



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: September 13, 2024
Project End Date: January 04, 2026

Permit Number: 2021-4-6+03
FPA/Public Notice Number: N/A
Application ID: 21160

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
WSDOT ATTENTION: Robert Woeck 600 108th Avenue NE #405 Bellevue, WA 98004	WSDOT ATTENTION: Alicia Toney 600 108th Avenue NE #405 Bellevue, WA 98004

Project Name: I 405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project



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Project Description: The Project will provide additional capacity and improve ETL performance along I-405 between SR 522 and I-5. The Project proposes to make numerous roadway, structural, drainage, fish barrier correction, nonmotorized, and transit improvements from south of the I-405/SR 522 interchange to the I-405/SR 527 interchange. In-water work would be required for numerous Project elements: demolition and replacement of the Sammamish River bridges (overwater structures), channel realignments, fish barrier corrections and stormwater conveyance culvert replacements (water crossing structures), and outfall construction. No work below the OHWM of a waterbody is required for road work, stormwater facility installation, ditches, land clearing, retaining wall and noise wall construction, signs, and toll gantries. Project elements that require in-water work are summarized below by the project types specified in this application:

Outfalls: The Project would construct three new stormwater outfalls, one on the Sammamish River, and two on the North Fork Perry Creek. Installation of the scour protection features associated with outfalls may require work below the OHWM.

Habitat: The Project would provide access to 24,330 feet of upstream habitat as a result of the five proposed fish barrier corrections. Channel changes following fish barrier corrections would include addition of large woody material and suitable streambed substrates. The Project will also convert portions of wetlands into stream channel habitat. The proposed compensatory mitigation for the Project includes habitat improvements along UNT to Par Creek, as described in the Wetland and Stream Mitigation Report prepared for the Project and included as supplemental information to this application. Additional enhancement activities are proposed along Stream 25.0L.

Overwater structures: The Project would remove two existing bridges over the Sammamish River, including four piers below the OHWM. The Project would then build three new bridges over the Sammamish River. New bridge construction will be outside of the OHWM but will result in an increase on overwater shading.

Water crossing structures (fish barrier correction structure and stormwater conveyance culverts): The Project would replace five fish barriers with restored stream connections at Par Creek, Stream 25.0L, North Fork Perry Creek, and two barriers at Queensborough Creek. Pending the outcome of further discussions and coordination with the Muckleshoot Indian Tribe, the culvert at Stream 66 will be maintained as a hydraulic crossing, and a more extensive fish barrier correction and fish habitat enhancement is proposed at Stream 25.0L. The performance of the proposed fish passage structures will be assessed using WSDOT's standard fish passage barrier correction monitoring plan template. The proposed fish passage structures were designed using the stream simulation methods described in the WDFW Water Crossing Design Guidelines published in 2013. Fish barrier correction and other in-water work will require fish exclusion conducted in accordance with WSDOT Fish Exclusion protocols and Standards, published in September 2016. The Project may also repair or replace other culverts that convey stormwater and are not associated with fish-bearing streams or other Waters of the State.

Channel change/realignment: The Project would realign streams after removal of fish barriers.

Land clearing: The Project would remove some vegetation temporarily and permanently for construction activities. Vegetation will be removed from within stream buffers, as addressed in the Wetland and Stream Mitigation Report.



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PROVISIONS

TIMING - PLANS - INVASIVE SPECIES CONTROL

1. TIMING LIMITATION: You may begin the project immediately and you must complete the project by January 4, 2026, provided all work below the OHWM occurs only between:

- a. July 16 and August 31 of a given year on the Sammamish River;
- b. July 1 and September 30 of a given year on Parr Creek, North Fork Perry Creek, and Queensborough Creek;
- c. June 15 and October 15 of a given year on Stream 25.0L, Watercourse 70, and the five unnamed jurisdictional ditches included in this project.

Work outside of the ordinary high water line may be conducted year round provided measures to prevent turbidity and sedimentation within the watercourses are in place and functioning properly.

Note: This project proposes to replace five mapped WDFW Fish Passage and Diversion Screening Inventory (FPDSI) barriers as required to comply with the federal permanent injunction (United States, et al. vs. Washington, et al, No. C70-9213 Subproceeding No.01-1 dated March 29, 2013). Fish passage barrier site corrections include 993083, 993104, 08.0070 A 0.25, 993084, and 993109.

2. APPROVED PLANS: You must accomplish the work per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled, 'WETLAND AND STREAM MITIGATION REPORT,' dated March 2020; revised November 2020, 'I-405 BRICKYARD PARK AND RIDE INLINE FREEWAY STATION BRT PROJECT,' dated June 2020, 'I-405 MP 26.46 North Fork Perry Creek: Preliminary Hydraulic Design Report,' dated October 2020; revised January 2021, 'I-405 MP 26.87, SR MP 2.78 Queensborough Creek: Preliminary Hydraulic Design Report,' dated August 2020; revised January 2021, 'I-405 MP 25.00 Stream 25.0L: Preliminary Hydraulic Design Report,' dated May 2020; revised January 2021, 'I-405 MP 11.31 Par Creek: Preliminary Hydraulic Design Report,' dated February 2020; revised January 2021, and all supporting documents and communications uploaded to the Aquatic Protection Permitting System (APPS) project file; except as modified by this Hydraulic Project Approval. You must have a copy of these plans available on site during all phases of the project construction.

3. INVASIVE SPECIES CONTROL: Follow Method 1 for low risk locations (i.e. clean/drain/dry). Thoroughly remove visible dirt and debris from all equipment and gear (including drive mechanisms, wheels, tires, tracks, buckets, and undercarriage) before arriving and leaving the job site to prevent the transport and introduction of invasive species. For contaminated or high risk sites please refer to the Method 2 Decontamination protocol. Properly dispose of any water and chemicals used to clean gear and equipment. You can find this and additional information in the Washington Department of Fish and Wildlife's "Invasive Species Management Protocols", available online at <https://wdfw.wa.gov/species-habitats/invasive/prevention>.

NOTIFICATION REQUIREMENTS

4. PRE-, DURING, AND POST-CONSTRUCTION NOTIFICATION: You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work, one day before removing the temporary bypass and again within seven days after completing the work. The notification must include the permittee's name, project location, starting date for work or date the work was completed, and the permit number. The Washington Department of Fish and Wildlife may conduct inspections during and after construction; however, the Washington Department of Fish and Wildlife will notify you or your agent before conducting the inspection.



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5. **PHOTOGRAPHS:** You, your agent, or contractor must take photographs of the job site before the work begins and after the work is completed. You must upload the photographs to the post-permit requirement page in the Aquatic Protection Permitting System (APPS) or mail them to Washington Department of Fish and Wildlife at Post Office Box 43234, Olympia, Washington 98504-3234 within 30-days after the work is completed.

6. **FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION:** If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS, AND EQUIPMENT

7. Establish staging areas (used for equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.
8. Use existing roadways or travel paths.
9. Design and locate new temporary access roads to prevent erosion and sediment delivery to waters of the state.
10. Clearly mark boundaries to establish the limit of work associated with site access and construction.
11. Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.
12. Retain all natural habitat features on the bed or banks including large woody material and boulders. You may move these natural habitat features during construction but you must place them near the preproject location before leaving the job site.
13. Confine the use of equipment to the specific access and work corridor shown in the approved plans.
14. Equipment used for this project may operate waterward of the ordinary high water line, provided the drive mechanisms (wheels, tracks, tires, etc.) do not enter or operate waterward of the ordinary high water line.
15. If wet or muddy conditions exist, in or near a riparian zone or wetland area, use equipment that reduces ground pressure.
16. Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.
17. Use environmentally acceptable lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols in equipment operated in or near the water.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

18. Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).
19. Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.
20. All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.
21. Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.
22. Stop all hydraulic project activities except those needed to control erosion and siltation, if flow conditions arise that will result in erosion or siltation of waters of the state.
23. Prevent project contaminants, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.



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24. Route construction water (wastewater) from the project to an upland area above the limits of anticipated floodwater. Remove fine sediment and other contaminants before discharging the construction water to waters of the state.

25. Deposit waste material from the project, such as construction debris, silt, excess dirt, or overburden, in an upland area above the limits of anticipated floodwater unless the material is approved by the Washington Department of Fish and Wildlife for reuse in the project.

26. Deposit all trash from the project at an appropriate upland disposal location.

CONSTRUCTION MATERIALS

27. Store all construction and deconstruction material in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

28. Do not stockpile construction material waterward of the ordinary high water line.

29. To prevent leaching, construct forms to contain any wet concrete. Place impervious material over wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured.

30. Use only clean, suitable material as fill material (no trash, debris, car bodies, tires, asphalt, concrete, etc.).

31. Do not use wood treated with oil-type preservatives (creosote, pentachlorophenol) in any hydraulic project. You may use wood treated with waterborne preservatives (ACZA, ACQ) provided the wood is approved by the Western Wood Preservers Institute for use in the aquatic environment. Any use of treated wood in the aquatic environment must follow guidelines and best management practices available at www.wwpinstitute.org.

FISH LIFE REMOVAL AND BLOCK NETS

32. All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.

33. Capture and safely move fish life from the work area to the nearest suitable free-flowing water.

34. If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.

35. Isolate fish from the work area by using block nets.

36. Place block nets upstream and downstream of the in-water work area before capturing and removing fish life. Install block nets at an angle to the direction of flow (not perpendicular to the flow) to avoid entrapping fish in the nets. To anchor block nets, place bags filled with clean rounded gravel along the bottom of the nets. Secure block nets along both banks and the channel bottom to prevent failure from debris accumulation, high flows, and/or flanking.

37. Do not install block nets at sites with heavy vegetation, large cobble or boulders, undercut banks, or deep pools unless you can secure and maintain them.

38. Install block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.

39. Check block nets at least three times a day for entangled fish and accumulated debris

40. To keep fish out of the job site, leave block nets in place until the work is complete and conditions are suitable for fish.

IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE: SAMMAMISH RIVER PIERS

41. Use a cofferdam, dike, or similar structure to exclude water from the work area.

42. Maintain water quality when installing and removing the cofferdam, dike or similar structure.

43. Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.



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44. Route the construction water (wastewater) from the project to an upland area above the limits of anticipated floodwater. Remove fine sediment and other contaminants before discharging the construction water to waters of the state.

45. Sequence the work to minimize the duration of dewatering.

IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS

46. Isolate fish from the work area by using either a total or partial bypass to reroute the stream through a temporary channel or pipe.

47. Provide fish passage during times of the year when fish are expected to migrate.

48. Sequence the work to minimize the duration of dewatering.

49. Use the least-impacting feasible method to temporarily bypass water from the work area. Consider the physical characteristics of the site and the anticipated volume of water flowing through the work area.

50. The hydraulic capacity of the stream bypass must be equal to or greater than the peak flow event expected when the bypass will be operated.

51. Design the temporary bypass to minimize the length of the dewatered stream channel.

52. During all phases of bypass installation and decommissioning, maintain flows downstream of the project site to ensure survival of all downstream fish.

53. Install a cofferdam or similar device at the upstream and downstream end of the bypass to prevent backwater from entering the work area.

54. Return diverted water to the channel immediately downstream of the work area. Dissipate flow energy from the diversion to prevent scour or erosion of the channel and bank.

55. If the diversion inlet is a gravity diversion that provides fish passage, place the diversion outlet where it facilitates gradual and safe reentry of fish into the stream channel.

56. If the bypass is a pumped diversion, once started it must run continuously until it is no longer necessary to bypass flows. This requires back-up pumps on-site and twenty-four-hour monitoring for overnight operation.

57. If the diversion inlet is a pump diversion in a fish-bearing stream, the pump intake structure must have a fish screen installed, operated, and maintained in accordance with RCW 77.57.010 and 77.57.070. Screen the pump intake with one of the following:

- a) Perforated plate: 0.094 inch (maximum opening diameter);
- b) Profile bar: 0.069 inch (maximum width opening); or
- c) Woven wire: 0.087 inch (maximum opening in the narrow direction).

The minimum open area for all types of fish screens is twenty-seven percent. The screened intake facility must have enough surface area to ensure that the velocity through the screen is less than 0.4 feet per second. Maintain fish screens to prevent injury or entrapment of fish.

58. The fish screen must remain in place whenever water is withdrawn from the stream through the pump intake.

59. Remove fish screens on dewatering pumps in the isolated work area only after all fish are safe and excluded from the work area.

60. Isolate pump hose intakes with block nets so that fish cannot get near the intake.

61. STORMWATER OUTFALLS

62. Final outfall designs must be reviewed and approved by the WDFW permitting biologist (via an HPA modification) prior to construction.

63. It is strongly preferred that stormwater outfalls (points of discharge) associated with this project be landward of the OHWL of all regulated watercourses.



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64. If an outfall is installed waterward of the OHWL at an elevation where fish have the potential to enter the stormwater pipe, you must install and maintain a flap gate, tideflex valve, or similar device to prevent fish entry.
65. Stormwater outfalls must utilize approved energy dissipation structures and methods to prevent potential scour of associated watercourses. These include use of tee diffusers, bubble up structures, rounded rock energy dissipation pads, installation of biodegradable linings and matting, installation of live stakes, or combinations thereof.
66. Any stormwater outfall energy dissipation pads that will be partially at or waterward of the OHWL of the associated watercourse must use bioengineered methods including rounded rock and live stakes. Angular rock is not permitted to be installed at or waterward of the OHWL.
67. BRIDGE REMOVAL, REPLACEMENT (I-405/SR 522 INTERCHANGE)
68. Clean the bridge deck of aggregate or earth materials before removing bridge structures.
69. Use tarps or other methods to prevent treated wood, sawdust, trimmings, drill shavings and other debris from contacting the bed or waters of the state.
70. Prevent the existing structure, associated construction materials, and fill from entering the stream when removing them.
71. Dismantle and mechanically remove as much of the bridge as possible. Bridge parts that cannot be mechanically removed may be broken into the largest sections that can be safely handled and dropped in the stream. You must remove these sections from the stream immediately.
72. Design and construct the new bridges to pass water, ice, large wood, and associated woody material and sediment likely to move under the bridge during the 100-year flood flows.
73. New bridges must minimize overwater shading impacts to the extent feasible.
74. Locate the waterward face of all bridge elements including abutments, piers, pilings, sills, foundations, aprons, wingwalls, and approach material landward of the ordinary high water line.
75. Remove the four existing in-water piers and dispose of them in an upland area unless the material is approved by the Washington Department of Fish and Wildlife for reuse in the project. No new piers are authorized to be installed below the ordinary high water mark as part of this project.
76. In-water pier removal:
- Vibratory or direct pull extraction is the preferred method of removal.
 - Place the pier on a construction barge or other dry storage site after the pier is removed. The pier must not be shaken, hosed off, left hanging to dry or any other action intended to clean or remove adhering material from the piling near waters of the state.
 - If the structure cannot be fully extracted, cut it off two feet below the mudline. Fill any holes left by pier extraction with clean sediment that matches the native material.
 - Submit post-project surveys (e.g., underwater video, photos at low-tide) along transects within the project area to Washington Department of Fish and Wildlife within two weeks of pier removal to verify debris removal.
77. Temporary pile installation, removal:
- You are authorized to temporarily install piles as needed for proper cofferdam installation, but must remove all piles prior to project completion.
 - Authorized piling material is steel, recycled plastic, and Chemonite (ACZA).
 - The use of vibratory and/or an impact hammer is authorized for piling installation under this HPA, however a vibratory driver is preferred.
 - Vibratory or direct pull extraction is the preferred method of pile removal.



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e. Place the piling on a construction barge or other dry storage site after the piling is removed. The piling must not be shaken, hosed off, left hanging to dry or any other action intended to clean or remove adhering material from the piling near waters of the state.

78. Use appropriate sound attenuation when driving or proofing steel piling with an impact hammer.

a. For driving or proofing steel piling, 10 inches in diameter or less, install a 6 inch thick wood block, plastic or rubber between the piling and the impact hammer during impact pile driving operations or install a pile sleeve or bubble curtain around the piling during impact pile driving operations that distributes air bubbles around 100% of the perimeter of the piling over the full depth of the water column.

b. For driving or proofing steel piling greater than 10 inches in diameter, install a bubble curtain around the pile during piling impact driving operations that distributes air bubbles around 100% of the perimeter of the piling over the full depth of the water column.

79. To avoid attracting fish to artificial light at night, limit impact pile driving to daylight hours whenever feasible.

CULVERT REPLACEMENTS

80. Remove the existing culverts in the dry or in isolation from the stream flow.

81. Remove all the components and associated materials of the existing culverts and dispose of these materials at an approved upland location.

82. Install culverts in the dry or in isolation from the stream flow by using a bypass channel or culvert, or by pumping the stream flow around the work area. The Washington Department of Fish and Wildlife may grant exception if installing the culvert in the flowing stream reduces siltation or turbidity.

83. Establish the culvert invert elevation with reference point(s) or benchmark(s) created before to starting work on this project. Clearly mark and preserve the reference point(s) for post-project compliance. Before backfilling, confirm the invert elevation, as stated on the plans, relative to the reference points with at least a construction-grade leveling device (such as an optical auto-level or laser level).

84. The authorized culverts are a stream simulation design.

85. Set the stream simulation culverts at the same gradient as the prevailing stream gradient. As stated in the uploaded application materials, the proposed stream gradient through the culvert will be:

- a. 0.10% on Par Creek (FPDSI Site Id 993083);
- b. 2.99% on Stream 25.0L (FPDSI Site Id 993104);
- c. 1.93% on North Fork Perry Creek (FPDSI Site Id 08.0070 A 0.25);
- d. 2.32% on Queensborough Creek (FPDSI Site Id 993084); and;
- e. 2.67% on Queensborough Creek (FPDSI Site Id 993109).

86. The length of the culvert must not exceed:

- a. 323 feet on Par Creek;
- b. 229 feet on Stream 25.0L;
- c. 370 feet on North Fork Perry Creek;
- d. 250 feet on Queensborough Creek (993084); and;



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e. 439 feet on Queensborough Creek (993109).

87. The width of the channel-bed inside a stream simulation culvert at the elevation of the stream bed must be equal to or greater than the bankfull width.

88. The width between the culvert footings for a bottomless culvert must be equal to or greater than:

a. 25 feet on Par Creek;

b. 19 feet on Stream 25.0L;

c. 30 feet on North Fork Perry Creek; and;

d. 30 feet on Queensborough Creek (both crossings).

89. Embed the top of footings of bottomless culverts sufficiently below potential scour depth to prevent exposure of the footing surface and undermining.

90. Size streambed material to mimic the stream's natural gradation as found in nearby reference channel reaches. Angular rock is not permitted within the channel or culvert.

91. The streambed must include a sinuous low-flow channel expected under common conditions in the reach and a high-flow bench on both sides of the culvert.

92. Protect structural fill associated with the culvert installation from erosion to the 100-year peak flow.

93. Approach material must be structurally stable and composed of material that if eroded into the water will not harm fish life.

94. Install and maintain the culverts to ensure unimpeded fish passage.

95. The owner(s) must maintain the culvert to ensure it provides continued, unimpeded fish passage. If the culvert becomes a hindrance to fish passage, the owner must obtain an Hydraulic Project Approval and provide prompt repair.

CHANNEL RELOCATION AND REALIGNMENT

96. Permanent new channel(s) must be similar in length, width, depth, flood plain configuration, and gradient to the old channel(s). The new channel(s) must incorporate habitat components, bed materials, channel morphology, and native or other approved vegetation to provide equal or better habitat compared to that which previously existed in the old channel.

97. The streambed must include a sinuous low-flow channel expected under common conditions in the reach and a high-flow bench on both sides of the channel. Disturbed banks must be resloped to a 2:1 slope or less.

Exception: Disturbed banks associated with the realignment and regrading of Stream 25.0L may be resloped to a 1.5:1 slope or less.

98. During construction, isolate the new channel from the flowing watercourse.

99. Size streambed material to mimic the gradation found in nearby reference channel reaches. The material must be well-graded (includes all size classes), non-porous, with 5-10% fines with sieve size U.S. No. 200 to prevent subsurface flow. A minimum depth of 24-inches of the approved streambed material must be placed in the locations shown in the approved plans. Angular rock is not permitted within the channel.

100. Before water is diverted into a permanent new channel(s), install approved habitat components and bed and bank protection materials to prevent erosion as shown in the approved plan.

101. Use fir, cedar, or other coniferous species to construct log or rootwad fish habitat structure(s).

102. Place spoils from the new channel in an upland area above the limits of anticipated floodwater. Use this material



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to fill in the old channel once the stream is diverted into the new channel.

103. The angle of the structure used to divert the water into the new channel(s) must allow a smooth transition of water flow.

104. The Habitat Biologist listed below or their representative must inspect and approve the new channel before the stream is diverted into the channel.

105. Diverting the flow into the new channel:

- a. First remove the downstream plug.
- b. Face the stream side of the plug with a sandbag or similar device.
- c. Partially remove the upstream plug to allow 1/3 to 1/2 of the flow into the new channel for a minimum of 10 hours.

Do not allow the old channel to dewater.

d. Remove the remainder of the upstream plug if the new channel has flow throughout the entire length.

e. Close the upstream end of the old channel and securely armor the entrance of the old channel to prevent re-entry of any flow. Armor material must consist of clean, angular rock installed to withstand the 100 – year peak flow.

106. Fill the old channel beginning from the upstream closure. Compact the fill material. Water discharging from the fill must not adversely affect fish life.

107. If, following project completion and the return of flow to the reconstructed stream, the water goes subsurface at any point, the owner(s) will take steps to address the problem, including the addition of fines or small, rounded gravels, to the extent necessary to seal the bed and return the flow to the surface.

LARGE WOODY MATERIAL

108. Install, at a minimum, the volume, quantities, and key pieces of LWM above and below the OHWM as shown in the approved plans.

109. When placing, repositioning, or removing large woody material, station equipment on the bank.

110. Do not drag large woody material. Suspend large woody material during placement, repositioning, or removal so it does not damage the bed or banks. A yarding corridor or full suspension is required to protect riparian zone vegetation. Full suspension can be achieved with hand-operated or heavy equipment or aerial log yarding towers.

111. The use of rounded rock (ballast), chain, earthen anchors and combinations thereof to stabilize LWM is permitted. The use of cable is not permitted. Any rounded rock used as ballast must be completely buried into the bank or below the channel bed.

SAND AND GRAVEL REMOVAL

112. Gravel removal from the watercourse is limited to the approved locations. Gravel removal must not result in lowering, over time, of the average channel cross-section profile either in the work area or downstream of it.

113. Place boundary markers to identify the excavation zone. The Habitat Biologist listed below must approve the location of the boundary markers prior to any sand and gravel removal.

114. Excavation must start at the excavation line and proceed toward the bank or the center of the bar, perpendicular to the alignment of the watercourse.

BEAVER DAM MANAGEMENT

115. Notch beaver dams by hand or with hand-held tools and hand-operated or motorized winches.

116. Remove the dam gradually to allow the water to release slowly. This will prevent the downstream release of accumulated sediment from the bottom of the pond and damage to the stream bed and banks from scour and erosion.

117. When notching, the notch must not extend below the height of the accumulated sediment behind the dam or a depth of 18 inches whichever comes first.

118. To prevent bank erosion and flooding of adjacent properties, the breach in the beaver dam must not be wider than the original stream channel as measured by the Washington Department of Fish and Wildlife. The Washington



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Department of Fish and Wildlife may approve larger breaches on a case-by-case basis.

119. During and immediately after removal, monitor upstream and downstream for stranded fish in isolated pools. Capture and safely move all stranded or isolated fish to the nearest free-flowing water.

120. Do not disturb large woody material embedded in the stream bed or banks.

121. Maintain the water level control device to ensure it functions as designed.

BEAVER DAM EXCLUSION FENCE

122. This HPA approves installation of beaver exclusion fencing and beaver deceivers with minimum six inch fence openings. Minimums six by eight inch fence opening is required in known Chinook migration and spawning areas. These devices must be maintained to provide free and effective fish passage at all times. They need to be monitored as needed at the beginning of the rainy season and during and after storm events which may cause debris to accumulate on them.

123. Maintain guards, grates, grills, fences, and other beaver exclusion devices to provide unimpeded fish passage and to prevent beavers from plugging the culvert or other water crossing structures.

124. During and immediately after installation, monitor upstream and downstream for stranded fish in isolated pools. Capture and safely move all stranded or isolated fish to the nearest free-flowing water.

125. The Beaver Exclusion Fence shall be maintained by the owner(s) per RCW 77.57.030 to ensure continued, unimpeded fish passage. If the structure becomes a hindrance to fish passage, the owner(s) shall be responsible for obtaining an Hydraulic Project Approval and providing prompt repair. Financial responsibility for maintenance and repairs shall be that of the owner(s).

DEMOBILIZATION AND CLEANUP

126. Maintain guards, grates, grills, fences, and other beaver exclusion devices to provide unimpeded fish passage and to prevent beavers from plugging the culvert or other water crossing structures.

127. Do not relocate removed or replaced structures within waters of the state. Remove and dispose of these structures in an upland area above the limits of anticipated floodwater.

128. Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.

129. Completely remove any temporary fill before the end of the in-water timing window if the fill material could erode and deliver sediment-laden water into waters of the state.

130. To prevent fish from stranding, backfill trenches, depressions, and holes in the bed that may entrain fish during high water or wave action.

131. To minimize sediment delivery to the stream or stream channel, do not return in-stream flows to the work area until all in-channel work is completed and the bed and banks are stabilized.

132. Seed areas disturbed by construction activities with a native seed mix suitable for the site that has at least one quick-establishing plant species.

133. Replant the job site with the plant species composition and planting densities approved by the Washington Department of Fish and Wildlife.

134. Complete replanting of riparian vegetation during the first dormant season (late fall through late winter) after project completion per the approved plan. Maintain plantings for at least three years to ensure at least eighty percent of the plantings survive. Failure to achieve the eighty percent survival in year three will require you to submit a plan with follow-up measures to achieve requirements or reasons to modify requirements.

135. Upon completion of the project, remove all materials or equipment from the site and dispose of all excess spoils and waste materials in an upland area above the limits of anticipated floodwater.

136. Return water flow slowly to the in-water work area to prevent the downstream release of sediment laden water. If



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necessary, install silt fencing above the bypass outlet to capture sediment during re-watering of the channel.

137. Remove temporary erosion and sediment control methods after job site is stabilized or within three months of project completion, whichever is sooner.

138. This HPA is a modification of and supersedes the original HPA issued March 4, 2021.

LOCATION #1:	Site Name: I 405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project start point , , WA					
WORK START:	January 5, 2021			WORK END:	January 4, 2026	
WRIA	Waterbody:			Tributary to:		
08 - Cedar - Sammamish	Sammamish River			Lake Washington		
1/4 SEC:	Section:	Township:	Range:	Latitude:	Longitude:	County:
NE 1/4	20	26 N	05 E	47.75684	-122.18478	King
Location #1 Driving Directions						
The Project is accessed by traveling along I-405 between SR 522 and SR 527, located within the City of Bothell. SR 522 can be accessed through the City of Woodinville to the east. Travelers may access this portion of the I-405 corridor via the SR 522 or the SR 527 highways. This portion of I-405 corridor may also be accessed via I-90 in Bellevue from the south, via the City of Kirkland, and I-405 via I-5 in Lynnwood from the north.						
LOCATION #2:	Site Name: Par Creek , , WA					
WORK START:	January 5, 2021			WORK END:	January 4, 2026	
WRIA	Waterbody:			Tributary to:		
08 - Cedar - Sammamish	Various			Various		
1/4 SEC:	Section:	Township:	Range:	Latitude:	Longitude:	County:
NW 1/4	09	26 N	05 E	47.75761	-122.18035	King
Location #2 Driving Directions						
LOCATION #3:	Site Name: Stream 25.0L , , WA					
WORK START:	January 5, 2021			WORK END:	January 4, 2026	
WRIA	Waterbody:			Tributary to:		
08 - Cedar - Sammamish	Various			Various		



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<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SE 1/4	32	27 N	05 E	47.77642	-122.19108	Snohomish
<u>Location #3 Driving Directions</u>						
LOCATION #4: Site Name: N.F. Perry Creek , , WA						
WORK START: January 5, 2021				WORK END: January 4, 2026		
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
08 - Cedar - Sammamish		Various			Various	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SW 1/4	29	27 N	05 E	47.79251	-122.20887	Snohomish
<u>Location #4 Driving Directions</u>						
LOCATION #5: Site Name: Queensborough Creek (SR 527) , , WA						
WORK START: January 5, 2021				WORK END: January 4, 2026		
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
08 - Cedar - Sammamish		Various			Various	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SE 1/4	30	27 N	05 E	47.79600	-122.21295	Snohomish
<u>Location #5 Driving Directions</u>						
LOCATION #6: Site Name: Queensborough Creek (I-405) , , WA						
WORK START: January 5, 2021				WORK END: January 4, 2026		
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	



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08 - Cedar - Sammamish		Various			Various	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SE 1/4	30	27 N	05 E	47.79647	-122.21634	Snohomish
<u>Location #6 Driving Directions</u>						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.



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MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.



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A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist Jesse.dykstra@dfw.wa.gov
Jesse Dykstra 564-200-3689

for Director
WDFW