Template Hydraulic Project Approval Provisions for a Stream Simulation Culvert or Bridge Project

The following are the template provisions that Washington State Department of Fish/Wildlife (WDFW) permitting habitat biologist use to populate Hydraulic Project Approvals. This template does not include provisions that may be associated with the marine environment or new/modified storm water outfalls. WDFW encourages their biologists to use language from this template as much as possible, but allow the option of adding custom provisions based on additional science or site-specific conditions.

Ref. #	Category	Original Template Language from WDFW	Revised Language for the Commitment Tracking System	Phase	Responsibility	Existing Method of Implementation	Notes
1	Timing Limitation	You may begin the project on INSERT DATE HERE and you must complete the project by INSERT DATE HERE.	The Contractor may begin Work below the Ordinary High Water Line on $$$1$$$ and must complete all the Work by $$$2$$$.	Construction	Contractor	1-07.5(2).OPT1(A).FR1	In the Index, instruct users to use one of the days allowed in the fish window to allow Region Biologists to remove the fish block nets because it is also in-water work.
2	Revegetation	You must complete re-vegetation by no later than INSERT DATE HERE, and you must monitor the success of the re-vegetation through INSERT DATE HERE.	Replace native riparian zone and aquatic vegetation, and wetland vascular plants (except noxious weeds) damaged or destroyed by construction using a proven methodology. 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.	Design Construction	WSDOT Contractor	Roadside Policy Roadside Manual State Forces (yr. 2-3) Contract Plans 8-02.3(2)B 8-02.3(2)C 8-02.3(13) (yr. 1)	WSDOT has an extensive and thorough Roadside Restoration process. Planting is done by the contractor the first year and then state forces (WSDOT) continue for another two years. Note: only tracking the CN aspect of this commitment in CTS.
3	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 ENTER PLAN TITLE HERE, dated INSERT DATE HERE, and attached E-mail entitled, 'RE: ENTER PLAN TITLE HERE, received on INSERT DATE HERE, 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 proposal.	Accomplish the work per plans and specifications submitted with the Joint Aquatic Resources Permit Application (JARPA) and approved by the Washington Department of Fish and Wildlife. WSDOT and the Contractor must have a copy of these plans available on site during all phases of the project proposal.	Construction	WSDOT Contractor	1-04	The contractor must follow the Contract, which WSDOT shall ensure meets the intent of this commitment.
4	INVASIVE SPECIES CONTROL	Thoroughly clean all equipment and gear before arriving and leaving the job site to prevent the transport and introduction of aquatic invasive species. Properly dispose of any water and chemicals used to clean gear and equipment. You can find additional information in the Washington Department of Fish and Wildlife's Invasive Species Management Protocols (November 2012), available online at http://wdfw.wa.gov/publications/01490/wdfw01490.pdf.	The Contractor shall thoroughly clean all equipment and gear before arriving and leaving the job site to prevent the transport and introduction of aquatic invasive species. Properly dispose of any water and chemicals used to clean gear and equipment. You can find additional information in the Washington Department of Fish and Wildlife's Invasive Species Management Protocols (November 2012), available online at http://wdfw.wa.gov/publications/01490/wdfw01490.pdf.	Construction	Contractor	1-05.9 1-05.9.OPT2.FR1 1-05.9.OPT3.FR1	OPT2.FR1 is for aquatic invasive species. OPT3.FR1 is for terrestrial invasive species.
5	Notifications	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	WSDOT 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	Construction	WSDOT	Construction Manual	None

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		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.	work below the ordinary high water line, 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.		Contractor	1-07.5(3).OPT1(B).FR1 7-06.SA1.FR7	
6	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.	WSDOT must take photographs of the job site before the work begins and after the work is completed. 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.	Construction	WSDOT	Managed at the Region Environmental or Project Engineering Office level.	None
7	Fish Kill	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.	If fish are killed or 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.	Construction	WSDOT Contractor	Environmental Compliance Assurance Procedure 1-07.1 1-07.5(1)	None
8	Staging, Access, and Equipment	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.	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.	Construction	Contractor	1-07.5(3) 1-07.15(1) 1-07.5.OPT1(C).FR1	None
9	Staging, Access, and Equipment	Use existing roadways or travel paths.	Use existing roadways or travel paths as indicated in the Contract.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	For safety reason, we can't have an WDFW require the contractor use existing roadways, but if WSDOT proposes so in the JARPA, then the Contractor will follow the contract.
10	Staging, Access, and Equipment	This Hydraulic Project Approval authorizes the construction of no more than ADD NUMBER HERE new temporary access roads.	This Hydraulic Project Approval authorizes the construction of no more than $$$1$$$ new temporary access roads.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
11	Staging, Access, and Equipment	Design and locate new temporary access roads to prevent erosion and sediment delivery to waters of the state.	Design and locate new temporary access roads to prevent erosion and sediment delivery to waters of the state.	Design	WSDOT	8-01	If this is a TESC issue, then the contractors plan or

							WSDOT's will address the risk. No need to focus on temporary roads.
12	Staging, Access, and Equipment	Clearly mark boundaries to establish the limit of work associated with site access and construction.	Clearly mark boundaries to establish the limit of work associated with site access and construction.	Construction	WSDOT	WSDOT Plans and Survey Crews	None
13	Staging, Access, and Equipment	Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.	Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.	Design	WSDOT	Environmental Manual	This is already part of WSDOT's avoid, minimize, mitigate decision process. And we submit limits of impacts in the JARPA.
14	Staging, Access, and Equipment	This Hydraulic Project Approval authorizes only the removal of the large woody vegetation shown in the approved plan. Clearly mark all large woody vegetation authorized for removal before starting work.	Only remove large woody vegetation shown in the approved plan. Clearly mark all large woody vegetation authorized for removal before starting work.	Construction	Contractor	1-04 Contract Plans	None
15	Staging, Access, and Equipment	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.	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.	Design Construction	WSDOT Contractor	JARPA Drawings Contract Plans 1-04	WSDOT will prepare a project application to meet stream simulation that will include these features if possible. The contractor isn't expected to interpret what WDFW wants, so just follow the Plans.
16	Staging, Access, and Equipment	Confine the use of equipment to the specific access and work corridor shown in the approved plans.	Confine the use of equipment to the specific access and work corridor shown in the approved plans.	Design Construction	WSDOT Contractor	JARPA Drawings Contract Plans 1-04	None
17	Staging, Access, and Equipment	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 prior to bypassing flow out of the work area.	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 prior to bypassing flow out of the work area.	Construction	Contractor	1-07.5(1)	None
18	Staging, Access, and Equipment	Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.	Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.	Construction	Contractor	1-07.15(1)	None
19	Erosion and Pollution Control	Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).	Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).	Construction	Contractor	7-06.SA1.FR7	We use the Temporary Stream Diversion GSP if the watercourse is not naturally dry.
20	Erosion and Pollution Control	Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.	Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.	Construction	Contractor	8-01	None
21	Erosion and Pollution Control	All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.	All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.	Construction	Contractor	8-01.3(16)	None
22	Erosion and Pollution Control	Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.	Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.	Construction	Contractor	9-14.4(1)	None

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23	Erosion and Pollution Control	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.	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.	Construction	Contractor	7-06.SA1.FR7	None
24	Erosion and Pollution Control	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.	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.	Construction	Contractor	1-07.1 1-07.5(3) 1-07.15(1)	None
25	Erosion and Pollution Control	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.	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.	Construction	Contractor	7-06.SA1.FR7 8-01.3(1)C	None
26	Erosion and Pollution Control	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.	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.	Construction	Contractor	2-02.3 2-03.3(7)C	None
27	Erosion and Pollution Control	Deposit all trash from the project at an appropriate upland disposal location.	Deposit all trash from the project at an appropriate upland disposal location.	Construction	Contractor	2-03.3(7)C	None
28	Erosion and Pollution Control	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.	The Contractor shall use tarps or other methods to prevent sawdust, trimmings, and drill shavings from treated wood from contacting the bed or waters of the state.	Construction	Contractor	1-07.5(3)	None
29	Erosion and Pollution Control	To prevent leaching, construct forms to contain any wet concrete. Place impervious material over any exposed 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.	To prevent leaching, construct forms to contain any wet concrete. Place impervious material over any exposed 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.	Construction	Contractor	1-07.5(3)	None
30	Materials	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.	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.	Construction	Contractor	1-07.5(3) 1-07.15(1)	None
31	Materials	Do not stockpile construction material waterward of the ordinary high water line.	Do not stockpile construction material waterward of the ordinary high water line.	Construction	Contractor	1-07.5(6).OPT1(B).GR1	None
32	Materials	Use only clean, suitable material as fill material (no trash, debris, car bodies, tires, asphalt, concrete, etc.).	Use only clean, suitable material as fill material (no trash, debris, car bodies, tires, asphalt, concrete, etc.).	Construction	Contractor	1-07.5(3)	None
33	In-water Work	Isolate fish from the work area by using block nets.	Isolate fish from the work area by using block nets.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
34	In-water Work	Block net openings must not exceed ADD TEXT HERE inches.	Block net openings must not exceed $$$1$$$ inches.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
35	In-water Work	Install block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.	Install block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
36	In-water Work	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.	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.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None

37	In-water Work	Install block nets at an angle to the direction of flow (not perpendicular to the flow) to avoid entrapping fish in the nets.	Install block nets at an angle to the direction of flow (not perpendicular to the flow) to avoid entrapping fish in the nets.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
38	In-water Work	After the first block net is secured at the upstream end, use a second block net to herd fish downstream and out of the project area.	After the first block net is secured at the upstream end, use a second block net to herd fish downstream and out of the project area.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
39	In-water Work	Install a downstream block net if fish may reenter the work area from downstream.	Install a downstream block net if fish may reenter the work area from downstream.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
40	In-water Work	To anchor block nets, place bags filled with clean round gravel along the bottom of the nets.	To anchor block nets, place bags filled with clean round gravel along the bottom of the nets.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
41	In-water Work	Secure block nets along both banks and the channel bottom to prevent failure from debris accumulation, high flows, and/or flanking.	Secure block nets along both banks and the channel bottom to prevent failure from debris accumulation, high flows, and/or flanking.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
42	In-water Work	To keep fish out of the job site, leave block nets in place until the work is complete and conditions are suitable for fish.	To keep fish out of the job site, leave block nets in place until the work is complete and conditions are suitable for fish.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
43	In-water Work	Check block nets at least three times a day for entangled fish and accumulated debris.	The Contractor shall check block nets at least three times a day for entangled fish and accumulated debris.	Construction	Contractor	7-06.SA1.FR7	None
44	In-water Work	Isolate fish from the work area by using either a total or partial bypass to reroute the stream through a temporary channel or pipe.	Isolate fish from the work area by using either a total or partial bypass to reroute the stream through a temporary channel or pipe.	Construction	Contractor	7-06.SA1.FR7	None
45	In-water Work	Provide fish passage during times of the year when fish are expected to migrate.	Provide fish passage during times of the year when fish are expected to migrate.	Construction	Contractor	7-06.SA1.FR7	None
46	In-water Work	Sequence the work to minimize the duration of dewatering.	Sequence the work to minimize the duration of dewatering.	Construction	Contractor	7-06.SA1.FR7	Note: Diversions cost money. As a matter of financial efficiency, contractors will sequence to save time and money.
47	In-water Work	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.	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.	Construction	Contractor	7-06.SA1.FR7	None
48	In-water Work	The hydraulic capacity of the stream bypass must be equal to or greater than the ADD TEXT HERE-year peak flow event expected when the bypass will be operated.	The hydraulic capacity of the stream bypass must be equal to or greater than the $$$1$$$ year peak flow event expected when the bypass will be operated.	Design Construction	WSDOT Contractor	GSP Index for 7-06 7-06.SA1.FR7	None
49	In-water Work	Design the temporary bypass to minimize the length of the dewatered stream channel.	Design the temporary bypass to minimize the length of the dewatered stream channel.	Construction	Contractor	7-06.SA1.FR7	WSDOT will follow the HPA based on the approved design.
50	In-water Work	During all phases of bypass installation and decommissioning, maintain flows downstream of the project site to ensure survival of all downstream fish.	During all phases of bypass installation and decommissioning, maintain flows downstream of the project site to ensure survival of all downstream fish.	Construction	Contractor	7-06.SA1.FR7	None
51	In-water Work	Install the temporary bypass before starting other construction work in the wetted perimeter using the ADD TEXT HERE bypass method approved by the Washington Department of Fish and Wildlife.	Install the temporary bypass before starting other construction work in the wetted perimeter.	Construction	Contractor	7-06.SA1.FR7	None

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52	In-water Work	Install a cofferdam or similar device at the upstream and downstream end of the bypass to prevent backwater from entering the work area.	Install a cofferdam or similar device at the upstream and downstream end of the bypass to prevent backwater from entering the work area.	Construction	Contractor	7-06.SA1.FR7	None
53	In-water Work	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.	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.	Construction	Contractor	7-06.SA1.FR7	None
54	In-water Work	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.	Do not track in CTS	Construction	Contractor	Prepare a special provision if this permit condition is in play.	This is quite the rarity for our projects because they are short duration.
55	In-water Work	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.	If the Contractor chooses to use a pumped diversion, it must run continuously until it is no longer necessary to bypass flows. The Contractor shall provide back up pumps on-site and twenty-four-hour monitoring for overnight operation.	Construction	Contractor	7-06.SA1.FR7	None
56	In-water Work	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: 0.094 inch (maximum opening on the diagonal). 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.	The Contractor shall install, operate, and maintain a fish screen when using a pumped diversion or dewatering the isolated work area in accordance with RCW 77.57.010 and 77.57.070. The pump screen shall comply with the following: a) Perforated plate: 0.094 inch (maximum opening diameter); b) Profile bar: 0.069 inch (maximum width opening); or c) Woven wire: 0.094 inch (maximum opening on the diagonal). 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.	Construction	Contractor	7-06.SA1.FR7	None
57	In-water Work	The fish screen must remain in place whenever water is withdrawn from the stream through the pump intake.	The fish screen must remain in place whenever water is withdrawn from the stream through the pump intake.	Construction	Contractor	7-06.SA1.FR7	None
58	In-water Work	Remove fish screens on dewatering pumps in the isolated work area only after all fish are safe and excluded from the work area.	Remove fish screens on dewatering pumps in the isolated work area only after all fish are safe and excluded from the work area.	Construction	Contractor	7-06.SA1.FR7	None
59	In-water Work	Isolate pump hose intakes with block nets so that fish cannot get near the intake.	Isolate pump hose intakes with block nets so that fish cannot get near the intake.	Construction	Contractor	7-06.SA1.FR7	None
60	Fish Life Removal	All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.	All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
61	Fish Life Removal	If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.	If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
62	Fish Life Removal	If personnel are available, the Washington Department of Fish and Wildlife and affected tribes may help capture and move fish life from the job site.	Do not track in CTS	N/A	N/A	N/A	This is always an option, so no use tracking it.
63	Fish Life Removal	Place block nets upstream and downstream of the in-water work area before capturing and removing fish life.	Place block nets upstream and downstream of the in-water work area before capturing and removing fish life.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
64	Fish Life Removal	Capture and safely move fish life from the work area to the nearest suitable free-flowing water.	Capture and safely move fish life from the work area to the nearest suitable free-flowing water.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None

65	Fish Life Removal	All persons removing fish life from a job site must follow the protocol entitled ADD TEXT HERE and dated ADD TEXT HERE.	All persons removing fish life from a job site must follow the protocol entitled *WSDOT Fish Exclusion Protocols* and dated 8/20/2012.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards	None
66	Culvert	Install and maintain the culvert to ensure unimpeded fish passage.	Install and maintain the culvert to ensure unimpeded fish passage.	M&O	WSDOT	Maintenance & Operations	None
67	Culvert	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).	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).	Design Construction Construction	WSDOT Survey WSDOT Contractor	Standard Operating Procedure Currently, the WDFW Fish Passage Manager is okay with listing the elevation on our As Built documents. The contractor will do this for quality purposes and WSDOT will not tell them how to do their work.	None
68	Culvert	The authorized culvert is a ADD TEXT HERE design.	The authorized culvert is a $$$1$$$ design.	Design	WSDOT	JARPA Drawings	None
69	Culvert	The length of the culvert must not exceed ADD TEXT HERE feet.	The constructed length of the culvert must not exceed the length stated in the JARPA and approved in the HPA.	Construction	Contractor	JARPA Drawings Contract Plans	None
70	Culvert	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 ADD TEXT HERE feet which is 1.2 times the average channel bed width plus two feet.	The width of the channel-bed inside a stream simulation culvert at the elevation of the stream bed must be constructed as stated in the JARPA and approved in the HPA.	Construction	Contractor	JARPA Drawings Contract Plans	Also addressed by HPA #3
71	Culvert	The width between the culvert footings for a bottomless culvert must be equal to or greater than ADD TEXT HERE feet.	The width between the culvert footings for a bottomless culvert must be constructed as stated in the JARPA and approved in the HPA.	Construction	Contractor	JARPA Drawings Contract Plans	None
72	Culvert	Set the stream simulation culvert at the same gradient as the prevailing stream gradient of ADD TEXT HERE percent.	Set the stream simulation culvert at the gradient as stated in the JARPA and approved in the HPA.	Construction	Contractor	JARPA Drawings Contract Plans	None
73	Culvert	Countersink the stream simulation culvert a minimum of thirty percent and a maximum of fifty percent of the culvert rise, but not less than two feet.	Countersink the stream simulation culvert a minimum of thirty percent and a maximum of fifty percent of the culvert rise, but not less than two feet.	Construction	Contractor	JARPA Drawings Contract Plans	None
74	Culvert	Bury the footings of a bottomless culvert ADD TEXT HERE feet deep to ensure they will not become exposed by scour within the culvert.	Bury the footings of a bottomless culvert to ensure they will not become exposed by scour within the culvert.	Construction	Contractor	JARPA Drawings Contract Plans	None
75	Culvert	Embed the top of footings of bottomless culverts sufficiently below potential scour depth to prevent exposure of the footing surface and undermining.	Embed the top of footings of bottomless culverts sufficiently below potential scour depth to prevent exposure of the footing surface and undermining.	Construction	Contractor	JARPA Drawings Contract Plans	None
76	Culvert	Size streambed material to mimic the stream's natural gradation as found in nearby reference channel reaches. Place a minimum of ADD TEXT HERE inches deep of clean, rounded and well-graded (includes all size classes) material. Angular rock is not permitted within the channel or culvert.	Size streambed material to mimic the stream's natural gradation as found in nearby reference channel reaches. Place clean, rounded and well-graded (includes all size classes) material in accordance with the JARPA and approved HPA. Angular rock is not permitted within the channel or culvert.	Design Construction	WSDOT Contractor	JARPA Drawings Contract Special Provision	None
77	Culvert	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.	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.	Design Construction	WSDOT Contractor	JARPA Drawings Contract Plans	None

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78	Culvert	Protect structural fill associated with the culvert installation from erosion to the ADD TEXT HERE-year peak flow.	Protect structural fill associated with the culvert installation from erosion as stated in the JARPA and approved in the HPA.	Construction	Contractor	JARPA Drawings Contract Plans	None
79	Culvert	Approach material must be structurally stable and composed of material that if eroded into the water will not harm fish life.	Approach material must be structurally stable and composed of material that if eroded into the water will not harm fish life.	Design	WSDOT	JARPA Drawings	None
80	Culvert	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.	WSDOT 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 a Hydraulic Project Approval and provide prompt repair.	Maintenance	WSDOT	Maintenance & Operations	None
81	Bridge	Design and construct the bridge to pass water, ice, large wood, and associated woody material and sediment likely to move under the bridge during the ADD TEXT HERE-year flood flows.	Design and construct the bridge to pass water, ice, large wood, and associated woody material and sediment likely to move under the bridge for the flood flows stated in the JARPA and approved in the HPA.	Design Construction	WSDOT Contractor	JARPA Drawings Contract Plans 1-04	None
82	Bridge	Locate the waterward face of all bridge elements including abutments, piers, pilings, sills, foundations, aprons, wing walls, and approach material landward of the ordinary high water line.	Locate the waterward face of all bridge elements including abutments, piers, pilings, sills, foundations, aprons, wing walls, and approach material landward of the ordinary high water line.	Design	WSDOT	JARPA Drawings Contract Plans	None
83	Bridge	Bury footings a minimum of ADD TEXT HERE feet below scour depth.	Bury footings at a depth to prevent future scour.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
84	Bridge	If excavation or other construction activities take place waterward of the ordinary high water line, isolate the work area from the stream flow (if present) by using a cofferdam, bypass, or similar structure.	If excavation or other construction activities take place waterward of the ordinary high water line, isolate the work area from the stream flow (if present) by using a cofferdam, bypass, or similar structure.	Construction	Contractor	7-06.SA1.FR7	None
85	Bridge	Minimize damage to the bed and banks when placing bridge stringers.	Minimize damage to the bed and banks when placing bridge stringers.	Construction	Contractor	Contract Provisions & Plans	The JARPA explains limits of impact and the contractor will follow the resulting permits via the Contract.
86	Bridge	Use material for the approaches that is structurally stable and that will not harm fish life if it erodes into the water.	Use material for the approaches that is structurally stable and that will not harm fish life if it erodes into the water.	Construction	Contractor	JARPA Drawings Contract Plans	This just another way of saying round rock. The Hydraulic Office writes a Special Provision for Streambed Aggregate that meets the Hydraulic Code.
87	Bridge	Securely anchor at least one end of the temporary bridge or stringer(s).	Securely anchor at least one end of the temporary bridge or stringer(s).	Construction	Contractor	1-07.16(2)	What is the performance aspect of this condition? Is the goal to keep the bridge material from falling into the stream. If so, there are other reasons why the contractor will do this…like not killing the traveling public.
88	Bridge	Prevent the existing structure and associated construction materials from entering the stream when removing them.	Prevent the existing structure and associated construction materials from entering the stream when removing them.	Construction	Contractor	2-02.3(2)A1 1-07.5(3) 2-03.3(7)C	For bridge removal, the Standard Specifications cover it. 2-02.3(2)A1 requires a Type 2E bridge

							demolition plan submittal. A licensed PE must prepare this plan and they have to respond to our comments.
89	Bridge	Clean the bridge deck of aggregate or earth materials before removing the bridge.	Clean the bridge deck of aggregate or earth materials before removing the bridge.	Construction	Contractor	2-02.3(2)A1	This specification deals with disposal of "all debris."
90	Bridge	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 into the stream. You must remove these sections from the stream immediately.	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 into the stream. You must remove these sections from the stream immediately.	Construction	Contractor	2-02.3(2)A1	This permit condition is more lenient than the spec as to dropping bridge into water. If we think this will be needed, prepare a special provision.
91	Bridge	Install and maintain curbs or wheel guards to prevent aggregate or earth-type paving material from entering the stream.	Install and maintain curbs or wheel guards to prevent aggregate or earth-type paving material from entering the stream.	Maintenance	WSDOT	Maintenance & Operations	None
92	Bridge	Install biotechnical slope protection outside the bridge shadow as shown in the approved plans.	Install biotechnical slope protection outside the bridge shadow as shown in the approved plans.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
93	Channel Relocation/ Realignment	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.	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.	Design	WSDOT	JARPA Drawings	None
94	Channel Relocation/ Realignment	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.	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.	Design Construction	WSDOT Contractor	JARPA Drawings Contract Plans	None
95	Channel Relocation/ Realignment	During construction, isolate the new channel from the flowing watercourse.	During construction, isolate the new channel from the flowing watercourse.	Construction	Contractor	7-06.SA1.FR7	None
96	Channel Relocation/ Realignment	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.	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.	Construction	Contractor	Contract Plans 1-04	The Plans will reflect the JARPA drawings, so the contractor just needs to follow them.
97	Channel Relocation/ Realignment	Use fir, cedar, or other coniferous species to construct log or rootwad fish habitat structure(s).	Use fir, cedar, or other coniferous species to construct log or rootwad fish habitat structure(s).	Design	WSDOT	JARPA Drawing Contract Plans 1-04	None
98	Channel Relocation/ Realignment	Place the fish habitat structures in the low flow channel.	Place the fish habitat structures in the low flow channel.	Design Construction	WSDOT Contractor	JARPA Drawing Contract Plans 1-04	None
99	Channel Relocation/ Realignment	Place a minimum of ADD TEXT HERE inches deep of clean, rounded, uniformly-graded gravel with a size composition of: ADD TEXT HERE percent of 4.0 to 3.0 inches; ADD TEXT HERE percent of 3.0 to 1.5 inches; ADD TEXT HERE percent of 1.5 to 0.25 inches, with fines less than 0.25 inches not exceeding 3.0 percent total volume, throughout the channel.	Place clean, rounded, uniformly-graded gravel throughout the channel in accordance with the JARPA and approved HPA.	Design Construction	WSDOT Contractor	JARPA Drawing Contract Plans 1-04	None

100	Channel Relocation/ Realignment	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. Create a low-flow channel and a high-flow bench on both sides of the channel. Angular rock is not permitted within the channel.	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. Create a low-flow channel and a high-flow bench on both sides of the channel. Angular rock is not permitted within the channel.	Design Construction	WSDOT Contractor	JARPA Drawing Contract Plans 1-04	The HQ Hydraulics Office considered writing a GSP, but it was so massive that they prefer to keep it a Special Provision.
101	Channel Relocation/ Realignment	Place spoils from the new channel in an upland area above the limits of anticipated floodwater	Place spoils from the new channel in an upland area above the limits of anticipated floodwater.	Construction	Contractor	2-02.3 2-02.3(7)C	None
102	Channel Relocation/ Realignment	The angle of the structure used to divert the water into the new channel(s) must allow a smooth transition of water flow.	The angle of the structure used to divert the water into the new channel(s) must allow a smooth transition of water flow.	Design	WSDOT	JARPA Drawing Contract Plans 1-04	None
103	Channel Relocation/ Realignment	The Habitat Biologist listed below or their representative must inspect and approve the new channel before the stream is diverted into the channel.	***Do not track this commitment***	N/A	N/A	N/A	WSDOT will build the channel per the plans approved by WDFW.
104	Channel Relocation/ Realignment	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 ADD TEXT HERE – year peak flow.	Diverting the flow into the new channel: f. First remove the downstream plug. g. Face the stream side of the plug with a sandbag or similar device. h. 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. i. Remove the remainder of the upstream plug if the new channel has flow throughout the entire length. j. 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 ADD TEXT HERE – year peak flow.	Construction	Contractor	7-06.SA1.FR7	The contractor will prepare a TSD Plan prepared by a licensed PE. The Plan will meet the requirements of the contract, which has been shown to meet the expectations of the Hydraulic Code.
105	Channel Relocation/ Realignment	Fill the old channel beginning from the upstream closure. Compact the fill material. Water discharging from the fill must not adversely affect fish life.	Fill the old channel beginning from the upstream closure. Compact the fill material. Water discharging from the fill must not adversely affect fish life.	Construction	Contractor	7-06.SA1.FR7	See note for HPA #104
106	Channel Relocation/ Realignment	To avoid fish stranding, the bed must not contain pits, potholes, or large depressions upon completion of the dredging.	To avoid fish stranding, the bed must not contain pits, potholes, or large depressions upon completion of the dredging.	Construction	Contractor	1-04	WSDOT will design the stream channel to meet the Hydraulic Code, and be either a Stream Simulation, Bridge, or Equivalent Design.
107	Demobilization and Cleanup	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.	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.	Construction	Contractor	2-03.3(7)C	None
108	Demobilization and Cleanup	Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.	Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.	Construction	Contractor	JARPA Drawings Contract Plans 1-04 1-07.16(2)	The Roadside Restoration Worksheet is filled out during project scoping or estimating phase. It documents decisions as a response to roadside

							policies as stated in the *Roadside Policy Manual* or permit requirements. The project is designed to meet those requirements. The results are Plans and Specifications that become part of the Contract, which are implemented by the Contractor.
109	Demobilization and Cleanup	Remove all trash and unauthorized fill in the project area, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, floating debris, and paper, that is waterward of the ordinary high water line and deposit upland.	Remove all trash and unauthorized fill in the project area, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, floating debris, and paper, that is waterward of the ordinary high water line and deposit upland.	Construction	Contractor	2-03.3(7)C	None
110	Demobilization and Cleanup	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.	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.	Construction	Contractor	1-07.5(5).OPT1(E).GR1	The GSP is set up for using Army Corps Nationwide Permits, but we will modify the Index to include HPA.
111	Demobilization and Cleanup	To prevent fish from stranding, backfill trenches, depressions, and holes in the bed that may entrain fish during high water or wave action.	To prevent fish from stranding, backfill trenches, depressions, and holes in the bed that may entrain fish during high water or wave action.	Construction	Contractor	1-04	WSDOT will design the stream channel to meet the Hydraulic Code, and be either a Stream Simulation, Bridge, or Equivalent Design.
112	Demobilization and Cleanup	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.	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.	Construction	Contractor	7-06.SA1.FR7	None
113	Demobilization and Cleanup	Seed areas disturbed by construction activities with a native seed mix suitable for the site that has at least one quick-establishing plant species.	Seed areas disturbed by construction activities with a native seed mix suitable for the site that has at least one quick-establishing plant species.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
114	Demobilization and Cleanup	Replace native riparian zone vegetation damaged or destroyed by construction with INSERT TEXT HERE native trees, and INSERT NUMBER HERE native shrubs. Plant the trees and shrubs within INSERT TEXT HERE feet of the ordinary high water line. Plant trees 10 feet on center, and shrubs five feet on center.	Replace native riparian zone vegetation damaged or destroyed by construction with native trees and native shrubs in accordance with the JARPA and approved HPA.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
115	Demobilization and Cleanup	Replant the job site with the plant species composition and planting densities approved by the Washington Department of Fish and Wildlife.	Replant the job site with the plant species composition and planting densities approved by the Washington Department of Fish and Wildlife.	Construction	Contractor	Contract Plans 1-04	None
116	Demobilization and Cleanup	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.	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.	Construction Construction	Contractor WSDOT	Contract Plans 1-04 8-02.3(13) State Forces years 2-3	Region Landscape Architects use the WSDOT Roadside Restoration Manual – Revegetation for Stream Restoration & Fish Passage Projects to guide replanting. Additionally,

117	Demobilization and Cleanup	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.	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.	Construction	Contractor	2-03.3(7)C	The contractor will not want to leave equipment on site; nor would WSDOT allow that.
118	Demobilization and Cleanup	Return water flow slowly to the in-water work area to prevent the downstream release of sediment laden water. If necessary, install silt fencing above the bypass outlet to capture sediment during re-watering of the channel.	Return water flow slowly to the in-water work area to prevent the downstream release of sediment laden water.	Construction	Contractor	7-06.SA1.FR7	Silt fence should NEVER be placed in a stream…wrong application.
119	Demobilization and Cleanup	Remove temporary erosion and sediment control methods after job site is stabilized or within three months of project completion, whichever is sooner.	Remove temporary erosion and sediment control methods after job site is stabilized or within three months of project completion, whichever is sooner.	Construction	Contractor	8-01	None
Project Specific							
120	Cofferdam	Use a cofferdam, dike, or similar structure to exclude water from the work area.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	Cofferdam will be a rarity, so it makes sense to address them by Special Provision.
121	Cofferdam	Maintain water quality when installing and removing the cofferdam, dike or similar structure.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	See note for HPA#120
122	Cofferdam	Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	See note for HPA#120
123	Cofferdam	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.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
124	Cofferdam	Sequence the work to minimize the duration of dewatering.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Not Applicable	None
125	In-Water w/no Bypass or Cofferdam	This Hydraulic Project Approval does not require the use of a cofferdam, bypass, or similar structure to separate the work area from waters of the state.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
126	In-Water w/no Bypass or Cofferdam	A temporary bypass is not required when the following circumstances exist, provided you can comply with the Hydraulic Project Approval provisions: k. When installing a coffer dam, bypass or similar structure would cause greater impacts to fish life than it would prevent; l. When the work area is in deep or swiftly flowing water; m. When turbidity is not a concern (i.e. the stream is dry, very slow flow); n. When fish can be excluded by nets or screens; or o. When fish are not present.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
127	Stream Bank Protection	The length of the bank protection must not exceed ADD TEXT HERE feet.	The length of the bank protection must not exceed what was proposed in the JARPA and approved in the HPA.	Design	WSDOT	JARPA Drawings	None
128	Stream Bank Protection	Establish the waterward distance of the structure from a permanent benchmark(s) (fixed objects) shown on the approved plans. Locate and mark the benchmark(s) in the field prior to the start of work. Protect the benchmark to serve as a post-project reference for ten years.	Establish the waterward distance of the structure from a permanent benchmark(s) (fixed objects) shown on the approved plans. Locate and mark the benchmark(s) in the field prior to the start of work. Protect the benchmark to serve as a post-project reference for ten years.	Construction	WSDOT	JARPA Drawings As-built Drawings	None
129	Stream Bank Protection	Locate the toe of the structure at least ADD TEXT HERE feet landward of the ordinary high water line as shown in the approved plans.	Locate the toe of the structure landward of the ordinary high water line as shown in the approved plans.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None

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130	Stream Bank Protection	Place large wood or other materials consistent with natural stream processes waterward of the ordinary high water line as shown in the approved plans.	Place large wood or other materials consistent with natural stream processes waterward of the ordinary high water line as shown in the approved plans.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
131	Stream Bank Protection	Locate the toe of the structure no further than ADD TEXT HERE feet waterward of the ordinary high water line and landward of the wetted channel, as shown in the approved plans.	Locate the toe of the structure waterward of the ordinary high water line and landward of the wetted channel, as shown in the approved plans.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
132	Stream Bank Protection	Locate the toe of the structure no further than ADD TEXT HERE feet waterward of the ordinary high water line as shown in the approved plans.	Locate the toe of the structure no further waterward of the ordinary high water line than is shown in the approved plans.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
133	Stream Bank Protection	Install the toe to protect the integrity of bank protection material.	Install the toe to protect the integrity of bank protection material.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
134	Stream Bank Protection	Bury the base of the structure deep enough to prevent undermining.	Bury the base of the structure deep enough to prevent undermining.	Design	WSDOT	JARPA Drawings Contract Plans 1-04	None
135	Stream Bank Protection	The biotechnical bank protection technique design must withstand the ADD TEXT HERE-year peak flow.	The biotechnical bank protection technique design must withstand the peak flows as stated in the JARPA and as approved in the HPA.	Design	WSDOT	JARPA Drawings Contract Plans 1-04	None
136	Stream Bank Protection	Use fir, cedar, or other coniferous species to construct the log or rootwad fish habitat structure(s).	Use fir, cedar, or other coniferous species to construct the log or rootwad fish habitat structure(s).	Design	WSDOT	JARPA Drawings Contract Plans 1-04	None
137	Stream Bank Protection	Use clean angular rock to construct the bank protection. The rock must be large enough and installed to withstand the 100-year peak flow. OR The rock must be large enough and installed to withstand the ADD TEXT HERE-year peak flow.	Use clean angular rock to construct the bank protection. The rock must be large enough and installed to withstand the peak flows described in the JARPA and as approved in the HPA.	Design	WSDOT	JARPA Drawings Contract Plans 1-04	None
138	Stream Bank Protection	Do not release overburden material into the waters of the state when resloping the bank.	Do not release overburden material into the waters of the state when resloping the bank.	Construction	Contractor	Contract Plans 1-07.5(3)	None
139	Stream Bank Protection	Do not use bed gravel for exterior armor or backfill unless approved by the Washington Department of Fish and Wildlife.	Do not use bed gravel for exterior armor or backfill unless approved by the Washington Department of Fish and Wildlife.	Design	WSDOT	JARPA Drawings Contract Plans 1-04	None
140	Stream Bank Protection	Place bank protection or shoreline stabilization material and biodegradable filter blanket material from the bank or a barge. Dumping material onto the bank face may occur only if the toe is established and the material can be confined to the bank face.	Place bank protection or shoreline stabilization material and biodegradable filter blanket material from the bank or a barge. Dumping material onto the bank face may occur only if the toe is established and the material can be confined to the bank face.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
141	Stream Bank Protection	Reslope the banks to a ADD TEXT HERE foot horizontal and ADD TEXT HERE foot vertical slope or less.	Reslope the banks in accordance with the JARPA and as approved in the HPA.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
142	Stream Bank Protection	Place geotextile cloth or biodegradable filter blanket material on the bank before placing the bank protection material.	Place geotextile cloth or biodegradable filter blanket material on the bank before placing the bank protection material.	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
143	Stream Bank Protection	Avoid damaging existing vegetation when placing bank protection material.	Avoid damaging existing vegetation when placing bank protection material.	Construction	Contractor	JARPA Drawings Contract Plans 1-04 1-07.16(2)	None
144	Stream Bank Protection	Complete all bank protection work prior to releasing the water flow to the project area.	Complete all bank protection work prior to releasing the water flow to the project area.	Construction	Contractor	JARPA Drawings Contract Plans	None

						1-04 7-06.SA1.FR7	
145	Remove Water Crossing	Remove the culvert 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 removing the culvert in the flowing stream reduces siltation or turbidity.	The Contractor shall remove the culvert 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.	Construction	Contractor	JARPA Drawings Contract Plans 1-04 7-06.SA1.FR7	None
146	Remove Water Crossing	Remove the temporary culvert, bridge, ford, and any imported fill. Remove all earth and roadbed materials prior to removing a temporary crossing. Restore the site to a similar width, depth, gradient, and substrate composition as the channel segments upstream and downstream from the crossing.	Remove the temporary culvert, bridge, ford, and any imported fill. Remove all earth and roadbed materials prior to removing a temporary crossing. Restore the site to a similar width, depth, gradient, and substrate composition as the channel segments upstream and downstream from the crossing.	Construction	Contractor	JARPA Drawings Contract Plans 1-04 7-06.SA1.FR7	None
147	Remove Water Crossing	Remove all the components of a bridge or culvert crossing (approach material, sills, stringers, deck, riprap, guardrails, etc.).	Remove all the components of a bridge or culvert crossing (approach material, sills, stringers, deck, riprap, guardrails, etc.).	Construction	Contractor	JARPA Drawings Contract Plans 1-04	None
148	Remove Large Woody Material	When placing, repositioning, or removing large woody material, station equipment on the bank.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
149	Remove Large Woody Material	Place the wood directly back in the channel immediately downstream of the structure.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
150	Remove Large Woody Material	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.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
151	Remove Large Woody Material	Do not cut large woody material. If you must cut large woody material so it can be suspended during removal, contact the Habitat Biologist listed below to request authorization.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
152	Remove Large Woody Material	When you cannot suspend large woody material above the bed and banks, use skid logs or similar methods to avoid bank damage. Avoid damage to stream banks and vegetation when removing skid logs after completing the yarding operation, and restore the bank to preproject condition.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
153	Remove Large Woody Material	Do not disturb large woody material embedded in a bank or bed except as approved by the Washington Department of Fish and Wildlife.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
154	Remove Large Woody Material	When repositioning or removing large woody material is approved, fill and smooth over any depressions created in the bed with material that has the same composition as native material.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
155	Remove Large Woody Material	When repositioning or removing large woody material, minimize releasing bedload, logs, or debris downstream.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None
156	Remove Large Woody Material	Do not cut firewood from accumulations of large woody material in stream or river channels.	Do not include in the programmatic block of contract language & Do not track in CTS.	Construction	Contractor	Must prepare a project special provision	None