WAC 220-660-120 Common freshwater construction provisions. (1) **Description:** Only applicable common construction provisions will be applied to a specific hydraulic project. Common construction provisions include job site access, equipment use, construction materials, sediment and erosion control containment, in-water work area isolation, fish removal, job site repair, and revegetation.

(2) **Fish life concerns:** Construction and other work can negatively affect fish life. Some activities can kill or injure fish while others can cause behavioral changes that reduce fish growth and survival. Some activities can damage the habitat used for spawning and egg incubation, rearing, feeding, hiding from predators, and migration.

(3) **Staging areas:** Establish staging areas (used for activities such as 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.

(4) **Job site access:**

(a) Use existing roadways or travel paths whenever feasible. If not feasible, minimize the number of new temporary access roads constructed.

(b) The design and location of new temporary access roads must follow the mitigation sequence to protect waters of the state from erosion and delivery of sediment.

(c) Clearly mark boundaries to establish the limit of work associated with site access and construction.

(d) Limit removal of native vegetation to one side of the channel to maintain the best shade coverage whenever feasible. Locate the project access site to minimize the need to remove woody vegetation. Woody vegetation greater than four inches diameter that must be removed to construct the hydraulic project must be marked in the field by the applicant and approved for removal by the department.

(e) Retain all natural habitat features on the bed or banks including large woody material and boulders. These natural habitat features may be moved during construction but they must be placed near the preproject location before leaving the job site.

(5) **Equipment use:**

(a) Confine the use of equipment to specific access and work corridors to protect riparian, wetland, and aquatic vegetation.

(b) If wet or muddy conditions exist, in or near a riparian zone or wetland area, use equipment that reduces ground pressure whenever feasible.

(c) Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.

(d) Equipment used in or near water must use environmentally acceptable lubricants composed of biodegradable base oils. These are vegetable oils, synthetic esters, and polyalkylene glycols. The department may waive this requirement for a small project that has minimal use of equipment in or near the water if the duration of the project is 48 hours or less or if containment prevents the lubricants from entering waters of the state.

(6) **Construction materials:**

(a) 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.

(b) Do not stockpile construction material waterward of the OHWL in waters of the state unless authorized by the department.

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

(d) If the department approves the use of angular rock, the rock must be large enough and installed to withstand the 100-year peak flow or other design flow approved by the department.

(e) 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.

(f) Do not use wood treated with oil-type preservative (creosote, pentachlorophenol) in any hydraulic project. Wood treated with waterborne preservative chemicals (ACZA, ACQ) may be used if the western wood preservers institute has approved the waterborne chemical for use in the aquatic environment. The manufacturer must follow the western wood preservers guidelines and the best management practices to minimize the preservative migrating from treated wood into aquatic environments. To minimize leaching, wood treated with a preservative by someone other than a manufacturer must follow the field treating guidelines. These guidelines are available at www.wwpinstitute.org.

(g) The department discourages the use of whole tires. However, products made from recycled tires specifically manufactured for use in the aquatic environment are approved by the department.

(7) **Construction-related sediment, erosion, and pollution containment:**

(a) Unless approved by the department, work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).

(b) Protect all disturbed areas from erosion. Maintain erosion and sediment control until work and cleanup of the job site are completed.

(c) When using straw for erosion and sediment control, use only straw that has been certified as free of noxious weeds and their seeds.

(d) If flow conditions arise that are likely to result in unanticipated and unpreventable erosion or siltation of waters of the state, all hydraulic project activities must stop except those needed to control erosion and siltation.

(e) Prevent contaminants from the project, 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.

(f) Use tarps or other methods to completely contain treated wood, sawdust, trimmings, and drill shavings.

(g) 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.

(h) 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 department for reuse in the project. Do not burn wood treated with preservatives, trash, waste, or other deleterious materials waterward of the OHWL.

(i) Deposit all trash from the project at an appropriate upland location.

(j) Prevent transporting and introducing aquatic invasive species by thoroughly cleaning vessels, equipment, boots, waders, and other gear before removing the gear from the job site.

(8) **In-water work area isolation using block nets:**

(a) Do not install block nets at sites with heavy vegetation, large cobble or boulders, undercut banks, or deep pools unless nets can be secured and maintained.

(b) The department must determine the maximum size of the block net opening. The size of the opening depends on the bypass design, the purpose of the block net, and the fish species likely to be present.

(c) Install block nets at sites that have reduced flow volume or velocity, uniform depth, and good accessibility.

(d) Install a downstream block net if fish may reenter the work area from downstream.

(e) 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.

(f) Install the block nets at an angle to the direction of flow (not perpendicular to the flow) to avoid entrapping fish in the net.

(g) To anchor block nets, place bags filled with clean round gravel along the bottom of the nets.

(h) Secure block nets along both banks and the channel bottom to prevent failure from debris accumulation, high flows, and/or flanking.

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

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

(9) **In-water work area isolation using a temporary bypass:**

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

(b) The hydraulic capacity of the stream bypass must be equal to or greater than the peak flow event expected when the bypass will be operated. The department may require a person to conduct a hydrologic analysis to determine the magnitude of this flow event. The department will not require hydraulic analysis for a bypass on a stream with low flow.

(c) Provide fish passage during times of the year when fish are expected to migrate.

(d) Sequence the work to minimize the duration of dewatering.

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

(f) Design the temporary bypass to minimize the length of the dewatered stream channel.

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

(h) Install the temporary bypass before starting other construction work in the wetted perimeter.

(i) The department may require the installation of a cofferdam or similar device at the upstream and downstream end of the bypass to prevent backwater from entering the work area.

(j) 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.

(k) 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.

(l) If the bypass is a pumped diversion it must run continuously, once started, until it is no longer necessary to bypass flows. This requires back-up pumps on-site and 24-hour monitoring for overnight operation.

(m) 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 by one of the following:

(i) Perforated plate: 0.094 inch (maximum opening diameter);

(ii) Profile bar: 0.069 inch (maximum width opening); or

(iii) Woven wire: 0.087 inch (maximum opening in the narrow direction).

(iv) The minimum open area for all types of fish screens is 27 percent. The screened intake must have enough surface area to ensure that the velocity through the screen is less than 0.4 feet per second.

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

(o) Maintain fish screens to prevent injury or entrapment of fish.

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

(q) Isolate pump hose intakes with block nets so that fish do not get near the intake.

(r) Before restoring water to the work area, stabilize the bed with clean material sized to match undisturbed sediments.

(s) Complete all in-water and channel restoration work before rewatering the work area.

(10) **In-water work area isolation using a cofferdam structure:**

(a) Use modeling to determine the impact of the cofferdam or similar device on water-surface elevations during all anticipated flows. The department will not require modeling for a cofferdam installed in a stream with low flow.

(b) When designing the cofferdam or similar device, consider the infiltration rate of seepage flow from the riverbed and banks.

(c) Install and remove cofferdams or similar devices in a manner that maintains water quality.

(11) **In-water work without a bypass or cofferdam:** In the following instances, the department will not require the use of a cofferdam, bypass, or similar structure to separate the work area from waters of the state:

(a) When installing a cofferdam, bypass, or similar structure would cause greater impacts to fish life than it would prevent;

(b) When the work area is in deep or swiftly flowing water;

(c) When turbidity is not a concern;

(d) When fish can be excluded by nets or screens; or

(e) When fish are not present.

(12) **Fish removal:**

(a) All persons participating in fish capture and removal must have training, knowledge, and skills in the safe handling of fish.

(b) If electrofishing will be conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activity.

(c) If personnel are available, the department and affected tribes may help capture and move fish life from the job site.

(d) Place block nets upstream and downstream of the in-water work area.

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

(f) The department will require all person(s) removing fish from a job site to follow an approved protocol. An approved protocol is available on the department website. A person may submit another protocol with their application. The department will approve another protocol if it provides equal or better fish protection. The protocol will be approved by the department in the HPA.

(13) **Demobilization and cleanup:**

(a) Restore the disturbed bed, bank, and riparian zones as close as possible to preproject condition unless modified elevations and contours are authorized by the department in the approved construction drawings.

(b) Completely remove any temporary fill and return the affected areas to preproject elevation and contours. Fill material must be removed before the end of the in-water timing window if the fill material could erode into or deliver sediment-laden water into waters of the state.

(c) By the end of the in-water work period, abandon temporary roads in wet or flood-prone areas.

(d) By the end of the in-water work period, remove all temporary stream crossings and restore the bed and banks to preproject condition.

(e) 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.

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

(g) Removed or replaced structures and associated materials must not reenter waters of the state unless approved by the department.

(h) To minimize sediment delivery to the stream or stream channel, do not return in-stream flows to the work area from a bypass, cofferdam or similar structure until all in-channel work is completed and the bed and banks are stabilized.

(i) Using a proven methodology, replace native riparian zone and aquatic vegetation, and wetland vascular plants (except noxious weeds) damaged or destroyed by construction. The department may require a vegetation monitoring and contingency plan.

(j) The department must approve species composition, planting densities, and a maintenance plan for replanting on a site-specific basis. The species composition should be similar to the surrounding native vegetation whenever feasible.

(k) Complete replanting during the first dormant season (late fall through late winter) after project completion. Maintain plantings for at least three years to ensure at least 80 percent of the plantings survive. Failure to achieve the 80 percent survival in year three will require that a person submit a plan with follow-up measures to achieve requirements or reasons to modify requirements.

(l) The department may waive the requirement to plant vegetation where the potential for natural revegetation is adequate or where other factors preclude it.

(m) The department may require fencing or other structures to prevent livestock, wildlife, or unauthorized persons from accessing the replanted riparian and wetland sites until the plantings are well established.

(n) Remove temporary erosion and sediment control methods after job site is stabilized.

(14) **Required permittee 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 department of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington emergency management division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the department gives approval. The department may require additional measures to mitigate impacts.

[Statutory Authority: RCW 77.04.012, 77.04.055, 77.04.020, 77.55.021, 77.55.091, 77.55.181, 77.12.047, and 34.05.328. WSR 26-15-073 (Order 26-13), s 220-660-120, filed 7/15/26, effective 8/15/26. Statutory Authority: RCW 77.04.012, 77.04.020, and 77.12.047. WSR 15-02-029 (Order 14-353), § 220-660-120, filed 12/30/14, effective 7/1/15.]