

Appendix D

Special-Status Species and Habitats

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Oregon Department of Fish and Wildlife (ODFW)

Habitat Impacts

The six habitat categories listed below were established by the State of Oregon to help consistently identify appropriate mitigation measures for environmental impacts on different fish and wildlife habitats in Oregon (ODFW 2009). Impacts from the proposed action alternatives on each of these habitat categories are given in Tables D-1 and D-2.

Category 1 – is irreplaceable, essential habitat for a fish or wildlife species, population, or a unique assemblage of species and is limited on either a physiographic province or site-specific basis, depending on the individual species, population or unique assemblage. In the project vicinity, cliffs would be considered Category 1 habitat.

Category 2 - is essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage. In the project vicinity, wetlands would be considered Category 2 habitat.

Category 3 – is essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population. In the project vicinity, high-quality woodlands would be considered Category 3 habitat.

Category 4 - is important habitat for fish and wildlife species. In the project vicinity, disturbed grassland/shrub-steppe would be considered Category 4 habitat.

Category 5 - is habitat for fish and wildlife having high potential to become either essential or important habitat. There is no Category 5 habitat in the project vicinity.

Category 6 - is habitat that has low potential to become essential or important habitat for fish and wildlife. In the project vicinity, cropland or small areas of trees would be considered Category 6 habitat.

ODFW Habitat Impacts

Table D-1. West Alternative Acreage Impacts on Oregon Department of Fish and Wildlife Habitat Categories

Habitat Category ¹	Permanent Impacts				Temporary Impacts		
	Towers ²	New Roads	Upgrading Existing Roads	Total Impacts per Habitat Category	Towers	Temporary Roads	Total Impacts per Habitat Category
Category 1	0	0	0	0	0	0	0
Category 2	0	0	0	0	0	0	0
Category 3	0	0	0	0	0	0	0
Category 4	0.5–0.7	2.0	1.1	3.6–3.8	1.5–2.1	0	1.5–2.0
Category 5	0	0	0	0	0	0	0
Category 6	0.5–0.7	1.0	0.1	1.6–1.8	1.5–2.1	0	1.5–2.0

¹ See the text for definitions of the six ODFW Habitat Categories.

² Impacts are presented as ranges from all possible tower options. The upper end of each range reflects the double-circuit options and includes the removal of the existing towers.

Table D-2. Middle and East Alternatives Acreage Impacts on Oregon Department of Fish and Wildlife Habitat Categories

Habitat Category ¹	Permanent Impacts				Temporary Impacts		
	Towers ²	New Roads	Upgrading Existing Roads	Total Impacts per Habitat Category	Towers	Temporary Roads	Total Impacts per Habitat Category
Category 1	0	0	0	0	0	0	0
Category 2	0	0	0	0	0	0	0
Category 3	0	0	0	0	0	0	0
Category 4	2.4–8.8	5.4	6.7	14.5–20.6	7.1–29.6	0	7.1–29.6
Category 5	0	0	0	0	0	0	0
Category 6	1.5–5.7	0.9	1.1	3.5–7.7	4.5–19.2	0	4.5–19.2

¹ See the text for definitions of the six ODFW Habitat Categories.

² Impacts are presented as ranges from all possible tower options. The upper end of each range reflects the double-circuit options and includes the removal of the existing towers.

Federal Species Determination—Impacts on Species Listed Under the Endangered Species Act

Because BPA is a federal agency, it is required to analyze the effects of its actions on species listed under the Endangered Species Act (ESA) of 1973 as amended. Making a No Effect Determination is the appropriate conclusion when the proposed action will not affect a listed species or designated critical habitat.

The following ESA listed species were identified by USFWS and NOAA Fisheries as potentially being present in the project area (Wasco County, OR and Klickitat County, WA).

Table D-3. Wasco County, OR and Klickitat County, WA Species List

Species (Scientific Name)	ESA Status & Critical Habitat Designation	Effect of the Project
Gray wolf <i>(Canis lupus)</i>	Endangered	Not documented in or near project area. No effect
Northern spotted owl <i>(Strix occidentalis caurina)</i>	Threatened Critical Habitat	No suitable habitat, not documented in or near project area. No effect
Bull trout, Columbia River DPS <i>(Salvelinus confluentus)</i>	Threatened Critical Habitat	No streams will be affected by the project. No Effect
Chinook Salmon <i>(Oncorhynchus tshawytscha)</i>	Upper Columbia River spring-run ESU Endangered	No streams will be affected by the project. No Effect
	Snake River spring/summer- run ESU Threatened	
	Snake River fall-run ESU Threatened	
Coho Salmon <i>(Oncorhynchus kisutch)</i>	Lower Columbia River ESU Threatened	No streams will be affected by the project. No Effect
Sockeye Salmon <i>(Oncorhynchus nerka)</i>	Snake River ESU Endangered	No streams will be affected by the project. No Effect
Steelhead <i>(Oncorhynchus mykiss)</i>	Middle Columbia River DPS Threatened	No streams will be affected by the project. No Effect
	Snake River Basin DPS Threatened	
	Upper Columbia River DPS Threatened	
Ute ladies'-tresses <i>Spiranthes diluvialis</i>	Threatened	Suitable habitat present. Surveys did not document any occurrences. No effect

Federal Species Determination

Gray Wolf

Gray wolves were historically present in the project area, but were extirpated from the region by the 1930's. Occasional wolf sightings have been recorded in the Cascades, which likely represent lone individuals rather than established wolf packs. Documented wolf packs exist in eastern Oregon and north eastern Washington, but none have been documented within 50 miles of the project area. In the unlikely event that individual wolves would be passing through the area during construction, they may avoid the area of active construction. No long term impacts to wolf prey species are likely from the proposed project. No wolf pack territory would be affected. Since there are no documented wolf packs nearby and it is unlikely that any transitory wolves would use the project area during construction, the project would have **no effect** upon the gray wolf.

Northern Spotted Owl

The project area is mostly shrub-steppe with some ponderosa pine and oak forests. These forested areas do not provide spotted owl habitat. There are no documented sightings of northern spotted owls within 5 miles of the project area and they are not expected to use the types of habitats present within or near the project area. Therefore, the project will have **no effect** upon the northern spotted owl.

Fish Species

The proposed project crosses streams and rivers that do contain listed fish species habitat. However, no new access roads would be constructed across these streams, no towers would be placed in or next to streams or rivers, or wetlands leading up to them. Sediment and spill control will be implemented at all construction sites to prevent any hazardous materials or sediments from entering waterways. A few trees would need to be removed in the riparian area adjacent to the non-fish bearing Threemile Creek in Washington. Other trees would need to be removed in upland areas on either side of some river and stream crossings. Because no sediment or chemical inputs to streams are expected and because no adverse changes to water temperature or stream function are anticipated from tree removal, the project will have **no effect** upon listed salmonids.

Ute Ladies-Tresses

Surveys for Ute ladies-tresses were conducted during the summer of 2010 within the project area. No occurrences were found. Because the plant is not present in the project area, the project will have **no effect** upon the Ute ladies-tresses.

Potential Impacts on Sensitive Species of the Columbia River Gorge National Scenic Area and National Forest System

Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	West Alternative		Middle Alternative		East Alternative	
			Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Fish								
Bull trout (Columbia River) <i>(Salvelinus confluentus)</i>	T OR-SC WA-C	Spawns and rears in cold streams and lakes. Adults will disperse and/or migrate in warmer systems such as the Columbia River mainstem. Also documented in Hood River, Drano Lake, and suspected in Klickitat River and Sandy River in the National Scenic Area (NSA).	Present in Columbia River and Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.	Present in Columbia River and Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.	Present in Columbia River and Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.
Steelhead trout (Snake River) <i>(Oncorhynchus mykiss)</i>	T WA-C	Anadromous. Presence in the NSA limited to migration corridor of the Columbia River.	Present in Columbia River	NE on species or designated critical habitat. No in-water work.	Present in Columbia River	NE on species or designated critical habitat. No in-water work.	Present in Columbia River	NE on species or designated critical habitat. No in-water work will occur.
Steelhead trout (mid-Columbia River) <i>(Oncorhynchus mykiss)</i>	T WA-C	Anadromous. Spawns and rears in Columbia River tributaries between Mosier and Yakima, in both OR and WA.	Present in Columbia River and Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.	Present in Columbia River and Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.	Present in Columbia River and Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.
Steelhead trout (upper Columbia River) <i>(Oncorhynchus mykiss)</i>	E WA-C	Anadromous. Presence in the NSA limited to migration corridor of the Columbia River.	Present in Columbia River	NE on species or designated critical habitat. No in-water work.	Present in Columbia River	NE on species or designated critical habitat. No in-water work will occur.	Present in Columbia River	NE on species or designated critical habitat. No in-water work.
Steelhead trout (lower Columbia River) <i>(Oncorhynchus mykiss)</i>	T OR-SC WA-C	Anadromous. Spawns and rears in Columbia River tributaries between the mouth of the Columbia River east to Hood River, in both OR and WA.	Present in Columbia River, downstream of project corridor	NE on species or designated critical habitat.	Present in Columbia River, downstream of project corridor	NE on species or designated critical habitat.	Present in Columbia River, downstream of project corridor	NE on species or designated critical habitat.
Chinook (mid- Columbia River spring run) <i>(Oncorhynchus tshawytscha)</i>	FS	Anadromous. Spawns and rears in Columbia River tributaries between Mosier and Yakima, in both OR and WA.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Chinook salmon (Snake River spring/summer/fall runs) (<i>O. tshawytscha</i>)	T OR-T WA-C	Anadromous. Presence in the NSA limited to migration corridor of the Columbia River.	Present in Columbia River	NE on species or designated critical habitat. No in-water work.	Present in Columbia River	NE on species or designated critical habitat. No in-water work.	Present in Columbia River	NE on species or designated critical habitat. No in-water work.
Chinook salmon (lower Columbia River) (<i>Oncorhynchus tshawytscha</i>)	T OR-SC (fall run) WA-C	Anadromous. Spawns and rears in Columbia River tributaries between the mouth of the Columbia R east to Hood River, in both OR and WA.	Present in Columbia River, downstream of the project corridor	NE on species or designated critical habitat.	Present in Columbia River, downstream of the project corridor	NE on species or designated critical habitat.	Present in Columbia River, downstream of the project corridor	NE on species or designated critical habitat.
Chinook salmon (upper Columbia River) (<i>Oncorhynchus tshawytscha</i>)	E WA-C	Anadromous. Presence in NSA limited to migration corridor of the Columbia River.	Present in Columbia River	NE on species or designated critical habitat. No in-water work	Present in Columbia River	NE on species or designated critical habitat. No in-water work	Present in Columbia River	NE on species or designated critical habitat. No in-water work
Sockeye salmon (Snake River) (<i>Oncorhynchus nerka</i>)	E WA-C	Anadromous. Presence in NSA limited to migration corridor of the Columbia River. Spawning area typically adjacent to or in lakes, where young rear.	Present in Columbia River	NE on species or documented critical habitat. No in-water work	Present in Columbia River	NE on species or documented critical habitat. No in-water work	Present in Columbia River	NE on species or documented critical habitat. No in-water work
Chum salmon (Columbia River) (<i>Oncorhynchus keta</i>)	T OR-SC WA-C	Anadromous. Spawns and rears in several locations on the Columbia River shoreline and in low-gradient tributaries, in both OR and WA. Historically documented spawning run as far east as the Umatilla and Walla Walla systems, but present population largely below Bonneville Dam. Some incidental spawning known to occur near the mouths of White Salmon River (WA) and Eagle Creek (OR).	Present in Columbia River, downstream of the project corridor	NE on species or designated critical habitat.	Present in Columbia River, downstream of the project corridor	NE on species or designated critical habitat.	Present in Columbia River, downstream of the project corridor	NE on species or designated critical habitat.
Coho (lower Columbia River) (<i>Oncorhynchus kisutch</i>)	T OR-E	Anadromous. Spawns and rears in Columbia River tributaries between the mouth of the Columbia River east to Hood River, in both OR and WA.	Present in Columbia River and the lower reaches of Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.	Present in Columbia River and the lower reaches of Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.	Present in Columbia River and the lower reaches of Fifteenmile Creek	NE on species or designated critical habitat. No in-water work.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Pacific lamprey (<i>Lampetra tridentata</i>)	OR-SV	Anadromous. Found sporadically throughout Columbia River Basin. Spawns in gravelly riffles in late spring or early summer. Ammocoetes rear for approximately 6 years in silt and fine sand before outmigration.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.
River lamprey (<i>Lampetra ayresi</i>)	WA-C	Anadromous. Historically occurred throughout the Columbia River system, but little information on current distribution or abundance. Difficult to identify as ammocoetes. Adults not documented in OR or WA since 1980.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.
Western brook lamprey (<i>Lampetra richardoni</i>)	OR-SV	Resident and nonparasitic. Documented in tributaries of the White Salmon and Klickitat Rivers.	Outside known range. No suitable habitat.	NI.	Outside known range. No suitable habitat.	NI. Species is not known to occur.	Outside known range. No suitable habitat.	NI. Species is not known to occur.
Eulachon (<i>Thaleichthys pacificus</i>)	T WA-C	Anadromous, with spawning in mainstem Columbia River and lower reaches of rivers, often in tidal influence (Sandy River in NSA). Historically migrated as far east as Hood River prior to construction of Bonneville Dam.	Present in Columbia River, downstream of the project corridor	NE on species or proposed critical habitat.	Present in Columbia River, downstream of the project corridor	NE on species or proposed critical habitat.	Present in Columbia River, downstream of the project corridor	NE on species or proposed critical habitat.
Leopard dace (<i>Rhinichthys falcatus</i>)	WA-C	Disjunct populations in Columbia River mainstem and Yakima, Snake, Similkameen Rivers. Habitat in large, slower flowing rivers and lakes. Lay adhesive eggs in riffles, late spring.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.
Mountain sucker (<i>Catostomus platyrhynchus</i>)	WA-C	Historic range in Columbia River system, largely east of Cascades, including the Columbia River mainstem and lower Klickitat River in the NSA. June/July spawner in riffles.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.	Present in Columbia River and Fifteenmile Creek	NI. No in-water work.
Herptiles								
Cope's giant salamander (<i>Dicamptodon copei</i>)	FS OR-SU	Western WA, northwestern OR. Clear, cold mountain streams with rocky substrate.	Outside known range. No suitable habitat.	NI.	Outside known range. No suitable habitat.	NI.	Outside known range. No suitable habitat.	NI.
Cascade torrent salamander (<i>Rhyacotriton cascadae</i>)	FS WA-C OR-SV	Cascade Mountains of southern WA and northern OR. In and adjacent to cold, fast mountain streams or seeps with rocky substrate.	Outside known range	NI	Outside known range	NI	Outside known range	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Dunn's salamander (<i>Plethodon dunni</i>)	WA-C	Coast range only WA and western OR. Moss-covered rock rubble, shady stream banks.	Outside known range	NI	Outside known range	NI	Outside known range	NI
Oregon slender salamander (<i>Batrachoseps wrighti</i>)	FS OR-SU	North and central OR Cascades. Forests with large down logs and moist talus with abundant wood debris	Outside known range	NI	Outside known range	NI	Outside known range	NI
Larch Mountain salamander (<i>Plethodon larselli</i>)	FS WA-S OR-SV	Cascades of southern WA and northern OR. Moss-covered shady talus slopes, low to mid-elevation.	Outside known range	NI	Outside known range	NI	Outside known range	NI
Columbia spotted frog (<i>Rana luteiventris</i>)	WA-C OR-SU	Columbia River Basin (east of Cascades). In or near permanent slow ponds, streams, marshes with abundant vegetation (one known site at Conboy National Wildlife Refuge). No current sites in NSA.	Outside known range	NI	Outside known range	NI	Outside known range	NI
Oregon spotted frog (<i>Rana pretiosa</i>)	FS WA-E OR-SC	Historically found in the Puget Trough from the Canadian border to the Columbia River and east into the southern Washington Cascades. In or near large perennial lakes and marshes. Closest extant population at Crane Prairie Reservoir in Deschutes County.	Outside known range	NI	Outside known range	NI	Outside known range	NI
Northern leopard frog (<i>Rana pipiens</i>)	WA-E OR-SC	Lowland marshes and ponds with dense vegetation. Presently found only in Grant County. Likely extirpated in Columbia River Gorge.	Outside known range	NI	Outside known range	NI	Outside known range	NI
Western toad (<i>Bufo boreas</i>)	WA-C OR-SV	Widespread distribution in WA and OR. Most common near marshes and small lakes (breeding sites in mid-spring); can travel readily overland to streams and seeps.	Likely occurs	MIIH. Project would not impact aquatic associated habitats, but may result in removal of upland habitat potentially used by species, as well as temporary construction impacts	Likely occurs	MIIH. Project would not impact aquatic associated habitats, but may result in removal of upland habitat potentially used by species, as well as temporary construction impacts	Likely occurs	MIIH. Project would not impact aquatic associated habitats, but may result in removal of upland habitat potentially used by species, as well as temporary construction impacts

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Northwestern pond turtle (<i>Clemmys marmorata</i>)	FS WA-E OR-SC	Streams, large rivers, slow sloughs, and quiet waters with nesting habitat (open meadow) within 0.5 mile. Occurs below 3,000-foot elevation.	Outside known range	NI	Outside known range	NI	Outside known range	NI
Painted turtle (<i>Chrysemys picta</i>)	FS (OR) OR-SC	Slow water ponds, marshes, rivers below 3,000-foot elevation. Widely introduced outside Columbia River Gorge and Columbia River Basin.	Likely occurs	NI. Project will not impact aquatic habitats.	Likely occurs	NI. Project will not impact aquatic habitats.	Likely occurs	NI. Project will not impact aquatic habitats.
California mountain king snake (<i>Lampropeltis zonata</i>)	FS (WA) WA-C OR-SV	Main population in CA and Klamath Mountains, with disjunct population in Columbia River Gorge (Klickitat, Skamania County area). Oak and pine woodland, rocky riparian in logs and rocky cover. No confirmed specimens on OR side of NSA, although unconfirmed sightings in The Dalles and Maupin areas.	No suitable habitat	NI	No suitable habitat	NI	No suitable habitat	NI
Sharptail snake (<i>Contia tenuis</i>)	FS (WA) WA-C OR-SV	East slope of WA Cascades, Columbia River Gorge, western OR. Rocky slopes often in open pine and oak woodland, preying on small slugs. Also in moist riparian east of Cascades. Usually found near streams. Largely subterranean during summer, appearing in spring and fall.	May occur along streams and riparian areas	NI. Project alignment will not affect aquatic or riparian habitat.	May occur along streams and riparian areas	NI. Project alignment will not affect aquatic or riparian habitat.	May occur along streams and riparian areas	NI. Project alignment will not affect aquatic or riparian habitat.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Night snake (<i>Hypsiglena torquata</i>)	FS (WA)	C. and E. Oregon. C. Washington. Found in semi arid areas of oak and talus. Rarely encountered due to entirely nocturnal habits.	May occur	MIIH. Project may result in habitat removal, temporary construction impacts and indirect impacts (e.g., new perches for raptors that may result in increased predation), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, temporary construction impacts and indirect impacts (e.g., new perches for raptors that may result in increased predation), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, temporary construction impacts and indirect impacts (e.g., new perches for raptors that may result in increased predation), but is not anticipated to result in a downward trend in the population.
Striped whipsnake (<i>Masticophis taeniatus</i>)	FS (WA) WA-C	South and central WA, eastern OR. Dry rocky sites, oak woodland, pine forests. Not documented in Klickitat County, WA.	Outside known range	NI	Outside known range	NI	Outside known range	NI
Birds								
Bald eagle (<i>Haliaetus leucocephalus</i>)	WA-T OR-T	Shoreline (generally within 1 mile of large water bodies). Large trees and prey base of fish. Diet also includes waterfowl, turtles, and carrion.	Known to occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but not expected to cause a downward trend in the population.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Northern spotted owl <i>(Strix occidentalis caurina)</i>	T WA-E OR-T	Mature coniferous forest for nesting, roosting, and foraging. Will disperse in early or mid-seral forests.	Outside known range	NE	Outside known range	NE	Outside known range	NE
Ferruginous hawk <i>(Buteo regalis)</i>	FS (WA) WA-T OR-SC	Open prairie and shrub steppe in eastern WA and OR.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Peregrine falcon (<i>Falco peregrinus</i>)	FS OR-E WA-S	Tall cliff (nest) sites within 1 mile of water with small bird prey base.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.
Northern goshawk (<i>Accipiter gentilis</i>)	WA-C OR-SC	More common east of Cascades in a wide variety of forest ages, structural conditions, and successional stages. Nests in stands of mature forest at elevations of 1,900 to 6,100 feet in Oregon.	No suitable habitat	NI	No suitable habitat	NI	No suitable habitat	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Golden eagle (<i>Aquila chrysaetos</i>)	WA-C	Various habitats in open country and forests. Often nests on steep cliffs or large trees.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.
Merlin (<i>Falco columbarius</i>)	WA-C	Forests, grasslands, marshes. Nests in WA Cascades, northeastern WA. Winters throughout the northwest.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	Known to occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Flammulated owl (<i>Otus flammeolus</i>)	WA-C OR-SC	East Cascades. Cavity nester in mature pine and mixed conifer forests at mid-elevations. Winters south of US border.	May occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of foraging habitat, construction impacts (e.g., disturbance) and indirect impacts (e.g., reduced foraging success during construction), but is not expected to cause a downward trend in the population.
Common loon (<i>Gavia immer</i>)	FS (WA) WA-S	Undisturbed lakes and ponds with fish and invertebrate prey base. Spring/fall migrant; winters in NSA.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats..	Possible winter resident along Columbia River	NI. Project not expected to impact habitats..	Possible winter resident along Columbia River	NI. Project not expected to impact habitats..
Western grebe (<i>Aechmophorus occidentalis</i>)	WA-C	Open lakes and marshes with rushes and tule. Winters in coastal estuaries and bays.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.
Clark's grebe (<i>Aechmophorus clarkii</i>)	FS (WA)	Winters in NSA on large rivers. Breeds in large lakes with tule or rushes.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.
Horned grebe (OR only) (<i>Podiceps grisegena</i>)	FS (OR) OR-SP	Common winter resident on Columbia River in NSA. Breeds on marshes and lakes in eastern WA and OR.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.
Red-necked grebe (<i>Podiceps grisegena</i>)	FS (OR) OR-SC	Rare winter migrant on the Columbia River. Uncommon breeder in eastern WA and OR.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.

Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	West Alternative		Middle Alternative		East Alternative	
			Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Eared grebe (<i>Podiceps nigricollis</i>)	FS (WA)	Documented but uncommon winter resident of NSA. Breeds in eastern OR and WA lakes and reservoirs with rushes and cattails.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.
Harlequin duck (<i>Histrionicus histrionicus</i>)	FS	Winters at coast. Breeds at NSA on ground, usually within 10 meters of fast-moving Cascade tributaries of the lower and middle Columbia River, often on rocky islands and banks.	Breeds in Columbia River Gorge Cascade tributaries	NI. Project not expected to impact habitats.	Breeds in Columbia River Gorge Cascade tributaries	NI. Project not expected to impact habitats.	Breeds in Columbia River Gorge Cascade tributaries	NI. Project not expected to impact habitats.
Bufflehead (<i>Bucephala albeola</i>)	FS(OR)	Nests in tree cavities and winters in small flocks along the Columbia River	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.	Possible winter resident along Columbia River	NI. Project not expected to impact habitats.
American white pelican (<i>Pelecanus erythrorhynchos</i>)	WA-E OR-SV	Nest in large colonies on islands in shallow water and marshes free of human disturbance and mammalian predators. Post breeders sometimes seen in Columbia River (such as Klickitat Delta). Winters from southern US to Mexico.	Rare, but possible occurrence	NI. Project not expected to impact habitats.	Rare, but possible occurrence	NI. Project not expected to impact habitats.	Rare, but possible occurrence	NI. Project not expected to impact habitats.
Sandhill crane (<i>Grus canadensis</i>)	WA-E	Riverine wetland, isolated mountain meadows and basins. No current breeding populations in the NSA; some migration.	Rare, but possible occurrence	NI. Project not expected to impact habitats.	Rare, but possible occurrence	NI. Project not expected to impact habitats.	Rare, but possible occurrence	NI. Project not expected to impact habitats.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	WA-C OR-SC	Historic range in WA and OR. No reported breeding occurrences since the 1950s, although periodically sighted east of Cascades. Riparian forests, with cottonwood and thick willow. Neotropical migrant.	Formerly considered extirpated from the CRGNSA; sightings at Sandy River Delta in 2009 and 2010.	NI. Project not expected to impact habitats.	Formerly considered extirpated from the CRGNSA; sightings at Sandy River Delta in 2009 and 2010.	NI. Project not expected to impact habitats.	Formerly considered extirpated from the CRGNSA; sightings at Sandy River Delta in 2009 and 2010.	NI. Project not expected to impact habitats.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Lewis' woodpecker (<i>Melanerpes lewis</i>)	WA-C OR-SC	Open pine and oak woodland, conifer forests, and riparian woodland. Neotropical migrant. Commonly seen in eastern dry forests of NSA.	May occur within wooded areas	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur within wooded areas	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur within wooded areas	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
White-headed woodpecker (<i>Picoides albolarvatus</i>)	WA-C OR-SC	Central and eastern WA and OR in mature and open coniferous forests, especially ponderosa pines. Cavity nester. Not currently documented in NSA.	May occur within wooded areas	NI. Species occurs further west of the project alignment in forested areas	May occur within wooded areas	NI. Species occurs further west of the project alignment in forested areas	May occur within wooded areas	NI. Species occurs further west of the project alignment in forested areas
Black-backed woodpecker (<i>Picoides arcticus</i>)	WA-C OR-SC	Uncommon Cascades resident usually at higher elevations (above 3,000 feet). Eastern Cascades in WA. Scattered distribution as populations are highly associated with post-fire habitats in mature forests (stand-replacement fires with snags), dependent on high density of dead and insect-ridden trees.	No suitable habitat	NI. Project alignment traverses the CRGNSA at elevations below those at which species typically occurs.	No suitable habitat	NI. Project alignment traverses the CRGNSA at elevations below those at which species typically occurs.	No suitable habitat	NI. Project alignment traverses the CRGNSA at elevations below those at which species typically occurs.
Acorn woodpecker (<i>Melanerpes formicivorus</i>)	FS (WA)	Highly associated resident of oaks and pine and oak woodlands. Klickitat County (near Lyle) is the only known location in WA, home to the northernmost population in its range. Primary cavity nester.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Pileated woodpecker (<i>Dryocopus pileatus</i>)	WA-C OR-SV	Conifer and mixed conifer forests, and deciduous stands in valley bottoms with large dead or live trees (or remnants) for foraging and nesting. Primary cavity nester.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Green-tailed towhee (<i>Pipilo chlorurus</i>)	FS (WA)	At moderate to higher elevations, nests in shrubby areas intermixed with small trees, often in areas maintained by fires or other disturbance. WA state is on its most northwesterly range peripherally, with most recorded in the Blue Mountains of southeast WA. Known occurrences in east Hood River County, OR.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Sharp-tailed grouse (<i>Tympanuchus phasianellus</i>)	WA-T	Grasslands and sagebrush. Historically found east of the Cascades, including much of Klickitat County, but extirpated in 1950s from most of range in WA and OR. Remnant population in northeastern WA.	Extirpated from this portion of historic range	NI	Extirpated from this portion of historic range	NI	Extirpated from this portion of historic range	NI
Lesser goldfinch (<i>Carduelis psaltria</i>)	FS (WA)	Open steppes and oak woodlands. A permanent resident in south-central WA. Klickitat County is its northernmost population across its range in western and southwestern US and Mexico.	May occur	MIIH. Project may remove open steppe habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove open steppe habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove open steppe habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Sage sparrow (<i>Amphispiza belli</i>)	WA-C	Eastern WA and OR. Flat terrain highly associated with big sagebrush; may also use chaparral, and dry foothills. On periphery of habitat in NSA; in the extreme eastern end. No known current populations, although migrants may pass through the NSA. Winters in southern OR and southwestern US.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Sage thrasher (<i>Oreoscoptes montanus</i>)	WA-C	Eastern WA and OR semiarid sagebrush plains and bottomlands. May have historically been in outlying east portion of NSA, but no current populations.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Loggerhead shrike (<i>Lanius ludovicianus</i>)	WA-C	East of Cascades. Dry grassland and sagebrush desert habitats. On periphery of habitat in NSA with sightings in east Klickitat County. Neotropical migrant.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Oregon vesper sparrow (<i>Pooecetes gramineus affinis</i>)	WA-C	Lowland valleys of western WA and OR (Willamette, Klamath, Puget Sound). Sparsely vegetated grasslands with scattered tall structures used for song perches, including agricultural lands. On periphery of habitat in NSA. Ground nester.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Slender-billed white-breasted nuthatch (<i>Sitta carolinensis aculeata</i>)	FS(WA)	A westside subspecies of the white-breasted nuthatch. Open oak and oak/Douglas-fir forests in western Washington (Skamania, Clark, and Cowlitz Counties). Decline directly related to loss of this habitat.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Gray flycatcher (<i>Empidonax wrightii</i>)	FS	Southeast WA and eastern OR. Ponderosa pine, sagebrush, and pinyon juniper woodlands. On periphery of habitat in NSA. Winters in southwest US and southward.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Ash-throated flycatcher (<i>Myiarchus cinerascens</i>)	FS(WA)	Oak and juniper woodlands. Nests in natural or artificial cavities. Winters in southwest US and southward.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Black swift (<i>Cypseloides niger</i>)	FS(OR) OR-SP	Nests in waterfalls, steep cliffs, and damp caves out of direct sunlight. Highly suspected to be in NSA, but NSA is outside current known range. Neotropical migrant.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Vaux's swift (<i>Chaetura vauxi</i>)	WA-C	Forests and urban areas with hollow trees, bark, or chimneys provide nesting sites. Neotropical migrant.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Purple martin (<i>Progne subis</i>)	OR-SC WA-C	Western WA and OR up the Columbia River Gorge to western Wasco County. Cavity and crevice nester, often near water. Forages over open water, fields, and forest canopy. Winters in South America.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Mammals								
Grizzly bear (<i>Ursus arctos</i>)	T WA-E	Historically in lower 48 states, presently restricted to areas with low human populations, such as North Cascades Range.	Project alignment does not intersect species current range	NE on species or proposed critical habitat.	Project alignment does not intersect species current range	NE on species or proposed critical habitat.	Project alignment does not intersect species current range	NE on species or proposed critical habitat.
Gray wolf (<i>Canis lupus</i>)	E WA-E	Historically found in almost all habitats in lower 48 states; presently reintroduced in steppe, woodland, and forest habitats.	Project alignment is outside known range	NE on species. Critical habitat has been neither proposed nor designated in WA or OR.	Project alignment is outside known range	NE on species. Critical habitat has been neither proposed nor designated in WA or OR.	Project alignment is outside known range	NE on species. Critical habitat has been neither proposed nor designated in WA or OR.
California wolverine (<i>Gulo gulo</i>)	FS WA-C OR-T	Conifer forests. Intolerant of human encounters or disturbance. Requires very large home ranges. One sighting in last several decades of road-killed juvenile male on I-84, near Starvation Creek, January 1990.	No suitable habitat	NI	No suitable habitat	NI	No suitable habitat	NI
Pacific fisher (<i>Martes pennanti</i>)	FS WA-E OR-SC	Optimum habitat is dense, lower elevation, mature conifer forest, with large down logs for nesting. Likely extirpated in NSA and adjacent forests.	No suitable habitat.	NI	No suitable habitat	NI	No suitable habitat	NI
Columbian white-tailed deer (lower Columbia River population only) (<i>Odocoileus virginianus leucurus</i>)	E WA-E	Historic distribution in floodplains, bottomland riparian of Willamette and Lower Columbia River now limited to these lower southwest counties: Clark, Cowlitz, Pacific, Skamania, and Wahkiakum Counties, WA; Clatsop, Columbia, and Multnomah Counties, OR.	This portion of the CRGNSA is outside known range.	NE on species. Critical habitat has been neither proposed nor designated in WA or OR.	This portion of the CRGNSA is outside known range.	NE on species. Critical habitat has been neither proposed nor designated in WA or OR.	This portion of the CRGNSA is outside known range.	NE on species. Critical habitat has been neither proposed nor designated in WA or OR.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
White-tailed jackrabbit (<i>Lepus townsendii</i>)	WA-C OR-SU	East of Cascades. Open areas with native bunchgrass, sagebrush plains. Can also be found in coniferous forests and subalpine meadows. On periphery of habitat in NSA at The Dalles and Dallesport.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may remove habitats occupied by this species and result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Washington ground squirrel (<i>Spermophilus washingtoni</i>)	WA-C OR-E	Presently found in Columbia Basin of WA state in sagebrush/grassland w/ sandy soils; also Gilliam, Morrow and Umatilla counties, OR. May have historically been in the eastern edge of NSA.	Project alignment is outside known range.	NI	Project alignment is outside known range.	NI	Project alignment is outside known range.	NI
Western gray squirrel (<i>Sciurus griseus</i>)	FS (WA) OR-SU WA-T	Open mixed oak and conifer woodland, typically within 0.5 mile of water source. Core range for WA in Klickitat County. Known to occur in Hood River and in eastern OR. Easy to confuse with nonnative and invasive eastern gray squirrel.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Gray-tailed vole (<i>Microtus canicaudus</i>)	WA-C	Endemic to Clark County, WA and Willamette Valley, OR. Grassy and agricultural lands, meadows. On periphery of habitat in NSA. Common in OR.	Project alignment is outside known range.	NI	Project alignment is outside known range.	NI	Project alignment is outside known range.	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	FS (WA) WA-C, OR-SC	Throughout western US. Roost and hibernaculum sites in caves, buildings, mines, and bridge undersides, with exacting temp, humidity, and physical requirements. Very intolerant of human disturbance, which results in loss of critical fat reserves during torpid period.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Pacific fringe-tailed bat (<i>Myotis thysanodes vespertinus</i>)	FS	Nursery colonies and roosts in mines, caves, buildings, and similar conditions. Intolerant of human disturbance. Documented in Little White Salmon Subbasin in 1996. More common in southwest WA.	Project alignment is outside known range.	NI	Project alignment is outside known range.	NI	Project alignment is outside known range.	NI
Pacific pallid bat (<i>Antrozous pallidus</i>)	FS (OR) OR-SV	Arid area specialist. Daytime roosts in buildings and crevices, less often in caves and other shelters. Feeds primarily on the ground on large insects, scorpions, and other small prey.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.	May occur	MIIH. Project may result in temporary construction impacts (e.g., disturbance), but is not anticipated to result in a downward trend in the population.
Invertebrates								
California floater mussel (<i>Anodonta californiensis</i>)	WA-C	Shallow areas of lakes, ponds, reservoirs, and large rivers with muddy or sandy substrate. Historically found throughout western US, but presently known to occur as remnant populations in Columbia, Okanogan, and lower Willamette River systems. Intolerant of fluctuating water levels that decimate local populations.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Western ridged mussel <i>(Gonidea angulata)</i>	FS	Low to mid-elevation cold clean streams and rivers of the western US. Mainly east of the Cascades. Known stronghold in the larger rivers of the Snake and Columbia River systems.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Giant Columbia River limpet <i>(Fisherola nuttalli)</i>	WA-C	Historically in almost the entire Columbia River Basin, now restricted to a few remnant sites. In WA, confirmed in Hanford Reach of the Columbia River, as well as the Okanogan, Wenatchee and Methow Rivers. In OR, only documented in Deschutes River.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Great Columbia River spire snail <i>(Fluminicola columbiana)</i>	WA-C	Historically, widespread throughout the Lower Snake and Columbia Rivers and their larger tributaries. Now limited to a few reaches of the Columbia River system that remain free-flowing and colder. Confirmed in a few sites along the Columbia, Okanogan, Wenatchee and Methow Rivers in WA, and the Deschutes River in OR.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Puget Oregonian <i>(Cryptomastix devia)</i>	FS	Western Cascades at low to mid- elevations. Moist conifer forests, associated with bigleaf maple. Often found on or under hardwood logs, leaf litter, or under swordfern, moist rocks and talus. Young devia may be under mosses on trunk of bigleaf maple.	Outside known range. No suitable habitat.	NI	Outside known range; no suitable habitat	NI	Outside known range. No suitable habitat.	NI
Columbia Oregonian <i>(Cryptomastix hendersoni)</i>	FS	Low to mid elevations. Columbia Gorge in Wasco, Sherman, Skamania, and Klickitat Counties. Terrestrial species usually within 100 meters of streams, seeps, and springs (low elevation) in steppe communities. May also be in mid- elevation mature closed canopy forests among moist talus, leaf litter, or shrubs, or under logs or other debris.	May occur in riparian areas	NI. Project is not anticipated to impact suitable riparian habitat.	May occur in riparian areas	NI. Project is not anticipated to impact suitable riparian habitat.	May occur in riparian areas	NI. Project is not anticipated to impact suitable riparian habitat.
Evening fieldslug <i>(Deroceras hesperium)</i>	FS	Low to mid-elevation from the Cascades to the Pacific Ocean, with most currently documented sites east of the Cascade crest. Terrestrial species associated with perennially wet meadows in forested habitat; microsites include a variety of low vegetation, litter and debris, and rocks or talus.	May occur in wetland habitats	NI. Project is not anticipated to impact suitable wetland habitat.	May occur in wetland habitats	NI. Project is not anticipated to impact suitable wetland habitat.	May occur in wetland habitats	NI. Project is not anticipated to impact suitable wetland habitat.

Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	West Alternative		Middle Alternative		East Alternative	
			Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Malone's jumping slug (<i>Hemphilia malonei</i>)	FS-WA	Below 4,600-foot elevation. Benton County northward into western OR Cascades and into southwestern Cascades of WA. Terrestrial species associated with moist forest stands, generally older than 50 years, with more than 50% canopy cover, especially with dense swordfern and large woody material. Some found near marshy areas with low vegetation cover.	Outside known range. No suitable habitat.	NI. Project is not anticipated to impact suitable aquatic habitat.	Outside known range. No suitable habitat.	NI. Project is not anticipated to impact suitable aquatic habitat.	Outside known range. No suitable habitat.	NI. Project is not anticipated to impact suitable aquatic habitat.
Barren juga (<i>Juga hemphilli hemphilli</i>)	FS	Limited distribution in Columbia River Gorge (Clark and Skamania Counties, WA.), Johnson Creek, and Mt. Hood National Forest. Also likely to occur in Gifford-Pinchot National Forest. Found in smaller low-elevation streams, with low gradient, stable gravel substrate, moderate velocity, and highly oxygenated cold water.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Basalt juga (<i>Juga oreobasis, new sp. 2</i>)	FS (OR)	Occurs very sporadically in low elevation tributaries of the Columbia River in cold, oxygenated springs in central and eastern Columbia River Gorge (OR, WA). Sensitive to water temperature and sedimentation. Coexists with pristine springsnail and Columbia duskysnail.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Purple lipped juga (<i>Juga hemphilli manupinensis</i>)	FS (OR)	Suspected in NSA on the east side (OR). Documented in Deschutes River drainage. Found at low-elevation large streams in well-oxygenated and minimally affected gravel-cobble riffles in cold water.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Deschutes Mountain snail (<i>Oreohelix variabilis ssp. nov.</i>)	FS (OR)	Found on Deschutes Wild and Scenic River. Maybe in CRGNSA. Moderate xeric, rather open and dry areas, in large scale basalt taluses on steep, cool aspects. Assoc. w/ seeps springs, but not in wettest areas.	May occur in isolated areas in the Columbia Hills	NI. Project is not anticipated to impact suitable habitat.	May occur in isolated areas in the Columbia Hills	NI. Project is not anticipated to impact suitable habitat.	May occur in isolated areas in the Columbia Hills	NI. Project is not anticipated to impact suitable habitat.
Columbia Gorge caddisfly (<i>Neothremma andersoni</i>)	FS (OR)	Known only in the Columbia River Gorge in Wahkeena Creek in Multnomah County, OR, where it is apparently endemic. Larvae and pupa common above Gorge escarpment, less so as stream flows out onto the Columbia River floodplain.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.

Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	West Alternative		Middle Alternative		East Alternative	
			Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Wahkeena Falls flightless stonefly (<i>Zapada wahkeena</i>)	FS	Flightless – dispersal is only by aquatic matures. Known only in waterfalls at Wahkeena Falls in the NSA. Water quality important.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Columbia dusksnail (<i>Lyogyrus n. sp. 1</i>)	FS	Counties include Klickitat, Skamania, Cowlitz, Clark, Washington, Multnomah, Clackamas, and Hood River). Springs and spring outflows in cold, clear, and well-oxygenated water. Usually slow flow with moss substrate.	May occur within aquatic habitats.	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Oregon megomphix (<i>Megomphix hemphilli</i>)	FS (WA)	Puget Sound and Coast range to west foothills of Cascades in moist coniferous forests. Often in association with bigleaf maple and swordfern. Photo-phobic; seldom found on surface.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Dalles sideband (<i>Monadenia fidelis minor</i>)	FS	Central and east Gorge; Wasco and Klickitat Counties. Terrestrial species usually found within 200 meters of streams, seeps, or springs, in steppe or dry forest plant communities (in talus and moist rocky areas). May be found among rocks, shrubs, vegetation, and down wood.	May occur in riparian habitats	NI. Project is not anticipated to impact suitable riparian habitat.	May occur within riparian habitats	NI. Project is not anticipated to impact suitable riparian habitat.	May occur within riparian habitats	NI. Project is not anticipated to impact suitable riparian habitat.
Crowned tightcoil (<i>Pristiloma pilsbryi</i>)	FS	Historic range probably from southern Alaska to southern Oregon. Currently known from Clallam and Pacific Counties, WA; suspected in Grays Harbor, Wahkiakum, Cowlitz, and Clark Counties, WA; and in Multnomah, Clatsop, and Columbia Counties, OR. Very moist forests, including floodplains, in decaying leaf litter, commonly under dense salal, vine maple, waterleaf or other deciduous vegetation.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	West Alternative		Middle Alternative		East Alternative	
			Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Shiny tightcoil (<i>Pristiloma wascoense</i>)	FS (WA)	Reported from many widely separate (but imprecise) historic locations; in Wasco, Marion, and Wallowa Counties in Oregon; also reported from several counties in Idaho. Occurs rarely in Oregon; surveys in recent years in these areas have failed to relocate it. It is possible that <i>P. wascoense</i> is a small form or <i>P. cherisnella</i> , or represents a species complex in the northern portion of OR Cascades. Thought to generally occur in ponderosa pine and Douglas-fir plant associations at moderate to high elevations with likely preference for moist microsites such as basalt talus accumulations, usually with riparian influence.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Pristine springsnail (<i>Pristinicola hemphilli</i>)	FS (WA)	Scattered colonies in Columbia, Snake, and Willamette River watersheds, as well as southwest OR. Most sites are very small, undisturbed cold springs or seeps with slow to moderate flow; sometimes in larger springs and spring runs or spring-influenced portions of small streams.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.
Blue-gray taildropper (<i>Prophyaon coeruleum</i>)	FS (WA)	Widespread. Western Cascades and Puget trough, south to northern CA. Occurs on both sides of southern OR Cascades. Suspected on east slopes of Cascades in WA. Moist conifer and mixed conifer/hardwood forest, where litter is moist and shaded. Associated with decayed logs, leaf litter, mosses, and bigleaf maple and swordfern.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Columbia River tiger beetle (<i>Cicindela columbica</i>)	WA-C	Known to occur only in sandbars of Snake and Columbia River riparian area, east of Cascades.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.	May occur within aquatic habitats	NI. Project is not anticipated to impact suitable aquatic habitat.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Yuma skipper butterfly (<i>Ochlodes yuma</i>)	WA-C	Main population in Great Basin area with outliers in central and eastern OR and WA. Terrestrial species typically found near freshwater marshes, streams, ponds, lined with phragmites reeds. The only record in NSA found at Maryhill in 1999 on ornamental <i>Miscanthus</i>	May occur in riparian habitats	NI. Project is not anticipated to impact suitable riparian habitat.	May occur within riparian habitats	NI. Project is not anticipated to impact suitable riparian habitat.	May occur within riparian habitats	NI. Project is not anticipated to impact suitable riparian habitat.
Chinquapin hairstreak butterfly (<i>Habrodais grunus herri</i>)	WA-C	North-central OR, Skamania County, WA: Obligate with <i>Chrysolepis chrysophylla</i> . One known location near Stevenson, WA.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Johnson's hairstreak butterfly (<i>Callophry[Mitoura] johnsoni</i>)	WA-C	Cascades, Coast, Siskiyou, Blue, and Wallowa Mountains. Coniferous forest old-growth obligate.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Mardon skipper (<i>Polites mardon</i>)	WA-E	Historic distribution unknown. Present known distribution is disjunct northern CA, Puget Sound, and southern Cascades of WA. Open fescue grasslands, riparian, or meadows with nectar plant source. No known populations in the NSA but surveys by NSA office continue. Species decline likely due to loss of native grass-meadows and prairie habitat throughout northwest.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Vascular Plants								
Tall agoseris (<i>Agoseris elata</i>)	OR-2 WA-S FS-S	Meadows, open woods and exposed rocky ridge tops, from low elevations (2,900 feet) to timberline (7,800 feet).	Outside known range: project traverses the CRGNSA below 2,900 ft., below elevations where species generally occurs.	NI	Outside known range: project traverses the CRGNSA below 2,900 ft., below elevations where species generally occurs.	NI	Outside known range: project traverses the CRGNSA below 2,900 ft., below elevations where species generally occurs.	NI
Howell's bentgrass (<i>Agrostis howellii</i>)	OR-1 FS-S Endemic	Moist rocks on south side of Columbia River Gorge (Multnomah and Hood River Counties).	Outside known range.	NI	Outside known range.	NI	Outside known range.	NI
Sickle-pod rock cress (<i>Arabis sparsiflora</i> var. <i>atrorubens</i>)	OR-2 FS-S	Eastside, low elevation. Found in arid, sagebrush and ponderosa pine habitats.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Northern wormwood (<i>Artemisia campestris</i> spp. <i>borealis</i> var. <i>wormskioldii</i>)	OR-E OR-1 WA-E FS-S US-C	Gravelly beach areas of Columbia River. Miller Island in Gorge.	May occur	NI. Project alignment will not affect Miller Island and no towers will be located within the floodplain of the Columbia River.	May occur	NI. Project alignment will not affect Miller Island and no towers will be located within the floodplain of the Columbia River.	May occur	NI. Project alignment will not affect Miller Island and no towers will be located within the floodplain of the Columbia River.

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Hood River milk-vetch (<i>Astragalus hoodianus</i>)	OR-2 Endemic	Dry open areas of east Gorge.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.
Oregon bolandra (<i>Bolandra oregana</i>)	WA-S FS-S	Wet basalt cliffs.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Lance-leaved grape-fern (<i>Botrychium lanceolatum</i>)	OR-2 FS-S	Moist, wet areas in mountains.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Moonwort (<i>Botrychium lunaria</i>)	OR-2 FS-S	Moist wet areas but rarely in meadows. Low to high elevations in grassy slopes, meadows, turf ledges, open deciduous forests and hay fields.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Mountain grapefern (<i>Botrychium montanum</i>)	OR-2 FS-S	Forested and open areas in conifer forest zones.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Brewer reedgrass (<i>Calamagrostis breweri</i>)	OR-2 FS-S	Stream banks, lake margins, sub-alpine to alpine meadows.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Howell's reedgrass (<i>Calamagrostis howellii</i>)	Endemic	Steep north facing slopes at elevations ranging from 1,600 to 3,400 feet, generally within microsites that have very little soil development and limited development of competing vegetation. Rocky banks and crevices of cliffs in the Gorge.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Long-bearded sego lily <i>Calochortus longebarbatus</i> var. <i>longebarbatus</i>	WA-S FS-S	Found in open areas in vernal moist meadows, forest-meadow edges, and semi-open areas within coniferous woods. East slope of Cascades.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Dense sedge (<i>Carex densa</i>)	WA-T FS-S	Wet areas on both sides of Cascades. Occurs in habitats strongly influenced by fluctuating water levels, which may limit competition with other plants.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Lesser panicled sedge <i>Carex diandra</i>	OR-1 FS(OR)-S	Wet areas with saturated soils. Swampy, marshy or boggy areas including features such as wet meadows, fens, muskegs, floating mats, and shores of lakes and ponds.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Different nerve sedge <i>Carex heteroneura</i> (<i>Carex atrata</i> var. <i>erecta</i>)	FS-S	Montaine.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Pale sedge (<i>Carex livida</i>)	OR-2 FS-S	Willamette Valley.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Large-awn sedge (<i>Carex macrochaeta</i>)	WA-T OR-2 FS-S	Moist open places, coastal but suspected in Gorge.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Native sedge (<i>Carex vernacula</i>)	OR-2 FS-S	Alpine to sub-alpine. Dwarf size.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Golden paintbrush (<i>Castilleja levisecta</i>)	T OR-E OR-1 WA-E FS-S	Open fields, west side of Cascades.	Outside known range of species	NE	Outside known range of species	NE	Outside known range of species	NE
Cliff paintbrush (<i>Castilleja rubicola</i>)	OR-2 FS-S	Rocky cliffs at low to moderate elevations.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.
Golden chinquapin (<i>Chrysolepis chrysophylla</i>)	WA-S FS-S	Open to closed forest openings Low to mid elevations.	No suitable habitat	NI	No suitable habitat	NI	No suitable habitat	NI
Bulb-bearing water-hemlock (<i>Cicuta bulbifera</i>)	OR-2 WA-S FS-S	Wet places to standing water. Low elevations.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Tall bugbane (<i>Cimicifuga elata</i>)	OR-1 WA-S FS-S	Hardwood and mixed forest on west side.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Few-flowered blue-eyed Mary (<i>Collinsia sparaiflora</i> var. <i>bruceae</i>)	WA-S FS-S	Dry slopes with sparse vegetation on east side of Cascades. Low elevations.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.
Three-leaf goldthread (<i>Coptis trifolia</i>)	OR-2 WA-1 FS-S	Wasco County. Prefers wet to mesic forests, bogs, muskegs, willow scrub and tundra, often with mosses. Prefers partially shaded, cool, wet areas, and relatively infertile, acidic, poorly drained organic soils. The WA population grows in a coastal cedar bog.	No suitable habitat	NI	No suitable habitat	NI	No suitable habitat	NI
Cold-water corydalis (<i>Corydalis aqua-gelidae</i>)	OR-1 WA-S FS-S	Along cold streams on west side of Cascades.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Beaked cryptantha (<i>Cryptantha rostellata</i>)	WA-T FS-S	Dry open areas, east side Cascades.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Shining cyperus (<i>Cyperus bipartitus</i>)	FS-S	Wet places. Low elevation.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.
Clustered lady's-slipper (<i>Cypripedium fasciculatum</i>)	OR-2 WA-S FS-S	Open to closed forested woodlands. East side of Cascades.	No suitable habitat	NI	No suitable habitat	NI	No suitable habitat	NI
Fringed waterplantain (<i>Damasonium californicum</i>)	WA-T FS-S	Sloughs, marshes, and other standing waters.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Pale larkspur (<i>Delphinium leucophaeum</i>)	WA-E OR-1	West side (Multnomah County).	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Nuttall's larkspur (<i>Delphinium nuttallii</i>)	OR-2	Moist open ground and basaltic cliffs. Common on the gravelly outwash "prairie" remnants of prehistoric glaciations. Occurs west of the Cascades.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Smooth-leaf douglasia (<i>Douglasii laevigata</i> var. <i>laevigata</i>)	Endemic	Basalt cliffs and rocky outcrops, low elevation through the Gorge.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Howell's daisy (<i>Erigeron howellii</i>)	OR-1 WA-T Endemic FS-S	Open areas on ridges and rocky areas, primarily on north-facing slopes at elevations ranging from 1,600 to 3,400 ft. Found in microsites with minor soil development and little development of competing vegetation.	Outside known range of species	NI	Outside known range of species	NI	Outside known range of species	NI
Columbia Gorge daisy (<i>Erigeron oregonus</i>)	OR-1 WA-T Endemic FS-S	Overhanging basalt cliffs.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.
Oregon coyote-thistle (<i>Eryngium petiolatum</i>)	WA-T FS-S	Dry ephemeral wetlands in east Gorge.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.
Western wahoo (<i>Euonymus occidentalis</i>)	WA-T FS-S	In woods in west Cascades.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Black lily (<i>Fritillaria camschatcensis</i>)	OR-2 WA-S FS-S	Moist areas in west Cascades from coast to mountains.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Currant-leaf alumroot (<i>Heuchera grossularifolia</i> var. <i>tenuifolia</i>)	WA-S FS-S	Cliffs, often shaded, along streams or rivers in eastern Gorge.	May occur	MIIH. Project may habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may habitat removal, but is not expected to cause a downward trend in the population.

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Long-bearded hawkweed (<i>Hieracium longiberbe</i>)	Endemic	Open areas throughout Gorge.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in habitat removal, but is not expected to cause a downward trend in the population.
Howellia (<i>Howellia aquatilis</i>)	T OR-1 WA-T FS-S	Occurs in low elevation wetlands within the forested portions of the channeled scablands. Requires seasonally inundated wetlands, which dry out in late summer or early fall.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Columbia lewisia (<i>Lewisia columbiana</i> var. <i>columbiana</i>)	OR-2 FS-S	Open rocky areas in western Gorge, generally middle to high elevations.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Baker's linanthus (<i>Linanthus bolanderi</i>)	WA-S FS-S	Dry open areas in eastern Gorge.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Twayblade (<i>Liparis loeselii</i>)	WA-E FS-S	Wet or damp areas in forest.	No suitable habitat	NI	No suitable habitat	NI	No suitable habitat	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Smooth desert parsley (<i>Lomatium laevigatum</i>)	OR-2 WA-T FS-S Endemi c	Basalt cliffs and crevices in eastern Gorge. Documented in the vicinity BEK project	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in direct mortality of individuals of this species if present along the alignment and habitat removal, but is not expected to cause a downward trend in the population.
Salmon River lomatium (<i>Lomatium salmoniflorum</i>)	OR-2	Wasco County.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Suksdorf's desert parsley (<i>Lomatium suksdorfii</i>)	OR-2 WA-S FS-S Endemi c	Open wooded or open areas in eastern Gorge.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Watson's desert parsley (<i>Lomatium watsonii</i>)	OR-2 FS-S	Open hillsides and with sage brush, often amongst sagebrush on the eastside. Found in Kittitas, Yakima and Klickitat Counties in WA and Jefferson, Hood River and Wasco Counties in OR.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Columbia Gorge broad-leaf lupine (<i>Lupinus latifolius var thompsonianus</i>)	Endemic	Open areas in pine and oak woodlands.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Northern bog clubmoss (<i>Lycopodiella inundata</i>)	OR-2 WA-S FS-S	Wet, sandy places, wetlands adjunct to lakes, and swampy ground. Westside.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Ground cedar (<i>Lycopodium complanatum</i>)	OR-2 FS-S	Westside.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
White meconella (<i>Meconella oregana</i>)	OR-1 WA-T FS-S	Oak woodlands in eastern Gorge.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Northern microseris (<i>Microseris borealis</i>)	WA-S FS-S	Low to mid elevation wetlands.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Columbia monkey flower (<i>Mimulus jungermanniioides</i>)	OR-1 FS-S	Wet areas in east Cascades.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Pulsifer's monkey- flower (<i>Mimulus pulsiferae</i>)	WA-S FS-S	Wet areas.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Suksdorf's monkey- flower (<i>Mimulus suksdorfii</i>)	WA-S FS-S	Open, moist, or rather dry places.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Branching montia (<i>Montia diffusa</i>)	WA-S FS-S	Upturned root disturbances in the forest of Cascades.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Howell's montia (<i>Montia howellii</i>)	FS-S	Multnomah County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Marigold navarretia (<i>Navarretia tagetina</i>)	WA-T FS-S	Open rocky places at elevations of 250 to 450 feet, where there is standing water or saturated soil in early spring. Adjacent forests are composed of ponderosa pine and Douglas-fir. Garry oak is also present. Occurs in the transition zone between the forested and nonforested areas at the east end of the Gorge.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Adder's-tongue (<i>Ophioglossum pusillum</i>)	OR-2 WA-T FS-S	Terrestrial in pastures, fields, roadside ditches and floodplain woods in seasonally wet, rather acid soils.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Fringed grass-of-parnassus (<i>Parnassia frimbriata</i> var. <i>hoodiana</i>)	WA-T FS-S	Bogs, stream banks, wet areas (Multnomah, Hood, and Washington Counties, Oregon).	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Barrett's penstemon (<i>Penstemon barrettiae</i>)	OR-1 WA-T FS-S Endemic	Rocky cliffs, talus slopes in eastern Gorge.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Hot-rock penstemon (<i>Penstemon deustus</i> var. <i>variabilis</i>)	OR-SNR WA-1,2 FS(WA)-S	Found on open, dry soils over basalt at elevations ranging from 1,800 to 2,400 feet.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Henderson phlox (<i>Phlox hendersonii</i>)	OR-2 FS-S	Hood River County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Pine-foot (<i>Pityopus californica</i>)	WA-T FS-S	Low-elevation mixed conifer forest.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Coral seeded popcorn flower (<i>Plagiobothrys figuratus</i> ssp. <i>corallicarpus</i>)	OR-1 FS-S	Open areas in low-lying wet meadows that dry out in summer.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Canyon bog-orchid (<i>Platanthera sparsiflora</i>)	WA-T FS-S	Wet, boggy areas.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Pacific bluegrass (<i>Poa gracillima</i> var. <i>multnomae</i>)	Endemic	Mostly on south side of Gorge in rocky, shaded cliff near waterfalls.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Loose-flowered bluegrass (<i>Poa laxiflora</i>)	WA-S FS-S	Moist woods to open rocky slopes up to mid-elevations.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Wheeler's bluegrass (<i>Poa nervosa</i> var. <i>nervosa</i>)	WA-S FS-S	Limited to lower Columbia River and adjacent tributaries. Open slopes, ridges and talus slopes.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Great polemonium (<i>Polemonium carneum</i>)	WA-T FS-S	Mid-elevation forests in western Gorge.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Diverse-leaved cinquefoil (<i>Potentilla diversifolia</i> var. <i>perdissecta</i>)	WA-S FS-S	Moist, shady and open areas; gravelly soils of glacially carved areas; ledges and rocky slopes; stream banks.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Obscure buttercup (<i>Ranunculus reconditus</i>)	OR-E OR-1 WA-E FS-S Endemi c	Meadow steppe habitat dominated by bunchgrasses and forbs. Mostly found on north-facing slopes and crests of basalt ridges overlain by loess deposits of varying depth. Elevations in WA of 1,900 to 4,000 feet.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Thompson mistmaiden (<i>Romanzoffia thompsonii</i>)	FS-S OR-1	Seasonally wet, open, sunny cliffs and gravelly slopes. Occurs west of the Cascades.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Columbia yellow cress (<i>Rorippa columbiae</i>)	OR-1 WA-E FS-S	Mud flats along Columbia River. Documented in western Klickitat County/eastern Skamania County.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI
Scheuchzeria (<i>Scheuchzeria palustris</i> var. <i>americana</i>)	OR-2 FS-S	Multnomah County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Water clubrush (<i>Scirpus subterminalis</i>)	OR-2	Wasco County.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Scribner-grass (<i>Scribneria bolanderi</i>)	WA-S FS-S	Dry, sandy to rocky soil. Documented in western Klickitat County/eastern Skamania County.	No suitable habitat.	NI	No suitable habitat.	NI	No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Pale blue-eyed grass (<i>Sisyrinchium sarmentosum</i>)	OR-1 WA-T FS-S	Meadows and small openings that fill with snow or water in winter and spring, and variously dominated by grasses and sedges. Conifers such as lodgepole pine and Engelmann spruce, and shrubs such as hardhack border the meadows and are occasional invaders. Most sites are in either the Little White Salmon River or the White Salmon River Sub-basins ranging from 1,600 to 4,200 feet.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Western ladies' tresses (<i>Spiranthes porrifolia</i>)	WA-S FS-S	Open moist meadows.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Kruhsea (<i>Streptopus streptopoides</i>)	OR-2	Hood River, Multnomah Counties.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Violet suksdorfia (<i>Suksdorfia violacea</i>)	OR-2 FS-S	Moist cliffs at low elevations in middle Gorge.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.	May occur	MIIH. Project may result in removal of suitable habitat, but is not expected to cause a downward trend in the population.
Oregon sullivantia (<i>Sullivantia oregana</i>)	OR-1 WA-E FS-S Endemic	Wet basalt cliffs near waterfalls at low elevations in the western Gorge.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Columbia kittentails (<i>Synthyris stellata</i>)	Endemic	Shaded banks, cliffs, and ridges in the western Gorge.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Strickland's tauschia (<i>Tauschia stricklandii</i>)	OR-2 FS-S	Wet subalpine meadows in the western Gorge.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Flat-leaved bladderwort (<i>Utricularia intermedia</i>)	WA-S FS-S	Slow-moving water or streams.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Lesser bladderwort (<i>Utricularia minor</i>)	OR-2	Found in low nutrient lakes and peat-bog pools in the lowland and montane zones at elevations from 135 – 4,000 ft. Obligate wetland species. Wasco County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Siskiyou False hellebore (<i>Veratrum insolitum</i>)	WA-T FS-S	Dry, open woods and brush in the middle Gorge. Documented in western Klickitat County/eastern Skamania County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Dotted water-meal (<i>Wolffia borealis</i>)	FS-S OR-2	Freshwater ponds and slow-flowing ditches with high levels of organic material. Natural ponds as well as in log and sewage treatment ponds. Willamette Valley and near the Columbia River in Columbia County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Columbia water-meal (<i>Wolffia columbiana</i>)	OR-2	Freshwater lakes, ponds, and slow streams below elevations of 650 feet.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Fungi								
Greening goat's foot <i>Albatrellus ellisii</i> (WA only)	OR-2,3 FS (WA)- S	Grows in woods, prefers conifers, and common in the mountains of western North America.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Giant polypore fungus <i>Bridgeoporus nobilissimus</i>	OR-1	On boles of noble firs. Multnomah County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Truffle eater <i>Cordyceps capitata</i> (Former S&M)	S&M	Grows on ground, associated with <i>Elaphomyces</i> truffles, which are generally associated with both hardwood and coniferous forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Cortinarius barlowensis</i> (OR only)	OR-2 FS (OR)- S	Associated with conifer forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Cudonia monticola</i>	OR-2,3 FS-S	Associated with conifer forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Gomphus kauffmanii</i>	OR-3 FS-S	Associated with conifer forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Umbrella false morel <i>Gyromitra californica</i>	S&M	Associated with rotting wood in conifer forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Helvella crassitunicata</i>	OR-2	Fungus. Hood River County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Hygrophorus caeruleus</i>	OR-2	Fungus. Hood River County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Yellow false truffle <i>Leucogaster citrinus</i>	OR-3, 4 FS-S	Associated with conifer forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
<i>Macowanites mollis</i>	OR-1	Fungus. Multnomah County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Mycena monticola</i> (Former S&M)	S&M	Restricted to conifer forests above 1,000 meters in elevation.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Otidea smithii</i>	OR-2 FS-S	Associated with Douglas-fir, western hemlock, and cottonwood.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Phaeocollybia attenuata</i>	OR-3 FS-S	Associated with conifers.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Phaeocollybia californica</i> (OR only)	OR-1	Fungus. Multnomah County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Olive <i>Phaeocollybia</i> (<i>Phaeocollybia olivacea</i>) (OR only)	FS (OR)-S	Associated with mixed woods and conifers.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Phaeocollybia oregonensis</i>	OR-1	Fungus. Multnomah County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Phaeocollybia piceae</i>	OR-3 FS-S	Associated with Douglas-fir, western hemlock, and Pacific silver fir.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Phaeocollybia pseudofestiva</i>	OR-3 FS-S	Associated with conifers.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Phaeocollybia scatesiae</i>	OR-3 FS-S	Associated with conifers and blueberry.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Ramaria amyloidea</i>	OR-2 FS-S	Associated with conifers.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
<i>Ramaria cyaneigranosa</i> (WA only)	FS (WA)-S	Associated with conifers and hardwoods.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Ramaria gelatiniaurantia</i>	OR-2 FS-S	Associated with conifers.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Ramaria rubrievanescens</i> (WA only)	OR-2 FS (WA)-S	Associated with conifers and hardwoods.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Violet hedgehog <i>Sarcodon fuscoindicus</i> (WA only)	OR-2,3 FS (WA)-S	Associated with mixed forest.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Sowerbyella rhenana</i>	OR-3 FS-S	Associated with conifers.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Fairy fan <i>Spathularia flavida</i> (WA only)	FS (WA)-S	Associated with humus or rotten wood in coniferous forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Lichens								
<i>Cetraria cetrarioides</i> (WA only)	S&M	WA—Grows primarily on bark, and occasionally on mossy rock. Most common host tree is <i>Alnus rubra</i> . Most common in moist riparian and valley bottom forests, especially older <i>A. rubra</i> stands over seepy or swampy ground.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Chaenotheca subroscida</i>	S&M	WA, OR—Associated with humid intermontane old-growth forests at lower and middle elevations. Grows on conifer bark and occasionally wood.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Collema nigrescens</i> (WA only)	S&M	WA—Grows on bark of hardwood trees and shrubs, including Garry oak, canyon live oak, bigleaf maple, cottonwood, and vine maple.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Dendroscocaulon intricatulum</i> (WA only)	S&M	WA—In old-growth western forests and in open oak balds.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Dermatocarpon luridum</i>	S&M	WA, OR—Aquatic on submerged or seasonally emergent rocks.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Hypogymnia duplicata</i> (OR only)	S&M	OR—Western Cascade forests at mid-elevations of 1,000 to 5,500 feet.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Leptogium burnetiae</i> var. <i>hirsutum</i>	S&M	WA, OR—Epiphytic on trees, logs, rocks, mosses.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Leptogium cyanescens</i>	S&M	WA, OR—Tree bark both conifers and hardwoods, logs, rocks in cool, moist sites	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Lobaria linita</i> (OR only)	S&M	OR—Cool, humid old-growth forest on boles of silver firs and boulders.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Nephroma bellum</i> (WA only)	S&M	WA—Western Cascades, mostly on conifer branches.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Nephroma occultum</i>	S&M	WA, OR — Moist old-growth forests at elevations below 4,000 feet.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

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Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
<i>Pannaria rubiginosa</i>	S&M	WA, OR — Epiphyte on Hooker's willow at low elevations in old-growth western forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Peltigera neckeri</i> (Former S&M)	S&M	WA, OR — Mossy logs, soil and tree bases in moist forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Peltigera pacifica</i>	S&M	WA, OR — Mossy logs, soil and tree bases in moist forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Pilophorus nigricaulis</i> (Former S&M)	S&M	WA, OR — On rocks in talus slopes, cliffs in old-growth forests.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Platismatia lacunosa</i> (WA only)	S&M	WA — Western conifer forest.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Pseudocyphellaria rainierensis</i>	S&M	WA, OR — Conifers in cool, humid, old-growth western forests	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Ramalina pollinaria</i> (Former S&M)	S&M	CA only.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Tholurna dissimilis</i>	S&M	WA, OR — High elevation, wind- swept trees.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Usnea longissima</i>	S&M	WA, OR — Wet forest.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Bryophytes								
Ribbed mountain moss (<i>Conostomum tetragonum</i>)	OR-2	Hood River County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
Crum's extinguisher moss (<i>Encalypta brevicolla</i> var. <i>crumiana</i>) (Former S&M)	OR-1 WA-1 FS-S	Associated with crevices and fractures on large igneous rock outcrops. Only reported from two sites, Mt. Rainier National Park and the Siskiyou National Forest.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Braided Frostwort <i>Gymnomitrium concinatum</i>	OR-2	Liverwort, Hood River and Multnomah Counties.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
<i>Polytichium sphaerothecium</i>	OR-2	Hood River County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Nake round moss <i>Rhizomnium nudum</i> (OR only)	OR-2	Very moist humus or soil, typically near seepage in conifer forest. Wasco County.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Goblin's gold <i>Schistostega pennata</i>	OR-2 FS-S	Fine-textured mineral soil in shaded pockets of overturned tree roots, often adjacent to shallow pools of standing water at the base of the root wad; also attached to rock or mineral soil around the entrance to caves, old cellars and animal burrows.	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI
Margined streamside moss <i>Scouleria marginata</i> (Former S&M)	OR-2 FS (WA)-S	Wet and often inundated rocks along watercourses, from low to high elevations.	May occur	NI. Species associated with aquatic habitat. Project not expected to impact suitable habitat for this species.	May occur	NI. Species associated with aquatic habitat. Project not expected to impact suitable habitat for this species.	May occur	NI. Species associated with aquatic habitat. Project not expected to impact suitable habitat for this species.
<i>Tetraphis geniculata</i>	OR-2	Moist forests with large down logs .	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI	Outside known range. No suitable habitat.	NI

			West Alternative		Middle Alternative		East Alternative	
Species (Population Segment)	Status	Usual Habitat in Oregon and Washington	Potential Occurrence	Impact	Potential Occurrence	Impact	Potential Occurrence	Impact
<p>Notes:</p> <p>Forest Service Region 6 (OR/WA) sensitive species = FS</p> <p>Endangered Species Act (federal) listed species status codes: E, T, S, C, or P (see below)</p> <p>WA = Washington State listed species status codes: E, T, S, or C (see below)</p> <p>OR = Oregon state listed species status codes: E, T, or SC = Sensitive Critical, SV = Sensitive Vulnerable, SP = Sensitive Peripheral or naturally rare, SU = Sensitive Undetermined status</p> <ul style="list-style-type: none"> • E = Endangered • T = Threatened • S = Sensitive • C = Candidate • P = Proposed <p>Effect Determination Codes:</p> <ul style="list-style-type: none"> • NE = No Effect (for federally protected species) • NI = no impact (for species not federally protected) • MIIH = may impact individuals or habitat, but would not likely contribute to a trend toward federal listing or loss of viability to the population or species • WIFV = will impact individuals or habitat with a consequence that the action may contribute to a trend toward federal listing or cause a loss of viability to the population or species • BI = beneficial impact • NLAA = may affect, but is not likely to adversely affect • LAA = may affect, and will likely adversely affect 								