



WASHINGTON STATE

Joint Aquatic Resources Permit Application (JARPA) Form^{1,2} [\[help\]](#)

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE WHITE SPACES BELOW.



US Army Corps
of Engineers®
Seattle District

AGENCY USE ONLY

Date received: _____

Agency reference #: _____

Tax Parcel #(s): _____

Part 1—Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [\[help\]](#)

Interstate 90 (I-90) / State Route (SR) 18 Interchange to Deep Creek – Interchange Improvements & Widening Project

Part 2—Applicant

The person and/or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle)

Maas, John A.

2b. Organization (If applicable)

Washington State Department of Transportation (WSDOT)

2c. Mailing Address (Street or PO Box)

P.O. Box 330310 Mailstop 138

2d. City, State, Zip

Seattle, Washington, 98133

2e. Phone (1)

(206) 440-4545

2f. Phone (2)

(206) 999-3696

2g. Fax

(206) 440-4805

2h. E-mail

maasja@wsdot.wa.gov

¹Additional forms may be required for the following permits:

- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.

²To access an online JARPA form with [\[help\]](#) screens, go to

http://www.epermitting.wa.gov/site/alias_resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx.

For other help, contact the Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.

Part 3—Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.) [\[help\]](#)

3a. Name (Last, First, Middle)			
Hardt, Christian M.			
3b. Organization (If applicable)			
WSDOT			
3c. Mailing Address (Street or PO Box)			
P.O. Box 330310 Mailstop 138			
3d. City, State, Zip			
Seattle, Washington, 98133			
3e. Phone (1)	3f. Phone (2)	3g. Fax	3h. E-mail
(206) 440-4534	(360) 510-9726	(206) 440-4805	hardtcm@consultant.wsdot.wa.gov

Part 4—Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both **upland and aquatic** ownership because the upland owners may not own the adjacent aquatic land. [\[help\]](#)

- Same as applicant. (Skip to Part 5.)
- Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- There are multiple upland property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.
- Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete [JARPA Attachment E](#) to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
4b. Organization (If applicable)			
4c. Mailing Address (Street or PO Box)			
4d. City, State, Zip			
4e. Phone (1)	4f. Phone (2)	4g. Fax	4h. E-mail

Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [\[help\]](#)

- There are multiple project locations (e.g. linear projects). Complete the section below and use [JARPA Attachment B](#) for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]			
<input type="checkbox"/> Private <input type="checkbox"/> Federal <input checked="" type="checkbox"/> Publicly owned (state, county, city, special districts like schools, ports, etc.) <input type="checkbox"/> Tribal <input type="checkbox"/> Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)			
5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]			
<p>The project area includes the I-90/SR 18 interchange and extends along SR 18 from the interchange to Deep Creek (milepost (MP) 25.41). The I-90/SR 18 interchange is located about 300 feet south of the City of Snoqualmie, with North Bend to the east and Issaquah to the west. The project construction limits extend approximately from I 90 MP 24.80 to MP 27.49 and on SR 18 from MP 25.41 to MP 27.91 and along Snoqualmie Parkway from CORDI50+00 – CORDI 60+81.22 (see <i>JARPA Drawing Sheet 1, Vicinity Map</i>).</p> <p>The project is outside of the Urban Growth Area (UGA) in King County, Washington, with portions of the project occurring on U.S. Forest Service (USFS) land in the Mount Baker-Snoqualmie National Forest, King County owned public road, Washington Department of Natural Resources (WDNR) parcels, WSDOT right of way, and private property. The project is in the Upper Snoqualmie River watershed (watershed 1711001004) (BLM 2012) at the upper extent of Water Resource Inventory Area (WRIA) 7 Snohomish. Commencement of partial property acquisitions of USFS, WDNR, and two private parcels are in progress.</p>			
5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]			
Nearest city - Snoqualmie, WA, 98065			
5d. County [help]			
King County			
5e. Provide the section, township, and range for the project location. [help]			
¼ Section	Section	Township	Range
SW	2, 3 10, 11, & 15	23 North	7 East
5f. Provide the latitude and longitude of the project location. [help]			
<ul style="list-style-type: none"> Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83) 			
The approximate center of the project is 47.496695 N lat. / -121.886184 W long.			
5g. List the tax parcel number(s) for the project location. [help]			
<ul style="list-style-type: none"> The local county assessor's office can provide this information. 			
Improvements will occur within the WSDOT publicly owned state right-of-way (ROW) that does not have a tax parcel number.			
5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]			
Name	Mailing Address	Tax Parcel # (if known)	
See Attachment C			

5i. List all wetlands on or adjacent to the project location. [\[help\]](#)

There are forty-four (44) wetlands within the vicinity of the project. The wetland determinations are based on the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Regional Supplement; USACE 2010), the Department of Ecology (DOE) Wetland Rating System (2014) and the King County Code (2018).

The wetlands were rated using the Western Washington Wetland (Department of Ecology) Rating System (Hruby 2014) (see Table 1). There were six (6) Category I wetlands, seventeen (17) Category II wetlands, twenty (20) Category III wetlands, and one (1) Category IV wetland.

Table 1. Summary of wetlands delineated in the study area

#	Wetland	USFWS Classification ^a	HGM Classification ^b	Ecology Rating (2014) ^c	Wetland Size (sf/acres) ^d	King County Buffer Width (ft) ^e
Lake Creek Drainage						
1	LC-01	PFO/PSS	Depressional	I	34,374/0.79	300
2	LC-02	PSS/PEM	Depressional	I	660/0.02	150
3	LC-03	PFO/PSS	Depressional	I	17,124/0.39	300
4	LC-04	PFO	Depressional/ Riverine/Slope	I	281,160/6.45	150
5	LC-05	PSS/PEM	Slope	III	4,549/0.10	150
6	LC-06	PFO/PSS	Depressional	III	>8,250/0.19	150
7	LC-07	PEM	Slope	III	>16,500/0.38	80
8	LC-08*	N/A	N/A	II		300
9	LC-09*	N/A	N/A	II		300
10	LC-11	PFO/PSS	Depressional	III	6,962/0.16	150
11	LC-12	PFO/PSS	Depressional/ Slope	II	10,030/0.23	150
12	LC-13	PSS	Slope	III	1,634/0.04	150
13	LC-14	PFO/PSS	Slope	III	4,748/0.11	150
14	LC-15	PFO/PSS	Slope	IV	2,114/0.05	50
15	LC-16	PSS/PEM	Slope	III	6,277/0.14	80
16	LC-17	PSS/PEM	Slope	III	9,596/0.22	80
17	LC-18	PFO	Slope	III	4,697/0.11	150
18	LC-19	PFO	Depressional	II	15,267/0.35	150
19	LC-20	PFO/PSS	Slope	III	38,297/0.90	150
20	LC-21	PFO/PSS	Depressional	III	1,111/0.03	150
21	LC-22	PFO/PSS	Depressional	II	3,191/0.07	150
22	LC-23	PSS/PEM	Slope	III	>2,600/0.06	80
23	LC-24	PEM/PFO/PSS	Riverine/Depressional	I	>1,154,000/26.5	300
24	LC-25	PFO/PSS	Depressional	III	2,310/0.05	150
25	LC-26	PSS/PEM	Depressional	III	507/0.01	150
26	LC-27	PFO/PSS/PEM	Depressional	II	>313,500/7.20	300
27	LC-28	PFO/PSS/PEM	Depressional	I	>402,500/>9.24	300
28	LC-29	PSS/PEM	Depressional	II	11,850/0.272	150
Raging River Drainage						
29	RR-02	PFO/PSS	Depressional	II	8,000/0.18	300
30	RR-03	PFO/PSS	Depressional	III	4,900/0.07	300
31	RR-04	PFO	Depressional / Riverine / Slope	III	>5,000/0.12	300
32	RR-05	PSS	Riverine	II	4,500/0.10	300
33	RR-06	PFO/PSS	Slope	II	3,300/0.08	300
34	RR-07	PFO/PSS	Depressional / Riverine	II	>14,000/0.32	300

35	RR-08	PFO/PSS	Depressional	III	>6,000/0.14	300
Deep Creek Drainage						
36	DC-01	PFO/PSS	Slope	III	3,500/0.08	300
37	DC-02	PSS/PEM	Riverine	II	4,250/0.10	300
38	DC-03	PFO/PSS	Depressional/Riverine	II	20,200/0.46	300
39	DC-04	PFO/PSS	Slope	III	>28,250/0.64	300
40	DC-05	PFO/PSS	Slope	III	>26,900/0.61	300
41	DC-06	PSS	Depressional	II	3,441/0.08	150
42	DC-07	PSS/PEM	Riverine	II	2,067/0.05	300
43	DC-08	PSS/PEM	Riverine	II	1,995/0.05	300

Note: Wetland LC-10 was determined to be a stormwater conveyance and not a wetland and was removed from this table. Wetland RR-01 was reclassified to the Lake Creek Drainage and is now LC-29.

*Ratings based on King County Critical Areas Map information. Wetlands were not delineated due to the inability to access the fenced private land. The buffer is assumed based on the listed rating.

a FGDC 2013; Cowardin et al. 1979

b Brinson 1993

c Hruby 2014

d KCC 21A.24.325

PFO = palustrine forested; PSS = palustrine scrub-shrub; PEM = palustrine emergent

See the *Wetland and Stream Assessment Report* for detailed information.

5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [\[help\]](#)

A total of twenty (20) streams were identified and mapped within the vicinity of the project. These streams are as follows: Lake Creek (Stream LC-A), the Raging River (Stream RR-A), Deep Creek (Stream DC-A), eight unnamed tributaries to Lake Creek (Streams LC-B through LC-J), three unnamed tributaries to the Raging River (Streams RR-B through RR-D), and four unnamed tributaries to Deep Creek (Streams DC-B through DC-F). Lake Creek and Deep Creek are major tributaries to the Raging River. Table 2 lists these streams.

Table 2. Summary of Streams in the Study Area

Stream ^a	Discharges to	Stream Type (WDNR ^b /KCC ^c)	King County ^d /USFS Buffer Width (feet)
Lake Creek(LC)/LC-A	Raging River	F/F	165/300
LC-B	Lake Creek	F/F	165/300
LC-C	Lake Creek	F*/F*	165/300
LC-D	Lake Creek	F*/F*	165
LC-E	Lake Creek	F/F	165
LC-F	Lake Creek	N*/N*	65
LC-G	Lake Creek	F/F	165
LC-H	Lake Creek	F*/F*	165
LC-I	Lake Creek	F*/F*	165
LC-J	Lake Creek	F*/F*	165
Raging River (RR)/RR-A	Snoqualmie River	S/S	165
RR-B	Raging River	N/O	25
RR-C	Raging River	N/F*	165
RR-D	Raging River	N/N	65
Deep Creek (DC)/DC-A	Raging River	S/S	165
DC-B	Deep Creek	N/N	65
DC-C	Deep Creek	N/N	65

DC-D	Deep Creek	F*/F	165
DC-E	Deep Creek	F*/F	165
DC-F	Deep Creek	N/N	65

^a Stream identifier

^b WDNR stream types. Type F = waters provide fish habitat (WDNR 2018); Type S = shorelines of the state; Type N = Nonfish habitat streams

^c KCC 21A.24.355; Type O stream

^d KCC 21A.24.358(C); King County buffers applied for streams outside the UGA

^e USDA et al. 1994.

* Assumed (i.e., not mapped and not investigated for fish presence)

See the *Wetland and Stream Assessment Report* for detailed information.

5k. Is any part of the project area within a 100-year floodplain? [\[help\]](#)

Yes No Don't know

5l. Briefly describe the vegetation and habitat conditions on the property. [\[help\]](#)

Habitat Conditions

The project area is primarily forested upland and wetland areas associated with Deep Creek, the Raging River, Lake Creek, and their tributaries, with WDNR forest land, USFS land, and rural residences adjacent to the riparian corridor. The areas closest to I-90 and SR 18 are primarily road fill material, with reed canarygrass (*Phalaris arundinacea*), osoberry (*Oelmeria cerasiformis*), Himalayan blackberry (*Rubus armeniacus*) and western swordfern (*Polystichum munitum*) dominating vegetation adjacent to the roadway prism. Other dominant species in the project area include cottonwood (*Populus balsamifera*), Douglas fir (*Pseudotsuga menziesii*), Western hemlock (*Tsuga heterophylla*), salmonberry (*Rubus spectabilis*), and salal (*Gaultheria shallon*).

There is suitable fish habitat within the project area. Anadromous fish species use the Raging River, Deep Creek, and Lake Creek. Stream and fish habitat within the immediate vicinity of fish barriers at the crossings with Lake Creek, Raging River and Deep Creek, as well as within, reach both upstream and downstream, are detailed in the Preliminary Hydraulic Design Reports for this project, and are available on request. Wetland complexes provide excellent habitat for both aquatic and terrestrial species. See figures 1 through 7 below:



Figure 1: Lake Creek: stream and wetland/riparian habitat



Figure 2: Lake Creek Culvert



Figure 1: Raging River: stream and wetland/riparian habitat



Figure 2: Deep Creek: stream and wetland/riparian habitat



Figure 3: Deep Creek Culvert



Figure 4: Typical upland forested area

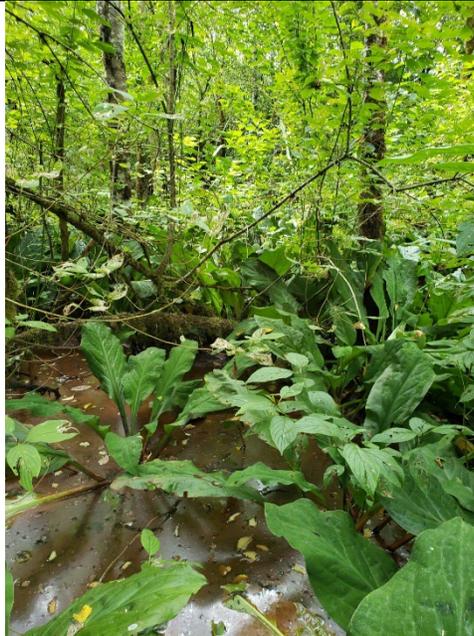


Figure 5: Typical high-category wetland

WSDOT and consultant biologists identified forest stands with suitable habitat for nest platforms for marbled murrelet (*Brachyramphus marmoratus*) (threatened) within the project area.

Vegetation:

Tree species include: Douglas fir, black cottonwood, bigleaf maple, red alder, Sitka spruce and western hemlock.

Shrubs include: salmonberry, vine maple, common ladyfern, redosier dogwood, Oregon-grape and western swordfern.

Grasses, rushes and sedges include: colonial bentgrass, spike bentgrass, smoothstem sedge, slough sedge, sawbeak sedge, orchard grass, red fescue, tapertip rush and joint-leaf rush.

See the *Wetland and Stream Assessment Report (Appendix F)* for a full plant list.

5m. Describe how the property is currently used. [\[help\]](#)

The project area is primarily within WSDOT right-of-way and is comprised of existing transportation infrastructure. The interchange between I-90 and SR 18 functions as an intersection between the two major highways, and is a major freight corridor. See *JARPA Drawing Sheet 1, Vicinity Map*. In the northwest portion of the interchange is a decommissioned weigh station. To the west of SR 18 is a WSDOT maintenance yard. The majority of the remaining area either side of the transportation corridor, within project limits, is unimproved USFS and WDNR forested land.

5n. Describe how the adjacent properties are currently used. [\[help\]](#)

The properties adjacent to the project are mostly rural residential and active forest land operations. Parcels surrounding the project are owned primarily by USFS, King County, and WDNR, with some private property north of I-90 and west of Echo Lake. King county public roads connect to the existing state highways. The City of Snoqualmie is located approximately 300 feet to the north of the project area, with the Snoqualmie Valley Hospital approximately 1000' north of the interchange.

5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [\[help\]](#)

Above-ground structures

- The project area consists mainly of paved roadways on top of road prisms consisting of fill material.
- There are bridges/ramps in the interchange providing grade separation for the highways.
- There is a two-lane bridge over Raging River which allows traffic to flow in both a northbound and southbound direction.
- In the northwest portion of the interchange there is a decommissioned, non-functioning weigh station.
- To the west of SR 18 is a WSDOT maintenance yard. This is used semi-regularly for storage and staging of materials, and is in good condition.

Below-ground structures

- There are numerous culverts within the project area of varied condition. Many of these are underground, hydraulic structures only. This project proposes to address 14 fish passage barriers.
- The following utilities are potentially located within the project footprint (but yet to be confirmed): aerial and underground telecommunications, aerial and underground power, buried gas, and WSDOT signals.

5p. Provide driving directions from the closest highway to the project location, and attach a map. [\[help\]](#)

The interchange portion of the project is at the intersection of I-90 and SR 18. The widening portion of the project is on SR 18. From Seattle, follow I-90 E to WA-18 W. Take exit 25 from I-90 E (interchange portion of work) and turn right onto WA-18 (widening portion of work). Refer to *JARPA Drawing Sheet 1, Vicinity Map*.

Part 6—Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [\[help\]](#)

Project Overview

The project proposes to construct a diverging diamond interchange (DDI) at the I-90/SR 18 interchange and will widen SR 18 to four lanes to Deep Creek. The project is broken into two major components, one is the I-90/SR 18 Interchange and the other is the SR 18 widening to Deep Creek. The project also includes fish barrier correction at Lake Creek and Deep Creek, and a new bridge crossing of the Raging River. A total of 14 fish passage barriers will be addressed as part of this project. Also as part of this project, the existing closed weigh station located in the northwest quadrant of the interchange will be removed. Major project components and their subcomponents are discussed in the following subsections:

I-90/SR 18 Interchange Diverging Diamond Interchange

A 4-lane diverging diamond interchange will replace the existing diamond interchange at I-90 and SR 18. Major work elements between SE 99th St and SE 104th St include roadway, pavement, drainage, signalization, illumination, intelligent transportation system (ITS) devices, signing, striping and landscaping. A new stream will be constructed along the east side of the roadway along with new fish passable culverts under the westbound-off and eastbound-on ramps. A new pedestrian accessible route will be constructed along the west side of the roadway that will connect between the westbound-on and eastbound-off ramps. The pedestrian route will be forward compatible with future planned regional trails by Mountains to Sound Greenway, WDNR, and the City of Snoqualmie.

SR 18 Widening to Deep Creek

SR 18 will be widened from three existing lanes to a total of four lanes between SE 104th Street to just south of Deep Creek, with a new intersection control at the intersection of SR 18 and SE 104th Street. The existing twin circular concrete culverts at Lake Creek will be replaced with a new four-lane bridge, with a minimum 44 foot span to provide fish passage. A new two-lane bridge will be constructed for the southbound direction across the Raging River. The existing Raging River Bridge will be converted for use by two northbound lanes. A new four lane bridge will replace the existing Deep Creek culvert. SR 18 between Deep Creek and the southern project

limit will be reduced to three lanes to tie into the existing three lanes. Other major construction activities include roadway, pavement, drainage, signing, striping, and landscaping.

Raging River Bridge and In-water Work

At the crossing of the Raging River, a new two-lane bridge will be constructed for the two new southbound lanes and the existing bridge will be converted for use by two northbound lanes. The existing bridge is an approximately 300-foot long, 3-span reinforced concrete box girder bridge supported by reinforced concrete columns and drilled shafts. No structural alteration of the existing bridge is anticipated for the project.

The new bridge will be constructed adjacent to the existing structure and will be 38 feet wide to accommodate two travel lanes and shoulders. The total area of the bridge deck will be approximately 11,400 square feet.

Temporary work trestles will be constructed from both ends of the embankments and may cross the river; however, no foundations will be within the OHWM. Therefore, in-water work is not anticipated for the temporary and permanent work.

Deep Creek Bridge and In-water Work

Deep Creek currently flows under SR 18 in a 12-foot-wide, 260-foot-long corrugated steel culvert. The culvert, identified by WDFW as site 07.0396, is listed as fish passage barrier due to slope. The existing culvert will be replaced by a new three-span pre-stressed concrete girder bridge. The new bridge will be approximately 400 feet long and 79 feet wide to accommodate three travel lanes and shoulders. The two southbound lanes will be separated from the northbound lanes by a median barrier. An extra wide shoulder will be constructed on the west side of the bridge to accommodate widening of the roadway across the bridge to four lanes in the future.

Stormwater Treatment & Discharge

The project improvements at the I-90/SR 18 interchange and SR 18 widening section add impervious area within the project limits. SR 18 is a high stormwater retrofit priority, and this project will exceed the standards from the WSDOT Highway Runoff Manual. The drainage approach assumes that the existing TDA boundaries and main outfalls within the TDA will be maintained to the extent feasible.

Stormwater Discharge

- Lake Creek - Lake Creek will receive direct (treated) stormwater discharge from a stormwater pond. It will also receive indirect, treated stormwater discharge, which has passed through other tributaries and wetlands prior.
- Raging River - Treated stormwater will discharge from a nearby stormwater pond to a flow dispersion control and will then sheet flow to the OHWM of Raging River. There will also be indirect stormwater discharge to Raging River through a wetland.
- Deep Creek - Deep Creek will also receive direct (treated) stormwater from a nearby stormwater pond. There will also be indirect discharge of stormwater to Deep Creek, once it has passed through wetlands.
- There will be direct discharge of treated stormwater to jurisdictional wetlands

Fish Passage and Habitat Enhancement

A significant environmental benefit of the proposed project is the fish and wildlife habitat enhancement proposed. Over 11 miles of fish habitat will be opened up for salmonids and other aquatic species through the replacement of undersized stream culverts. Of great importance to one of the Treaty Tribes, is the correction of the fish passage barrier at Deep Creek through the replacement of the existing 12-foot-diameter, 264-foot-long culvert with a structure with a minimum 100-foot hydraulic opening. By correcting the fish passage barrier, the WDFW barrier assessment shows a potential upstream habitat gain of over 11 miles (58,756 linear feet). This includes roughly 3.86 acres of spawning area and 7.95 acres of rearing habitat. Such a structure will not only benefit fish, including listed salmonids, but terrestrial wildlife utilizing the area as well.

At Lake Creek, the proposed project would replace the two existing 3.5-foot-diameter, 80-foot-long concrete culverts with a minimum 40-foot span (hydraulic opening) structure to improve fish passage while providing a safe roadway for the traveling public. WDFW reports 7,113 feet of linear habitat gain above the SR 18 Lake Creek culvert. This includes 0.39 acres of potential spawning habitat and 3.6 acres of potential rearing habitat.

The project also proposes to construct a series of modifications to the Unnamed Tributary to Lake Creek, removing barriers to fish passage and enhancing fish habitat throughout the project reach. Currently inaccessible habitat within and upstream of the I-90/SR 18 interchange will be connected to fish habitat downstream of the project area. Six fish passage barriers will be replaced by consolidating the stream into a daylighted reach between the I-90 westbound off-ramps and the I-90 eastbound on-ramp, including a portion beneath the I-90 eastbound and westbound bridges. This daylighted stream will cross the I-90 westbound off-ramp and I-90 eastbound on-ramp in two fish-passable crossings. The result will be a net reduction of road crossings from six existing barriers to two fish-passable crossings, as well as a minimum upstream habitat gain of 1,720 linear feet in the daylighted stream channel.

6b. Describe the purpose of the project and why you want or need to perform it. [\[help\]](#)

Due to rapid growth and development in the city of Snoqualmie and the surrounding communities, as well as increased regional truck traffic, the I-90/SR 18 interchange experiences severe congestion during peak periods. This congestion affects access to and from the city of Snoqualmie and contributes to delay in the transport of trucked goods to and from the ports of Tacoma and Seattle. Heavy congestion and backups on both I-90 and SR 18 routes during peak periods and busy travel weekends are common and degrade the safety performance of the interchange.

The purpose of the project is to:

- Provide additional capacity at the I-90/SR 18 interchange and along SR 18 to Deep Creek (MP 25.41)
- Improve safety
- Reduce existing congestion.

In addition, this project proposes to address fourteen (14) barriers to fish passage. Over 11 miles of fish habitat will be opened up for salmonids and other aquatic species through the replacement of undersized stream culverts (see Section 6a).

6c. Indicate the project category. (Check all that apply) [\[help\]](#)

- Commercial
 Residential
 Institutional
 Transportation
 Recreational
 Maintenance
 Environmental Enhancement

6d. Indicate the major elements of your project. (Check all that apply) [\[help\]](#)

<input type="checkbox"/> Aquaculture	<input checked="" type="checkbox"/> Culvert	<input type="checkbox"/> Float	<input type="checkbox"/> Retaining Wall (upland)
<input checked="" type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam / Weir	<input type="checkbox"/> Floating Home	<input checked="" type="checkbox"/> Road
<input type="checkbox"/> Boat House	<input type="checkbox"/> Dike / Levee / Jetty	<input type="checkbox"/> Geotechnical Survey	<input type="checkbox"/> Scientific Measurement Device
<input type="checkbox"/> Boat Launch	<input checked="" type="checkbox"/> Ditch	<input type="checkbox"/> Land Clearing	<input type="checkbox"/> Stairs
<input type="checkbox"/> Boat Lift	<input type="checkbox"/> Dock / Pier	<input type="checkbox"/> Marina / Moorage	<input checked="" type="checkbox"/> Stormwater facility
<input checked="" type="checkbox"/> Bridge	<input type="checkbox"/> Dredging	<input type="checkbox"/> Mining	<input type="checkbox"/> Swimming Pool
<input type="checkbox"/> Bulkhead	<input type="checkbox"/> Fence	<input type="checkbox"/> Outfall Structure	<input type="checkbox"/> Utility Line
<input type="checkbox"/> Buoy	<input type="checkbox"/> Ferry Terminal	<input type="checkbox"/> Piling/Dolphin	
<input checked="" type="checkbox"/> Channel Modification	<input type="checkbox"/> Fishway	<input type="checkbox"/> Raft	

Other:

6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [\[help\]](#)

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

Final construction sequence to be determined by the contractor, but may be as follows:

Project Commencement

Site Preparation & Temporary Erosion and Sediment Control Measures

- Site preparation including construction staking, area mobilization, temporary pavement markings, work bench and trestle construction, signing, traffic barriers, clearing and grubbing
- Installation of temporary erosion and sediment control elements (TESC) and other Best Management Practices (BMP) following the site specific storm water pollution prevention plan (SWPPP) for each construction area and stage of the project. WSDOT environmental and project inspectors will monitor and inspect installation of BMP's to confirm regulatory compliance.

Detours

- Shift SR 18 traffic to temporary configuration for detours while work is being done.
- Detours for 90/18 interchange work. The following detour routes for closures at the I90/SR18 interchange:
 - SR18 to WB I-90 Ramp Closure: Traffic to be detoured to EB I-90 on-ramp onto EB I-90, detour to exit 27 (exit 31 for trucks) and detour to WB I-90 on-ramps onto WB I-90.
 - SR18 to EB I-90 Ramp Closure: Traffic to be detoured to WB I-90 on-ramp onto WB I-90, detour to exit 22 and detour to EB I-90 on-ramps onto EB I-90.
 - WB I-90 to SR18 Ramp Closure: Traffic to be on WB I-90, detour to exit 22 and detour to EB I-90 on-ramps onto EB I-90, detour to exit 25 (SR18).
 - EB I-90 to SR18 Ramp Closure: Traffic to be on EB I-90, detour to exit 27 (exit 31 for trucks) and detour to WB I-90 on-ramps onto WB I-90, detour to exit 25 (SR18).
 - SR18 closure under I-90 structures: Right turn movements will be preserved, left turn movements at the interchange will be detoured in the same manner as the respective ramps listed above.

Stormwater Facilities

- Stormwater facilities (ponds) to be constructed during SR18 Stage 2, while the new SR18 roadway is constructed.

SR 18 Mainline

Stage 1:

- Lake Creek Bridge
- Construction of temporary stream bypass for Lake Creek following fish windows and construction of temporary bridge

Stage 2:

- SR 18 Mainline Beginning to Deep Creek
- Embankment construction for Deep Creek Bridge pier construction and for the remaining SR 18 Deep Creek Bridge Pier 1.
- Placement and installation of road features such as, crushed surface base course material, hot mixed asphalt pavement, and roadside features such as guard rails.

- Deep Creek Bridge
- Set span girders and construct deck and approaches

- SR18 Mainline Deep Creek to Raging River
- Grading work

- Placement and installation of road features such as, crushed surface base course material, hot mixed asphalt pavement, and roadside features such as guard rails.
- Raging River Bridge
- Construction of Raging River Bridge piers.
- Construction of Raging River Bridge deck and approaches.
- SR 18 Mainline Raging River through Cut Section
- Excavation of existing roadway
- Placement and installation of road features such as, crushed surface base course material, hot mixed asphalt pavement, and roadside features such as guard rails.
- SR 18 Mainline Fill Section to Lake Creek Bridge
- Embankment construction including the addition of stormwater ponds.
- Placement and installation of road features such as, crushed surface base course material, and hot mixed asphalt pavement.
- Lake Creek Bridge
- Construct temporary walls for the existing roadway embankment.
- Place soldier pile walls for piers 1 and 2.
- Excavation for bridge pier foundations.
- Construction of pier foundations and piers.
- Culvert removal and excavation for Lake Creek Stream construction.
- Construction of Lake Creek Bridge deck and approaches.

Stage 3:

- Roadway
- Final roadside cleanup and landscaping.
- Transitioning to final traffic configuration.

Stage 3 completion

- Deep Creek Bridge
- Construction of bridge piers.
- Construction and placement of bridge deck and approaches.
- Existing Raging River Bridge
- Deck rehabilitation
- Stream restoration following fish window
- Lake Creek Bridge
- Removal of temporary walls
- Placement of soldier piles
- Excavate and construct new bridge pier foundations
- Construct pier stem walls
- Culvert removal and excavation
- Lake Creek Stream construction
- Bridge deck and approach construction

I90 /SR 18 Interchange Diamond Diverging Interchange

Stage 1:

- Phase 1
- Construct roadway and ramp sections including new stormwater ponds
- Prepare roadway subgrades for paving
- Placement and installation of road features such as, crushed surface base course material, and hot mixed asphalt pavement

- Construct North section of the West and East bound off/on ramp culverts
- Phase 2
- Remove pavement
- Construct South section of the West and East bound off/on ramp culverts

- Stream LC-G Bypass
- Construct Stream LC-G

Stage 2:

- SR 18 fish passage walls LC-G
- Remove concrete slope protection and pothole footings
- Test anchor installation and testing
- Install tie back anchors and precast panels
- Install dewatering wells and observation piezometers
- Construct tangent piles
- Form, cast and cure 3 sided box culvert and slop protection
- Construct stream channel over box
- Reroute stream LC-G bypass to final location during in water work window
- Remove existing pavement at ramps and median barrier islands
- Construct diverging diamond interchange median barrier islands and sidewalks
- Pavement rehab for State Route 18 under Interstate 90 on the east side

Stage 3:

- Shared Path walls
- Demolish concrete slop protection
- Pothole footings
- Construct gravity block wall
- Install and construct wall drainage
- Construction of a shared use path and slop protection
- Remaining pavement rehab on State Route 18 under Interstate 90, including buried conduit.

Stage 4:

- Construct diverging diamond interchange median barrier between interchange intersections
- Installation of traffic signing and signals

Construction closeout

6f. What are the anticipated start and end dates for project construction? (Month/Year) [\[help\]](#)

- If the project will be constructed in phases or stages, use [JARPA Attachment D](#) to list the start and end dates of each phase or stage.

Start Date: June 2022 End Date: September 2024 See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [\[help\]](#)

\$182.6 M

6h. Will any portion of the project receive federal funding? [\[help\]](#)

- If **yes**, list each agency providing funds.

Yes No Don't know

Part 7–Wetlands: Impacts and Mitigation

- Check here if there are wetlands or wetland buffers on or adjacent to the project area.
(If there are none, skip to Part 8.) [\[help\]](#)

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [\[help\]](#)

Not applicable

This WSDOT project will result in multiple types of impacts to wetlands and wetland buffers. This project was designed to avoid and minimize impacts to wetlands and associated buffers.

Along the length of the project, the project footprint was reduced to the extent feasible by steepening the highway side slopes. New ROW fencing will be required in areas where the ROW has been expanded. The project design considered pulling in the new ROW fence to the project's clear/grub edge to reduce tree impacts, but WSDOT policy requires that the fence be placed adjacent to (just inside of) the outer ROW boundary.

A hydroperiod analysis was conducted to verify that the stormwater design would not hydrologically impact project wetlands. The project design also includes enhanced stormwater treatment to reduce water quality impacts to wetlands and streams. WSDOT avoided or minimized permanent impacts to wetlands and their buffers by shifting stormwater detention ponds away from these environmentally sensitive areas, where practicable. Other roadside stormwater treatment (predominately media filter drains) were also designed and located to avoid impacts to wetlands and their buffers when possible. Shifting stormwater facilities to avoid all impacts to wetlands and buffers would have, in some cases, resulted in greater environmental impacts (including clearing of marbled murrelet suitable habitat) and was not feasible due to stormwater requirements, road widening, and general site constraints.

The design has reduced the amount of clearing to the extent practicable, and will minimize permanent impacts to wetlands, streams, and their buffers by replanting impacted areas outside of clear zones and sight distance requirements with native trees and shrubs after construction is complete. Temporarily impacted wetlands and buffers that cannot be restored as forested areas will be replanted with native shrub communities. Compensatory mitigation will replace wetland area and functions lost as a result of these unavoidable impacts.

BMPs will be implemented during construction of the project to avoid or minimize adverse impacts to wetlands, streams, and their buffers. High visibility fencing will be used to demarcate clearing limits and to keep equipment out of environmentally sensitive areas. Stormwater BMPs will be utilized to limit erosion and subsequent sediment-laden water from entering wetlands. To reduce clearing impacts associated with installing new ROW fence along the expanded ROW, the fencing will be manually transported and installed without the use of motorized equipment. Clearing will be limited to trimming with hand-held equipment and no trees will be removed. Any areas that are cleared will be replanted.

Site Specific measures:

Lake Creek

The project will correct a fish passage barrier at Lake Creek by removing two 3.5-foot-diameter culverts and replacing them with a fish passable structure. The project proposes to avoid permanent impacts to Lake Creek by replacing the existing culverts with a single-span bridge that has a minimum 40-foot-wide hydraulic opening; thereby avoiding any piers in the stream channel and associated floodplain. The project initially proposed a roundabout or traffic signal at the intersection of SR 18 and SE 104th Street. These improvement alternatives were eliminated to reduce impacts to the buffers of Wetlands LC-4, LC-5, and LC-27.

The access road associated with Gate 817 has challenging ingress/egress due to the narrow driveway, limited sight distance, and high speeds of SR 18. The driveway will be expanded; however, the acceleration and deceleration tapers were reduced as much as possible to avoid and minimize impacts to Wetlands LC-3 and LC-4 and their buffers.

Deep Creek

Widening SR 18 and constructing the Deep Creek bridge will require the relocation of Stream DC-C further to the west. Due to steep slopes in the area, it was difficult to find an alignment that would have a streambed slope that would not result in significant impacts to the surrounding mature forested area. The current design was a result of several revisions to minimize forested impacts and impacts to Wetland DC-3.

7b. Will the project impact wetlands? [\[help\]](#)

Yes No Don't know

7c. Will the project impact wetland buffers? [\[help\]](#)

Yes No Don't know

7d. Has a wetland delineation report been prepared? [\[help\]](#)

- **If Yes**, submit the report, including data sheets, with the JARPA package.

Yes No

7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [\[help\]](#)

- **If Yes**, submit the wetland rating forms and figures with the JARPA package.

Yes No Don't know

7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [\[help\]](#)

- **If Yes**, submit the plan with the JARPA package and answer 7g.
- **If No, or Not applicable**, explain below why a mitigation plan should not be required.

Yes No Don't know

See Draft Wetland and Stream Mitigation Plan.

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [\[help\]](#)

The *Draft Wetland and Stream Mitigation Plan* addresses the mitigation and restoration proposed for unavoidable impacts to wetlands, streams, and buffers in the project area. The mitigation approach for the project includes a combination of purchasing credits at a wetland mitigation bank, on-site restoration, and on-site mitigation/correction of the SE 104th Street fish barrier. The proposed compensatory mitigation strategy for wetlands is to purchase credits at a mitigation bank in the same watershed, either the Snohomish Basin Mitigation Bank (SBMB) or Skykomish Habitat Mitigation Bank (SHMB). Compensatory mitigation is not proposed for work associated with the fish passage work as part of this project. The compensatory mitigation approach for the remaining project stream impacts includes partnering with King County to correct a fish passage barrier immediately adjacent to the project impacts. The mitigation strategy for this project supports the larger watershed restoration goals and was developed in collaboration with federal, state, and tribal partners.

7h. Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [\[help\]](#)

Activity (fill, drain, excavate, flood, etc.)	Wetland Name ¹	Wetland type and rating category ²	Impact area (sq. ft. or Acres)	Duration of impact ³	Proposed mitigation type ⁴	Wetland mitigation area (sq. ft. or acres)
Permanent Wetland Impacts						
Fill	LC-1	I	0.070 AC	Permanent	B	0.140 AC
Fill	LC-2	II	0.015 AC	Permanent	B	0.030 AC

Fill	LC-4	I	0.023 AC	Permanent	B	0.046 AC
Fill (for fish passage)	LC-4	I	0.005 AC	Permanent	None	Not applicable
Excavation	LC-7	III	0.358 AC	Permanent	B	0.358 AC
Fill (for fish passage)	LC-12	II	0.000 AC (12 sq. ft.)	Permanent	None	Not applicable
Fill	LC-23	III	0.054 AC	Permanent	B	0.054 AC
Fill and Excavation	LC-27	II	0.006 AC	Permanent	B	0.007 AC
Fill and Excavation	LC-28	I	0.027 AC	Permanent	B	0.054 AC
Fill	LC-29	II	0.004 AC	Permanent	B	0.005 AC
Fill	DC-1	III	0.040 AC	Permanent	B	0.040 AC
Fill and Excavation (for fish passage)	DC-1	III	0.039 AC	Permanent	None	Not applicable
Fill (for fish passage)	DC-2	II	0.004 AC	Permanent	None	Not applicable
Fill	DC-3	II	0.165 AC	Permanent	B	0.198 AC
Fill and Excavation (for fish passage)	DC-4	III	0.063 AC	Permanent	None	Not applicable
Excavation (for fish passage)	DC-5	III	0.035 AC	Permanent	None	Not applicable
Fill	DC-6	II	0.003 AC	Permanent	B	0.004 AC
Fill	DC-7	II	0.028 AC	Permanent	B	0.034 AC
Total			0.940 AC	Total		0.970 AC
Temporary Wetland Impacts						
Vegetation Removal & Surface Disturbance	LC-1	I	0.057 AC	Long-term Temporary	R, B	R: 0.057 AC B: 0.114 AC
Vegetation Removal & Surface Disturbance	LC-3	I	0.002 AC	Long-term Temporary	R, B	R: 0.002 AC B: 0.004 AC
Vegetation Removal & Surface Disturbance	LC-4	I	0.057 AC	Long-term Temporary	R, B	R: 0.057 AC B: 0.114 AC
Vegetation Removal & Surface Disturbance (for fish passage)	LC-4	I	0.005 AC	Long-term Temporary	R	R: 0.005 AC
Vegetation Removal & Surface Disturbance (for fish passage)	LC-12	II	0.005 AC	Long-term Temporary	R	R: 0.005 AC
Vegetation Removal & Surface Disturbance	LC-13	III	0.001 AC	Short-term Temporary	R	R: 0.001 AC
Vegetation Removal & Surface Disturbance	LC-27	II	0.031 AC	Long-term Temporary	R, B	R: 0.031 AC B: 0.037 AC
Vegetation Removal & Surface Disturbance (for fish passage)	LC-27	II	0.005 AC	Long-term Temporary	R	R: 0.005 AC
Vegetation Removal & Surface Disturbance	LC-28	I	0.088 AC	Long-term Temporary	R, B	R: 0.088 AC B: 0.176 AC
Vegetation Removal & Surface Disturbance	LC-29	II	0.006 AC	Short-term Temporary	R	R: 0.006 AC
Vegetation Removal & Surface Disturbance	RR-8	III	0.002 AC	Long-term Temporary	R, B	R: 0.002 AC B: 0.002 AC

Vegetation Removal & Surface Disturbance (for fish passage)	DC-2	II	0.002 AC	Short-term Temporary	R	R: 0.002 AC
Vegetation Removal & Surface Disturbance	DC-3	II	0.090 AC	Long-term Temporary	R, B	R: 0.090 AC B: 0.108 AC
Vegetation Removal & Surface Disturbance (for fish passage)	DC-4	III	0.064 AC	Long-term Temporary	R	R: 0.064 AC
Vegetation Removal & Surface Disturbance (for fish passage)	DC-5	III	0.039 AC	Long-term Temporary	R	R: 0.039 AC
Vegetation Removal & Surface Disturbance	DC-6	II	0.006 AC	Short-term Temporary	R	R: 0.006 AC
Total			0.459 AC	Total		R: 0.460 AC B: 0.555 AC
Wetland to Stream Conversion Impacts						
Conversion to Stream	LC-4	I	0.011 AC	Permanent	None	Not Applicable
Conversion to Stream (for fish passage)	LC-4	I	0.007 AC	Permanent	None	Not Applicable
Conversion to Stream	LC-27	II	0.009 AC	Permanent	None	Not Applicable
Conversion to Stream (for fish passage)	LC-27	II	0.012 AC	Permanent	None	Not Applicable
Conversion to Stream	LC-28	I	0.010 AC	Permanent	None	Not Applicable
Conversion to Stream (for fish passage)	DC-1	III	0.001 AC (30 sq. ft.)	Permanent	None	Not Applicable
Conversion to Stream	DC-3	II	0.002 AC	Permanent	None	Not Applicable
Conversion to Stream (for fish passage)	DC-4	III	0.015 AC	Permanent	None	Not Applicable
Conversion to Stream (for fish passage)	DC-5	III	0.001 AC (32 sq. ft.)	Permanent	None	Not Applicable
Conversion to Stream	DC-6	II	0.000 AC (19 sq. ft.)	Permanent	None	Not Applicable
Conversion to Stream	DC-7	II	0.001 AC	Permanent	None	Not Applicable
Total			0.069 AC	Total		Not Applicable
Indirect Impacts						
Indirect Impact from Upland Tree Removal	LC-1	I	0.146 AC	Permanent	B	0.146 AC
Indirect Impact from Upland Tree Removal	LC-3	I	0.129 AC	Permanent	B	0.129 AC
Indirect Impact from Upland Tree Removal	LC-4	I	0.452 AC	Permanent	B	0.452 AC
Indirect Impact from Upland Tree Removal	LC-11	III	0.028 AC	Permanent	B	0.028 AC
Indirect Impact from Upland Tree Removal	LC-25	III	0.033 AC	Permanent	B	0.033 AC
Indirect Impact from Upland Tree Removal	LC-26	III	0.005 AC	Permanent	B	0.005 AC
Indirect Impact from Upland Tree Removal	LC-27	II	0.369 AC	Permanent	B	0.369 AC
Indirect Impact from Upland Tree Removal	LC-28	I	0.315 AC	Permanent	B	0.315 AC

Indirect Impact from Upland Tree Removal	LC-29	II	0.023 AC	Permanent	B	0.023 AC
Indirect Impact from Upland Tree Removal	DC-3	II	0.071 AC	Permanent	B	0.071 AC
Total			0.379 AC	Total		1.572 AC
¹ If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report. ² Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package. ³ Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable. ⁴ Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)						

Page number(s) for similar information in the mitigation plan, if available: _____

7i. For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [\[help\]](#)

Wetland fill will be unavoidable at several locations in association with new stormwater facilities, new roadway fill, and fish passage barrier corrections. All wetland fill will be permanent in nature; no temporary wetland fills will be required. Fill material will come from a State of Washington approved source and will meet WSDOT standards for roadway construction material. WSDOT ensures material quality for fill soil meets environmental and structural standards. Fill will be placed using a variety of heavy equipment.

Wetland Name	Fill Volume (cubic yards)	Description
Permanent		
LC-1	894	Fill in and above wetland to expand roadway prism grade
LC-2	342	Fill in and above wetland to expand roadway prism grade
LC-4	363	Fill in and above wetland to expand roadway prism grade and to realign Lake Creek to correct the fish passage barrier
LC-12	1	Fill in and above wetland associated with daylighting Stream LC-G to correct fish passage barrier
LC-23	339	Fill in and above wetland for proposed interchange improvements
LC-27	6	Fill in and above wetland associated with stormwater treatment feature, Stream LC-B relocation
LC-28	82	Fill in and above wetland to expand roadway prism grade
LC-29	54	Fill in and above wetland to expand roadway prism grade
DC-1	986	Fill in and above wetland to expand roadway prism grade and for the Deep Creek realignment to correct the fish passage barrier
DC-2	1	Fill in and above wetland to correct fish passage on Deep Creek
DC-3	2,602	Fill in and above wetland to build bridge over Deep Creek and to realign Stream DC-C due to expansion of roadway prism
DC-4	228	Fill in and above wetland to correct fish passage on Deep Creek
DC-6	1,026	Fill in and above wetland to expand roadway prism grade
DC-7	359	Fill in and above wetland to expand roadway prism grade

7j. For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [\[help\]](#)

Wetland excavation will be unavoidable in association with fish passage barrier corrections as well as stream realignments for roadway expansion. All wetland excavation will be permanent, no temporary wetland excavation will be required. Excavated materials will be removed using a variety of heavy equipment and tested for contamination before being disposed at approved disposal facilities.

Wetland Name ¹	Cut Volume (cubic yards)	Description
Permanent		
LC-7	8,236	Excavation in and below wetland to construct new I90/SR18 interchange stormwater facilities
LC-27	12	Excavation in and below the wetland associated with Stream LC-B realignment
LC-28	172	Excavation in and below the wetland associated with Stream LC-B realignment
DC-1	1	Excavation in and below wetland for Deep Creek realignment to correct the fish passage barrier
DC-4	114	Excavation in and below wetland for Deep Creek realignment to correct the fish passage barrier
DC-5	174	Excavation in and below the wetland to correct the fish passage barrier

¹ If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.

Part 8—Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, "waterbodies" refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [\[help\]](#)

Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [\[help\]](#)

Not applicable

This project was designed to avoid and minimize impacts to waterbodies on or adjacent to this project. The following contains design information related to this effort.

Construction Impact Avoidance and Minimization Measures:

BMPs will be implemented during construction of the project to avoid or minimize adverse impacts to wetlands, streams, and their buffers. High visibility fencing will be used to demarcate clearing limits and to keep equipment out of environmentally sensitive areas. Stormwater BMPs will be utilized to limit erosion and subsequent sediment-laden water from entering wetlands and streams. To reduce clearing impacts associated with installing new ROW fence along the expanded ROW, the fencing will be manually transported and installed without the use of motorized equipment. Clearing will be limited to trimming with hand-held equipment and no trees will be removed.

Site Specific Design Measures:

Lake Creek

The project will correct a fish passage barrier at Lake Creek by removing two 3.5-foot-diameter culverts and replacing them with a fish passable structure. The project proposes to avoid permanent impacts to Lake

Creek by replacing the existing culverts with a single-span bridge that has a minimum 40-foot-wide hydraulic opening; thereby avoiding any piers in the stream channel and associated floodplain.

This project also includes constructing a chain up area along SR 18, which was located to avoid Stream LC-C and Stream LC-C buffer impacts.

A stormwater pond was initially proposed in the Stream LC-D buffer, southwest of the interchange. The stormwater design was revised in order to relocate the stormwater pond to the I-90 median, west of the interchange. Although the stormwater pond still impacts Stream LC-D's buffer, impacts are in a disturbed area. Moving the pond reduced impacts to the forested, higher-quality portion of the Stream LC-D buffer. Permanent impacts to Stream LC-I are unavoidable due to required stormwater facilities. However, the stormwater design was revised to maximize hydrologic input to Stream LC-I and maintain existing conditions as much as possible.

All in-water work in Lake Creek will be completed during the in-water work window of July 1 through September 15. To avoid roadway closures, the project may take up to two in-water work windows to complete the bridge construction. However, the stream will be restored in between the in-water work window periods (i.e., a stream bypass will not be used outside of the in-water work window).

Raging River

Impacts to the Raging River buffer are unavoidable due to the necessary bridge abutments and associated fill placement for the new bridge. However, the project was designed to avoid impacts below the ordinary high water mark of Raging River. The proposed bridge will be a multi-span bridge with no in water piers.

Stream RR-D has unavoidable impacts associated with repairing a landslide area and regrading a steep slope adjacent to SR 18. The design team reviewed moving Stream RR-D further from the highway, but determined that the impacts to the mature forest in the area would outweigh any benefits associated with moving the stream channel further from the road. The design also initially included regrading Stream RR-C as part of the Stream RR-D hillside regrade to reduce the overall slope between Streams RR-C and RR-D. However, it was determined that fixing the grade was not worth the impacts to Stream RR-C and associated wetlands. Instead, media filter drains will be installed between the SR 18 roadway and Stream RR-D to provide enhanced stormwater treatment. This will direct stormwater runoff away from Stream RR-D, and the treated water will discharge to Stream RR-C. Although the loss of roadway runoff into Stream RR-D may diminish overall water conveyance quantity, it will result in an increase in water quality in both Streams RR-C and RR-D.

A temporary work trestle over Raging River will be required to move construction equipment from the south side of the river to the north side during construction of the new bridge. The temporary work trestle will fully span the Raging River. No in-water piles will be used.

Deep Creek

The project will correct a fish passage barrier at Deep Creek by removing a 12-foot-diameter culvert and replacing it with a fish passable structure. The project will avoid permanent impacts to Deep Creek by replacing the culvert with a single-span bridge that has a minimum 100-foot-wide hydraulic opening; thereby avoiding any piers in the stream channel and associated floodplain. To reduce impacts to wildlife, the ROW fence in the Deep Creek area will be limited to a wildlife-passable fence to allow animals to cross SR 18 beneath the Deep Creek bridge. The Deep Creek stream design includes banks that are at least five feet wide to allow for terrestrial wildlife passage.

The access road associated with Gate 834 has unsafe ingress/egress due to the narrow driveway, limited sight distance, and high speeds of SR 18. The driveway will be expanded; however, the acceleration and deceleration tapers were reduced as much as possible to avoid and minimize impacts to Stream DC-E and its buffer.

All in-water work in Deep Creek and its tributaries will be completed during the in-water work window (July 1 through September 15). The new bridge will be constructed outside of the ordinary high water mark, and the

in-water work will be limited to one in-water work window when the existing culvert is removed, the streambed regraded, and the habitat features placed in the new stream channel.

8b. Will your project impact a waterbody or the area around a waterbody? [\[help\]](#)

Yes No

8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [\[help\]](#)

- **If Yes**, submit the plan with the JARPA package and answer 8d.
- **If No, or Not applicable**, explain below why a mitigation plan should not be required.

Yes No Don't know

See Draft Wetland and Stream Mitigation Plan.

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g you do not need to restate your answer here. [\[help\]](#)

See 7g.

8e. Summarize impact(s) to each waterbody in the table below. [\[help\]](#)

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name ¹	Impact location ²	Duration of impact ³	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Excavation	Stream LC-A (Lake Creek)	In waterbody	Permanent	Excavation: 1	6 sq. ft. for fish passage
Fill	Stream LC-B	In waterbody	Permanent	Fill: 467	4,204 sq. ft.
Fill	Stream LC-E	In waterbody	Permanent	Fill: 82	2,206 sq. ft.
Excavation	Stream LC-F	In waterbody	Permanent	Excavation: 240	1,851 sq. ft.
Fill and Excavation	Stream LC-G	In waterbody	Permanent	Fill: 151 Excavation: 52	1,911 sq. ft. (for fish passage) and 2,171 sq. ft.
Excavation	Stream LC-H	In waterbody	Permanent	Excavation: 204	1,834 sq. ft.
Fill and Excavation	Stream LC-I	In waterbody	Permanent	Fill: 100 Excavation: 24	904 sq. ft.
Fill	Stream LC-J	In waterbody	Permanent	Fill: 10	271 sq. ft.
Fill	Stream RR-B	In waterbody	Permanent	Fill: 108	693 sq. ft.
Fill	Stream RR-D	In waterbody	Permanent	Fill: 517	6,979 sq. ft.
Fill and Excavation	Stream DC-A (Deep Creek)	In waterbody	Permanent	Fill: 783 Excavation: 200	4,227 sq. ft. for fish passage
Fill	Stream DC-C	In waterbody	Permanent	Fill: 86	2,329 sq. ft.
Fill and Excavation	Stream DC-D	In waterbody	Permanent	Fill: 5 Excavation: 4	124 sq. ft. for fish passage
Fill and Excavation	Stream DC-E	In waterbody	Permanent	Fill: 18 Excavation: 1	3 sq. ft. for fish passage and 962 sq. ft.
Fill	Stream DC-F	In waterbody	Permanent	Fill: 14	736 sq. ft.

Temporary

Vegetation Removal/Surface Disturbance & Stream Diversion	Stream LC-A (Lake Creek)	In waterbody	Temporary	0*	982 sq. ft. for fish passage
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream LC-B	In waterbody	Temporary	0*	9,394 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream LC-C	In waterbody	Temporary	0*	346 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream LC-G	In waterbody	Temporary	0*	1,307 sq. ft. for fish passage and 345 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream LC-H	In waterbody	Temporary	0*	639 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream LC-I	In waterbody	Temporary	0*	247 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream LC-J	In waterbody	Temporary	0*	112 sq. ft. for fish passage and 337 sq. ft.
Vegetation Removal/Surface Disturbance	Stream RR-B	In waterbody	Temporary	0	604 sq. ft.
Vegetation Removal/Surface Disturbance	Stream RR-C	In waterbody	Temporary	0	97 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream RR-D	In waterbody	Temporary	0*	987 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream DC-A (Deep Creek)	In waterbody	Temporary	0*	4,549 sq. ft. for fish passage
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream DC-C	In waterbody	Temporary	0*	46 sq. ft.
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream DC-D	In waterbody	Temporary	0*	509 sq. ft. for fish passage
Vegetation Removal/Surface Disturbance & Stream Diversion	Stream DC-E	In waterbody	Temporary	0*	97 sq. ft. for fish passage and 1,460 sq. ft.
Vegetation Removal/Surface	Stream DC-F	In waterbody	Temporary	0*	118 sq. ft.

Disturbance & Stream Diversion					
* Minor temporary fill for stream diversions may occur at these streams but have not yet been designed.					
¹ If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided. ² Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain. ³ Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.					
8f. For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [help]					
Permanent fill of some streams will be unavoidable at several locations for a combination of new stormwater improvements, the proposed roadway fill prism, and fish passage barrier corrections. Fill material will come from a State of Washington approved source and will meet WSDOT standards for roadway construction material. WSDOT ensures material quality for fill soil meets environmental and structural standards. Fill will be placed using a variety of heavy equipment. See Part 8e for specific quantities and locations.					
8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [help]					
Permanent excavation of some streams will be unavoidable in association with fish passage barrier corrections, the proposed roadway fill prism, and stormwater improvements. Excavated materials will be removed using a variety of heavy equipment and tested for contamination before being disposed at approved disposal facilities.					

Part 9—Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [help]			
Agency Name	Contact Name	Phone	Most Recent Date of Contact
Department of Archaeology and Historic Preservation	Sydney Hanson	360-586-3082	02/03/2020
Federal Highway Administration	Lindsey Handel	360-753-9550	04/14/2020
Federal Highway Administration	Sharon Love	360-753-9558	04/14/2020
King County	Steve Bottheim	206-477-0372	06/12/2020
King County	Alisa Johansson	206-477-1604	07/13/2021
King County	Laura Casey	206-477-0368	06/24/2021
King County	Evan Lewis	206-477-9738	07/22/2021
King County	Jon Cassidy	Jon.Cassidy@kingcounty.gov	06/07/2021
King County	Jose Carrasquero	206-477-4538	05/21/2021

King County Historic Preservation Program	Philippe LeTourneau	206-477-4529	09/05/2019
King County Historic Preservation Program	Todd Scott	206-477-4545	09/05/2019
Muckleshoot Tribe	Jaison Elkins	253 876-3272	09/05/2019
Muckleshoot Tribe	Laura Murphy	253 876-3272	09/05/2019
Muckleshoot Tribe	Karen Walter	253 876-3272	09/05/2019
National Marine Fisheries Service	DeeAn Jones	360-905-2185	07/27/2021
Sauk-Suiattle Tribe	Benjamin Joseph	360 436-0131	09/05/2019
Sauk-Suiattle Tribe	Kevin Joseph	360 436-0131	09/05/2019
Sauk-Suiattle Tribe	Joni Soriano	360 436-0131	09/05/2019
Sauk-Suiattle Tribe	Alex Frey	360 436-0131	09/05/2019
Snoqualmie Tribe	Robert de los Angeles	425-292-0249 ext. 2010	09/05/2019
Snoqualmie Tribe	Steven Mullen-Moses	425-292-0249 ext. 2010	09/05/2019
Snoqualmie Tribe	Adam Osbekoff	425-292-0249 ext. 2010	09/05/2019
Snoqualmie Tribe	Matt Baerwalde	mattb@snoqualmientribe.us	09/05/2019
Tulalip Tribes	Derek Marks	360-716-4614	07/12/2021
Tulalip Tribes	Marie Zackuse	360-716-4000	09/05/2019
Tulalip Tribes	Richard Young	360-716-2652	09/05/2019
Tulalip Tribes	Tim Brewer	360-716-4000	09/05/2019
U.S. Army Corps of Engineers	Susan Buis	206-316-3037	04/13/2020
U.S. Army Corps of Engineers	Nicole Evans	360-545-2361	7/12/2021
U.S. Army Corps of Engineers	Sandra Manning	360-407-6912	04/13/2020
U.S. Fish and Wildlife Service	Leslie Durham	360-753-9532	07/25/2019
Washington Department of Natural Resources	Daniel Eide	360-802-7039	06/18/2020
Washington Department of Natural Resources	Sherri Gallant	360 902-1067	05/05/2020
Washington Department of Natural Resources	Brenda Werden	Brenda.Werden@dnr.wa.gov	04/10/2020

Washington Department of Natural Resources	Eric Dasso	425-466-4772	04/13/2020
Washington Department of Natural Resources	Laurie Benson	Laurie.Benson@dnr.wa.gov	01/24/2020
Washington State Department of Ecology	Caroline Corcoran	425-457-3378	07/12/2021
Washington State Department of Fish and Wildlife	Kevin Lee	425-775-1311 x.101	07/27/2021
Washington State Department of Fish and Wildlife	Julie Grobelny <i>(Not assigned to this project)</i>	360-890-5417	04/10/2020
Washington State Parks and Recreation Commission	Charles Luttrell	360-902-8500	09/05/2019
Yakama Nation	JoDe Goudy	509-865-5121	09/05/2019
Yakama Nation	Johnson Meninick	509-865-5121 ext. 4737	09/05/2019
Yakama Nation	Jessica Lally	509-865-5121 ext. 4766	09/05/2019
Yakama Nation	Elizabeth Sanchez	509-945-2939	09/05/2019
Yakama Nation	Brady Kent	509-865-5121 ext. 6074	09/05/2019
<p>9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List? [help]</p> <ul style="list-style-type: none"> • If Yes, list the parameter(s) below. • If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d. <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>			
<p>9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help]</p> <ul style="list-style-type: none"> • Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC. <p>171100100402 – Tokul Creek</p>			
<p>9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help]</p> <ul style="list-style-type: none"> • Go to https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up to find the WRIA #. <p>WRIA 7 - Snohomish</p>			
<p>9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [help]</p> <ul style="list-style-type: none"> • Go to https://ecology.wa.gov/Water-Shorelines/Water-quality/Freshwater/Surface-water-quality-standards/Criteria for the standards. <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable</p>			
<p>9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help]</p>			

- If you don't know, contact the local planning department.
- For more information, go to: <https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases>.

Urban Natural Aquatic Conservancy Other: Forestry (King County)

9g. What is the Washington Department of Natural Resources Water Type? [\[help\]](#)

- Go to <http://www.dnr.wa.gov/forest-practices-water-typing> for the Forest Practices Water Typing System.

Shoreline Fish Non-Fish Perennial Non-Fish Seasonal

9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [\[help\]](#)

- **If No**, provide the name of the manual your project is designed to meet.

Yes No

Name of manual: WSDOT Highway Runoff Manual (HRM) - 2019

9i. Does the project site have known contaminated sediment? [\[help\]](#)

- **If Yes**, please describe below.

Yes No

On behalf of WSDOT, Jacobs Engineering Group Inc. completed a review of historical records for the Project area, including aerial photographs, Kroll maps, and Ecology well logs, as well as a regulatory agency records search provided in the EDR Area/Corridor Report. Based on the records review, no confirmed contaminated sites are present within the APE or within standard ASTM search distances. The *I-90/SR 18 Interchange Improvements Project Hazardous Materials Report* is available on request.

9j. If you know what the property was used for in the past, describe below. [\[help\]](#)

The property has been used for transportation infrastructure currently and historically. I-90 is present in aerial photographs available from 1952, where the adjacent area was primarily forested and undeveloped, with few residential structures. SR 18 was constructed in approximately its current configuration in 1964. Between 1970 and 1990, clear-cutting and new roadways, as well as some additional residential structures, were developed on adjacent properties. Residential development continues to grow in the project vicinity.

9k. Has a cultural resource (archaeological) survey been performed on the project area? [\[help\]](#)

- **If Yes**, attach it to your JARPA package.

Yes No

9l. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [\[help\]](#)

- Marbled murrelet (*Brachyramphus marmoratus*) – Threatened
- Northern spotted owl (*Srix occidentalis caurina*) – Threatened
- Yellow billed cuckoo (*Coccyzus americanus*) – Threatened
- Gray Wolf (*Canis lupus*) – Endangered
- North American Wolverine (*Gulo gulo luscus*) – Proposed Threatened
- Bull Trout (*Salvelinus malma*) – Threatened
- Chinook salmon (*Oncorhynchus tshawytscha*) – Threatened
- Steelhead (*O. mykiss*) – Threatened

Refer to the *Biological Assessment* for more information.

9m. Name each species or habitat on the Washington Department of Fish and Wildlife’s Priority Habitats and Species List that might be affected by the proposed work. [\[help\]](#)

The following species are listed on WDFW’s PHS-On-The-Web mapping tool (accessed 07/27/2021). Their common names and priority areas are listed below.

- Northern spotted owl
- Cutthroat Trout (*O. clarki*)
- Bull Trout
- Chinook salmon
- Steelhead
- Coho salmon (*O. kisutch*)
- Elk (*Cervus elaphus*)
- Freshwater Forested/Shrub Wetland
- Freshwater Emergent Wetland.

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at <http://apps.oria.wa.gov/opas/>.
- Governor’s Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.
- For a list of addresses to send your JARPA to, click on [agency addresses for completed JARPA](#).

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [\[help\]](#)

- For more information about SEPA, go to <https://ecology.wa.gov/regulations-permits/SEPA-environmental-review>.

A copy of the SEPA determination or letter of exemption is included with this application.

A SEPA determination is pending with _____ (lead agency). The expected decision date is _____.

I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [\[help\]](#)

This project is exempt (choose type of exemption below).

Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?

Other: _____

SEPA is pre-empted by federal law.

10b. Indicate the permits you are applying for. (Check all that apply.) [\[help\]](#)

LOCAL GOVERNMENT

Local Government Shoreline permits:

Substantial Development Conditional Use Variance

Shoreline Exemption Type (explain): _____

Other City/County permits:

Floodplain Development Permit Critical Areas Ordinance

STATE GOVERNMENT

Washington Department of Fish and Wildlife:

Hydraulic Project Approval (HPA) Fish Habitat Enhancement Exemption – [Attach Exemption Form](#)

Washington Department of Natural Resources:

Aquatic Use Authorization

Complete [JARPA Attachment E](#) and submit a check for \$25 payable to the Washington Department of Natural Resources.

Do not send cash.

Washington Department of Ecology:

Section 401 Water Quality Certification Non-Federally Regulated Waters

FEDERAL AND TRIBAL GOVERNMENT

United States Department of the Army (U.S. Army Corps of Engineers):

Section 404 (discharges into waters of the U.S.) Section 10 (work in navigable waters)

United States Coast Guard:

For projects or bridges over waters of the United States, contact the U.S. Coast Guard at: d13-pf-d13bridges@uscg.mil

Bridge Permit Private Aids to Navigation (or other non-bridge permits)

United States Environmental Protection Agency:

Section 401 Water Quality Certification (discharges into waters of the U.S.) on tribal lands where tribes do not have treatment as a state (TAS)

Tribal Permits: (Check with the tribe to see if there are other tribal permits, e.g., Tribal Environmental Protection Act, Shoreline Permits, Hydraulic Project Permits, or other in addition to CWA Section 401 WQC)

Section 401 Water Quality Certification (discharges into waters of the U.S.) where the tribe has treatment as a state (TAS).

Part 11—Authorizing Signatures

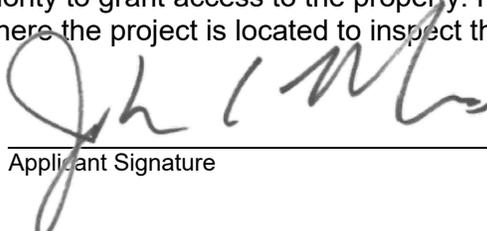
Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [\[help\]](#)

11a. Applicant Signature (required) [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. Jh (initial) (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. Jh (initial) (initial)

John Maas		3/2/2022
Applicant Printed Name	Applicant Signature	Date

11b. Authorized Agent Signature [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Authorized Agent Printed Name	Authorized Agent Signature	Date
-------------------------------	----------------------------	------

11c. Property Owner Signature (if not applicant) [\[help\]](#)

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Property Owner Printed Name	Property Owner Signature	Date
-----------------------------	--------------------------	------

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 09/2018