

Hydraulic Project Approval Provisions for Fish Passage

The following are the template provisions that Washington Department of Fish and Wildlife (WDFW) permitting biologists use to populate Hydraulic Project Approvals. 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.

CTS ID	Category	WDFW HPA Provision Language	Modified Language for Contract Language / Commitment Tracking System	Phase	Responsibility	Existing Method of Implementation	Notes
FPHPA - 1	TIMING LIMITATION	Work below the ordinary high water line must only occur between INSERT DATE HERE and INSERT DATE HERE.	TIMING LIMITATION: The Contractor may begin Work below the Ordinary High Water Line on \$\$\$1\$\$\$ and must complete all the Work by \$\$\$2\$\$\$.	Construction	Contractor	GSP 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.
FPHPA - 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 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.	APPROVED PLANS: Accomplish the work per plans and specifications submitted with permit application 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	SS 1-04	The contractor must follow the Contract, which WSDOT shall ensure meets the intent of this commitment.
FPHPA - 3	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.	PRE-, DURING, AND POST-CONSTRUCTION NOTIFICATION: WSDOT or the contractor (if applicable) 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 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.	Construction	WSDOT Contractor	Construction Manual GSP 1-07.5(3).OPT1(B).FR1	None

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FPHPA - 4	PRE-CONSTRUCTION CONTRACTOR MEETING	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 fourteen business days before starting work to arrange a pre-construction contractor meeting onsite. The notification must include the permittee's name, project location, starting date, and the Hydraulic Project Approval permit number.	PRE-CONSTRUCTION CONTRACTOR MEETING: 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 fourteen business days before starting work to arrange a pre-construction contractor meeting onsite. The notification must include the permittee's name, project location, starting date, and the Hydraulic Project Approval permit number.	Construction	WSDOT Contractor	GSP 1-07.5.OPT1(B).FR1	None
FPHPA - 5	MONITORING	In addition to the Washington Department of Transportation's current fish passage monitoring plan, the following must be conducted post-construction after the first winter annually for three years and once more at year five: A) Low flow channel monitoring for fish passage in the constructed and relic channel. A hydraulic drop over 0.5 feet, or subsurface flow (as compared to the reference reach) must not occur. Photo Point Monitoring along the channel may be used. B) Three instream temperature monitoring stations for the newly constructed channel. C) Photo Point Monitoring of the existing confluence with Goldsborough and the new confluence. A copy of the monitoring report must be submitted to the WDFW Habitat Program at HPAapplications@dfw.wa.gov within 3 months of each evaluation. Each report must include the HPA permit number, permittee, contact person, telephone number, date of report, time period, and a copy of the assessment and subsequent findings per the approved plan. Corrective action may be required.	MONITORING: In addition to the Washington Department of Transportation's current fish passage monitoring plan, the following must be conducted post-construction after the first winter annually for three years and once more at year five: A) Low flow channel monitoring for fish passage in the constructed and relic channel. A hydraulic drop over 0.5 feet, or subsurface flow (as compared to the reference reach) must not occur. Photo Point Monitoring along the channel may be used. B) Three instream temperature monitoring stations for the newly constructed channel. C) Photo Point Monitoring of the existing confluence with Goldsborough and the new confluence. A copy of the monitoring report must be submitted to the WDFW Habitat Program at HPAapplications@dfw.wa.gov within 3 months of each evaluation. Each report must include the HPA permit number, permittee, contact person, telephone number, date of report, time period, and a copy of the assessment and subsequent findings per the approved plan. Corrective action may be required.	Operations and Maintenance	WSDOT		TBD if WSDOT will monitor through staff or hire a contractor. If a contractor, than 102.4
FPHPA - 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.	FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION: 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, SS 1-07.1, SS 1-07.5(1)	None

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FPHPA - 7	REVEGETATION	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.	RE-VEGETATION: 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, SS 8-02.3(2)B, SS 8-02.3(2)C, SS 8-02.3(3)B, SS 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.
FPHPA - 8	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.	PHOTOGRAPHS: 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
FPHPA - 9	INVASIVE SPECIES CONTROL	Follow Level 1 Decontamination protocol for low risk locations. 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 (September 0222), available online at http://wdfw.wa.gov/publications/01490/wdfw01490.pdf .	INVASIVE SPECIES CONTROL: 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 (September 0222), available online at http://wdfw.wa.gov/publications/01490/wdfw01490.pdf .	Construction	Contractor	SS 1-05.9, GSP 1-05.9.OPT2.FR1, GSP 1-05.9.OPT3.FR1	OPT2.FR1 is for noxious weeds OPT3.FR1 is for aquatic invasive species
FPHPA - 10	STAGING, JOB SITE 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.	STAGING, JOB SITE 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.	Construction	Contractor	SS 1-07.5(3), SS 1-07.15(1), GSP 1-07.5.OPT1(C).FR1	None
FPHPA - 11	STAGING, JOB SITE ACCESS, AND EQUIPMENT	Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.	STAGING, JOB SITE ACCESS, AND EQUIPMENT: 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 permit application.

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FPHPA - 12	STAGING, JOB SITE 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.	STAGING, JOB SITE 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.	Design Construction	WSDOT Contractor	Permit Application Package Contract Plans SS 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.
FPHPA - 13	STAGING, JOB SITE 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.	STAGING, JOB SITE 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.	Construction	Contractor	SS 1-07.1, SS 1-07.5(1)	None
FPHPA - 14	STAGING, JOB SITE 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.	STAGING, JOB SITE 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.	Construction	Contractor	SS 1-07.15(1)	None
FPHPA - 15	STAGING, JOB SITE ACCESS, AND EQUIPMENT	Trees identified for removal as part of this project larger than four inches in diameter and taller than six feet, may be placed in the low flow channel or within the stream buffer. To preserve habitat, the trees must not be cut into smaller pieces than approximately 20' lengths, and root wads are not to be removed from the trunk (bole) to the greatest extent possible.	STAGING, JOB SITE ACCESS, AND EQUIPMENT: Trees identified for removal as part of this project larger than four inches in diameter and taller than six feet, may be placed in the low flow channel or within the stream buffer. To preserve habitat, the trees must not be cut into smaller pieces than approximately 20' lengths, and root wads are not to be removed from the trunk (bole) to the greatest extent possible.	Construction	Contractor	SS 1-04	None
FPHPA - 16	STAGING, JOB SITE ACCESS, AND EQUIPMENT	Remove soil or debris from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to operating the equipment waterward of the wetland boundary.	STAGING, JOB SITE ACCESS, AND EQUIPMENT: Remove soil or debris from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to operating the equipment waterward of the wetland boundary.	Construction	Contractor	SS 1-07.1	None
FPHPA - 17	STAGING, JOB SITE ACCESS, AND EQUIPMENT	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 channel. This applies to existing channels and any new channels that are being constructed.	STAGING, JOB SITE ACCESS, AND EQUIPMENT: 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 channel. This applies to existing channels and any new channels that are being constructed.	Construction	Contractor	SS 8-01.3(1)C6	Limited to hydraulic fluids.
FPHPA - 18	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Install block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: Install block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards (2021 Update)	None

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FPHPA - 19	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Install block nets at an angle to the direction of flow (not perpendicular to the flow) to avoid entrapping fish in the nets.	IN-WATER WORK AREA ISOLATION USING BLOCK 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 (2021 Update)	None
FPHPA – 20	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	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.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: 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 (2021 Update)	None
FPHPA – 21	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Install a downstream block net if fish may reenter the work area from downstream.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: Install a downstream block net if fish may reenter the work area from downstream.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards (2021 Update)	None
FPHPA - 22	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Secure block nets along both banks and the channel bottom to prevent failure from debris accumulation, high flows, and/or flanking.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: 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 (2021 Update)	None
FPHPA - 23	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Check block nets at least three times a day for entangled fish and accumulated debris.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: The Contractor shall check block nets at least three times a day for entangled fish and accumulated debris.	Construction	Contractor	SS 8-31.3(5)	None
FPHPA - 24	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Install 3/32" knotless stretched nylon block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: Install 3/32" knotless stretched nylon block nets at sites with reduced flow volume or velocity, uniform depth, and good accessibility.	Construction	WSDOT	Fish Exclusion Protocols and Standards (2021 Update)	This is very project specific. The WSDOT Directing Biologist will determine amount, size, and location based upon size conditions and species.
FPHPA - 25	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Block nets must be checked frequently throughout the day to ensure they remain installed along the banks and creek bottom, that there are no entangled fish, and it is clear of accumulated debris. Natural debris may be released into free-flowing water downstream of the bypass.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: Block nets must be checked frequently throughout the day to ensure they remain installed along the banks and creek bottom, that there are no entangled fish, and it is clear of accumulated debris. Natural debris may be released into free-flowing water downstream of the bypass.	Construction	Contractor	SS 8-31.3(5)	None
FPHPA - 26	IN-WATER WORK AREA ISOLATION USING BLOCK NETS	Install the four block nets and work site isolation components within the approximate locations and with the configurations detailed on sheet 9 of 10 of the approved plans.	IN-WATER WORK AREA ISOLATION USING BLOCK NETS: Install the four block nets and work site isolation components within the approximate locations and with the configurations detailed on sheet 9 of 10 of the approved plans.	Construction	WSDOT	SS 8-31.3(2)B, Fish Exclusion Protocols and Standards (2021 Update)	This is very project specific. The WSDOT Directing Biologist will determine amount, size, and location based upon size conditions and species.
FPHPA - 27	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	Sequence the work to minimize the duration of dewatering.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: Sequence the work to minimize the duration of dewatering.	Construction	Contractor	SS 8-31.3(2)B	Note: Diversions cost money. As a matter of financial efficiency, contractors will sequence to save time and money.

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FPHPA - 28	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	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.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: 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	SS 8-31.3(2)B	Note: Contractors will decide based upon geological, cost, impact areas, and construction factors on which bypass works best for them.
FPHPA - 29	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	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.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: 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	SS 8-31.3(2)B	WSDOT provides the flows and typically the bypass flow will be based upon a 2 year event
FPHPA - 30	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	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.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: Install the temporary bypass before starting other construction work in the wetted perimeter.	Construction	Contractor	SS 8-31.3(2)B	None
FPHPA - 31	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	Install a cofferdam or similar device at the upstream and downstream end of the bypass to prevent backwater from entering the work area.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: 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	SS 8-31.3(2)B	Contractor will provide detail in how it will prevent water from entering the isolated work area.
FPHPA - 32	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	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.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: 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	SS 8-31.3(2)B	None
FPHPA - 33	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	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.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: 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.	Construction	Contractor	SS 8-31.3(2)B Prepare a special provision if this permit condition is in play.	WSDOT has responsibility to ensure this detail when reviewing the TSD submittal and overseeing contractor activities of the TSD.
FPHPA - 34	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	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.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: 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	SS 8-31.3(2)B	Contractor is required to have back up pumps operational within hours.

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FPHPA - 35	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	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 0.33 feet per second. Maintain fish screens to prevent injury or entrapment of fish.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: 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 0.33 feet per second. Maintain fish screens to prevent injury or entrapment of fish.	Construction	Contractor	SS 8-31.3(4), GSP 8-31.3(4)OPT1.2024.GR8, Fish Exclusion Protocols and Standards (2021 Update)	None
FPHPA - 36	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	The fish screen must remain in place whenever water is withdrawn from the stream through the pump intake.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: The fish screen must remain in place whenever water is withdrawn from the stream through the pump intake.	Construction	Contractor	SS 8-31.3(4), Fish Exclusion Protocols and Standards (2021 Update)	None
FPHPA - 37	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	Bags used for temporary stream diversion or other purposes must be filled with clean pea gravel.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: Bags used for temporary stream diversion or other purposes must be filled with clean pea gravel.	Construction	Contractor	SS 1-04, SS 8-31.3(2)B	None
FPHPA - 38	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS	Upon completion of the project, all material used in the temporary bypass must be removed from the site and the site returned to previously existing or improved conditions.	IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS: Upon completion of the project, all material used in the temporary bypass must be removed from the site and the site returned to previously existing or improved conditions.	Construction	Contractor	SS 8-31.3(2)B, Fish Exclusion Protocols and Standards (2021 Update)	None
FPHPA - 39	IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE	Use a cofferdam, dike, or similar structure to exclude water from the work area.	IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE: Use a cofferdam, dike, or similar structure to exclude water from the work area.	Construction	Contractor	Must prepare a project special provision	Cofferdam will be used more with bridge projects, so it makes sense to address them by Special Provision.
FPHPA - 40	IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE	Sequence the work to minimize the duration of dewatering.	IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE: Sequence the work to minimize the duration of dewatering.	Construction	Contractor	SS 8-31.3(2)B	None
FPHPA - 41	FISH LIFE REMOVAL	All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.	FISH LIFE REMOVAL: 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 (2021 Update)	None
FPHPA - 42	FISH LIFE REMOVAL	If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.	FISH LIFE REMOVAL: 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 (2021 Update)	None

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FPHPA - 43	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.	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.	Construction	WSDOT Environmental	Fish Exclusion Protocols and Standards (2021 Update)	None
FPHPA - 44	FISH LIFE REMOVAL	Capture and safely move fish life from the work area to the nearest suitable free-flowing water.	FISH LIFE REMOVAL: 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 (2021 Update)	None
FPHPA - 45	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.	FISH LIFE REMOVAL: All persons removing fish life from a job site must follow the current version of the <i>WSDOT Fish Exclusion Protocols</i> and Standards and dated ADD TEXT HERE.	Construction	WSDOT Biology	Fish Exclusion Protocols and Standards (2021 Update)	None
FPHPA - 46	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.	BRIDGE: 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 permit application and approved in the HPA.	Design Construction	WSDOT Contractor	Permit application package Contract Plans SS 1-04	None
FPHPA - 47	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.	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.	Design	WSDOT	Permit application package Contract Plans	None
FPHPA - 48	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.	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.	Construction	Contractor	SS 8-31.3(2)B	None
FPHPA - 49	BRIDGE	Use material for the approaches that is structurally stable and that will not harm fish life if it erodes into the water.	BRIDGE: Use material for the approaches that is structurally stable and that will not harm fish life if it erodes into the water.	Construction	Contractor	Permit application Package, Contract Plans SS 1-04	This just another way of saying round rock. The Hydraulic Office writes a Special Provision for Streambed Aggregate that meets the Hydraulic Code.
FPHPA - 50	BRIDGE	Prevent the existing structure and associated construction materials from entering the stream when removing them.	BRIDGE: Prevent the existing structure and associated construction materials from entering the stream when removing them.	Construction	Contractor	SS 1-07.5(3), SS 2-02.3(2)A1, SS 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.
FPHPA - 51	BRIDGE	Install and maintain curbs or wheel guards to prevent aggregate or earth-type paving material from entering the stream.	BRIDGE: Install and maintain curbs or wheel guards to prevent aggregate or earth-type paving material from entering the stream.	Maintenance	WSDOT	Maintenance & Operations	None

CTS ID	Category	WDFW HPA Provision Language	Modified Language for Contract Language / Commitment Tracking System	Phase	Responsibility	Existing Method of Implementation	Notes
FPHPA - 52	BRIDGE	The temporary bridge span over the channel must be a minimum of <u>xx</u> feet.	BRIDGE: The temporary bridge span over the channel must be a minimum of <u>xx</u> feet.	Design Construction	WSDOT Contractor	SS 6-02.3(17)A, SS 6-02.3(17)B, SS 6-02.3(17)C, SS 6-02.3(17)D,	Temporary bridge work can be consider falsework. No minimum exists but rather functional standards. Guide Specifications for Bridge Temporary Works is in 6-02.3(17)B.
FPHPA - 53	CULVERT	Install and maintain the culvert to ensure unimpeded fish passage.	CULVERT: Install and maintain the culvert to ensure unimpeded fish passage.	M&O	WSDOT	Maintenance & Operations	None
FPHPA – 54	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).	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).	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
FPHPA - 55	CULVERT	The length of the culvert must not exceed ADD TEXT HERE feet.	CULVERT: The constructed length of the culvert must not exceed the length stated in the permit application and approved in the HPA.	Construction	Contractor	Permit application package Contract Plans SS 1-04	None
FPHPA – 56	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.	CULVERT: 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 permit application and approved in the HPA.	Construction	Contractor	Permit application package Contract Plans SS 1-04	Also addressed by HPA #3
FPHPA – 57	CULVERT	The width between the culvert footings for a bottomless culvert must be equal to or greater than ADD TEXT HERE feet.	CULVERT: The width between the culvert footings for a bottomless culvert must be constructed as stated in the permit application and approved in the HPA.	Construction	Contractor	Permit application package Contract Plans SS 1-04	None
FPHPA - 58	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.	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.	Construction	Contractor	Permit application package Contract Plans SS 1-04	None
FPHPA – 59	CULVERT	Embed the top of footings of bottomless culverts sufficiently below potential scour depth to prevent exposure of the footing surface and undermining.	CULVERT: Embed the top of footings of bottomless culverts sufficiently below potential scour depth to prevent exposure of the footing surface and undermining.	Construction	Contractor	Permit application package Contract Plans SS 1-04	None
FPHPA - 60	CULVERT	Protect structural fill associated with the culvert installation from erosion to the ADD TEXT HERE-year peak flow.	CULVERT: Protect structural fill associated with the culvert installation from erosion as stated in the permit application and approved in the HPA.	Construction	Contractor	Permit application package Contract Plans SS 1-04	None

CTS ID	Category	WDFW HPA Provision Language	Modified Language for Contract Language / Commitment Tracking System	Phase	Responsibility	Existing Method of Implementation	Notes
FPHPA - 61	CULVERT	Approach material must be structurally stable and composed of material that if eroded into the water will not harm fish life.	CULVERT: Approach material must be structurally stable and composed of material that if eroded into the water will not harm fish life.	Design	WSDOT	Permit application package	None
FPHPA - 62	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.	CULVERT: 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
FPHPA – 63	CULVERT	Before starting work on this project, establish a durable benchmark or survey monument as a reference point. The reference point must be established at the work site, above the ordinary high water line, in an area that will not be disturbed by construction activities. Clearly mark on the reference point the elevation relative to the approved plans. Preserve the benchmark or survey monument for post-project compliance monitoring. Before backfilling, confirm that the structure was installed according to the elevations documented on the plans using a construction-grade leveling device (such as an optical auto-level or laser level).	CULVERT: Before starting work on this project, establish a durable benchmark or survey monument as a reference point. The reference point must be established at the work site, above the ordinary high water line, in an area that will not be disturbed by construction activities. Clearly mark on the reference point the elevation relative to the approved plans. Preserve the benchmark or survey monument for post-project compliance monitoring. Before backfilling, confirm that the structure was installed according to the elevations documented on the plans using a construction-grade leveling device (such as an optical auto-level or laser level).	Design Construction	WSDOT	SS 6-20.3(1)D, SS 6-20.3(1)	None
FPHPA - 64	WATER CROSSING STRUCTURE	Establish the water crossing structures invert elevation with survey monuments or benchmarks created prior to starting work on this project. Clearly mark and preserve the survey monuments for post-project compliance. Before backfilling, confirm the invert elevations, as stated on the plans, relative to the survey monument with at least a construction-grade leveling device (such as an optical auto-level or laser level).	WATER CROSSING STRUCTURE: Establish the water crossing structures invert elevation with survey monuments or benchmarks created prior to starting work on this project. Clearly mark and preserve the survey monuments for post-project compliance. Before backfilling, confirm the invert elevations, as stated on the plans, relative to the survey monument with at least a construction-grade leveling device (such as an optical auto-level or laser level).	Design Construction	WSDOT Contractor	GSP 1-02.4.GR1, GSP 1-05.4.OPT3.GR1	None
FPHPA - 65	WATER CROSSING STRUCTURE	The length of the water crossing structure on Double Ditch Creek must not exceed ___ feet along the west wall and ___ feet along the east wall, have a minimum internal span of ___ feet, and a minimum internal rise of ___ feet. The length of the water crossing structure on Pepin Creek must not exceed ___ feet, have a minimum internal span of ___ feet, and a minimum internal rise of ___ feet.	WATER CROSSING STRUCTURE: The length of the water crossing structure on ___ must not exceed ___ feet along the west wall and ___ feet along the east wall, have a minimum internal span of ___ feet, and a minimum internal rise of ___ feet. The length of the water crossing structure on ___ must not exceed ___ feet, have a minimum internal span of ___ feet, and a minimum internal rise of ___ feet.	Design Construction	WSDOT Contractor	SS 1-02.4(1)	None
FPHPA – 66	WATER CROSSING STRUCTURE	The width, side slopes, and configuration of the channel-beds inside the water crossing structures must match what is shown in the approved plans.	WATER CROSSING STRUCTURE: The width, side slopes, and configuration of the channel-beds inside the water crossing structures must match what is shown in the approved plans.	Construction	Contractor	SS 1-02.4(1), SS 8-31.3(2)B	None

CTS ID	Category	WDFW HPA Provision Language	Modified Language for Contract Language / Commitment Tracking System	Phase	Responsibility	Existing Method of Implementation	Notes
FPHPA - 67	WATER CROSSING STRUCTURE	Countersink the structures a minimum of thirty percent and a maximum of fifty percent structure rise, but not less than two feet. This criterion applies through the full length of the culvert.	WATER CROSSING STRUCTURE: Countersink the structures a minimum of thirty percent and a maximum of fifty percent structure rise, but not less than two feet. This criterion applies through the full length of the culvert.	Construction	Contractor	SS 6-04.3(7), SS 9-09.3	Treatment to countersink applies to timber structures and lumber.
FPHPA - 68	WATER CROSSING STRUCTURE	Minimize damage to the bed and banks when placing the water crossing structure	WATER CROSSING STRUCTURE: Minimize damage to the bed and banks when placing the water crossing structure.	Construction	Contractor	SS 1-02.4, SS 1-04	None
FPHPA - 69	WATER CROSSING STRUCTURE	Install the water crossing structures in isolation from stream flow by using a gravity bypass or by pumping the stream flow around the work area.	WATER CROSSING STRUCTURE: Install the water crossing structures in isolation from stream flow by using a gravity bypass or by pumping the stream flow around the work area.	Construction	Contractor	SS 1-04, SS 8-31.3(2)B	None
FPHPA - 70	CHANNEL RECONSTRUCTION	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.	CHANNEL RECONSTRUCTION: 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	Permit application package	None
FPHPA - 71	CHANNEL RECONSTRUCTION	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.	CHANNEL RECONSTRUCTION: 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	Permit application package Contract Plans SS 1-04	None
FPHPA - 72	CHANNEL RECONSTRUCTION	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.	CHANNEL RECONSTRUCTION: 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	Permit application package Contract Plans SS1-04	The HQ Hydraulics Office considered writing a GSP, but it was so massive that they prefer to keep it a Special Provision.
FPHPA - 73	CHANNEL RECONSTRUCTION	The angle of the structure used to divert the water into the new channel(s) must allow a smooth transition of water flow.	CHANNEL RECONSTRUCTION: 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	Permit application package Contract Plans SS 1-04	None
FPHPA - 74	CHANNEL RECONSTRUCTION	The Habitat Biologist listed below or their representative must inspect and approve the new channel before the stream is diverted into the channel.	CHANNEL RECONSTRUCTION: The Habitat Biologist listed below or their representative must inspect and approve the new channel before the stream is diverted into the channel.	Construction	Contractor	SS 8-31.3(2)B	WSDOT will build the channel per the plans approved by WDFW.

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FPHPA - 75	CHANNEL RECONSTRUCTION	<p>Diverting the flow into the new channel:</p> <ol style="list-style-type: none"> First remove the downstream plug. Face the stream side of the plug with a sandbag or similar device. 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. Remove the remainder of the upstream plug if the new channel has flow throughout the entire length. <p>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.</p>	<p>CHANNEL RECONSTRUCTION: Diverting the flow into the new channel:</p> <ol style="list-style-type: none"> First remove the downstream plug. Face the stream side of the plug with a sandbag or similar device. 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. Remove the remainder of the upstream plug if the new channel has flow throughout the entire length. <p>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.</p>	Construction	Contractor	SS 8-31.3(2)B	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.
FPHPA - 76	CHANNEL RECONSTRUCTION	The owner must maintain the water crossing structures and constructed channels to ensure they provide continued, unimpeded fish passage. If either of the constructed channels become a hindrance to fish passage, the owner must obtain an Hydraulic Project Approval and provide prompt repair.	CHANNEL RECONSTRUCTION: The owner must maintain the water crossing structures and constructed channels to ensure they provide continued, unimpeded fish passage. If either of the constructed channels become a hindrance to fish passage, the owner must obtain an Hydraulic Project Approval and provide prompt repair.	Maintenance and operations	Maintenance and operations WSDOT (obtain permit)		None
FPHPA - 77	CHANNEL RECONSTRUCTION	As shown in the approved plans, a 1-inch, intermediary sand layer is authorized to be placed within the reconstructed stream channels, and 2, 1-inch sand layers are authorized to be placed within the streambed through the water crossing structures.	CHANNEL RECONSTRUCTION: As shown in the approved plans, a 1-inch, intermediary sand layer is authorized to be placed within the reconstructed stream channels, and 2, 1-inch sand layers are authorized to be placed within the streambed through the water crossing structures.	Construction	Contractor	SS 1-02.4(1)	None
FPHPA - 78	CHANNEL RECONSTRUCTION	Realign the channels and associated side slopes to match approved plans.	CHANNEL RECONSTRUCTION: Realign the channels and associated side slopes to match approved plans.	Construction	Contractor	SS 1-02.4(1), SS 8-31.3(2)B	None
FPHPA - 79	CHANNEL RECONSTRUCTION	Place spoils from the excavation and relocation of the new channels in an upland area above the limits of anticipated floodwater.	CHANNEL RECONSTRUCTION: Place spoils from the excavation and relocation of the new channels in an upland area above the limits of anticipated floodwater.	Construction	Contractor	SS 1-07.5(2), SS 2-01.2	None
FPHPA - 80	CHANNEL RECONSTRUCTION	If, following project completion and the return of flow to the constructed 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.	CHANNEL RECONSTRUCTION: If, following project completion and the return of flow to the constructed 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.	Construction	Contractor	SS 8-31.3(2)B	None
FPHPA - 81	CHANNEL RECONSTRUCTION	The wood structures must be unanchored fir, cedar, or other coniferous species with root wads attached, per submitted JARPA drawings.	CHANNEL RECONSTRUCTION: The wood structures must be unanchored fir, cedar, or other coniferous species with root wads attached, per submitted JARPA drawings.	Construction	Contractor	SS 1-02.4(1)	WSDOT current uses self anchoring wood.

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FPHPA - 82	CHANNEL RECONSTRUCTION	Bury the 3-man rock associated with the wood structures sufficiently in order to not become exposed over time or limit the scour hole creation under rootwads.	CHANNEL RECONSTRUCTION: Bury the 3-man rock associated with the wood structures sufficiently in order to not become exposed over time or limit the scour hole creation under rootwads.	Design Construction	WSDOT Contractor	Need to make 6-20.3(1)E a special provisions and add to approved plans under SS 1-02.4(1)	WSDOT currently uses self-anchoring wood. Add 6-20.3(1)E later.
FPHPA - 83	CHANNEL RECONSTRUCTION	Reslope the banks to a 2 foot horizontal and 1 foot vertical slope or flatter. Do not release overburden material into the waters of the state when resloping the bank.	CHANNEL RECONSTRUCTION: Reslope the banks to a 2 foot horizontal and 1 foot vertical slope or flatter. Do not release overburden material into the waters of the state when resloping the bank.	Design Construction	WSDOT Contractor	SS 1-02.4(1)	This should be addressed in the hydraulic report. Typically this is our design standard.
FPHPA - 84	OUTFALL	Locate and construct the outfall per the approved plans and specifications entitled, ADD TEXT HERE and dated ADD TEXT HERE, and submitted to the Washington Department of Fish and Wildlife.	OUTFALL: Locate and construct the outfall per the approved plans and specifications entitled, ADD TEXT HERE and dated ADD TEXT HERE, and submitted to the Washington Department of Fish and Wildlife.	Construction	Contractor	SS 1-04	Should be part of the HPA application and in the plans
FPHPA - 85	OUTFALL	To prevent scouring, protect the watercourse bank and bed at the point of discharge using biotechnical techniques.	OUTFALL: To prevent scouring, protect the watercourse bank and bed at the point of discharge using biotechnical techniques.	Construction	Contractor	Would require a special provision	This would be up to the contractor to decide the techniques.
FPHPA - 86	OUTFALL	Construct the outfall structure to prevent the entry of adult or juvenile fish.	OUTFALL: Construct the outfall structure to prevent the entry of adult or juvenile fish.	Construction	Contractor	Would require a special provision	None
FPHPA - 87	OUTFALL	The outfall energy dissipater must be located above the 100 year flood elevation.	OUTFALL: The outfall energy dissipater must be located above the 100 year flood elevation.	Construction	Contractor	Would require a special provision	None
FPHPA - 88	UTILITY CROSSINGS	Align the conduit as perpendicular as possible to the watercourse.	UTILITY CROSSINGS: Align the conduit as perpendicular as possible to the watercourse.	Design / Construction	Contractor	Utility Permits and Franchises	Coordination with Utility Office
FPHPA - 89	UTILITY CROSSINGS	Avoid areas of groundwater upwelling or locations within one hundred feet upstream of documented fish spawning areas.	UTILITY CROSSINGS: Avoid areas of groundwater upwelling or locations within one hundred feet upstream of documented fish spawning areas.	Design / Construction	Contractor	Utility Permits and Franchises	Coordination with Utility Office
FPHPA - 90	UTILITY CROSSINGS	Install the conduit well below scour depth of the watercourse to prevent natural scouring of the stream bed from exposing the pipeline or cable.	UTILITY CROSSINGS: Install the conduit well below scour depth of the watercourse to prevent natural scouring of the stream bed from exposing the pipeline or cable.	Design / Construction	Contractor	Utility Permits and Franchises	Coordination with Utility Office
FPHPA - 91	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.	STREAM BANK PROTECTION: Locate the toe of the structure landward of the ordinary high water line as shown in the approved plans.	Construction	Contractor	Permit Application Package Contract Plans SS 1-04	None
FPHPA - 92	STREAM BANK PROTECTION	Install the toe to protect the integrity of bank protection material.	STREAM BANK PROTECTION: Install the toe to protect the integrity of bank protection material.	Construction	Contractor	Permit Application Package Contract Plans SS 1-04	None
FPHPA - 93	STREAM BANK PROTECTION	Bury the base of the structure deep enough to prevent undermining.	STREAM BANK PROTECTION: Bury the base of the structure deep enough to prevent undermining.	Design	WSDOT	Permit Application Package Contract Plans SS 1-04	None

CTS ID	Category	WDFW HPA Provision Language	Modified Language for Contract Language / Commitment Tracking System	Phase	Responsibility	Existing Method of Implementation	Notes
FPHPA - 94	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.	STREAM BANK PROTECTION: 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 permit application and as approved in the HPA.	Design	WSDOT	Permit Application Package Contract Plans SS 1-04	None
FPHPA - 95	STREAM BANK PROTECTION	Do not release overburden material into the waters of the state when resloping the bank.	STREAM BANK PROTECTION: Do not release overburden material into the waters of the state when resloping the bank.	Construction	Contractor	Contract Plans SS 1-04, SS 1-07.5(3)	None
FPHPA - 96	STREAM BANK PROTECTION	Do not use bed gravel for exterior armor or backfill unless approved by the Washington Department of Fish and Wildlife.	STREAM BANK PROTECTION: Do not use bed gravel for exterior armor or backfill unless approved by the Washington Department of Fish and Wildlife.	Design	WSDOT	Permit Application Package Contract Plans SS 1-04	None
FPHPA - 97	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.	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.	Construction	Contractor	Permit Application Package Contract Plans SS 1-04	None
FPHPA - 98	STREAM BANK PROTECTION	Reslope the banks to a ADD TEXT HERE foot horizontal and ADD TEXT HERE foot vertical slope or less.	STREAM BANK PROTECTION: Reslope the banks in accordance with the permit application package and as approved in the HPA.	Construction	Contractor	Permit Application Package Contract Plans SS 1-04	None
FPHPA - 99	STREAM BANK PROTECTION	Complete all bank protection work prior to releasing the water flow to the project area.	STREAM BANK PROTECTION: Complete all bank protection work prior to releasing the water flow to the project area.	Construction	Contractor	Permit Application Package Contract Plans SS 1-04, SS 8-31.3(2)B	None
FPHPA - 100	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION	Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION: Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.	Construction	Contractor	SS 8-01	None
FPHPA - 101	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION	All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION: All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.	Construction	Contractor	SS 8-01.3(16)	None
FPHPA - 102	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION	Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION: Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.	Construction	Contractor	SS 9-14.5(1)	None
FPHPA - 103	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION	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-RELATED SEDIMENT, EROSION AND POLLUTION: 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	SS 1-07.5(2)	WSDOT will stop all work if project activities result in distressed fish or a fish kills, including silt buildup on bed or bottom of water.

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FPHPA - 104	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION	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-RELATED SEDIMENT, EROSION AND POLLUTION: 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	SS 1-07.1, SS 1-07.5(3), SS 1-07.15(1)	None
FPHPA - 105	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION	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-RELATED SEDIMENT, EROSION AND POLLUTION: 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	SS 8-31.3(2)B, SS 8-01.3(1)C	None
FPHPA - 106	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION	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-RELATED SEDIMENT, EROSION AND POLLUTION: 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	SS 2-02.3, SS 2-03.3(7)C	None
FPHPA - 107	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT	Existing angular rock and other non-native materials within the limits of stream grading must be removed and disposed of at an appropriate upland disposal location unless being reused for roadway work. If material is being reused, it must be placed landward of the 100-year flood elevation.	CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT: Existing angular rock and other non-native materials within the limits of stream grading must be removed and disposed of at an appropriate upland disposal location unless being reused for roadway work. If material is being reused, it must be placed landward of the 100-year flood elevation.	Construction	Contractor	SS 1-07.5(2), SS 2-01.2, SS 2-03.3(6)	None
FPHPA - 108	CONSTRUCTION MATERIALS	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 MATERIALS: 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	SS 1-07.5(3)	None
FPHPA - 109	CONSTRUCTION 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.	CONSTRUCTION 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.	Construction	Contractor	SS 1-07.5(3), SS 1-07.15(1)	None
FPHPA - 110	CONSTRUCTION MATERIALS	Do not stockpile construction material waterward of the ordinary high water line.	CONSTRUCTION MATERIALS: Do not stockpile construction material waterward of the ordinary high water line.	Construction	Contractor	GSP 1-07.5(6).OPT1(B).GR1	None

CTS ID	Category	WDFW HPA Provision Language	Modified Language for Contract Language / Commitment Tracking System	Phase	Responsibility	Existing Method of Implementation	Notes
FPHPA - 111	DEMOBILIZATION AND CLEANUP	Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.	DEMOBILIZATION AND CLEANUP: Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.	Construction	Contractor	Permit application package Contract Plans SS 1-04, SS 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 <i>Roadside Policy Manual</i> 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.
FPHPA - 112	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.	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.	Construction	Contractor	SS 1-04	WSDOT will design the stream channel to meet the Hydraulic Code, and be either a Stream Simulation, Bridge, or Equivalent Design.
FPHPA - 113	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.	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.	Construction	Contractor	SS 2-03.3(7)C	The contractor will not want to leave equipment on site; nor would WSDOT allow that.
FPHPA - 114	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.	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.	Construction	Contractor	SS 8-31.3(2)B, SS 8-31.3(6)	Silt fence should NEVER be placed in a stream...wrong application.
FPHPA - 115	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.	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.	Construction	Contractor	SS 8-01	None
FPHPA - 116	DEMOBILIZATION AND CLEANUP	Before the end of the in-water work period specified in the 'timing limitations' provision, remove all temporary stream crossings and restore the bed, banks, and riparian zone to pre-project condition.	DEMOBILIZATION AND CLEANUP: Before the end of the in-water work period specified in the 'timing limitations' provision, remove all temporary stream crossings and restore the bed, banks, and riparian zone to pre-project condition.	Construction	Contractor	SS 8-31.3(2)B	None