ATTACHMENT G: 2021 WILDLIFE AND HABITAT SURVEY REPORT

Wautoma Solar Energy Project
Habitat and General Wildlife Survey Report

Prepared for:

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CONFIDENTIAL BUSINESS INFORMATION

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Acronyms and Abbreviations

GPS	global positioning system
Innergex	Innergex Renewable Development USA, LLC
IPaC	Information for Planning and Consultation
PHS	Priority Habitats and Species
Project	Wautoma Solar Energy Project
Tetra Tech	Tetra Tech, Inc.
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife

1.0 Introduction

Innergex Renewable Development USA, LLC (Innergex) plans to develop the Wautoma Solar Energy Project (Project) located in Benton County, Washington approximately 12.5 miles northeast of the city of Sunnyside (Figure 1).

As part of its environmental due diligence, Innergex contracted Tetra Tech, Inc. (Tetra Tech) to conduct habitat and wildlife surveys for the Project. The purpose of the habitat and wildlife surveys was to document the presence of special status and other wildlife species as well as map and characterize habitat in the approximately 4,819-acre Survey Area. For this report, the term "special status wildlife species" includes federal and state endangered, threatened, proposed, and candidate species; species of concern; birds of conservation concern; and state sensitive and priority species. This Habitat and General Wildlife Survey Report was developed to support Project permitting and inform potential avoidance, minimization, and mitigation measures.

2.0 Description of the Survey Area

Habitat and wildlife surveys were conducted in early May 2021 (i.e., Spring 2021 Survey Area; Figure 1), which generally overlaps with the activity and/or breeding periods of the special status wildlife species identified as having the potential to occur at the Project (Appendix A). Early May is also an appropriate time of year to identify plant species in order to accurately characterize habitat in the Survey Area. Subsequent to the completion of habitat and wildlife surveys in May 2021, the original Survey Area was expanded by approximately 990 acres. Additional habitat surveys were conducted within this additional 990 acres in mid-October 2021 (i.e., Fall 2021 Survey Area; Figure 1). Tetra Tech will conduct general wildlife surveys within the Fall 2021 Survey Area in the spring of 2022. Following completion of general wildlife surveys within the Fall 2021 Survey Area, a supplement to this report will be prepared to provide the results of these surveys.

3.0 Agency Coordination

Innergex and Tetra Tech met virtually with the Washington Department of Fish and Wildlife (WDFW) on March 8, 2021, to introduce the Project and discuss planned wildlife, habitat, and rare plant surveys. At the meeting, WDFW concurred with the habitat and wildlife survey timing and survey approach, and gave a verbal description of special-status wildlife that may occur in the Project vicinity. A summary of this meeting is provided in Appendix B. The input from WDFW provided during this meeting was used to inform the habitat and wildlife background review and field surveys.

4.0 Methods

4.1 Background Review

4.1.1 Habitat

Prior to conducting field surveys, Tetra Tech conducted a desktop review of existing information to identify potential habitat types that might be encountered within the Survey Area. Sources that were utilized for the preliminary desktop habitat evaluation are presented in Table 1.

Table 1. Sources Utilized for Preliminary Desktop Habitat Evaluation

Source and Citation	Information Provided in Dataset
WDFW PHS database (WDFW 2021a,b)	Locations of Priority Habitats and Habitat Features within and adjacent to the Survey Area. Priority habitats and features are "habitat types or elements with unique or significant value to a diverse assemblage of species" and are considered priorities for conservation and management in Washington (WDFW 2008).
National Land Cover Database land cover data (Homer et al. 2020)	Land cover types (e.g., shrub/scrub, cultivated crops, grassland/ herbaceous), based on land cover modeling, mapped within and adjacent to the Survey Area.
USFWS National Wetlands Inventory (USFWS 2021a)	Locations of known or potential wetlands within the Survey Area.
U.S. Geological Survey National Hydrography Dataset (USGS 2021)	Locations of known or potential rivers, streams, drainages, ponds, canals, or lakes within the Survey Area.
Google Earth Pro (Google Earth Pro 2021)	Aerial imagery used to determine potential boundaries between land cover and vegetation types within the Survey Area based on aerial signatures of land cover and vegetation types.
Management recommendations for Washington's priority habitats (Azerrad et al. 2011)	Provides protocols for identifying and mapping shrub-steppe over broad landscapes.
Wildlife-habitat Relationships in Oregon and Washington (Johnson and O'Neil 2001)	Provides descriptions of habitat types found in Oregon and Washington, including those found in the Columbia Plateau ecoregion.
Ecological Systems of Washington State, A Guide to Identification (Rocchio and Crawford 2015)	Provides descriptions of ecological systems and vegetation types found within Washington.
WDFW Wildlife Wind Power Guideline habitat types (WDFW 2009)	Provides descriptions of various habitat types found within eastern Washington.
Washington Large Fires 1973-2020 (DNR 2021)	Provides the locations and boundaries of large (typically over 100 acres) fires in Washington state between 1973 and 2019. Used to determine locations of past fires within and adjacent to the Survey Area that may have resulted in changes to vegetation within the Survey Area.
SAGEMAP Sagebrush Habitat (USGS 2011)	Locations of potential sagebrush habitat within and adjacent to the Survey Area.

4.1.2 Wildlife

Prior to conducting field surveys, Tetra Tech conducted a desktop review of existing information to identify special status wildlife species with the potential to occur at the Project. Tetra Tech reviewed habitat and range information for special status wildlife species known to occur in Benton County and the Columbia Plateau Ecoregion to develop the list of species that had the potential to occur at the Project. Species were eliminated from consideration if their habitat was absent from the Survey Area (e.g., perennial streams and riparian vegetation as determined via desktop sources and confirmed during March 2021 wetlands and waters surveys; Tetra Tech 2022a) or if their current range did not overlap with the Project (e.g., pygmy rabbit [*Brachylagus idahoensis*]).

Specific sources of information that were reviewed prior to conducting field surveys are presented in Table 2.

Table 2. Sources Utilized for Special Status Wildlife Species Evaluation

Source and Citation	Information Provided in Dataset
Tetra Tech Wautoma Solar Wetland Delineation Report (Tetra Tech 2022a)	Presence/absence of appropriate habitat for aquatic and riparian associated wildlife species.
U.S. Fish and Wildlife Service (USFWS) federally listed species list for Project location in Benton County (USFWS 2021b)	List of species and other resources such as critical habitat under USFWS jurisdiction that are known or expected to occur on or near the Project.
USFWS Birds of Conservation Concern (USFWS 2021c)	List of federal bird species of concern in Bird Conservation Region 9 (Great Basin).
Washington State Listed and Candidate Species (WDFW 2020)	List of Washington state Endangered, Threatened, Candidate, and Sensitive species.
WDFW Priority Habitats and Species (PHS) List (WDFW 2008)	List of wildlife species identified by WDFW as priorities for conservation and management. Priority species include State Endangered, Threatened, Sensitive, and Candidate species; animal aggregations (e.g., heron colonies, bat colonies) considered vulnerable; and species of recreational, commercial, or tribal importance that are vulnerable.
WDFW PHS on the Web (WDFW 2021a)	Publicly available records of PHS in the Project vicinity.
WDFW Threatened and Endangered Species Profiles (WDFW 2021c)	Reference for individual Washington state Threatened, Endangered, and Candidate species including population size, description, range, climate change sensitivity, and conservation status, threats, and actions needed.
WDFW PHS Distribution by County (WDFW 2021d)	PHS with distribution in Benton County.

In addition to reviewing publicly available sources, Tetra Tech consulted with WDFW (Appendix B) and submitted a formal request to the WDFW to obtain site-specific records of PHS within 5 miles of the Project for raptor nests and within 1 mile of the Project for all other resources (WDFW 2021b; Figure 2), based on the Project boundary at the time of the request. Based on review of the above sources, Tetra Tech compiled a list of special status wildlife species known to occur or with the potential to occur at the Project (Appendix A). This list was reviewed prior to conducting field surveys to ensure surveyor familiarity with the relevant species. The USFWS Birds of Conservation

Concern List was updated in June 2021, following surveys at the Project (USFWS 2021c). Consequently, the list of special status wildlife species and their statuses presented in Appendix A have been updated to reflect these updates.

4.2 Field Surveys

4.2.1 Habitat

Tetra Tech conducted habitat surveys concurrently with wildlife and rare plant surveys (rare plant surveys are addressed under separate cover [Tetra Tech 2022b]), which consisted of biologists walking meandering transects in non-cultivated land within the Survey Area. Field surveys were conducted by a team of two biologists familiar with eastern Washington Columbia Plateau Ecoregion habitats, WDFW priority habitats (WDFW 2008), and the WDFW Wind Power Guidelines habitat categories[1] (WDFW 2009).

During field surveys, habitat types within the Survey Area were documented, mapped, and characterized. In general, habitat types were adapted from habitat descriptions in the Wildlife-Habitat Relationships in Oregon and Washington publication (Johnson and O'Neil 2001), the Priority Habitats and Species List (WDFW 2008), and the WDFW Wind Power Guidelines (WDFW 2009). To help map habitat types, biologists collected global positioning system (GPS) points at each change in habitat type encountered. Dominant plant species and other habitat characteristics (e.g., percent cover of native and non-native species, disturbances noted) observed at these habitat points were recorded to accurately classify and describe habitat types. In addition, the biologists scanned the adjacent landscape from vantage points that allowed views across the landscape to help map habitat boundaries.

Habitat boundaries were either digitized in the field using aerial photos on Samsung Galaxy tablets using ArcGIS Collector software and/or drawing habitat boundaries (based on data collected in the field) in Google Earth that were then digitized following the field surveys. A minimum mapping unit of 1 acre was implemented, except for priority habitat types such as shrub-steppe and talus, which were mapped to the finest scale at which these features were meaningfully discernable.

4.2.2 Wildlife

Tetra Tech conducted wildlife surveys concurrently with habitat and rare plant surveys (rare plant surveys are addressed under separate cover [Tetra Tech 2022b]). Field surveys were conducted by a team of two biologists familiar with wildlife species found in the Eastern Washington Columbia Plateau Ecoregion. Biologists walked meandering transects within non-cultivated land throughout the Survey Area. The biologists alternately scanned the landscape, the sky, and the ground looking

[1] The WDFW Wind Power Guidelines (WDFW 2009) provide specific management recommendations, alternatives for site assessment, and mitigation options and construction alternatives for avoiding impacts to Washington's wildlife resources and habitat for proposed wind power projects. Currently, there are no similar guidelines for solar power projects.

for wildlife species and recognizable signs of wildlife (e.g., scat, tracks, burrows, and nests). Surveys began early in the morning and continued through late afternoon to capture optimal wildlife activity levels in this region. Areas unlikely to support special status wildlife species (i.e., cultivated land and developed areas) were surveyed primarily from vehicles by driving paved, gravel, and two-track roads. These areas were surveyed on foot in situations where the full extent was not visible from the vehicle, areas of potential habitat or nesting opportunities for special status wildlife species were identified, or areas of adjacent habitat required categorization.

The biologists focused on species occurrences and habitat suitability for special status wildlife species with the potential to occur at the Project (Appendix A), and prioritized surveys and habitat suitability evaluations for the following special status wildlife species identified by WDFW during pre-survey coordination (Appendix B):

- ferruginous hawk (*Buteo regalis*) and burrowing owl (*Athene cunicularia*) (i.e., state endangered and candidate bird species);
- black-tailed jackrabbit (*Lepus californicus*), white-tailed jackrabbit (*Lepus townsendii*), and Townsend's ground squirrel (*Urocitellus townsendii nancyae*) (i.e., state candidate mammal species and prey for ferruginous hawks); and
- elk (*Cervus elaphus)*.

For instance, concentrated areas of small rodent burrows with the potential to be occupied by Townsend's ground squirrels, if identified in the field, would be targeted for further investigation. Methods consistent with those described in Cranna and Nugent (2016) would be employed (a combination of visual investigation and attempts to elicit the calls of maternal females). Similarly, areas of potentially suitable habitat for sagebrush-associated or sagebrush-obligate avian species, if identified, would be targeted for additional investigation (e.g., an opportunistic point-count survey). A single point-count is not appropriate for characterizing the entire avian community using the Project or the habitat type, but does provide additional insight into avian use in a target habitat. Because sagebrush-associated species of concern are primarily songbirds (e.g., loggerhead shrike [*Lanius ludovicianus]*, sagebrush sparrow [*Artemisiospiza nevadensis]*, and sage thrasher *[Oreoscoptes montanus]),* a supplemental point-count or point-counts would be conducted in the morning when songbirds are generally more active and vocal. The biologist would survey from a single location for 1 hour in the morning, using binoculars and a spotting scope. The biologist would record each species detected by sight or sound, and the approximate number of each species detected.

Tetra Tech and Innergex met with WDFW staff on March 8, 2021, prior to conducting field surveys, and received concurrence that the wildlife surveys as proposed, including methods, timing, and extent, were appropriate (Appendix B).

The biologists maintained a running list of all wildlife species observed, and when a special status wildlife species or recognizable sign was encountered, they recorded 1) the GPS location of the wildlife or sign with a Samsung Galaxy tablet using ArcGIS Collector software, and 2) information on the number of individuals and their behavior as applicable. Following field surveys, the digitized data were downloaded and processed in a geographic information system (GIS), and were reviewed for quality control and assurance.

5.0 Results and Discussion

5.1 Background Review

5.1.1 Habitat

The desktop review confirmed the absence of USFWS Critical Habitat within the Survey Area (USFWS 2021b). The PHS query identified three priority habitats within 1 mile of the Survey Area: a talus slope located east of the Survey Area, a freshwater emergent wetland located south of the Survey Area, and shrub-steppe habitat located to the west, northwest, and east of the Survey Area (Figure 2; WDFW 2021b). No priority habitats were identified within the Survey Area based on existing databases; however, shrub-steppe habitat was identified just to the east of the Survey Area. Multiple intermittent streams are identified within the Survey Area based on the National Hydrography Dataset (USGS 2021). The National Wetlands Inventory maps many riverine wetlands, primarily associated with NHD-mapped streams, within the Survey Area (USFWS 2021a). Terrestrial habitat types identified as potentially occurring in the Survey Area included agriculture, developed, non-native grassland and forbland, planted grassland, shrub-steppe, and talus. Several fire complexes were identified as having occurred within the Survey Area between 1979 and 2020 including the following: the 1984 Hanford Fire, the 1987 Lambing Fire, the 1990 Nake Fire, the 2007 Wautoma Fire, the 2009 Dry Creek Complex, and the 2016 Range 12 Fire (DNR 2021). The entire Survey Area is located within the extent of one or more of these fires. SAGEMAP data identified sagebrush habitat as present in scattered locations, primarily in the northern and western portions of the Survey Area (USGS 2011).

5.1.2 Wildlife

Tetra Tech identified 26 special status wildlife species with potential to occur at the Project, including 18 birds, 6 mammals, and 2 reptiles (Appendix A). Of these 26 species, 4 species are state listed as threatened and endangered as designated in WAC 220-610-010 and 220-200-100 while none are federally listed as threatened or endangered under the federal Endangered Species Act. A query of USFWS Information for Planning and Consultation (IPaC) data identified three federally listed species with potential to occur on or near the Project (Columbia Basin pygmy rabbit, yellow-billed cuckoo *[Coccyzus americanus]*, and bull trout *[Salvelinus confluent]*; USFWS 2021b); however, these species were eliminated from consideration based on a lack of suitable habitat within the Survey Area (i.e., perennial streams and riparian vegetation; Tetra Tech 2022a) or lack of current range overlap with the Project (i.e., pygmy rabbit, whose only remaining population in Washington is located in Douglas County; WDFW 2021c,d). The desktop review also identified golden eagle *(Aquila chrysaetos)* as having potential to occur at the Project (USFWS 2021b); this species is federally protected under the Bald and Golden Eagle Protection Act.

The results of the PHS query identified a single record of one special status wildlife species within 1 mile of the Project. This record (i.e., multiple burrowing owl burrows) was documented in 2014 and

is located approximately 0.25 mile north of the Project (Figure 2; WDFW 2021b). The PHS database had eight additional nest records of raptors tracked by PHS within 5 miles of the Project, including five ferruginous hawk (*Buteo regalis*) nests and three prairie falcon (*Falco mexicanus*) nests. The PHS query also identified that the Project occurs within elk winter range, which covers the entirety of the Survey Area (WDFW 2021b).

Raptor nests identified at the Project are further addressed in the Raptor Nest Survey Report (Tetra Tech 2022c), which describes ground-based raptor nest surveys conducted from May 9 to May 12, 2021.

5.2 Field Surveys

Tetra Tech conducted habitat and wildlife surveys and rare plant surveys (rare plant surveys are addressed under separate cover [Tetra Tech 2022b]) within the Survey Area from May 10 through May 15, 2021 (Spring 2021 Survey Area). Additional habitat surveys were conducted within the Supplemental Survey Area on October 12 and 13, 2021 (Fall 2021 Survey Area). Results of the habitat and wildlife field surveys are provided in the following sections. Weather conditions during the spring 2021 surveys were optimal for detecting wildlife during surveys, with no rain and low wind.

5.2.1 Habitat

Biologists mapped nine habitat types within the Survey Area: agriculture, developed/disturbed, eastside (interior) grassland, irrigated hedgerows, non-native grassland and forbland, planted grassland, rabbitbrush shrubland, shrub-steppe, and talus. Table 3 lists the acres of each habitat type found within the Survey Area while Figure 3 displays the location of the habitat types mapped within the Survey Area. Each of these habitat types is briefly described below. Representative photos of select habitat types are provided in Appendix D.

Table 3. Habitat Types Mapped within the Survey Area

Habitat Type	Acres in Survey Area	Percent of Survey Area
Planted grassland	2,180	45
Non-native grassland and forbland	1,519	32
Agricultural land	793	16
Rabbitbrush shrubland	131	3
Eastside (interior) gassland[1]	95	2
Shrub-steppe[1]	63	1
Developed/disturbed	25	1
Irrigated hedgerows	9	<1
Talus[1]	4	<1
Total[2]	**4,819**	**100**

[1] Listed as a High Priority Habitat or Priority Habitat Feature by the WDFW (WDFW 2008).
[2] Totals may not sum exactly due to rounding.

In general, habitat types were adapted from the habitat descriptions in Wildlife-Habitat Relationships in Oregon and Washington (Johnson and O'Neil 2001), the WDFW Priority Habitats and Species List (WDFW 2008), and the Washington Department of Fish and Wildlife Wind Power Guidelines (WDFW 2009). In addition to the nine habitat types listed in Table 3, three palustrine emergent wetlands and 34 ephemeral drainages were mapped within the Survey Area; these drainages are discussed in the Wetland Delineation Report prepared for the Project (Tetra Tech 2022a).

5.2.1.1 Planted Grassland

Planted grassland was the most prevalent habitat type within the Survey Area. Although this habitat type was observed in locations throughout the Survey Area, it was most widespread in the eastern portion of the Survey Area (Figure 3). Areas mapped as planted grassland in the eastern portion of the Survey Area are currently enrolled in the Conservation Reserve Program (CRP; L. O'Neill, personal communication, March 16, 2022). In total, approximately 524 acres are enrolled in the CRP. Areas mapped as planted grassland in the central and western portions of the Survey Area are not currently enrolled in the CRP program (L. O'Neill, personal communication, March 5, 2021). However, these areas are presumed to be restoration plantings on former agricultural land or land disturbed by wildfire due to the shape of the fields and the plant species present (described below).

Areas mapped as planted grassland included areas where the dominant planted grass species observed was the non-native grass crested wheatgrass (*Agropyron cristatum*), areas consisting predominantly of native grass cultivars including bluebunch wheatgrass (*Pseuodoroegneraia spicata*) and big bluegrass (*Poa secunda* ssp. *juncifolia*), and areas where crested wheatgrass and native perennial grass cultivars were both common. In addition to planted grasses, relatively high cover of the non-native grasses bulbous bluegrass (*Poa bulbosa*) and cheatgrass (*Bromus tectorum*) was typically observed in planted grassland habitat. Rubber rabbitbrush (*Ericameria nauseosa*) was also occasionally observed in this habitat type; however, areas mapped as planted grassland typically contained less than 10 percent cover of rabbitbrush. Areas where high cover of rabbitbrush (i.e., greater than approximately 10 percent cover) was observed were mapped as the rabbitbrush shrubland habitat type (see Section 4.2.1.4). Forb cover and diversity was typically low in areas mapped as planted grassland. Forbs that were observed included the native forbs hawksbeard (*Crepis* spp.) and fiddleneck (*Amsinckia* spp.) and the non-native forbs common stork's bill (*Erodium cicutarium*) and tall tumblemustard (*Sisymbrium altissimum*).

The quality of planted grassland habitat type varied, with some areas, such as in the south-central and southeastern portion of the Survey Area, containing a higher predominance of native species such as bluebunch wheatgrass, big bluegrass, and hawksbeard and lower cover of non-native invasive species. Other areas of planted grassland habitat, such as in the northwestern portion of the Survey Area, contained a high predominance of non-native species including the planted perennial grass crested wheatgrass, as well as higher cover of non-native invasive species such as bulbous bluegrass, cheatgrass, common stork's bill, and tall tumblemustard.

This habitat type is not readily classified according to Johnson and O'Neil (2001); however, it most readily falls into the "Unimproved Pasture" subtype of the "Agriculture, Pastures, and Mixed

Environs" habitat type (Johnson and O'Neil 2001). Per Johnson and O'Neil (2001), unimproved pastures include "*…rangelands planted to exotic grasses that are found on private land, state wildlife areas, federal wildlife refuges and U.S. Department of Agriculture Conservation Reserve Program (CRP) sites*." Although some areas mapped as planted grassland consisted predominantly of native grass species (versus exotic grasses noted in the description of unimproved pasture), as noted above, areas mapped as planted grassland in the eastern portion of the Survey Area are enrolled in the CRP. The areas mapped as planted grassland that are not enrolled in the CRP are likely restoration plantings and were likely planted to restore areas burned during past wildfires.

5.2.1.2 Non-Native Grassland and Forbland

Non-native grassland and forbland was the second most prevalent habitat type within the Survey Area. This habitat type was noted throughout the Survey Area; however, it was most widespread in the northern portion of the Survey Area (Figure 3). Much of the area mapped as non-native grassland appeared to be used to graze livestock including cattle, goats, and sheep, and heavy grazing was noted in some of these areas (Appendix D, Photos 4 and 5). Other areas mapped as non-native grassland and forbland include areas around the edge of agricultural fields and within and along drainages and upland swales in the southern and central portions of the Survey Area.

Dominant species found in the non-native grassland and forbland habitat included non-native grasses such as bulbous bluegrass, cereal rye (*Secale cereale*), and cheatgrass as well as non-native forbs including blue mustard (*Chorispora tenella*), common stork's bill, tall tumblemustard (*Sisymbrium altissimum*), and yellow salsify (*Tragopogon dubius*). Although native grasses and forbs, including bluebunch wheatgrass, Sandberg bluegrass (*Poa secunda* ssp. *secunda*), and fiddleneck also occasionally occurred in this habitat type, they typically represented a small percentage of the overall vegetative cover in the area. The non-native grassland and forbland habitat type is most readily classified as the "modified grassland" and "unimproved pasture" subtypes of the "Agriculture, Pasture, and Mixed Environs" habitat type as described in Johnson and O'Neil (2001).

5.2.1.3 Agricultural Land

Agricultural land primarily occurs in the central portion of the Survey Area (Figure 3). Agricultural land within the Survey Area consisted of fallow and active wheat and irrigated alfalfa fields and livestock and horse pastures.

5.2.1.4 Rabbitbrush Shrubland

The rabbitbrush shrubland habitat type was mapped in several locations in the southern and eastern portions of the Survey Area (Figure 3). Areas mapped as rabbitbrush shrubland in the southcentral and northeastern portions of the Survey Area were similar to the planted grassland habitat type described above, with the exception that cover of rubber rabbitbrush and green rabbitbrush (*Chrysothamnus viscidiflorus*) typically exceeded 10 percent. It is unknown whether rabbitbrush was planted in these areas or has established naturally. Similar to the planted grassland habitat type, areas of rabbitbrush shrubland in the southeastern portion of the Survey Area are not readily classified according to Johnson and O'Neil (2001); however, they most readily

fall into the "Unimproved Pasture" subtype of the "Agriculture, Pastures, and Mixed Environs" habitat type. Rubber rabbitbrush is an early seral species that readily colonizes disturbed sites, such as areas disturbed by overgrazing or fire, or consist of abandoned agricultural lands (Faber et al. 2013; Tirmenstein 1999; USDA 2017). If not intentionally planted, rabbitbrush likely colonized these areas following the planting of grasses.

In addition to rabbitbrush, other species commonly observed in rabbitbrush shrubland habitat in the southeast and northeast portions of the Survey Area included cultivars of the native grasses big bluegrass and bluebunch wheatgrass and the non-native grasses crested wheatgrass, cheatgrass, and bulbous bluegrass. Similar to the planted grassland habitat type, forb cover and diversity was low in this habitat type; however, common forbs that were observed included the native forbs hawksbeard, hoary-aster (*Dieteria canescens*), lupine (*Lupinus* spp.), and threadleaf fleabane (*Erigeron filifolius*), and the non-native forbs common stork's bill and tall tumblemustard.

The areas mapped as rabbitbrush shrubland in the southwestern portion of the Survey Area were primarily located along drainages and adjacent hillslopes adjacent to and above areas of planted grassland habitat (Appendix D, Photo 13). Rabbitbrush may have colonized these areas following past wildfires, including the 2016 Range 12 Fire. Dominant species in areas of rabbitbrush shrubland habitat in the southwestern portion of the Survey Area included rubber rabbitbrush, bulbous bluegrass, cheatgrass, Sandberg bluegrass, common stork's-bill, hawksbeard, long-leaf phlox (*Phlox longifolia*), lupine, and tall tumblemustard.

5.2.1.5 Eastside (Interior) Grassland

Eastside (interior) grassland was mapped in several locations in the Survey Area (Figure 3). Within the Survey Area, this habitat type was primarily found on hillslopes and crests of hills where topography precludes agricultural production.

Common species observed in eastside (interior) grasslands within the Survey Area included the following native grasses and forbs: bluebunch wheatgrass (*Pseudoroegneria spicata*), Idaho fescue (*Festuca idahoensis*), needle-and-thread (*Hesperostipa comata*), Sandberg bluegrass (*Poa secunda* ssp. *secunda*), Carey's balsamroot (*Balsamorhiza careyana*), desert-parsley (*Lomatium* spp.), threadleaf fleabane, long-leaf phlox, lupine, woolly plantain (*Plantago patagonica*), as well as the following non-native grasses: bulbous bluegrass and cheatgrass.

Shrub cover was absent or sparse (i.e., less than five percent cover) and consisted of scattered green rabbitbrush and rubber rabbitbrush shrubs. Remnant dead shrubs, presumably of big sagebrush (*Artemesia tridentata*), were observed in this habitat type in the southwest portion of the Survey Area; however, no live big sagebrush shrubs were observed. These shrubs were likely killed in the 2016 Range 12 Fire.

Although signs of grazing were present, eastside (interior) grassland in the southwest and eastern portions of the Survey Area were more intact (e.g., lower cover of non-native species, less signs of grazing) than the eastside (interior) grassland habitat observed in the central portion of the Survey Area. Eastside (interior) grassland habitat in the central portion of the Survey Area was noted as having high cover of non-native species and was more heavily grazed by livestock.

5.2.1.6 Shrub-steppe

Approximately 63 acres (2 percent) of the north-central portion of the Survey Area was mapped as shrub-steppe habitat (Figure 3). This habitat type was characterized by an open to relatively dense (i.e., 5 to 50 percent) cover of native shrubs and was patchy in its distribution. Big sagebrush was the most dominant shrub species in this habitat type. Other shrub species observed within this sagebrush shrub-steppe habitat included rubber rabbitbush, green rabbitbrush, and threetip sagebrush (*Artemisia tripartita*).

Grasses commonly observed in this shrub-steppe habitat included the native grasses Sandberg bluegrass and squirreltail (*Elymus elymoides*), as well as the non-native grasses bulbous bluegrass, cheatgrass, and crested wheatgrass. Similar to other habitat types in the Survey Area, forb cover and diversity in this habitat type was low. The forbs that were observed include the native forbs hawksbeard, hoary-aster, threadleaf fleabane, and woollypod milkvetch (*Astragalus purshii*).

Patches of shrub-steppe habitat within the Survey Area were found along hillslopes and crests of hills or along ephemeral drainages. In general, shrub-steppe habitat within the Survey Area was heavily degraded due to livestock grazing and presence of non-native species. In addition, past wildfires have not only resulted in total loss of shrub-steppe habitat in the Survey Area, but have also degraded and reduced the size of the remaining patches of shrub-steppe.

5.2.1.7 Developed/disturbed

Developed/disturbed habitat identified within the Survey Area included roads, structures, and other areas disturbed in association with agricultural and ranching activities, and portions of the existing Black Rock substation. The majority of the areas mapped as developed/disturbed were unvegetated or sparsely vegetated. However, where present, vegetation within developed areas was dominated by non-native invasive species such as bulbous bluegrass, cheatgrass, common stork's bill, and tall tumblemustard.

5.2.1.8 Irrigated Hedgerows

Two irrigated hedgerows were mapped within the Survey Area (Figure 3). These areas provide wildlife habitat bordering the irrigated croplands, although recent fires have destroyed the hedgerow on the southwest side of the Survey Area. Tree and shrub species observed in these hedgerows include black locust (*Robinia pseudoacaca*), elm (*Ulmus* spp.), rose (*Rosa* spp.), Russian-olive (*Elaeagnus angustifolia*), and western juniper (*Juniperus occidentals*). This habitat type is most readily classified as agricultural land per Johnson and O'Neil (2001) because it is intentionally cultivated and irrigated; however, it was mapped separately due to the presence of shrub and tree species not observed in other agricultural lands. In addition, this area provides additional habitat for wildlife that is not found in other agricultural lands mapped within the Survey Area.

5.2.1.9 Talus

One small (approximately 4 acres) area of talus was mapped in the southwestern portion of the Survey Area (Figure 3). Additional talus was noted west of the Survey Area, based on observations from within the Survey Area. This habitat type includes sparsely vegetated scree and talus on steep

slopes. Vegetation was primarily located in between patches of talus and scree (Appendix D, Photos 2 and 23) and consisted primarily of native and non-native grasses including bluebunch wheatgrass, bulbous bluegrass, cheatgrass, needle-and-thread, and Sandberg bluegrass. Forbs that were observed include butterfly bearing biscuit-root (*Lomatium papilioniferum*) and Carey's balsamroot.

5.2.2 Wildlife

Tetra Tech observed 36 bird species and 1 mammal species within the Survey Area during surveys (Appendix C). Of these 37 species, 1 bird species (ferruginous hawk) has a special status (designated state threatened at the time of surveys and subsequently up-listed to endangered; Appendix C; Figure 3; Appendix D, Photo 24; WDFW 2021e). No federally threatened or endangered species were observed. Burrowing owls (a state candidate species) were observed outside the Survey Area during raptor nest surveys and are addressed in the Raptor Next Survey Report (Tetra Tech 2022c). In the Survey Area, wildlife use in general was concentrated near manmade features, particularly associated with water sources. Irrigation pipes across the Project are deployed in both concentrated ways (crop irrigation infrastructure and livestock ponds) and indirect ways (leaks), providing water for plants, animals, and insects.

5.2.2.1 Birds

The highest bird diversity was observed near irrigated crops, near home sites, at livestock ponds, and in the shrubs and trees (irrigated hedgerows) in the south section of the Project. Common ravens (*Corvus corax)* and red-tailed hawks (*Buteo jamaicensis*) were documented nesting on transmission towers (Tetra Tech 2022c). Swainson's hawks *(Buteo swainsoni)*, western kingbirds (*Tyrannus verticalis)*, Brewer's blackbirds (*Euphagus cyanocephalus)*, mourning doves (*Zenaida macroura)*, and black-billed magpies (*Pica hudsonia)* nest in irrigated hedgerows. Red-winged blackbirds (*Agelaius phoeniceus*) and savannah sparrows (*Passerculus sandwichensis*) called from irrigated crops where Northern harriers *(Circus hudsonius)* were also primarily observed. Killdeer (*Charadrius vociferus*) chicks and a pair of green-winged teal (*Anas crecca*) flushed from the edge of a livestock pond. European honeybees (*Apis mellifera*) congregated at the leaking joints of irrigation pipes. At home sites, species including American robins (*Turdus migratorious)*, house finches (*Haemorhous mexicanus)*, California quail (*Callipepla californica)*, house sparrows (*Passer domesticus)*, yellow warblers (*Setophaga petechia)*, and American goldfinches (*Spinus tristis*) were heard and seen.

In undeveloped areas where eastside grasslands, planted grasslands, rabbitbrush shrubland and shrub-steppe were mapped (Figure 3), grassland species were observed including grasshopper sparrow (*Ammodramus savannarum)*, lark sparrow (*Chondestes grammacus)*, vesper sparrow (*Pooecetes gramineus)*, long-billed curlew (*Numenius americanus)*, horned lark (*Eremophila alpestris)*, and western meadowlark (*Sturnella neglecta)*. A single turkey vulture (*Cathartes aura)* was observed soaring over a grassland area. Swainson's and red-tailed hawks were occasionally observed soaring over grassland and shrubland areas but were primarily observed hunting the irrigated crops. A single adult ferruginous hawk was observed soaring in the southwest portion of

the Project, approximately 2 miles due north of a PHS nest location on Rattlesnake Ridge (Figures 2 and 3; Appendix D, Photo 24). No ferruginous hawk nests were located at the Project during raptor nest surveys (Tetra Tech 2022c).

During habitat surveys, an area of shrub-steppe habitat with a big sagebrush and threetip sagebrush component was identified in the northeastern section of the Project. This is the only area within the Project with the potential to support sagebrush-associated or sagebrush-obligate species; therefore, an hour-long point-count was conducted in this area on May 14, 2021 from 6:10 a.m. to 7:10 a.m. to determine whether any of these species were present (Figure 3; Appendix D, Photo 25). Species documented during this observation period were horned lark, Western meadowlark, grasshopper sparrow, long-billed curlew, vesper sparrow, and lark sparrow. No sagebrush-associated or sagebrush-obligate species were heard or seen (e.g., greater sage grouse [*Centrocercus urophasianus],* loggerhead shrike, sagebrush sparrow, sage thrasher).

In the northern portion of the Survey Area, where non-native grassland and forbland is the dominant habitat type, few individual birds were observed. Species observed in these areas were primarily horned larks, but a single long-billed curlew was also observed. Common ravens were also observed in these areas near the substation where nests occur on transmission towers. During raptor nest surveys, active burrowing owl burrows were documented approximately 0.25 mile north of the Project (Tetra Tech 2022c); however, no active or potentially active burrowing owl burrows were found within the Survey Area during the raptor nest, habitat, or wildlife surveys (where biologists scanned the Project while surveying on foot, scanned the terrain with binoculars and a spotting scope to identify potential burrows at a distance, and investigated potential locations as necessary).

A partial raptor carcass was found in the bottom of a small canyon below the talus slope identified during habitat surveys (Appendix D, Photo 26). Most tail feathers, a partial wing (primaries), and scattered cluster of body feathers were found within an approximately 30-meter radius. The few pieces left of this scavenged carcass provided no other insight into potential cause of death. This carcass is most likely the remains of an adult golden eagle[2]. No observations of golden eagles using the Survey Area were recorded during surveys.

5.2.2.2 Mammals

Biologists observed one large mammal species (i.e., coyote [*Canis latrans]*) during surveys at the Project. An active coyote den area was identified in an area of planted grassland, in the soft bank of an ephemeral drainage. Two adults and four pups were observed emerging from two den entrances. Several other similar burrows were observed at the Project but appeared inactive upon investigation.

The Project is in heavy use by domestic sheep and cows. Fresh tracks and droppings of these species are ubiquitous and continuously refreshed, likely obscuring sign of other species less frequently present, or which are present in smaller numbers than the domestic herds. Mule deer

[2] Primary length approximately 18 to 24 inches (at least 45 centimeters), tail feathers at approximately 10 to 12 inches (at least 25 centimeters), and overall coloration (USFWS 2020; Liguori et al. 2020).

(*Odocoileus hemionus*) and elk scat were found scattered in the planted grassland, eastside grassland, and shrubland habitat areas. Scat was generally desiccated. Mule deer scat was found more frequently than elk scat. Tracks of mule deer were identified; however, elk tracks were not definitively identified during the summer 2021 survey. Similar to observations of birds, the most abundant mammal signs were found either at water sources or along game trails leading to water sources (including signs of coyote, mountain lion [*Puma concolor]*, mule deer, other small mammals).

During a supplemental raptor nest survey performed on October 2, 2021, within the Fall 2021 Survey Area, two groups of elk were observed within the adjacent Hanford Site, outside the Survey Area. Using binoculars and a high-powered spotting scope, biologists observed a total of approximately 70 individuals. Tracks leading from the Hanford Site to and from a watering structure within the Project were observed along game trails and along a two-track within the Survey Area.

No small mammals were observed; however, small mammal scat and sign were observed. Rabbit scat was observed in only one location in an area of eastside grassland on a hilltop in the southwestern edge of the Project. No jackrabbits were observed. Biologists identified one small rodent colony that was investigated for potential occupancy by Townsend's ground squirrels. This colony occupied an approximately 10-square-meter area and was composed of 20 or more burrows. Burrow entrances were clear of cobwebs and vegetation, trails were visible connecting burrow to burrow, and small rodent scat was observed near burrow entrances and in the trails. On May 15, 2021, at 6:00 a.m., a biologist sat approximately 50 to 100 meters away from the colony with a spotting scope and remained still, listening and watching, until 7:00 a.m. No rodents were detected. The biologist then approached the colony to potentially elicit alarm calls from maternal females (Cranna and Nugent 2016). No calls were heard and no rodents were observed. Burrows were later determined to be 1 to 2 inches in diameter on average, generally considered too small for Townsend's ground squirrels (Appendix D, Photo 27; Cranna and Nugent 2016).

6.0 Conclusions and Recommendations

Biologists mapped nine habitat types within the Survey Area. The vast majority (approximately 93 percent) of the Survey Area consisted of three habitat types: planted grassland, non-native grassland and forbland, and agriculture. The other six habitat types composed the remaining approximately 7 percent of the Survey Area.

Three of the nine habitat types mapped within the Survey Area are considered Priority Habitats or Priority Habitat Features by the WDFW, including eastside (interior) grassland (i.e., eastside steppe), shrub-steppe, and talus (WDFW 2008). A total of approximately 162 acres (3 percent of the Survey Area) consisted of Priority Habitats or Features.

Biologists observed 36 bird species and 1 mammal species during surveys, including 1 special status bird species (Appendix C). A single ferruginous hawk was observed briefly soaring in an area of native grassland habitat in the far southwestern edge of the Project; however, there is neither

appropriate nesting substrate nor an apparent prey base for larger raptors such as ferruginous hawks and golden eagles in most of the Project (Katzner et al. 2020; Ng et al. 2020; Tetra Tech 2022c). No ground squirrel colonies were located, and no jackrabbits were observed. However, raptor nest survey results and small rodent sign indicate that there is a sufficient prey base to support medium-sized raptors such as red-tailed hawks and Swainson's hawks. The presence of active burrowing owl burrows both in the PHS database and during surveys immediately north of the Project suggest that this species has the potential to occur within the Project (Tetra Tech 2022c). No large, contiguous areas of tall, dense sagebrush appropriate for sagebrush species was mapped, and no sagebrush-associated wildlife species were observed.

Prior to surveys, WDFW and PHS data indicated that the Project may be important to elk, particularly in the winter. During surveys, suitable habitat for two priority big game species was documented (i.e., mule deer and elk), and indirect evidence (i.e., scat, tracks) indicate that these species use the Project Potentially suitable habitat for these species is generally limited to portions of the Survey Area that occur outside of agricultural or other developed land.

Based on the results of the habitat and general wildlife surveys, the following measures are recommended for the Project to avoid and minimize impacts to habitat and wildlife species:

- Conduct supplemental habitat and general wildlife surveys in the Fall 2021 Survey Area during the spring of 2022.
- Consult with WDFW regarding known big game use of the Survey Area.
- Prepare a Habitat Mitigation Plan that outlines measures that would be taken to avoid, minimize, and mitigate for impacts to wildlife habitat from construction and operation of the Project.

Additional recommendations specific to rare plants and raptors are provided in the Botanical Survey Report (Tetra Tech 201b) and the Raptor Nest Survey Report (Tetra Tech 2022c).

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Figures

Wautoma Solar

Figure 1
Project Location

BENTON AND YAKIMA COUNTIES, WA

Grant County
Yakima County
Benton County
Granger
Sunnyside
243
24
240
241
223
82

Spring 2021 Survey Area
Fall 2021 Survey Area
County Boundary

INNERGEX
TETRA TECH

Reference Map

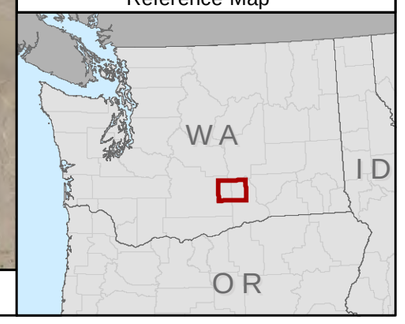

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Figure 2 is not included because it contains confidential information and is not intended for public distribution.

Wautoma Solar

Figure 3
Habitat Types and Special Status Species Observed within the Survey Area

BENTON AND YAKIMA COUNTIES, WA

Spring 2021 Survey Area
Fall 2021 Survey Area
County Boundary

Special Status Species

Ferruginous hawk

(Location is confidential and is not included in this publicly filed report.)

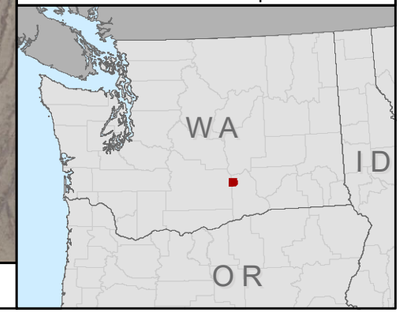
Habitat Types

- Agricultural land
- Developed/disturbed
- Eastside (interior) grassland
- Irrigated hedgerow
- Non-native grassland and forbland
- Planted grassland
- Rabbitbrush shrubland
- Shrub-steppe
- Talus

INNERGEX

TETRA TECH

Reference Map



Yakima County
Benton County

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Appendix A. Special Status Wildlife Species With Potential to Occur at the Project

Special Status Wildlife Species with Potential to Occur at the Project

Common Name	Scientific Name	Federal Status[1]	State Status[2]
Birds			
American white pelican	*Pelecanus erythrorhynchos*	-	T, PS
bald eagle	*Haliaeetus leucocephalus*	BGEPA	PS
burrowing owl	*Athene cunicularia*	-	C, PS
chukar	*Alectoris chukar*	-	PS
ferruginous hawk[3]	*Buteo regalis*	-	E, PS
golden eagle	*Aquila chrysaetos*	BGEPA	PS
great blue heron	*Ardea Herodias*	-	PS
greater sage-grouse (Columbia Basin DPS)	*Centrocercus urophasianus*	WL (CON)	T, PS
loggerhead shrike	*Lanius ludovicianus*	-	C, PS
northern harrier	*Circus cyaneus*	BCC (BCR 9)	-
prairie falcon	*Falco mexicanus*	-	PS
ring-necked pheasant	*Phasianus colchicus*	-	PS
sagebrush sparrow	*Artemisiospiza nevadensis*	-	C, PS
sage thrasher	*Oreoscoptes montanus*	BCC (BCR 9)	C, PS
sandhill crane	*Antigone canadensis*	-	E, PS
short-eared owl	*Asio flammeus flammeus*	BCC (CON)	-
tundra swan	*Cygnus columbianus*	-	PS
Vaux's swift	*Chaetura vauxi*	-	C, PS
Mammals			
black-tailed jackrabbit	*Lepus californicus*	-	C, PS
elk	*Cervus elaphus*	-	PS
mule deer	*Odocoileus hemionus hemionus*	-	PS
Townsend's big-eared bat	*Corynorhinus townsendii*	-	C, PS
Townsend's ground squirrel	*Urocitellus townsendii nancyae*	-	C, PS
white-tailed jackrabbit	*Lepus townsendii*	-	C, PS
Reptiles and Amphibians			
sagebrush lizard	*Sceloporus graciosus*	-	C, PS
striped whipsnake	*Masticophis taeniatus*	-	C, PS

Sources: USFWS 2021b,c; WDFW 2008, 2020, 2021a,b,c,d,e.

1. U.S. Fish and Wildlife Service: BCC = Bird of Conservation Concern, BGEPA = Bald and Golden Eagle Protection Act, WL = Watch List, CON = Continental scale, BCR 9 = Bird Conservation Region 9 (Great Basin).

2. Washington Department of Fish and Wildlife: E = Endangered, T = Threatened, C = Candidate, PS = Priority Species.

3. WDFW voted to update the status of ferruginous hawk from Threatened to Endangered on August 27, 2021 (WDFW 2021e).

Appendix B. WDFW Meeting Notes

TETRA TECH

Introduction Summary

To:	Michael Ritter / Washington Department of Fish and Wildlife Jason Fidorra / Washington Department of Fish and Wildlife
Cc:	Julia Mancinelli/Innergex Renewable Energy Inc. (Innergex) Laura O'Neill/Innergex
From:	Amy Bensted / Tetra Tech Linnea Fossum / Tetra Tech
Meeting Date:	March 8, 2021
Subject:	Wautoma Solar Project Introduction

A summary of the meeting to introduce the Wautoma Solar Project (Project) to the Washington Department of Fish and Wildlife (WDFW) is provided below with discussion items and follow-up:

Project Overview. Innergex is proposing to build and operate the Project located in unincorporated Benton County, Washington.

- The Project would consist of a solar photovoltaic system coupled with a battery energy storage system as well as ancillary support infrastructure (network of AC and DC electrical collector lines, substation, overhead transmission line, project access roads, and temporary laydown).
- Innergex intends to permit the Project either through the Washington Energy Facility Site Evaluation Council or through a Benton County Conditional Use Permit.

Overview of Previous Surveys and Findings. Tetra Tech described the results of the desktop review conducted in 2020, which informed survey planning for 2021.

- No federally threatened and endangered species are likely to occur. One state threatened species, ferruginous hawk, is known to occur in the Project vicinity.
- The Project is within an elk regular concentration area during winter. Additional Priority Habitat and Species (PHS) occurrences in the vicinity of the Project (but outside the Project Area) include a burrowing owl breeding area, shrub-steppe, and talus slopes.
- One rare plant, Columbia milkvetch (state sensitive), has been documented within the proposed Project Area per the Washington Natural Heritage Program.

Planned Raptor Nest, Wildlife, Habitat, and Rare Plant Surveys. Tetra Tech will complete raptor nest, wildlife, habitat, and rare plant surveys in spring 2021, in addition to wetland surveys.

Tetra Tech, Inc.
1750 S Harbor Way, Suite 400, Portland, OR 97201
Tel 503.221.8636 Fax 503.227.1287 www.tetratech.com

Raptor nests surveys will include the following:

- Ground-based surveys within 0.5-miles of the Project Area, with two survey rounds: one in March and one in April or May (at least 30 days after the initial survey).

Habitat, general wildlife, and rare plant surveys will be conducted concurrently and consist of the following:

- Surveys will be conducted in early May to early June (currently scheduled to start May 10), within the Project Area.
- Habitat will be mapped and characterized consistent with the WDFW wind power guidelines and Johnson & O'Neil (2001).
- Surveyors will document special status species if observed (e.g., burrowing owl, ferruginous hawk, ground squirrel) as well as wildlife in general (e.g., elk) and sign, and noxious weeds (as identifiable during the survey period).
- Surveyors will use intuitive meander transect methods.

Summary of Discussion and Follow-up. WDFW concurred that the planned surveys as described are appropriate and provided a verbal description of known raptor nest locations (e.g., ferruginous hawk) in the Project vicinity as well as a special status wildlife that may occur.

- The WDFW internal PHS database did not identify nests within the raptor nest survey area (i.e., 0.5-mile buffer on the Project).
- WDFW noted the area is important to elk and that there may be Townsend's ground squirrels and jackrabbits (which are prey species for ferruginous hawks) in the Project vicinity, which will be important to document during Project surveys. WDFW concurred that the currently planned survey start date of May 10 should capture ground squirrels if present.

WDFW noted that vegetated green strips have been planted in the area in conjunction with private landowners to reduce fires.

- WDFW described that these are typically 100 to 150 foot strips of native and non-native bunchgrasses and forbs that stay green late enough into the season to reduce the spread of wildfires.
- There is limited firefighter access in the area so green strips may be a good addition to solar development.

WDFW will provide the following if feasible:

- WDFW will look into expediting Tetra Tech's PHS request (if possible) and/or provide nest locations directly to Tetra Tech to inform raptor nest surveys.
- WDFW will share the approximate locations of vegetated green strips with Innergex.

From:	Bensted, Amy
To:	Ritter, Michael W (DFW); Jason.Fidorra@dfw.wa.gov
Cc:	Laura O"Neill; Julia Mancinelli; Fossum, Linnea
Subject:	Wautoma Solar introduction summary
Date:	Friday, March 12, 2021 2:00:00 PM
Attachments:	SUMMARY_Wautoma_Solar_WDFW-Intro_03-08-2021.pdf image002.jpg

Mike and Jason,

Thanks for the call on Monday regarding Wautoma Solar surveys. Attached is a summary of the call including a couple follow-up items. Please let us know if you see anything that needs revision or clarification.

We look forward to continuing to work with you on this project.

Thanks,
Amy

Amy Bensted (she/her) | Senior Biologist
Cell: **503.459.7989**
Amy.Bensted@tetratech.com

Tetra Tech | Complex World, Clear Solutions™ | Sciences
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Appendix C. Wildlife Species and Sign Observed During 2021 Field Surveys

Wildlife Species and Sign Observed During 2021 Field Surveys

Common Name	Scientific Name	Individual Observed	Sign Observed	Federal Status[1]	State Status[2]
Birds					
American goldfinch	*Spinus tristis*	X	-		
American robin	*Turdus migratorious*	X	-	-	-
barn swallow	*Hirundo rustica*	X	-	-	-
black-billed magpie	*Pica hudsonia*	X	-	-	-
Brewer's blackbird	*Euphagus cyanocephalus*	X	-	-	-
Bullock's oriole	*Icterus bullockii*	X	-	-	-
California quail	*Callipepla californica*	X	-	-	-
cliff swallow	*Petrochelidon pyrrhonota*	X	-	-	-
common raven	*Corvus corax*	X	-	-	-
Eurasian collared dove[3]	*Streptopelia decaocto*	X	-	-	-
European starling[3]	*Sturnus vulgaris*	X	-	-	-
ferruginous hawk[4]	*Buteo regalis*	X	-	-	E, PS
golden-crowned kinglet	*Regulus satrapa*	X	-	-	-
golden eagle	*Aquila chrysaetos*	-	X	BGEPA	PS
grasshopper sparrow	*Ammodramus savannarum*	X	-	-	-
great-horned owl	*Bubo virginianus*	X	-	-	-
green-winged teal	*Anas crecca*	X	-	-	-
horned lark	*Eremophila alpestris*	X	-	-	-
house finch	*Haemorhous mexicanus*	X	-	-	-
house sparrow[3]	*Passer domesticus*	X	-	-	-
killdeer	*Charadrius vociferus*	X	-	-	-
lark sparrow	*Chondestes grammacus*	X	-	-	-
long-billed curlew	*Numenius americanus*	X	-	-	-
mourning dove	*Zenaida macroura*	X	-	-	-
northern harrier	*Circus cyaneus*	X	-	BCC (BCR 9)	-
red-breasted nuthatch	*Sitta canadensis*	X	-	-	-
red-tailed hawk	*Buteo jamaicensis*	X	-	-	-
red-winged blackbird	*Agelaius phoeniceus*	X	-	-	-
rock pigeon[3]	*Columba livia*	X	-	-	-
savannah sparrow	*Passerculus sandwichensis*	X	-	-	-
Swainson's hawk	*Buteo swainsoni*	X	-	-	-
turkey vulture	*Cathartes aura*	X	-	-	-
vesper sparrow	*Pooecetes gramineus*	X	-	-	-
western kingbird	*Tyrannus verticalis*	X	-	-	-

Common Name	Scientific Name	Individual Observed	Sign Observed	Federal Status[1]	State Status[2]
western meadowlark	*Sturnella neglecta*	X	-	-	-
yellow warbler	*Setophaga petechia*	X	-	-	-
Mammals					
coyote	*Canis latrans*	X	X	-	-
mountain lion	*Puma concolor*	-	X	-	-
mule deer	*Odocoileus hemionus*	-	X	-	PS
Rocky Mountain elk	*Cervus canadensis nelsoni*	-	X	-	PS
Unknown rodent sp.	-	-	X	-	-
Reptiles					
Unknown snake sp.	-	X	-	-	-

Sources: USFWS 2021b,c; WDFW 2008, 2020, 2021a,b,c,d,e.

1. Federal Status: BCC = Bird of Conservation Concern, BGEPA = Bald and Golden Eagle Protection Act, WL = Watch List, CON = Continental scale, BCR 9 = Bird Conservation Region 9 (Great Basin).

2. Washington Department of Fish and Wildlife: T = Threatened, C= Candidate, PS = Priority Species.

3. Bird species not protected by the Migratory Bird Treaty Act (MBTA).

4. WDFW voted to update the status of ferruginous hawk from Threatened to Endangered on August 27, 2021 (WDFW 2021e).

Appendix D. Site Photographs

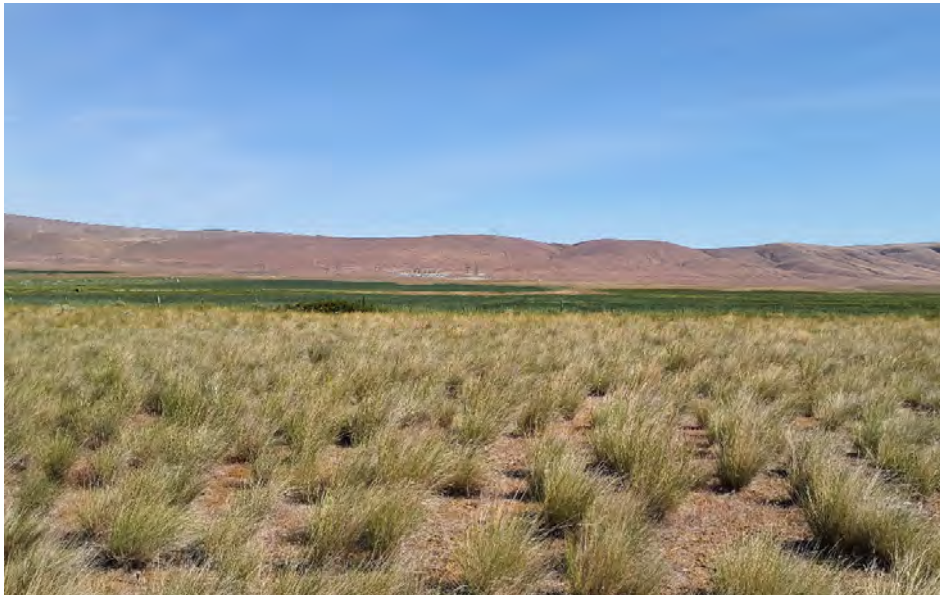

Photo 1. Low forb cover in planted grassland in south-central portion of Survey Area.

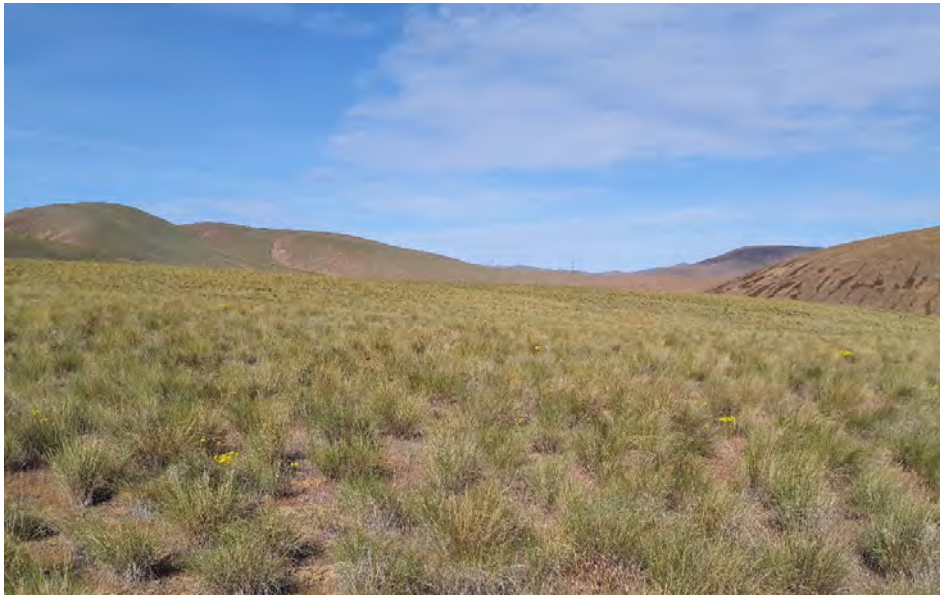

Photo 2. Planted grassland habitat in southwest portion of Survey Area; talus slopes visible in background.

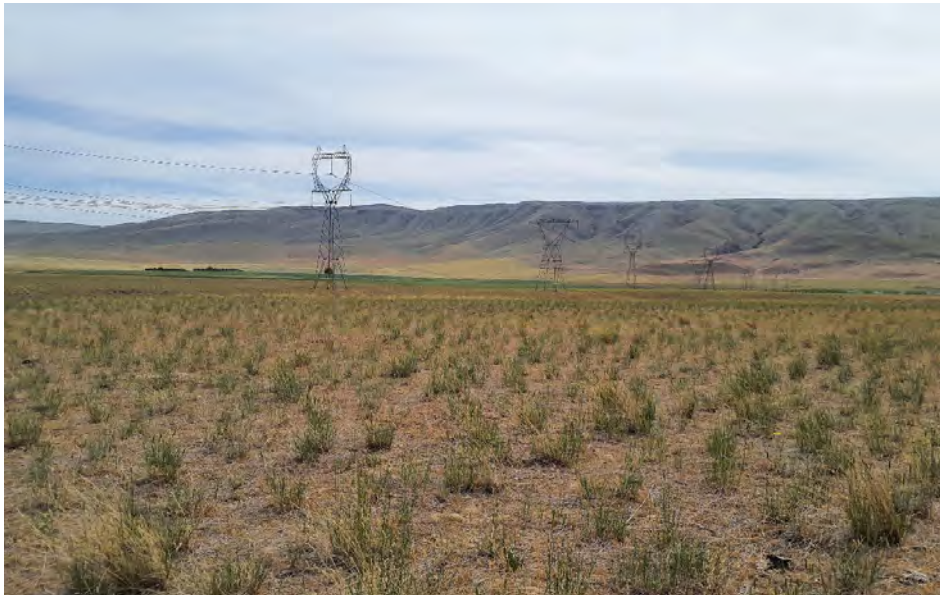

Photo 3. Planted grassland dominated by crested wheatgrass in central portion of Survey Area.

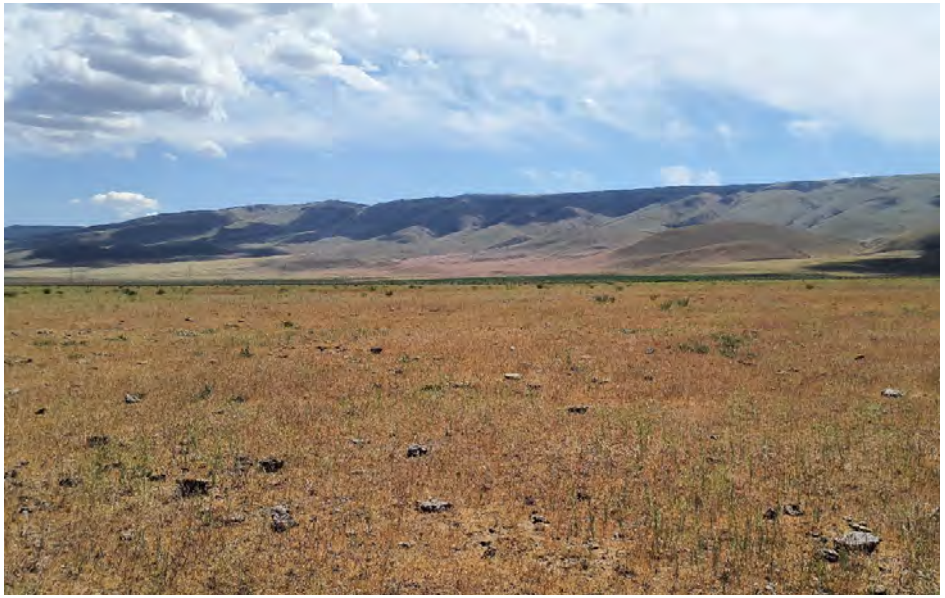

Photo 4. Heavily grazed non-native grassland and forbland in northwest portion of Survey Area.

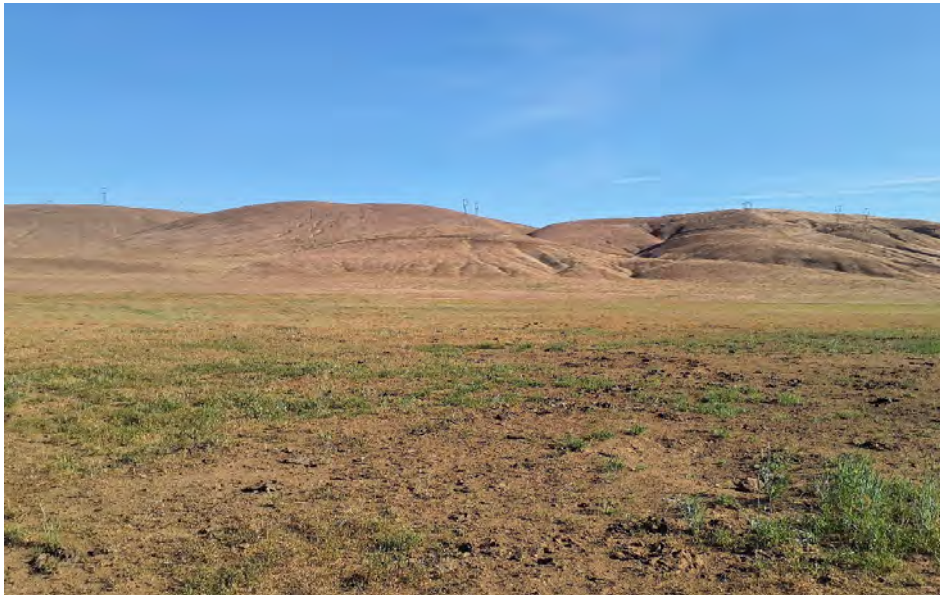

Photo 5. Heavily grazed non-native grassland and forbland in northeast portion of Survey Area.

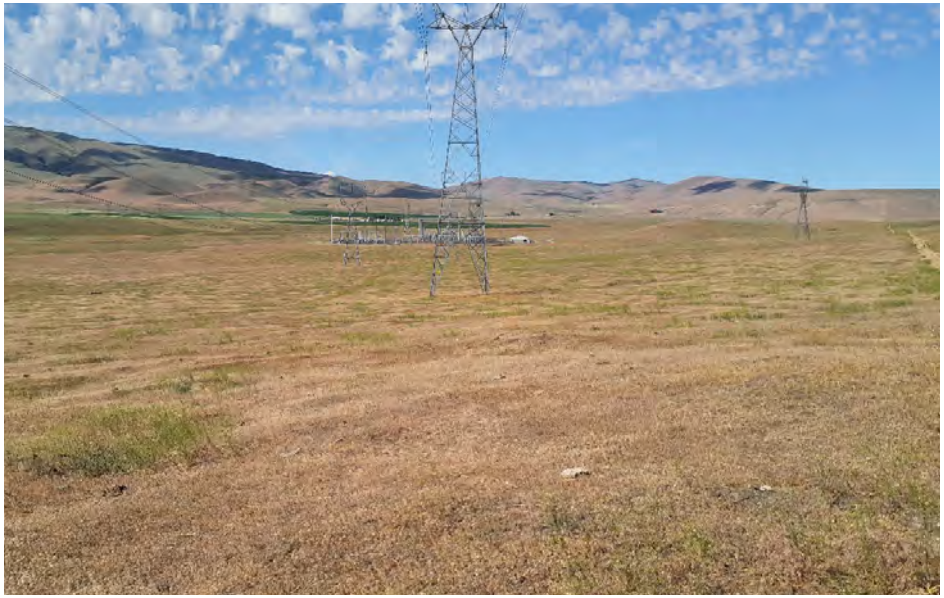

Photo 6. Cheatgrass dominated non-native grassland and forbland in northeast portion of Survey Area.

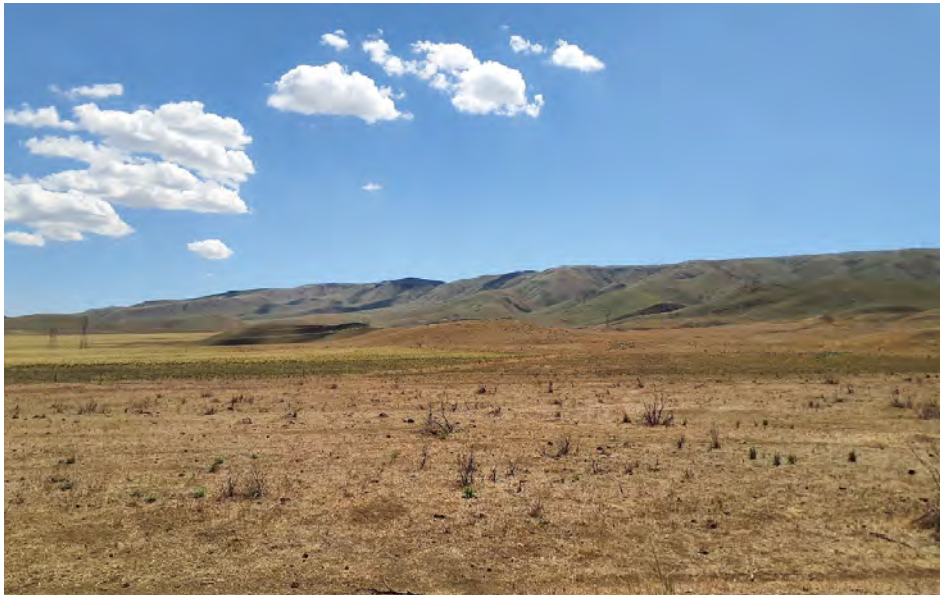

Photo 7. Dead big sagebrush in non-native grassland and forbland habitat in southwest portion of Survey Area.

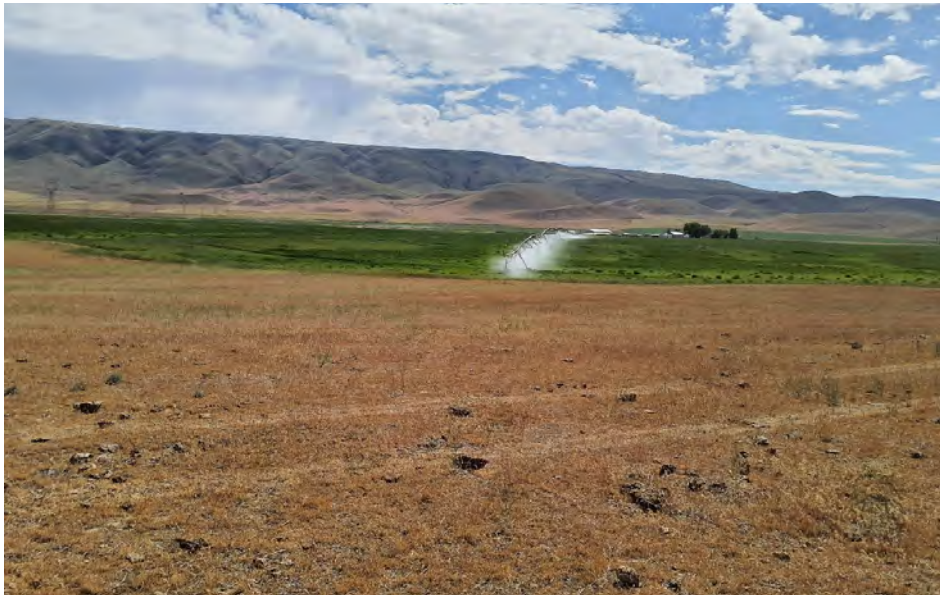

Photo 8. Irrigated alfalfa field (background) with non-native grassland and forbland along the edge of field (foreground).

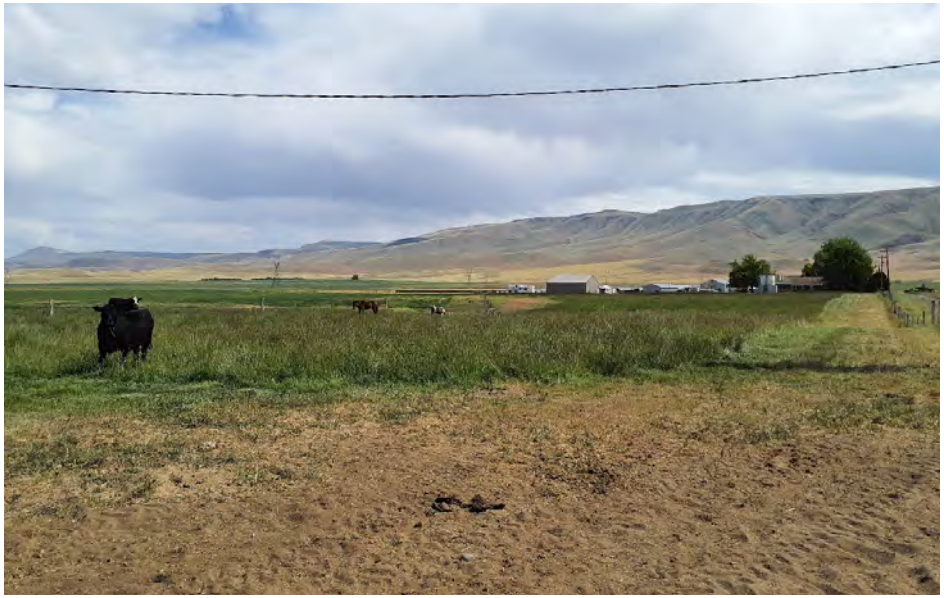

Photo 9. Cattle and horse pasture in central portion of Survey Area.

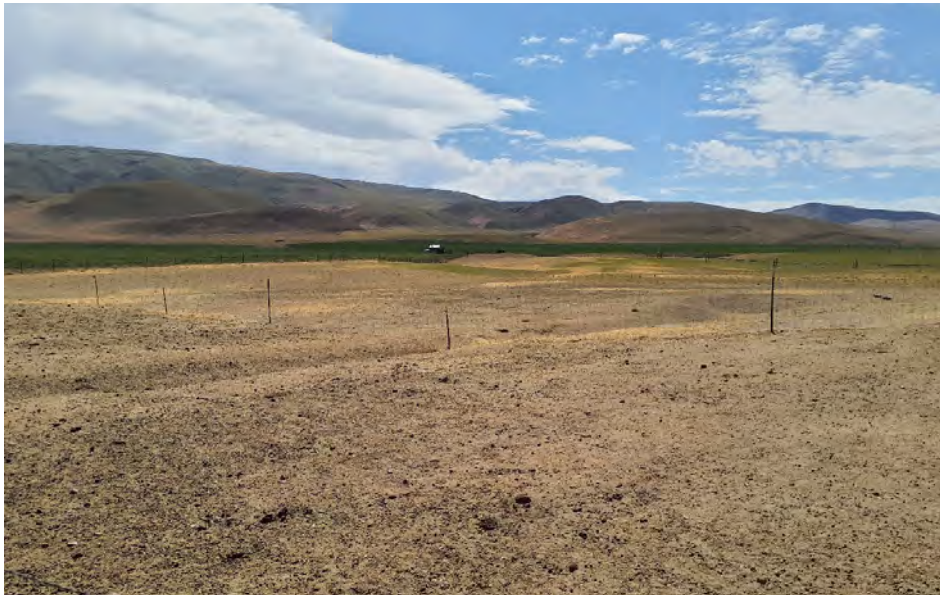

Photo 10. Unvegetated pasture/livestock holding pen in central portion of Survey Area.

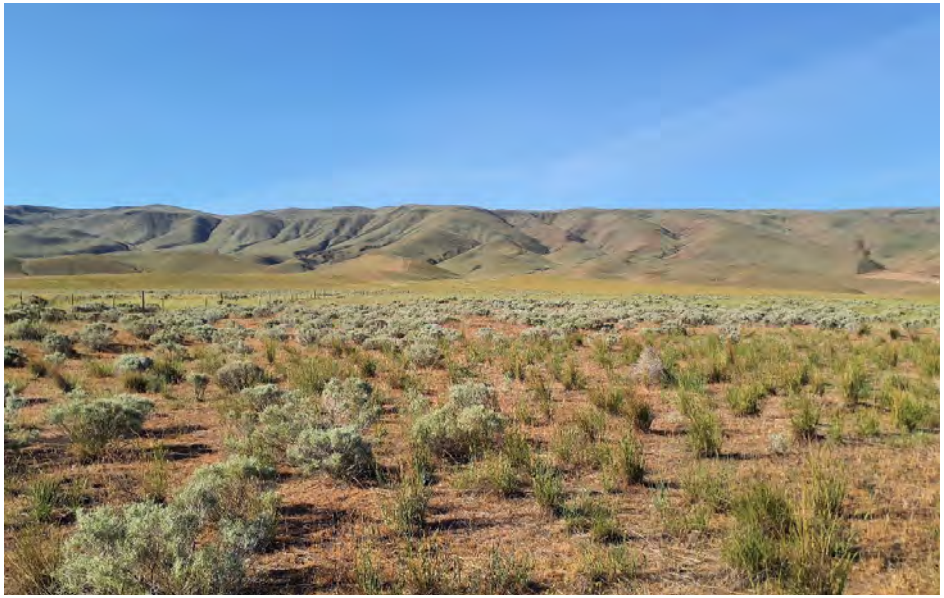

Photo 11. Rabbitbrush shrubland in southeast portion of Survey Area.

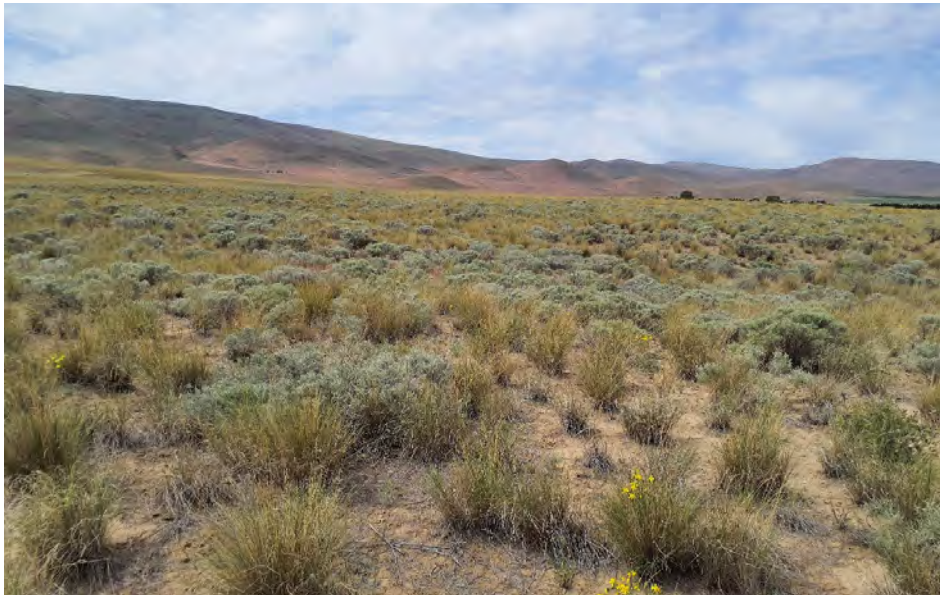

Photo 12. Rabbitbrush shrubland in southeast portion of Survey Area.

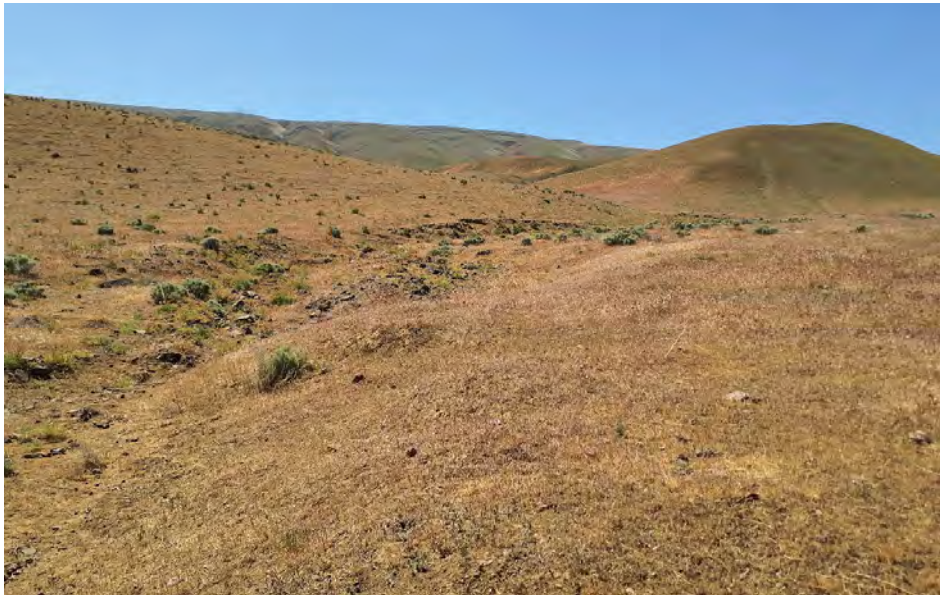

Photo 13. Degraded rabbitbrush shrubland in southwest portion of Survey Area.

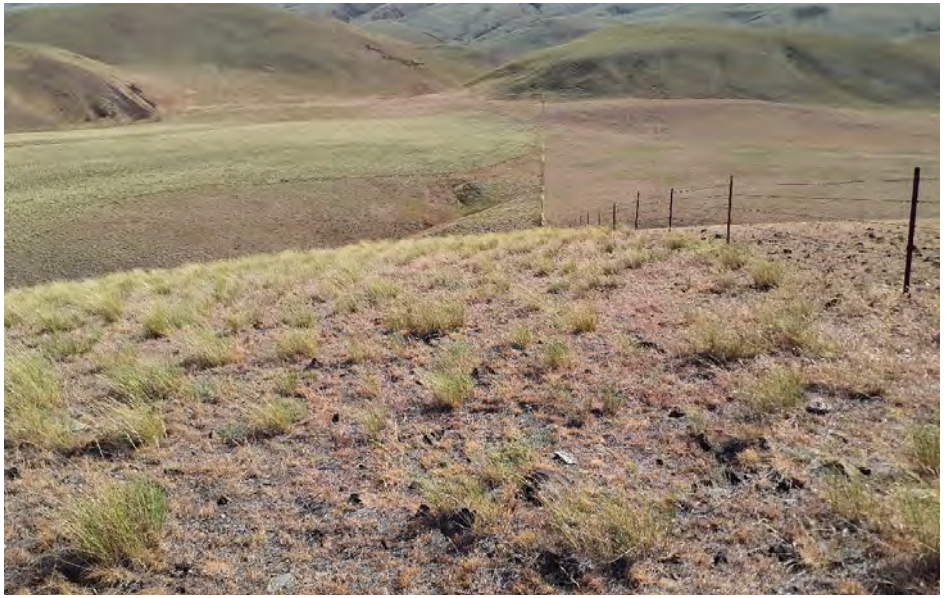

Photo 14. Eastside (interior) grassland (in foreground and on hillslope in background) in southwest corner of Survey Area with non-native grassland and forbland (to right of fence) and planted grassland (on hilltop in background).

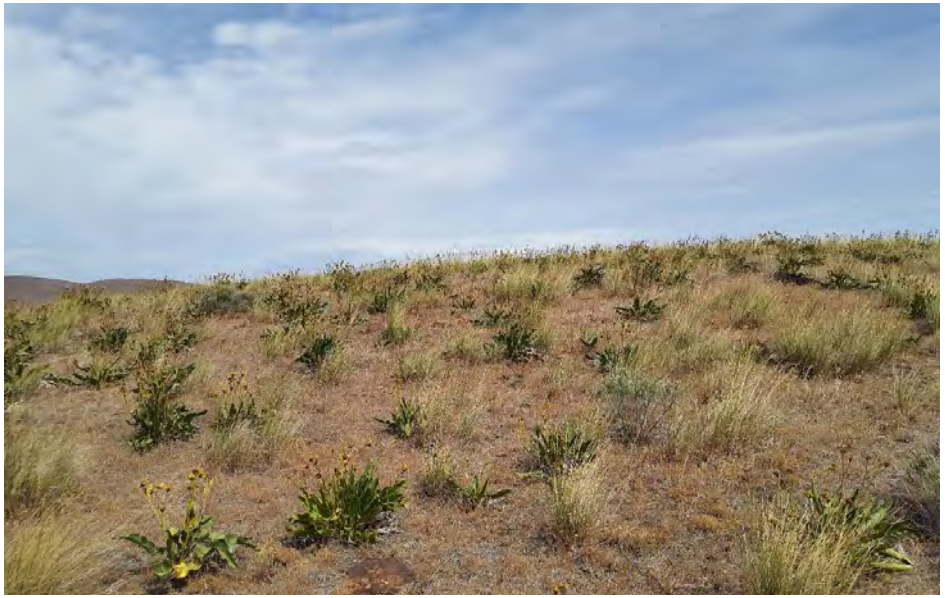

Photo 15. Eastside grassland in southeast portion of Survey Area .

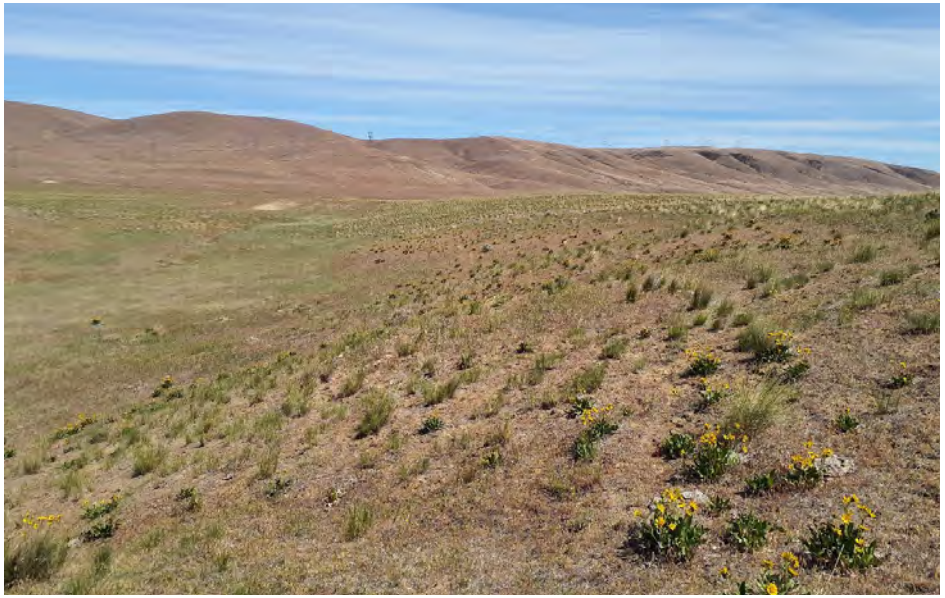

Photo 16. Heavily grazed eastside (interior) grassland in along hillslope in central-western portion of Survey Area .

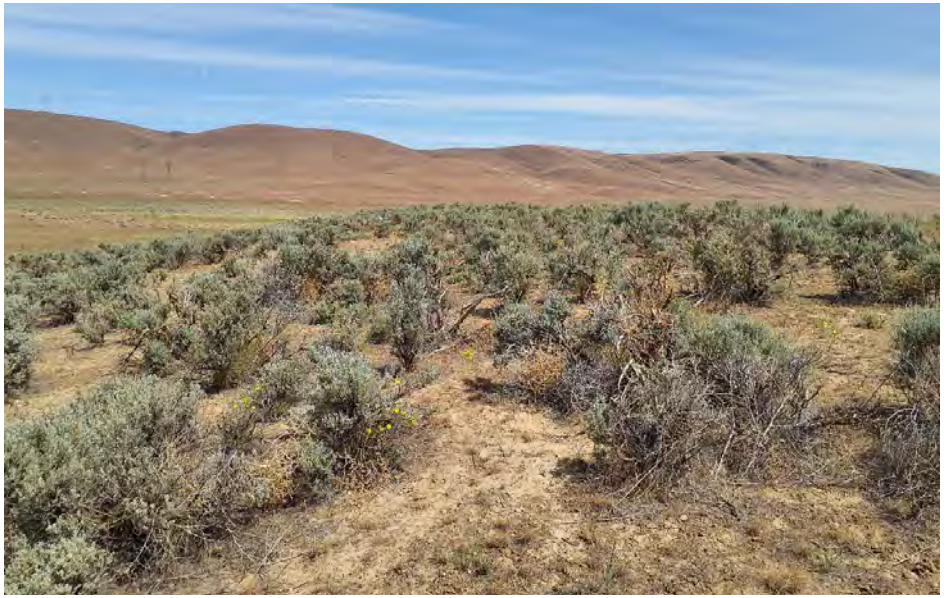

Photo 17. Heavily grazed shrub-steppe in central-eastern portion of Survey Area .

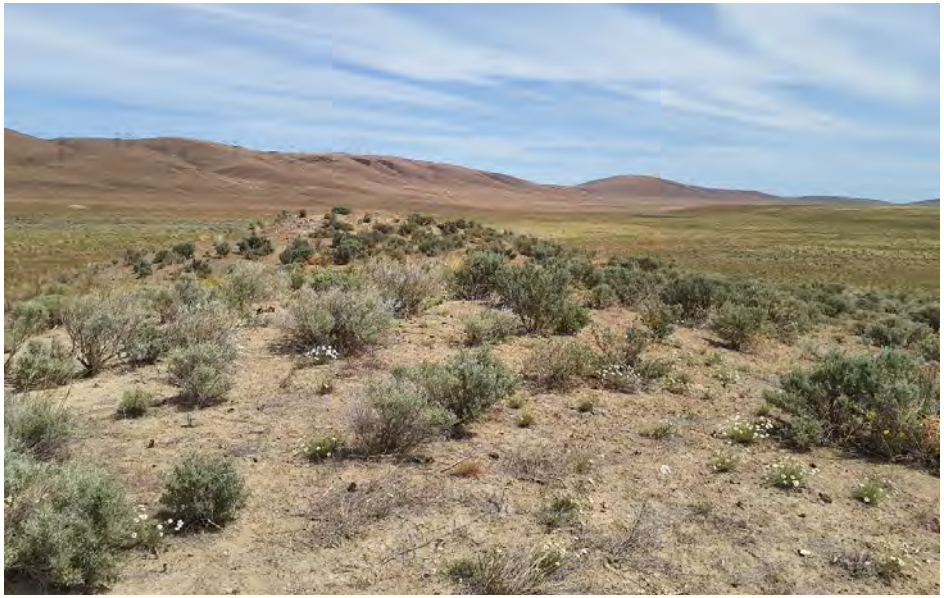

Photo 18. Shrub-steppe on hilltop in central-eastern portion of Survey Area.

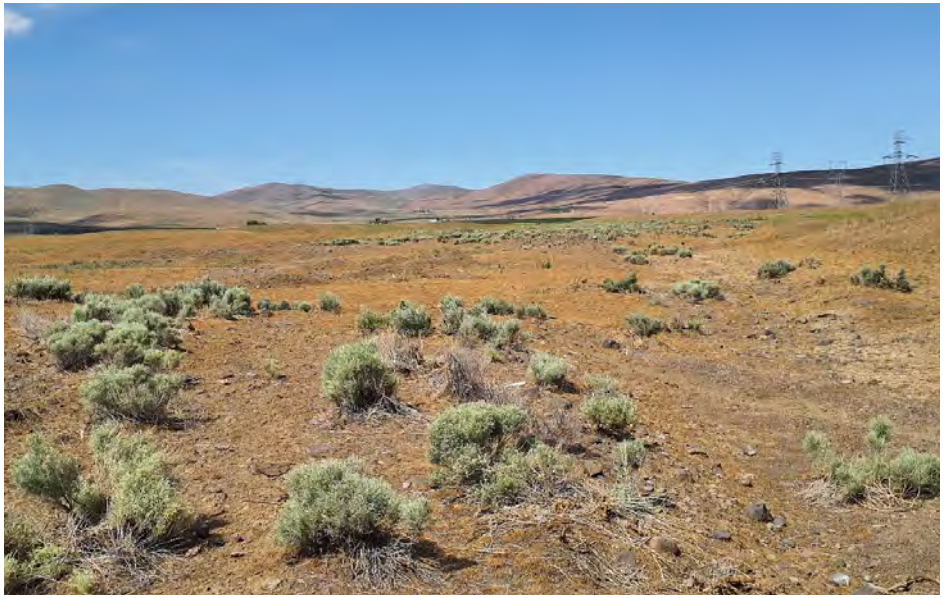

Photo 19. Degraded shrub-steppe along drainage in north-central portion of Survey Area .

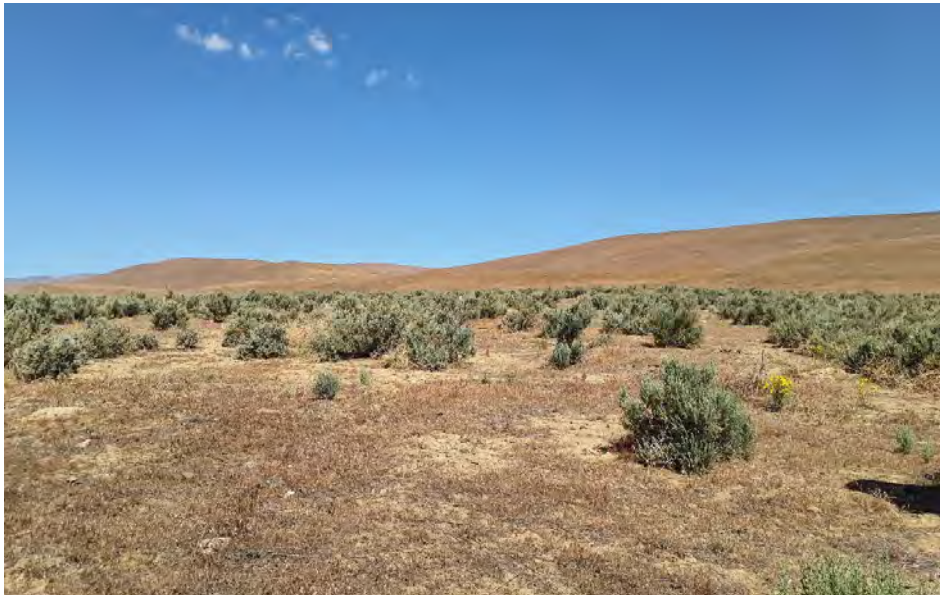

Photo 20. Shrub-steppe with cheatgrass dominated understory to west of existing BPA substation.

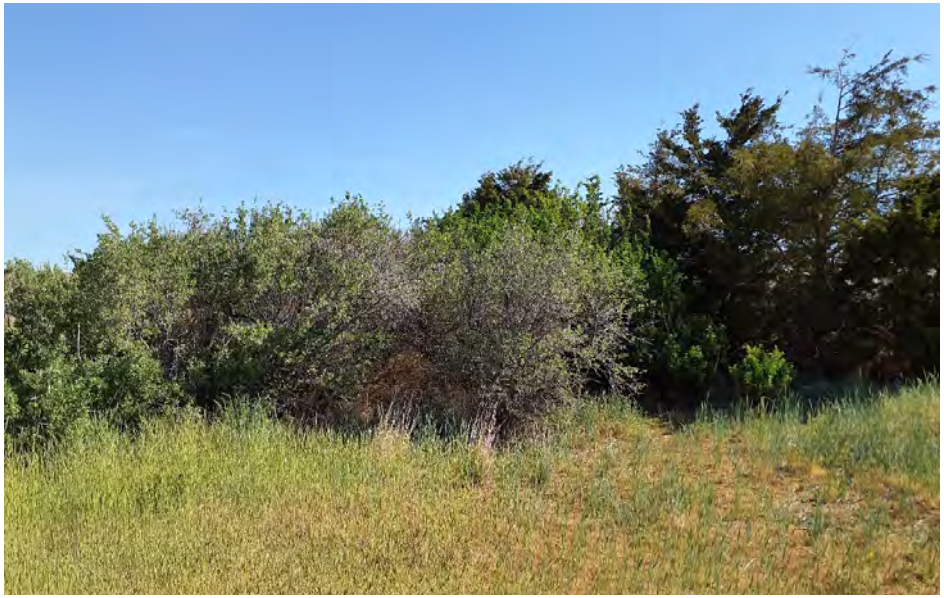

Photo 21. Irrigated hedgerow in southeast portion of Survey Area .

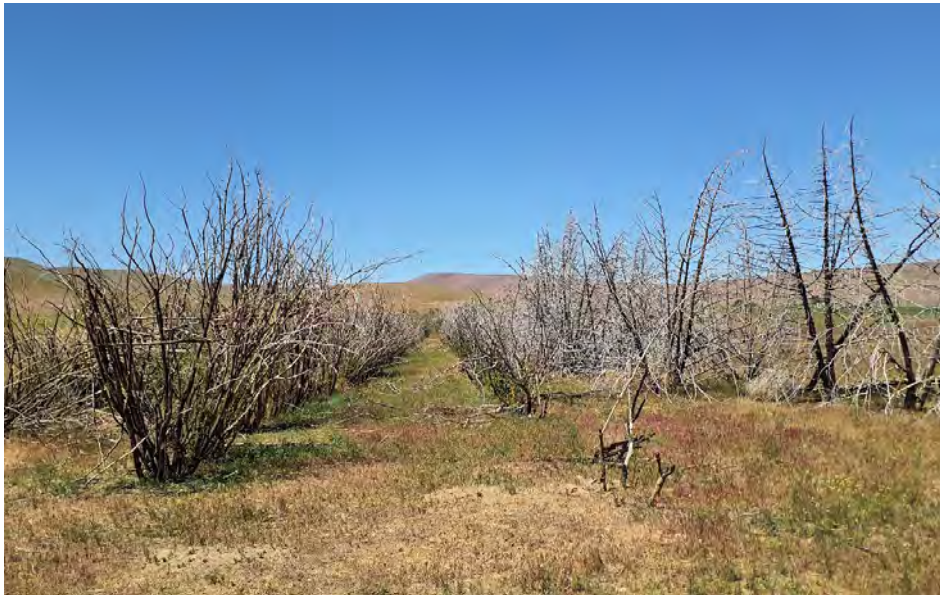

Photo 22. Burnt hedgerow in southwest portion of Survey Area.

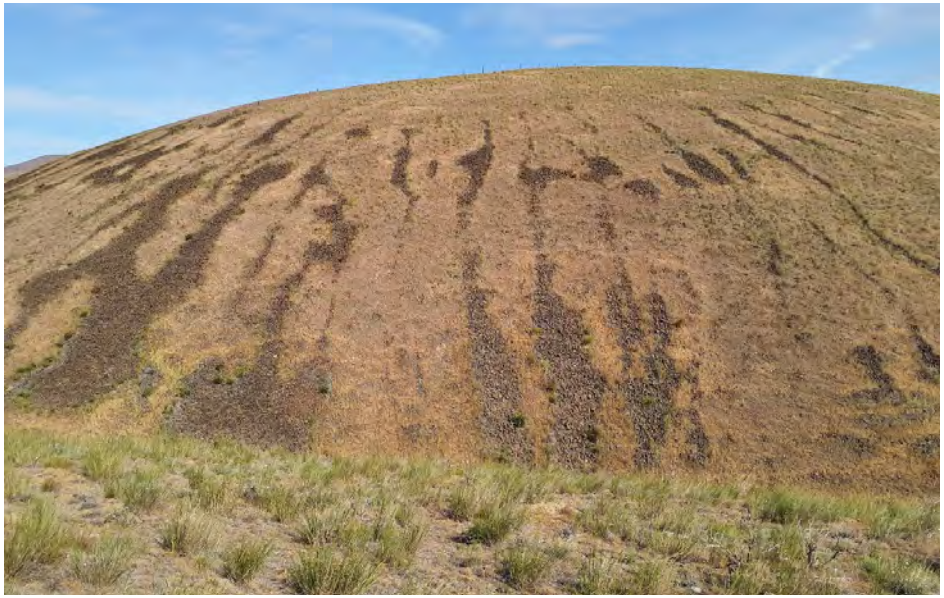

Photo 23. Talus slopes in southwestern portion of Survey Area.

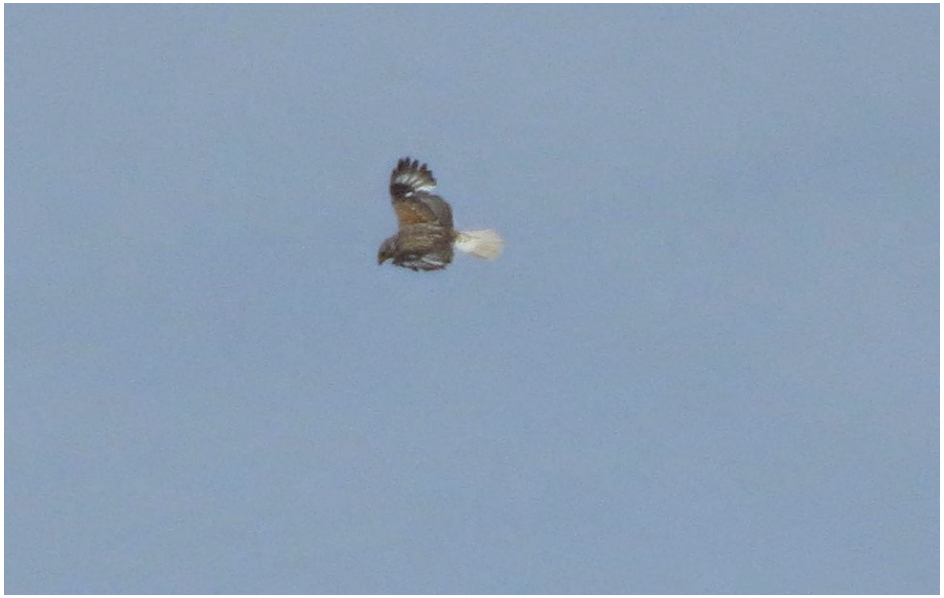

Photo 24. Adult ferruginous hawk.

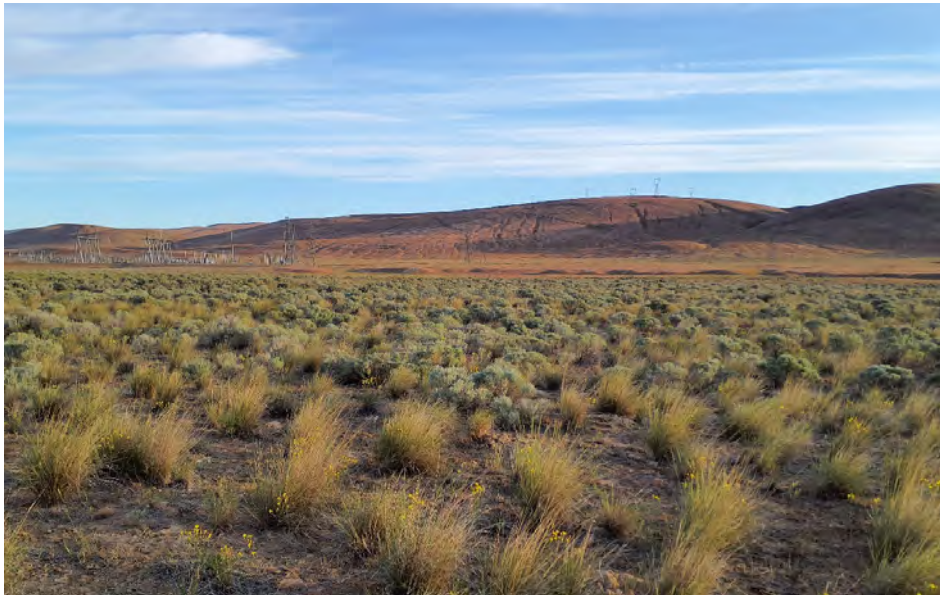

Photo 25. Avian point-count location in shrub-steppe habitat.

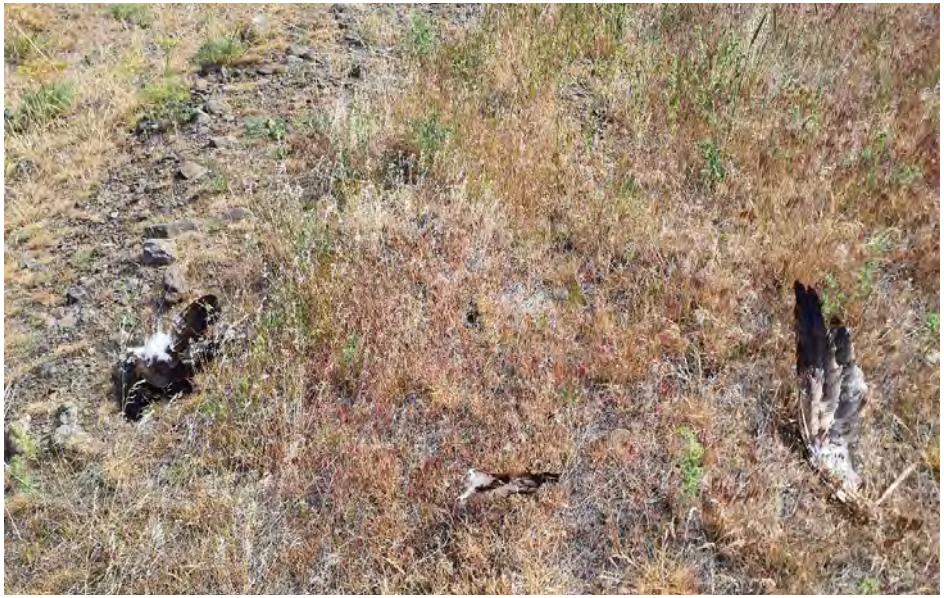

Photo 26. Golden eagle carcass.

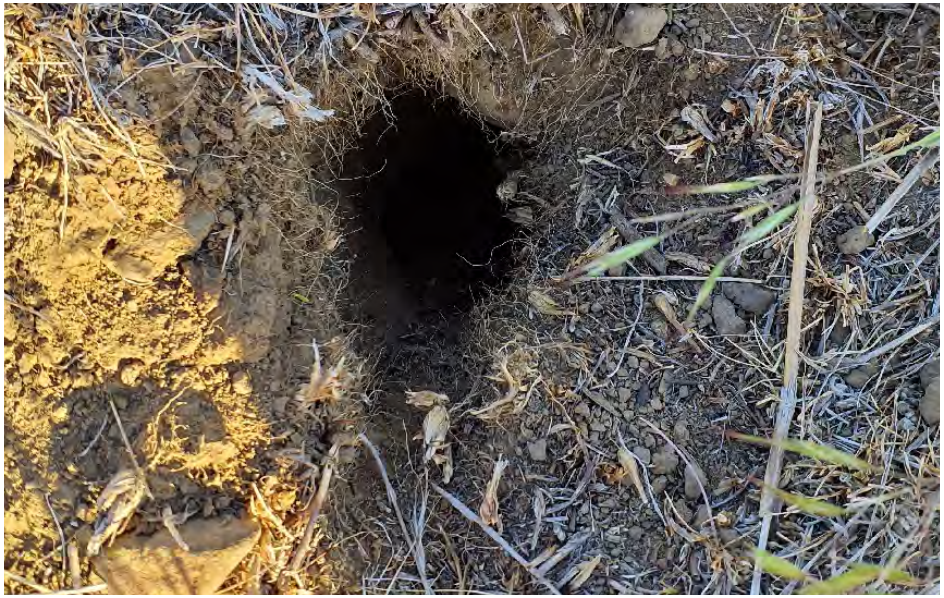

Photo 27. Rodent burrow.