approval for an Environmental Assessment or review

Dear Ms. Vincent:

Our NEPA process categorically excludes all facilities from environmental review unless certain extraordinary circumstances are present. *See generally* 47 CFR §§1.1301 *et seq.* We have delegated the initial environmental review (“the NEPA checklist”) to our applicants and licensees. If any of the enumerated circumstances of §1.1307 (a) and (b) are present, the applicant must submit an environmental assessment (EA) for the FCC’s review. If the applicant is not required to submit an EA, the FCC generally does not require the applicant to provide documentation of its review. If the applicant determines that none of the enumerated EA triggers are present, and the FCC does not determine that there may be a significant environmental effect (not limited to those enumerated in § 1.1307(a)-(b)) either in response to allegations made by an interested member of the public or on its own motion, the facility is deemed categorically excluded and no EA is required. *See* 47 CFR § 1.1307(a)-(d); <https://www.fcc.gov/wireless/bureau-divisions/competition-infrastructure-policy-division/tower-and-antenna-siting>.

Facility owners are required to consider potential effects to species protected by the Endangered Species Act (ESA) (16 U.S.C. § 1531 *et seq.*) as part of their pre-construction NEPA checklist review. *See* 47 CFR § 1.1307(a)(3). If the applicant’s review does not result in a determination of no effect or no adverse effect to ESA-protected species, then an EA is required. Please note that ESA-protected species may be present in the general project vicinity (e.g., at the county level), but not in the specific project location, or may be present in the project location but the project will not adversely affect that species.

Again, if the applicant determines that an EA is not required for any checklist effects, including for endangered species, no EA is required. Conversely, if **EA triggers** are present, then the applicant must submit an EA.

We note that an interested person may raise aesthetic concerns as extraordinary circumstances pursuant to section 1.1307(c) of the Commission's rules (47 C.F.R. § 1.1307(c)), and we decide on a case-by-case basis whether the construction of the proposed tower requires further environmental processing and review because it may have a significant environmental impact. In addressing such cases, we give considerable weight to any site approval obtained from a local, state, or regional land use authority, or a federal land management agency, if that approval has taken into account the environmental impact of the proposed facility. Site-specific factors such as the presence of a nearby designated area of significance, such as a designated scenic highway or a specially protected scenic area, are also considered. *See, In the Matter of SBA Towers III, LLC, Petitions to Deny and Requests for Environmental Review Against Antenna Structure Registration (FCC Form 854) with Environmental Assessment, Copper Harbor, Michigan, ASR App. A0909673, Memorandum Opinion and Order, 31 FCC Rcd. 1755, 1765-66, para. 38 (2016) (Copper Harbor).*

I hope this clarifies our NEPA process for you. Please let me know if you have additional questions.

Erica

Erica Rosenberg

Assistant Chief

Competition and Infrastructure Policy Division

Wireless Telecommunications Bureau

Federal Communications Commission

445 12th Street, SW

Washington, DC 20554

202.418.1343

Email from Jennifer Flynn attorney-advisor with FCC with instructions for filing submitting a request for further environmental review through the Commission's Antenna Structure Registration (ASR) system

Good evening,

I believe Erica Rosenberg already answered most of your questions. Specifically, her response below explains that the Commission delegates the initial environmental review for NEPA checklist items to the applicant and that, "[i]f the applicant is not required to submit an EA [environmental assessment], the FCC generally does not require the applicant to provide documentation of its review."

Interested persons may submit a request for further environmental review through the Commission's Antenna Structure Registration (ASR) system for 30 days from the date on which the ASR application is first put on national environmental public notice on the Commission's website. (47 CFR § 17.4(c)(5).)

Applications currently on environmental notice can be found here:

<https://wireless2.fcc.gov/ASRManager/service/nationalNoticeReport.faces>. Instructions for submitting

a request for further environmental review through the Commission's Antenna Structure Registration (ASR) system may be found here:

<https://www.fcc.gov/wireless/support/antenna-structure-registration-asr-resources/filing-request-environmental-review>. If you determine that the tower that is the subject of your concern will not be registered in the Commission's ASR system, then please submit your complaint via email with sufficient information for us to identify the specific tower at issue.

Jennifer Flynn
Attorney-Advisor
FCC/WTB/CIPD

Filings that Require an Environmental Assessment (EA)

An Environmental Assessment (EA) is required:

- If the facilities will be located in an officially designated wilderness area, a wildlife preserve area, or a flood plain.
- If the facilities may physically or visually affect a property significant in American history that is listed, or is eligible for listing, in the National Register of Historic Places, as determined in accordance with the [Nationwide Programmatic Agreement](#) or the [Collocation Programmatic Agreement](#).
- If the facilities may affect Indian religious sites.
- If the facilities are to be located in floodplains, and if the facilities will not be placed at least one foot above the base flood elevation of the floodplain.
- If the facilities may affect listed threatened or endangered species or designated critical habitats; or are likely to jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- If construction of the facilities will involve significant change in surface features (e.g., wetland fill, deforestation or water diversion).
- If the facilities will be equipped with high intensity white lights and will be located in a residential neighborhood (as defined by the applicable zoning law).
- If the facilities will cause human exposure to levels of radiofrequency radiation in excess of limits defined by the Commission.
- If the facilities will be taller than 450 feet above ground level (AGL).
- If the processing Bureau determines in response to a petition or on its own motion that the proposed facilities may have a significant environmental impact

47 CFR § 1.1307(a)(3) (requiring an EA for “[facilities that: (i) May affect listed threatened or endangered species or designated critical habitats; or (ii) are likely to jeopardize the

continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats, as determined by the Secretary of the Interior pursuant to the Endangered Species Act of 1973”

(2)

(i) Mobile and portable transmitting devices that operate in the [Commercial Mobile Radio Services](#) pursuant to [part 20](#) of this chapter; the Cellular Radiotelephone Service pursuant to [part 22](#) of this chapter; the Personal Communications Services (PCS) pursuant to [part 24](#) of this chapter; the Satellite Communications Services pursuant to [part 25](#) of this chapter; the Miscellaneous Wireless Communications Services pursuant to [part 27](#) of this chapter; the Upper Microwave Flexible User Service pursuant to [part 30](#) of this chapter; the Maritime Services (ship [earth stations](#) only) pursuant to [part 80](#) of this chapter; the Specialized Mobile Radio Service, the 4.9 GHz Band Service, and the 3650 MHz Wireless Broadband Service pursuant to [part 90](#) of this chapter; the Wireless Medical Telemetry Service (WMTS), the Medical Device Radiocommunication Service (MedRadio), and the 76-81 GHz Band [Radar](#) Service pursuant to [part 95](#) of this chapter; and the Citizens Broadband Radio Service pursuant to [part 96](#) of this chapter are subject to routine environmental evaluation for RF exposure prior to equipment [authorization](#) or use, as specified in §§ [2.1091](#) and [2.1093](#) of this chapter.

(ii) Unlicensed PCS, unlicensed NII, and millimeter-wave devices are also subject to routine environmental evaluation for RF exposure prior to equipment [authorization](#) or use, as specified in §§ [15.255\(f\)](#), [15.257\(g\)](#), [15.319\(i\)](#), and [15.407\(f\)](#) of this chapter.

(iii) Portable transmitting equipment for use in the Wireless Medical Telemetry Service (WMTS) is subject to routine environmental evaluation as specified in §§ [2.1093](#) and [95.2385](#) of this chapter.

(iv) Equipment authorized for use in the Medical Device Radiocommunication Service (MedRadio) as a medical implant device or body-worn transmitter (as defined in subpart I of [part 95](#) of this chapter) is subject to routine environmental evaluation for RF exposure prior to equipment [authorization](#), as specified in §§ [2.1093](#) and [95.2585](#) of this chapter by finite difference time domain (FDTD) computational modeling or laboratory measurement techniques. Where a showing is based on

computational modeling, the [Commission](#) retains the discretion to request that supporting documentation and/or specific absorption rate (SAR) measurement data be submitted.

(v) All other mobile, portable, and unlicensed transmitting devices are categorically excluded from routine environmental evaluation for RF exposure under §§ [2.1091](#), [2.1093](#) of this chapter except as specified in paragraphs (c) and (d) of this section.

(3) In general, when the guidelines specified in [§ 1.1310](#) are exceeded in an accessible area due to the emissions from multiple fixed transmitters, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter or field strength levels that, when squared, exceed 5% of the square of the electric or magnetic field strength limit applicable to their particular transmitter. [Owners](#) of transmitter sites are expected to allow [applicants](#) and licensees to take reasonable steps to comply with the requirements contained in [§ 1.1307\(b\)](#) and, where feasible, should encourage co-location of transmitters and common solutions for controlling access to areas where the RF exposure limits contained in [§ 1.1310](#) might be exceeded.

(i) [Applicants](#) for proposed (not otherwise excluded) transmitters, facilities or modifications that would cause non-compliance with the limits specified in [§ 1.1310](#) at an accessible area previously in compliance must submit an EA if emissions from the [applicant's](#) transmitter or [facility](#) would result, at the area in question, in a power density that exceeds 5% of the power density exposure limit applicable to that transmitter or [facility](#) or in a field strength that, when squared, exceeds 5% of the square of the electric or magnetic field strength limit applicable to that transmitter or [facility](#).

(ii) [Renewal applicants](#) whose (not otherwise excluded) transmitters or facilities contribute to the field strength or power density at an accessible area not in compliance with the limits specified in [§ 1.1310](#) must submit an EA if emissions from the [applicant's](#) transmitter or [facility](#) results, at the area in question, in a power density that exceeds 5% of the power density exposure limit applicable to that transmitter or [facility](#) or in a field strength that, when squared, exceeds 5% of the

square of the electric or magnetic field strength limit applicable to that transmitter of [facility](#).

(c) If an interested person alleges that a particular action, otherwise categorically excluded, will have a significant environmental effect, the person shall submit to the Bureau responsible for processing that action a written petition setting forth in detail the reasons justifying or circumstances necessitating environmental consideration in the decision-making process. (**See § 1.1313**). The Bureau shall review the petition and consider the environmental concerns that have been raised. If the Bureau determines that the action may have a significant environmental impact, the Bureau will require the [applicant](#) to prepare an EA (see [§§ 1.1308](#) and [1.1311](#)), which will serve as the basis for the determination to proceed with or terminate environmental processing.

(d) If the Bureau responsible for processing a particular action, otherwise categorically excluded, determines that the proposal may have a significant environmental impact, the Bureau, on its own motion, shall require the [applicant](#) to submit an EA. The Bureau will review and consider the EA as in [paragraph \(c\)](#) of this section.

Note to paragraph (D):

Pending a final determination as to what, if any, permanent measures should be adopted specifically for the protection of migratory birds, the Bureau shall require an Environmental Assessment for an otherwise categorically excluded action involving a new or existing [antenna structure](#), for which an [antenna structure](#) registration [application](#) (FCC Form 854) is required under [part 17](#) of this chapter, if the proposed [antenna structure](#) will be over 450 feet in height above ground level (AGL) and involves either: 1. Construction of a new [antenna structure](#); 2. Modification or replacement of an existing [antenna structure](#) involving a substantial increase in size as defined in paragraph I(C)(1)(3) of Appendix B to [part 1](#) of this chapter; or 3. Addition of lighting or adoption of a less preferred lighting style as defined in [§ 17.4\(c\)\(1\)\(iii\)](#) of this chapter. The Bureau shall consider whether to require an EA for other [antenna structures](#) subject to [§ 17.4\(c\)](#) of this chapter in accordance with [§ 17.4\(c\)\(8\)](#) of this chapter. An Environmental Assessment required pursuant to this note will be subject to the same procedures that apply to any Environmental Assessment required for a proposed [tower](#) or modification of an existing [tower](#) for which an [antenna structure](#) registration

[application](#) (FCC Form 854) is required, as set forth in [§ 17.4\(c\)](#) of this chapter.

(e) No [State](#) or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the regulations contained in this chapter concerning the environmental effects of such emissions. For purposes of this paragraph:

(1) The term ***personal wireless service*** means commercial mobile services, unlicensed wireless services, and [common carrier](#) wireless exchange access services;

(2) The term ***personal wireless service facilities*** means facilities for the provision of personal wireless services;

(3) The term ***unlicensed wireless services*** means the offering of [telecommunications services](#) using duly authorized devices which do not require [individual](#) licenses, but does not mean the provision of direct-to-home [satellite services](#); and

(4) The term ***direct-to-home satellite services*** means the distribution or broadcasting of programming or services by satellite directly to the subscriber's premises without the use of ground receiving or distribution equipment, except at the subscriber's premises or in the uplink process to the satellite.

[[51 FR 15000](#), Apr. 22, 1986]

Editorial Note:

For Federal Register citations affecting [§ 1.1307](#), see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](#).

Effective Date Note:

At [85 FR 18142](#), Apr. 1, 2020, § 1.1307 was amended by revising paragraph (b). At [85 FR 33578](#), June 2, 2020, this revision was delayed indefinitely. To file a pleading/request for environmental notice

<https://wireless2.fcc.gov/ASRManager/service/nationalNoticeReport.faces>

We have a list from the USFWS of threatened species known to be in the the area

Exhibit A



**United States Department of
the Interior**



FISH AND WILDLIFE SERVICE

Oregon Fish And Wildlife Office
2600 Southeast 98th Avenue, Suite 100
Portland, OR 97266-1398
Phone: (503) 231-6179 Fax: (503) 231-6195

<https://www.fws.gov/oregonfwo/articles.cfm?id=149489416>

Event Code: 01EOFW00-2020-E-01240 Project

Name: WCF woodard/seidl properties

September 22, 2020

In Reply Refer To:

Consultation Code: 01EOFW00-2020-SLI-0595

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. 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.

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A Biological Assessment is required for construction projects (or other undertakings having

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

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

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

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

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

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to investigate opportunities for incorporating conservation of threatened and endangered species into project planning processes as a means of complying with the Act. If you have questions regarding your responsibilities under the Act, please contact the Endangered Species Division at the Service's Oregon Fish and Wildlife Office at (503) 231-6179. For information regarding listed marine and anadromous species under the jurisdiction of NOAA Fisheries Service, please see their website (http://www.nwr.noaa.gov/habitat/habitat_conservation_in_the_nw/habitat_conservation_in_the_nw.html).

Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Species List
- Official

09/22/2020 Event Code: 01EOFW00-2020-E-01240 1

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:

Oregon Fish And Wildlife Office
2600 Southeast 98th Avenue, Suite 100
Portland, OR 97266-1398
(503) 231-6179

09/22/2020 Event Code: 01EOFW00-2020-E-01240 2

Project Summary

Consultation Code: 01EOFW00-2020-SLI-0595

Event Code: 01EOFW00-2020-E-01240

Project Name: WCF woodard/seidl properties

Project Type: LAND - PRESERVATION

Project Description: migratory birds in our region and the impact of a 156'lighted cell tower on their flight patterns, habitat, breeding, etc

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/45.524900839474896N122.36085055784976W>



Counties: Multnomah, OR

09/22/2020 Event Code: 01EOFW00-2020-E-01240 3

Endangered Species Act Species

There is a total of 9 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

¹
Fisheries-, 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

Northern Spotted Owl *Strix occidentalis caurina*

There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <https://ecos.fws.gov/ecp/species/1123>

Yellow-billed Cuckoo *Coccyzus americanus*
Population: Western U.S. DPS

There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: <https://ecos.fws.gov/ecp/species/3911>

Streaked Horned Lark *Eremophila alpestris strigata*

There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <https://ecos.fws.gov/ecp/species/7268>

Fishes

Threatened Threatened Threatened

NAME STATUS

Bull Trout *Salvelinus confluentus*

Population: U.S.A., conterminous, lower 48 states

There is final critical habitat for this species. Your location

is outside the critical habitat. Species profile: <https://ecos.fws.gov/ecp/species/8212>

Threatened

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Flowering Plants

NAME STATUS

Bradshaw's Desert-parsley *Lomatium bradshawii*

No critical habitat has been designated for this species. Species profile: <https://ecos.fws.gov/ecp/species/5743>

No critical habitat has been designated for this species. Species profile: <https://ecos.fws.gov/ecp/species/7090>

Kincaid's Lupine *Lupinus sulphureus ssp. kincaidii*

There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <https://ecos.fws.gov/ecp/species/3747>

Willamette Daisy *Erigeron decumbens*

There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <https://ecos.fws.gov/ecp/species/6270>

Critical habitats

Endangered Threatened Threatened Threatened

Nelson's Checker-mallow *Sidalcea nelsoniana*

No critical habitat has been designated for this species. Species profile: <https://ecos.fws.gov/ecp/species/7340>

Endangered

Water Howellia *Howellia aquatilis*

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

USFWS guidance/
Exhibit B

<https://ecos.fws.gov/ecp/report/species-listings-by-current-range-county?fips=41051>

Threatened species in mult co.

ecos.fws.gov/ecp/species/3911

U.S. Fish & Wildlife Service
ECOS Environmental Conservation Online System
Conserving the Nature of America

ECOS /

Yellow-billed Cuckoo (*Coccyzus americanus*)

[Range Information](#) | [Candidate Info](#) | [Federal Register](#) | [Recovery](#) | [Critical Habitat](#) | [SSA](#) | [Conservation Plans](#) | [Petitions](#) | [Biological Opinions](#) | [Life History](#)

Taxonomy: [View taxonomy in ITIS](#)

Listing Status: **Threatened**


General Information

Yellow-billed Cuckoos are fairly large, long, and slim birds. The mostly yellow bill is almost as long as the head, thick and slightly downcurved. They have a flat head, thin body, and very long tail. Wings appear pointed and swept back in flight. Yellow-billed Cuckoos are warm brown above and clean whitish below. Their blackish face mask is accompanied by a yellow eyering. In flight, the outer part of the wings flash rufous. From below, the tail has wide white bands and narrower black ones.

References cited in Species Profile

- Cornell Lab of Ornithology. 2015. Yellow-billed Cuckoo. All About Birds. http://www.allaboutbirds.org/guide/Yellow-billed_Cuckoo/id
- Hughes, Janice M. 2015. Yellow-billed Cuckoo (*Coccyzus americanus*). The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/418>
- Laymon, S. A. 1998. Yellow-billed Cuckoo (*Coccyzus americanus*). In The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight. http://www.prbo.org/calqif/html/docs/riparian_v-2.html
- Partners in Flight. 2012. Species assessment database. <http://rmbo.org/pif/assessment/Database.aspx>
- USGS Patuxent Wildlife Research Center. 2012. North American Breeding Bird Survey 1966-2010 analysis. <http://www.mbr-pwrc.usgs.gov/bbs/spec10.html>

The species historical range included Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico.



ecos.fws.gov/ecp/species/3911

The species historical range included Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington, Wyoming. See below for information about where the species is known or believed to occur.

Current Listing Status Summary

Show 10 entries

Status	Date Listed	Lead Region	Where Listed
Threatened	11-03-2014	Southwest Region (Region 2)	Western DPS: U.S.A. (AZ, CA, CO (western), ID, MT (western), NM (western), NV, OR, TX (western), UT, WA, WY (western)); Canada (British Columbia (southwestern)); Mexico (Baja California, Baja California Sur, Chihuahua, Durango (western), Sinaloa, Sonora) Additional species information

Showing 1 to 1 of 1 entries

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» Range Information


Current Range

Western DPS: U.S.A. (AZ, CA, CO (western), ID, MT (western), NM (western), NV, OR, TX (western), UT, WA, WY (western)); Canada (British Columbia (southwestern)); Mexico (Baja California, Baja California Sur, Chihuahua, Durango (western), Sinaloa, Sonora)

Zoom in! Some species' locations may be small and hard to see from a wide perspective. To narrow-in on locations, check the state and county lists (below) and then use the zoom tool.

Want the FWS's current range for all species? Click [here](#) to download a zip file containing all individual shapefiles and metadata for all species.

* For consultation needs do not use only this current range map, please use [JPaC](#).



ecos.fws.gov/ecp/species/7268

U.S. Fish & Wildlife Service

ECOS Environmental Conservation Online System

Conserving the Nature of America

ECOS /


Streaked Horned lark (*Eremophila alpestris strigata*)

[Range Information](#) | [Candidate Info](#) | [Federal Register](#) | [Recovery](#) | [Critical Habitat](#) | [SSA](#) | [Conservation Plans](#) | [Petitions](#) | [Biological Opinions](#) | [Life History](#)

Taxonomy: [View taxonomy in ITIS](#)

Listing Status: Threatened

Where Listed: **WHEREVER FOUND**



General Information

Horned Larks are small, long-bodied songbirds that usually adopt a horizontal posture. They have short, thin bills, short necks, and rounded heads. The shape sometimes broken by two small "horns" of feathers sticking up toward the back of the head. Male Horned Larks are sandy to rusty brown above, with a black chest band, a curving black mask, and head stripes that extend to the back of the head. The face and throat are either yellow or white. Females have similar head and breast patterns but are less crisply defined.

References cited in Species Profile

- Cornell Lab of Ornithology. 2015. Horned Lark. All About Birds. http://www.allaboutbirds.org/guide/Horned_Lark/id
- Godfrey, W. E. 1986. The birds of Canada. Rev. ed. Natl. Mus. Nat. Sci. Ottawa. USGS Patuxent Wildlife Research Center. 2012. North American Breeding Bird Survey 1966 - 2010 analysis. <http://www.mbr-pwrc.usgs.gov/bbs/spec10.html>
- Partners in Flight. 2012. Species assessment database. <http://rmbo.org/pifassessment/Database.aspx>
- Pearson, S. and B. Altman. 2005. Range-wide Streaked Horned Lark (*Eremophila alpestris strigata*) Assessment and Preliminary Conservation Strategy. Washington Department of Fish and Wildlife.

The species historical range included Oregon, Washington. See below for information about where the species is known or believed to occur.

ecos.fws.gov/ecp/species/7268

Current Listing Status Summary

Show 10 entries

Status	Date Listed	Lead Region	Where Listed
Threatened	11-04-2013	Pacific Region (Region 1)	Wherever found

Showing 1 to 1 of 1 entries

< Previous 1 Next >

» Range Information

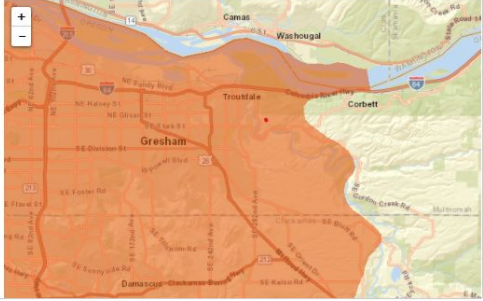
Current Range

[Download](#) [Wherever found](#)

Zoom in! Some species' locations may be small and hard to see from a wide perspective. To narrow-in on locations, check the state and county lists (below) and then use the zoom tool.

Want the FWS's current range for all species? Click [here](#) to download a zip file containing all individual shapefiles and metadata for all species.

* For consultation needs do not use only this current range map, please use [IPaC](#).



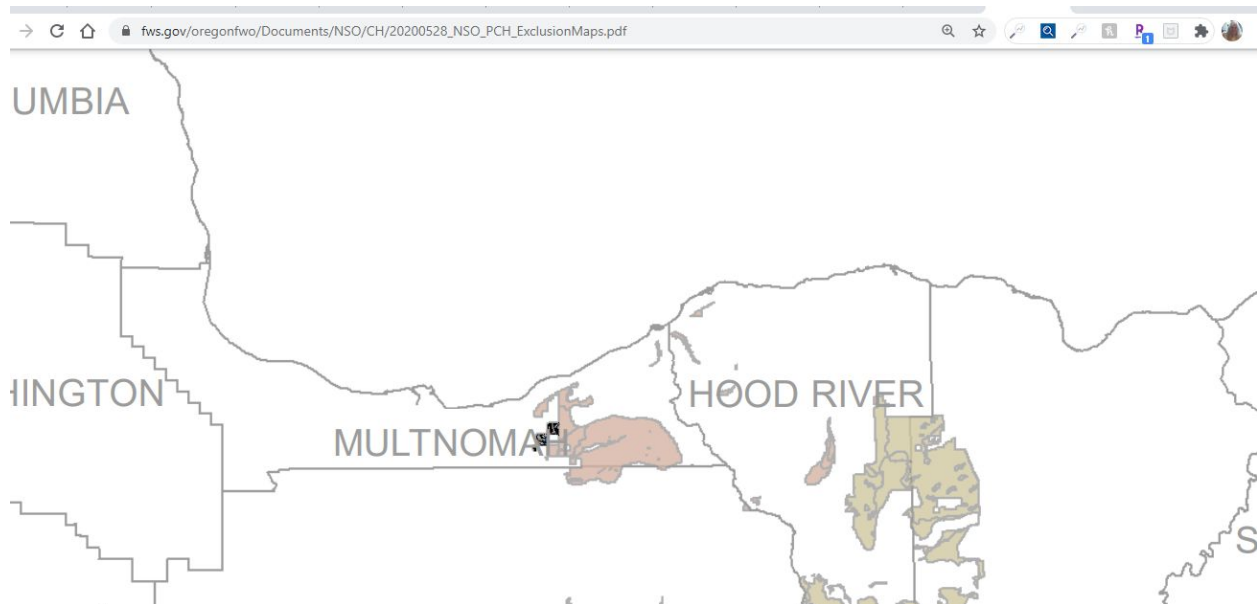
Wherever found

Listing status: **Threatened**

- States/US Territories in which this population is known to or is believed to occur: Oregon, Washington
- US Counties in which this population is known to or is believed to occur: [View All](#)

ecos.fws.gov/ecp/report/species-listings-by-current-range-county/tips=41051

Birds	Yellow-billed Cuckoo (Coccyzus americanus)	Western DPS: U.S.A. (AZ, CA, CO (western), ID, MT (western), NM (western), NV, OR, TX (western), UT, WA, WY (western)); Canada (British Columbia (southwestern)); Mexico (Baja California, Baja California Sur, Chihuahua, Durango (western), Sinaloa, Sonora)	Threatened	2		
Flowering Plants	Water howellia (Howellia aquatilis)		Threatened	6	Water Howellia (Howellia aquatilis) Recovery Plan, Public and Agency Review Draft	Implementation Progress
Insects	Fender's blue butterfly (Icaricia icarioides fenderi)	Wherever found	Endangered	1	Final Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington	Implementation Progress
Birds	Streaked Horned lark (Eremophila alpestris strigata)	Wherever found	Threatened	1	Draft Recovery Plan for the Streaked Horned Lark	Implementation Progress
Mammals	red tree vole (Arborimus longicaudus)	North Oregon Coast population	Resolved Taxon	1		
Birds	Northern spotted owl	Wherever found	Threatened	1	Revised Recovery Plan for the Northern Spotted Owl	Implementation Progress



Critical habitat for the northern spotted owl

Wetlands NWI: R4SBC

Type Riverine
:

Size: 4.35 acres

- R System Riverine : The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.
- 4 Subsystem Intermitten : This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

- SB Class Streambed : Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.
- C Class Seasonally Flooded : Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

ecos.fws.gov/ipac/project/CXAY7GR6ONHHLIIFZDNVMLOKU/resources#wetlands

IPaC Information for Planning and Consultation

U.S. Fish & Wildlife Service
JO ANNE VINCENT

PROJECT HOME REGULATORY REVIEW LOCAL OFFICE OR FISH AND WILDL. OFC

Resources

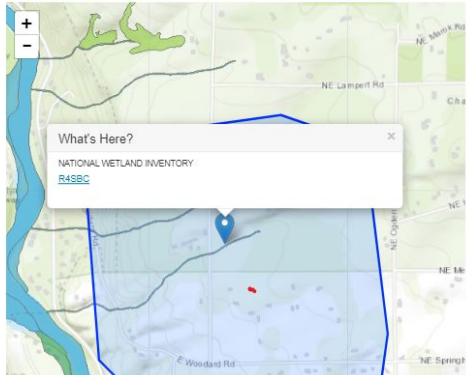
- ENDANGERED SPECIES 9
- MIGRATORY BIRDS 8
- FACILITIES
- WETLANDS** ✓

PRINT RESOURCE LIST

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. Other limitations, exclusions, and precautions are listed [below](#).

This location overlaps the following wetlands:

RIVERINE
[R4SBC](#)



The map displays a geographical area with various wetland types highlighted in green. A blue line represents a river or stream. A red dot on the map indicates a specific location. A popup window titled 'What's Here?' is open, showing 'NATIONAL WETLAND INVENTORY' and the code 'R4SBC'. The map includes labels for roads such as 'NE Lampert Rd', 'NE Woodard Rd', and 'NE Spring Rd'.

ecos.fws.gov/ipac/project/CXAY7GR6ONHHLIYFZDNVMLOKU/resources#wetlands

IPaC Information for Planning and Consultation
MY PROJECTS

U.S. Fish & Wildlife Service
JO ANNE VINCENT

PROJECT HOME REGULATORY REVIEW LOCAL OFFICE OR FISH AND WILDL OFC

Resources

ENDANGERED SPECIES 9

MIGRATORY BIRDS 8

FACILITIES


WETLANDS ✓

PRINT RESOURCE LIST

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. Other limitations, exclusions, and precautions are listed [below](#).

This location overlaps the following wetlands:

RIVERINE
[R45BC](#)



Project called woodard/seidl neighborhood. IPAC tool with consultation from this source

Insert IPAC form with list of migratory birds

IPAC

Listed Migratory birds for this region

See Exhibit B

Migratory birds

12

Certain birds are protected under the Migratory Bird Treaty Act-and the Bald and Golden Eagle Protection Act-.

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

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

Additional information can be found using the following links:

Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/>

[birds-of-conservation-concern.php](#)

Measures for avoiding and minimizing impacts to birds

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

Nationwide conservation measures for birds

<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

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 onshore areas from certain types of development or activities.

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

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

Lesser Yellowlegs *Tringa avipes*

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

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

California Thrasher *Toxostoma redivivum*

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

Olive-sided Flycatcher *Contopus cooperi*

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

<https://ecos.fws.gov/ecp/species/3914>

Clark's Grebe *Aechmophorus clarkii*

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

Red-throated Loon *Gavia stellata*

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

Breeds Jan 1 to Sep 30

Great Blue Heron *Ardea herodias fannini*

Breeds Jan 1 to Jul 31 Breeds Jan 1 to Dec 31 Breeds

Rufous Hummingbird *selasphorus rufus*

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

<https://ecos.fws.gov/ecp/species/8002>

USFWS oce(s) with jurisdiction in the dened project area. Please read the introduction to each

Project information

NAME

WCF woodard/seidl properties

LOCATION

Multnomah County, Oregon



DESCRIPTION

migratory birds in our region and the impact of a 156'lighted cell tower on their flight patterns, habitat, breeding, etc

Local oce

Oregon Fish And Wildlife Oce

☎ (503) 231-6179

☐ (503) 231-6195

2600 Southeast 98th Avenue, Suite 100

Portland, OR 97266-1398

<https://www.fws.gov/oregonfwo/articles.cfm?id=149489416>

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 sh population, even if that sh does not occur at the dam site, may indirectly impact the species by reducing or eliminating water ow 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 oce and a species list which fails 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 eld oce directly.

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

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

¹
Listed species-and their critical habitats are managed by the [Ecological Services Program](#) office

(USFWS) and the sheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries-).

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 oce of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

Birds

NAME STATUS

Northern Spotted Owl *Strix occidentalis caurina*

There is **nal** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/1123>

Yellow-billed Cuckoo *Coccyzus americanus*

There is **proposed** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/3911>

Streaked Horned Lark *Eremophila alpestris*
strigata

There is **nal** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/7268>

Fishes

Threatened Threatened Threatened

NAME STATUS

Bull Trout *Salvelinus conuentus*

Threatened

There is **nal** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/8212>

Flowering Plants

NAME STATUS

Bradshaw's Desert-parsley *Lomatium bradshawii*

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5743>

<https://ecos.fws.gov/ecp/species/3747>

Nelson's Checker-mallow *Sidalcea nelsoniana*

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7340>

Kincaid's Lupine *Lupinus sulphureus* ssp.
kincaidii

There is **nal** critical habitat for this species. Your location is outside the critical habitat.

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

12

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

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

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

Additional information can be found using the following links:

Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

Nationwide conservation measures for birds

<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

range in the continental USA and Alaska.

Breeds Jan 1 to Sep 30

California Thrasher *Toxostoma redivivum*

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

Breeds Jan 1 to Jul 31 Breeds Jan 1 to Dec 31 Breeds

Clark's Grebe *Aechmophorus clarkii*

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

Mar 15 to Aug 15 Breeds elsewhere

Great Blue Heron *Ardea herodias fannini*

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

Breeds May 20 to Aug 31 Breeds elsewhere

Lesser Yellowlegs *Tringa avipes*

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

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

Rufous Hummingbird *elasphorus rufus*

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

<https://ecos.fws.gov/ecp/species/8002>

Olive-sided Flycatcher *Contopus cooperi*

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

<https://ecos.fws.gov/ecp/species/3914>

Probability of Presence Summary

Breeds Apr 15 to Jul 15

Red-throated Loon *Gavia stellata*

This is a Bird of Conservation Concern (BCC) throughout its

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 o 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 eort no data

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

Bald Eagle

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

California Thrasher

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

Clark's Grebe

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

Great Blue Heron

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

Lesser Yellowlegs

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

Olive-sided Flycatcher

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

Red-throated Loon

BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout

its range in the continental USA and Alaska.)

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

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

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

What does IPaC use to generate the migratory birds potentially occurring in my specied 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 onshore activities or development.

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

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

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

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

How do I know if a bird is breeding, wintering, 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 on 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](#).

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.

This location overlaps the following wetlands:

RIVERINE
[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

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 eld 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 specific agency regulatory programs and proprietary jurisdictions that may affect such activities.

Exhibit C

Siting guidance for areas known to have migratory birds

Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning

Migratory Bird Program
U. S. Fish and Wildlife Service
Falls Church, Virginia
April 2018

NOTE: These recommendations replace all previous recommendations for communication tower construction and operation. These recommendations have been modified and updated from previous versions to incorporate the state of the science and the 2015 Federal Aviation Administration [*Obstruction Marking and Lighting Advisory Circular AC 70/7460-1L*](#).

Communication towers are some of the tallest structures across the landscape and birds are regularly found dead around these towers (Longcore et al. 2012a). It is not definitively understood why this mortality occurs, but evidence suggests that night-migrating songbirds are either attracted to or disoriented by tower obstruction warning lighting systems, especially during overcast (i.e., low cloud ceiling), foggy, or other low visibility conditions (Cochran and Graber 1958, Avery et al. 1976, Ball et al. 1995, Erickson et al. 2005, Evans et al. 2007, Manville 2014, Gehring et al. 2009 and 2011, Longcore et al. 2012a). Birds aggregate in larger numbers at towers with non-flashing lights compared to those with flashing lights, although birds aggregate at flashing lights during the “on” phase, they disperse during the “off” phase (Larkin and Frase 1988; Gauthreaux and Belser 1999, 2006; Evans et al. 2007; Poot et al. 2008). Additionally, birds moving across the landscape at night (e.g., owls and seabirds) can collide with communication tower wires when they are placed in high movement areas.

Given the height, structural engineering needs (i.e., guy wires), and obstruction lighting requirements, communication towers may cause direct and indirect bird mortality through:

1. Collisions - Birds that are attracted to tower lights and aggregate in the lighting zone, circle the tower and collide with the tower, guy wires, other birds, or fall to the ground from exhaustion (Longcore et al. 2012b, Gauthreaux and Belser 2006, Erickson et al. 2005).
2. Construction, operation, and maintenance activities - Adults, eggs, or nestlings can experience direct mortality through:

- a. Trauma or death during vegetation removal;
- b. Trauma or death during tower maintenance; and
- c. Death of eggs or nestlings when actions or activities cause adults to abandon nests. 3. Significant loss of fat reserves in adults due to the energy expenditure of circling towers, leading to reduced survival during long migrations (Norris and Taylor 2006, Gehring and Walker 2012).

The following avoidance and minimization measures, when used comprehensively, reduce the risk of bird mortality at communication towers:

SITING AND CONSTRUCTION OF NEW TOWERS

1. *Contact with USFWS Field Office.* Communicate project plans to nearest USFWS Field Office. www.fws.gov/offices/index.html
2. *Co-location.* Co-locate communications equipment on existing communication towers or other structures (e.g., billboard, water and transmission tower, distribution pole, or building mounts). This recommendation is intended to reduce the number of towers across the landscape.

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3. *Placement.* All new towers should be sited to minimize environmental impacts to the maximum extent practicable.
 - a. Place new towers within existing "antenna farms" (i.e., clusters of towers) when possible; b. Select already degraded areas for tower placement;
 - c. Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries, and Important Bird Areas), or in known migratory bird movement routes, daily movement flyways, areas of breeding concentration, in habitat of threatened or endangered species, key habitats for [Birds of Conservation Concern](#), or near the breeding areas ("leks") of prairie grouse;
 - d. Towers should avoid ridgelines, coastal areas, wetlands or other known bird concentration areas; and
 - e. Towers and associated facilities should be designed, sited, and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". In addition, several shorter, un-guyed towers may be preferable to one, tall guyed, lit tower.
4. *Construction.* During construction, the following considerations can reduce the risk of take of birds:
 - a. Schedule all vegetation removal and maintenance (e.g., general landscaping activities, trimming, grubbing) activities outside of the peak bird breeding season to reduce the risk of bird take. Breeding seasons can be determined using online tools (e.g., [Avian Knowledge Network](#) [AKN], [Information for Planning and Conservation system](#) [IPaC], [Birds of North America Online](#)) or by contacting qualified experts (e.g., local Audubon or birding groups); b. When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys:
 - i. Surveys should be conducted no more than five days prior to the scheduled activity to ensure recently constructed nests are identified;
 - ii. Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance; and
 - iii. If active nests are identified within or in the vicinity of the project site, avoid the site until nestlings have fledged or the nest fails. If the activity must occur, establish a buffer zone around the nest and no activities will occur within that zone until nestlings have fledged. The dimension of the buffer zone will depend on the proposed activity, habitat type, and species present. The buffer should be a distance that does not elicit a flight response by the adult birds and can be 0.5 – 1 mile for hawks and eagles.
 - c. Prevent the introduction of invasive plants during construction to minimize vegetation community degradation by:
 - i. Use only native and local (when possible) seed stock for all temporary and permanent vegetation establishment; and
 - ii. Use vehicle wash stations prior to entering sensitive habitat areas to prevent accidental

introduction of non-native plants.

5. *Tower Design*. Tower design should consider the following attributes:

- a. *Tower Height*. It is recommended that new towers should be not more than 199 ft. above ground level (AGL). This height increases the mean free airspace between the top of the tower and average bird flight height, even in weather conditions with reduced cloud ceiling;

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- b. *Guy Wires*. We recommend using free standing towers such as lattice towers or monopole structures. If guy wires are required for tower design:

- i. The minimum number of guy wires necessary should be used; and
- ii. Guy wired towers that are proposed to be located in known raptor or waterbird concentrations areas, daily movement routes, major daytime migratory bird movement routes, staging areas, or stopover sites should have daytime visual markers or bird flight diverters installed on the guy wires to attempt to prevent daytime collisions.

- c. *Lighting System*. Lights are a primary source of bird aggregation around towers, thus minimizing all light is recommended:

- i. No tower lighting is the preferred option if Federal Aviation Administration (FAA) regulations and lighting standards (FAA 2015, Patterson 2012) permit.
- ii. For some towers, the FAA can permit an Aircraft Detection Lighting System (ADLS), which maintains a communication tower of any height to be unlit until the ADLS radars detect nearby aircraft, at which time the tower lighting system is triggered to illuminate until the aircraft is out of radar range.
- iii. If taller (> 199 ft. AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white or red flashing lights should be used at night, and these should follow FAA [obstruction and marking standards](#) with regards to the minimum number of lights, minimum intensity (< 2,000 candela), and minimum number of flashes per minute (i.e., longest duration between flashes and "dark phase"). Avoid using non-flashing warning lights at night (FAA 2015, Patterson 2012). Owners of existing towers lit with lighting systems that include non-flashing lights should submit plans to the FAA explaining how and when they will transition to the new standards.
- iv. Security lighting for on-ground facilities, equipment, and infrastructure should be motion- or heat-sensitive, down-shielded, and of a minimum intensity to reduce nighttime bird attraction and eliminate constant nighttime illumination while still allowing safe nighttime access to the site.

OPERATION AND MAINTENANCE OF ALL TOWERS

1. *Existing Tower Lighting*. We recommend that towers be unlit, when allowed by FAA regulations.

Light impacts can be minimized by:

- a. Extinguishing L-810 non-flashing red lights (USFWS 2007, 2011) on towers >350 ft. AGL or reconfiguring L-810 non-flashing red lights to flash at 30 FPM (+/- 3 FPM) in synchrony with other flashing obstruction lights on towers 150-350 ft. AGL (FAA 2015);
- b. Extinguishing L-810 red lights and reprogramming LED L-810 lights; this can be done from the tower transmission building or remotely and does not require climbing the tower (FCC 2015).

A "lighting deviation" can be used to extinguish or eliminate L-810 steady-burning side lights from an existing registered tower taller than 350 ft. AGL and to reprogram L-810 steady-burning side lights to flash on registered towers 150-350 ft. AGL.¹ The following steps are necessary:²

1. File a Marking and Lighting study electronically with the FAA (<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>) requesting the elimination or omission of steady-

burning lights (L-810) or requesting that steady-burning lights flash with Form 7460-1, Notice of Proposed Construction or Alteration. Designate structure type: "Deviation from Red Obstruction Light Standards."

2. Once the FAA has approved the request and assigned a FAA Study Number, file Form 854 with the FCC via the Antenna Registration System (ASR). Please select "MD – Modification" and choose the appropriate FAA Lighting Style.³ The FCC typically will approve the application and modify the registration within 24 hours.

3. Once the lighting change for a tower has been granted by the FCC via ASR, the L-810 steady-burning side lights can be extinguished on towers taller than 350 ft. AGL and reprogrammed to flash in concert with L-864 lights on towers 150-350 ft. AGL. Extinguishing L-810 lights and reprogramming lights are typically accomplished in the tower transmission building and do not ordinarily require climbing the tower. Per the FAA requirements, flashing red lights should flash at 30 FPM (+/- 3 FPM).

2. *Infrastructure Lighting.* We recommend that existing infrastructure be unlit. If associated buildings require security or operational lighting, minimize light trespass using motion sensors and down-shielding with minimum intensity light (USFWS 2011; Poot et al. 2008; Manville 2013; FCC 2014).

3. *Vegetation Management.* When management of facility infrastructure is required: a.

Schedule all vegetation removal and maintenance (e.g., general landscaping activities, trimming, grubbing, etc.) activities outside of the peak bird breeding season to reduce the risk of bird take. Breeding seasons can be determined using online tools (e.g., [Avian Knowledge Network](#) [AKN], [Information for Planning and Conservation system](#) [IPaC], [Birds of North America Online](#)) or by contacting qualified experts (e.g., local Audubon or birding groups); b.

When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys:

- i. Surveys should be conducted no more than five days prior to the scheduled activity to ensure recently constructed nests are identified;
- ii. Timing and dimensions of the area to be surveyed should depend on the nature of the project, location, and expected level of vegetation disturbance; and
- iii. If active nests are identified within or in the vicinity of the project site, the site should be avoided until nestlings have fledged or the nest fails. If the activity must occur, a buffer zone should be established around the nest and no activities should occur within that zone until nestlings have fledged. The dimension of the buffer zone depends on the proposed activity, habitat type, and species present. The buffer should be a distance that does not elicit a flight response by the adult birds and can be 0.5 – 1 mile for hawks and eagles.

4. *Birds Nesting on Towers:* If birds are nesting on communication towers that require maintenance activities, contact the state natural resource protection agency and/or the USFWS for permits, recommendations, and requirements. Schedule construction and maintenance activities around the nesting and activity schedule of protected birds. Minimize excess wires and securely attach wires to the tower structure to reduce the likelihood of birds becoming entangled on the tower. Consider installing a bird nest exclusion device on the towers where birds frequently nest.

5. *Tower Access:* Representatives from the USFWS or researchers should be allowed access to the site to evaluate bird use, conduct dead-bird searches, and conduct other research, as necessary.

DECOMMISSIONING

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Tower Removal. Towers no longer in use, not re-licensed by the FCC for use, or determined to be obsolete should be removed from the site within 12 months of cessation of use, preferably sooner.

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