





**Vegetation and Habitat Monitoring Trip Report  
for the  
Westside Solar Project**

**October 2019**

**Prepared for:  
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## Attachments

- A Kittitas County Noxious Weed List
- B Photographic Documentation
- C E & E Field Logbook
- D U.S. Fish and Wildlife Service Information for Planning and Consulting (IPaC) Project Area Export

  
**L**ist of Abbreviations and Acronyms

Applicant	Westside Solar, LLC
E & E	Ecology and Environment, Inc.
GIS	geographic information system
IPaC	Information for Planning and Consulting
PHS	Priority Habitats and Species
Project	Westside Solar Project
PSE	Puget Sound Energy
PV	photovoltaic
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act

## **1 Introduction and Purpose**

Westside Solar, LLC (Applicant) is proposing to construct and operate the Westside Solar Project (Project), a photovoltaic (PV) solar power production facility. The Project would be located adjacent to Westside Road near the town of South Cle Elum, Kittitas County, Washington (Figure 1). The Applicant has entered into an agreement with Puget Sound Energy (PSE) for an interconnection with PSE's electrical distribution system.

The Project design would include arrays of PV solar panels on single-axis trackers that would track the sun's movement east to west throughout the day, inverters and transformers, and associated wiring and electrical interconnection equipment. The Project site would be surrounded by a chain-link fence per the requirements of the Kittitas County Code and the National Electrical Code

The Project would be located in the Southwest ¼ of Section 33, Township 20 North, Range 15 East of the Willamette Meridian. It would be situated within six parcels that total approximately 46 acres. The Project site is bounded by Westside Road to the south and Iron Horse Trail and North Milwaukee Avenue to the north. Iron Horse State Park is located east of the Project site. The parcels are zoned for Rural Residential Land Use - Agriculture 5, as defined in Kittitas County Code Chapter 17.28A. The Project site is surrounded by residential and commercial properties.

On June 3, 2019, an Ecology and Environment, Inc. (E & E) environmental scientist and an E & E biologist visited the Project site to accomplish the following objectives:

- Conduct a noxious weed survey to identify the species and relative density of Kittitas County-designated noxious weeds;
- Conduct a habitat survey to identify habitat types and the associated dominant flora and fauna;
- Conduct a wildlife survey to identify wildlife and any habitat associated with state and federally listed threatened/endangered species.

Included with this Vegetation and Habitat Monitoring Trip Report are attachments associated with the objectives outlined above, including:

- Kittitas County Noxious Weed List (Attachment A);
- Photographic Documentation (Attachment B);
- E & E Field Logbook (Attachment C); and
- U.S. Fish and Wildlife Service Information for Planning and Consulting (IPaC) Project Area Export (Appendix D).

This trip report provides an overview of the survey methodology and presents survey results and conclusions to supplement the Washington State Environmental Policy Act (SEPA) Checklist for the Project.

## **2 Methods**

This section outlines the methods used by E & E to conduct the noxious weed and habitat surveys. Each survey consisted of two phases: (1) desktop analysis of relevant resources prior to the Project site visit; and (2) the Project site visit. An online geographic information system (GIS) map-viewer was established to facilitate field data collection.

### **2.1 Noxious Weed Survey**

For the purposes of this trip report, a noxious weed is legally defined in Revised Code of Washington (RCW) 17.10 as "...a plant that when established is highly destructive, competitive, or difficult to control by agricultural or chemical practices" (Kittitas County Noxious Weed Control Board 2019).

#### **Desktop Analysis**

The desktop analysis for the noxious weed survey consisted of compiling a list of plant species designated as noxious weeds by Kittitas County and the State of Washington that had the potential to occur within the Project site. Appendix A contains the 2017 Kittitas County Noxious Weed List, which includes all Class A and Class B designated noxious weeds described in the 2017 Washington State Noxious Weed List, plus Class B non-designated and Class C weeds (Kittitas County Noxious Weed Control Board 2017).

#### **Field Survey**

The E & E field team traversed the Project site to establish a representative overview of major vegetation categories and topographic features. Within each distinct vegetated area and topographic feature, the field team identified noxious weeds and estimated the approximate density of each weed species throughout the area or feature.

Where a single noxious weed or a group of co-located weeds from the Kittitas County list were identified, the E & E field team noted the location using the GIS map-viewer software accessed in the field using an electronic tablet. Photographs were taken using the electronic tablet (Appendix B) and attached to the noxious weed map location in the GIS map-viewer. Field notes were also recorded in a logbook (Appendix C).

### **2.2 Habitat Survey**

#### **Desktop Analysis**

Desktop analysis for the habitat survey consisted of compiling a list of special status wildlife species potentially occurring within the Project site. The desktop analysis included a review of state and federal rare species lists and information on the required habitat for any of the potentially occurring species. Sources consulted included:

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- State of Washington Priority Habitats and Species List (Washington State Department of Fish and Wildlife 2019); and
- Federally Listed, Proposed, Candidate Species, Critical Habitat, and Migratory Birds with the Potential to Occur Within the Project Area (unofficial resource list) (U.S. Fish and Wildlife Service 2019) (Appendix D).

### Field Survey

E & E biologists conducted a Project site-wide habitat transect survey, with a focus on identifying distinct habitat types. Within each habitat type, E & E identified the dominant vegetation and recorded wildlife observations in an electronic tablet and logbook.

Other wildlife observations (e.g., bird species, scat, burrows) were recorded as they were encountered by the E & E team.

## 3 Results

### 3.1 Noxious Weed Survey

Table 1 contains the noxious weed species identified by the E & E field team within the Project site. Table 1 lists the species from most to least abundant throughout the Project site and provides an approximate percent cover for each. Spotted knapweed (*Centaurea stoebe*) and Russian knapweed (*Acroptilon repens*) are the most abundant species and are widely distributed throughout much of the Project site; however, the knapweed species were not observed in the ponderosa pine and arid upland along the northeastern border of the Project site and in the wooded wetlands in the southeastern portion of the Project site.

**Table 1 Noxious Weed Species Identified within the Project Site**

Common Name	Scientific Name	Status in Washington State <sup>1</sup>	Approximate Percent Cover <sup>2</sup>
Spotted knapweed	<i>Centaurea stoebe</i>	Class B	20% <sup>3</sup>
Russian knapweed	<i>Acroptilon repens</i>	Class B	
Sulfur cinquefoil	<i>Potentilla recta</i>	Class B	10%
Oxeye daisy	<i>Leucanthemum vulgare</i>	Class C	5%
Canada thistle	<i>Cirsium arvense</i>	Class C	5%
Dalmatian toadflax	<i>Linaria dalmatica</i>	Class B	3%
Reed canary grass	<i>Phalaris arundinacea</i>	Non-native	3%
Absinth wormwood	<i>Artemisia absinthium</i>	Class C	<1%
Field bindweed	<i>Convolvulus arvensis</i>	Class C	<1%
Yellow salsify	<i>Tragopogon dubius</i>	Non-native	<1%
Bulbous bluegrass	<i>Poa bulbosa</i>	Non-native	<1%

**Table 1 Noxious Weed Species Identified within the Project Site**

Common Name	Scientific Name	Status in Washington State <sup>1</sup>	Approximate Percent Cover <sup>2</sup>
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Notes:

- <sup>1</sup> Class A Weeds: Non-native species whose distribution in Washington is still limited. Preventing new infestations and eradicating existing infestations are the highest priority. Eradication of all Class A plants is required by law.  
Class B Weeds: Non-native species presently limited to portions of the state. Species are designated for control in regions where they are not yet widespread. Preventing new infestations in these areas is a high priority.  
Class C Weeds: Noxious weeds that are already widespread in Washington or are of special interest to the state’s agricultural industry. The Class C status allows counties to enforce control, if locally desired.
- <sup>2</sup> Percent cover at the time of the field survey. These are not absolute percentages and should be interpreted as relative values to provide Project site-wide context.
- <sup>3</sup> Combined percent cover of knapweed species.

### 3.2 Habitat Survey

The Project site is characterized by the following habitat types, as defined in Johnson and O’Neil (2001):

- **Agriculture, Pasture, and Mixed Environs (Unimproved Pasture):** This is the dominant habitat type within the Project site.
- **Ponderosa Pine Forest and Woodlands:** This habitat type is concentrated in the northeastern section of the Project site, abutting Iron Horse Trail. It is interspersed with Shrub-Steppe habitat.
- **Shrub-Steppe:** This habitat type is concentrated along the northern border of the Project site, abutting Iron Horse Trail.
- **Lakes, Rivers, Ponds, and Reservoirs:** One freshwater pond is in the northwest corner of the Project site and extends outside of site boundaries to the west.
- **Herbaceous Wetlands:** This habitat type, in combination with Eastside Riparian Wetlands, abuts the southern boundary of the Agriculture, Pasture, and Mixed Environs (Unimproved Pasture) habitat type.
- **Eastside Riparian Wetlands:** This habitat type, in combination with Herbaceous Wetlands, abuts the southern boundary of the Agriculture, Pasture, and Mixed Environs (Unimproved Pasture) habitat type.

Agriculture, Pasture, and Mixed Environs (Unimproved Pasture) is the dominant vegetation category found within the Project site. Herbaceous Wetlands and Eastside Riparian Wetlands fringe the pasture to the south. Ponderosa Pine Forest and Woodlands and Shrub-Steppe vegetation types are concentrated along the northern border of the Project site.

An informal list generated from the U.S. Fish and Wildlife Service IPaC web viewer includes eight wildlife species that have the potential to occur within the Project site (U.S. Fish and Wildlife Service 2019). A review of the State of Washington Priority Habitats and Species

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(PHS) List resulted in two wildlife species that have the potential to occur near the Project site. Table 2 outlines these species and their status in the state of Washington.

**Table 2 Special Status Species with the Potential to Occur within the Project Site**

Common Name	Scientific Name	Status in Washington State	Notes
<b>Federally Listed Special Status Species (Informal List)</b>			
Bull trout	<i>Salvelinus confluentus</i>	Threatened	
Canada lynx	<i>Lynx canadensis</i>	Threatened	
Gray wolf	<i>Canis lupus</i>	Endangered	
Gray wolf (Western Distinct Population Segment)	<i>Canis lupus</i>	Proposed Endangered	
Marbled murrelet	<i>Brachyramphus marmoratus</i>	Threatened	
North American wolverine	<i>Gulo gulo luscus</i>	Proposed Threatened	
Northern spotted owl	<i>Strix occidentalis caurina</i>	Threatened	
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Threatened	
<b>State Listed Special Status Species</b>			
Northern spotted owl	<i>Strix occidentalis</i>	Endangered	Management Buffer, Priority Habitat Area: Any Occurrence <sup>1</sup>
Sharp-tailed snake	<i>Contia tenuis</i>	Candidate	Priority Habitat Area: Any Occurrence

Note:

<sup>1</sup> Any Occurrence: Applies to a priority species with limiting habitat that is not known or to a species that is so rare that any occurrence is important in a land use decision (Washington Department of Fish and Wildlife 2019).

While several federally listed species have the potential to occur within the Project site, the site is outside of the designated critical habitat for those species. However, the Project site is located within the Washington State-designated management buffer and the priority habitat area for the northern spotted owl (*Strix occidentalis caurina*). The Project site is also located within the priority habitat area for the sharp-tailed snake (*Contia tenuis*). Occurrences of the Sharp-tailed snake have been documented in the area. The resolution of the occurrence data from the public-facing Washington State Department of Fish and Wildlife PHS mapping service encompasses a quarter-Township, or approximately 9 square miles (Washington State Department of Fish and Wildlife 2018). No special status species or potential special status species habitats were observed within the Project site during the site visit. Furthermore, the potentially viable habitat within the Project site is highly fragmented due to its proximity to nearby residences and the town of Cle Elum.

The field team observed a single red-tailed hawk (*Buteo jamaicensis*), nesting American goldfinches (*Spinus tristis*), and red-winged blackbirds (*Agelaius phoeniceus*). Deer scat was observed in the ponderosa pine stand, and a single collapsed burrow was observed in one of the herbaceous wetlands.



## **4 Conclusions**

Several Kittitas County-designated noxious weed species were observed within the Project site. Refer to the Noxious Weed Management Plan for proposed best management practices to control the spread of noxious weeds during planning, construction, and operation of the facility.

No state or federally listed endangered or threatened species or habitat were observed within the Project site. However, due to the overlap of the Project site with a Washington State-designated management buffer for the northern spotted owl and the documented occurrences of the sharp-tailed snake in the vicinity, the Applicant has initiated the consultation with the Washington State Department of Fish and Wildlife to review the Project's design.

## **5 References**

- Johnson, D.H. and T.A. O'Neil (Managing Directors). 2001. *Wildlife-Habitat Relationships in Oregon and Washington*. Oregon State University Press, Corvallis, Oregon. 768 pp.
- Kittitas County Noxious Weed Control Board. 2019. *Laws*. Accessed June 3, 2019.  
<https://www.co.kittitas.wa.us/noxious-weeds/laws.aspx>.
- \_\_\_\_\_. 2017. *Kittitas County Noxious Weed List*. Accessed June 3, 2019.  
<https://www.co.kittitas.wa.us/noxious-weeds/list.aspx>.
- U.S. Fish and Wildlife Service. 2019. *Information for Planning and Consultation (IPaC): Federally Listed, Proposed, Candidate Species, Critical Habitat, and Migratory Birds with the Potential to Occur Within the Project Area (unofficial list)*. Exported May 15, 2019.
- Washington State Department of Fish and Wildlife. 2019. *Priority Habitat and Species List*. Olympia, Washington. Updated January 2019. 292 pp.
- \_\_\_\_\_. 2018. *Priority Habitats and Species (PHS) on the Web: PHS Public View: Hide Masked Data*. <http://apps.wdfw.wa.gov/phsontheweb/>. Accessed May 15, 2019.



■ Site Entrance    — Stream  
□ Site Location

**Figure 1.**  
**Westside Solar Project Area**

Kittitas County, Washington  
September 2019

0    100    200    400  
Meters

**Attachment A**

**Kittitas County Noxious Weed List**

**2017 KITTITAS COUNTY NOXIOUS WEED LIST**

Common Name	Scientific Name	Common Name	Scientific Name
<b>CLASS A NOXIOUS WEEDS</b>		<b>CLASS B NOXIOUS WEEDS (CONT.)</b>	
common crupina	<i>Crupina vulgaris</i>	lesser celandine	<i>Ficaria verna</i>
cordgrass, common	<i>Spartina anglica</i>	loosestrife, garden	<i>Lysimachia vulgaris</i>
cordgrass, dense-flowered	<i>Spartina densiflora</i>	loosestrife, purple	<i>Lythrum salicaria</i>
cordgrass, saltmeadow	<i>Spartina patens</i>	loosestrife, wand	<i>Lythrum virgatum</i>
cordgrass, smooth	<i>Spartina alterniflora</i>	parrotfeather	<i>Myriophyllum aquaticum</i>
dyer's woad	<i>Isatis tinctoria</i>	perennial pepperweed	<i>Lepidium latifolium</i>
eggleaf spurge	<i>Euphorbia oblongata</i>	poison hemlock	<i>Conium maculatum</i>
false brome	<i>Brachypodium sylvaticum</i>	policeman's helmet	<i>Impatiens glandulifera</i>
floating primrose-willow	<i>Ludwigia peploides</i>	puncturevine	<i>Tribulus terrestris</i>
flowering rush	<i>Butomus umbellatus</i>	Ravenna grass*	<i>Saccharum ravennae</i>
French broom	<i>Genista monspessulana</i>	rush skeletonweed	<i>Chondrilla juncea</i>
garlic mustard	<i>Alliaria petiolata</i>	saltcedar*	<i>Tamarix ramosissima</i>
giant hogweed	<i>Heracleum mantegazzianum</i>	Scotch broom	<i>Cytisus scoparius</i>
goatsrue	<i>Galega officinalis</i>	shiny geranium	<i>Geranium lucidum</i>
hydrilla	<i>Hydrilla verticillata</i>	spurge laurel	<i>Daphne laureola</i>
Johnsongrass	<i>Sorghum halepense</i>	spurge, leafy	<i>Euphorbia esula</i>
knapweed, bighead	<i>Centaurea macrocephala</i>	spurge, myrtle*	<i>Euphorbia myrsinites</i>
knapweed, Vochin	<i>Centaurea nigrescens</i>	sulfur cinquefoil	<i>Potentilla recta</i>
kudzu	<i>Pueraria montana var. lobata</i>	tansy ragwort	<i>Senecio jacobaea</i>
meadow clary	<i>Salvia pratensis</i>	thistle, musk	<i>Carduus nutans</i>
oriental clematis	<i>Clematis vitalba</i>	thistle, plumeless	<i>Carduus acanthoides</i>
purple starthistle	<i>Centaurea calcitrapa</i>	thistle, Scotch	<i>Onopordum acanthium</i>
reed sweetgrass	<i>Glyceria maxima</i>	velvetleaf	<i>Abutilon theophrasti</i>
ricefield bulrush	<i>Schoenoplectus mucronatus</i>	water primrose	<i>Ludwigia hexapetala</i>
sage, clary	<i>Salvia sclarea</i>	white bryony	<i>Bryonia alba</i>
sage, Mediterranean	<i>Salvia aethiopis</i>	wild chervil	<i>Anthriscus sylvestris</i>
silverleaf nightshade	<i>Solanum elaeagnifolium</i>	yellow archangel	<i>Lamium galeobdolon</i>
Spanish broom	<i>Spartium junceum</i>	yellow floatingheart	<i>Nymphoides peltata</i>
spurge flax	<i>Thymelaea passerina</i>	yellow nutsedge	<i>Cyperus esculentus</i>
Syrian beancaper	<i>Zygophyllum fabago</i>	yellow starthistle	<i>Centaurea solstitialis</i>
Texas blueweed	<i>Helianthus ciliaris</i>	<b>CLASS C NOXIOUS WEEDS</b>	
thistle, Italian	<i>Carduus pycnocephalus</i>	absinth wormwood	<i>Artemisia absinthium</i>
thistle, milk	<i>Silybum marianum</i>	Austrian fieldcress	<i>Rorippa austriaca</i>
thistle, slenderflower	<i>Carduus tenuiflorus</i>	babysbreath	<i>Gypsophila paniculata</i>
variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>	black henbane	<i>Hyoscyamus niger</i>
'd four-o'clock	<i>Mirabilis nyctaginea</i>	blackgrass	<i>Alopecurus myosuroides</i>
<b>CLASS B NOXIOUS WEEDS</b>		buffalobur	<i>Solanum rostratum</i>
blueweed	<i>Echium vulgare</i>	cereal rye	<i>Secale cereale</i>
Brazilian elodea	<i>Egeria densa</i>	common barberry	<i>Berberis vulgaris</i>
bugloss, annual	<i>Anchusa arvensis</i>	common catsear	<i>Hypochaeris radicata</i>
bugloss, common	<i>Anchusa officinalis</i>	common groundsel	<i>Senecio vulgaris</i>
butterfly bush*	<i>Buddleja davidii</i>	common St. Johnswort	<i>Hypericum perforatum</i>
camellthorn	<i>Alhagi maurorum</i>	common tansy	<i>Tanacetum vulgare</i>
common fennel	<i>Foeniculum vulgare</i>	common teasel	<i>Dipsacus fullonum</i>
common reed (nonnative genotypes)	<i>Phragmites australis</i>	field bindweed	<i>Convolvulus arvensis</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>	fragrant waterlily	<i>Nymphaea odorata</i>
Eurasian watermilfoil*	<i>Myriophyllum spicatum</i>	hairy whitetop	<i>Cardaria pubescens</i>
fanwort	<i>Cabomba caroliniana</i>	hoary cress	<i>Cardaria draba</i>
gorse	<i>Ulex europaeus</i>	jointed goatgrass	<i>Aegilops cylindrica</i>
grass-leaved arrowhead	<i>Sagittaria graminea</i>	lawnweed	<i>Soliva sessilis</i>
hairy willowherb	<i>Epilobium hirsutum</i>	longspine sandbur	<i>Cenchrus longispinus</i>
hawkweed oxtongue	<i>Picris hieracioides</i>	medusahead	<i>Taeniatherum caput-medusae</i>
hawkweed, orange	<i>Hieracium aurantiacum</i>	old man's beard	<i>Clematis vitalba</i>
hawkweeds: all nonnative yellow-flowered	<i>Hieracium</i> , subgenus <i>Hieracium</i>	oxeye daisy	<i>Leucanthemum vulgare</i>
hawkweeds: all nonnative yellow-flowered	<i>Hieracium</i> , subgenus <i>Pilosella</i>	perennial sowthistle	<i>Sonchus arvensis</i> spp. <i>arvensis</i>
herb-Robert	<i>Geranium robertianum</i>	scentless mayweed	<i>Matrigera perforata</i>
hoary alyssum	<i>Berteroa incana</i>	smoothseed alfalfa dodder	<i>Cuscuta approximata</i>
houndstongue	<i>Cynoglossum officinale</i>	spikeweed	<i>Centromedia pungens</i>
indigobush	<i>Amorpha fruticosa</i>	spiny cocklebur	<i>Xanthium spinosum</i>
knapweed, black	<i>Centaurea nigra</i>	Swainsonpea	<i>Sphaerophysa salsula</i>
knapweed, brown	<i>Centaurea jacea</i>	thistle, bull	<i>Cirsium vulgare</i>
knapweed, diffuse	<i>Centaurea diffusa</i>	thistle, Canada	<i>Cirsium arvense</i>
knapweed, meadow	<i>Centaurea x moncktonii</i>	ventenata*	<i>Ventenata dubia</i>
knapweed, Russian	<i>Acroptilon repens</i>	white cockle	<i>Silene latifolia</i> ssp. <i>alba</i>
knapweed, spotted	<i>Centaurea stoebe</i>	wild carrot	<i>Daucus carota</i>
knotweed, Bohemian	<i>Polygonum bohemicum</i>	yellowflag iris*	<i>Iris pseudacorus</i>
knotweed, giant	<i>Polygonum sachalinense</i>	yellow toadflax	<i>Linaria vulgaris</i>
knotweed, Himalayan	<i>Polygonum polystachyum</i>	<b>CLASS D NOXIOUS WEEDS</b>	
knotweed, Japanese	<i>Polygonum cuspidatum</i>	cornflower (bachelor's button)*	<i>Centaurea cyanus</i>
chia	<i>Kochia scoparia</i>	horseweed (marestail)*	<i>Conyza canadensis</i>
		russian thistle*	<i>Salsola iberica</i>

Highlight indicates known presence in Kittitas County

\* Control required in designated areas only

\*\*If you are aware of any noxious weeds that are not highlighted, please contact the Kittitas County Weed Board

The Noxious Weed List of Kittitas County (RCW 17.10.090) is comprised of all Class A and Class B designate noxious weeds described in the 2017 Washington State Noxious Weed List (WAC 16-750) plus the Class B non-designate and Class C weeds listed above

**Attachment B**  
**Photographic Documentation**

**Westside Solar**

**Photo Log (Project# 1009951.0002.03)**

Photographed by: M Talaia-Murray (MT)



Photo 1: Overview of Herbaceous Wetland habitat type along southeastern corner of Site.

Direction: N Date: 6/3/2019 Time: 11:18 AM Taken by: MT



Photo 2: Overview of Shrub-steppe habitat type along the northern edge of the Site. Ponderosa pines also growing here.

Direction: NE Date: 6/3/2019 Time: 1:05 PM Taken by: MT



Photo 3: Overview of Shrub-steppe habitat type along the northern edge of the Site. Ponderosa pines also growing here.

Direction: NE Date: 6/3/2019 Time: 1:05 PM Taken by: MT



Photo 4: Overview of Eastside Riparian (Wetlands) and Lakes, Rivers, Pond and Reservoirs habitat types in northwestern area of Site.

Direction: W Date: 6/3/2019 Time: 1:18 PM Taken by: MT

## Westside Solar

## Photo Log (Project# 1009951.0002.03)

Photographed by: M Talaia-Murray (MT)



Photo 5: Overview of Herbaceous Wetland habitat type along western edge of Site.

Direction: W Date: 6/3/2019 Time: 1:51 PM Taken by: MT



Photo 6: Overview of Agriculture, Pasture, and Mixed Environs (Unimproved Pasture) habitat type in the upland area in the

Direction: N Date: 6/3/2019 Time: 2:21 PM Taken by: MT



Photo 7: Spotted knapweed community in open meadow in southern area of the Site.

Direction: Down Date: 6/3/2019 Time: 10:10 AM Taken by: MT



Photo 8: Canada thistle in wet meadow, in partially wooded southeastern edge of the Site.

Direction: Down Date: 6/3/2019 Time: 10:27 AM Taken by: MT

**Westside Solar**

**Photo Log (Project# 1009951.0002.03)**

Photographed by: M Talaia-Murray (MT)



Photo 9: Oxeye daisy in wet meadow in southeastern area of Site.

Direction: Down Date: 6/3/2019 Time: 11:43 AM Taken by: MT



Photo 10: Spotted and russian knapweed community in southeastern area of Site.

Direction: SW Date: 6/3/2019 Time: 11:53 AM Taken by: MT



Photo 11: Spotted and russian knapweed community in southeastern area of Site.

Direction: SE Date: 6/3/2019 Time: 11:53 AM Taken by: MT



Photo 12: Sulphur cinquefoil.

Direction: NE Date: 6/3/2019 Time: 12:05 PM Taken by: MT



**Westside Solar**

**Photo Log (Project# 1009951.0002.03)**

Photographed by: M Talaia-Murray (MT)

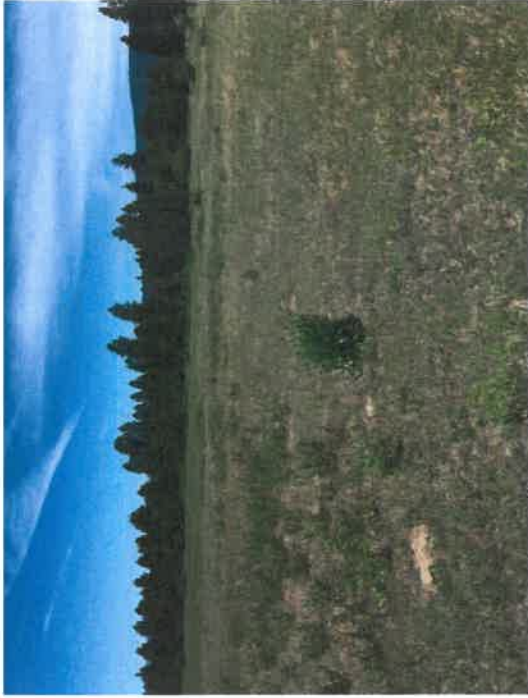


Photo 13: Sulphur cinquefoil, spotted knapweed, common wormwood, and Canada thistle community along eastern edge of

Direction: N Date: 6/3/2019 Time: 12:27 PM Taken by: MT



Photo 14: Sulphur cinquefoil, spotted knapweed, common wormwood, and Canada thistle community along eastern edge of

Direction: SE Date: 6/3/2019 Time: 12:28 PM Taken by: MT



Photo 15: Spotted knapweed, oxeye daisy along eastern edge of Site.

Direction: NE Date: 6/3/2019 Time: 12:42 PM Taken by: MT



Photo 16: Dalmatian toadflax, oxeye daisy, spotted knapweed in northwestern area of Site.

Direction: NE Date: 6/3/2019 Time: 1:22 PM Taken by: MT

**Westside Solar**

**Photo Log (Project# 1009951.0002.03)**

Photographed by: M Talaia-Murray (MT)



Photo 17: Spotted knapweed, oxeye daisy in western area of Site.

Direction: NE    Date: 6/3/2019    Time: 1:44 PM    Taken by: MT

**Attachment C**  
**E & E Field Logbook**

Westob Solar  
June 3, 2019

Habitat  
Noxious Weed / T-E Survey

0700 - R. Locke and M. Talonia - Murray depart Seattle for Cir Slum, project site. Site access is along Westola Rd along southern border of site.

0900 - Arrive at site. Walk down overgrown access road. See red-tailed hawk flying overhead. Take Point 7 to demonstrate site conditions.

0930 - Cow parsnip (*Heracleum lanatum*), NW1.

0955 - Spotted knapweed (*Centaurea maculosa* <sup>Stoebe</sup>), 150 sq. feet from NW2. 20% density (including other poss. species). Open meadow near access road.

1020 - NW3. Canada thistle (*Cirsium arvense*). Partially wooded area with shrubs. 75-100 ft<sup>2</sup> area, 35% density in open areas.

(R) Knapweed collected - within NW3 50 ft<sup>2</sup> area, grows in moist wooded opening 45% cover. Native dominants include *Betula sp.* & mid tree (sample) & *Lonicera*.

1100 - HB1. Opening in wooded area. Dominants include Oregon grape, *Poa bulbosa*. Wooded areas have Sitka alder, elderberry, ponderosa pine, snowberry shrubs, cottonwood.

1117 - HB2 Wet meadow. Dominants include foxtail, spotted knapweed, other knapweed, junus sp, *Poa sp.* <sup>vetin</sup> potential ~~Russian~~ <sup>spiced</sup> knapweed infestation. Approx. 300 ft<sup>2</sup> in lowland wet meadow. 30% cover. [See NWS]

1140 - NW4. Wet meadow. Early stages of blurring. 300 ft<sup>2</sup> across entirety of wet meadow. 15% cover: *Leucanthemum vulgare*. 0% density.

1200 - NW5. Spotted knapweed 300+ ft<sup>2</sup>. Wet meadow. 35% <sup>sp</sup> sporadic clumps. *Centaurea stoebe*.

1305 - NW6. *Cirsium arvense* 25 ft<sup>2</sup>, 10% cover.

1405 - NW7. *Potentilla recta*. 100+ ft<sup>2</sup>, 40% cover eastern

1427 - NW8. *Potentilla recta* upland meadow. Along ~~western~~ <sup>eastern</sup> boundary, midway. Also, spotted knapweed. *Artemisia absinthium* 10 ft<sup>2</sup>, 15%.

Westside Solar

June 3, 2019

Noxious Weed/Habitat Survey

[1227] - *Cirsium arvense*, 10 ft<sup>2</sup>, < 5%.1238 - NW9. Spotted knapweed 100 ft<sup>2</sup>, 40% cover Oxeye daisy, 10%.1247 - HB3 Ponderosa pine stand. Snowberry on fringe. *Poa bulbosa*.1305 - HB4 Shrub-scrub. *Artemisia tridentata* Some *Poa bulbosa*. Few ponderosa pine Deer scat.1310 - NW10. Bindweed. *Convolvulus arvensis*. 10 ft<sup>2</sup>, 5% cover.Also, knapweed 20 ft<sup>2</sup>, < 5%1315 - HB5. Pond w/ wetland fringe. Oxeye daisy, ~~at~~ *Typha latifolia*, sedges, lambs ear1320 - NW11. *Linaria dalmatica*, 25 sq. ft, 5% cover. Oxeye daisy, < 5%.

Spotted knapweed, 25% density. deer scat

1340 - NW12. Spotted knapweed. 100 sq. ft. 60% cover

Oxeye daisy, &lt; 5%. Nesting goldfinches

1350 - HB6. Wet meadow. Dominant foxtail, *trifolium*. sp, horsetail, cat tail, rose, small ponderosa saplings. Noxious oxeye daisy. < 5% Redwing blackbird.1355 - NW13. *Potentilla recta*, ~~100~~ 50 ft<sup>2</sup>, 5%, *Linaria dalmatica*, 1% cover

Knapweed, 30%. Upland grass meadow

1405 - NW14. *Phalaris amurensis*. 100 ft<sup>2</sup>, 50%. Knapweed, 20%.Oxeye daisy, 5%. *Potentilla*, 5%. Canada turtle, 2%1410 - NW15. Knapweed, 100 ft<sup>2</sup>, 65%. *Linaria dalmatica*, 1% cover1420 - HB7. Upland grass. Canada turtle, rose, yellow salix, knapweed, *potentilla*

1427 - Complete survey.

 M  
6-3-19

**Attachment D**  
**U.S. Fish and Wildlife Service Information for Planning**  
**and Consulting (IPaC) Project Area Export**

# 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

Kittitas County, Washington



## Local office

Washington Fish And Wildlife Office

☎ (360) 753-9440

📠 (360) 753-9405

510 Desmond Drive Se, Suite 102  
Lacey, WA 98503-1263

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

# 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<sup>1</sup> 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 Fisheries<sup>2</sup>).

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** *Lynx canadensis*

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

<https://ecos.fws.gov/ecp/species/3652>

Threatened

**Gray Wolf** *Canis lupus*

U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/4488>

Endangered

**Gray Wolf** *Canis lupus*

Western Distinct Population Segment

No critical habitat has been designated for this species.

Proposed Endangered

**North American Wolverine** *Gulo gulo luscus*

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5123>

Proposed Threatened

## Birds

NAME

STATUS

**Marbled Murrelet** *Brachyramphus marmoratus*

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

<https://ecos.fws.gov/ecp/species/4467>

Threatened

**Northern Spotted Owl** *Strix occidentalis caurina*

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

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

Threatened

**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>

Threatened

## Fishes

NAME

STATUS

**Bull Trout** *Salvelinus confluentus*

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

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

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<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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 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*

Breeds Dec 1 to Aug 31

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

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

**Black Swift** *Cypseloides niger*

Breeds Jun 15 to Sep 10

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

<https://ecos.fws.gov/ecp/species/8878>

**Brewer's Sparrow** *Spizella breweri*

Breeds May 15 to Aug 10

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>

**Golden Eagle** *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

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

<https://ecos.fws.gov/ecp/species/1680>

**Lewis's Woodpecker** *Melanerpes lewis*

Breeds Apr 20 to Sep 30

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

<https://ecos.fws.gov/ecp/species/9408>

**Olive-sided Flycatcher** *Contopus cooperi*

Breeds May 20 to Aug 31

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

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

**Sage Thrasher** *Oreoscoptes montanus*

Breeds Apr 15 to Aug 10

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>

**White Headed Woodpecker** *Picoides albolarvatus*

Breeds May 1 to Aug 15

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

<https://ecos.fws.gov/ecp/species/9411>

**Williamson's Sapsucker** *Sphyrapicus thyroideus*

Breeds May 1 to Jul 31

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

<https://ecos.fws.gov/ecp/species/8832>

**Willow Flycatcher** *Empidonax traillii*

Breeds May 20 to Aug 31

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

<https://ecos.fws.gov/ecp/species/3482>

## 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.

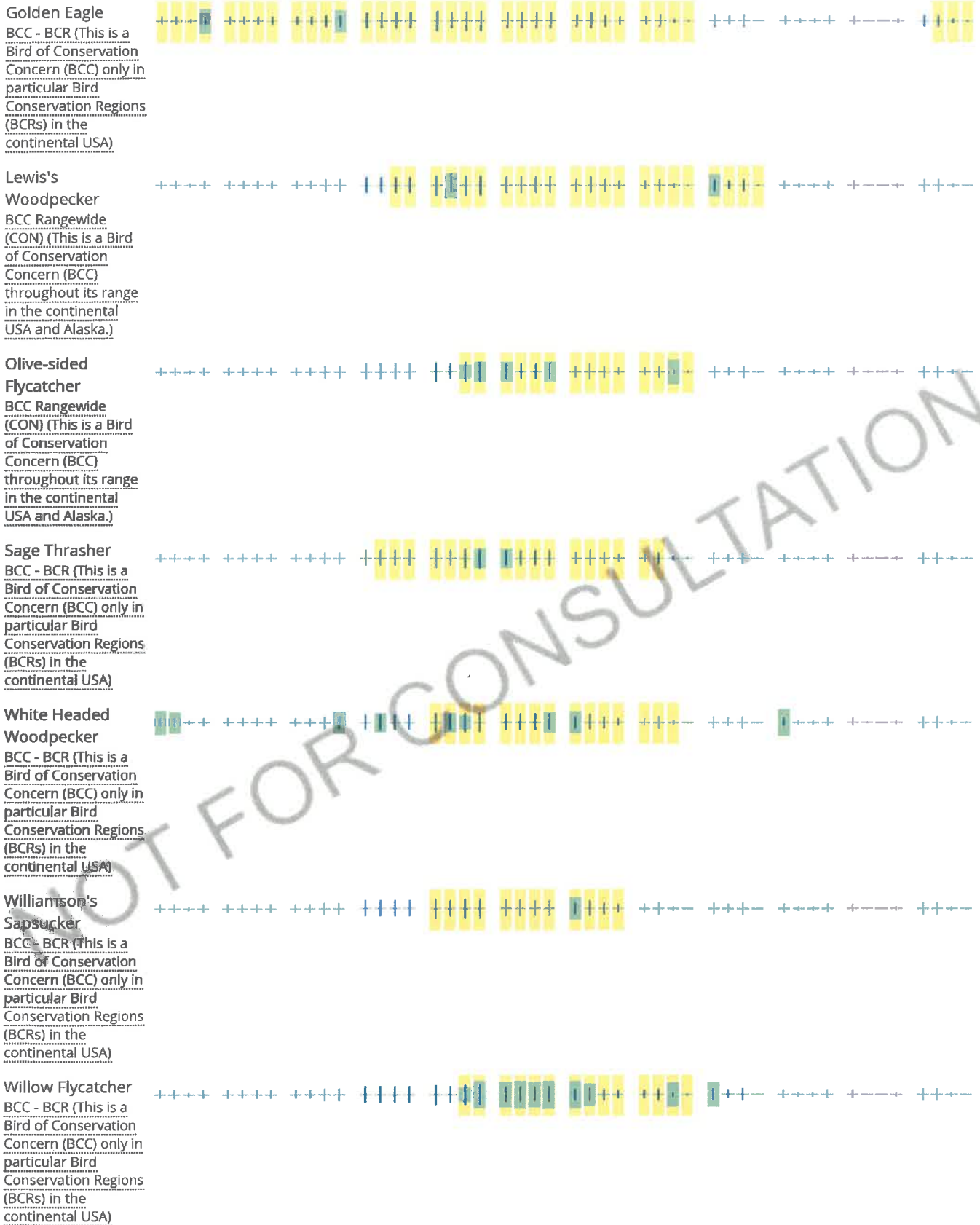
**No Data (—)**

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.





NOT FOR CONSULTATION

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 [AKN Phenology Tool](#).

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

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

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

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

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

### What are the levels of concern for migratory birds?

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

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

Although it is important to try to avoid and minimize impacts to the birds on this project, more information on conservation measures you can take to avoid and minimize impacts and requirements for eagles, please see the [Eagle Act](#).

### Details about birds that are potentially affected

For additional details about the relative occurrence of bird species within your project area off the Atlantic coast, the [Atlantic Coastal Range](#) also offers data and information about other taxa. Alternately, you may download the bird model [Integrative Statistical Modeling and Predictive Modeling](#) from the [Outer Continental Shelf project webpage](#).

Bird tracking data can also provide additional details, including migration. Models relying on survey data and marine bird tracking data, see the [Diving Bird Study](#) by [Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, the [Eagle Act](#) should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird List

The migratory bird list generated is not a list of birds of concern. To learn more about how your list is generated, please see the FAQ "What does my list mean for my specified location". Please be aware this represents the 100 km grid cell(s) that overlap your project; not your project area. Carefully at the survey effort (indicated by the blue horizontal bar). A high survey effort is the key to a high presence score can be viewed as more dependable. If you have a low presence score of data and, therefore, a lack of certainty about the presence of a bird is a point for identifying what birds of concern have the potential to be present and if they might be breeding (which means nesting). To confirm presence, and helps guide you in knowing what birds are present, minimize potential impacts from your project activities. For more information on conservation measures, visit the FAQ "Tell me about potential impacts to migratory birds" at the bottom of your project page.

## Facilities

### National Wildlife Refuge

Any activity proposed on lands managed by the National Wildlife Refuge System requires a 'Compatibility Determination' conducted by the Refuge. Please discuss any questions or concerns with the Refuge.



[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 [AKN Phenology Tool](#).

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

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

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

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

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

### What are the levels of concern for migratory birds?

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

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

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

### Details about birds that are potentially affected by offshore projects

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

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

### What if I have eagles on my list?

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

### Proper Interpretation and Use of Your Migratory Bird Report

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

## 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:

FRESHWATER FORESTED/SHRUB WETLAND

[PSSA](#)

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 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