



Fish and Wildlife Habitat Exhibit

PREPARED FOR



DATE

December 2025

REFERENCE

Oregon Energy Facility Siting Council

CONTENTS

1. INTRODUCTION	1
2. ANALYSIS AREA	1
3. AGENCY AND TRIBAL OUTREACH	1
4. DESCRIPTION OF BIOLOGICAL AND BOTANICAL SURVEYS PERFORMED	3
4.1 DESKTOP REVIEW	3
4.2 BIOLOGICAL AND BOTANICAL SURVEYS	4
4.2.1 Avian Point Count Surveys	5
4.2.2 General Wildlife Habitat and Vegetation Classification Surveys	5
4.2.3 Raptor Nest Surveys	6
4.2.4 Special-Status Plant Species Surveys	6
4.2.5 Vernal Pool Fairy Shrimp Survey	6
4.2.6 Wetlands and Waters Survey	7
5. HABITAT ANALYSIS	7
6. IDENTIFICATION OF STATE SENSITIVE SPECIES AND SITE-SPECIFIC ODFW ISSUES	14
6.1 AGENCY CONSULTATION	14
6.2 SURVEY RESULTS	14
6.3 SITE-SPECIFIC ISSUES IDENTIFIED BY ODFW	31
7. BASELINE SURVEY OF HABITAT USE BY STATE SENSITIVE SPECIES – OAR 345-021-0010(1)(P)(E)	31
8. DESCRIPTION OF POTENTIAL ADVERSE IMPACTS	32
8.1 POTENTIAL IMPACTS TO FISH AND WILDLIFE HABITAT	32
8.1.1 Category 1 Habitat	33
8.1.2 Category 2 Habitat	33
8.1.3 Category 3 Habitat	34
8.1.4 Category 4 Habitat	34
8.1.5 Category 5 Habitat	34
8.1.6 Category 6 Habitat	34
8.2 POTENTIAL IMPACTS TO STATE SENSITIVE SPECIES	35
8.2.1 Amphibians	35
8.2.2 Birds	35
8.2.3 Mammals	37
8.2.4 Vascular Plants	38
9. AVOIDANCE AND MITIGATION	39
9.1 AVOIDANCE AND MINIMIZATION	39
9.1.1 During Project Design and Micrositing	39
9.1.2 Prior to Construction	41

9.1.3	During Construction	41
9.1.4	During Operation	43
9.2	MITIGATION	43
10.	MONITORING PROGRAM	43
11.	SUBMITTAL REQUIREMENTS AND APPROVAL STANDARDS	43
11.1	SUBMITTAL REQUIREMENTS	43
11.2	APPROVAL STANDARDS	45
12.	REFERENCES	47

LIST OF ATTACHMENTS

ATTACHMENT 1 FIGURES

ATTACHMENT 2 BIOLOGICAL RESOURCE REPORT (CONFIDENTIAL)

ATTACHMENT 3 DRAFT HABITAT MITIGATION PLAN

ATTACHMENT 4 CORRESPONDENCE WITH ODFW

LIST OF TABLES

TABLE 1	SUMMARY OF FIELD SURVEYS CONDUCTED BETWEEN 2024 AND 2025	4
TABLE 2	HABITAT TYPES WITHIN THE ANALYSIS AREA	9
TABLE 3	ACRES OF HABITAT CATEGORIES AND TYPES WITHIN THE MICROSITING CORRIDOR AND THE ANALYSIS AREA	13
TABLE 4	STATE SENSITIVE FISH AND WILDLIFE SPECIES POTENTIALLY OCCURRING IN THE ANALYSIS AREA	15
TABLE 5	ACRES OF IMPACT TO HABITAT CATEGORIES AND TYPES WITHIN THE MICROSITING CORRIDOR	33
TABLE 6	ODFW RAPTOR NEST BUFFERS AND SEASONAL RESTRICTIONS	42
TABLE 7	SUBMITTAL REQUIREMENTS MATRIX	43
TABLE 8	APPROVAL STANDARD	45

ACRONYMS AND ABBREVIATIONS

Acronym	Description
APLIC	Avian Power Line Interaction Committee
BGEPA	Bald and Golden Eagle Protection Act
CLO	Cornell Lab of Ornithology
CTWS	Confederated Tribes of Warm Springs
ERM	Environmental Resources Management
IPaC	Information for Planning and Consultation
FSOC	Federal Species of Concern
OAR	Oregon Administrative Rule
OCS	Oregon Conservation Strategy
ODFW	Oregon Department of Fish and Wildlife
ODFW Compass	Centralized Oregon Mapping Products and Analysis Support System
ODA	Oregon Department of Agriculture
ODSL	Oregon Department of State Lands
OFP	Oregon Flora Project
ORBIC	Oregon Biodiversity Information Center
PWCA	Priority Wildlife Connectivity Areas
Analysis Area	Site boundary plus 0.5-mile around the site boundary
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1. INTRODUCTION

DECH bn, LLC (Applicant) plans to construct a solar photovoltaic power generation facility and related or supporting facilities in Wasco County, Oregon (Facility). The Facility will include up to 1,000 megawatts of solar capacity and a battery energy storage system with up to 4,000 megawatt hours storage capacity. This Fish and Wildlife Habitat Exhibit has been prepared to meet the Application for Site Certification standards outlined in OAR 345-022-0060.

2. ANALYSIS AREA

The analysis area for this Exhibit is the site boundary plus 0.5-mile around the site boundary (Attachment 1, Figure 1).

3. AGENCY AND TRIBAL OUTREACH

The Applicant first conducted outreach with Oregon Department of Fish and Wildlife (ODFW) by email on 18 July 2024, which was followed by an introductory coordination call on 31 July 2024. ODFW confirmed the survey approach and attended a site walk on 7 November 2024 that was attended by the Applicant, Environmental Resources Management, Inc. (ERM), and representatives from the Confederated Tribes of the Warm Springs Reservation (CTWS). During the site walk, ODFW provided input on habitat categorization and requested a macroinvertebrate survey to ascertain the potential presence of fairy shrimp and listed amphibians in identified vernal pools. ERM communicated with ODFW about the macroinvertebrate survey protocol via email and by phone, and ODFW approved the survey methodology in an email on 2 February 2025. The macroinvertebrate survey was completed in April 2025 as described in Section 4.2.5.

In addition to the coordination described above, ODFW provided a comment letter on the Applicant's Notice of Intent (NOI) (ODFW 2025a), which included the following comments relevant to Fish and Wildlife Habitat.

- The site boundary is adjacent to the ODFW White River Wildlife Area and the CTWS Reservation, and ODFW recommended continued consultation with staff at these agencies.
- ODFW recommended avoiding and minimizing impacts to special-status species and big game and their habitat where possible and engaging early with local ODFW staff to develop appropriate mitigation where impacts cannot be avoided.
- The site boundary partially overlaps with Big Game Winter Range, and ODFW considers all habitats, except habitats designated as Category 6, within Big Game winter range to be Category 2, per the ODFW mitigation policy (ODFW 2022). A 2 to 1 mitigation ratio is recommended for Category 2 habitats that would be impacted.
- ODFW recommended surveys to verify presence of fairy shrimp and other macroinvertebrates within vernal pools to help determine the quality of these habitats.
- ODFW encouraged the Applicant to avoid rare intact habitats in favor of siting in previously disturbed areas.

- The site boundary partially overlaps with ODFW Priority Wildlife Connectivity Areas (PWCA), and ODFW recommended avoiding the areas of overlap to the extent possible, along with maximizing the set back of fenced areas along the rim of the White River Canyon and the strategic placement of fence gaps throughout the Facility to facilitate movement of species and minimize lost connectivity.
- ODFW requested that construction activities outside of the Facility footprint are limited from December 1 to April 1 to reduce disturbance to wintering wildlife outside of the project area, and that any project infrastructure within the project area be sited in a way to minimize disturbance to wildlife outside of the site boundary.
- ODFW requested that domestic sheep not be used for vegetation control due to the proximity of the Facility to existing bighorn sheep and the potential of disease transmission between species.
- ODFW requested that any ground disturbance or vegetation removal be conducted prior to or after the critical period for ground nesting birds of April 15 to September 1. If ground disturbance occurs during this period, then ODFW requested that all vegetation be removed prior to this period.
- ODFW encouraged retention of native vegetation wherever possible and the development of a revegetation and weed control plan.
- ODFW recommended that raptor nest and burrow surveys be conducted within a two-mile buffer around as well as within the site boundary, and that impacts to nests should be avoided with spatial and temporal buffers following ODFW guidance.

ODFW's comments on the NOI were considered in the execution of the field surveys and preparation of this Exhibit.

The Applicant and ERM completed a follow up meeting with ODFW on 10 September 2025 following completion of the field surveys. Following that meeting, ERM provided a draft copy of the biological resources report (provided as Attachment 2) to ODFW for their review and feedback on 12 September 2025. Regional Habitat Biologist, Jessica Wilkes-Clark provided initial feedback on the biological resources report on 18 September 2025. The initial feedback included potential mitigation options, clarification on observed and mapped habitat categorization, avoidance measures, data sharing, and questions regarding additional survey information. ERM provided an initial response on 11 October 2025 and a more detailed response on 11 November 2025. ODFW responded back to ERM on 20 November 2025; feedback from ODFW has been incorporated into the draft Habitat Mitigation Plan, provided as Attachment 3 and into the Construction and Operation Vegetation and Soil Management Plans, provided as Attachments 2 and 3 of the Soil Protection Exhibit. Correspondence with ODFW is included as Attachment 4.

In addition to the consultation with ODFW described above, the Applicant completed a coordination meeting with CTWS on 27 August 2025. Overall key themes of the meeting included a strong emphasis on partnership beyond legal requirements, a commitment to early and transparent consultation, and the importance of tribal treaty rights, cultural resources, and ecological protections. CTWS expressed their concerns regarding impacts to elk and deer migration, eagle nesting, cultural foods, Deschutes River tributaries, and salmon and steelhead

habitat. The Applicant confirmed their commitment to wildlife-friendly fencing, habitat corridors, and setbacks from streams. The Applicant intends to continue outreach with ODFW and CTWS on fish and wildlife, integrate tribal ecological knowledge into the design, and to continue coordination with CTWS on cultural resources and mitigation throughout the application review process.

4. DESCRIPTION OF BIOLOGICAL AND BOTANICAL SURVEYS PERFORMED

OAR 345-022-0060(1)(p) Information about the fish and wildlife habitat and the fish and wildlife species, other than the species addressed in OAR-022-0070(3) (the Threatened and Endangered Species Exhibit) that could be affected by the proposed facility, providing evidence to support a finding by the Council as required by this rule. The applicant must include:

(A) A description of biological and botanical surveys performed that support the information in this exhibit, including a discussion of the timing and scope of each survey;

4.1 DESKTOP REVIEW

ERM conducted a desktop review to determine the special-status fish and wildlife species that have the potential to occur in the analysis area. This included federal and state endangered, threatened, proposed, candidate species, species of concern, sensitive and sensitive-critical species, and Oregon Conservation Strategy (OCS) species (Attachment 2; OCS 2024, ODFW 2021, ODFW 2024, ORBIC 2025, ODA n.d., USFWS 2025, USFWS 2022, USFWS 2024, Vrilakas et al. 2023). Federal- and state-listed threatened, endangered, and candidate species are addressed in the Threatened and Endangered Species Exhibit.

After compiling the list of special-status fish and wildlife species with the potential to occur within the analysis area, ERM reviewed the habitat and range information to determine the likelihood of potential occurrence within the micrositing corridor¹, which represents the maximum extent of potential Facility impacts within the site boundary. Species were determined to be unlikely to occur in the micrositing corridor if their habitat was absent or their range did not overlap the micrositing corridor.

From the desktop review, ERM identified 67 federal and state special status and sensitive species with the potential to occur in the micrositing corridor. These species included amphibians, birds, fish, insects, mammals, and vascular plants (Attachment 2; USFWS 2024; ODFW 2021; ORBIC 2025).

Seven strategy habitats were identified as potential to occur within the analysis area: grassland, late successional mixed conifer forests, oak woodlands, ponderosa pine woodlands, flowing water and riparian areas, sagebrush habitats, and wetlands (ODFW 2025). In addition, there is ODFW

¹ The micrositing corridor is defined in the Background Information Exhibit. It is the portion of the field survey area that is inside of the site boundary.

Big Game Winter Range for deer in the southeast portion of the survey area (Attachment 2, Appendix A, Figure 4). Winter habitat includes areas identified and mapped as providing essential and limited function values (e.g., thermal cover, security from predation and harassment, forage quantity, adequate nutritional quality, escape from disturbance, etc.) for certain big game species from December through April (ODFW 2013). Rare plant species that have the potential to occur within the micrositing corridor were identified by ERM through herbaria records and other sources (ODA n.d.; SEINet 2025; OFP 2025; USFWS 2024; iNaturalist 2024). Additionally, the Applicant submitted a request to the Oregon Biodiversity Information Center (ORBIC) and obtained site-specific records of special-status species and sensitive habitats with the potential to occur within 5 miles of the site boundary (ORBIC 2025).

ERM also reviewed the United States Geological Survey (USGS) contour data, National Wetland Inventory dataset, National Hydrography dataset, Natural Resources Conservation Service Web Soil Survey Geographic Database, and aerial photos to determine the potential occurrence of ODFW habitats within the micrositing corridor and the location of avian transects (USGS 2024, USFWS n.d., USGS n.d., USDA/NRCS n.d.).

4.2 BIOLOGICAL AND BOTANICAL SURVEYS

ERM conducted pedestrian surveys of the micrositing corridor from 4 June 2024 through 13 September 2024 and 1 April through 24 July 2025. Attachment 1, Figure 2 shows the 2024 and 2025 survey boundaries, which completely overlap the micrositing corridor.

The biological surveys were completed in coordination with the ODFW as described above in Section 3. The individual survey protocols were approved through communication with ODFW and were based on the best available methods and studies. Studies were conducted during ideal weather conditions (i.e., low to moderate wind and little to no rain) to maximize the potential for visual and audio detection. See Table 1 below for a summary of field surveys conducted within the micrositing corridor.

TABLE 1 SUMMARY OF FIELD SURVEYS CONDUCTED BETWEEN 2024 AND 2025

Survey	Timing	Extent
Avian Point Count Surveys and General Wildlife Habitat	2024	4 to 21 June
	2025	1 to 6 April 24 to 25 June
Vegetation Classification Surveys	2024	11 June, 6 July, 26 August to 13 September, and 23, and 25 September
	2025	29 April to 22 May, and 7 July to 24 July
Raptor Nest Surveys	2024	4 June to 6 July, and 26 August to 13 September
		2-mile radius around the micrositing corridor.

Survey		Timing	Extent
	2025	2 to 6 April	
Special- Status Plant Surveys	2024	11 June, 6 July, 26 August to 13 September, and 23, and 25 September	Pedestrian surveys in the micrositing corridor.
	2025	April to July 4 June to 6 July, and 26 August to 13 September	
Vernal Pool Fairy Shrimp Surveys	2025	1 to 4 and 22 to 25 April	Pedestrian surveys in the micrositing corridor.
Wetlands and Waters Surveys	2024	4 June to 26 September	Pedestrian surveys in the micrositing corridor.
	2025	19 March to 25 July	

4.2.1 AVIAN POINT COUNTY SURVEYS

ERM completed avian point count surveys in coordination with the ODFW and in accordance with the Nevada Comprehensive Bird Conservation Plan (Great Basin Bird Observatory 2003). Surveys were completed during ideal weather conditions to maximize observation potential. Confirmed detection of bird species was made by auditory or visual observation. Between 2024 and 2025 there were 128 survey points along 32 transects positioned across topographic gradients and ecotones to include a variety of habitats.

With ODFW's concurrence, a qualified avian biologist selected 32 transects as being representative of key habitats in the site boundary. The surveys were fixed-location surveys, conducted between 4:00 AM and 10:00 AM, the hours when birds are most active; the biologist chose this time to capitalize on the potential for bird calls, songs, surface, and aerial observations. In 2024, a total of 72 survey point count stations were spaced approximately 250 meters apart along eighteen transects. In 2025, a total of 56 survey point count stations were spaced 250 meters apart along 14 transects. The transects were placed around the survey area in a variety of representational topographies and habitats (e.g., grassland versus shrub-steppe or ephemeral ravine). Survey personnel recorded the observation time, number and species of birds observed, distance of each bird from the observer, and each bird's breeding status.

4.2.2 GENERAL WILDLIFE HABITAT AND VEGETATION CLASSIFICATION SURVEYS

ERM conducted pedestrian surveys to identify potential regulated wildlife and/or regulated habitat. Pedestrian surveys were conducted during daylight hours and fair-weather conditions to assess direct and indirect signs of potential wildlife presence and activity (e.g., confirmed visual or auditory observations, presence of animal tracks or scat, indications of active animal forage or nesting, etc.).

ERM mapped the vegetation communities and any observed rare plant species during the growing season to maximize the identification of blooming species. Habitat categorization surveys were conducted in widely spaced meandering transects noting the area of transition between habitats through the utilization of ArcGIS FieldMaps. Surveyors categorized vegetation through the observed composition and structure of each habitat type.

Following field surveys, the boundaries of vegetation habitat were digitized into polygons in ArcGIS Pro. Wetlands and waters were surveyed concurrently with the habitat surveys and the wetlands and waters features were included in the habitat categorization figure.

Each observed habitat was categorized into one of six ODFW habitat categories after field surveys were completed. ODFW classifies habitat into six numerical categories depending on the functions and values of the habitat to a specific species, population, or a unique assemblage of fish or wildlife species, and establishes mitigation goals for each category of habitat. Vegetation polygons were assigned to habitat type and habitat quality category as depicted in the major vegetation communities table in the attached Biological Survey Report (Attachment 2).

4.2.3 RAPTOR NEST SURVEYS

In 2024, the raptor survey area consisted of a 0.5-mile radius surrounding the micrositing corridor. In 2025, based on ODFW recommendation, the raptor survey area was expanded to a 2-mile radius around the micrositing corridor. The raptor nest surveys were designed to assess nesting activity and to implement nest buffers if needed during construction. The expanded 2025 raptor survey was completed using public roads and access points; private land within the expanded area that was not associated with the Facility and other inaccessible areas were surveyed via binoculars when applicable.

4.2.4 SPECIAL-STATUS PLANT SPECIES SURVEYS

ERM conducted botanical field surveys within the survey area. Special-status plant species with the potential to occur within the analysis area are discussed in the Threatened and Endangered Species Exhibit.

4.2.5 VERNAL POOL FAIRY SHRIMP SURVEY

ERM conducted a vernal pool macroinvertebrate survey within the survey area. ERM designed a sampling method in coordination with ODFW and informed by the 2017 United States Fish and Wildlife Service (USFWS) *Survey Guidelines for the Listed Large Branchiopods* (USFWS 2017) to assess the presence of listed macroinvertebrates.

Surveys were completed during the wet season immediately following winter thawing in mid-March to early April. At the selected time of the surveys, pools had the highest potential for sufficient hydrology to allow for normal sampling. Sampling took place over a week and was repeated two weeks later to allow for a potential second hatching. Precipitation events and other environmental stimuli break the dormancy of large branchiopod eggs (also known as embryonic eggs, resting eggs, or cysts).

At each pool, representative portions of the bottom, edges, and vertical water column of the feature were sampled using fine mesh aquarium nets. All macroinvertebrates that were visually observed in the pool or samples collected were identified to genus. When fairy shrimp were captured, a representative subsample of captured specimens (typically 10 to 20 individuals, consisting of both males and females where feasible) was preserved using ethyl alcohol for later identification with a dissection scope. Biologists also collected water temperature, depth, electrical conductivity, total dissolved solids, and pH.

In total, 40 pools (i.e., 21 percent of the identified vernal pools) were sampled between 1 and 3 April 2025 and 22 pools (i.e., 11 percent of the identified vernal pools) were sampled between 22 and 23 April 2025. Sampling sites were adjusted in the field as needed if depressions mapped as potential vernal pools did not support inundation at the time of surveys. Generally, pools in which fairy shrimp had been detected during the first survey pass, shallow pools, and very remote pools were not visited again during the second survey pass. Where feasible, new pools that still exhibited inundation during the second survey pass were substituted to increase the sample size. Additional information about the vernal pool fairy shrimp surveys is provided in the attached Biological Resources Report (Attachment 2) and in the Threatened and Endangered Species Exhibit.

4.2.6 WETLANDS AND WATERS SURVEY

ERM conducted a wetlands and waters delineation within the survey area. Survey methods and results are provided in Volume 1 of the State and Local Laws and Regulations Exhibit.

5. HABITAT ANALYSIS

OAR 345-022-0060(1)(b) Identification of all fish and wildlife habitat in the analysis area, classified by the general fish and wildlife habitat categories as set forth in OAR 635-415-0025 and the sage-grouse specific habitats described in the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-140-0000 through 635-140-0025 (core, low density, and general habitats), and a description of the characteristics and condition of that habitat in the analysis area, including a table of the areas of permanent disturbance and temporary disturbance (in acres) in each habitat category and subtype.

OAR 345-022-0060(1)(c) A map showing the locations of the habitat identified in (b).

After field surveys were completed, the habitats identified were compiled and rated according to ODFW definitions and guidance (ODFW 2022) in alignment with OAR 635-415-0025. Table 2 describes the habitat types identified in the micrositing corridor, and their associated categories found within the analysis area. Category 4 and Category 5 habitats were the most observed habitats in the micrositing corridor, encompassing approximately 11,000 acres. However, ODFW maps both modeled Big Game Wintering Range for mule deer and priority wildlife connectivity (PWCA) regions and connectors within the micrositing corridor, which are Categories 2 and 3 respectively. These modeled habitat polygons supersede the underlying observed habitat categories, adjusting the final categorization in Table 3. The final categorization identifies Category 3 and Category 5 as the most abundant with the micrositing corridor.

TABLE 2 HABITAT TYPES WITHIN THE ANALYSIS AREA

Habitat Type	Habitat Sub-type	Habitat Category	Description
Threatened & Endangered Habitat	<i>Astragalus tyghensis</i> Habitat	1	Provides an essential habitat for rare plants and wildlife and is irreplaceable. A federally listed species of concern and state-threatened plant, <i>Astragalus tyghensis</i> , was observed in this habitat.
Overlay with State-mapped Habitats and Areas	Big Game (Mule Deer) Wintering Range	2	Areas identified and mapped as providing essential and limited function and values for certain big game species from December through April (ODFW 2013).
	PWCA Region	3	Large and contiguous areas that represent high-value habitat for facilitating species movement throughout the state.
	PWCA Connector	3	Optimal pathways between PWCA Regions based on the best available habitat for facilitating movement.
Open Water Lakes, Rivers, Streams	Permanent and Seasonal Ponds <i>Open water areas, including natural lakes, reservoirs, and stock ponds</i>	4	Open water features were limited to manipulated stock ponds. These features were likely created and observed to be degraded habitat due to livestock activity. These habitats likely provide sources of perennial hydrology to wildlife.
	Perennial <i>Streams mapped by the USGS or determined by SDAM to have permanent (year-round) flow</i>	3	These features have flowing water continuously year-round, except potentially during severe drought periods. These features likely provide habitat for fish, amphibians, and aquatic insects. These habitats are important to wildlife and are limited in distribution across the micrositing corridor.
	Intermittent <i>Streams mapped by the USGS or determined by SDAM to have intermittent flow</i>	4	These features have flowing water seasonally. These features provide important habitat for wildlife.
	Ephemeral <i>Streams mapped by the USGS or determined by SDAM to have ephemeral flow</i>	5	These features flow only during and immediately after precipitation events or snow melt. These features provide limited habitat for wildlife and do not likely constitute important habitat.
Wetlands	Vernal Pools <i>Isolated Palustrine Emergent Wetland (PEM)</i>	4	Distinct wetland and vegetation communities but are not limited in distribution across the micrositing corridor. These features provide important habitat for some wildlife and plants.
	Isolated Wetlands <i>Palustrine Emergent Wetland (PEM)</i>	4	Isolated, degraded wetlands that are not limited in distribution across the micrositing corridor. These features likely provide important habitat for wildlife.

Habitat Type	Habitat Sub-type	Habitat Category	Description
	Non-isolated Wetlands <i>Palustrine Emergent Wetland (PEM)</i>	3	Wetlands connected to riparian habitat and are limited in distribution across the micrositing corridor. These features likely provide important and limited habitat for wildlife.
	Riparian Corridor	2	Higher quality riparian community consisting of native shrubs and trees, mostly present in stream canyons in eastern portion of site.
Riparian Forest and Natural Shrubland complexes	Riparian trees and shrubs	3	Thickets of riparian shrubs and low riparian trees surrounding the larger streams within the micrositing corridor and are limited in distribution across the micrositing corridor.
	Cottonwood Stand	3	Stand of several black cottonwood (<i>Populus trichocarpa</i>) trees, limited in distribution across the micrositing corridor.
Upland Grassland, Shrubsteppe, and Shrubland	Native Bunchgrass Grassland <i>Grassland areas with few shrubs (not irrigated cultivated/planted)</i>	5	Majority native grasslands dominated by perennial bunchgrasses but degraded by invasive species and agricultural use. Limited in distribution across the micrositing corridor.
	Shrub-steppe Grassland and shrubland mosaic	Rigid Sagebrush Shrubsteppe	A sparse canopy of three-tip sagebrush (<i>Artemisia tripartita</i>) in rocky areas with a sparse understory of native forbs and native and non-native grasses.
		Three-tip Sagebrush Scabland	A sparse canopy of three-tip sagebrush (<i>Artemisia tripartita</i>) in rocky areas with a sparse understory of native forbs and native and non-native grasses.
		Big Sagebrush Shrubsteppe	A canopy of big sagebrush (<i>Artemisia tridentata</i>) with an understory of non-native grasses and native forbs.
		Antelope Bitterbrush Shrubsteppe and Shrubland	A canopy of antelope bitterbrush (<i>Purshia tridentata</i>) with the understory varying between native vegetation or native forbs underneath and are limited in distribution across the micrositing corridor.
		Rubber Rabbitbrush Shrubsteppe and Shrubland	A sparse canopy of rubber rabbitbrush (<i>Ericameria nauseosa</i>) varying from low to high density and are limited in distribution across the micrositing corridor.
		Burned Antelope Bitterbrush Shrubland	A canopy of antelope bitterbrush (<i>Purshia tridentata</i>) varying from moderate to high density of dead or burned antelope bitterbrush
		Gray Horsebrush Shrubsteppe	A sparse canopy of gray horsebrush (<i>Tetradymia canescens</i>) varying from low to high density and are limited in distribution across the micrositing corridor.

Habitat Type	Habitat Sub-type	Habitat Category	Description
Upland Forests and Woodlands	Oregon White Oak Forest	2	Forest or woodland systems with a canopy of Oregon white oak (<i>Quercus garryana</i>).
	Western Juniper Forest	4	Forest with a canopy of western juniper (<i>Juniperus occidentalis</i>).
	Open Western Juniper Woodland	4	Open woodlands with a sparse to medium canopy of western juniper (<i>Juniperus occidentalis</i>).
	Cultivate rye field	5	Seeded cultivated rye (<i>Secale cereale</i>) from moderate density to near monocultures and do not provide important habitat for wildlife.
Agriculture, Pasture, Mixed Environments, and Low-quality habitats	Non-Native Annual Grassland <i>Grassland areas filled with naturalized grass species. Likely partially introduced.</i>	5	Disturbed grasslands that are heavily invaded by non-native, invasive annual grasses and do not provide important habitat.
	Non-Native Perennial Grassland	5	Disturbed grasslands that are dominated by non-native perennial forage grasses and do not provide important habitat.
	Cultivated Ponderosa Pine	5	Composed of rows of planted ponderosa pine (<i>Pinus ponderosa</i>) that do not provide important habitat.
	Partially Burned Juniper Stand	4	Open rocky mountain juniper (<i>Juniperus scopulorum</i>) woodland that is partially burned from fire and is limited in distribution across the micrositing corridor.
	Dog Rose Thicket	5	Thickets of non-native dog rose (<i>Rosa canina</i>) at low to moderate densities within non-native grasslands and do not provide important habitat for wildlife.
	Himalayan Blackberry Thicket	5	These areas are composed of near monocultures of non-native Himalayan blackberry (<i>Rubus armeniacus</i>) and do not provide important habitat for wildlife.
	Pearhip Rose Thicket	4	Thickets of native pearhip rose (<i>Rosa woodsia</i>) that were found in close proximity to wetlands or stream habitats but are limited in distribution across the micrositing corridor.
	Wet Meadow	4	Disturbed grasslands consisting of a wetter suite of grassland and native forb species than other grasslands within micrositing corridor, many of which were artificially flooded.

Habitat Type	Habitat Sub-type	Habitat Category	Description
Human Impacted Habitats	Tumble Mustard Thicket	5	These areas are composed of near monocultures of tumble mustard (<i>Sisymbrium altissimum</i>) and do not provide important habitat for wildlife.
	Developed, Ruderal, and Disturbed Agricultural Field	6	Developed areas surrounding agriculture fields, and residences: buildings, lawns, landscaped areas, roads, driveways, etc. They do not provide important habitat for wildlife.
	Agricultural Ditch	6	Disturbed, ditch dug through agricultural areas. They do not provide important habitat for wildlife.
	Hay Field	6	Disturbed agricultural field cultivated and harvested for hay. They do not provide important habitat for wildlife.
Rocky and Talus Habitats	Basalt Talus	3	Small areas of basalt talus at the higher elevations of the southeastern corner of the micrositing corridor. They may provide important habitat for reptiles, small mammals, and insects and are limited in distribution across the micrositing corridor.
	Rocky Swales with Mima Mounds	4	Low, rocky swales with non-native vegetation and mima mounds distributed within them. They provide important habitat to wildlife, particularly reptiles and burrowing mammals but are not limited in distribution across the micrositing corridor.

Table 3 summarizes the acreage of the habitat categories within the micrositing corridor. The locations of each surveyed habitat along with their associated categories are shown in Attachment 1, Figure 3.

TABLE 3 ACRES OF HABITAT CATEGORIES AND TYPES WITHIN THE MICROSITING CORRIDOR AND THE ANALYSIS AREA

Habitat Category	Habitat Type-Subtype	Acres within Micrositing Corridor	Acres within Analysis Area
1	Tygh Valley Milkvetch Habitat	38	108
2	ODFW Big Game Winter Range Big Sagebrush Shrubsteppe Oregon White Oak Forest Rigid Sagebrush Shrubsteppe Riparian Corridor Three-tip Sagebrush Scabland	1,722	9,133
3	Antelope Bitterbrush Shrubsteppe and Shrubland Basalt Talus Cottonwood Stand Non-isolated Palustrine Emergent Wetlands Perennial Streams PWCA Regions and Connectors Riparian Trees and Shrubs	4,863	7,165
4	Burned Antelope Bitterbrush Shrubland Gray Horsebrush Shrubsteppe Intermittent Streams Isolated Palustrine Emergent Wetlands Open Western Juniper Woodland Partially Burned Juniper Stand Permanent and Seasonal Ponds Pearhip Rose Thicket Rubber Rabbitbrush Shrubsteppe and Shrubland Vernal Pool Community Western Juniper Forest Wet Meadow	1,037	1,517
5	Cultivated Ponderosa Pine Cultivated Rye Field Dog Rose Thicket Ephemeral Streams Himalayan Blackberry Thicket Native Bunchgrass Grassland Non-Native Perennial Grassland Non-Native Annual Grassland Rocky Swales with Mima Mounds Tumble Mustard Thicket	4,558	5,687
6	Agricultural Ditch Developed, Ruderal, and Disturbed Agricultural Field Hay Field	314	1,151
Total		12,532	24,761

6. IDENTIFICATION OF STATE SENSITIVE SPECIES AND SITE-SPECIFIC ODFW ISSUES

OAR 345-022-0060(1)(d) Based on consultation with the Oregon Department of Fish and Wildlife (ODFW) and appropriate field study and literature review, identification of all State Sensitive Species that might be present in the analysis area and a discussion of any site-specific issues of concern to ODFW.

6.1 AGENCY CONSULTATION

ERM and the Applicant consulted with the ODFW to determine literature sources and to identify which targeted surveys were needed as described in Section 3.

6.2 SURVEY RESULTS

State-sensitive species with potential to occur in the micrositing corridor are listed Table 4. Their potential to be impacted by construction or operation of the Facility are discussed in Section 8. Federal-and State-listed endangered, threatened, and candidate species are addressed in the Threatened and Endangered Species Exhibit. The results of the associated field studies for the mapped species and habitats is included in the attached Biological Resource Survey Report (Attachment 2).

TABLE 4 STATE SENSITIVE FISH AND WILDLIFE SPECIES POTENTIALLY OCCURRING IN THE ANALYSIS AREA

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
Amphibian						
Cope's Giant Salamander	<i>Dicamptodon copei</i>	-	OCS	Occur in cold, clear, fast-flowing permanent streams with coarse substrates (e.g., basalt) in coniferous forests. Utilize microhabitat features (i.e., deep cobble, small boulders, and logs) for foraging, egg-laying, and refuge.	Two ORBIC records (1999) from the northwest in Mount Hood National Forest. Listed in ODFW Compass as observed. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Limited suitable habitat in the perennial extents of Wapinitia and Rice Creek within the analysis area.
Western toad	<i>Anaxyrus boreas</i>	-	OCS	Wetlands, ponds, and lakes for breeding and foraging. Sunny shallows with short, sparse, or no vegetation for egg-laying and for tadpole schools to move widely as they forage on organic mud and surface diatoms.	None observed within the analysis area per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Limited breeding and foraging habitat present within the analysis area.
Birds						
American Three-toed Woodpecker	<i>Picoides dorsalis</i>	-	OCS	Occurs in coniferous forests, both the boreal and mountain forests, in snags and dead, and dying trees usually above 5,000 feet. Nest in trunks of small dead coniferous trees. Forage on wood-boring beetles, ant	None observed within the analysis area per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting habitat is absent. Suitable foraging habitat is present.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
				larvae, moth pupae, and spiders.		
Bald Eagle	<i>Haliaeetus leucocephalus</i>	BGEPA 1940	-	Nest in large trees, usually near marine shorelines, large lakes, or rivers. Well-distributed throughout Oregon.	None within the analysis area per ORBIC 2025 and none observed within the analysis area per ODFW Compass. Observed incidentally as flyover during general wildlife survey in northwest and eastern portions of the analysis area. No nesting or mating behaviors were observed.	Suitable nesting habitat exists within the analysis area, primarily in forested areas adjacent to the White River Canyon on the northwestern side of the analysis area. Potential foraging habitat is present throughout the analysis area.
Black-backed Woodpecker	<i>Picoides arcticus</i>	-	OCS	Occur in forested areas, usually above 5,000 feet. Black-backed Woodpeckers favor areas of dead or dying conifers and may concentrate at burned or flooded areas with many standing dead trees. Nest in relatively small dead trees in areas with a high density of large trees. Forage on larvae of wood-boring beetles.	None observed within the analysis area per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting habitat is absent within the analysis area. Suitable foraging habitat is present within the analysis area.
Brewer's Sparrow	<i>Spizella breweri</i>	-	OCS	Sagebrush obligate species, are dependent almost exclusively on the sagebrush ecosystem when breeding.	Listed in ODFW Compass as observed within the analysis area. This species was not observed in the analysis	Limited suitable nesting habitat is present in the analysis area. Potential foraging habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
					area during 2024 and 2025 biological surveys.	
Common Nighthawk	<i>Chordeiles minor</i>	-	OCS	Nest in both rural and urban habitats including coastal sand dunes and beaches, logged forest, recently burned forest, woodland clearings, prairies, plains, sagebrush, grasslands, open forests, and rock outcrops.	Listed in ODFW Compass as observed within the analysis area. Observed avian point count survey in the southeastern portion of the analysis area and during general wildlife survey. Roosting behavior was observed in the west, south, and eastern portions of the analysis area.	Suitable nesting habitat is present in the analysis area. Potential foraging habitat is present within the analysis area.
Ferruginous Hawk	<i>Buteo regalis</i>	FSOC	OCS	Occur in open country, primarily prairies, plains and badlands. Prefer open grasslands and shrubsteppe communities. Nest in tall trees, steep slopes, cliff ledges, river-cut banks, hillsides, and on power line towers. Forage on mammals, birds, amphibians, reptiles, and insects.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting and foraging habitat is present in the analysis area.
Flammulated Owl	<i>Psiloscops flammeolus</i>	-	OCS	Flammulated Owls inhabit mid-elevation forests (3,880-4,600 feet) with no understory. They typically use small, dense thickets for roosting. Nest sites consist of medium to large snags or deformed trees with	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting habitat is absent within the analysis area. Suitable foraging habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
				existing woodpecker holes/cavities. Forage in open patches of grassland/meadow for insects.		
Golden Eagle	<i>Aquila chrysaetos</i>	BGEPA 1940, FSOC	-	Primarily located in mountains up to 12,000 feet above sea level, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Golden Eagles nest on cliffs and steep escarpments in grassland, chaparral, shrubland, forest, and other vegetated areas.	4 ORBIC records (1991-2018) from the high elevation areas cliffs and bluffs to the north, east, and west of the analysis area. Three nests, of which one was active and two were inactive, were observed during raptor nest surveys in the White River Canyon within the analysis area. Adult and juvenile Golden Eagles were observed at the active nest.	Suitable nesting habitat is within the White River Canyon in the northwestern portion of the analysis area. Potential foraging habitat is present throughout the analysis area.
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	-	OCS	Occur in grasslands, prairies, hayfields, and open pastures with little to no scrub cover and often with some bare ground. Birds in the western part of the range can tolerate some brushy habitat but avoid areas that are too overgrown.	Listed in ODFW Compass as observed within the analysis area. Observed during avian point count survey in the southeastern and northwest portions of the analysis area. No nesting or mating behaviors were observed.	Suitable nesting habitat is present in the analysis area. Potential foraging habitat is present within the analysis area.
Great Gray Owl	<i>Strix nebulosa</i>	-	OCS	Occur in late-successional forests for nesting. Nests are typically found on large-diameter snags or large-branch structures. Forage for small	None observed per ODFW Compass. This species was not observed in the analysis	Suitable nesting and foraging habitat is absent in the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
				mammals in the grassy openings of late-successional forests.	area during 2024 and 2025 biological surveys.	
Lewis's Woodpecker	<i>Melanerpes lewis</i>	FSOC	OCS	Frequently breed in open ponderosa pine forests and burned forests with a high density of standing dead trees (snags). They also breed in woodlands near streams, oak woodlands, orchards, and pinyon-juniper woodlands.	13 ORBIC records (1985-1988) from the northwest of the Lower White River. Listed in ODFW Compass as observed. Observed during avian point count surveys in the western and southeastern portion of the analysis area, and incidentally during general wildlife and wetlands and waters surveys in the northwest and eastern portions of the site. One nest was observed incidentally during rare plant surveys in Oregon white oak (<i>Quercus garryana</i>) forest in the southeastern portion of the site.	Suitable nesting habitat is present within Oregon white oak forests in the analysis area. Suitable nesting habitat is primarily found in forests on the northern and southern edges of the analysis area. Potential foraging habitat is present throughout the analysis area.
Loggerhead Shrike	<i>Lanius ludovicianus</i>	-	OCS	Inhabits open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. They frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, and prairies. Nests in thorny	Listed in ODFW Compass as observed. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting habitat is present in the analysis area. Potential foraging habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
				vegetation, trees, or shrubs.		
Long-billed Curlew	<i>Numenius americanus</i>	-	OCS	Occur in grasslands with sparse, short grasses, including mixed grass prairies. Nest near objects such as rocks or cowpies. Forages opportunistically on various insects, worms, berries, and sometimes bird eggs.	None observed within the analysis area per ODFW Compass. Observed during raptor nest surveys in the northern portion of the analysis area.	Suitable nesting and foraging habitat is present in the analysis area.
Northern Goshawk	<i>Accipiter gentilis atricapillus</i>	FSOC	OCS	Occur in open forests, often near water and with tall, prominent trees and/or snags. May use open, mature coniferous forest, forested riparian areas, forest openings, and forest edges. Prefer mature or old-growth forests with high canopy closure. Nest in the largest stand of conifer trees and sometimes deciduous trees, including aspens and paper birch. Forage opportunistically on a variety of prey from insects to carrion in forests, along riparian corridors, and in more open habitats, such as the sagebrush steppes	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting and foraging habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
Olive-sided Flycatcher	<i>Contopus cooperi</i>	FSOC	OCS	Occur in open forests, often near water and with tall prominent trees and/or snags. May use open, mature coniferous forest, forested riparian areas, forest openings, and forest edges. Prefer hemlocks or true firs for nesting and require abundant insects for prey.	Listed in ODFW Compass as observed. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting and foraging habitat is present in the analysis area.
Pileated Woodpecker	<i>Dromocopus pileatus</i>	-	OCS	Occur in mature deciduous or mixed deciduous-coniferous woodlands or in younger forests with some large dead trees or decaying wood. Nest in dead trees within these habitats. Forage on dead wood for carpenter ants, woodboring beetle larvae, or termites.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting habitat and foraging habitat is present in the analysis area.
Swainson's Hawk	<i>Buteo swainsoni</i>	-	OCS	Occur in savannas, open pine-oak woodland, and cultivated lands with scattered trees. Typically nest near the top of a solitary tree or in a small grove of trees along a riparian area. Forage mainly on mammals and insects in open habitats.	Listed in ODFW Compass as observed. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting and foraging habitat is present in the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
White-headed Woodpecker	<i>Picoides albolarvatus</i>	FSOC	OCS	Occur in large tracts of open ponderosa pine woodlands. They require snags or dead portions of a living pine or fir for nesting and require mature trees for foraging on pine seeds.	Listed in ODFW Compass as observed. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting habitat is absent in the analysis area. Suitable foraging habitat is present in the analysis area.

Mammals

American pika	<i>Ochotona princeps</i>	-	OCS	Occur in talus, creviced rock, and other microhabitats that provide cool microclimates. Nests are hidden in talus. Forage on forbs, grasses, sedges, marmot pellets, and sometimes shoots of woody vegetation.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable nesting and foraging habitat is absent from the analysis area.
California myotis	<i>Myotis californicus</i>	-	OCS	Occur in forests. They use large snags for day roosts and are occasionally found night-roosting under bridges. Forages along margins of tree clumps, around edge of tree canopy, over water, and well above ground in open country.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable roosting habitat and foraging habitat is present in the analysis area.
Hoary bat	<i>Lasiurus cinereus</i>	FSOC	OCS	Occur in forest habitat. They use late-successional conifer forests for roosting. For foraging they require	None observed per ODFW Compass. This species was not observed in the analysis	Suitable roosting habitat is absent in the analysis area. Suitable foraging habitat is present in the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
				abundant insect prey that is found in open areas such as grasslands.	area during 2024 and 2025 biological surveys.	
Long-legged myotis	<i>Myotis volans</i>	FSOC	OCS	Occur in large snags and hollow trees for day, night, and maternity roosts. They may also use bridges in forested habitat for night-roosting, and caves and mines for roosting and hibernating. They typically forage along riparian corridors and forest edges.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable roosting habitat is present in the analysis area. Suitable foraging habitat is present in the analysis area.
Pallid bat	<i>Antrozous pallidus</i>	FSOC	OCS	Occur in crevices of cliffs, caves, mines, or bridges (and sometimes, buildings) as roosting habitat and in some areas, they use snags as day roosts. They prefer grassland, shrub-steppe, and dry forest ecotones for foraging.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable roosting habitat is limited to the observed caves in the Rice Creek Canyon within the analysis area. Suitable foraging habitat is present in the analysis area.
Silver-haired bat	<i>Lasionycteris noctivagans</i>	FSOC	OCS	Occur in late-successional conifer forests. They use large snags and hollow trees for day, night, and maternity roosts. For foraging habitat, they prefer a variety of forested areas with layered canopies, riparian areas, and disturbed areas such as roadsides or treetops.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable roosting habitat is absent in the analysis area. Suitable foraging habitat is present in the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	FSOC	OCS	Occur in caves, mines, and isolated buildings for day and night roosting, maternity roosts, and hibernacula. They may gather in large concentrations. Occasionally, this species uses hollow trees and bridges for day or night roosting. Feed primarily on moths.	None observed per ODFW Compass. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Suitable roosting habitat is limited to the observed caves in the Rice Creek Canyon within the analysis area. Suitable foraging habitat is present in the analysis area.

Vascular plants

Beaked cryptantha	<i>Cryptantha rostellata</i>	-	ORBIC list 3	Sloped rocky or basalt soils in open meadows, shrublands, and woodlands	6 ORBIC records (1935-1995) to the east near Maupin and to the south near Nena Creek. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.
Columbia bladderpod	<i>Physaria douglasii</i> ssp. <i>douglasii</i>	-	ORBIC list 3	Sandy or gravelly soil on riverbanks, sagebrush slopes, in pine woodlands, and at the base of cliffs.	No ORBIC records 2025. Nearest available herbarium records are in Columbia River Gorge. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is limited within the analysis area.
Columbia milk-vetch	<i>Astragalus succumbens</i>	-	ORBIC list 4	Sandy hills and dunes, roadsides, and sagebrush communities	No ORBIC records 2025. Nearest available herbarium records are in Columbia River Gorge.	Potential habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
					This species was not observed in the analysis area during 2024 and 2025 biological surveys.	
Creamy stickseed	<i>Hackelia diffusa</i> var. <i>cottonii</i>	-	ORBIC list 4	Grassy and rocky slopes.	No ORBIC records 2025. Nearest available herbarium record is to the north of analysis area near White River. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.
Cusick's rockcress	<i>Boechera cusickii</i>	-	ORBIC list 3	Rocky or gravelly slopes, sagebrush hills, and basaltic bluffs or crevices and outcrops of volcanic rock	No ORBIC records 2025. Nearest available herbarium records are to the southeast near Deschutes River. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is limited within the analysis area.
Hairy water-fern	<i>Marsilea vestita</i>	-	ORBIC list 3	Shallow water on riverbanks or in seasonal ponds where it grows in muddy or sandy soils.	No ORBIC 2025 records in the analysis area. Nearest available herbarium record is within analysis area. Observed during rare plant surveys in southwest portion of the analysis area.	Potential habitat is present within the analysis area.
Hamblen's lomatium	<i>Lomatium farinosum</i> var. <i>hambleniae</i>	-	ORBIC list 4	Sloped rocky or gravelly soils or flats within scablands and foothills.	No ORBIC records 2025. Nearest available herbarium	Potential habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
					<p>records are to the east of analysis area near Maupin.</p> <p>This species was not observed in the analysis area during 2024 and 2025 biological surveys.</p>	
Hood River milk-vetch	<i>Astragalus hoodianus</i>	-	ORBIC list 2	Grassy, rocky, or sandy slopes	<p>No ORBIC records 2025. Nearest available herbarium records are in the Columbia River Gorge.</p> <p>This species was not observed in the analysis area during 2024 and 2025 biological surveys.</p>	Potential habitat is present within the analysis area.
Hot-rock penstemon	<i>Penstemon deustus</i> var. <i>variabilis</i>	-	ORBIC list 3	Gravelly slopes and streambeds	<p>1 ORBIC record (1955) to the southwest near Simnasho.</p> <p>This species was not observed in the analysis area during 2024 and 2025 biological surveys.</p>	Potential habitat is present within the analysis area.
Idaho milk-vetch	<i>Astragalus conjunctus</i> var. <i>conjunctus</i>	-	ORBIC list 3	Dry, rocky slopes and sagebrush and bunchgrass communities	<p>3 ORBIC records (1969-1991) to the north near White River and west near Foremans Point.</p> <p>Observed during rare plant surveys in north, southwest, and eastern portions of the analysis area. Habitat consisted of oak woodlands on the north-facing side of Wapinitia Creek and Rice</p>	Potential habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
					Creek Canyons, on the south-facing slope of Graveyard butte, and within shrubsteppe at the base of the hills on the southern end of the analysis area.	
Inch-high rush	<i>Juncus uncialis</i>	-	ORBIC list 2	Vernal pools and rocky swales.	No ORBIC 2025 records in the analysis area. Nearest available herbarium record is southwest of Madras near Grandview. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.
Nevius' onion	<i>Allium nevii</i>	-	ORBIC list 2	Vernal pools, wet meadows, vernal moist scablands, and along streams	7 ORBIC records (1950-2022) from within and around analysis area to the north near the Rock Creek dam and Smock Prairie and to the southwest in the Coyote Creek drainage. Observed during rare plant surveys in the analysis area. Habitat within the analysis area consists of vernal pools, wetlands, and swales across the analysis area.	Potential habitat is present within the analysis area.
Pacific meadow foxtail	<i>Alopecurus saccatus</i>	-	ORBIC list 3	Vernal pools	No ORBIC 2025 records in the analysis area. Nearest herbarium record is to the west near White River.	Potential habitat is present within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
					Observed during rare plant surveys in the analysis area. Habitat within the analysis area consists of vernal pools.	
Prairie wedgegrass	<i>Sphenopholis obtusata</i>	-	ORBIC list 2	Moist areas in grasslands, marshes, dunes, disturbed areas, and around the edges of ponds	No ORBIC 2025 records in the analysis area. Nearest available herbarium records are in Columbia River Gorge. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.
Rickard's milk-vetch	<i>Astragalus conjunctus</i> var. <i>rickardii</i>	-	ORBIC list 3	Roadsides and bunchgrass prairies	No ORBIC 2025 records in the analysis area. Nearest herbarium record is to the northeast near Deschutes River. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.
Smooth desert parsley	<i>Lomatium laevigatum</i>	-	ORBIC list 4	Basalt-derived substrates on cliffs, ledges, crevices, rocky slopes, and outcrops in scablands and scrublands.	No ORBIC 2025 records in the analysis area. Nearest available herbarium records are in Columbia River Gorge. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is limited within the analysis area.
Snowball cactus	<i>Pediocactus nigrispinus</i>	-	ORBIC list 4	Scrub and sagebrush communities.	No ORBIC 2025 records in the analysis area. Nearest	Potential habitat is limited within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
					available herbarium records are near Columbia River and John Day River. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	
Spiny fame-flower	<i>Phemeranthus spinescens</i>	-	ORBIC list 2	Cliffs, ledges, and outcrops in basaltic soils	No ORBIC 2025 records in the analysis area. Nearest available herbarium record is to the southeast near the eastern boundary of Warm Springs Reservation. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is limited within the analysis area.
Stalked-pod milk-vetch	<i>Astragalus sclerocarpus</i>	-	ORBIC list 4	Sandy barrens and dunes, roadsides, and sagebrush communities	No ORBIC 2025 records in the analysis area. Nearest available herbarium records are near Columbia River and John Day River. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.
Thyme-leaved buckwheat	<i>Eriogonum thymoides</i>	-	ORBIC list 2	Sandy to gravelly soils on slopes, outcrops, and volcanic flats in grassland and sagebrush communities	No ORBIC 2025 records in the analysis area. Nearest available herbarium record is near Spanish Peak within Ochoco Mountains.	Potential habitat is limited within the analysis area.

Common Name	Scientific Name	Federal Status ^a	State Status ^b	Habitat Requirements ^c	Observed or Expected Occurrence within Analysis Area ^c	Potential Use of Habitat within Analysis Area
					This species was not observed in the analysis area during 2024 and 2025 biological surveys.	
Watson's desert parsley	<i>Lomatium watsonii</i>	-	ORBIC list 2	Open rocky and gravelly flats within grassland, scrubland, and woodland communities	No ORBIC 2025 records in the analysis area. Nearest available herbarium records are to the south within the Warm Springs Reservation. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.
White sandverbena	<i>Abronia mellifera</i>	-	ORBIC list 3	Sandy soils, cold desert scrub, and grasslands	No ORBIC 2025 records in the analysis area. Nearest available herbaria records are in the Columbia River Gorge. This species was not observed in the analysis area during 2024 and 2025 biological surveys.	Potential habitat is present within the analysis area.

^a: FSOC = Federal Species of Concern; BGEPA = Bald and Golden Eagle Protection Act (1940).

^b: OCS = Oregon conservation strategy species in Blue Mountains, Columbia Plateau, and/or East Cascades ecoregions; ORBIC list 2 = threatened, endangered or extirpated from Oregon, but secure or abundant elsewhere; ORBIC list 3 = review; ORBIC list 4 = watch.

^c: Habitat requirements according to CLO 2025, NatureServe 2025, ODFW 2025, and OFP 2025.

^d: ODFW Compass = Centralized Oregon Mapping Products and Analysis Support System; ORBIC = Oregon Biodiversity Information Center; ODFW Compass records from ODFW 2024; ORBIC records from ORBIC 2025; Herbarium records from OFP 2025, SEINet 2025

6.3 SITE-SPECIFIC ISSUES IDENTIFIED BY ODFW

Big Game Winter Range for Mule Deer is mapped by ODFW on the southern and eastern ends of the micrositing corridor, approximately 1,619 acres. As defined in the ODFW Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0025(2)), the habitat is categorized as Category 2 (ODFW 2022). The Applicant plans to avoid, minimize, and mitigate impacts to big game with the coordination and approval from ODFW. These avoidance and mitigation methods are described in Section 9.

PWCA Regions and Connectors overlap with the micrositing corridor, with an approximate overlap of 4,790 acres and 499 acres, respectively. The habitat is categorized as Category 3 (ODFW 2022), however, approximately 448 acres overlap with Big Game Winter Range, which is Category 2. The Applicant plans to avoid, minimize, and mitigate impacts to PWCA Regions and Connectors with the coordination and approval from ODFW. These avoidance and mitigation methods are described in Section 9.

Additionally, ODFW has advocated for the avoidance of oak woodland habitat, caves, and patches of milkweed. The Applicant plans to avoid, minimize, and mitigate impacts to these identified habitats as described in Section 9.

7. BASELINE SURVEY OF HABITAT USE BY STATE SENSITIVE SPECIES – OAR 345-021-0010(1)(P)(E)

OAR 345-022-0060(1)(e) A baseline survey of the use of habitat in the analysis area by species identified in (d) performed according to a protocol approved by the Department and ODFW.

Table 4 describes the habitat requirements and likelihood of occurrence for each sensitive species identified as having the potential to occur in the micrositing corridor or nearby. Ten state-sensitive species, listed below, were identified within the analysis area during the 2024 and 2025 surveys (Attachment 2, Appendix B). Of these ten species, eight were observed within the micrositing corridor during 2024 and 2025 surveys.

- Bald Eagle (*Haliaeetus leucocephalus*): Observed incidentally as flyover during general wildlife survey in northwest and eastern portions of the micrositing corridor. No nesting or mating behaviors were observed within the micrositing corridor and suitable nesting habitat is limited within the micrositing corridor.
- Common Nighthawk (*Chordeiles minor*): Observed during avian point count survey in the southeastern portion of the micrositing corridor and during general wildlife survey. Roosting behavior was observed in the west, south, and eastern portions of the micrositing corridor. Suitable nesting habitat occurs throughout the micrositing corridor.
- Grasshopper Sparrow (*Ammodramus savannarum*): Observed during avian point count survey in the southeastern and northwest portions of the micrositing corridor. No nesting or

mating behaviors were observed, though suitable nesting habitats occur within the micrositing corridor.

- Lewis's Woodpecker (*Melanerpes lewis*): Observed during avian point count survey in the western and southeastern portion of the micrositing corridor, and incidentally during general wildlife and wetlands and waters surveys in the northwest and eastern portions of the site boundary. One nest was observed incidentally during rare plant surveys in Oregon white oak (*Quercus garryana*) forest in the southeastern portion of the site boundary. Suitable nesting habitat is present within oak and juniper forests throughout the micrositing corridor.
- Idaho milk-vetch (*Astragalus conjunctus* var. *conjunctus*): Observed during rare plant surveys in north, southwest, and eastern portions of the micrositing corridor. Habitat consisted of oak woodlands on the north-facing side of Wapinitia Creek and Rice Creek Canyons, on the south-facing slope of Graveyard butte, and within shrubsteppe at the base of the hills on the southern end of the micrositing corridor.
- Hairy water-fern (*Marsilea vestita*): Observed during rare plant surveys in southwest portion of the micrositing corridor. Habitat within the micrositing corridor consists of the margins of a stock pond. While this species was only observed in one location, other suitable aquatic margin habitat exists throughout the micrositing corridor.
- Nevius' onion (*Allium nevii*): Observed during rare plant surveys in vernal pools, wetlands, and swales across most of the micrositing corridor. Habitat within the micrositing corridor consists of vernal pools, wetlands, and swales. This species is widespread within the micrositing corridor.
- Pacific meadow foxtail (*Alopecurus saccatus*): Observed during rare plant surveys in vernal pools across most of the micrositing corridor. This species was a relatively common component of the vegetation communities of less-disturbed vernal pools across the micrositing corridor.

8. DESCRIPTION OF POTENTIAL ADVERSE IMPACTS

OAR 345-022-0060(f) A description of the nature, extent and duration of potential adverse impacts on the habitat identified in (b) and species identified in (d) that could result from construction, operation and retirement of the proposed facility.

The following sections address the potential adverse impacts from Facility construction, operation, and retirement to the habitat and species with the potential to occur in the micrositing corridor (Table 4). For information regarding the management of noxious weeds, revegetation, and dust control during and after construction, please see the Draft Vegetation and Soil Management Plans for construction and operation, provided as Attachments 2 and 3 of the Soil Protection Exhibit. Potential mitigation options are discussed in the Draft Habitat Mitigation Plan (Attachment 3).

8.1 POTENTIAL IMPACTS TO FISH AND WILDLIFE HABITAT

The construction and operation of the Facility will result in permanent and temporary impacts on certain species and their suitable habitat within the micrositing corridor. ERM observed and documented 37 major vegetation communities, a PWCA Region and Connector, and Big Game Winter Range as documented in the attached Biological Resources Survey Report (Attachment 2).

The micrositing corridor vegetation community descriptions and the comprehensive plant inventory are included in Attachment 2. ERM determined the ODFW preliminary habitat mitigation category of the micrositing corridor, “depending upon the functions and values of the habitat to a specific species, population, or a unique assemblage of fish or wildlife species” (ODFW 2022) and then consulted ODFW for verification of habitat category assumptions. Table 5 summarizes the resulting habitat categories based on consultation with ODFW and associated permanent and temporary impacts anticipated to result from the construction and operation of the Facility. Each category is described further in the following sections.

TABLE 5 ACRES OF IMPACT TO HABITAT CATEGORIES AND TYPES WITHIN THE MICROSITING CORRIDOR

Final Habitat Category	Permanent Impact (Acres)	Temporary Impact (Acres)
Category 1	0	0
Category 2	703	97
Category 3	2,373	273
Category 4	411	71
Category 5	1,878	237
Category 6	77	16
	5,442	695

8.1.1 CATEGORY 1 HABITAT

The Tygh Valley milk-vetch (*Astragalus tyghensis*) habitat is Category 1, which is “essential, limited, and irreplaceable” with a mitigation strategy of avoidance with “no loss of habitat quantity or quality” (ODFW, 2022). No disturbance is planned for Category 1 habitats, and therefore, no impacts to these habitats are anticipated.

8.1.2 CATEGORY 2 HABITAT

The Big Game Winter Range, Oregon white oak (*Quercus garryana*) forest, riparian corridors, and sagebrush (*Artemisia* spp.) shrubsteppe habitats are Category 2, which is “essential and limited,” but not irreplaceable, with a mitigation policy of “in-kind, in-proximity mitigation” with “no net loss of habitat quantity or quality and to provide a net benefit of habitat quantity or quality” (ODFW, 2022). Of these habitats, only Big Game Winter Range will have potential temporary and permanent disturbances from construction and operation. Although only 405 acres of Category 2 habitat was observed within the micrositing corridor, with the overlay of the modeled ODFW Big Game Winter Range, approximately 800 acres of Category 2 habitat are expected to be impacted and will require mitigation.

8.1.3 CATEGORY 3 HABITAT

Category 3 habitat consists of antelope bitterbrush (*Purshia tridentata*) shrubsteppe and shrublands, basalt talus, cottonwood (*Populus trichocarpa*) stands, ephemeral streams, intermittent streams, isolated palustrine emergent wetlands, non-isolated palustrine emergent wetlands, palustrine forested wetland, palustrine scrub-shrub wetland, perennial streams, permanent and seasonal ponds, PWCA Region and Connector, and Riparian Trees and shrubs. Category 3 is “essential habitat, or important but limited habitat” with a mitigation policy of “in-kind, in-proximity mitigation” with “no net loss of habitat quantity or quality” (ODFW, 2022). Although only 238 acres of Category 3 habitat was observed within the micrositing corridor, with the overlay of the modeled ODFW PWCA, the potential disturbance to Category 3 habitat includes 273 acres of temporary impacts and 2,373 acres of permanent impacts, likely requiring mitigation.

8.1.4 CATEGORY 4 HABITAT

Category 4 habitat consists of burned antelope bitterbrush shrubland, degraded vernal pool community, gray horsebrush (*Tetradymia canescens*) shrubsteppe, open western juniper (*Juniperus occidentalis*) woodland, partially burned juniper stand, pearhip rose (*Rosa woodsii*) thicket, rocky swales with mima mounds, rubber rabbitbrush (*Ericameria nauseosa*) shrubsteppe and shrubland, western juniper forest, and wet meadows. Category 4 is “important habitat” with a mitigation policy of “in-kind or out-of-kind, in-proximity or off-proximity mitigation” with “no net loss of habitat quantity or quality” (ODFW, 2022). Potential disturbance includes 17 acres of temporary impacts and 411 acres of permanent impacts from construction and operation, likely requiring mitigation

8.1.5 CATEGORY 5 HABITAT

Category 5 habitat consists of all grassland habitats, cultivated ponderosa pine (*Pinus ponderosa*) stands, cultivated rye fields, dog rose (*Rosa canina*) thickets, Himalayan blackberry (*Rubus armeniacus*) thickets, and tumble mustard (*Sisymbrium altissimum*) thickets. Category 5 is “habitat having high potential to become either essential or important habitat” with a mitigation policy of “actions that improve habitat conditions” with a “net benefit in habitat quantity or quality” (ODFW, 2022). Potential disturbance includes 237 acres of temporary impacts and 1,878 acres of permanent impacts from construction and operation, likely requiring mitigation

8.1.6 CATEGORY 6 HABITAT

Category 6 habitat consists of agricultural ditches, developed, ruderal, and disturbed agricultural fields, and hay fields. Category 6 is “habitat that has low potential to become essential or important habitat” with a mitigation policy to “minimize direct habitat loss and avoid off-site impacts” (ODFW, 2022). Potential disturbance includes 16 acres of temporary impacts and 77 acres of permanent impacts from construction and operation, unlikely to require mitigation

8.2 POTENTIAL IMPACTS TO STATE SENSITIVE SPECIES

This section describes and addresses potential impacts to the state-sensitive species identified as having the potential to occur within the micrositing corridor (Table 4). Construction and operation of the Facility would affect each species differently. The following sections address the direct and indirect impact on state-sensitive species (e.g., invasive species, breeding/nesting disturbance, disturbance related to artificial lighting, etc.).

8.2.1 AMPHIBIANS

Two state-sensitive amphibians (both Oregon Conservation Strategy Species), Cope's giant salamander and the western toad, were identified to have the potential to occur within the micrositing corridor (Table 4).

- Cope's giant salamander (*Dicamptodon copei*) was not observed in the analysis area during surveys. Although no targeted aquatic survey was completed, the limited foraging and breeding habitat observed in Wapinitia and Rice Creeks canyons will be avoided during the construction and operation of the Facility.
- Western toad (*Anaxyrus boreas*) was not observed in the analysis area during surveys. By avoiding impacts to wetlands and ponds, foraging and breeding habitat will be largely avoided during the construction and operation of the Facility.

8.2.2 BIRDS

Eighteen state-sensitive species were identified to have the potential to occur within the micrositing corridor (Table 4). These included two species of eagles, four passerines, five woodpeckers, and seven other types of birds as discussed in the sections below.

8.2.2.1 EAGLES

Golden Eagle (*Aquila chrysaetos*) observed nests in active use will be avoided using a 0.5-mile buffer during the seasonal restriction dates (1 February to 15 August). Suitable habitat within the micrositing corridor is limited to foraging habitat, with no suitable nesting habitat. No adverse effects are expected to nesting habitat, but a loss of foraging habitat is possible due to the construction and operation of the Facility.

Bald Eagles (*Haliaeetus leucocephalus*) were observed foraging within the micrositing corridor. However, no suitable nesting habitat was observed within the micrositing corridor. Potential adverse impacts due to the construction and operation of the Facility are likely limited to the potential loss of foraging habitat.

8.2.2.2 PASSERINES

Four passerines that are Oregon Conservation Strategy Species were identified with the potential to occur in the micrositing corridor.

- Brewer's Sparrow (*Spizella breweri*) sagebrush habitat is largely anticipated to be avoided by the construction or operation of the Facility. Potential adverse effects due to the construction and operation of the Facility include limited loss of nesting and foraging habitat.

- Grasshopper Sparrow (*Ammodramus savannarum*) nesting and foraging habitat is present across much of the micrositing corridor. While no nesting or mating behaviors were observed, potential adverse effects due to the construction and operation of the Facility include loss of nesting and foraging habitat.
- Loggerhead Shrike (*Lanius ludovicianus*) nesting and foraging habitat is present within the micrositing corridor. However, the Loggerhead Shrike was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of nesting and foraging habitat.
- Olive-sided Flycatcher (*Contopus cooperi*) nesting and foraging habitat is present within the micrositing corridor. However, Olive-sided Flycatcher was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of nesting and foraging habitat.

8.2.2.3 WOODPECKERS

Five woodpeckers that are Oregon Conservation Strategy Species were identified with the potential to occur in the micrositing corridor.

- American Three-toed Woodpecker (*Dicamptodon copei*) habitat is absent from the micrositing corridor, and none were observed during surveys. As such, no adverse effects are expected due to the construction and operation of the Facility.
- Black-backed Woodpecker (*Picoides arcticus*) habitat is absent from the micrositing corridor, and no Black-backed Woodpeckers were observed during surveys. As such, no adverse effects are expected due to the construction and operation of the Facility.
- Lewis's Woodpecker (*Melanerpes lewis*) habitat is limited to oak habitat within the micrositing corridor. One active nest was observed in an oak forest in the southeast portion of the micrositing corridor. Oak forest habitat is anticipated to be avoided. As such, adverse effects are expected to be limited due to the construction and operation of the Facility.
- Pileated Woodpecker (*Drocopus pileatus*) habitat is limited within the micrositing corridor, and the Pileated Woodpecker was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of nesting and foraging habitat.
- White-headed Woodpecker (*Picoides albolarvatus*) habitat is absent from the micrositing corridor, and the White-headed Woodpecker was not observed during surveys. As such, no adverse effects are expected due to the construction and operation of the Facility.

8.2.2.4 OTHER

Seven other birds that are Oregon Conservation Strategy Species were identified with the potential to occur in the micrositing corridor.

- Common Nighthawk (*Chordeiles minor*) nesting and foraging habitats are present. Roosting behavior was observed within the micrositing corridor. Potential adverse impacts due to the construction and operation of the Facility include loss of habitat.

- Ferruginous Hawk (*Buteo regalis*) nesting and foraging habitat is present within the micrositing corridor. However, this species was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of habitat.
- Flammulated Owl (*Psiloscops flammeolus*) nesting and foraging habitat is present within the micrositing corridor. However, this species was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of habitat.
- Great Gray Owl (*Strix nebulosa*) habitat is limited in the micrositing corridor. Additionally, this species was not observed during surveys. As such, no adverse effects are expected due to the construction and operation of the Facility.
- Long-billed Curlew (*Numenius americanus*) nesting and foraging habitat is present within the micrositing corridor. Additionally, one adult Long-billed Curlew with young was observed just outside of the northern portion of the micrositing corridor near Victor Road. Potential adverse impacts due to the construction and operation of the Facility include loss of habitat.
- Northern Goshawk (*Accipiter gentilis atricapillus*) nesting and foraging habitat is limited within the micrositing corridor. Additionally, this species was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of habitat.
- Swainson's Hawk (*Buteo swainsoni*) nesting and foraging habitat is present within the micrositing corridor. However, this species was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of habitat.

8.2.3 MAMMALS

Seven mammals that are Oregon Conservation Strategy Species were identified to have the potential to occur within the micrositing corridor (Table 4). No targeted mammal surveys were conducted.

- American pika (*Ochotona princeps*) habitat is absent from the micrositing corridor, and the American pika was not observed during surveys. As such, no adverse effects are expected due to the construction and operation of the Facility.
- California myotis (*Myotis californicus*) roosting habitat is limited within the micrositing corridor, and the California myotis was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include limited loss of habitat.
- Hoary bat (*Lasius cinereus*) habitat is limited within the micrositing corridor, and the hoary bat was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include limited loss of habitat.
- Long-legged myotis (*Myotis volans*) roosting and foraging habitat is limited within the micrositing corridor, and the long-legged myotis was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include limited loss of habitat.
- Pallid bat (*Antrozous pallidus*) roosting and foraging habitat is limited within the micrositing corridor, and the pallid bat was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include limited loss of habitat.

- Silver-haired bat (*Lasionycteris noctivagans*) habitat is limited within the micrositing corridor, and the silver-haired bat was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include loss of habitat.
- Townsend's big-eared bat (*Corynorhinus townsendii*) habitat is limited within the micrositing corridor, and Townsend's big-eared bat was not observed during surveys. Potential adverse impacts due to the construction and operation of the Facility include limited loss of habitat.

8.2.4 VASCULAR PLANTS

Based on the desktop analysis, 22 state-sensitive but unlisted vascular plant species have the potential to occur within the micrositing corridor (Table 4).

8.2.4.1 VASCULAR PLANT SPECIES OBSERVED

Four listed plant species, hairy water-fern, Idaho milk-vetch, Nevius' onion, and Pacific meadow foxtail, were observed during biological surveys in 2024 and 2025. Populations of these species were observed within habitats that will be avoided, such as wetlands, vernal pools, and riparian corridors. However, these species have no required protections through ORBIC listing and are not ODA-listed. There is no recommended setback for these species as there are no additional regulatory requirements.

- Hairy water-fern (*Marsilea vestita*) was observed growing at the edge of one pond within the southwestern portion of the micrositing corridor during surveys in July 2025. As the construction and operation of the Facility is proposed to avoid all wetlands, adversely affects to this species is not anticipated.
- Idaho milk-vetch (*Astragalus conjunctus* var. *conjunctus*) habitat is present within the micrositing corridor, and this species was observed in three areas within the micrositing corridor. The individuals found in canyons are in areas expected to be inaccessible to the construction and operation of the Facility, and the individuals found within oak forest are not expected to be impacted due to avoidance of these habitats. Populations found outside of these habitats have the potential to be disturbed during construction of the Facility.
- Nevius' onion (*Allium nevii*) was found in vernal pools, wetlands, and rocky swales across the micrositing corridor during 2024 and 2025 biological surveys. Populations of this species within unregulated rocky swales has the potential to be disturbed. However, the construction and operation of the Facility are not expected to adversely affect the viability of this species in the region.
- Pacific meadow foxtail (*Alopecurus saccatus*) was found during biological surveys in 2024 and 2025. This species is prevalent in vernal pools across the micrositing corridor but is restricted to vernal pools. Vernal pools will be avoided; therefore, construction and operation of the Facility is not expected to adversely affect this species.

8.2.4.2 VASCULAR PLANT SPECIES NOT OBSERVED

The 18 species listed below were not observed during field surveys. Facility construction and operation are not likely to adversely impact these species.

- Beaked cryptantha (*Cryptantha rostellata*)
- Creamy stickseed (*Hackelia diffusa* var. *cottonii*)
- Columbia bladderpod (*Physaria douglasii* ssp. *douglasii*)
- Columbia milk-vetch (*Astragalus succumbens*)
- Cusick's rockcress (*Boechera cusickii*)
- Hamblen's lomatium (*Lomatium farinosum* var. *hambleniae*)
- Hood River milk-vetch (*Astragalus hoodianus*)
- Hot-rock penstemon (*Penstemon deustus* var. *variabilis*)
- Inch-high rush (*Juncus uncialis*)
- Prairie wedgegrass (*Sphenopholis obtusa*)
- Rickard's milk-vetch (*Astragalus conjunctus* var. *rickardii*)
- Smooth desert parsley (*Lomatium laevigatum*)
- Snowball cactus (*Pediocactus nigrispinus*)
- Spiny fame-flower (*Phemeranthus spinescens*)
- Stalked-pod milk-vetch (*Astragalus sclerocarpus*)
- Thyme-leaved buckwheat (*Eriogonum thymoides*)
- Watson's desert parsley (*Lomatium watsonii*)
- White sandverbena (*Abronia mellifera*)

9. AVOIDANCE AND MITIGATION

OAR 345-021-0010(1)(p)(G) A description of any measures proposed by the applicant to avoid, reduce, or mitigate the potential adverse impacts described in (F) in accordance with the general fish and wildlife habitat mitigation goals and standards described in OAR 635-415-0025 and a description of any measures proposed by the applicant to avoid, minimize, and provide compensatory mitigation for the potential adverse impacts described in (F) in accordance with the sage-grouse specific habitat mitigation requirements described in the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-140-0000 through -0025, and a discussion of how the proposed measures would achieve those goals and requirements

This section describes how the Applicant will avoid, minimize, and mitigate for the unavoidable impacts to wildlife habitat from construction and operation of the Facility and outlines how the Applicant will construct and operate the Facility consistently with the ODFW Habitat Mitigation Policy.

9.1 AVOIDANCE AND MINIMIZATION

9.1.1 DURING PROJECT DESIGN AND MICROSITING

The Applicant has strategically designed the Facility to avoid and minimize potential adverse impacts on essential, limited, and irreplaceable habitat and wildlife.

- Areas of intact, essential, limited, and irreplaceable habitats, such as vernal pools or oak woodlands, have been avoided, to the extent feasible, in favor of siting the Facility in more disturbed area with limited habitat potential.
- Rather than developing the Facility with one large area of panels, the solar panels will be developed in blocks that will be separated by avoidance areas where there will not be Facility development or fencing, thus creating corridors for wildlife connectivity that are typically at least 100 feet wide, and in many areas, are greater than 200 feet wide. These corridors will include PWCA corridors, riparian corridors, and other corridors that have been created to Facility wildlife connectivity.
- Because the Facility has been designed in blocks, there will not be perimeter fencing around the entire Facility. Instead, each solar array block will be individually fenced using wildlife-friendly fencing. The Applicant will use a type of fencing that will be designed to support wildlife movement through the Facility (e.g., designed to avoid small mammal entrapment and at least eight feet high to avoid ungulate entrapment). Where applicable, the fenced solar panel blocks will include elevated “jump outs” to allow for escape in the unlikely event that ungulates become entrapped within a fenced area.
- All Category 1 habitats and riparian corridors will be avoided to maintain irreplaceable habitat and support wildlife connectivity through the Facility.
- All observed Category 2 habitats will be avoided (e.g., Oregon White Oak Forest and riparian corridors) except the modeled Big Game Winter Range which overlaps multiple underlying habitat categories. The Category 2 habitat that will be impacted was preliminarily observed as Category 3 through 6 based on vegetation communities but was elevated to Category 2 habitat because of the overlap of Big Game Winter Range.
- The caves and other potential bat habitat observed within the oak woodland riparian corridors will be avoided.
- Patches of milkweed, valuable to monarch butterflies and other pollinators, were primarily associated with riparian corridors, and will be avoided, as feasible, to minimize impacts on these habitats.
- The solar array blocks, and associated fence, will be set back at least 750 feet from the rim of the White River Canyon to facilitate the movement of species through this area.
- All streams and wetlands will be avoided with a 25- to 100-foot setback, except where road crossings require unavoidable impacts on streams. Road crossings will be designed to minimize impacts on streams to the extent possible (e.g., by utilizing bottomless culverts installed above the ordinary high-water mark and utilizing existing crossings).
- The arrangement of solar array blocks, avoidance of riparian corridors, alignment with modeled PWCA, and removal of unmaintained agricultural barriers will create potential high permeability corridors through the micrositing corridor that could provide increased permeability for wildlife.
- To the extent possible, native vegetation will be retained, and the solar array blocks will be sited in areas of disturbed and non-native vegetation. The areas within the fenced area will also receive an ecological uplift from the removal of cattle and agricultural impacts. The

Applicant will revegetate using a native seed mix, which will further promote soil quality, and which may improve ecological function over time compared to cultivated soils².

- The gen-tie line will be designed and sited to minimize risks and impacts to avian species, and all transmission infrastructure will be constructed in accordance with the standards and guidelines outlined by Avian Power Line Interaction Committee (APLIC) (APLIC 2006 and 2012).

9.1.2 PRIOR TO CONSTRUCTION

The Applicant will implement the following measures prior to construction to avoid or minimize impacts on wildlife.

- Habitat avoidance areas, such as wetlands, riparian corridors and Category 1 habitat areas, will be marked. These marked areas will be provided to all contractors ahead of construction (e.g., using Esri field maps software) for avoidance.
- Raptors, including eagles, will be surveyed pre-construction (one breeding season prior to ground disturbance) to determine the status of known nests and roosts and to identify new nests to be avoided during construction.
- Non-raptor special status bird species will be surveyed pre-construction (during the breeding season directly prior to ground disturbance) to determine the status of known nests and to identify new nests to be avoided during construction.

9.1.3 DURING CONSTRUCTION

The Applicant will implement the following measures to avoid or minimize adverse impacts on wildlife during construction of the Facility:

- Construction will be completed in a timely manner to avoid prolonged disruption of wildlife in the area.
- There will be an environmental monitoring and inspection program to confirm that avoidance areas are being properly avoided by construction activities.
- Construction waste will be stored in closed, wildlife-proof containers to avoid attracting wildlife to the construction site.
- All vehicles and equipment will be maintained in proper working condition to minimize the potential for hazardous materials leaks. Though not anticipated, hazardous spills will be immediately cleaned up and properly disposed of offsite.
- A Facility wide speed limit will be implemented, and construction vehicles will only park and travel in designated areas.
- Though unanticipated, if construction activities impact wetlands marked for avoidance, they will be restored to a condition as close to the pre-disturbance condition as is feasible as

² Native grassland restoration is known to decrease soil bulk density, increase carbon storage in roots, and increase carbon mineralization rates in soils over time (Baer et al. 2002). Significant positive changes in ecological function attributes, such as microbial biomass, arbuscular mycorrhizal fungi biomass, and carbon mineralization, are detectable within four years after revegetation compared to cultivated soils (Bach et al. 2012).

described in the Facility's Construction Vegetation and Soil Management Plan (Soil Protection Exhibit, Attachment 2).

- The Applicant's construction contractor will develop an erosion and sediment control plan in accordance with the Facility's 1200-C Permit. The Applicant and its contractors will use best management practices to reduce potential impacts on areas immediately surrounding the construction site. Straw wattles, silt fence, rock check dams, or ditching will be installed to control erosion and avoid contamination of discharged stormwater. Dust control measures will be implemented to control fugitive dust as documented in the Facility's Construction Vegetation and Soil Management Plan (Soil Protection Exhibit, Attachment 2).
- To the extent possible, ground disturbance and vegetation removal will be avoided between 15 April and 1 September, which is a critical period for ground nesting birds. Should ground disturbance be necessary during this period, then vegetation removal shall occur prior to this period. If vegetation removal cannot occur prior to the nesting period, then a pre-construction nesting bird survey will be conducted to determine status of known nests and identify new nests to be avoided during construction.
- Per ODFW request, construction activities outside of the Facility footprint will be limited from 1 December 1 April to reduce disturbance to wintering wildlife outside of the micrositing corridor.
- The Applicant will revegetate disturbed areas and control the spread of noxious weeds to support forage recovery and minimize habitat degradation for big game and other wildlife during and after the construction following the Construction Vegetation and Soil Management Plan, provided as Attachment 2 of the Soil Protection Exhibit. Revegetation with a native seed mix will promote ecological restoration and uplift particularly for areas that are currently cultivated or where there are invasive species.
- All raptor nests within the analysis area known to be active at the time of construction will be avoided following the spatial buffers and seasonal restrictions outlined in Table 6. An earlier release date from these restrictions will be possible only if the nest is confirmed to be unoccupied.

TABLE 6 ODFW RAPTOR NEST BUFFERS AND SEASONAL RESTRICTIONS

Species	Spatial Buffer	Seasonal Restriction	Release Date if Unoccupied
Golden Eagle	0.5 mile	1 February to 15 August	15 May
American Kestrel, Great Horned Owl, Sharp-shinned Hawk, and an unknown raptor species	0.25 mile	1 March to 15 August	31 May
Red-tailed Hawk	0.10 mile	1 March to 15 August	31 May
Common Raven	100 to 300 feet	15 February to 31 July	31 May

9.1.4 DURING OPERATION

The Applicant will implement the following measures to avoid or minimize adverse impacts on wildlife during Facility operation.

- The Facility will utilize dark sky friendly lighting during operation. This lighting will be controlled such that it is only utilized when needed, shielded and directed downward, and no brighter than is necessary.
- The Applicant will revegetate disturbed areas and control the spread of noxious weeds during Facility operation as described in the Operations Vegetation and Soil Management Plan, provided as Attachment 3 of the Soil Protection Exhibit.

9.2 MITIGATION

Any temporary or permanent impacts on wildlife habitat and state-sensitive species will be compensated and mitigated for following the standards and goals set by the ODFW Habitat Mitigation Policy. These mitigation measures are described in the draft Habitat Mitigation Plan, provided as Attachment 3 of this exhibit.

10. MONITORING PROGRAM

OAR 345-021-0010(1)(p)(H) A description of the applicant's proposed monitoring plans to evaluate the success of the measures described in (G).

The Applicant proposes a monitoring program for areas potentially impacted by the Facility. The monitoring program will include revegetation monitoring and noxious weed monitoring as described in the Construction Vegetation and Soil Management Plan and Operations Vegetation and Soil Management Plan, provided as Attachments 2 and 3 of the Soil Protection Exhibit, respectively.

11. SUBMITTAL REQUIREMENTS AND APPROVAL STANDARDS

11.1 SUBMITTAL REQUIREMENTS

TABLE 7 SUBMITTAL REQUIREMENTS MATRIX

Requirement	Location
OAR 345-021-0010(1)(p) Information about the fish and wildlife habitat and the fish and wildlife species, other than the species addressed in subsection (q) that could be affected by the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0060. The applicant shall include:	-
(A) A description of biological and botanical surveys performed that support the information in this exhibit, including a discussion of the timing and scope of each survey	Section 4

Requirement	Location
(B) Identification of all fish and wildlife habitat in the analysis area, classified by the general fish and wildlife habitat categories as set forth in OAR 635-415-0025 and the sage-grouse specific habitats described in the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-140-0000 through -0025 (core, low density, and general habitats), and a description of the characteristics and condition of that habitat in the analysis area, including a table of the areas of permanent disturbance and temporary disturbance (in acres) in each habitat category and subtype	Section 5
(C) A map showing the locations of the habitat identified in (B).	Attachment 1, Figure 3
(D) Based on consultation with the Oregon Department of Fish and Wildlife (ODFW) and appropriate field study and literature review, identification of all State Sensitive Species that might be present in the analysis area and a discussion of any site-specific issues of concern to ODFW	Section 6
(E) A baseline survey of the use of habitat in the analysis area by species identified in (D) performed according to a protocol approved by the Department and ODFW	Section 7
(F) A description of the nature, extent and duration of potential adverse impacts on the habitat identified in (B) and species identified in (D) that could result from construction, operation and retirement of the proposed facility	Section 8
(G) A description of any measures proposed by the applicant to avoid, reduce, or mitigate the potential adverse impacts described in (F) in accordance with the general fish and wildlife habitat mitigation goals and standards described in OAR 635-415-0025 and a description of any measures proposed by the applicant to avoid, minimize, and provide compensatory mitigation for the potential adverse impacts described in (F) in accordance with the sage-grouse specific habitat mitigation requirements described in the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-140-0000 through -0025, and a discussion of how the proposed measures would achieve those goals and requirements.	Section 9
(H) A description of the applicant's proposed monitoring plans to evaluate the success of the measures described in (G)	Section 10

11.2 APPROVAL STANDARDS

TABLE 8 APPROVAL STANDARD

Approval Standard	Location
<i>OAR 345-022-0060 Fish and Wildlife Habitat</i>	-
<p>To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are consistent with:</p> <p>(1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025(1) through (6) in effect as of February 24, 2017; and</p> <p>(2) For energy facilities that impact sage-grouse habitat, the sage-grouse specific habitat mitigation requirements of the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-415-0025(7) and OAR 635-140-0000 through -0025 in effect as of February 24, 2017.</p>	Section 9
<p>(3) To assist the Council in determining whether the standard outlined in (1) through (2) has been met, the Applicant must submit information about the fish and wildlife habitat and the fish and wildlife species, other than the species addressed in OAR-022-0070(3) (the Threatened and Endangered Species Exhibit) that could be affected by the proposed facility, providing evidence to support a finding by the Council as required by this rule. The applicant must include:</p>	-
<p>(A) A description of biological and botanical surveys performed that support the information in this exhibit, including a discussion of the timing and scope of each survey</p>	Section 4
<p>(B) Identification of all fish and wildlife habitat in the analysis area, classified by the general fish and wildlife habitat categories as set forth in OAR 635-415-0025 and the sage-grouse specific habitats described in the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-140-0000 through -0025 (core, low density, and general habitats), and a description of the characteristics and condition of that habitat in the analysis area, including a table of the areas of permanent disturbance and temporary disturbance (in acres) in each habitat category and subtype</p>	Section 5
<p>(C) A map showing the locations of the habitat identified in (B).</p>	Attachment 1, Figure 3
<p>(D) Based on consultation with the Oregon Department of Fish and Wildlife (ODFW) and appropriate field study and literature review, identification of all State Sensitive Species that might be present in the analysis area and a discussion of any site-specific issues of concern to ODFW</p>	Section 6
<p>(E) A baseline survey of the use of habitat in the analysis area by species identified in (D) performed according to a protocol approved by the Department and ODFW</p>	Section 7

Approval Standard	Location
(F) A description of the nature, extent and duration of potential adverse impacts on the habitat identified in (B) and species identified in (D) that could result from construction, operation and retirement of the proposed facility	Section 8
(G) A description of any measures proposed by the applicant to avoid, reduce, or mitigate the potential adverse impacts described in (F) in accordance with the general fish and wildlife habitat mitigation goals and standards described in OAR 635-415-0025 and a description of any measures proposed by the applicant to avoid, minimize, and provide compensatory mitigation for the potential adverse impacts described in (F) in accordance with the sage-grouse specific habitat mitigation requirements described in the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-140-0000 through - 0025, and a discussion of how the proposed measures would achieve those goals and requirements.	Section 9
(H) A description of the applicant's proposed monitoring plans to evaluate the success of the measures described in (G)	Section 10

12. REFERENCES

APLIC (Avian Power Line Interaction Committee). 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington D.C. and Sacramento, CA.

APLIC. 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012. Edison Electric Institute and APLIC. Washington, D.C.

Bach, Elizabeth M., Sara G. Baer, and Johan Six. 2012. Plant and Soil Responses to High and Low Diversity Grassland Restoration Practices. *Environmental Management* 49(2):412-24.

Baer, S. G., D. J. Kitchen, J. M. Blair, and C. W. Rice. 2002. Changes in ecosystem structure and function along a chronosequence of restored grasslands. *Ecological Applications* 12(6):1688-1701.

CLO (Cornell Lab of Ornithology). 2025. Biodiversity occurrence data published by: AllAboutBirds (accessed through the AllAboutBirds Portal, allaboutbirds.org, 2025-03-06).

Great Basin Bird Observatory. 2003. *Nevada Bird Count. A Habitat-based Monitoring Program for Breeding Birds of Nevada*. Instruction Package and Protocol for Point Count Surveys.

iNaturalist. 2024. iNaturalist species occurrence data. Available from <https://www.inaturalist.org>. Accessed June 2024.

NatureServe. 2025. Biodiversity occurrence data published by: NatureServe (accessed through the NatureServe Explorer Portal, explorer.natureserve.org, 2025-03-06).

OCS (Oregon Conservation Strategy). 2024. Oregon Conservation Strategy species. Oregon Department of Fish and Wildlife, Salem, Oregon.

ODA (Oregon Department of Agriculture). n.d. Listed Plants by County. Accessed: May 2025. Retrieved from: [ODA Listed Plants by County](#)

ODFW (Oregon Department of Fish and Wildlife). 2013. *ODFW Oregon Big Game Winter Habitat*. Accessed November 2024. Retrieved from: <https://www.dfw.state.or.us/habitat/mitigation/Final%202013%20ODFW%20Big%20Game%20Winter%20Habitat%20Map%20Rationale%20-%202013.pdf>

ODFW (Oregon Department of Fish and Wildlife). 2021. ODFW Sensitive Species List. Available online at: http://www.dfw.state.or.us/wildlife/diversity/species/docs/Sensitive_Species_List.pdf. Accessed March 2025.

_____. 2022. *Habitat Mitigation Policy*. Accessed November 2024. Retrieved from: https://www.dfw.state.or.us/habitat/mitigation_policy.asp

_____. 2023. *Priority Wildlife Connectivity Areas*. Accessed June 2025. Retrieved from: [ODFW Priority Wildlife Connectivity Areas](#)

_____. 2024. Compass: Oregon Strategy Reporting Tool. Accessed November 2024. Retrieved from: <https://www.dfw.state.or.us/maps/compass/>

_____. 2025. Biodiversity occurrence data published by: Oregon Department of Fish and Wildlife (accessed through the myODFW Portal, myodfw.com, 2025-03-06).

_____. 2025a. Comments on the Notice of Intent submitted by DECH bn, LLC for the Deschutes Solar and Battery Energy Storage System Facility in Wasco County. Letter from Jessica Wilkes, Deschutes Watershed District Wildlife Habitat Biologist, to Kathleen Sloan, Oregon Department of Energy, dated March 7, 2025.

OFP (Oregon Flora Project). 2025. Biodiversity occurrence data published by: OregonFlora (accessed through the OregonFlora Portal, oregonflora.org, 2025-03-06).

ORBIC (Oregon Biodiversity Information Center). 2025. Rare, threatened, and endangered plant and animal species records. Portland State University, Institute for Natural Resources. Requested February 21, 2025. Received and accessed February 28, 2025.

SEINet. 2025. Biodiversity occurrence data published by: SEINet Portal Network (accessed through the SEINet Portal Network Portal, <https://swbiodiversity.org/seinet>, 2025-03-06).

USFWS (United States Fish and Wildlife Service). 2017. *Survey Guidelines for the Listed Large Branchiopods*. Available online at: <https://www.fws.gov/sites/default/files/documents/survey-guidelines-for-large-branchiopods.pdf>

_____. 2022. Federally listed, proposed, candidate, delisted species, and species of concern under the jurisdiction of the Fish and Wildlife Service which may occur in Oregon. Available online at: https://www.fws.gov/sites/default/files/documents/OregonSpeciesStateList_1.pdf. Accessed March 2025.

_____. 2024. *Information for Planning and Consultation (IPaC)*. Accessed June 2024. Retrieved from: <https://ecos.fws.gov/ipac/>

_____. 2025. Migratory Bird Permit Memorandum [MBPM-2-02]. Accessed March 2025. Retrieved from: [USFWS Migratory Bird Permit Memo MBPM-2-02](#)

Vrilakas, S., L. K. Wise, G. E. Campbell, and M. Russell. 2023. *Rare, Threatened and Endangered Vascular Plant Species of Oregon*. Institute for Natural Resources Publications. 158. https://pdxscholar.library.pdx.edu/naturalresources_pub/158

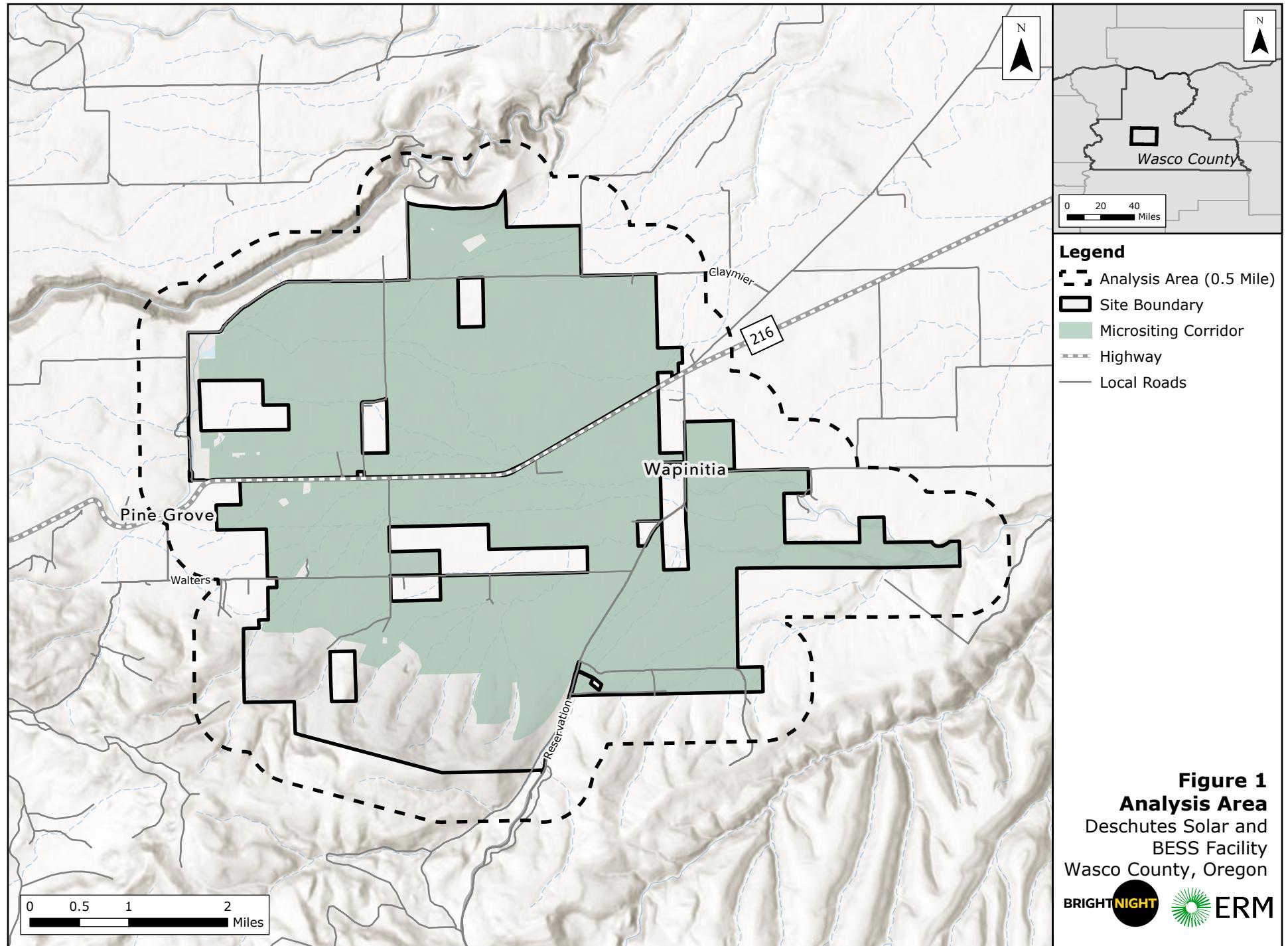


ATTACHMENT 1 FIGURES

Figure 1– Analysis Area

Figure 2– Survey Areas

Figure 3– Habitat Areas



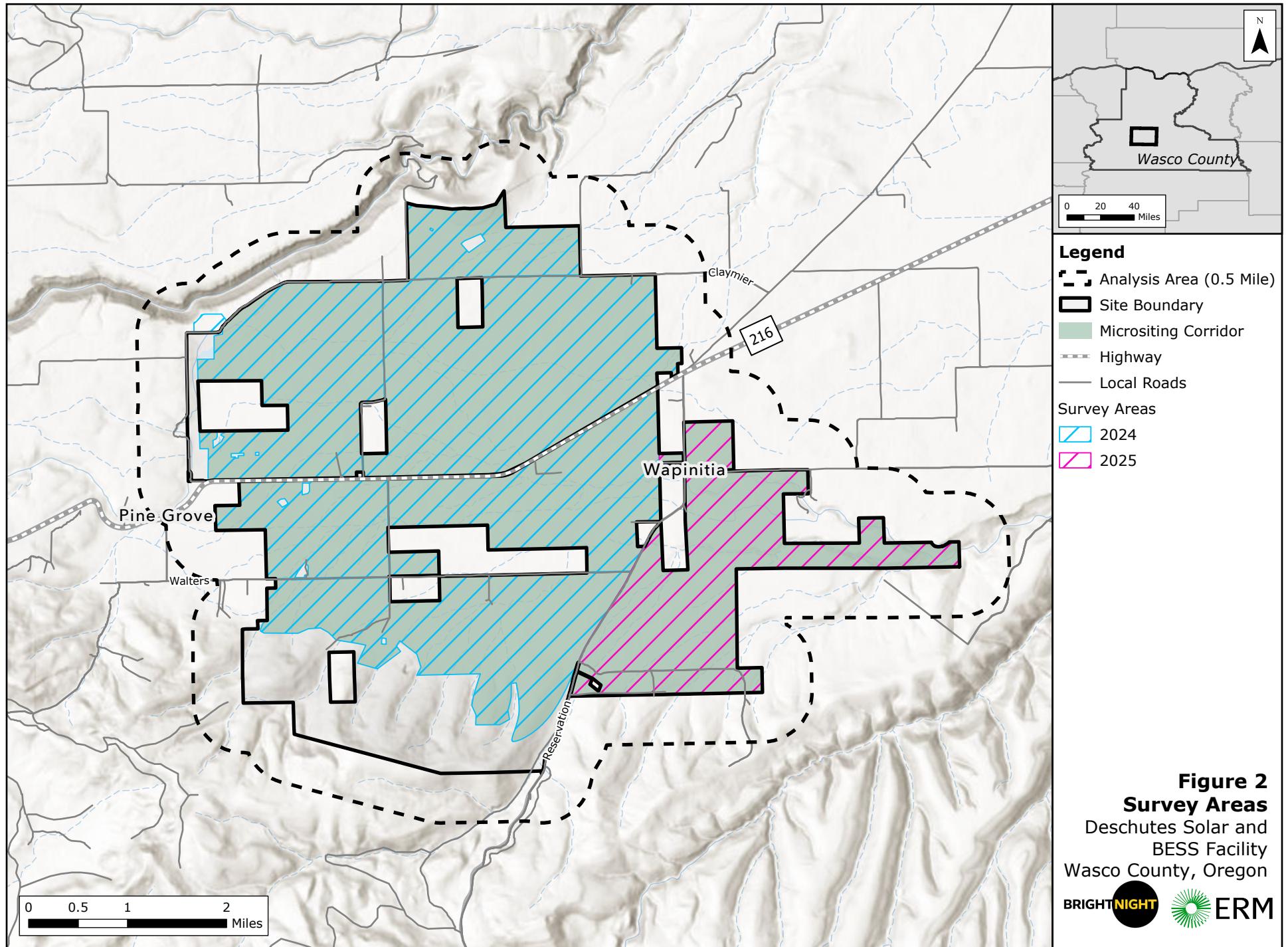
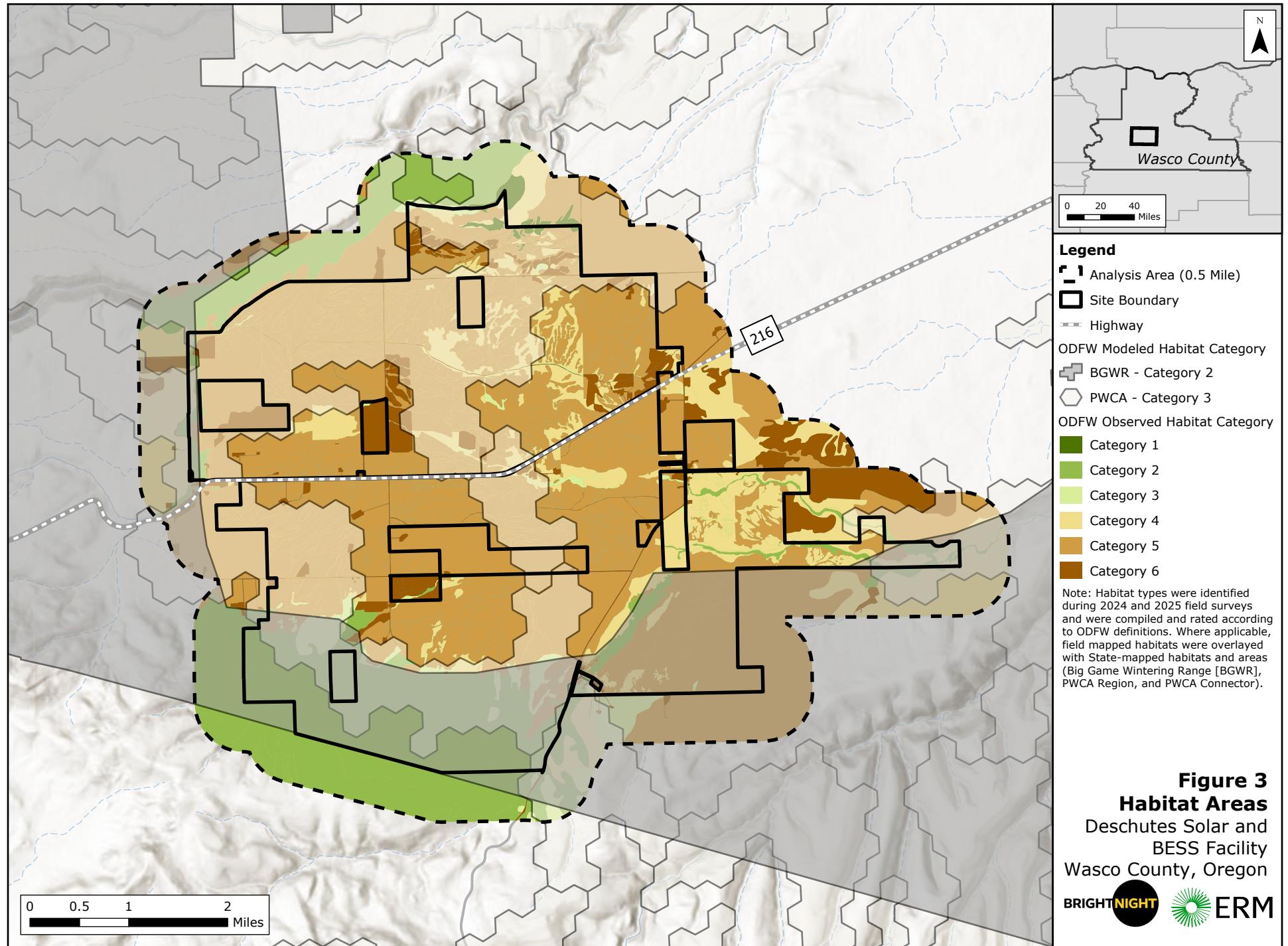


Figure 2
Survey Areas
 Deschutes Solar and
 BESS Facility
 Wasco County, Oregon





ATTACHMENT 2 BIOLOGICAL RESOURCE REPORT (CONFIDENTIAL)

Provided under separate cover due to file size.



ATTACHMENT 3 DRAFT HABITAT MITIGATION PLAN

Habitat Mitigation Plan

December 2025

Prepared for



Prepared by



Environmental Resources Management, Inc.

This page intentionally left blank

Table of Contents

1.0	Introduction	1
2.0	Description of the Impacts Addressed by the HMP	1
3.0	Mitigation.....	5
3.1	Methods for Calculating the Size of the Mitigation Area.....	5
4.0	Compensatory Mitigation Options.....	6
4.1	Option 1: Third-Party Payment-to-Provide.....	7
4.2	Option 2: Conservation or Working Lands Easement.....	9
4.3	Option 3: ODFW Payment-to-Provide.....	9
4.4	Option 4: Other Mitigation Options	9
5.0	Monitoring.....	10
6.0	Success Criteria.....	11
7.0	Amendment of the HMP	11
8.0	References	12

List of Tables

Table 1. Potential Temporary and Permanent Impacts by Observed Habitat Category and ODFW Habitat Category Overlay	3
Table 4. Mitigation Ratios – Permanent Impacts	5
Table 5. Mitigation Ratios – Temporary Impacts	6

This page intentionally left blank

1.0 Introduction

This Habitat Mitigation Plan (HMP) describes how DECH bn, LLC (Applicant) will mitigate for the unavoidable wildlife habitat impacts of the Deschutes Solar and Battery Energy Storage System Project (Facility). Specifically, this HMP outlines how the Applicant will construct and operate the Facility consistent with the Oregon Department of Fish and Wildlife (ODFW) Habitat Mitigation Policy. This plan addresses mitigation for both the permanent impacts of Facility components (permanent impacts) and the temporary impacts associated with the Facility construction (temporary impacts). The Applicant proposes to protect and enhance a habitat mitigation area (HMA) and/or provide commensurate funding for a third party to enhance and monitor an HMA. In addition, the Applicant reserves the right to pursue alternative mitigation pathways if available in the future by pursuing an amendment to this HMP, as provided under Section 7 below. This HMP specifies potential habitat impacts, mitigation options, and monitoring procedures to evaluate the success of those actions, as applicable.

2.0 Description of the Impacts Addressed by the HMP

As described in the Fish and Wildlife Exhibit, the Applicant conducted field surveys to identify the habitat types within the micrositing corridor (i.e., the maximum area where the Facility may be developed). The habitat types, and their associated acreages within the micrositing corridor and a larger analysis area (site boundary plus 0.5-mile) are listed in Table 3 of the Fish and Wildlife Exhibit. The Applicant then strategically designed the Facility to avoid and minimize potential adverse impacts on wildlife. With the avoidance and minimization, there will still be permanent and temporary impacts to habitat.

Permanent impact areas are those that will be altered from the existing condition for the life of the Facility. All areas within the solar array fence line, including the footprints of all solar components and supporting facilities, are considered permanently impacted, as are any areas where Facility infrastructure such as roads and buildings are constructed.

Temporary impact areas are those that experience temporary disturbance during Facility construction, such as temporary staging areas and areas where collector lines are installed. These will be returned to a similar condition as the beginning condition after completion of construction. Temporary impacts will be mitigated through implementation of the Facility's Construction and Operation Vegetation and Soil Management Plans, provided in the Soil Protection Exhibit. Some temporarily impacted areas include vegetation communities that would take longer than 5 years to be restored to a pre-disturbance condition; these areas will have a loss of habitat functionality during this restoration period.

Table 1 presents the anticipated acreage of temporary and permanent impacts to each category of habitat present at the Facility. As shown in Table 1, the Facility will have no impact on Category 1 habitat.

Table 1. Potential Temporary and Permanent Impacts by Observed Habitat Category and ODFW Habitat Category Overlay

Final Habitat Category	Mapped ODFW Habitats	Observed Habitats	Total Area of Impacts (acreage)	Temporary Impacts (acres)	Permanent Impacts (acres)
1	None	Tygh Valley Milkvetch Habitat	0	0	0
2	Big Game Winter Range ¹	Big Sagebrush Shrubsteppe Oregon White Oak Forest Rigid Sagebrush Shrubsteppe Riparian Corridor Three-tip Sagebrush Scabland	800	97	703
3	PWCA Regions and Connectors ²	Antelope Bitterbrush Shrubsteppe and Shrubland Basalt Talus Cottonwood Stand Non-isolated Palustrine Emergent Wetlands Palustrine Forested Wetland Palustrine scrub-shrub wetland Perennial Streams Riparian Trees and Shrubs	2,646	273	2,373
4	None	Burned Antelope Bitterbrush Shrubland Gray Horsebrush Shrubsteppe Intermittent Streams Isolated Palustrine Emergent Wetlands Open Western Juniper Woodland Partially Burned Juniper Stand Pearhip Rose Thicket Permanent and Seasonal Ponds Rubber Rabbitbrush Shrubsteppe and Shrubland	482	71	411

Final Habitat Category	Mapped ODFW Habitats	Observed Habitats	Total Area of Impacts (acreage)	Temporary Impacts (acres)	Permanent Impacts (acres)
		Vernal Pool Community Western Juniper Forest Wet Meadow			
5	None	Cultivated Ponderosa Pine Cultivated Rye Field Dog Rose Thicket Ephemeral Streams Himalayan Blackberry Thicket Native Bunchgrass Grassland Non-Native Perennial Grassland Non-Native Annual Grassland Rocky Swales with Mima Mounds Tumble Mustard Thicket	2,114	237	1,877
6	None	Agricultural Ditch Developed, Ruderal, and Disturbed Agricultural Field Hay Field	91	76	15
Totals			6,137	695	5,442
Note: Totals in this table are rounded to the nearest whole acre.					
<p>¹Only 405 acres of Category 2 habitat was observed within the micrositing corridor, with the overlay of the modeled ODFW Big Game Winter Range, approximately 800 acres of Category 2 habitat are expected to be impacted and will require mitigation.</p> <p>²Only 238 acres of Category 3 habitat was observed within the micrositing corridor, with the overlay of the modeled ODFW PWCA, approximately 2,646 acres of Category 3 habitat are expected to be impacted and will require mitigation.</p>					

3.0 Mitigation

The Applicant intends to mitigate for permanently impacted habitat and temporary but long-term disturbance (e.g., more than 5 years to recovery). This includes all areas displaced or disturbed by construction of the Facility. By including all habitats and all acres affected, the Applicant is maximizing the acreage to be applied to a compensatory mitigation ratio and will therefore meet the ODFW goals of “no net loss” and a “net benefit in quantity.” The Applicant will also focus mitigation funds towards in-proximity restoration and enhancement projects which will help meet the goal of “net benefit in habitat quality.” The Applicant will determine the final mitigation ratio in consultation with ODFW prior to construction based on the mitigation option selected, the type of mitigation, duration of mitigation (i.e., term vs. perpetuity), and the likelihood of mitigation success.

The goal of the protection, mitigation, and enhancement measures in this HMP is to avoid or minimize impacts on wildlife and their habitats, consistently with all applicable legal standards. The Applicant’s action is intended to provide wildlife habitat mitigation to compensate for permanent and temporary habitat disturbances.

3.1 Methods for Calculating the Size of the Mitigation Area

Before beginning construction of the Facility, the Applicant will provide ODOE and ODFW with a final design configuration of the Facility and an updated table of the estimated acres of permanent and temporary impacts by habitat category. The total acreage of required mitigation will be determined based on the final Facility design and calculated impacts to each habitat category. The Applicant will determine the final mitigation ratio for each habitat category in consultation with ODFW prior to construction.

Table 1. Mitigation Ratios – Permanent Impacts

Habitat Category ¹	Mitigation Ratio	Goal for Mitigation	Mitigation Strategy	Mitigation (acres)
1	N/A	No loss of habitat quantity or quality	Avoidance	0
2	2:1	No net loss of habitat quantity or quality and to provide a net benefit of habitat quantity or quality	In-kind, in-proximity compensatory mitigation	1,404
3	1:1	No net loss of habitat quantity or quality	In-kind, in-proximity compensatory mitigation	2,373
4	1:1	No net loss of habitat quantity or quality	In-kind or out-of-kind, in-proximity or off-proximity compensatory mitigation	411
5	1:1	Net benefit in habitat quantity or quality	Actions that improve habitat conditions (e.g., enhancement)	1,877
6	0	Minimize impacts	Minimize impacts	0
Total				6,065

Habitat Category ¹	Mitigation Ratio	Goal for Mitigation	Mitigation Strategy	Mitigation (acres)
<p>1. Current habitat condition and category as mapped by the Applicant and ODFW prior to construction.</p> <p>Note: Permanent impact areas will be updated based on final Facility layout. No impacts are anticipated to Category 1 habitat and no mitigation offered for Category 6 habitat.</p>				

Table 2. Mitigation Ratios – Temporary Impacts

Habitat Category ¹	Mitigation Ratio	Goal for Mitigation	Mitigation Strategy	Mitigation (acres)
1	N/A	No loss of habitat quantity or quality	Avoidance	0
2	2:1	No net loss of habitat quantity or quality and to provide a net benefit of habitat quantity or quality	In-kind, in-proximity compensatory mitigation	194
3	1:1	No net loss of habitat quantity or quality	In-kind, in-proximity compensatory mitigation	272
4	1:1	No net loss of habitat quantity or quality	In-kind or out-of-kind, in-proximity or off-proximity compensatory mitigation	71
5	1:1	Net benefit in habitat quantity or quality	Actions that improve habitat conditions (e.g., enhancement)	237
6	0	Minimize impacts	Minimize impacts	0
Total				774

1. Current habitat condition and category as mapped by the Applicant and ODFW prior to construction.

Note: Permanent impact areas based on final design and includes the Facility's footprint. No impacts are anticipated to Category 1 habitat and no mitigation offered for Category 6 habitat.

4.0 Compensatory Mitigation Options

The mitigation obligations for the Facility is about 6,839 acres, of which 2,114 acres of Category 5 require enhancement (e.g., removal of noxious weeds) based on the ratios and calculations in Tables 4 and 5 above. Through coordination with ODFW, Wasco County Soil and Water Conservation District, and the Confederated Tribes of the Warm Springs Reservation Branch of Natural Resources, the Applicant has identified three potential mitigation options to offset unavoidable impacts to wildlife habitat. These options include third party payment-to-provide; in-proximity, in-kind; and ODFW payment-to-provide, which are described below. The Applicant's preferred option is third party payment-to-provide, where Applicant would offset impacted areas through compensation to enhance habitats in the vicinity of the Facility. The Applicant will continue coordinating with ODFW, ODOE, and other entities to identify additional mitigation options and remains open to alternative mitigation options that may be developed prior to construction.

4.1 Option 1: Third-Party Payment-to-Provide

The Applicant's preferred mitigation strategy is to pay into an existing program or help create a program with a partner where the Applicant would support funding of habitat enhancement within the vicinity of the Facility. The Applicant is in the process of researching and coordinating with conservation entities and other potential partners to identify and vet potential third-party payment to provide options.

One such option would include paying an in-lieu fee to the Natural Resources Conservation Service (NRCS) to support habitat protection and restoration. For this option, the Applicant would contribute funds to NRCS that would be used to support the South Wasco Range Enhancement Project¹. For this project NRCS is working with landowners in south Wasco County to improve the condition of upland vegetation and wildlife habitat through conservation strategies such as brush management (e.g., juniper thinning), wildlife habitat planting, and weed treatment. The goal of this project is to improve habitat quality and connectivity, as well as to increase plant health and diversity.

Similarly, the Applicant could contribute to the NRCS Barlow Area Forestland Enhancement Project² and/or the Confederated Tribes of Warm Springs Forest Stewardship Project³, both of which focus on improving forest condition and health and reducing wildfire risk in forests within or in proximity to the Facility Area. The Barlow Area Forestland Enhancement Project focuses on providing non-industrial forestland managers in Wasco County with the resources and assistance needed to improve forest health and restore desirable vegetative structure and composition. The project includes several forest types including oak savannah, oak woodland, pine woodland, mixed conifer-oak, and conifer forest. The Confederated Tribes of Warm Springs Forest Stewardship Project aims to manipulate forest structure and composition to restore ecological conditions that best serve wildlife and reduce fire risk by reducing fuels, such as trees and shrubs. In addition, the Applicant could contribute to the Bakeoven Watershed Council's Bakeoven Watershed Uplands Restoration Project⁴. This project is located on private land in south Wasco County between the Deschutes River south of Maupin to Buck Hollow Creek along the Wasco and Sherman County boundary. This project focuses on qualitative and quantitative improvements to rangeland plant communities, forage values, and wildlife habitat in the uplands through practices such as juniper removal, weed control, and rangeland management.

Other potential land trusts that may accept an in-lieu fee for mitigation include the Deschutes Land Trust⁵ and the Columbia Land Trust⁶, both of which purchase land for conservation. Both land trusts have service areas that overlap the area of the Facility; however, neither of these land trusts appear to have current projects in the vicinity of the Facility. The Applicant will explore potential

¹ [South Wasco Range Enhancement | Natural Resources Conservation Service](#)

² [Barlow Area Forestland Enhancement | Natural Resources Conservation Service](#)

³ [Confederated Tribes of Warm Springs Forest Stewardship | Natural Resources Conservation Service](#)

⁴ [Projects | Wasco County Watershed](#)

⁵ [Homepage — Deschutes Land Trust](#)

⁶ [Conserving The Nature You Love - Columbia Land Trust](#)

conservation opportunities with these land trusts in case they have a planned project in the vicinity of the Facility in the future.

Under this third-party payment to provide option, the Applicant would partner with a qualified entity to provide funds to acquire land for the purpose of habitat protection and restoration. The Applicant would meet its mitigation obligation by providing a one-time payment to the third-party mitigation provider prior to commercial operation of the Facility. The payment amount would consider the cost of property acquisition for the mitigation area (i.e., Land Costs) if any, habitat improvement actions (i.e., Restoration Action Costs or Habitat Enhancement Actions), and maintenance and monitoring for long-term protection and management of the site (i.e., Stewardship Costs), if needed. The following formula could be used to determine a potential total mitigation payment:

$$\text{Mitigation cost per acre} = M * (R + L + V + S)$$

Where:

- M = Mitigation ratio as defined in Section 3
- R = Restoration costs per acre + contract administration costs to implement restoration
- L = Restoration maintenance costs per acre
- V = Land value per acre (if applicable). Land costs of the mitigation site based on the appraised land value, actual costs, or a value determined by the third-party mitigation provider
- S = Stewardship endowment costs per acre, determined by the third-party mitigation provider (if requested)

Because the equation above assumes a proportional payment to the acquisition and maintenance of the third-party's mitigation site, no specific habitat assessment of the mitigation site will be provided.

Prior to submittal of the final Application for Site Certificate, the Applicant will provide ODOE with a Memorandum of Understanding (MOU) between the Applicant and the third-party mitigation provider that documents the transaction, confirms the applicability of the above mitigation equation, and includes a copy of the mitigation site's management plan. The management plan will be prepared by the third-party and would describe the long-term management goals and monitoring program for the mitigation site (if applicable). The Applicant will require that the management plan acknowledge that the monitoring reports be available for ODOE and ODFW review; and will provide copies of the monitoring reports in its annual report to ODOE and ODFW.

The Applicant would also provide a parent company guarantee, or equivalent financial security agreement, to the ODOE and ODFW including terms and conditions which could result in new compensatory mitigation in the event reports from the third-party land management entity demonstrate long-term failure (i.e., documented trends not achieving success with plan's success

criteria) of the mitigation area, or other mitigation actions such as different enhancement actions at the mitigation area.

4.2 Option 2: Conservation or Working Lands Easement

Under this option, the Applicant would enter into a legal agreement with one or more landowners to place appropriate habitat under a conservation or working lands easement that would prevent or limit impacts within the easement from development for the life of the Facility.

The Applicant is currently in discussions with the Confederated Tribes of Warm Springs Branch of Natural Resources to evaluate how habitat enhancement activities on tribal lands adjacent to the southern Facility site boundary may serve the mitigation needs of the project. Because this land abuts the site boundary and contains habitat like that within the Facility's permanent and temporary impact areas, Tribe sovereign enhancement management activities enabled by mitigation plan funding would be expected to meet in-kind and in-proximity mitigation requirements. The Confederated Tribes of Warm Springs owns a substantial portion of land south of the Facility site boundary, making it possible that the entire mitigation acreage (approximately 6,839 acres) could be satisfied under this option.

Additionally, through coordination with ODFW, land within the Facility site boundary that is not impacted by development of the Facility could be placed under a conservation or working lands easement. The Facility has been sited to avoid high-quality habitat such as riparian corridors, wetlands, and woodlands; therefore, most of the remaining land is expected to meet in-kind and in-proximity conditions. Approximately 7,000 acres within the site boundary are not planned for development, and the Applicant has preliminarily identified an approximately 1,680-acre contiguous area in the southern portion of the site (near the gen-tie) located within mapped Big Game Winter Range as a potential habitat enhancement option. This area abuts the Warm Springs Reservation and could potentially be combined with another habitat enhancement area on the Warm Springs Reservation. The Applicant is actively engaging with landowners to further explore this option.

4.3 Option 3: ODFW Payment-to-Provide

Through agency coordination, the Applicant understands that ODFW is considering a payment-to-provide program as an option to mitigate habitat impacts for EFSC facilities. The Applicant agrees that such a program would be the primary mitigation solution to permanent and temporary impacts. However, currently, such a program is not available. Should a program become available through ODFW or another appropriate state agency, payment-to-provide would be the primary mitigation option.

4.4 Option 4: Other Mitigation Options

The Applicant is actively coordinating with ODFW, DSL, and ODOE, and continually pursuing alternative mitigation options. If the above options cannot be secured prior to construction, or do not meet the mitigation needs, the Applicant will pursue other options for mitigation.

5.0 Monitoring

Monitoring will likely be required for all of the selected mitigation options.

For Option 1 (Third-Party Payment-to-Provide) or Option 3 (ODFW Payment-to-Provide, if monitoring is necessary to track the success of mitigation measures funded through an in-lieu fee or direct payment to a third-party entity, the Applicant will work with that entity to establish an MOU. The MOU will outline responsibilities for monitoring and reporting, including success criteria, inspection frequency, and reporting timelines. The Applicant will ensure that the third-party assumes responsibility for implementing monitoring and submitting reports to the appropriate agencies. If such third-party involves the Confederated Tribes of the Warm Springs Reservation, the MOU will address appropriate sovereign management coordination as an opportunity to innovate a mitigation model that addresses Oregon's siting program impacts to co-managed resources.

For Option 2 (Conservation of Working Lands Easement), the Applicant will retain a qualified investigator (e.g., botanist, wildlife biologist, or revegetation specialist) to implement a comprehensive monitoring program for the mitigation area, as appropriate. The purpose of this monitoring will be to evaluate habitat quality and the results of enhancement actions, especially during the winter and wildlife breeding seasons.

The monitoring duration and frequency will be developed in consultation with ODOE and ODFW. The investigator will monitor the habitat mitigation area for the life of the Facility beginning in the year following the initial planting. The Applicant will develop a monitoring protocol in coordination with ODFW and ODOE depending on the specific goals of the mitigation area. Monitoring could include the following:

- Quantification of habitat types and ODFW habitat categories present;
- Vegetation quality and extent;
- Year-to-date climate data;
- Weed control success and recommended remedial actions;
- Shrub planting success (belt transects or qualitative assessment);
- Percent survival of riparian plantings;
- Documentation of fence removal;
- Wildlife observed, including special-status species (wildlife and plants);
- Observations of wintering mule deer (from a distance to minimize disturbance); and
- Documentation of any wildfire and remedial actions taken to restore habitat quality.

6.0 Success Criteria

Mitigation of the Facility's permanent and temporary habitat impacts will be successful if the Applicant protects and enhances sufficient habitat to meet the ODFW goals for habitat impacts, provides commensurate funding for a third party to perform enhancement and monitoring, and/or provides sufficient land under conservation easements. The Applicant must ensure protection of the required quantity and quality of habitat within the habitat mitigation area for the life of the Facility, including providing commensurate funding for ODFW or a third party to do so.

The Applicant must protect enough habitat to meet habitat mitigation area requirements based on the final design of the Facility. The Applicant will determine the actual habitat mitigation area requirements of the Facility, subject to ODFW review and ODOE approval, before beginning construction.

The Applicant, ODFW, or a third party may demonstrate that land used for mitigation meets the categorical needs or may require improvement of habitat quality based on surveys and evidence of indicators such as survival of planted shrubs, natural recruitment of sagebrush, and successful weed control, as applicable.

If the Applicant cannot demonstrate that the habitat mitigation area is trending toward the success criteria within the agreed upon monitoring period, then the Applicant will propose remedial action. ODOE may require supplemental corrective measures.

7.0 Amendment of the HMP

This HMP may be amended from time to time if deemed necessary by ODOE, on behalf of the Oregon Energy Facility Siting Council (EFSC), for the facility to maintain compliance with the standard. Such amendments may be made without amendment of the site certificate. EFSC authorizes ODOE to agree to amendments to this HMP. ODOE shall notify EFSC of all amendments, and EFSC retains the authority to approve, reject, or modify any amendment of this HMP agreed to by ODOE.

8.0 References

NRCS (Natural Resources Conservation Service). 2019. Environmental Quality Incentives Program (EQIP) payment schedule for Oregon. Accessed September 2025. Retrieved from: [Environmental Quality Incentives Program \(EQIP\) | Natural Resources Conservation Service](https://www.nrcs.usda.gov/programs/eqip)

ODFW. 2013. ODFW Winter Range for Eastern Oregon. GIS dataset available online at: <https://nrimp.dfw.state.or.us/DataClearinghouse/default.aspx?p=202&XMLname=885.xml>

ODFW. Undated. Oregon Conservation Strategy. East Cascades ecoregion. Accessed: September 2025. Retrieved from: [East Cascades – Oregon Conservation Strategy](https://oregonconservationstrategy.org/ecoregions/east-cascades)

ODFW. 2022. Fish and Wildlife Habitat Mitigation Policy. Accessed September 2025. Retrieved from: https://www.dfw.state.or.us/habitat/mitigation_policy.asp



ATTACHMENT 4 CORRESPONDENCE WITH ODFW



FW: Deschutes Solar - ODFW Comment Response

From Alice Sandzen <Alice.Sandzen@erm.com>

Date Mon 11/24/2025 11:34 AM

To Frances Collins <frances.collins@erm.com>

Alice Sandzén

Partner

She/Her/Hers

Boston, MA

erm.com

+1 603 667 0682

From: Richard Peel <richard.peel@erm.com>

Sent: Friday, November 21, 2025 11:17 AM

To: WILKES Jessica S * ODFW <jessica.s.wilkes@odfw.oregon.gov>; MEYERS Andrew R * ODFW <Andrew.R.MEYERS@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>

Cc: Alice Sandzen <Alice.Sandzen@erm.com>; Nikki Payne <Nikki.Payne@erm.com>; Sarah Seekins <Sarah.Seekins@erm.com>; Todd Ellwood <todd.ellwood@brightnightpower.com>; Alex Murphy <alex.murphy@erm.com>; Bijan Damavandi <bijan@brightnightpower.com>; Jaron Wright <jaron@brightnightpower.com>

Subject: RE: Deschutes Solar - ODFW Comment Response

Morning Jessica,

Thanks for the quick feedback. We will include your recommendations and edits into the ASC.

Thanks again and happy Friday!



Sustainability is our business

Richard Peel

Principal Consultant, Capital Project Delivery
He/Him/His

Seattle
(1) 360-580-7419

erm.com

From: WILKES Jessica S * ODFW <jessica.s.wilkes@odfw.oregon.gov>
Sent: Thursday, November 20, 2025 2:53 PM
To: Richard Peel <richard.peel@erm.com>; MEYERS Andrew R * ODFW <Andrew.R.MEYERS@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <jeremy.L.THOMPSON@odfw.oregon.gov>
Cc: Alice Sandzen <Alice.Sandzen@erm.com>; Nikki Payne <Nikki.Payne@erm.com>; Sarah Seekins <Sarah.Seekins@erm.com>; Todd Ellwood <todd.ellwood@brightnightpower.com>; Alex Murphy <alex.murphy@erm.com>; Bijan Damavandi <bijan@brightnightpower.com>; Jaron Wright <jaron@brightnightpower.com>
Subject: RE: Deschutes Solar - ODFW Comment Response

EXTERNAL MESSAGE

Hi Richard,
Please see attached for ODFW's responses, including comments on the tables below.

Thank you for your coordination, please don't hesitate to reach out with any questions!

Jessica Wilkes

Regional Habitat Biologist- Deschutes Watershed
Oregon Department of Fish and Wildlife
61374 Parrell Rd Bend, OR 97702
Office: 541-388-6099
Cell: 541-640-1420
Fax: 541-388-6281

From: Richard Peel <richard.peel@erm.com>
Sent: Tuesday, November 11, 2025 2:46 PM
To: WILKES Jessica S * ODFW <jessica.s.wilkes@odfw.oregon.gov>; MEYERS Andrew R * ODFW <Andrew.R.MEYERS@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <jeremy.L.thompson@odfw.oregon.gov>
Cc: Alice Sandzen <Alice.Sandzen@erm.com>; Nikki Payne <Nikki.Payne@erm.com>; Sarah Seekins <Sarah.Seekins@erm.com>; Todd Ellwood <todd.ellwood@brightnightpower.com>; Alex Murphy <alex.murphy@erm.com>; Bijan Damavandi <bijan@brightnightpower.com>; Jaron Wright <jaron@brightnightpower.com>
Subject: Deschutes Solar - ODFW Comment Response

Good afternoon,

Thank you for your initial review and feedback of the Deschutes bio report. Please see the attached document with the initial comments and responses. We believe we have addressed your initial comments, but please let us know if you have any additional questions. Please see below for the updated table of the observed and finalized acreages within the survey area and the proposed seed mix. We apologize for the delayed response, but we were waiting on final acreage counts. You will notice that the totals differ slightly from our initial calculations.

Thanks again,

ODFW Habitat Category	Initial Observed ODFW Habitat (Acres)	Final ODFW Habitat (Acres)
Category 1	38	38
Category 2	405	1,722
Category 3	238	4,863
Category 4	1,546	1,038

Category 5	9,474	4,558
Category 6	501	314
Total	12,202	12,533

Plant Type	Nativity	Common Name	Scientific Name	Percent of Mix
Grasses	N	Bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	15
	N	Idaho fescue	<i>Festuca idahoensis</i>	5
	N	Sandberg's bluegrass	<i>Poa secunda</i>	10
	N	Bottlebrush squirreltail	<i>Elymus elymoides</i>	5
	N	Prairie Junegrass	<i>Koeleria macrantha</i>	5
	I	Siberian wheatgrass	<i>Agropyron fragile</i>	10
	I	Crested wheatgrass	<i>Agropyron cristatum</i>	
	I	Intermediate wheatgrass	<i>Thinopyrum intermedium</i>	40
	N	Thickspike wheatgrass	<i>Elymus lanceolatus</i>	
Forbs	N	Slender wheatgrass	<i>Elymus trachycaulus</i>	
	I	Sheep Fescue	<i>Festuca ovina</i>	10
	N	Oregon sunshine	<i>Eriophyllum lanatum</i>	<1
	N	Large-flowered collomia	<i>Collomia grandiflora</i>	<1
	N	Yarrow	<i>Achillea millefolium</i>	<1
	N	Deltoid balsamroot	<i>Balsamorhiza deltoidea</i>	
	N	Arrow-leaf balsamroot	<i>Balsamorhiza sagittata</i>	<1

Richard Peel

Principal Consultant, Capital Project Delivery
He/Him/His

Seattle erm.com
(1) 360-580-7419

From: WILKES Jessica S * ODFW <jessica.s.wilkes@odfw.oregon.gov>

Sent: Thursday, September 18, 2025 5:07 PM

To: Richard Peel <richard.peel@erm.com>; MEYERS Andrew R * ODFW <Andrew.R.MEYERS@odfw.oregon.gov>;

THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>

Cc: Todd Ellwood <todd.ellwood@brightnightpower.com>; Sarah Seekins <Sarah.Seekins@erm.com>; Alice Sandzen <Alice.Sandzen@erm.com>; Samantha Bennett <Samantha.Bennett@erm.com>; Kevin Lash <kevin.lash@erm.com>; Callie Steed <callie.steed@erm.com>; SLOAN Kathleen * ODOE <Kathleen.SLOAN@energy.oregon.gov>

Subject: RE: Deschutes Solar - Biological Report

Some people who received this message don't often get email from jessica.s.wilkes@odfw.oregon.gov. [Learn why this is important](#)

EXTERNAL MESSAGE

Hello everyone,

Thank you again for meeting with ODFW last week, and for sharing the report. The figures and photos in the appendices were extremely helpful! The following is ODFW's initial feedback based on the habitat categorizations for the biological monitoring surveys completed by ERM:

1. With the EFSC application you will need to provide a habitat mitigation plan.

- a. The amount of land that needs to be mitigated for will be based on mitigation ratios on impacted habitat. This plan should identify specific land parcels that you have selected to offset habitat impacts for the micrositing corridor. Habitat mitigation ratios should be appropriate based on habitat categorization of impacted areas.
- b. ODFW is comfortable using some land you have controlled within the project area as mitigation provided it is not within the fenced area. Higher preference being habitats on the northern and central portion of project area within PWCA (adjacent to white river canyon and graveyard butte), or on the southern end of the project where there are PWCA and big game winter range overlays (adjacent to the Confederated Tribes of the Warm Springs).
- c. This plan would need to include appropriate uplift actions to meet our mitigation policy. We are happy to provide guidance on what those actions could be. Typically, we ask for annual grass control and addition of shrub and forb components to the habitat if the soil types are appropriate, but there are many possible uplift actions.
- d. If offsite mitigation (mitigation that is not within the project footprint) is required, we would like to see all that offsite mitigation occur in one location, and evidence of control of the land has been acquired. Fragmented mitigation sites are of less value to wildlife overall.
- e. We are ok with in-lieu payments. We have used land trusts and there should be a local mitigation bank coming online soon.
- f. A lot of the above will be dependent on the project's final micrositing boundary.
- g. Keep in mind that based on the category of habitat impacted some will need to be in-kind mitigation. Habitats categorized as 2-3 need to be in-kind and in-proximity. But habitats categorized 4-6 can but don't need to be in-kind or in-proximity necessarily. For example riparian restoration of habitat uplift will not offset impacts to category 2 shrub steppe habitat, but winter range within the same herd range is acceptable.

2. Thank you for providing clarification on habitat categorization. We have a few outstanding questions on habitat categorizations:
 - a. Biological boundaries
 - i. On pages 17-18 within the biological resources survey the calculated overlap between winter range and PWCA within the project footprint was 448 acres and is described as Category 2 habitat, but in Table 4 in the same document Category 2 habitat is listed as 405 acres. Please explain the discrepancy, and describe the condition of the habitat within this area.
 - ii. Similarly, on pages 17-18 the calculated amount of PWCA Connectors is 499 acres, which is described as Category 3. But in Table 4, Category 3 only amounts to 238 acres. Please explain the discrepancy, and describe the condition of the habitat within this area.
 - b. Category 4-5
 - i. We feel that water and access to water is a limited resource on this landscape in the summer and fall seasons for many wildlife species. Given this limitation we feel it may be justified to bump water related categories up to from 4-5 to 3.
3. Based on your surveys and field visits, we are comfortable calling most of what you have named as vernal pools as category 4 habitat. We will ask that all habitat included in the fenced site boundary be mitigated for since it is a "net loss" on the landscape and necessarily excludes many wildlife species from using that habitat. This category of habitat can be out of kind mitigation.
4. We advocate for avoidance of:
 - a. Oak woodland habitats
 - b. Caves
 - c. PWCA, especially the along the canyon rim on the northern end of the boundary, and foothills along the southern end of the boundary.

- d. Milkweed patches
- 5. Data sharing
 - a. We recommend submitting mapped milkweed to the [Western Monarch Milkweed Mapper project](#).
 - b. We were wondering if it would be possible to share spatial data (shapefiles) of observed eagles and raptors, and Oregon Conservation Strategy Species with ODFW?
- 6. We encourage a revegetation management plan that includes pollinator-friendly seed mixes, especially with the presence of Monarch butterflies in the area. The appropriate reveg plan will also be beneficial in reducing the spread of invasive weed species, and avoid the need for mowing.
- 7. We were curious if you observed any sign of bat activity in the caves? Any guano? Or have an idea of how deep the caves go? There is potential bats could be using these structures as roost sites, especially with water sources nearby.

Please don't hesitate to reach out if you have additional follow-up questions! Thank you for your coordination.

Jessica Wilkes (Clark)

Regional Habitat Biologist- Deschutes Watershed
Oregon Department of Fish and Wildlife
61374 Parrell Rd Bend, OR 97702
Office: 541-388-6099
Cell: 541-640-1420
Fax: 541-388-6281

From: Richard Peel <richard.peel@erm.com>
Sent: Friday, September 12, 2025 1:17 PM
To: WILKES Jessica S * ODFW <jessica.s.wilkes@odfw.oregon.gov>; MEYERS Andrew R * ODFW <andrew.r.meyers@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <jeremy.l.thompson@odfw.oregon.gov>
Cc: Todd Ellwood <todd.ellwood@brightnightpower.com>; Sarah Seekins <Sarah.Seekins@erm.com>; Alice Sandzen <Alice.Sandzen@erm.com>; Samantha Bennett <Samantha.Bennett@erm.com>; Kevin Lash <kevin.lash@erm.com>; Callie Steed <callie.steed@erm.com>
Subject: Deschutes Solar - Biological Report

Good afternoon ODFW team,

Thank you again for your continued support with the Deschutes Solar Project. Given the size of the bio report for Deschutes, I have uploaded the report and appendixes to a OneDrive Folder here:

[Deschutes Bio Report](#)

In the folder you will find:

- The Deschutes Bio Report
- Appendix A, Figures 1-8
- Appendix B, Compass and IPaC reports
- Appendix C, avian point count data sheets
- Appendix D, additional tables
- Appendix E, vegetation community descriptions
- Appendix F, photo log

If you are unable to access the folder, please let me know and I will send the components to you directly. We look forward to discussing the results and steps moving forward.

Thank you again and have a great weekend.



Sustainability is our business

Richard Peel

Principal Consultant, Capital Project Delivery
He/Him/His

Seattle

(1) 360-580-7419

erm.com



This e-mail and any attachments may contain proprietary, confidential and/or privileged information. No confidentiality or privilege is waived or lost by any transmission errors. This communication is intended solely for the intended recipient, and if you are not the intended recipient, please notify the sender immediately, delete it from your system and do not copy, distribute, disclose, or otherwise act upon any part of this email communication or its attachments. To find out how the ERM Group manages personal data please review our [Privacy Policy](#).

This e-mail and any attachments may contain proprietary, confidential and/or privileged information. No confidentiality or privilege is waived or lost by any transmission errors. This communication is intended solely for the intended recipient, and if you are not the intended recipient, please notify the sender immediately, delete it from your system and do not copy, distribute, disclose, or otherwise act upon any part of this email communication or its attachments. To find out how the ERM Group manages personal data please review our [Privacy Policy](#).

ODFW Comments and Response (Green = ERM, Red = ODFW)

- 1) With the EFSC application you will need to provide a habitat mitigation plan.
 - i) The amount of land that needs to be mitigated for will be based on mitigation ratios on impacted habitat. This plan should identify specific land parcels that you have selected to offset habitat impacts for the micrositing corridor. Habitat mitigation ratios should be appropriate based on habitat categorization of impacted areas.

Understood. The HMP will identify mitigation options including potential land for mitigation easement. Additionally, impact acreages will be calculated by category, and temporary/permanent impacts.

- ii) ODFW is comfortable using some land you have controlled within the project area as mitigation provided it is not within the fenced area. Higher preference being habitats on the northern and central portion of project area within PWCAs (adjacent to white river canyon and graveyard butte), or on the southern end of the project where there are PWCAs and big game winter range overlays (adjacent to the Confederated Tribes of the Warm Springs).

Understood. The project mitigation areas will be cited to give preference to areas with PWCAs, big game winter range, and other wildlife corridors.

- iii) This plan would need to include appropriate uplift actions to meet our mitigation policy. We are happy to provide guidance on what those actions could be. Typically, we ask for annual grass control and addition of shrub and forb components to the habitat if the soil types are appropriate, but there are many possible uplift actions.

Thank you. A guide would be very helpful. For annual grass control, is mowing the preferred method? For shrubs and forb planting, watering is not likely practical for this site.

Mowing is not recommended. In most cases annual grass treatments are accomplished through chemical applications. Imazapic and rejuvena are the most common chemicals used. The latter has a better period of control. But please note that if an area is completely infested and has 0 native perennial grass component it may be best to use a broad species chemical and completely re-start. Regarding weed control- although we know enough to be dangerous, we suggest you contact a weed control agency to help develop your weed control plan (i.e., county weed department, SWCD, OSU extension service, ODA, etc.).

Uplift actions are site-dependent and although we don't have a 'guide' at this moment, we are working on a general, high-level document with some ideas to help inspire some uplift actions. Will be in touch soon with this.

- iv) If offsite mitigation (mitigation that is not within the project footprint) is required, we would like to see all that offsite mitigation occur in one location, and evidence of control of the land has been acquired. Fragmented mitigation sites are of less value to wildlife overall.

Understood. Preference will be given to larger, contiguous mitigation areas.
Yes, and generally not split up into multiple separate HMAs.

- v) We are ok with in-lieu payments. We have used land trusts and there should be a local mitigation bank coming online soon.

Understood. Can you please provide the names of approved land trusts and the local mitigation bank so we can begin coordination?

The only local mitigation bank is: [Terra West \(nigel@terrawestconsulting.com\)](mailto:nigel@terrawestconsulting.com). They are developing one at Butte Creek, and although we don't think it's ready right now it might be ready by the time you start construction. Worth finding out more info!

As for land trusts, you could potentially check with Columbia Land Trust. They are a good group of folks but have not delved into mitigation work yet. We would be happy to help make that connection if you would like.

- vi) A lot of the above will be dependent on the project's final micrositing boundary.

Understood. A preliminary micrositing boundary will be provided in the ASC.

- vii) Keep in mind that based on the category of habitat impacted some will need to be in-kind mitigation. Habitats categorized as 2-3 need to be in-kind and in-proximity. But habitats categorized 4-6 can but don't need to be in-kind or in-proximity necessarily. For example riparian restoration of habitat uplift will not offset impacts to category 2 shrub steppe habitat, but winter range within the same herd range is acceptable.

Understood. Can we assume that in-lieu fee can be applied to any category at a specific ratio?

Yes.

- 2) Thank you for providing clarification on habitat categorization. We have a few outstanding questions on habitat categorizations:

A) Biological boundaries

- i) On pages 17-18 within the biological resources survey the calculated overlap between winter range and PWCAAs within the project footprint was 448 acres and is described as Category 2 habitat, but in Table 4 in the same document Category 2 habitat is listed as 405 acres. Please explain the discrepancy, and describe the condition of the habitat within this area.

The acreages reported for each category in Table 4 (habitats and veg communities) are representations of the category ranking based on the observed communities. They do not reflect big game or PWCA overlays. We can provide additional tables to reflect the observed habitats and mapped overlays.

Okay, thank you!

ii) Similarly, on pages 17-18 the calculated amount of PWCA Connectors is 499 acres, which is described as Category 3. But in Table 4, Category 3 only amounts to 238 acres. Please explain the discrepancy, and describe the condition of the habitat within this area.

Same as above.

3) Category 4-5

i) We feel that water and access to water is a limited resource on this landscape in the summer and fall seasons for many wildlife species. Given this limitation we feel it may be justified to bump water related categories up to from 4-5 to 3.

We understand that water resources are limited in this area. The majority of isolated wetlands (including vernal pools) and intermittent streams are dry during the summer and fall months. Only the perennial streams and associated cattle ponds provide hydrology into the summer/fall. Therefore, we will classify perennial features as Category 3 as well as other waterbodies that provide wildlife with a water resource during the summer/fall months.

ii) Based on your surveys and field visits, we are comfortable calling most of what you have named as vernal pools as category 4 habitat. We will ask that all habitat included in the fenced site boundary be mitigated for since it is a “net loss” on the landscape and necessarily excludes many wildlife species from using that habitat. This category of habitat can be out of kind mitigation.

Understood.

4. We advocate for avoidance of:

1. Oak woodland habitats
2. Caves
3. PWCAAs, especially the along the canyon rim on the northern end of the boundary, and foothills along the southern end of the boundary.
4. Milkweed patches

Understood. The above habitats will be prioritized for avoidance.

5. Data sharing

1. We recommend submitting mapped milkweed to the [Western Monarch Milkweed Mapper project](#).
2. We were wondering if it would be possible to share spatial data (shapefiles) of observed eagles and raptors, and Oregon Conservation Strategy Species with ODFW?

Yes, we have approval from BrightNight to share the special data upon submittal.
Great, thank you!!

6. We encourage a revegetation management plan that includes pollinator-friendly seed mixes, especially with the presence of Monarch butterflies in the area. The appropriate reveg plan will also be beneficial in reducing the spread of invasive weed species, and avoid the need for mowing.

Understood. Please see the recommended seed mix (attached) for your review. In regard to the requested annual grass control. If mowing is not recommended, please provide a recommended method of annual grass control.

See comments above for suggestions on annual grass control.

7. We were curious if you observed any sign of bat activity in the caves? Any guano? Or have an idea of how deep the caves go? There is potential bats could be using these structures as roost sites, especially with water sources nearby.

Our team did not note any guano or bat activity in the caves. They were noted along the Wapanitia Creek riparian corridor. Field notes included "Cave in side of cliff. Elliptic chamber inside. 12 ft wide by 8 ft deep by 4 ft high. Entrance 6ft by 2-3 ft." and "Cave on side of cliff. About 8 ft wide by 3-4 ft high".

Thanks for the survey details!

From: Richard Peel <richard.peel@erm.com>

Sent: Tuesday, November 11, 2025 2:46 PM

To: WILKES Jessica S * ODFW <jessica.s.wilkes@odfw.oregon.gov>; MEYERS Andrew R * ODFW <andrew.r.meyers@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <jeremy.l.thompson@odfw.oregon.gov>

Cc: Alice Sandzen <Alice.Sandzen@erm.com>; Nikki Payne <Nikki.Payne@erm.com>; Sarah Seekins <Sarah.Seekins@erm.com>; Todd Ellwood <todd.ellwood@brightnightpower.com>; Alex Murphy <alex.murphy@erm.com>; Bijan Damavandi <bijan@brightnightpower.com>; Jaron Wright <jaron@brightnightpower.com>

Subject: Deschutes Solar - ODFW Comment Response

Good afternoon,

Thank you for your initial review and feedback of the Deschutes bio report. Please see the attached document with the initial comments and responses. We believe we have addressed your initial comments, but please let us know if you have any additional questions. Please see below for the updated table of the observed and finalized acreages within the survey area and the proposed seed mix. We apologize for the delayed response, but we were waiting on final acreage counts. You will notice that the totals differ slightly from our initial calculations.

Thanks again,

ODFW Habitat Category	Initial Observed ODFW Habitat (Acres)	Final ODFW Habitat (Acres)
Category 1	38	38
Category 2	405	1,722

Category 3	238	4,863
Category 4	1,546	1,038
Category 5	9,474	4,558
Category 6	501	314
Total	12,202	12,533

Can you please explain the “initial” vs “final” ODFW habitat acres?

Seed Mix

Plant Type	Nativity	Common Name	Scientific Name	Percent of Mix
Grasses	N	Bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	15
	N	Idaho fescue	<i>Festuca idahoensis</i>	5
	N	Sandberg's bluegrass	<i>Poa secunda</i>	10
	N	Bottlebrush squirreltail	<i>Elymus elymoides</i>	5
	N	Prairie Junegrass	<i>Koeleria macrantha</i>	5
	I	Siberian wheatgrass	<i>Agropyron fragile</i>	10
	I	Crested wheatgrass	<i>Agropyron cristatum</i>	
	I	Intermediate wheatgrass	<i>Thinopyrum intermedium</i>	40
	N	Thickspike wheatgrass	<i>Elymus lanceolatus</i>	
	N	Slender wheatgrass	<i>Elymus trachycaulus</i>	
Forbs	I	Sheep Fescue	<i>Festuca ovina</i>	10
	N	Oregon sunshine	<i>Eriophyllum lanatum</i>	<1
	N	Large-flowered collomia	<i>Collomia grandiflora</i>	<1
	N	Yarrow	<i>Achillea millefolium</i>	<1
	N	Deltoid balsamroot	<i>Balsamorhiza deltoidei</i>	<1
	N	Arrow-leaf balsamroot	<i>Balsamorhiza sagittata</i>	<1

Thank you for providing a seed mix, however because the seed mix may vary depending on the site, it might be a little early to settle on a single mix at this time.

Some other considerations-

- We'd like to see the total percent forbs in the mix increase (at least 5%)
- Natives are preferred over non-natives
- We recommend including some shrubs in the appropriate soil type