

3.5 BIOLOGICAL RESOURCES

This section identifies and discusses the existing biological resource settings on the La Center Interchange and Ridgefield Interchange Sites. Topics discussed here within include the existing habitat types, including waters of the U.S. and wetlands, identified on the proposed alternative sites and the potential for occurrence of federally listed special status species within identified habitats.

3.5.1 METHODOLOGY

The assessment of existing biological resources was determined through consultation with the U.S. Fish and Wildlife Service (USFWS) and review of the Washington Department of Fish and Wildlife (WDFW) Washington Natural Heritage Data Base (WNHDB) for reported occurrences of Federally listed species under the Endangered Species Act (ESA) within the vicinity of the alternative sites. Field surveys were then conducted to document habitat types, including waters of the U.S and wetlands, and the potential for occurrence of listed species. The existing setting for special status species was determined by comparing reported occurrences obtained during consultations and database searches with observations made during the field surveys.

The USFWS consultation letter and results of the WNHDB database search are provided as DEIS Vol. II, **Appendices H** and **J**. Wetland surveys were conducted in 2004 and 2005 at the La Center Interchange Site (The Resource Company, Inc., 2004 [DEIS Vol. II, **Appendix N**]; ELS, 2005a [DEIS Vol. II, **Appendix L**]). Final Jurisdictional Determination letters are included as DEIS Vol. II, **Appendix M**. Biologists from Analytical Environmental Services conducted biological assessments for both the alternative project sites in 2005 and 2006 and the findings are included herein (AES, 2005c; 2007).

3.5.2 REGULATORY SETTING

FEDERAL SPECIAL STATUS SPECIES

The term “Federally listed special-status” species is defined to include those plant and animal species that are listed as endangered or threatened under the ESA, formally proposed for listing, or listed by the Western Washington USFWS office as a Federal Species of Special Concern. Although consultation is required for only those species listed as threatened or endangered under the ESA, a target species list of federally listed species that may potentially be affected by the project alternatives was compiled based upon a review of pertinent literature, aerial photographs, site topographic maps, and a consultation with the USFWS (DEIS Vol. II, **Appendix H**). A query of the Washington State Department of Natural Resources (WSDNR) reported occurrences of federally listed species within the project vicinity (DEIS Vol. II, **Appendix J**). A previous Biological Assessment performed in 2003 by Russell and Associates is provided in DEIS Vol. II, **Appendix I**. The new BA, based on information collected during the surveys of the sites by AES biologists, is provided in **Appendix I** of the FEIS and was submitted to the USFWS and the National Marine Fisheries Service in April 2007 to initiate informal consultation in compliance

with Section 7 of the ESA. The April 2007 BA contains descriptions of federally listed species and Federal Species of Concern and discusses their potential to occur on the La Center site (**Appendix I** of the FEIS). Letters from the NMFS and the USFWS concurring with the findings of the BA are also included in **Appendix I** of the FEIS.

Other special-status species such as plants and wildlife that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by State, other agencies, or conservation organizations, were evaluated in terms of their overall contribution to the biodiversity to the habitat. However, other special-status species recognized at the State or local level generally receive no specific protection on Federal lands and are not afforded protection by ESA.

WATERS OF THE U.S.

The Clean Water Act (CWA) requires a permit for the dredge and fill of waters of the U.S. The Federal regulations implementing the CWA define the term “waters of the U.S.” as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands; or
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use or degradation of which could affect interstate or foreign commerce including any such waters.

“Wetlands” are specifically defined as “waters of the U.S. that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR Part 328). Wetlands that meet these criteria during only a portion of the growing season are classified as seasonal wetlands. Waterbodies and wetlands that fall within “waters of the U.S.” are referred to as “jurisdictional waterbodies and wetlands.”

Clark County Wetland Protection Ordinance

Wetlands of Clark County, Washington constitute important natural resources which provide significant environmental functions including: the control of flood waters, maintenance of summer stream flows, filtration of pollutants, recharge of groundwater, and biological functions such as providing habitat areas for fish and wildlife. Uncontrolled urban-density development, in and adjacent to, wetlands and designated buffers can eliminate or significantly reduce the ability of wetlands to provide these important functions, thereby detrimentally affecting public health, safety, and general welfare. The County provides balanced wetland protection measures which further the goal of no net loss of wetland acreage and functions; encourage restoration and enhancement of degraded and low quality wetlands; provide a

greater level of protection for higher-quality wetlands; maintain consistency with Federal wetland protective measures; avoid over-regulation by limiting regulatory applicability to those development proposals which significantly impact important wetlands; and minimize impacts of wetland regulation on private property rights. The County regulates wetland resources through application of an ordinance tied to the grading permit and development approval process. Clark County approves the technical content of wetland delineations and enforces the inclusion of upland buffers to separate wetlands and waters from development areas (CCWPO, 2000) (DEIS Vol. II, **Appendix K**). Clark County's jurisdictional authority over wetland protection does not extend to lands taken into Federal trust, however the Tribe has agreed pursuant to Section 10 of the Memorandum of Understanding (MOU) with Clark County (DEIS Vol. I, **Appendix C**) and Section 3(G) of the Tribe's Environment, Public Health and Safety (EPHS) Ordinance (**Appendix U** of the FEIS) that any structures and uses on the subject property shall be developed in a manner consistent with the CCWPO regarding wetland buffers.

Clark County Habitat Conservation Ordinance

The Clark County Habitat Conservation Ordinance was developed to aid in the protection of environmentally distinct, fragile, and valuable fish and wildlife habitat areas while allowing for reasonable use of private property. This ordinance discusses grading, clearing, developing, or conducting agricultural activities within or adjacent to "priority habitat." Priority habitat is riparian habitat (as defined in the ordinance), priority habitat designated by the Washington Department of Fish and Wildlife (WDFW), and areas mapped by Clark County as having local importance (§ 40.440.101 C). Riparian habitat, as defined by the ordinance, consists of all habitat within 250 feet of a DNR Type S stream, 200 feet of a DNR Type F stream, 100 feet of a DNR Type Np stream, or 75 feet of a DNR Type Ns stream. Clark County's jurisdictional authority to protect priority habitat does not extend to lands taken into Federal trust, however the Tribe has agreed pursuant to Section 10 of the Memorandum of Understanding (MOU) with Clark County (DEIS Vol. I, **Appendix C**) and Section 3(G) of the Tribe's EPHS Ordinance (**Appendix U** of the FEIS) that any structures and uses on the subject property shall be developed in a manner consistent with the Clark County HCO.

3.5.3 SETTING – LA CENTER INTERCHANGE SITE

The La Center Interchange Site is bordered to the north, beyond the riparian corridor, by rural residential and agricultural uses; the parcels to the east, across Interstate 5 (I-5), consist of agricultural and residential uses and include a gasoline service station; a small parcel tucked into the mid-eastern edge of the La Center Interchange Site, at the intersection of NW 319th Street and NW 31st Avenue, is commercially developed with a vinyl siding company and drive-through espresso stand. The parcels immediately to the south of the site are mostly forested with some residential areas, and agricultural uses beyond; the parcels to the west consist of agricultural and rural residential development. The site is bisected centrally by NW 319th Street, which runs in an east-west direction. The southern portion of the site, located south of NW 319th Street, consists of a rolling topography. North of NW 319th Street the site has a downward slope

from south to north with a plateau in the central portion of the property. **Section 3.2**, Geology and Soils, provides more detailed information on the topography of the site.

HABITAT TYPES

Habitat types occurring within the La Center Interchange Site include ruderal/developed, pasture, riparian corridor, mixed woodland, palustrine forested wetland, palustrine emergent wetlands, and roadside ditches. These habitat types are discussed in more detail below. A summary of habitat acreage and percent area of coverage within the proposed site is provided in **Table 3.5-1**. A habitat map of the La Center Interchange Site are presented as **Figure 3.5-1**.

TABLE 3.5-1
SUMMARY OF HABITAT TYPES – LA CENTER INTERCHANGE SITE

Habitat Type	Acres	Percent Area
Ruderal/Developed	8.05	5.30
Pasture	112.52	74.26
Riparian Corridor	10.09	6.64
Mixed Woodland	3.53	2.32
Palustrine Forested Wetlands	1.6	1.05
Palustrine Emergent Wetlands	16.08	10.59
Roadside Ditches	<0.1	<0.1
TOTAL	151.87±	100

Source: AES 2007

Ruderal/Developed

Ruderal/ developed habitat within the La Center Interchange Site is subject to substantial human activity and contains existing barns, homes, and infrastructure such as roads and power lines. Vegetation is primarily ornamental with a predominance of grasses and forbs. Plant species observed within this community include sweet vernal grass (*Anthoxanthum odoratum*), colonial bentgrass (*Agrostis capillaris*), English plantain (*Plantago lanceolata*), dandelion, (*Taraxacum officinale*), red clover (*Trifolium pratense*), tall fescue (*Festuca arundinacea*), Himalayan blackberry (*Rubus discolor*), Sitka spruce (*Picea sitchensis*), Douglas fir (*Pseudotsuga menziesii*), and elderberry shrubs (*Sambucus* spp.). Photos of the ruderal/developed community are shown in **Figure 3.5-2**.

Pasture

Open pastures account for approximately 74% of the habitat area at the La Center Interchange Site. The pastures are regularly grazed by cattle. Common species of grasses and forbs such as sweet vernal grass, colonial bentgrass, English plantain, dandelion, red clover, tall fescue, common vetch (*Vicia sativa*), hairy cat's ear (*Hypochaeris radicata*), and thistle (*Cirsium* spp.) dominate the landscape. Site photos of the pasture community are shown in **Figure 3.5-3**.

Figure 3.5-1

Figure 3.5-2

Figure 3.5-3

Riparian Corridor

The riparian corridor within the La Center Interchange Site is located along the northern border of the site, north of NW 319th Street. The riparian corridor provides cover and erosion protection for the Type Ns unnamed stream on site. Type Ns streams are non-fish bearing, seasonal streams protected under the Forestry Resources Plan to maintain water quality, fish habitat, stream banks, and wildlife (WSDNR, 2005). This community is composed of many tree and shrub species. Species identified on the site include bitter cherry (*Prunus emarginata*), red alder (*Alnus rubra*), Oregon ash (*Fraxinus latifolia*), Douglas fir (*Pseudotsuga macrocarpa*), Himalaya blackberry (*Rubus discolor*), Western red cedar (*Thuja plicata*), big leaf maple (*Acer macrophyllum*), vine maple (*Acer circinatum*), sword fern (*Polystichum munitum*), salmonberry (*Rubus spectabilis*), osoberry (*Oemleria cerasiformis*), Oregon grape (*Berberis aquifolium*), salal (*Gaultheria shallon*), and stinging nettle (*Urtica dioica*) (Russell and Associates, 2003). Photos of the riparian corridor community are shown in **Figure 3.5-2**.

Mixed Woodland

The mixed woodland community is located in the southeastern corner of the property, east of I-5. This community is comprised of deciduous and evergreen tree species as well as shrubs. Species observed include red alder, Douglas fir, big leaf maple, Oregon white oak (*Quercus garryana*), and Western red cedar. The aforementioned tree species occur in relatively equal abundance in this community justifying its classification as mixed woodland and not white oak woodland, which is considered a sensitive habitat type by the WNHDB. Shrub species observed include osoberry and trailing blackberry (*Rubus ursinus*). Photos of the mixed woodland community are shown in **Figure 3.5-3**.

Palustrine Forested Wetlands

Palustrine forested wetlands on the La Center Interchange Site are located in the extreme southwest corner of the property. This area is within a Category 3 wetland and is located at the base of a large sloping area. Forested wetlands within an urban area are defined as Category 3 wetlands according to the Clark County Wetland Protection Ordinance (CCWPO) (DEIS Vol. II, **Appendix K**). Category 3 wetlands provide important functions such as flood control, groundwater recharge, and habitat for fish and wildlife. Dominant species within this community include Oregon ash (*Fraxinus latifolia*), big leaf maple, red alder, black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), Nootka rose (*Rosa nutkana*), creeping buttercup (*Ranunculus repens*), tall fescue, and water pepper (*Polygonum hydropiperoides*) (The Resource Company, 2004) (DEIS Vol. II, **Appendix N**). Photos of the palustrine forested wetland community are shown in **Figure 3.5-3**.

Palustrine Emergent Wetlands

The majority of the wetlands located on the La Center Interchange Site are classified as palustrine emergent wetlands. These wetlands total approximately 16 acres and constitute 10.5% of the site acreage. The palustrine emergent wetlands at the La Center Interchange Site are categorized by the CCWPO as Category 4 wetlands: generally small, isolated, and limited diversity in vegetation composition. These plant communities are dominated by red clover, curly dock (*Rumex crispus*), sheep sorrel (*Rumex*

acetosella), soft rush (*Juncus effusus*), and grass species such as sweet vernal grass (*Anthoxanthum odoratum*), colonial bentgrass (*Agrostis capillaris*), and tall fescue (*Festuca arundinacea*). Photos of the palustrine emergent wetlands are shown in **Figure 3.5-3**.

Roadside Ditches

Three roadside ditches were identified on the La Center Interchange Site (**Figure 3.5-1**), one of which is inside the project boundary. The ditches range in size from 12 to 24 inches in width and exhibit wetland characteristics, thus potentially falling under the jurisdiction of the United States Army Corps of Engineers (USACE). Additionally, wetlands that occupy less than 10,000 square feet are exempt from the CCWPO (Clark County Code [CCC] 40.450.010[C][1]) (ELS, 2005b) (DEIS Vol. II, **Appendix O**). Plant species observed within the roadside ditch community include reed canary grass (*Phalaris arundinacea*), slough sedge (*Carex obnupta*), bentgrass (*Agrostis* spp.), and Nootka rose. The roadside ditches account for less than 0.1 acres of the project area.

WATERS OF THE U.S.

A formal delineation of jurisdictional waterbodies and wetlands occurring within the La Center Interchange Site identified 27.7 acres that are subject to USACE regulation under Section 404 of the CWA. These include palustrine emergent wetlands, palustrine forested wetlands, roadside ditches, and riparian corridor along an intermittent stream (The Resource Company, 2004 [DEIS Vol. II, **Appendix N**]; ELS, 2005a [DEIS Vol. II, **Appendix L**]). The final jurisdictional determination letters, issued by the USACE (file # 200301320 and # 200500017), for the La Center Interchange Site are included as DEIS Vol. II, **Appendix M**. An acreage summary of jurisdictional waterbodies and wetlands within the La Center Interchange Site is presented in **Table 3.5-2**. A jurisdictional waterbodies and wetlands delineation map is presented as **Figure 3.5-4**.

TABLE 3.5-2
WATERS OF THE U.S. – LA CENTER INTERCHANGE SITE

Land Form	Acreage
Palustrine Emergent Wetlands	15.53
Palustrine Forested Wetlands	1.60
Roadside Ditches	<0.1
Riparian Corridor	10.09
Total	27.32

Source: The Resource Company, 2004; ELS, 2005a.

Figure 3.5-4

Wetlands

Eleven wetlands are present on the La Center Interchange Site. The wetlands present on site are composed of seven palustrine emergent wetlands totaling 15.53 acres, one palustrine forested wetland totaling 1.6 acres, and 3 isolated emergent wetlands totaling 0.4 acres. Two isolated emergent wetlands are non-jurisdictional, the balance of the wetlands present on site are jurisdictional features. Additionally, two jurisdictional roadside ditches are located on site. These features are located adjacent to the south side of NW 319th Street and the east side of NW 31st Avenue. There are two additional ditches immediately adjacent to, but outside the project site boundaries along I-5. Each wetland is listed in **Table 3.5-3**, identified in **Figure 3.5-4**, and described in detail below. For an explanation of how the Clark County Wetland Ordinance classifications were determined, refer to Appendix 9 of the Drainage and Grading Report (DEIS Vol. I, **Appendix F**). Further discussion of the wetlands on the La Center Interchange site and the habitat they provide is available in the new Biological Assessment (BA) (**Appendix I** of the FEIS).

Wetland As is a small jurisdictional wetland composed of 0.11 acres totaling 4,606 square feet located on the eastern side of the property below NW 319th Street.

Wetland Bs is a jurisdictional emergent wetland composed of 0.49 acres totaling 21,162 square feet located on the eastern side of the property between NW 31st Street and I-5. Mixed woodland habitat is present immediately to the south of this wetland. The construction of a wastewater treatment plant is proposed south of this wetland, in what is currently mixed woodland habitat. Additionally, a storm water treatment facility will be built adjacent to this jurisdictional wetland and the wastewater treatment plant.

TABLE 3.5-3
LA CENTER INTERCHANGE SITE WETLANDS

Wetland	CCWPO Category	Acres	Habitat	Jurisdictional
As	4	0.11	Palustrine Emergent	Yes
Bs	4	0.49	Palustrine Emergent	Yes
Cs	4	5.4	Palustrine Emergent	Yes
Es	3	1.6	Palustrine Forested	Yes
Fs	4	1.2	Palustrine Emergent	Yes
An	4	1.06	Palustrine Emergent	Yes
Bn	4	1.9	Palustrine Emergent	Yes
Cn	4	5.37	Palustrine Emergent	Yes
Dn	4	0.29	Emergent Isolated	Yes
En	4	0.03	Emergent Isolated	No
Fn	4	0.08	Emergent Isolated	No
Roadside Ditches	4	<0.1	Emergent Isolated	Yes

Source: The Resource Company, 2004; ELS, 2005a.

Wetland Cs is a jurisdictional wetland composed of 5.4 acres totaling 235,144 square feet located on the southern edge of the property. Wetland Cs would be turned into a stormwater detention basin utilizing biofiltration swales and swale slopes consistent with CCWPO. During rain events, runoff from impervious surface features would be collected and treated by a storm water treatment facility prior to entering the detention basin.

Wetland Es is a jurisdictional wetland. This wetland is composed of 1.6 acres totaling 54,671 square feet located in the southwestern corner of the property. It is an unchannelized segment of the headwaters of the unnamed stream on the project site. This wetland is categorized by the CCWPO (CCC Chapter 40.450) as a Category 4 palustrine forested wetland.

Wetland Fs is a jurisdictional wetland composed of 1.2 acres totaling 50,873 square feet located on the west side of the property south of NW 319th Street. This wetland is categorized by the CCWPO as a Category 3 palustrine emergent wetland.

Wetland Dn is a jurisdictional wetland composed of 0.29 acres totaling 12,632 square feet located on the eastern side of the property behind the existing vinyl siding business north of NW 319th Street. This wetland is categorized by the CCWPO as a Category 4 isolated emergent wetland.

Wetland En is a non-jurisdictional wetland. This isolated emergent wetland is composed of 0.29 acres totaling 1,307 square feet located on the western side of the property north of NW 319th Street. This wetland is categorized by the CCWPO as a Category 4 isolated emergent wetland.

Wetland Fn is a non-jurisdictional wetland composed of 0.08 acres totaling 3,489 square feet located in the northwest corner of the property, separated by proposed development of the site by the Type Ns unnamed stream on site. This wetland is categorized by the CCWPO as a Category 4 palustrine emergent isolated wetland.

Three additional wetlands, An, Bn, and Cn, are present on the north side of the property adjacent to the Type Ns unnamed stream. The western most wetland, An, is 1.06 acres. Immediately east of Wetland An is Wetland Bn totaling 1.9 acres. Located on the eastern edge of the property is Wetland Cn totaling 5.37 acres. These three wetlands are classified as Category 4 emergent wetlands by the CCWPO, and are considered jurisdictional wetlands.

Roadside ditches are present along the south side of NW 319th Street and along NW 31st Avenue. These features constitute 1,672 square feet (0.098 acres) and 2,280 square feet (0.06 acres), respectively.

WILDLIFE

Bird species observed on the La Center Interchange Site include American robin (*Turdus migratorius*), western scrub jay (*Aphelocoma californica*), and mallard ducks (*Anas platyrhynchos*). Robins and jays were observed on the southern portion of the site in the woodland that borders the site; mallard ducks were seen in Wetland Area C. In addition, a large population of Pacific treefrogs (*Hyla regilla*) was seen, as well a couple of long-toed salamanders (*Ambystoma macrodactylum*) near Wetland Area C. Scattered throughout the site were pocket gopher (*Thomomys* sp.) and mole (*Scapanus* spp.) mounds, along with vole (*Microtus* spp.) trails and burrows.

Federally Listed Special Status Species

Table 3.5-4 identifies federally listed special status species that have the potential for occurrence on the proposed La Center site. The table is based on a review of pertinent literature, consultation with the USFWS (DEIS Vol. II, **Appendix H**), the results of a WSDNR query of all reported occurrences of special-status species within Clark County, Washington (DEIS Vol. II, **Appendix J**), and reconnaissance-level site assessments performed by Russell and Associates in November and December of 2003 (DEIS Vol. II, **Appendix I**) and, AES biologists in March 2005 (AES, 2005c) and December 2006. The status, biology, regional distribution, and site-specific discussion of the listed species are discussed below. For information concerning species determined not to have the potential to occur on the site or in the immediate vicinity, refer to Appendices 6 and 7 of the new BA (**Appendix I** of the FEIS).

Based upon the review of regionally occurring Federally listed species for the project area and their habitat requirements and the results of the field assessments, the property and/or surrounding vicinity represents potential habitat for the following federally-listed species:

*Plants***Tall Bugbane**

One of the larger members of the Buttercup family, the tall bugbane (*Cimicifuga elata*), a Federal species of concern, sends up a flowering stem (3-6 feet) with small white flowers in a raceme. It is a tall understory plant found in lowland forests; this species is in bloom from May to August and is easily distinguished from other similar-looking species like baneberry (*Actaea rubra*). In Washington, tall bugbane generally grows in or along the margins of mixed, mature or old growth stands of mesic coniferous forest, or mixed coniferous-deciduous forest. It grows at elevations from just above sea level to 3,000 feet, though most occurrences are at or below 600 feet.

The closest occurrence of tall bugbane is approximately ½ mile northeast of the La Center Interchange site. A second occurrence is located approximately 3 ½ miles north of the site. A total of seven occurrences have been documented within 10 miles of the site (WDNR, 1998). Tall bugbane has the potential to occur on the project site in and along the edges of the riparian forest and mixed woodland habitats. Tall bugbane was not observed on the project site during site surveys. However, botanical surveys were not conducted during the blooming season for this species.

TABLE 3.5-4
TARGET SPECIAL STATUS SPECIES LIST – LA CENTER INTERCHANGE SITE AND RIDGEFIELD INTERCHANGE SITE

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION
PLANTS				
<i>Cimicifuga elata</i> Tall bugbane	FSC	Western Cascades, Puget Trough, Olympic Peninsula and Southwest Washington physiographic provinces.	Grows near the margins of mixed, mature or old growth stands of mesic coniferous forest, or mixed coniferous-deciduous forest up to 3,000 feet. Most sites are at or below 600 feet.	May-August
<i>Howellia aquatilis</i> Water howellia	FT	Known from six distinct geographic areas: one in Idaho, one in Montana, one in California, and three in Washington. Within Washington, water howellia is known from Spokane County, Pierce County, and Clark County.	Restricted to small, vernal, freshwater wetlands. The typical wetlands that provide habitat for this species are less than 2.5 acres in size and less than 3 feet deep.	–June-August
ANIMALS				
Mammals				
<i>Corynorhinus townsendii</i> <i>townsendii</i> Pacific Townsend's big-eared bat	FSC	Throughout western North America.	Females form maternity colonies in mines, caves, or buildings, while males roost individually.	March-August
<i>Myotis evotis</i> Long-eared bat	FSC	Canada, south through California into Baja, eastward through northern Arizona and New Mexico and north into the Dakotas.	Found in brush, woodland, and forest habitats. Nursery colonies in buildings, crevices, spaces under bark, and snags; caves are used primarily as night roosts.	April-September
<i>Myotis volans</i> Long-legged bat	FSC	Found from the Tongas National Forest in Alaska, south, through all of the western U.S. and into the Baja peninsula.	Primarily in woodland and forest habitats above 4000 feet. Trees are important day roosts; uses caves and mines for night roosts.	Consult Agency
Fish				
<i>Lampetra tridentata</i> Pacific lamprey	FSC	Coastal and Columbia River drainages.	Saltwater and freshwater rivers.	Consult agency
<i>Oncorhynchus clarki clarki</i> Coastal cutthroat trout	FSC	Coastal and Columbia River drainages.	Saltwater and freshwater rivers. Prefers small, low-gradient streams and estuaries.	Consult agency
<i>Oncorhynchus keta</i> Columbia River Chum salmon	FT	Coast and Puget Sound drainages.	Freshwater streams, rivers, lakes, and saltwaters.	Consult agency

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION
<i>Oncorhynchus kisutch</i> Lower Columbia River Coho salmon	FT	Lower Columbia River and its tributaries from the mouth of the Columbia up to and including the Big White Salmon and Hood Rivers.	Large rivers and streams as well as saltwater.	Consult agency
<i>Oncorhynchus mykiss</i> Lower Columbia River steelhead	FT	Occurs in the Columbia River upstream to the Hood River in Oregon, and in Columbia River tributaries between the Cowlitz and Wind Rivers in Washington and the Willamette and Hood Rivers in Oregon.	Large rivers and streams as well as saltwater.	Consult agency
<i>Oncorhynchus tshawytscha</i> Lower Columbia River Chinook salmon	FT	Found in the Columbia River upstream to the Dalles Dam, and Columbia River tributaries between the Grays and White Salmon Rivers in Washington and the Willamette and Hood Rivers in Oregon.	Large rivers and streams as well as saltwater.	Consult agency
<i>Salvelinus confluentus</i> Bull trout	FT	This species occurs in the mainstem Lewis River and its tributaries as well as in the Columbia River, but does not occur in the East Fork of the Lewis River. Local populations within the Lower Columbia River watershed are currently contained in Cougar, Pine, and Rush creeks (Lewis River), and in the West Fork of the Klickitat River.	Bull trout inhabit freshwater streams, rivers, lakes, and saltwater. Habitat requirements include complex stream channels with features such as woody debris, side channels, pools, and undercut banks.	Consult agency
Birds				
<i>Contopus cooperi</i> Olive-sided flycatcher	FSC	Openings in forest and woodland throughout the state. Has been observed in the Ridgefield National Wildlife Refuge.	Forest and woodland, especially near burned or cleared areas. Generally builds nests in conifers.	April-August
<i>Haliaeetus leucocephalus</i> Bald eagle	FT	Lower elevations of western Washington.	Ocean shorelines, lake margins, and river courses. Requires tall trees for nesting several miles from foraging habitat.	October-March
<i>Sitta carolinensis aculeata</i> slender-billed white-breasted nuthatch	FSC	In Washington, occurs in the Vancouver Plains of Clark County and the Puget Trough. It has been documented nesting in the Ridgefield National Wildlife Refuge.	Woodland and forest habitats.	Year round

FEDERAL STATUS CODES: (U.S. Fish and Wildlife Service or National Marine Fisheries Service)

FE = Listed as Endangered by the Federal Government

FSC = Federal species of concern

FT = Listed as Threatened by the Federal Government

Source: USFWS, 2004; WNHDB, 2004.

Water Howellia

Water howellia is an annual, herbaceous, aquatic plant that blooms from June to August. This species occurs in wetlands that are typically bordered in part by broadleaf deciduous trees. The substrate at the bottom of these wetlands is generally firm, consolidated clay and organic sediments. Water howellia roots in these sediments and is mostly submerged below the water surface. This plant generally occupies only a small portion of the basin of each wetland. Individual plants may grow near the edges of wetlands, but they generally disappear as the habitat dries. Water howellia occurs between the elevations of 10 and 4,400 feet.

The water howellia is known to occur in four locations in Clark County. The closest occurrence to the La Center Interchange site is located approximately 2 ½ miles west, in the Ridgefield National Wildlife Area. Water howellia grows in vernal freshwater wetlands that are less than 3 feet deep and has the potential to occur in Wetland Cs on the project site.

Mammals

Bat Species

The Pacific Townsend's big-eared bat, long-eared myotis bat, and long-legged myotis bat all have the potential to occur on the proposed La Center site. The Pacific Townsend's big-eared bat primarily forages over forest canopy and pasture. It roosts in buildings and caves and mines. The Long-eared bat occurs primarily in coniferous forest and are often found foraging in dense vegetation or over small bodies of water. It roosts in buildings and caves, and under loose tree bark. In southern areas, these bats are found at elevations ranging from 7,000 to 8,500 feet. Long-legged bat occurs primarily below 4,000 feet in coniferous forest, though it also occurs in oak woodland, streamside woodland, or desert habitats. It roosts in buildings and crevices in rocks and trees. All three bat species are known to occur in Clark County and have the potential to occur on the La Center Interchange site. The riparian forest and mixed woodland habitats on the project site provide potential foraging and roosting habitat for these bat species. The buildings on the project site may also provide roosting habitat.

Fish Species

Fish species identified in **Table 3.5-4** include Bull trout, Pacific lamprey, coastal cutthroat trout, Columbia River chum salmon, Lower Columbia River coho salmon, Lower Columbia River steelhead, and Lower Columbia River Chinook salmon. The La Center Interchange Site boundaries encompass a seasonal, Type Ns, non-fish bearing stream. Due to the stream characteristics and the presence of structures (i.e., an 12-foot water fall and culvert), it is unlikely that these special status fish species would occupy the unnamed stream. The stream is a tributary of the East Fork Lewis River, however the probability that these species may be found in the tributary's lower reaches, near the East Fork Lewis River, is low.

Bird Species

Olive-Sided Flycatcher

Recently logged sites and cleared areas are a favorite habitat for the olive-sided flycatcher (*Contopus cooperi*), a Federal species of concern. Suitable habitat for this species includes forest and woodland, especially near burned or cleared areas. The olive-sided flycatcher generally places its nests on conifers and uses prominent trees or snags for perching, singing, and hawking (NatureServe, 2006). This bird usually sits on a high perch, gleaning insects from the clearing and then returning to the perch. A migratory bird, the olive-sided flycatcher is present in Washington approximately from May to September.

The olive-sided flycatcher has been observed occasionally at the Ridgefield National Wildlife Refuge, approximately 2 miles from the La Center Interchange site. The pasture located on the La Center Interchange Site provides marginal habitat for this species. The riparian forest and mixed woodland habitats on the project site provide potential nesting habitat, and a forested area south of the site provides potential foraging habitat. Surveys conducted by Russell and Associates (2003) (DEIS Vol. II, **Appendix I**) and AES in 2005 did not observe the olive-sided flycatcher, but there remains the potential for it to occur on the site.

Bald Eagle

Bald eagles in Washington usually nest in multi-storied coniferous stands that have old-growth components and are near water bodies which support adequate food supply. Nest trees typically are in a prominent area with an unobstructed view of an associated water body. Snags, or trees with exposed lateral limbs or exposed tops, are typically used for perching or as access points to and from the nest. Wintering bald eagles are associated with open water. Most bald eagles that nest in Washington probably winter in the vicinity of their nests. Day perches for wintering bald eagles are located near feeding areas, typically in the highest available perch sites. Communal night roosts are located near feeding areas in mixed-level stands that contain an old-growth component. Bald eagles are intolerant of human disturbance during the breeding season. Disturbance has caused nest abandonment. In some cases, bald eagles have relocated their nests to avoid excessive disturbance.

Bald eagles have been documented nesting and wintering throughout the vicinity of the La Center Interchange site. The site is located approximately 3/4 miles from the East Fork Lewis River, which provides an adequate food supply. Nests have been documented within approximately 1 mile of the site and adjacent to the East Fork Lewis River. Nesting has also been documented on the Ridgefield National Wildlife Refuge, within 2 miles southwest of the site. A communal roost area has been documented within 1 mile west of the site, however this communal roost is located closer to an adequate food supply than is the La Center Interchange site. The site is not in a topographically prominent location and does not offer a view of the East Fork Lewis River or other adequate food source. The site predominantly consists of pasture, which does not offer habitat for bald eagles. A stand of riparian woodland occurs on the site, but it lacks the conifer-dominated, mixed-level

association used by bald eagles. No nesting or communal roosting habitat is present on the site, and bald eagles are not expected to occur on the La Center site.

Slender-billed White-breasted Nuthatch

The slender-billed white-breasted nuthatch is a year-long resident of woodland and forest habitats in Washington. The slender-billed white-breasted nuthatch occurs locally in the Vancouver Plains of Clark County and the Puget Trough in Washington. It is a subspecies of the white-breasted nuthatch (*Sitta carolinensis*), which occurs throughout the U.S. and Canada and is typically found in open woodlands with mature trees, in forest clearings, and along forest edges. This species nests in tree cavities, which can be formed naturally or by woodpeckers. The white-breasted nuthatch eats seeds and insects (NatureServe, 2006).

The slender-billed white-breasted nuthatch has been documented nesting in the Ridgefield National Wildlife Refuge, approximately 2 miles away from the La Center site. The riparian forest and mixed woodland habitats at the La Center Interchange site provide potential nesting habitat for this subspecies.

State Listed Species

The lists of known occurrences of rare plants and plant communities within Clark County were consulted through the Washington Natural Heritage Program (WNHP) (DEIS Vol. II, Appendix J). The La Center Interchange Site does not support rare plant communities identified by the WNHP. Twenty-three rare plant species are documented in Clark County, eight of which are known to occur within 10 miles of the site. The WNHP January 2005 geographic information system (GIS) data set shows no reported occurrences of these species on the La Center Interchange Site (WNHP, 2005b). A population of tall bugbane (Federal species of concern and State Sensitive) is reported northeast of the La Center Interchange Site near the East Fork Lewis River. This species was not observed during the biological surveys.

3.5.4 SETTING – RIDGEFIELD INTERCHANGE SITE

Consisting of approximately 163.02 acres of land and located on the east side of I-5 at Exit 14, the Ridgefield Interchange Site is located approximately 2 miles south of the La Center Interchange Site. A private residence is located in the central portion of the site and several single-family homes are located towards the eastern property boundary. A medium density housing subdivision, which includes approximately nine housing units, is located to the north of the site, as well as pasture and agricultural lands. A newly constructed fire station is located across from the northwest corner of the site. Land uses to the south include rural residential, pasture/agricultural lands and a light-industrial business park. To the west of the Ridgefield Interchange Site, between the site and I-5 are located two gasoline service stations, a local diner, and a small shopping center. Topography of the site is rolling pastures.

This site is approximately 3 miles east of the Ridgefield National Wildlife Refuge and 3 ½ miles south of Paradise Point State Park.

HABITAT TYPES

The Ridgefield Interchange Site contains several habitat types including ruderal/developed, pastureland, wetlands, and riparian woodlands. The composition of the ruderal/developed and pasture habitats are similar to that found at the La Center Interchange Site and is discussed in the *Habitat Types* section above. The wetlands and riparian woodland habitats for the Ridgefield Interchange Site are discussed below; acreage and percent area of habitat types occurring within the Ridgefield Interchange Site are provided in **Table 3.5-5**. A habitat map of the Ridgefield Interchange Site is presented as **Figure 3.5-5** and photos of the pasture and ruderal/developed communities are shown in **Figure 3.5-6** and **3.5-7**.

TABLE 3.5-5
SUMMARY OF HABITAT TYPES – RIDGEFIELD INTERCHANGE SITE

Habitat Type	Acres	Percent Area
Ruderal/Developed	8.9	5.5
Pasture	101.6	62.3
Wetlands	50.7	31.1
Riparian Woodland	1.8	1.1
TOTAL	163.0	100

Source: AES, 2005c.

Riparian Woodland

Oregon ash, red alder, and black cottonwood (*Populus balsamifera* ssp. *trichocarpa*) are the dominant tree species within the riparian woodland. This community is located along the center drainage of the property in the northern and central sections. Site photos of the community are shown in **Figure 3.5-7**.

WATERS OF THE U.S.

An informal delineation of jurisdictional waterbodies and wetlands at the Ridgefield Interchange Site identified areas that are potentially subject to USACE regulation under Section 404 of the Clean Water Act, including palustrine emergent drainages and associated wetlands, totaling approximately 52.5 acres (**Figure 3.5-8**).

Wetlands

An informal wetland delineation and biological site assessment of the Ridgefield Interchange Site was conducted on March 2-4, 2005 by AES in 2005. AES biologists identified two palustrine emergent wetlands, both associated with drainage ditches; these wetlands diagonally bisect the property. These two wetlands and the riparian woodland areas encompass approximately 52.5 acres of the Ridgefield

Figure 3.5-5

Figure 3.5-6

Figure 3.5-7

Figure 3.5-8

Interchange Site. The western drainage extends along the front and western parcels of the site and is a tributary to an unnamed tributary within Allen Canyon, which is a tributary to Mud Lake.

Vegetation within this area includes curly dock, western dock (*Rumex occidentalis*), common rush, and quackgrass (*Agropyron repens*). The main drainage ditch that courses diagonally through the center of the property is tributary to McCormick Creek thence to the East Fork Lewis River. This drainage supports many wetland species of plants including cattails (*Typha latifolia*), reed canary grass, perennial ryegrass (*Lolium perenne*), and common rush. Site photos of the wetland areas are shown in **Figure 3.5-7**.

WILDLIFE

A pair of red-tailed hawks (*Buteo jamaicensis*) and their nest was observed in the northern section of the riparian woodland (**Figure 3.5-7**). Within the pasture adjacent to N 65th Avenue, a large flock of Canadian geese (*Branta canadensis*) was seen foraging; an American kestrel (*Falco sparverius*) was observed hunting in the adjacent field. Numerous vole runways and burrows were seen at the Ridgefield Interchange Site. The wetlands in the northeast corner of the property support a large population of Pacific tree frogs. Also found in this area was a long-toed salamander. Within the upland areas a ball of northwestern garter snakes (*Thamnophis ordinoides*) and a pocket mouse (*Perognathus* spp.) were spotted. Other species observed on the site include jackrabbit (*Lepus* spp.), killdeer (*Charadrius vociferus*), red-winged blackbird (*Agelaius phoeniceus*), American robin, mallard ducks, wrenit (*Chamaea fasciata*), western meadowlark (*Sturnella magna*), and crows (*Corvus brachyrhynchos*).

Federally Listed Special Status Species

The Ridgefield Interchange Site target species list was conducted as described in **Section 3.5.1**; results are provided in DEIS Vol. II, **Appendix H**. Based upon the review of regionally occurring Federally listed species and their habitat requirements, the results of the field assessment, the property and/or surrounding vicinity of the Ridgefield site represents potential habitat for the 11 federally listed species and Federal Species of Concern identified above for the proposed La Center site. Since the Ridgefield Interchange Site is similar in location and habitats to the La Center Interchange site, Appendices 6 and 7 of the new BA (**Appendix I** of the FEIS) for the La Center site can be used to explain how these species were chosen. One difference between the two sites is that the Ridgefield site does not contain ponded wetlands and, therefore, would not contain the water howellia. The status, biology, regional distribution, and site-specific discussion of the target species are discussed below.

Plants

Tall Bugbane

Tall bugbane has the potential to occur in the riparian woodland habitat on the Ridgefield Interchange site.

Mammals

Bat Species

Pacific Townsend's big-eared bat, long-legged myotis bat, and the long-eared myotis bat have the potential to occur in the vicinity of the Ridgefield Interchange Site. A discussion of the habitats of these bats is found in **Section 3.5.1, Federally-Listed Bat Species**, for the La Center Interchange Site.

The Ridgefield

Fish Species

The Ridgefield Interchange Site boundaries encompass a wetland drainage that is tributary to McCormick Creek, thence the East Fork Lewis River. These fish species have little to no potential to occupy the drainage; however, it is a tributary of the East Fork Lewis River.

Bird Species

Olive-Sided Flycatcher

The olive-sided flycatcher has been observed occasionally at the Ridgefield National Wildlife Refuge, approximately 3 miles from the Ridgefield Site. The pasture located on the Ridgefield Interchange Site provides marginal habitat for this species. There is a forested area south of the site and potential foraging habitat would be adjacent to the southern boundary. Surveys conducted by AES biologists in 2005 did not detect the olive-sided flycatcher, but there remains the potential for it to occur on the site.

Slender-billed White-breasted Nuthatch

The slender-billed white-breasted nuthatch has been documented nesting in the Ridgefield National Wildlife Refuge, approximately 3 miles away from the Ridgefield site. The riparian forest in the Ridgefield Interchange Site provides potential nesting habitat for this subspecies.

State Listed Species

The lists of known occurrences of rare plants and plant communities within Clark County were consulted through the WNHP (DEIS Vol. II, Appendix J). The Ridgefield Interchange Site does not support rare plant communities identified by the WNHP. Twenty-three rare plant species are documented in Clark County (WNHP, 2005a). The WNHP January 2005 GIS data set shows no reported occurrences of these species on the Ridgefield Interchange Site (WNHP, 2005b). Columbia water-meal (*Wolffia columbiana*) (Review Group 1) is reportedly located south of the Ridgefield Interchange Site. This species were not observed during the biological surveys.