Chapter 220-110 WAC
HYDRAULIC CODE RULES

Note: Existing rules are replaced with the following:

220-110-010 Purpose

A hydraulic project is the construction or performance of work that uses, diverts, obstructs, or changes the natural flow or bed of any of the salt or fresh waters of the state. Unless otherwise provided any person who wants to conduct a hydraulic project must get a permit called the Hydraulic Project Approval, or HPA, from the department. This chapter establishes the rules for the department's HPA authority.

220-110-020 Instructions for using chapter 220-110 WAC

Hydraulic Project Approvals (HPAs) have requirements a person must follow when conducting a hydraulic project. The purpose of these requirements is to protect fish life. WACs 220-110-090 through 220-110-440 are the common technical requirements for hydraulic projects. These requirements reflect the best available science and practices. These requirements apply to a hydraulic project when included as provisions in the HPA.

The department will review HPA applications on an individual basis. To protect fish life, HPAs may have special provisions to address project or site-specific considerations not adequately addressed by the common technical requirements. In addition, the department allows alternative practices if they provide equal or greater protection for fish life.

In addition to the rules, the department has developed guidance to help applicants. The guidance reflects the department's experience and expertise with various types of hydraulic projects. Following the guidance will help ensure a hydraulic project adequately protects fish life and will speed the department's review and decision process. All guidance documents are available on the department's website.

220-110-030 Definitions

The following are definitions for terms used in this chapter:

(1) "Abandoning an excavation site" means not working an excavation site for forty-eight hours or longer.

(2) "Aggregate" means a mixture of minerals separable by mechanical or physical means.

(3) "Aquatic beneficial plant" means native and nonnative aquatic plants not classified by WAC 16-750-001 as an aquatic noxious weed, and that are valuable habitat value to fish life.

(4) Aquatic invasive species" means nonnative species classified by the commission under RCW 77.12.020 as prohibited aquatic animal species or regulated aquatic animal species, or aquatic noxious weeds.

(5) "Aquatic noxious weed" means an aquatic plant on the state noxious weed list as classified by WAC 16-750-001.

(6) "Aquatic plant" means any aquatic noxious weed or aquatic beneficial plant that occurs within the ordinary high water line of waters of the state.

(7) "Artificial materials" means clean, inert materials used to construct diversion structures for mineral prospecting.

(8) “Associated man-made agricultural drainage facilities” means dikes, drains, pumps, drainage tiles, and drainage pipe made by humans that protect land used for agricultural uses.

(9) “Authorized agent” means someone who is authorized by the applicant to act on behalf of the applicant.

(10) "Bank" means any land surface landward of the ordinary high water line that adjoins a body of water and contains it except during floods. Bank also includes all land surfaces of islands that adjoin a body of water and that are below the flood elevation of their surrounding body of water. (Add figure)

(11) “Bankfull” means the full capacity of the channel to the top of the channel bank on either side (the transition point between the bank and the floodplain).

(12) "Bed" means the land below the ordinary high water lines of state waters. This definition does not include irrigation ditches, canals, stormwater treatment and conveyance systems, or other artificial watercourses unless these exist in a natural watercourse.

(13) "Bed materials" means naturally-occurring material including gravel, cobble, rock, rubble, sand, mud, and aquatic plants, which form the beds of state waters. Bed materials may be found in deposits or bars above the wetted perimeter of water bodies.

(14) "Bioengineering" means project designs or construction methods that primarily use live woody vegetation or a combination of live woody vegetation, rootwads, logs, and specially developed natural or biodegradable synthetic materials. These designs and methods establish a complex root grid within the existing bank that is resistant to erosion, provides bank stability, and maintains a healthy riparian environment with habitat features important to fish life.

(15) "Bottom barrier or screen" means synthetic or natural fiber sheets of material used to cover and kill plants growing on the bottom of a watercourse.

(16) “Biotechnical bank stabilization” means the combined use of living vegetation and inert structural components in a less restrictive way than in bioengineering.

(17) "Boulder" means a stream substrate particle larger than ten inches in diameter.

(18) “Bridge shadow” means the area under a bridge defined by the shadow cast the sun at noon. This area may not receive enough light and rain to support the plant growth necessary for bioengineering or biotechnical techniques.

(19) “Channel-bed width” means the width of the bankfull channel, although bankfull may not be well defined in some channels. For those streams which are non- alluvial or do not have floodplains, the channel width must be determined using features that do not depend on a floodplain. Refer to the *WDFW Water Crossing Design Guidelines 2013*

Appendix C, for details and information on how to measure channel-bed width.

(20) “Chronic danger” means a condition declared by the county legislative authority in which any property, except for property located on a marine shoreline, has experienced at least two consecutive years of flooding or erosion that has damaged or has threatened to damage a major structure, water supply system, septic system, or access to any road or highway.

(21) “Chronic danger HPA” means a written hydraulic project approval issued in response to a “chronic danger” declaration made by the county legislative authority.

(22) "Classify" means to sort aggregate by hand or through a screen, grizzly, or similar device to remove the larger material and concentrate the remaining aggregate.

(23) “Commission” means the state fish and wildlife commission.

(24) "Concentrator" means a device used to physically or mechanically separate the valuable mineral content from aggregate.

(25) "Control," with respect to “aquatic noxious weeds”, means to prevent all seed production and to prevent the dispersal of all propagative parts capable of forming new plants.

(26) “County legislative authority” means the county commission, council, or other legislative body.

(27) "Crevicing" means removing aggregate from cracks and crevices using hand-held mineral prospecting tools or water pressure.

(28) “Critical food fish and shellfish habitats” mean those habitats that serve an essential function in the developmental life history of fish and shellfish. These habitats include but are not limited to saltwater habitats of special concern listed in WAC 220-110-140 and 360.

(29) "Department" means the Washington Department of Fish and Wildlife.

(30) “Design flood” means a stream discharge of a specific rate and probability that is best suited for the design of a project to create and shape habitat, or to protect property and structures to a given level of risk (e.g. the one hundred year design flood).

(31) "Diver-operated dredging" means the use of portable suction or hydraulic dredges held by SCUBA divers to remove “aquatic plants”.

(32) "Dredging" means removal of bed material using other than hand-held tools.

(33) "Early infestation" means an “aquatic noxious weed” whose stage of development, life history, or area of coverage makes one hundred percent control and eradication likely to occur.

(34) "Emergency" means an immediate threat to life, public or private property, or an immediate threat of serious environmental degradation, arising from weather or stream flow conditions, other natural conditions, or fire.

(35) “Emergency HPA” means an verbal or written hydraulic project approval issued in response to an “emergency” declaration.

(36) “Entrained” means the entrapment of fish into a watercourse diversion without the presence of a screen, into high velocity water along the face of an improperly designed screen, or into the vegetation cut by a mechanical harvester.

(37) "Equipment" means any device powered by internal combustion; hydraulics; electricity, except less than one horsepower; or livestock used as draft animals, except saddle horses; and the lines, cables, arms, or extensions associated with the device.

(38) "Eradication" with respect to “aquatic noxious weeds” means to eliminate a noxious weed within an area of infestation.

(39) "Established ford" means a crossing place in a watercourse that was in existence and annually used prior to 1986 or subsequently permitted by the department, and has identifiable approaches on the banks.

(40) "Excavation line" means a line on the dry bed, at or parallel to the water's edge. The department determines the distance from the water's edge on a site-specific basis. The excavation line may change with water level fluctuations.

(41) "Excavation site" means the pit, furrow, or hole from which aggregate is removed to process and recover minerals, or into which wastewater is discharged to settle out sediments.

(42) "Excavation zone" means the area between the "excavation line" and the bank or the center of the bar.

(43) “Expedited HPA” means a written “hydraulic project approval” issued in those instances where normal permit processing would result in a significant hardship for the applicant or unacceptable damage to the environment.

(44) "Farm and agricultural land" means those lands identified as such in RCW 84.34.020.

(45) "Filter blanket" means a layer or combination of layers of pervious materials (organic, mineral, or synthetic) designed and installed in a manner to provide drainage, yet prevent the movement of soil particles by flowing water.

(46) “Fish conservation bank” means a fish habitat creation, restoration, or enhancement project undertaken to function as a bank of credits to compensate for fish habitat impacts from future development projects. Fish conservation banks are managed to optimize desired habitat for listed and at-risk fish species.

(47) “Fish habitat” means habitat, which is used by fish life at any life stage at any time of the year including potential habitat likely to be used by fish life, which could reasonably be recovered by restoration or management and includes off-channel habitat.

(48) “Fish habitat enhancement project” means a “hydraulic project” identified in RCW 77.55.181(1)(a).

(49) "Fish habitat improvement structures or stream channel improvements" means natural (e.g. large wood, rock) or synthetic (e.g. concrete dolos) materials placed in or next to bodies of water to make existing conditions better for fish life. Examples are engineered logjams, large woody material and boulders.

(50) “Fish guard” means a device installed at or near a surface water diversion head gate, or

on the intake of any device used for pumping water from fish-bearing waters, to prevent entrainment, injury, or death of fish life. Fish guards physically keep fish from entering the diversion or pump intake and do not rely on avoidance behavior.

(51) “Fish ladder” means artificial structures that are used to provide passage through, over, and/or around artificial barriers. They provide a graduated change in gradient with refuge areas allowing fish to navigate past barriers.

(52) "Fish life" means all fish species, including but not limited to food fish, shellfish, game fish, and other non-classified fish species and all stages of development of those species.

(53) “Fish screen” means “fish guard.”

(54) “Flood gate” means a structure to control flooding through which water flows freely in one direction but is prevented from flowing in the other direction.

(55) “Floodplain continuity” means that flood flow is allowed to move feely down valley through established side channels, swales, or over the valley floor.

(56) “Flow spreader” means a structure to prevent the concentration of flood flow into narrow erosive channels.

(57) "Food fish" means those species of the classes Osteichthyes, Agnatha, and Chondrichthyes that must not be fished for except as authorized by rule of the commission.

(58) “Functional grating” means the percent open area of the grating that is not covered or blocked by any objects such as structural components, framing wood, flotation tubs, or objects placed on the surface of the grating.

(59) “Forest Practices Hydraulic Project” means any forest practices activity that includes the construction or performance of work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or freshwaters of the state. Forest practices hydraulic projects require a forest practices application and fall under the jurisdiction of the Department of Natural Resources.

(60) "Frequent scour zone" means the area between the wetted perimeter and the toe of the slope, comprised of aggregate, boulders, or bedrock. Organic soils are not present in the frequent scour zone.

(61) "Freshwater area" means those state waters and associated beds below the ordinary high water line that are upstream of stream and river mouths including all lakes, ponds, and tributary streams and associated wetlands.

(62) "Game fish" means those species of the class Osteichthyes that must not be fished for except as authorized by rule of the commission.

(63) "Ganged equipment" means two or more pieces of mineral prospecting equipment coupled together to increase efficiency. An example is adding a second sluice to a high-banker.

(64) “General provisions” mean those provisions that are in every HPA.

(65) "*Gold and Fish* pamphlet" means a document that details the rules for conducting small-scale and other prospecting and mining activities, and which serves as the hydraulic

project approval for certain mineral prospecting and mining activities in Washington state.

(66) “Hand-held equipment” means equipment held by hand and powered by internal combustion, hydraulics, pneumatics, or electricity. Some examples of hand-held equipment are chainsaws, drills, and grinders.

(67) "Hand-held tools" means tools held by hand and are not powered by internal combustion, hydraulics, pneumatics, or electricity. Some examples of hand-held tools are shovels, rakes, hammers, pry bars, and cable winches. This definition does not apply to hand-held tools used for mineral prospecting. See "hand-held mineral prospecting tools" in this section.

(68) "Hand-held mineral prospecting tools" means:

(a) Tools used for mineral prospecting that are held by hand and are not powered by internal combustion, hydraulics, or pneumatics. Examples include metal detectors, shovels, picks, trowels, hammers, pry bars, hand-operated winches, and battery-operated pumps specific to prospecting; and

(b) Vac-pacs.

(69) "Hatchery" means any water impoundment or facility used for the captive spawning, hatching, or rearing of fish life.

(70) "High-banker" means a stationary concentrator operated outside the wetted perimeter of the body of water from which the water is removed, using water supplied by hand or by pumping. A high-banker consists of a sluice box, hopper, and water supply. Aggregate is supplied to the high-banker by means other than suction dredging. This definition excludes rocker boxes. See Figure 1.

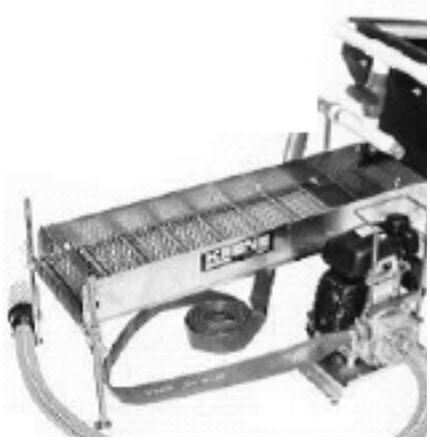

Figure 1: High-banker

(71) "High-banking" means using a high-banker to recover minerals. "Job site" means the space of ground including and immediately adjacent to the area where work is conducted under the authority of an HPA. For mineral prospecting and placer mining projects, the job site includes the excavation site.

(72) “High fish passage design flow” means the flow through a structure that is not exceeded more than ten percent of the time during the migration months of the fish species of concern.

(73) “Hydraulic diversity” means the variation in depth, velocity, and substrate texture found in natural channels.

(74) “Hydraulic drop” means an abrupt drop in water surface elevation.

(75) "Hydraulic project" means construction or performance of work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state.

(76) "Hydraulic project approval" or “HPA” means:

(a) A written approval for a hydraulic project issued under this chapter, and signed by the director of the department or the director's designee; or

(b) A verbal approval for an emergency hydraulic project issued under this chapter by the director of the department or the director's designates; or

(c) The following printed pamphlet approvals:

(i) A "*Gold and Fish*" pamphlet issued under this chapter by the department, which identifies and authorizes specific minor hydraulic project activities for mineral prospecting and placer mining; or

(ii) An "*Aquatic Plants and Fish*" pamphlet issued under this chapter by the department, which identifies and authorizes specific aquatic noxious weed and aquatic beneficial plant removal and control activities.

(77) "In-water blasting" means the use of explosives on, under, or in waters of the state, or in any location adjacent to the waters of the state where blasting would impact fish life or fish habitat.

(78) “Imminent danger” means a threat by weather, water flow, or other natural conditions that is likely to occur within sixty days of a request for a permit application.

(79) "Joint aquatic resources permit application" or “JARPA” means a form provided by the department and other agencies that an applicant submits when requesting a written HPA for a hydraulic project.

(80) “Lake” means any natural or impounded body of stranding freshwater, except impoundments of the Columbia and Snake rivers.

(81) "Large woody material" means trees or tree parts larger than four inches in diameter and longer than six feet, or rootwads, wholly or partially waterward of the ordinary high water line.

(82) “Large wood transport continuity” means that large wood can freely pass through the work area and into the downstream channel without regular maintenance activities.

(83) “Low fish passage design flow” means the two-year seven-day low flow discharge for the subject basin, or the flow through a structure that is not exceeded more than five percent of the time during the migration months of the fish species of concern.

(84) “Low flow continuity” means that the depth and width of the low flow does not change from the upstream channel, through the work area and into the downstream channel. Fish choosing to move up or down through the work area during the lower flow period are not prevented from doing so by subsurface flow or by flow spread so wide and shallow that there is inadequate swimming depth.

(85) “Macroalgae” means any of the non-vascular aquatic plant species (the red, green or brown seaweeds) that can be seen without the aid of a microscope. They may be attached to the substrate or other macro algae by a holdfast, or found in drifting mats.

(86) “Maintenance” means the work of repairing, remodeling, or making minor alterations to a facility or project to keep the facility or project in proper condition and a good state of repair. Maintenance means those tasks generally accepted as routine that are taken to keep the facility or project in a properly functioning condition.

(87) “Margin habitat” means the shallow low velocity area at the edge of a river or stream.

(88) “Marina" means a public or private facility providing boat moorage space, fuel, or commercial services. Commercial services include overnight or live-aboard boating accommodations.

(89) "Marine terminal" means a public or private commercial wharf located in navigable waters of the state and used, or intended to be used, as a port or facility for the storing, handling, transferring, or transporting of goods and people to and from vessels.

(90) “Mean annual flood” means the average of all annual flood stages or discharges of record. If annual flood stage records are unavailable, the 2.33 year flood must be used to determine the mean annual flood.

(91) "Mean higher high water" or “MHHW” means the tidal elevation obtained by averaging each day's highest tide at a particular location over a period of nineteen years. It is measured from the mean lower low water = 0.0 feet tidal elevation.

(92) "Mean lower low water" or “MLLW” means the 0.0 feet tidal elevation. It is determined by averaging each day's lowest tide at a particular location over a period of nineteen years. It is the tidal datum for vertical tidal references in the saltwater area.

(93) "Mechanical harvesting and cutting" means the partial removal or “control” of “aquatic plants” with the use of aquatic mechanical harvesters, which cut and collect “aquatic plants”, and mechanical cutters, which only cut “aquatic plants”.

(94) “Mechanism of failure” means a physical action or process (e.g. scour, avulsion) that results in erosion.

(95) "Mineral prospect" means to excavate, process, or classify aggregate using hand-held mineral prospecting tools and mineral prospecting equipment.

(96) "Mineral prospecting equipment" means any natural or manufactured device, implement, or animal (other than the human body) used in any aspect of prospecting for or recovering minerals.

(97) "Mini high-banker" means a high-banker with a riffle area of three square feet or less. See Figure 2.

Figure 2: Mini high-banker

(98) "Mini rocker box" means a rocker box with a riffle area of three square feet or less. See Figure 3.

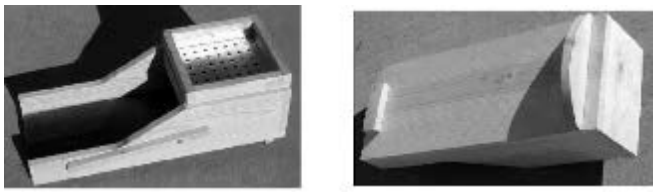

Figure 3: Mini rocker box (top view and bottom view

(99) "Mining" means the production activity that follows mineral prospecting.

(100) “Minor Modification” means a minor modification of work timing means or plans and specifications. A person may request a minor timing modification of up to a one-week deviation from the timing window in the HPA when there are no spawning or incubating fish present within the vicinity of the project. A person may request subsequent minor modifications to the required work timing. A person may request a minor modification of the plans and specifications when changes in the materials, characteristics or construction of the project does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification.

(101) “Mitigation” means sequentially avoiding impacts, minimizing impacts, or compensating for remaining unavoidable impacts.

(102) “Mitigation bank” means a site were wetlands or other aquatic resources are restored, created, enhanced, or in exceptional circumstances preserved. The bank is expressly for the purpose of providing compensatory mitigation in advance of unavoidable impacts to wetlands or other aquatic resources. The impacts are typically unknown at the time of bank certification.

(103) "Mitigation sequencing" means taking the action steps in the mitigation sequence. The

department and the applicant must consider and implement mitigation actions in the following sequential order:

(a) Avoid the impact altogether by not taking a certain action or parts of an action.

(b) Minimize impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts.

(c) Rectify the impact by repairing, rehabilitating, or restoring the affected environment.

(d) Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.

(e) Compensate for remaining impacts by replacing, enhancing, or providing substitute resources or environments.

(f) Monitoring the impact and taking appropriate corrective measures to achieve the identified goal.

(104) "Natural conditions" means those conditions that occur or are found in nature. This does not include artificial or manufactured conditions.

(105) “Natural evolution of the channel planform and longitudinal profile” means that channels move laterally (meander migration) and vertically (scour and fill) over time and that water crossings or other instream structures must not interfere with this natural tendency.

(106) “Natural stream processes” means those physical and biological actions that create the stream channel and flow characteristics of the stream.

(107) "No-net-loss" means:

(a) Mitigation for adverse impacts to fish life; or

(b) Mitigation for lost habitat functions necessary to sustain fish life; or

(c) Mitigation for lost area by fish habitat type.

(108) "Ordinary high water line" or “OHWL” means the mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in ordinary years, as to mark upon the soil or vegetation a character distinct from that of the abutting upland. Provided, that in any area where the ordinary high water line cannot be found, the ordinary high water line adjoining saltwater must be the line of mean higher high water and the ordinary high water line adjoining freshwater must be the elevation of the mean annual flood.

(109) "Pan" means an open metal or plastic dish operated by hand to separate gold or other minerals from aggregate by washing the aggregate. See Figure 4.

Figure 4: Pan

(110) "Panning" means using a pan to wash aggregate.

(111) “Permanent ford” means a ford that is in place for more than one operating season.

(112) “Permit” means a hydraulic project approval permit issued under this chapter.

(113) "Person" means an individual or a public or private entity or organization. The term "person" includes local, state, and federal government agencies, and all business organizations.

(114) "Placer" means a glacial or alluvial deposit of gravel or sand containing eroded particles of minerals.

(115) "Pool" means a portion of the stream with reduced current velocity, often with water deeper than the surrounding areas.

(116) "Power sluice" means "high-banker."

(117) "Power sluice/suction dredge combination" means a machine that can be used as a power sluice, or with minor modifications, as a suction dredge. See Figure 5.

Figure 5: Power sluices/suction dredge combination

(118) "Process aggregate" or "processing aggregate" means the physical or mechanical separation of the valuable mineral content within aggregate.

(119) "Prospecting" means the exploration for minerals and mineral deposits.

(120) "Protection of fish life" means “no-net-loss”.

(121) "Purple loosestrife" means *Lythrum salicaria* and *Lythrum virgatum* as classified in RCW 17.10.010 (10) and defined in RCW 17.26.020 (5)(b).

(122) “Qualified professional” means a scientist or technologist specializing in a relevant applied science or technology including fisheries or wildlife biology, engineering, geomorphology, geology, hydrology, or hydrogeology. This person may be certified with their appropriate professional organization, and acting under that association's code of

ethics and subject to disciplinary action by that association. A qualified professional can also be someone who, through demonstrated suitable education, experience, accreditation, and knowledge relevant to the particular matter, may be reasonably relied on to provide advice within their area of expertise.

(123) "Redd" means a nest made in gravel, consisting of a depression dug by a fish for egg deposition, and associated gravel mounds. See Figure 6.

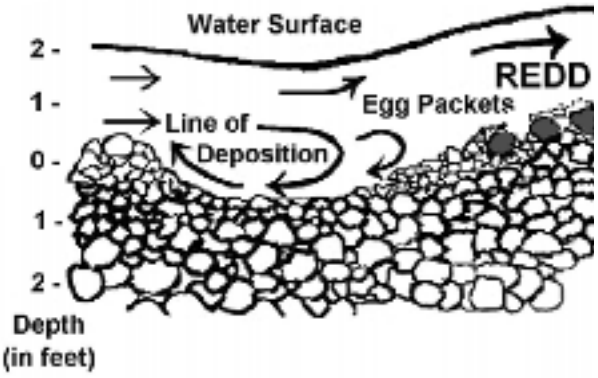

Figure 6: Redd

(124) “Rehabilitation” means major work required to restore the structural integrity of a structurally deficient or functionally obsolete structure. This can include partial replacement of a structure.

(125) “Repair” means activities typically performed on a structure that is in overall good to fair condition to restore damaged or worn out structural elements to a state of good condition.

(126) “Replacement” means total replacement of structure with a new structure constructed in the same general location.

(127) "Riffle" means the bottom of a concentrator containing a series of interstices or grooves to catch and retain a mineral such as gold.

(128) "River or stream” means “watercourse”.

(129) "Rocker box" means a non-motorized concentrator consisting of a hopper attached to a cradle and a sluice box operated with a rocking motion. See Figure 7.

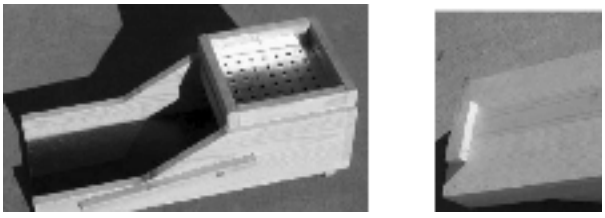

Figure 7: Rocker Box

(130) "Rotovation" means the use of aquatic rotovators, machines that have underwater rototiller-like blades, to uproot “aquatic plants” as a means of “control”.

(131) “Roughened channel” means a constructed channel reaches stabilized with an immobile framework of large rock mixed with smaller material. Roughened channels provide fish passage by controlling the channel profile and adding roughness and structure to it. Roughened channels are sometimes called nature-like fishways.

(132) "Saltwater area" means those state waters with salinity as high as 35 parts per thousand dissolved salts. It includes the associated beds below the ordinary high water line. Saltwater areas include estuaries. Salinity in estuaries may range from 0.5 to 30 parts per thousand dissolved salts.

(133) “Scientific measurement devices” means devices such as staff gages, tide gages, water recording devices, water quality testing and improvement devices, and similar structures that measure and/or record environmental data.

(134) “Seagrass” means native Zostera species, Ruppia maritima and Phyllospadix species.

(135) “Sediment gradation continuity” means that the size distribution of the streambed sediment does not change from the upstream channel, through the work area, and into the downstream channel.

(136) “Sediment transport continuity” means the free passage of fluvially (watercourse) transported sediment from the upstream channel through the work area, and into the downstream channel.

(137) "Shellfish" means those species of saltwater and freshwater invertebrates that must not be taken except as authorized by rule of the commission. The term "shellfish" includes all stages of development and the bodily parts of shellfish species.

(138) "Sluice" means a trough equipped with riffles across its bottom used to recover gold and other minerals with the use of flowing water. See Figure 8.

Figure 8: Sluice

(139) "Spartina" means *Spartina alterniflora*, *Spartina anglica*, *Spartina* x *townsendii*, and *Spartina patens* as prescribed in RCW 17.10.010(10) and defined in RCW 17.26.020 (5)(a).

(140) “Special provisions” mean those requirements that are part of a HPA, but are site- or project-specific, and are used to supplement or amend the technical provisions.

(141) "Spiral wheel" means a hand-operated or battery powered rotating pan used to recover gold and minerals with the use of water. See Figure 9.

Figure 9: Spiral Wheel

(142) "Stable slope" means a slope without visible evidence of slumping, sloughing, or other movement. Stable slopes will not show evidence of landslides, uprooted or tilted trees, exposed soils, water-saturated soils, and mud, or the recent erosion of soils and sediment. Woody vegetation is typically present on stable slopes.

(143) "Streambank stabilization means those projects which prevent or limit erosion, slippage, and mass wasting including bank resloping, log and large woody material relocation or removal, planting of woody vegetation, bank protection (physical armoring of banks using rock or woody material, or placement of jetties or groins), gravel removal, or erosion control.

(144) "Suction dredge" means a machine used to move submerged aggregate by hydraulic suction. The aggregate is processed through an attached sluice box to recover gold and other minerals. See Figure 10.

Figure 10: Suction Dredge

(145) "Suction dredging" means using a suction dredge to recover gold and other minerals.

(146) “Sweeping velocity” means the component of the water velocity vector parallel to and immediately upstream of the fish screen surface.

(147) "Tailings" means the waste material that remains after processing aggregate to remove minerals.

(148) “Temporary ford” means a ford that is in place for one operating season.

(149) “Tide gate” means a one-way check valve that prevents the backflow of tidal water.

(150) "Toe of the bank" means the distinct break in slope between the streambank or shoreline and the stream bottom or marine beach or bed, excluding areas of sloughing. For steep banks that extend into the water, the toe may be submerged below the ordinary high water line. For artificial structures, such as jetties or bulkheads, the toe refers to the base of the structure, where it meets the stream bed or marine beach or bed.

(151) "Toe of the slope" means the base or bottom of a slope at the point where the ground surface abruptly changes to a significantly flatter grade.

(152) “Unimpeded fish passage" means the free movement of all fish species at any mobile life stage around or through a man-made or natural structure.

(153) "Unstable slope" means a slope with visible evidence of slumping, sloughing, or other movement. Evidence of unstable slopes includes landslides, uprooted or tilted trees, exposed soils, water-saturated soils, and mud, or the recent erosion of soils and sediment. Woody vegetation is typically not present on unstable slopes.

(154) "Vac-pac" means a motorized, portable vacuum that you use for prospecting. See Figure 11.

Figure 11: Vac-pac

(155) “Water crossing structures” means structures that span over, though, or under a watercourse (e.g. bridges, culverts, conduits, and fords).

(156) "Water right" means a certificate of water right, a vested water right or a claim to a valid vested water right, or a water permit, under Title 90 RCW.

(157) "Watercourse" means any portion of a stream or river channel, bed, bank, or bottom waterward of the ordinary high water line of waters of the state, including areas in which fish may spawn, reside, or pass, and tributary waters with defined bed or banks, which influence the quality of fish habitat downstream. This includes watercourses that flow on an intermittent basis or that fluctuate in level during the year, and applies to the entire bed of such watercourse whether or not the water is at peak level. A watercourse includes all surface water connected wetlands that provide or maintain fish habitat. This definition does not include irrigation ditches, canals, stormwater treatment

and conveyance systems, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

(158) "Waters of the state" means all salt and fresh waters waterward of ordinary high water lines and within the territorial boundaries of the state.

(159) "Weed rolling" means the use of a mechanical roller designed to control “aquatic plant” growth.

(160) "Wetland" or "wetlands” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds and landscape amenities, or those wetlands created after July 1, 1990, that were intentionally created as a result of the construction of a road, street or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.

(161) "Wetted perimeter" means the areas of a watercourse covered with water. The wetted perimeter will vary with flow, discharge, and tides.

(162) “Written notice or notification” means a communication via U.S. mail or via email to the addresses of the applicant and/or the agent.

(163) "Woody vegetation" means perennial trees and shrubs having stiff stems and bark. Woody vegetation does not include grasses, forbs, or annual plants.

220-110-040 Applicability of hydraulic project approval requirements

(1) WHEN AN HPA IS REQUIRED

(a) A person must obtain a hydraulic project approval (HPA) from the department before conducting a hydraulic project, unless the activity is exempt from this requirement. A list of the exempt activities is in sub-section (3) of this section.

(b) All hydraulic projects must comply with the applicable requirements listed in chapter 220-110 WAC.

(c) The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions. The HPA must include all of the HPA provisions that a permittee and authorized agent has to comply with.

(2) NO HPA IS REQUIRED FOR THE FOLLOWING HYDRAULIC PROJECTS

(a) The installation of oyster stakes, boundary markers, or property line markers by hand or with hand-held tools.

(b) Per RCW 77.55.031, the act of driving across an established ford does not require

an HPA. However, driving across streams or on wetted streambeds in areas other than established fords and constructing a new ford or repairing an established ford does require an HPA.

(c) Per RCW 77.55.061, a remedial action done by the Department of Ecology or a person under a consent decree, order, or agreed order under chapter 70.105D.090 RCW. However, while the procedural requirements of chapter 77.55 RCW are not applicable, the Department of Ecology must ensure compliance with the substantive requirements of that chapter.

(d) Per RCW 77.55.201, a landscape management plan approved by the department and the Department of Natural Resources under RCW 76.09.350(2) serves as an HPA for the life of the plan, provided fish are one of the public resources covered under the plan.

(e) Per RCW 77.55.041, the removal of derelict fishing gear according to the guidelines described in RCW 77.12.865.

(f) The removal of crab pots and other shellfish gear under a permit issued under RCW 77.70.500.

(g) Per RCW 77.55.051, an activity conducted solely for the removal or control of Spartina.

(h) Per 77.55.051, an activity conducted solely for the removal or control of purple loosestrife performed with handheld tools, handheld equipment, or equipment carried by a person does not require an HPA.

(i) Installation or removal of a portable boat hoist in a lake provided the hoist:

(i) Is not permanently installed;

(ii) Does not have armoring or other structures installed for a foundation or protection;

(iii) Is not installed or removed using equipment operated below the OHWL;

(iv) Is not installed at the inlet or outlet of any stream;

(v) Does not require any dredging, filling, pile driving, or any other bed modifications during installation or removal;

(vi) Is not modified during or after installation by the addition of docks, ramps, floats, or other structures that add surface area to the hoist or allow for moorage of additional watercraft; and

(vii) Is not installed in any of the following sockeye salmon-bearing lakes:

(A) Baker

(B) Cle Elum

(C) Osoyoos

(D) Ozette

(E) Pleasant

(F) Quinault

(G) Sammamish

(H) Washington

(I) Wenatchee

(j) The installation, maintenance, or removal of scientific instruments including staff gages, tide gages, water recording devices, water quality testing and improvement devices, and similar structures provided:

(i) All work is conducted waterward of the OHWL by hand or with hand-held tools,

(ii) The project does not create a blockage to fish passage, even temporarily, and

(iii) The project does not include dewatering the worksite, placement of fill or concrete, or excavation or grading of the streambed or bank.

(k) Forest practices, as defined in chapter 76.09 RCW, provided:

(i) They are conducted under an approved forest practices application or notification issued by the department of natural resources; and

(ii) They are not conversion activities as defined in WAC 222-16-010.

220-110-050 Procedures—hydraulic project approvals

(1) DESCRIPTION

There are six categories of HPAs: standard, emergency, imminent danger, chronic danger, expedited and pamphlet. Most HPAs issued by the department are standard HPAs.

(2) FISH LIFE CONCERNS

Construction or the performance of other work activities in or near the watercourses can kill or injure fish or shellfish directly. This work can also alter the habitat that fish and shellfish depend on. Direct damage or loss of habitat causes a direct loss of fish and shellfish production. Damaged habitat can continue to cause lost production of fish and shellfish for as long as the habitat remains altered. HPAs mitigate the adverse effects of construction and other work to fish, shellfish, and their habitat.

(3) STANDARD HPA

(a) A standard HPA is the HPA issued by the department when a hydraulic project does not meet the criteria for another type HPA.

(b) Special Types of Standard HPAs

(i) Fish habitat enhancement project (FHEP) HPA

(A) Projects must satisfy the requirements identified in RCW 77.55.181(1) to be processed as a fish habitat enhancement project.

(B) Projects involving placement of large woody material, bioengineering, or barrier removal that are compensatory mitigation for a development or other impacting project are not eligible. This includes proposals for mitigation banks or in-lieu fee mitigation proposals, which may not use the FHEP process. The sole purpose of the project must be for fish habitat enhancement.

(C) The department may reject a fish habitat enhancement project proposed under RCW 77.55.181 if the local government raises concerns during the comment period that cannot be mitigated by conditioning the HPA. The department will reject the project if the department determines that, because of the size and the scale of the project, it raises public health and safety concerns. If the project is inappropriate for streamlined processing, the department must provide written notice of rejection to the applicant and local government within twenty days of receiving the application.

(D) If the department rejects a fish habitat enhancement project proposed under RCW 77.55.181, the applicant or authorized agent may submit a new complete written application with project modifications or additional information required for streamlined processing. If the applicant or authorized agent wants the department to consider the project under standard HPA processing procedures, they must submit a new complete written application for standard processing.

(ii) Multi-site HPA

(A) A standard HPA may authorize work at multiple project sites provided:

1. All project sites are within the same water resource inventory area (WRIA).
2. The primary hydraulic project is the same at each site so there is little variability in HPA provisions across all sites.
3. The HPA application requests authorization for no more than five project sites to ensure department staff has sufficient time to conduct site reviews.

(iii) General HPA

(A) The department may issue general HPAs to government agencies, organizations or companies to perform the same work in multiple waterbodies across a large geographic area.

(B) To qualify for a general HPA, projects must meet the following criteria:

1. Have risks to fish life that are fully mitigated by the technical provisions established in chapter 220-110 WAC;

2. Be a low complexity project that has the same HPA provisions across all sites, therefore, can be permitted without site-specific conditions, and
3. Have little or no variability over time in site conditions or work performed.

(C) The department and the applicant may negotiate the fish protection permit conditions prior to the submittal of the application.

(D) The department may reject applications for general HPA if:

1. The potential impacts from the project pose a high risk to fish or fish habitats that cannot be fully mitigated by the technical provisions and therefore require compensatory mitigation.
2. The proposed project does not meet the eligibility requirements described in sub section (B); or
3. The department and the applicant cannot agree on the fish protection permit conditions.

(E) The department must provide written notice of general HPA application rejection to the applicant. An applicant or authorized agent may resubmit the application to the department for standard application processing under this section.

(iv) Simplified HPA

(A) The department will establish a simplified HPA application and permitting process for qualifying hydraulic projects. To qualify a project must:

1. Have risks to fish life that are fully mitigated by the technical provisions established in chapter 220-110 WAC;
2. Be a low complexity project that minimizes misinterpretation of the HPA provisions, and therefore can be permitted without site-specific conditions; and
3. Meet all of the eligibility requirements described in the simplified application.

(B) The department will accept simplified HPA applications for projects that meet the project eligibility requirements and for which it receives a complete written application. If necessary to confirm project eligibility, the department may conduct a site visit prior to approving or rejecting a simplified application.

(C) The department may reject applications for simplified HPA if:

1. The plans and specifications for the project are insufficient to show that fish life will be protected;
2. The applicant or authorized agent does not fill out the application correctly;

3. The proposed project does not meet the eligibility requirements described in the project application; or

4. The potential impacts from the project pose a high risk to fish or fish habitats that cannot be fully mitigated by the technical provisions and therefore require compensatory mitigation.

(D) The department must provide written notice of application rejection to the applicant. An applicant or authorized agent may resubmit the application to the department for standard application processing under this section, or may submit a new simplified application if the department rejected the application because the applicant or authorized agent did not fill out the original application correctly.

(4) EMERGENCY HPA

(a) Declaring an emergency

(i) Only the governor, county legislative authority, or department may declare an emergency or continue an existing declaration of an emergency. An emergency declaration may be made where there is an immediate threat to life, the public, property, or of environmental degradation.

(ii) The county legislative authority must notify the department, in writing, if they declare an emergency.

(iii) Upon the declaration of an emergency, and if requested to do so, the department must grant verbal approval immediately for work to protect fish life or property threatened by a water of the state because of the emergency, including the repair or replacement of a stream crossing, removal of obstructions, or protection of streambanks.

(b) Department procedure for processing a request for an emergency HPA

(i) If the department issues an oral HPA, the department must issue a written HPA documenting the exact conditions of the oral HPA within thirty days of issuing the oral HPA.

(5) IMMINENT DANGER HPA

(a) In cases of a declared imminent danger, the department must issue an expedited HPA, upon request, for work to remove obstructions, repair existing structures, restore banks, and to protect fish life or property.

(b) Only the county legislative authority or the department may determine if an imminent danger exists. The county legislative authority must notify the department, in writing, if it determines that an imminent danger exists.

(c) Upon declaration of an imminent danger, and before starting work, an applicant or authorized agent must obtain a written HPA from the department. A complete written application is required. The provisions of chapter 43.21C RCW are not required for imminent danger HPAs.

(d) A person must submit a complete written application to the department to

obtain an expedited HPA.

(e) Imminent danger HPAs are written, and must be issued by the department within 15 calendar days after receiving a complete written application. Work under an imminent danger HPA must be completed within sixty calendar days of the date the HPA is issued.

(6) CHRONIC DANGER HPA

(a) The department must issue a chronic danger HPA, upon request, for work necessary to abate the chronic danger. This work may include removing obstructions, repairing existing structures, restoring banks, restoring road or highway access, protecting fish life, or protecting property.

(b) Only the county legislative authority may determine that a chronic danger exists. A chronic danger is a condition in which any property, except for property located on a marine shoreline, has experienced at least two consecutive years of flooding or erosion that has damaged or has threatened to damage a major structure, water supply system, septic system, or access to any road or highway exists. The county legislative authority must notify the department, in writing, when it determines that a chronic danger exists.

(c) A person must submit a complete written application to the department to obtain a chronic danger HPA. Application submittal and processing requirements for chronic danger HPAs are the same as for other non-expedited or non-emergency HPAs. Unless the project also satisfies the requirements for fish habitat enhancement projects identified in RCW 77.55.181(1)(a)(ii), the provisions of chapter 43.21C RCW are required. Projects that meet the requirements in RCW 77.55.181(1)(a)(ii), will be processed under RCW 77.55.181(3), and the provisions of chapter 43.21C RCW will not be required.

(7) EXPEDITED HPA

(a) The department may issue an expedited written HPA when normal processing would result in significant hardship for the applicant or unacceptable environmental damage would occur.

(b) Before starting work, an applicant or authorized agent must obtain a written HPA from the department. A complete written application is required. The provisions of chapter 43.21C RCW are not required for expedited HPAs

(c) A person must submit a complete written application to the department to obtain an HPA.

(d) Expedited HPAs must be issued by the department within 15 calendar days after receipt of a complete written application. Work under an expedited HPA must be completed within sixty calendar days of the date the HPA is issued.

(8) PAMPHLET HPA

(a) A pamphlet is a written HPA, based on rules, issued in a booklet form. Currently there are two pamphlet HPAs: “Gold and Fish” and “Aquatic Plants and Fish”.

The department develops and adopts rules for the pamphlet HPAs through the formal rule-making process. These rules become the provisions of the pamphlet HPA. The permittee must follow the provisions in the pamphlet. If a permittee cannot follow the provisions, the permittee must apply for a standard HPA before doing the hydraulic project.

(b) A person must review a pamphlet HPA before conducting the authorized hydraulic project.

(c) When a pamphlet HPA is required, the permittee must have the pamphlet HPA on the job site when conducting work and the pamphlet must be immediately available for inspection by the department upon request.

(d) The permittee, equipment operator(s), and other individuals conducting the project must follow all provisions of the pamphlet HPA.

(e) The department may grant exceptions to a pamphlet HPA only if the applicant or authorized agent applies for a standard individual HPA for the project.

(9) HOW TO GET AN HPA

(a) How to get a pamphlet HPA

(i) The applicant or authorized agent may submit requests for a pamphlet HPA to the department either verbally or in writing. Pamphlet HPAs are also available on the department's website.

(b) How to get an emergency HPA

(i) Upon an emergency declaration, and before starting emergency work, an applicant or authorized agent must obtain an oral or written HPA from the department. A complete written application is not required. However, the applicant or authorized agent must provide adequate information describing the proposed action. In addition, the provisions of chapter 43.21C RCW (State Environmental Policy Act), are not required for emergency HPAs. During normal business hours, Monday through Friday 8:00 am to 5:00 pm, the applicant or authorized agent may request an emergency HPA orally or in writing from the biologist who issues HPAs for the geographic area where the emergency is located. After business hours, the applicant or authorized agent must contact the emergency hotline at (360) 902-2537 to request an emergency HPA.

(c) How to get a standard, expedited or chronic danger HPA

(A) The applicant or authorized agent must submit a complete written application to the department to obtain an HPA unless the project qualifies for one of the following:

1. A pamphlet HPA (WAC 220-110-050 (3))
2. An emergency HPA (WAC 220-110-050 (5))
3. A minor modification of an HPA (WAC 220-110-030 (16))

(B) The applicant or authorized agent may submit any of the following

application forms to the department when applying for an HPA:

1. The electronic on-line application form developed by the department;
2. The current version of the JARPA;
3. If applying for streamlined processing under RCW 77.55.181, the current version of the JARPA, including the most recent version of the application for streamlined processing of fish habitat enhancement projects. These may be submitted to the department as attachments to the on-line application form;
4. If applying for simplified HPA application processing for qualifying projects under subsection (8) of this section, the most recent version of the applicable electronic on-line simplified HPA application form developed by the department;
5. If applying for approval of a watershed restoration project under RCW 77.55.171, the current version of the JARPA. This may be submitted to the department as an attachment to the on-line application form.

(ii) A complete application package for an HPA must contain:

(A) A completed application form signed and dated by the applicant, landowner, or landowner representative, and the authorized agent. Completion and submittal of the on-line application form through the department's on-line permitting system must be the equivalent of providing signature and date, provided all documents required during the on-line application process are submitted to the department;

(B) Plans for the overall project;

(C) Complete plans and specifications for all aspects of the hydraulic project that will use, divert, obstruct, or change the natural flow or bed of any of the salt or freshwaters of the state;

(D) A description of the measures that will be implemented for the proper protection of fish life and their habitats, including any reports assessing impacts to fish life and their habitats, and plans to mitigate those impacts to ensure the project results in no-net-loss of habitat;

(E) For a standard or chronic danger HPA application, a copy of the written notice from the lead agency of compliance with any applicable requirements of the State Environmental Policy Act under chapter 43.21C RCW, unless otherwise provided for in chapter 77.55 RCW; or the project qualifies for a specific categorical exemption under Chapter 197-11 WAC; and,

(F) Written approval, if proposing a fish enhancement project, by one of the entities specified in RCW 77.55.181 (b).

(G) Payment of the application fee required under chapter 77.55 RCW. This fee must be submitted with the application or paid under a billing agreement previously established with the department unless the project is one of the following project types exempt from the application fee:

1. Project type approved under pamphlet permits;
2. Mineral prospecting and mining;
3. Projects on farm and agricultural land, as that term is defined in RCW 84.34.020;
4. Projects reviewed by a department biologist on contract with the applicant;
5. Projects applied for before July 10, 2012, and modifications of permits issued to those projects.

(iii) The applicant, or authorized agent must submit the complete application package using the department's on-line permitting system or by sending the package to the department's Habitat Program Olympia headquarters office.

(A) Applications not submitted through the department's on-line permitting system must be mailed to the Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234; e-mailed to HPAapplications@dfw.wa.gov; faxed to 360-902-2946; uploaded to a file transfer protocol site acceptable to the department, or hand-delivered to the Natural Resources Building, 1111 Washington Street S.E., Habitat Program, Fifth floor. The department will not accept applications submitted elsewhere or by other than the applicant or authorized agent.

(B) Dimensions of printed documents may not be greater than eleven inches by seventeen inches. Pages of documents submitted may not be bound except by paper clips or other temporary fastening.

(C) Applicants and authorized agents must submit applications and supporting documents with a combined total of 30 or more pages as digital files rather than printed documents. All digital files must be in formats compatible with Microsoft Word, Microsoft Excel, or Microsoft Access programs or in PDF, TIFF, JPEG, or GIF formats.

(iv) Applications submitted to the Habitat Program during normal business hours are deemed received on the date submitted. The department may declare applications submitted to Habitat Program after normal business hours as received on the next business day.

(10) INCOMPLETE APPLICATIONS

(a) The department must determine within ten days of receipt of the application whether the application meets the requirements of this section. If the

department determines the application does not meet the requirements, the department will provide written or emailed notification of an incomplete application to the applicant or authorized agent. This written or emailed notification must include a description of information necessary to make the application complete. The department may return the incomplete application to the applicant or authorized agent, or hold the application on file until it receives the necessary information. The department will not process the application until it receives the information needed to complete the application.

(b) The applicant or authorized agent must submit additional information in response to a written notification of incomplete application through the department's on-line permitting system or to the department's Habitat Program's Olympia headquarters office. The department will not accept additional information submitted elsewhere or by other than the applicant or authorized agent.

(c) The department may not process any application that has been incomplete for more than six months. The department must provide the applicant with written notification at the time the application expires. The applicant or authorized agent must submit a new application to receive further consideration of the project.

(11) REFUND OF APPLICATION FEE

(a) The application fee is non-refundable except when the proposed project is not a hydraulic project and therefore not subject to an HPA, or when the application fee was paid but the project is exempt from the fee. Upon determination that an application qualifies for a refund, the department must issue the refund within one week.

(12) APPLICATION REVIEW PERIOD

(a) Before approving applications for new hydraulic projects, the department will provide to tribes and local, state, and federal permitting agencies, a seven calendar day review and comment period from the date the application is received by the department. The department may issue HPA permits before the end of the review period only if all interested tribes and agencies have provided comment to the department. The department may consider all written comments received when issuing or conditioning the HPA. The review period is concurrent with the department's overall review period. Emergency, expedited, and modified HPAs are exempt from the review period requirement.

(b) Except for imminent danger, expedited HPAs, and emergency HPAs, the department will grant or deny approval within forty-five calendar days of the receipt of a complete written application. The department will grant approval of imminent danger and expedited HPAs within fifteen days of the receipt of a complete written application, and grant approval of emergency HPAs immediately upon request provided an emergency declaration has been made.

(13) SUSPENDING THE REVIEW PERIOD

(a) An applicant or authorized agent may request a delay in processing a standard HPA. The applicant or authorized agent must submit a written request for the delay through the department's on-line permitting system or to the Habitat Program's Olympia headquarters office. The department may not accept delay requests submitted elsewhere or by other than the applicant or authorized agent.

(b) If the department suspends the review period, the department must immediately notify the applicant in writing of the reasons for the delay. The department may suspend the review period (with or without the applicant's request) if:

(i) The site is physically inaccessible for inspection;

(ii) The applicant or authorized agent remains unavailable or unable to arrange for a timely field evaluation of the proposed project after ten working days of the department's receipt of the application;

(iii) The applicant or authorized agent submits a written request for a delay;

(iv) The department is issuing a permit for a storm water discharge and is complying with the requirements of this section, or

(v) The department is reviewing the application as part of a multiagency permit streamlining effort, and all participating permitting agencies and the permit applicant agree to an extended timeline longer than forty-five calendar days.

(c) The department may not process any application delayed for processing more than six months for any of the reasons identified in subsection (13) (a) or (b). The department must provide the applicant with written notification at the time the application expires. The applicant or authorized agent must submit a new application to receive further consideration of the project.

(14) ISSUING OR DENYING A HYDRAULIC PROJECT APPROVAL

(a) Protection of fish life is the only grounds upon which the department may deny or condition an HPA. The department may not unreasonably withhold or condition approval of a permit. The HPA conditions must reasonably relate to the project, and must ensure that the project provides proper protection for fish life and their habitats. The department may not impose conditions that attempt to optimize conditions for fish life that are out of proportion to the impact of the proposed project.

(b) The department may not deny an emergency, imminent danger HPA, chronic danger HPA, or an expedited HPA. However, these projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will deny any other type of HPA or change to an existing HPA when, in the judgment of the department, the project will result in direct or indirect harm to fish life, unless adequate

mitigation can be assured by conditioning the HPA or modifying the proposal. If the department denies approval, the department must provide the applicant a written statement of the specific reasons why and how the proposed project would adversely affect fish life.

(c) The department may place specific time limitations on project activities in an HPA to protect fish life.

(d) The department may require the permittee to notify the department before construction begins, upon project completion, or at other times that the department deems necessary while the permit is in effect. The department may also require the permittee to provide periodic written reports to assess permit compliance.

(e) The HPA must contain provisions that allow for minor modifications to the work timing, plans and specifications of the project without requiring the reissuance of the permit, as long as the modifications do not adversely affect fish life or their habitats. A minor modification to the work timing means up to a one-week deviation from the timing window in the HPA when there are no spawning or incubating fish present within the vicinity of the project. The department may grant subsequent minor modifications to the work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of the project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification.

(f) An applicant or authorized agent may propose or conduct a hydraulic project under an environmental excellence program agreement authorized under chapter 43.21K RCW. These projects must be must be applied for and permitted under the requirements of chapter 43.21K.

(15) HYDRAULIC PROJECT APPROVAL EXPIRATION TIME PERIODS

(a) Except for emergency, imminent danger, expedited and pamphlet HPAs, the department may grant standard HPAs for a period of up to five years.

(b) Imminent danger and expedited HPAs may be granted for a period of up to sixty days, and emergency HPAs may be granted for the expected duration of the emergency hydraulic project.

(c) Pamphlet HPAs remain in effect indefinitely until modified or rescinded by the department.

(d) The following types of agricultural hydraulic project HPAs remain in effect without the need for periodic renewal; however, the permittee must notify the department before beginning work each year.

(i) Seasonal work that diverts water for irrigation or stock watering; and

(ii) Streambank stabilization projects to protect farm and agricultural land if the problem causing the erosion occurs on an annual or more frequent basis as demonstrated by the applicant. Evidence of erosion may include

history of permit application, approval, or photographs. Periodic floodwaters alone do not constitute a problem that requires an HPA.

(16) REQUESTING A TIME EXTENSION, RENEWAL OR MODIFICATION OF A HYDRAULIC PROJECT APPROVAL

(a) The applicant or authorized agent may request a time extension, renewal or modification of an active HPA. The applicant or authorized agent must submit a written request prior to the expiration of the HPA through the department's on-line permitting system or to the Habitat Program's Olympia headquarters office. The department may not accept delay requests submitted elsewhere or by other than the applicant or authorized agent. Written requests must include the name of the applicant, the name of the authorized agent, if one is acting for the applicant, the control number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requester's signature.

(b) Requests for time extensions, renewals, or modifications of are deemed received on the date submitted. The department may declare applications submitted to Habitat Program after normal business hours as received on the next business day.

(c) The department must approve or deny the request for a time extension, renewal, or modification to an approved HPA within 45 days of the request of the change.

(d) An applicant may request a modification or renewal of an emergency HPA until the emergency declaration expires or is rescinded.

(e) The department must not modify or renew an HPA beyond the applicable five year or sixty day periods. The applicant or authorized agent must submit a new application for a project needing further authorization beyond these time periods.

(f) The department will issue a written HPA if the request is approved.

(17) MODIFICATIONS OF A HYDRAULIC PROJECT APPROVAL BY THE DEPARTMENT

(a) After consultation with the permittee, the department may modify an HPA because of changed conditions. The modification becomes effective immediately upon issuance of a new HPA.

(b) For hydraulic projects that divert water for agricultural irrigation or stock watering purposes, or when the hydraulic project or other work is associated with streambank stabilization to protect farm and agricultural land as defined in RCW 84.34.020, the burden is on the department to show that changed conditions warrant the modification in order to protect fish life.

(18) REQUESTING A TRANSFER OF A HYDRAULIC PROJECT APPROVAL

(a) An HPA may not be transferred to another person. Persons wishing to complete a permitted hydraulic project must submit a complete application package.

220-110-060 Integration of hydraulic project approvals and forest practices applications

(1) DESCRIPTION

In 1999, the *Forests and Fish Report* and Engrossed Substitute House Bill 2091, which amended the Forest Practices Act, chapter 76.09 RCW, envisioned a more integrated approach to permitting hydraulic projects that also require forest practices applications (FPAs). In May 2001, the forest practices board adopted permanent forest practices rules in Title 222 WAC, which incorporated fish protection measures normally included in hydraulic project approvals (HPAs) for projects in nonfish-bearing waters.

In April 2012, the legislature, through Second Engrossed Substitute Senate Bill 6406, amended the Forest Practices Act in chapter 76.09 RCW and the hydraulic code statutes in chapter 77.55 RCW. The amendment requires integration of hydraulic code rule fish protection standards (Title 220 WAC) into the forest practices rules for hydraulic projects in fish-bearing waters on forest land. As codified in RCW 77.55.361 and 76.09.040, the requirements of the hydraulic code rules will no longer apply to any forest practices hydraulic project as soon as fish protection standards have been integrated into the forest practices rules, and technical guidance has been developed and approved for inclusion in the *Forest Practices Board Manual*. Thereafter, forest practices hydraulic projects will be regulated under forest practices rules. The amended statutes also include a requirement that the department of fish and wildlife (department) adopt rules establishing the procedures for the concurrence review process. This process is outlined in subsection (3) of this section.

(2) General review and comment on forest practices hydraulic projects

(a) The department may review and provide comments on any FPA.

(b) For FPAs that include a forest practices hydraulic project involving fish-bearing waters or shorelines of the state, the department must review the forest practices hydraulic projects and either provide comments to the department of natural resources (DNR), or document that the review has occurred without the need for comments. Prior to commenting, the department will strive to communicate with the applicant regarding any concerns relating to consistency with fish protection standards. The department will also strive to maintain communications with DNR as concerns arise and to inform DNR of communications with applicants.

(c) The department will encourage forest landowners to consult with department biologists, including site visits as needed, prior to submitting an FPA containing a hydraulic project. This will help ensure that project design plans and specifications meet fish protection standards. Pre-application collaboration with the department will result in more efficient and successful outcomes for forest

landowners and their proposed hydraulic projects. In addition to the general review and comment process for forest practices hydraulic projects described in this subsection, hydraulic projects meeting the criteria described in subsection (3)(a) of this section will follow the concurrence review process.

(3) Concurrence review process

(a) The department must review forest practices hydraulic projects meeting the following criteria and provide written comments to DNR on the project's ability to meet fish protection standards:

(i) Culvert installation or replacement, and repair at or below the bankfull width, as that term is defined in WAC 222-16-010 on July 10, 2012, in fish-bearing rivers and streams that exceed five percent gradient;

(ii) Bridge construction or replacement, and repair at or below the bankfull width, of fish-bearing unconfined streams; or

(iii) Fill within the flood level - 100 year, as that term is defined in WAC 222-16-010 on July 10, 2012, of fish-bearing unconfined streams.

(b) After the department receives notification from DNR that a FPA includes one or more hydraulic projects meeting the criteria in (a) of this subsection, the department has thirty days to review the forest practices hydraulic project(s) for consistency with fish protection standards.

(c) Within five business days following notification from DNR, or as soon as possible thereafter, the department will determine whether all information, needed for assessing the hydraulic project's consistency with fish protection standards, is included in the application.

(d) If information is missing, the department will immediately contact the applicant to request the missing information. The department will also provide written notification to DNR, indicating that specific information is missing and that the applicant has been notified. The department may issue a non-concurrence on a proposed project if the applicant fails to provide missing information in a timely manner so that the department can complete its review within the required thirty-day time frame.

(e) If, during the thirty-day concurrence review period, the department determines that a forest practices hydraulic project may not be consistent with fish protection standards, the department will attempt to work with the applicant to modify the proposed project. The department will strive to include DNR participation on site visits with the applicant as needed.

(f) The department must provide written notification of concurrence or non-concurrence to DNR within the thirty-day review period, stating whether or not the hydraulic project is consistent with fish protection standards. As part of the written notification to DNR, the department must provide information about the outcomes of any meetings with the applicant, including agreements or disagreements, any missing information requested, and any proposed changes

needed to meet fish protection standards.

(g) The department will recommend that DNR deny the FPA when efforts described in (e) of this subsection have not resulted in a successful outcome, the project will result in direct or indirect harm to fish life, and adequate mitigation cannot be assured by modifying the hydraulic project proposal or by DNR's agreement to add appropriate provisions to the FPA.

220-110-070 Changes to hydraulic project approval technical requirements

(1) DESCRIPTION

The intent of chapter 220-110 WAC is to protect fish life from predictable impacts that may result from hydraulic projects. The department will review applications on an individual basis. The department may modify or delete common technical requirements not applicable to the project. To protect fish life, HPAs may also have special technical requirements to address project or site-specific considerations not adequately addressed by the common technical requirements. In addition, the department will allow alternative practices to the common technical requirements if they provide equal or greater protection for fish life.

(2) CHANGES TO HYDRAULIC PROJECT APPROVAL TECHNICAL REQUIREMENTS

(a) The department may modify or delete technical requirements in this chapter when any of the following is demonstrated:

(i) There is no logical application to a project;

(ii) The applicant provides an alternative to the requirement that demonstrates that it provides equal or greater protection for fish life;

(iii) Enforcement of the original requirement would result in denial of an HPA when there is adequate mitigation defined to allow the project;

(iv) The modification or deletion of the requirement will not cause a loss of or injury to fish or shellfish, or the loss or permanent degradation of the habitat that supports fish and shellfish populations;

(v) The proposal is part of an approved clean-up action under Model Toxics Control Act; Comprehensive Environmental Response Compensation and Liability Act; or Superfund Amendment and Reauthorization Act; or

(vi) The technical requirements conflict with applicable local, state, or federal regulations that provide equal or better protection for fish life.

(b) The department may add requirements to protect fish life as needed to address project or site-specific impacts not adequately addressed by the technical requirements in 220-110 WAC. However, all requirements must relate to the project and be proportional to the impact of the project.

220-110-080 Mitigation requirements for hydraulic projects

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Generally, mitigation is an action taken to lessen the impact of another action. The department defines mitigation as sequentially avoiding impacts, minimizing impacts, or compensating for remaining unavoidable impacts. The department mitigates impacts to fish life from hydraulic projects through the application of the requirements in this chapter.

(2) FISH LIFE CONCERNS

Most work in or near water can negatively impact fish life. Best management practices such as proper design and siting, construction timing, isolation of the work area, sediment and erosion control planning, water-quality management, and re-vegetation can avoid and minimize many of these impacts. However, remaining impacts may require compensation to offset the loss of fish habitat function and area by habitat type.

(3) MITIGATION REQUIREMENTS

(a) The department must determine the project impact, severity of impact, and amount of mitigation required to achieve no net loss based on the best available information.

(b) The permittee or authorized agent must pay for any surveys, studies or reports required by the department to determine if the proposed mitigation will protect fish life.

(c) All work subject to this chapter must achieve no net loss through a sequence of mitigation actions.

(d) Mitigation includes all of the action steps in the mitigation sequence. The department and the applicant must consider and implement mitigation actions in the following sequential order:

(i) Avoid the impact altogether by not taking a certain action or parts of an action.

(ii) Minimize impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts.

(iii) Rectify the impact by repairing, rehabilitating, or restoring the affected environment.

(iv) Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.

(v) Compensate for remaining impacts by replacing, enhancing, or providing substitute resources or environments.

(e) The department may require advanced mitigation.

(4) COMPENSATORY MITIGATION

(a) Compensatory mitigation is not required for hydraulic projects that do not cause measurable adverse impacts after other actions in the mitigation sequence are completed.

(b) The department must determine compensatory mitigation actions needed to offset impacts remaining after other actions in the mitigation sequence are completed.

(c) When compensatory mitigation is necessary to offset impacts, the department prefers compensatory mitigation actions that restore impacted functions on-site or immediately adjacent to the impact site. However, the department will consider off-site mitigation if it is more cost effective and it provides more benefit to the fish species or fish stock impacted by the work. The department may not limit the scope of compensatory mitigation options to areas on or near the project site, or to habitat types of the same type as contained on the project site. The department must fully review and give due consideration to compensatory mitigation proposals that improve the overall biological functions and values of the watershed or bay and accommodate the mitigation needs of the infrastructure development or non-infrastructure development, including proposals or portions of proposals that are explored or developed in RCW 90.74.040.

(d) The department will base mitigation credits and debits on a scientifically valid measure of fish habitat function, value, and area. Mitigation must compensate for temporal losses, uncertainty of performance, and differences in habitat functions, types and value.

(e) The department will consider use of credits from an approved programmatic option such as a fish conservation bank, a joint 404/401 mitigation and fish conservation bank or in-lieu fee program as a form of compensation only after the standard mitigation sequencing has occurred at the impact site. These credits should benefit the same fish stocks or fish species as those impacted by the hydraulic project.

(f) The department may require monitoring to determine the extent and severity of impacts and the effectiveness of the compensation projects. The department may require corrective measures needed to achieve performance goals and objectives specified in the HPA.

(g) The environmental baseline for purposes of calculating compensatory mitigation requirements under this chapter is habitat conditions at the time the HPA

application is submitted.

(h) The department will evaluate impacts caused by a hydraulic project by comparing the condition of the habitat before project construction or the performance of work to the expected condition of the habitat after project completion.

(i) Routine maintenance and repair work on an existing structure does not require compensatory mitigation unless:

(i) The maintenance and repair work causes a new loss of habitat function or area not associated with the original construction.

(ii) The work increases or changes the footprint of the existing structure.

(j) Rehabilitation and replacement of a structure does not require compensatory mitigation unless:

(i) The new design or other changes cause a new net loss of habitat function or area not associated with the original construction.

(ii) Construction activities associated with the rehabilitation and replacement project causes a new loss of habitat function or area not associated with the original construction.

(iii) The rehabilitated or replaced structure does not comply with the technical requirements in this chapter or does not provide equal or greater protection for fish life when compared to the technical requirements this chapter.

(k) Removal of a man-made or engineered structure does not require compensatory mitigation. However, the department may require bank resloping, revegetation, and other job site stabilization measures following structure removal.

(l) The department may require the project proponent to submit a monitoring and contingency plan to ensure the compensatory mitigation meets the performance goals and objectives. This plan may be part of a larger mitigation plan.

(5) MITIGATION PLAN

(a) The department may require a mitigation plan for projects with unavoidable adverse impacts and those with ongoing, complex, and experimental mitigation actions.

(b) The department must notify the applicant in writing if a mitigation plan is required and specify what the plan must include.

(c) The person may use a mitigation plan to propose compensatory mitigation within a watershed. A mitigation plan must:

(i) Contain language that guarantees long-term viability of the created, restored, enhanced, or preserved habitat, including assurances for protecting any essential biological functions and values defined in the mitigation plan;

(ii) Contain language for long-term monitoring of any created, restored, or enhanced mitigation site; and

(iii) Be consistent with the local comprehensive land use plan and any other applicable planning process in effect for the development area, such as an adopted sub basin or watershed plan.

(d) The department is not required to grant approval to a mitigation plan that does not provide equal or greater fish habitat functions and values within the watershed or bay.

(e) When making a permit decision, the department must consider whether the mitigation plan provides equal or greater fish habitat functions and values, compared to the existing conditions, for the target fish species or fish stocks identified in the mitigation plan. This consideration must be based upon the following factors:

(i) The relative value of the mitigation for the target fish species or fish stocks, in terms of the quality and quantity of habitat functions and values provided;

(ii) The compatibility of the proposal broader resource management and habitat management objectives and plans, such as existing resource management plans, species recovery plans, watershed plans, critical areas ordinances, the forestry riparian easement program, the riparian open space program, the family forest fish passage program, and shoreline master programs;

(iii) The ability of the mitigation to address scarce functions or values within a watershed;

(iv) The benefits of the proposal to the broader watershed landscape, including the benefits of connecting various habitat units or providing population-limiting habitats or functions for target fish species;

(v) The benefits of early implementation of habitat mitigation for projects that provide compensatory mitigation in advance of the project's planned impacts; and

(vi) The significance of any negative impacts to non-target fish stocks, fish species or resources.

(f) A mitigation plan may be approved through a memorandum of agreement between the project proponent and the department.

(g) The department will require a memorandum of agreement between the project proponent and the department if mitigation actions including monitoring exceed the life of the HPA.

220-110-090 Technical requirements

Technical requirements are mitigation measures commonly used to protect fish life. These

provisions reflect best available science and practices. The department may incorporate new information as it becomes available. In addition, the department will allow alternative practices to the common technical requirements if they provide equal or greater protection for fish life.

WACs 220-110-100 through 220-110-440 are technical requirements arranged by hydraulic project types. To protect fish life, the department may modify, delete or add requirements to mitigate project or site-specific impacts.

The department may apply saltwater requirements referenced in WACs 220-110-310 through 220-110-440 to tidally influenced areas upstream of river mouths and the mainstem Columbia River downstream of Bonneville Dam.

220-110-100 Common construction requirements

WAC 220-110-100 has common construction requirements that apply to many kinds of hydraulic projects. All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in the HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Common construction requirements can apply to many hydraulic projects. However, not all common construction requirements will be applied to a specific project. Common construction requirements include job site access, equipment use, construction materials, sediment and erosion control containment, in-water work area isolation, fish removal, and job site repair and revegetation.

(2) FISH LIFE CONCERNS

Construction and other work can negatively affect fish life. Some activities may 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

(a) Establish staging areas (used for construction equipment storage, vehicle storage, fueling, servicing, hazardous material storage, etc.) in a manner and at a location that will prevent contaminants including but not limited to, petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

(4) JOB SITE ACCESS

(a) Avoid and then minimize the number of temporary access roads. Use existing roadways or travel paths whenever possible.

(b) Design and locate temporary access roads to avoid sediment from erosion entering waters of the state.

(c) Mark boundaries of clearing limits associated with site access and construction to avoid and minimize damage or removal of riparian, wetland and aquatic vegetation.

(5) EQUIPMENT USE

(a) Avoid and minimize damage or removal of riparian, aquatic and wetland vegetation by confining the use of equipment to specific access and work corridors.

(b) Unless there are geological, engineering or safety constraints, use hand-held equipment or tools rather than heavy equipment.

(c) Unless there are geological, engineering or safety constraints, keep equipment out of the water.

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

(e) Check equipment daily for leaks and complete any necessary repairs in an upland location prior to using the equipment in or around the water.

(f) Backfill trenches, depressions and holes daily if they will be inundated by water of the state.

(6) VESSEL OPERATION

(a) Prevent impacts to the bed and submerged aquatic vegetation from vessel grounding, anchoring, and propeller wash.

(b) Maintain anchor cable tension so anchor cables do not drag on the bed of waters of the state.

(7) CONSTRUCTION MATERIALS

(a) Store all construction and deconstruction material in a manner and at a location that will prevent contaminants including but not limited to, 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 in the wetted area of rivers, streams and lakes or below mean higher high water line in marine waters.

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

(d) Sufficiently cure structures containing concrete prior to coming into contact with waters of the state to prevent leaching.

(e) Construct forms for any wet concrete to prevent leaching of wet concrete. Place impervious material over any exposed concrete not lined with forms 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 creosote, pentachlorophenol, or chromated copper arsenate (CCA) in any hydraulic project. Wood treated with other preservatives may be used, provided the wood meets Western Wood Preservers post-treatment requirements. The wood must be sufficiently cured prior to installation to minimize leaching.

(g) Completely contain sawdust, trimmings, or drill shavings from treated wood with tarps or other methods during installation or removal of structures.

(h) Unless there are engineering constraints, do not use tires in any hydraulic project (e.g., floatation, fenders, and hinges). Where they exist in waters of the state, the department will work with the property owner to replace tires with authorized materials.

(8) CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

(a) When appropriate, work in the dry (e.g. when no natural flow is occurring in the channel, or when flow is diverted around the work site).

(b) Protect all disturbed areas from erosion. Maintain erosion and sediment control until repair of the job site is complete.

(c) If high flow or high tide conditions inundate the project area, stop all project activities except those needed to prevent erosion and siltation of waters of the state.

(d) Prevent contaminants from construction, including but not limited to, petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering or leaching into waters of the state.

(e) Route wastewater from work activities and water removed from within an isolated work area to an upland area above the limits of anticipated floodwater. Remove fine sediment and other contaminants prior to discharging the wastewater to waters of the state.

(f) Deposit waste material such as construction debris, silt, excess dirt, or overburden resulting from the project to an upland area above the limits of anticipated floodwater.

(g) Deposit all trash from the project in an approved upland disposal site.

(h) Prevent the transport and introduction of invasive species by thoroughly cleaning vessels, equipment, boots, waders and other gear.

(9) 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, deep pools, etc., due to the difficulty of securing and/or maintaining nets. Install a downstream block net if fish may re-enter the work area from downstream.

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

(c) Once 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.

(d) The department must determine the size of block net opening. This will be dependent on the bypass design, the purpose of the block net and the fish species likely to be present.

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

(f) To anchor block nets, bags filled with clean gravel must be placed along the bottom of the nets.

(g) Secure block nets along both banks and the channel bottom to prevent failure as a result of debris accumulation, high flows, and/or flanking.

(h) In order to keep fish out of the work site, leave block nets in place until the work is complete and conditions are suitable for fish.

(i) Check block nets a minimum of three times a day for entangled fish and accumulated debris.

(10) IN-WATER WORK AREA ISOLATION USING A TEMPORARY BYPASS

(a) For projects where construction takes place within the wetted perimeter, isolate fish from the work area by using either a total bypass to reroute the entire stream through a temporary channel or pipe, or a partial bypass such as a cofferdam to exclude fish from a certain area, such as along one stream bank.

(b) The hydraulic capacity of the stream bypass must be equal to or greater than the peak flow event expected during the time the bypass will be in operation. Conduct a hydrologic analysis to determine the magnitude of this flow event.

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

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

(e) Use the least impacting method to temporarily bypass or exclude water from the work area that is feasible for the type of work involved. 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) Flows downstream of the project site must be maintained to ensure survival of all downstream fish, during all phases of bypass installation and decommissioning.

(h) Install the temporary bypass prior to initiation of 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 / erosion to the channel and bank.

(k) If the diversion inlet is a gravity diversion that provides fish passage, place the diversion outlet in a location that facilitates gradual and safe reentry of fish into the stream channel.

(l) 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).

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

(m) The minimum open area for all types of fish guards is 27%. 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) Prior to 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 prior to re-watering the work area.

(11) IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE

(a) Use modeling to determine the impact of the cofferdam on water-surface elevations during all anticipated flows. The department may not require modeling for short-term cofferdams on low flow streams.

(b) Consider the infiltration rate of seepage flow from the riverbed and from banks when designing the cofferdam.

(c) Install and remove cofferdams in a manner that ensures water quality is maintained.

(d) Dissipate flow energy from the diversion to prevent scour / erosion to the channel and bank.

(12) IN-WATER WORK WITHOUT A BYPASS OR COFFERDAM

(a) 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:

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

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

(iii) When turbidity is not a concern;

(iv) When fish can be excluded by nets or screens, or

(v) When fish are not present.

(13) FISH REMOVAL

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

(b) A person with at least forty hours of electrofishing experience must be on-site to conduct or direct all electrofishing activity.

(c) The department and affected tribes may assist with capturing and moving fish life from the job site if personnel are available.

(d) Place block nets up and downstream of the in-water work area as specified in sub-section 9 of this section.

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

(14) JOB SITE REPAIR AND REVEGETATION

(a) Restore the disturbed bed, bank, and riparian areas similar to their pre-project natural condition.

(b) Remove any temporary fills in their entirety and return the affected areas to their pre-project elevation and contours. Removal must occur by the end of the in-water work window if fill material could erode into or result in delivery of sediment-laden water into waters of the state.

(c) Abandon temporary roads in wet or flood-prone areas by the end of the in-water work period.

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

(e) Remove all materials or equipment from the site and dispose of all excess spoils and/or waste materials properly upon completion of the project.

(f) Backfill trenches, depressions and holes if they will be inundated by water of the state.

(g) All structures removed and/or replaced must not reenter water of the state unless authorized by the department.

(h) 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.

(i) Replace native riparian, aquatic and wetland vascular plants (except noxious weeds) damaged or destroyed by construction using a proven methodology.

(j) The department must approve planting densities and maintenance requirements for replanting on a site-specific basis.

(k) Complete replanting during the first dormant season (late fall through late winter) following project completion. Maintain plantings for a minimum of three years to ensure a minimum of 80 percent survival. Failure to achieve the 80 percent survival in year three will require submission of 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 geological, engineering or safety factors preclude it.

(m) The department may require fencing or other structures as necessary to prevent access to revegetated sites by livestock, wildlife or unauthorized persons until the plantings are well established.

(n) The department may require a vegetation monitoring and contingency plan per WAC 220-110-100.

(o) Remove temporary erosion and sediment control methods after job site repairs are complete.

(15) PERMITTEE NOTIFICATION

(a) If a fish kill occurs or fish are observed in distress at the job site, immediately cease all activities causing harm. Immediately notify the department of the problem. If the likely cause of the fish kill or fish distress is water quality related, 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 department gives approval. The department may require additional measures to mitigate impacts.

(b) The department may require the permittee to notify the department before starting work, during work, and upon project completion to allow for pre-project consultation and inspection.

220-110-110 Authorized work times in freshwater areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

The department applies work windows to reduce the risk of impacts to fish at critical life stages. In-water work is limited to non-critical periods of the year unless a person can take mitigation measures to eliminate risk during critical periods.

(2) FISH LIFE CONCERNS

Work in or around watercourses can result in harmful effects to fish life. Therefore, this work must occur when the risk of these harmful effects can be avoided or reduced. Using timing windows helps ensure that in water work avoids damage to incubating eggs and fry, and juvenile fish.

(3) DETERMINING AUTHORIZED WORK TIMES

(a) The department must specify authorized work times for hydraulic projects in or adjacent to waters of the state when it issues HPAs. When determining the authorized work times, the department will use the information below to determine the appropriate work window on a project by project basis:

(i) Life history stages of the fish and shellfish species present:

(A) Presence or absence of spawning, incubating, rearing, and/or migrating habitat at or near the work site.

(B) The migration timing of juveniles (smolts in the case of anadromous salmon and steelhead) and adults in both fresh and saltwater.

(ii) The expected impact of construction activities, equipment type and access.

(iii) Best management practices proposed by the project proponent, including proposed plans for:

(A) Sediment and erosion control containment and management at the work site.

(B) Wastewater containment and management at the work site.

(C) Riparian, wetland, and aquatic vegetation management at the work site.

(iv) Mitigation measures volunteered or imposed upon the project.

(v) Weather conditions during, or predicted to occur, during construction activities.

(vi) Other circumstances and conditions.

(b) The department must publish the times when spawning salmonids and their incubating eggs and fry are least likely to be within Washington state freshwaters on its public website.

220-110-120 Freshwater habitats of special concern

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for

hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Freshwater habitats of special concern provide essential functions in the developmental life history of priority fish species. These include spawning and rearing habitats for state and federal listed species, and species of recreational, commercial or tribal importance.

The presence of freshwater habitats of special concern or areas in close proximity with characteristics may restrict project type, design, location, and timing. The department may determine the location of such habitats by a site visit. In addition, the department may consider maps, publications and other available information to determine the location.

(2) FISH LIFE CONCERNS

There are ninety-one species of fish in Washington, fifty species of native fish and forty-one introduced fish species. In Washington, six salmon and three steelhead Evolutionarily Significant Units (ESUs) stocks as well as bull trout Distinct Population Segments are listed under the endangered Species Act.

(3) FRESHWATER HABITATS OF SPECIAL CONCERN

(a) A person may request Information from the department about the location of freshwater habitats of special concern.

(b) Freshwater habitats of special concern are fish habitats where priority fish species are present and may be categorized into the following types of areas:

(i) Chinook salmon (*Oncorhynchus tshawytscha)* spawning habitat located in the gravel and cobble areas of river mainstems and larger tributary streams. Chinook spawn in rivers and streams in the Columbia River, Coastal and Puget Sound drainages.

(ii) Chum salmon (*Oncorhynchus keta)* spawning habitat located in the gravel riffles and pool tailouts in shallow stream reaches and side channels where water velocities are lower. Chum salmon spawn in rivers and streams in the lower Columbia River, Coastal and Puget Sound drainages.

(iii) Coho salmon (*Oncorhynchus kisutch)* spawning habitat located in the gravel riffles and pool tailouts. Coho spawn in the rivers and streams in the Columbia River, Coastal and Puget Sound drainages.

(iv) Pink salmon *(Oncorhynchus gorbuscha)* spawning habitat located in the gravel riffles and pool tailouts. Pink salmon spawn in rivers and streams in the Columbia River, Coastal and Puget Sound drainages.

(v) Sockeye salmon *(Oncorhynchus nerka)* spawning habitat located in the gravel riffles in lake tributary rivers and streams and sometimes along lake shores where seepage outflows, springs, or wind-induced waves occur. These lakes include, but are not limited to the following:

(A) Baker Lake
(B) Lake Washington
(C) Lake Sammamish
(D) Lake Wenatchee
(E) Lake Osoyoos
(F) Lake Ozette
(G) Lake Pleasant
(H) Lake Quinault

(vi) Coastal resident/searun cutthroat (*Oncorhynchus clarki clarki)* spawning habitat located in riffle areas of headwater streams. Coastal cutthroat spawn in streams in the lower Columbia River, Coastal and Puget Sound drainages.

(vii) Westslope cutthroat *(Oncorhynchus clarki lewisi)* spawning habitat located in riffle areas of headwater streams and alpine lake tributary streams on clean, small gravel substrates. Westslope cutthroat spawn in streams including, but not limited to, those in the Lake Chelan, Methow and Pend Oreille River basins.

(viii) Kokanee *(Oncorhynchus nerka)* spawning habitat located in the gravel riffles areas of lake tributary rivers and streams and along lake shorelines. These lakes include, but are not limited to the following:

(A) Olympic Region
(B) Lake Ozette
(C) Lake Crescent
(D) Lake Whatcom
(E) Baker Lake
(F) American Lake
(G) Summit Lake
(H) Lake Washington
(I) Lake Wenatchee
(J) Lake Chelan
(K) Palmer Lake
(L) Lake Osoyoos
(M) Banks Lake
(N) Lake Roosevelt

(O) Rim Rock Lake

(P) Loon Lake

(Q) Deer Lake

(R) Long Lake

(S) Chapman Lake

(ix) Bull trout *(Salvelinus confluentus)* spawning habitat located in gravel and small cobble in upper reaches of clear streams in areas of flat gradient. This includes pockets of gravel in very steep streams. Bull trout spawn in streams in the Columbia River, Coastal and Puget Sound drainages.

(x) Rainbow trout/steelhead/inland redband trout *(Oncorhynchus mykiss)* spawning habitat located in the gravel of stream riffles and pool tailouts. Coastal Rainbow trout and steelhead spawn in tributary streams to rivers and lakes in the Columbia River, Coastal and Puget Sound drainages. Redband trout spawn tributary streams to rivers and lakes in mid-Columbia River drainage.

(xi) Pygmy whitefish *(Prosopium coulteri)* spawning habitat located in coarse gravel in shallow areas in lakes and tributary streams. These lakes include, but are not limited to, the following:

(A) Lake Bead

(B) Lake Sullivan

(C) Lake Chelan

(D) Lake Chester Morse

(E) Lake Cle Elum

(F) Lake Kachess

(G) Lake Keechelus

(H) Lake Osoyoos

(xii) Pacific lamprey *(Entosphenus tridentate)* spawning habitat located in stream riffles and pool tailouts with fine gravel and sand substrates and rearing areas located in fine silt and mud substrates in backwaters and quiet eddies of streams.

(xiii) River lamprey *(Lampetra ayresi)* spawning habitat located in stream riffles and pool tailouts with fine gravel and sand substrates and rearing areas located in fine silt and mud substrates in backwaters and quiet eddies of streams.

(xiv) Green sturgeon (*Acipenser medirostris)* spawning habitat and rearing areas located in the lower Columbia River.

(xv) White sturgeon (*Acipenser transmontanus)* spawning habitat located in swift, deep water over cobble, boulder, and bedrock substrate in the Columbia and Snake Rivers basins.

(xvi) Olympic mudminnow (*Novumbra hubbsi)* habitat located in coastal lowland wetlands of the Olympic Peninsula and nearby areas of Washington, west and south of the Olympic Mountains, from Lake Ozette to Grays Harbor and up the Chehalis River drainage. Mudminnow are found in quiet waters with mud or dark bottoms, usually well-vegetated areas and areas under overhanging banks, especially in marshy streams and brownish water of bogs and swamps.

(xvii) Lake chub *(Couesius plumbeus)* spawning habitat located over coarse gravel, small rubble and rocks in shallow water. Lake chub spawn in lakes and tributary streams including, but not limited to the following:

(A) Lake Pend Oreille

(B) Lake Roosevelt

(C) Lake Okanogan

(xviii) Leopard dace (Rhinichthys falcatus) spawning habitat located in riffles of rivers and tributary streams. These rivers include, but are not limited to, the following:

(A) Columbia River

(B) Snake River

(C) Yakima River

(D) Methow River

(E) Simikameen River

(xix) Umatilla dace *(Rhinichthys Umatilla)* spawning habitat located in riffles of rivers and tributary streams. These rivers include, but are not limited to, the following:

(A) Columbia River

(B) Snake River

(C) Yakima River

(D) Okanogan River

(E) Simikameen River

(F) Kettle River

(G) Colville River

(xx) Mountain sucker *(Catostomus platyrhynchus)* spawning habitat located in riffles of small clear, cold tributary streams in the Columbia River System.

(xxi) Eulachon *(Thaleichthys pacificus)* spawning habitat located in the tidally influenced sections of the following rivers and streams in areas typically composed of sand and/or pea gravel. Eulachon spawn These rivers include, but are not limited to, the following:

(A) Lower Columbia River

(B) Grays River

(C) Skamokawa Creek
(D) Elochoman River
(E) Cowlitz River
(F) Toutle River
(G) Kalama River
(H) Lewis River
(I) East fork of Lewis
(J) Quinault River
(K) Sandy River
(L) Elwha River Nooksack River

(xxii) Margined sculpin habitat primarily located in pools and slow moving glides with small gravel and silt substrates. Margined sculpin spawn in the headwater tributaries of the Walla Walla, Touchet, and Tucannon Rivers.

(c) The following habitats serve essential functions in the developmental life history of fish life:

(i) Spawning habitat

(ii) Cover habitat provided by large woody debris, live tree roots, deep pools, shallow water, undercut banks, overhanging vegetation, turbulence and large interstitial areas in cobble or boulder substrate.

(iii) Off-channel habitat including but not limited to wall-based channels, flood swales, side channels and floodplain spring channels.

(iv) Native aquatic vegetation

(v) Riparian areas

(d) The following are important ecosystem processes that form and maintain freshwater habitats of special concern:

(i) Woody material sources, delivery and transport, and

(ii) Sediment sources, delivery and transport.

220-110-130 Streambank protection and lake shoreline stabilization

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Streambank protection and lake shoreline stabilization structures are permanent or temporary structures constructed for the purpose of preventing erosion or stabilizing

the bank. There are both hard and soft approaches to bank protection. Hard approaches armor the bank with material such as riprap, concrete or timber and are intended to resist shear forces experienced at a specific site and prevent erosion of the bank. Soft approaches attempt to mimic natural processes with the use of biotechnical methods such as live plantings, rootwads, and large woody material (LWM). Soft approaches to streambank protection are generally less impacting to fish life than are hard approaches. Some projects integrate both hard and soft approaches.

(2) FISH LIFE CONCERNS

Streambank protection and lake shoreline stabilization alter the bed or beach and the physical processes that form and maintain fish habitat. Direct loss of habitat may include loss of cover, spawning beds, large woody material, riparian function, floodplain connectivity, and alteration to the channel/beach that decreases the complexity and diversity of fish habitats.

(3) BANK PROTECTION AND LAKE SHORELINE STABILIZATION DESIGN - GENERAL

(a) If waters of the state breach an existing structure and the breach is not repaired during the next two work windows, the department must consider the OHWL behind the structure the existing condition.

(b) The department may require an analysis performed by a civil, geotechnical or structural engineer licensed in the state of Washington to justify the replacement and repair of a structure that extends waterward of the existing structure.

(c) An HPA application for a new structure must include a qualified professional's rationale for the proposed technique including:

(i) An analysis performed by a civil, geotechnical or structural engineer licensed in the state of Washington of the level of risk to existing buildings, roads, or services being threatened by the erosion;

(ii) Technical rationale specific to the design developed such as a reach and site assessment to identify the mechanism of the bank failure and cause of erosion; and,

(iii) Evidence of erosion and/or slope instability to warrant the work.

(d) Minimize adverse impacts to fish life by using the least impacting technically feasible alternative. Typically, soft approaches are less impacting than hard approaches. The common alternatives below are in order from least to most impacting:

(i) Upland drainage control;

(ii) Vegetation protection, enhancement, and replacement;

(iii) Relocation of improvements or structures;

(iv) Beach nourishment;

(v) Large woody material placement;

(vi) Biotechnical methods;

(vii) Bioengineering methods;

(viii) Upland retaining walls;

(ix) Bulkheads and rock revetments placed landward of the OHWL; and

(x) Bulkheads and rock revetments located at the OHWL.

(e) The department may require bioengineering methods to protect a streambank or stabilize a lake shoreline.

(f) The department may require the incorporation of large woody material or native vegetation into the design of the structures.

(4) STREAMBANK PROTECTION DESIGN

(a) Revetments

(i) Limit the length of the structure to the length necessary to protect the eroding bank.

(ii) The structure must minimize impacts to the active floodplain or stream channel.

(iii) Use natural materials and designs that promote natural dynamics of the channel.

(b) Groins

(i) Design and install groins to redirect flow away from an eroding bank.

(ii) Do not place groins in tight-radius bends.

(iii) Size and space groins so they dissipate flood flow energy and promote sediment deposition between them.

(iv) Impermeable groins must not exceed fifteen percent of the bankfull channel width. Permeable groins must not exceed twenty percent of the bankfull channel width.

(v) Groins must not exceed the height of the adjacent bank. The crest must be sloped down and away from the bank.

(vi) Key groins into the bank to assure integrity during high flows.

(c) Barbs

(i) Design and install barbs so they do not confine the channel.

(ii) Barbs must not exceed twenty-five percent of the bankfull channel width.

(iii) The height of the barbs must be below the height of the OHWL and equal to or above the mean low-water level.

(iv) Key barbs into the bank to assure integrity during high flows.

(d) Engineered log jams

(i) Design and construct a log jam with the size and species of large woody

material necessary to ensure the log jam will remain intact and stable.

(e) Floodplain roughness

(i) Design floodplain terraces to contain the ten-year recurrence interval peak flow, and to overtop during greater flows.

(ii) Locate large woody material or vegetative roughness elements in the floodplain perpendicular to the down-valley slope, on either side of banks vulnerable to avulsion (such as tight bends).

(iii) Anchor large woody material to the floodplain if flotation or high shear stresses may occur at flood flows.

(f) Flow spreaders

(i) Construct flow spreaders from rock, soil, wood, live plants (i.e. cottonwood boles), or vegetated soil berms.

(ii) Vegetative soil berms must incorporate fabric to hold soils in place while vegetation becomes established.

(iii) Size and install rock or other armor materials to protect against scour.

(iv) The top of the spreader must be at or near the elevation of the design flood, with allowances for increased water elevation due to backwatering caused by the spreader itself.

(v) Construct flow spreaders in series, to prevent stream channel formation.

(vi) Locate flow spreaders to prevent water from flowing around the spreader and scouring the bed or banks.

(5) LAKE SHORELINE STABILIZATION DESIGN

(a) Stabilize banks in areas with low to moderate wave action using vegetative stabilization or bioengineering techniques.

(b) Stabilize banks in areas with moderate to high wave action using a combination of vegetation and natural hard structures such as LWM.

(c) Where required, stabilize banks in areas with high wave action using “hard” engineering (i.e., engineer designed hard structures) to ensure effective erosion protection. A technical rationale explaining why softer bioengineering or integrated techniques cannot be used must be included in the HPA application, specific to the design proposed.

(d) Unless there are engineering, safety or environmental constraints, the toe of the structure must be located landward of the OHWL.

(e) Ensure hard engineering will not create erosion or floodplain connectivity problems off-site.

(6) BANK PROTECTION AND LAKE SHORELINE STABILIZATION CONSTRUCTION

(a) The department may require the proponent to establish the horizontal distance of the structure from a permanent benchmark(s) (fixed objects) prior to commencing work on the project. The benchmarks must be located, marked and

protected to serve as post project reference for ten years.

(b) Restrict streambank protection to the minimum size necessary to protect eroding banks.

(c) Restrict the placement of material waterward of the OHWL to that necessary to protect the toe of the bank, or for installation of mitigation features (e.g. logs and rootwads) approved by the department.

(d) Design the toe to protect the integrity of bank protection or shoreline stabilization material.

(e) Bury the base of the structure to a depth sufficient to prevent undermining. In cases where scour depth is sufficiently deep, choose a design that adjusts to changing scour depth without compromising the function of the bank protection.

(f) When bank sloping, do not release overburden material into the waters of the state.

(g) Do not use lake or river bed gravel for exterior armor unless the department has specifically authorized it.

(h) If the department approves rock for construction, use clean riprap.

(i) Use construction material sufficiently large enough to prevent high water or wave action from washing it away.

(j) Bank protection or shoreline stabilization material and filter blanket material must be placed from the bank or a barge. Dumping onto the bank face can occur only if the toe is established and the material can be confined to the bank face.

(k) Stockpile excavated materials in a manner and at a location that will prevent the excavated material from entering waters of the state.

(l) Retain all natural habitat features in the work area and below the OHWL that are larger than four inches in diameter including trees, stumps and logs, and large rocks within the reach.

220-110-140 Residential docks, watercraft lifts, and buoys in freshwater areas

The requirements in this section apply to location, design and construction of permanent and seasonal docks, watercraft lifts and mooring buoys in freshwater areas. All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A pier is a stationary overwater structure that extends out from the shoreline and is

supported by piling. A float is a walkway or other surface that floats on the water. A ramp is a walkway that connects a pier or other shoreline to a float and provides access between the two. Pilings, which are associated with several of these structures, are timber, steel, reinforced concrete or composite posts that are driven, jacked, or cast vertically into the bed. A watercraft lift is a structure that lifts boats and personal watercraft out of the water. A mooring buoy is a floating surface structure used for private and commercial vessel moorage.

(2) FISH LIFE CONCERNS

Overwater and in-water structures can alter physical processes that create or maintain fish habitat. These include alteration of the light regime, hydrology, substrate conditions, and water quality. However, light reduction is the main impact to fish habitat. Light reduction, or shading, by overwater or in-water structures reduces survival of aquatic plants. Aquatic plants provide food, breeding areas, and protective nurseries for fish, shellfish, crustaceans and many other animals

Shallow water provides juvenile fish a refuge from predators like larger fish. Overwater and in-water structures can alter movement of juvenile salmon, steelhead and other fish species. Structures grounding on the bed can physically block migration. The light/dark of shading/no shading caused by overwater and in-water structures can affect migration behavior. Fish respond by moving into deeper water which increases the risk of predation. These structures may increase the exposure of juvenile salmon, steelhead and other small fish to potential predators by providing predator habitat. This can alter the natural predator/prey relationship to the detriment of listed and priority fish species.

(3) DOCK DESIGN - GENERAL

(a) Design and locate structures to avoid impact to fish spawning and rearing areas and fish migration corridors.

(b) The design must not include skirting. Use of skirting is prohibited.

(c) If artificial nighttime lighting is used in the design, use low-intensity lights that are located and shielded to prevent light from shining on the water from sunset to sunrise.

(d) The design must not use treated wood for the decking of the structure. The design may use ammoniacal copper zinc arsenate (ACZA) treated wood for structural elements.

(e) Treated wood structural elements subject to abrasion by vessels, floats or other objects must incorporate design features to minimize abrasion of the wood.

(f) All grating must have forty-two to sixty percent open areas depending on the percent of deck area covered by grating. Orient grating so the lengthwise

opening is in the direction that maximizes the amount of light penetration. Any objects on, above or below the grating should not block light penetration.

(g) Use the minimum number of piling necessary to construct a safe structure.

(h) Piles must be no greater than eight inches in diameter unless there are engineering or safety constraints.

(i) New and replacement piling can be steel, concrete, recycled plastic or untreated or ammoniacal copper zinc arsenate (ACZA) treated wood that has undergone an industry standard post-treatment process that is verified with a certificate.

(j) ACZA treated wood piling must incorporate design features (e.g., abrasion resistant material: Ultra High Molecular Weight polyethene, or polypropylene rubbing strips) to minimize abrasion of the piling by vessels, floats or other objects.

(k) The department will only allow the use of fill around piling when the condition of the substrate prevents the use of driven piles.

(l) Fill material is limited to clean rock and concrete.

(m) Limit the total amount of fill to the minimum amount necessary to secure the piles.

(4) DOCK DESIGN IN WATERBODIES WITH JUVENILE SALMONIDS - GENERAL

(a) New dock structures in shallow freshwater areas with native salmonids should be a pier only; pier, ramp and float; or a float only. Floating docks are not authorized unless piers or pier, ramp and floats dock designs are prohibited by local land use regulations.

(b) In areas with native salmonids design new dock structures so floats and associated vessels do not ground on the bed. A minimum space of twelve inches of separation between the bottom of float and the bed at low water is required. In reservoirs and impoundments, this applies only during the times of the year when water is present.

(c) Replacement of floating docks in freshwater areas with native salmonids may be authorized by the department provided:

(i) The replaced floating dock is not expanded.

(ii) The replaced floating dock is not re-located within waters of the state without written authorization from the department. The replaced structure must be removed and disposed of upland such that they do not re-enter such waters.

(iii) No more than twenty percent of floating dock within the beach area grounds at any time. In reservoirs and impoundments, this applies only during the times of the year when water is present. There must be a minimum of twelve inches of between beach and non-grounding portions of the dock.

(iv) A replacement floating dock six feet wide or less must have at least thirty

percent functional grating of the deck surface. A replacement floating dock greater than six feet wide must have at least fifty percent functional grating installed in the deck surface. In some waterbodies, the department may require the entire structure be grated. Locate flotation under the solid decked area only. Functional grated decking is that portion of grated decking that is not obstructed by any timber or support structures, including float material or tubs.

(5) DOCK DESIGN IN WATERBODIES WITHOUT JUVENILE SALMONIDS - GENERAL

(a) New and replacement docks in freshwater waterbodies without juvenile salmonids may be a pier; pier, ramp and float; ramp and float; floating dock or a float only.

(b) Design dock structures in waterbodies without juvenile salmonids so no more than twenty percent of the float or floating dock grounds at any time. In reservoirs and impoundments, this applies only during the times of the year when water is present.

(6) PIER DESIGN

(a) The pier must not be more than four feet wide for the first thirty feet from the shoreline and not greater than six feet wide thereafter unless there are engineering or safety constraints.

(b) Piers must extend far enough from the shoreline to avoid impacts from floats to the shallow water habitat.

(c) In freshwater areas with native salmonids a pier greater than four feet (up to six feet) in width must have at minimum of thirty percent functional grating installed on the deck surface. In some waterbodies the department may require additional grating.

(d) If the pier is oriented in a north/south direction, install grating in a direction that is parallel to the length of the pier for the entire length of the pier. If the pier is oriented in another direction, install grating parallel to the width of the pier, evenly spaced along the entire length of the pier.

(e) In freshwater waterbodies without juvenile salmonids the department may require grating to minimize impacts to native aquatic vegetation.

(f) The underside of pier must be at least one and one-half feet above the OHWL elevation.

(7) RAMP DESIGN

(a) Ramps must not be more than four feet wide.

(b) Deck ramps entirely with grating.

(8) FLOAT DESIGN

(a) Floats must not exceed eight feet in width.

(b) In waterbodies with juvenile salmonids, a float six feet wide or less must have at

least thirty percent functional grating installed on the deck surface. A float greater than six feet wide (up to eight feet) must have at least fifty percent functional grating installed on the deck surface. In some waterbodies the department may require additional grating. Locate flotation under the solid decked area only.

(c) In waterbodies without juvenile salmonids the department may require floats to have grating to minimize impacts to native aquatic vegetation.

(d) The freeboard height of floats must be at least ten inches.

(e) Fully enclose and contain flotation for the structure in a shell (tub) or 20 - 25 mm polyethylene, polyurethane wraps that prevents breakup, or loss of the flotation material into the water, and is not readily subject to damage by ultraviolet radiation and abrasion.

(f) Helical screw or "duckbill" anchor(s), piling, piling with stoppers and float support/stub pilings may hold floats in place.

(9) WATERCRAFT LIFT DESIGN

(a) Design the watercraft lift/grid to minimize shading caused by the structure.

(b) Design the watercraft lift/grid so that the bottom of the lift/grid rests at least twelve inches above the bed.

(c) Use the minimum number of additional piles necessary to support the watercraft lift/grid.

(d) Limit wall materials to the minimum open structural framework needed for roof support.

(e) Use translucent roofing materials to cover the roof area.

(9) MOORING BUOY DESIGN

(f) In waterbodies where mooring buoy systems can potentially damage the bed and submerged aquatic vegetation, locate and design the buoy system to minimize damage.

(i) Locate the buoy at a sufficient depth to prevent vessel grounding.

(ii) Locate the buoy to avoid shading impacts from vessels and/or damage from vessel propellers to submerged aquatic vegetation.

(iii) Design and install the buoy system so that anchor lines do not drag.

(iv) Unless there are geological, engineering, safety or environmental constraints, use an embedment style mooring anchor instead of surface style mooring anchor.

(v) Adequately size the mooring to prevent the anchor from shifting or dragging along the bed.

(g) The mooring buoy must have a shell that is not readily subject to damage by ultraviolet radiation and abrasion caused by rubbing against vessels, the bed, and/or waterborne debris.

(10) RESIDENTIAL DOCK, WATERCRAFT LIFT AND BUOY CONSTRUCTION

(a) Operate and anchor vessels and barges in a manner that does not adversely impact native aquatic vegetation.

(b) Re-establish the dock centerline during the construction phase using the same methodology employed to establish the centerline on the construction drawings.

(c) Unless there are geological, engineering or safety constraints, use a vibratory hammer to drive steel piling.

(d) When impact pile driving is needed, use the smallest drop or hydraulic impact hammer necessary to complete the job, and set the drop height to the minimum necessary to drive the piling.

(e) The department may require sound attenuation such as bubble curtains to minimize harm to fish from impact steel pile-driving noise.

(f) To avoid attracting fish with light during nighttime pile driving operations, limit pile driving to daylight hours.

(g) The department may require the following during piling removal:

(i) Use a vibratory system to dislodge piling unless there are engineering, safety or environmental constraints.

(ii) After removal, place the piling on a construction barge or other dry storage site.

(iii) If a treated wood pile breaks during extraction, remove the stump from the water column by fully extracting the stump, cutting it three feet below the substrate or pushing it to that depth.

(iv) Cap the buried stump with clean sediment that matches the native material.

(v) Fill holes left by piling extraction with clean sediment that matches the native material.

(h) Securely anchor floats and mooring buoys.

(i) If the department authorizes the use of a concrete anchor, use a pre-cast concrete anchor.

(j) Dispose of replaced piers, ramps floats, lines, chains, cables or mooring anchors in an upland area.

(k) Place floats and buoys removed seasonally in an upland area. Do not store on the beach.

220-110-150 Boat ramps and launches in freshwater areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending

upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A boat ramp is a sloping stabilized roadway constructed on the shoreline for launching boats from vehicular trailers. Ramps extend into the water at a slope of typically twelve to fifteen percent and are typically oriented perpendicular to the shoreline. Ramp widths vary with its intended use, whereas the length often depends on the slope of the shoreline and seasonal water levels. Ramps are usually constructed in protected areas with access to deep water close to shore. Construction materials commonly consist of gravel, concrete, or asphalt; they are often associated with marinas and parking lots.

(2) FISH LIFE CONCERNS

A ramp replaces river or lakebed habitat used by fish and shellfish. A large number of ramps in a given area increases the loss and fragments this habitat. Ramps and launches placed above bed grade can block sediment and wood movement, and alter nearshore migration of juvenile fish. Ramp and launch placement and maintenance and associated vessel activity can cause disturbance or direct removal of aquatic vegetation.

(3) BOAT RAMP AND LAUNCH DESIGN

(a) Design and locate the boat ramp or launch to avoid adverse impacts to fish spawning areas.

(b) Design the boat ramp at the same elevation as the pre-construction streambed and banks or lakeshore provided the maximum grade does not exceed 15 percent.

(c) Design and locate the boat ramp so the greatest amount of excavation occurs above the OHWL.

(d) Design the boat ramp to prevent erosive undercutting or breaking of ramp edges.

(e) Design and construct boarding floats to minimize grounding on and shading of the bed and interference with sediment and wood movement.

(4) BOAT RAMP AND LAUNCH CONSTRUCTION

(a) Construct the upland portions of the ramp in the dry.

(b) Construct footings and/or the base of the boat ramp below the pre-existing grade of the streambank or lakeshore.

(c) Construct a ramp with concrete, compressed or hardened gravel.

(d) Use pre-cast concrete slabs to construct a concrete boat ramp below ordinary high water or isolate the wet cement until it is fully hardened

(e) Securely anchor launching rails to the stream or lake bottom.

220-110-160 Marinas and terminals in freshwater areas

The requirements in this section apply to construction, maintenance, repair, and removal of marinas and marine terminals in freshwater areas. All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A marina is a public or private facility providing vessel moorage space, fuel, or commercial services. Commercial services include but are not limited to overnight or live-aboard vessel accommodations (RCW 77.55.011(13)).

A terminal is a public or private commercial wharf located in the navigable waters of the state and used, or intended to be used, as a port or facility for the storing, handling, transferring, or transporting of goods, passengers, and vehicles to and from vessels (RCW 77.55.011(14)).

(2) FISH LIFE CONCERNS

Marinas and terminals can alter the physical processes that create or maintain fish habitat. Possible impacts may include alteration of the light regime, hydrology, substrate conditions, and water quality. Marinas and terminals often have a larger impact area than residential docks and are often associated with heavy boat traffic and human use. As a result, the size and amount of the potential impacts to fish life may be greater.

(3) MARINA AND TERMINAL DESIGN - GENERAL

(a) Design, locate and construct new marinas and terminals to avoid impacts to fish migration corridors, and fish spawning and rearing areas.

(b) The department may require physical modeling, numerical modeling, or other information that demonstrates adequate water exchange and circulation to ensure site selection requirements in subsection (4) below are met.

(c) Locate new marinas and terminals away from areas with native aquatic vegetation.

(d) Locate new marinas and terminals in areas naturally deep so dredging is not required.

(e) Locate new marinas and terminals in areas deep enough to prevent propeller wash impacts to the bed.

(f) Locate new marinas and terminals in areas with low or impaired biological

integrity.

(g) Design marinas and terminals so most overwater coverage is in the deepest water practicable.

(h) Minimize the amount of pier area that directly contacts the shoreline to allow light penetration to the nearshore and shallow intertidal.

(i) Minimize the width of overwater and in-water structures.

(j) Use the minimum number of piling necessary to construct a safe structure.

(k) Design piers and other above water structures as high as practical to increase light transmission.

(l) Use light-reflecting materials on the underside of above water structures, whenever practicable.

(4) MARINA DESIGN

(a) Unless there are engineering, safety or environmental constraints, floats six feet wide or less must have at least thirty percent functional grating of the deck surface. Floats greater than six feet wide must have at least fifty percent functional grating installed in the deck surface. Locate flotation under the solid decked area only. Functional grated decking is that portion of grated decking that is not obstructed by any timber or support structures, including float material or tubs. Grating must have at least a forty-two to sixty percent open area areas depending on the percent of deck area covered by grating.

(b) Orient grating so the lengthwise opening is in the direction that maximizes the amount of light penetration. Any objects on, above or below the grating should not block light penetration.

(c) Unless there are engineering, safety or environmental constraints, site slips for smaller boats in shallower water and place slips for larger boats in deeper water.

(d) Do not locate new boathouses, houseboats, and covered moorages less than fifty feet from the shoreline and in water less than twenty feet deep.

(e) If artificial nighttime lighting is used in the design, use low-intensity lights that are located and shielded to prevent light from shining on the water from sunset to sunrise.

(f) Any replacement roof for a covered moorage and boathouse in water less than fifty feet from the shoreline and in water less than twenty feet deep must incorporate translucent materials or skylights in the roof.

(5) BREAKWATER DESIGN

(a) Design and construct breakwaters to maintain shallow water migratory pathways for juvenile fish species.

(b) Unless there are engineering, safety or environmental constraints, use removable, floating breakwaters or wave boards.

(6) MARINA AND TERMINAL CONSTRUCTION

(a) Avoid use of continuous sheet piles.

(b) New and replacement piling can be steel, concrete, recycled plastic or untreated or ammoniacal copper zinc arsenate (ACZA) treated wood.

(c) ACZA treated wood piling must incorporate design features (e.g., metal bands) to minimize abrasion of the piling by vessels, floats or other objects.

(d) Unless there are geological, engineering or safety constraints, use a vibratory hammer to drive steel piling.

(e) The department may require sound attenuation such as a bubble curtain to minimize harm to fish from impact steel pile-driving noise.

(f) To avoid attracting fish with light during nighttime pile driving operations, limit pile driving to daylight hours.

(7) MARINA AND TERMINAL MAINTENANCE

(a) The department must issue, upon request, a renewable, five-year HPA for regular maintenance activities of a marina or terminal.

(b) For the purposes of this section, regular maintenance activities may include, but are not limited to:

(i) Maintenance or repair of a boat ramp, launch, or float within the existing footprint;

(ii) Maintenance or repair of an existing overwater structure within the existing footprint;

(iii) Maintenance or repair of boat lifts or railway launches;

(iv) Maintenance or repair of pilings, including the replacement of bumper pilings;

(v) Dredging of less than fifty cubic yards

(vi) Maintenance or repair of shoreline armoring or bank protection;

(vii) Maintenance or repair of wetland, riparian, or estuarine habitat; and

(viii) Maintenance or repair of an existing outfall.

(c) The five-year permit must include a requirement that a fourteen-day notice be given to the department before regular maintenance activities begin.

220-110-170 Dredging in freshwater areas

The requirements of this section do not apply to suction dredging for mineral prospecting covered in WAC 220-110-300, or to diver operated dredging for aquatic plant control covered in WAC 220-110-290. Although some of the requirements in this section may apply to culvert or ditch (waters of the state altered by people) maintenance, this section does not specifically cover these project types.

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for

HPAs and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA except as noted in the paragraph above. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Dredging includes the removal of substrate or sediment from rivers and lakes to improve vessel navigation and to maintain navigational channels and sediment traps for flow conveyance. River dredging is also used for flood abatement and to clean up contaminated sediments.

(2) FISH LIFE CONCERN

Dredging in lakes converts shallow-water habitats into deeper-water ones and may create a steeper bottom transition. This can change the size and species distribution of fish in the localized environment, altering predator/prey dynamics. The effect of dredging on rivers is more complex because localized alteration of channels can lead to dynamic shifts in channel form as the system adjusts to the changed conditions. Dredging may result in a loss of spawning gravel. All of these effects can extend a considerable distance beyond the bounds of the original dredging project.

In addition to altering habitat, dredging may kill and injure fish and shellfish when dredging equipment traps fish and shellfish in the uptake of sediments and water. Suspended sediments released into the water column by dredging can affect fish by interfering with breathing and feeding, and by changing predator-prey relationships.

(3) DREDGING - GENERAL

(a) The department may not authorize dredging in fish spawning beds unless it creates or improves the access or quality of fish spawning beds as part of an approved restoration project.

(b) The department will evaluate the potential impacts of dredging and the disposal of dredged materials in eulachon spawning areas and condition these projects based on project location, seasonality, scale, frequency, and duration and on run timing, run size and presence/absence in the work area.

(c) The department may require a pre-project geomorphic analysis to determine potential impacts from the dredging.

(d) The department may require multi-season pre- and post-dredge project bathymetric or biological surveys.

(e) Use the dredge types and methods that cause the least adverse impact to fish and shellfish and their habitat.

(4) DREDGING CONSTRUCTION

(a) Operate a hydraulic dredge with the intake at or below the bed surface. Only

raise the intake a maximum of three feet above the bed for brief periods of purging or flushing the intake system.

(b) Operate a dragline or clamshell to minimize turbidity. During excavation, each pass with the clamshell or dragline bucket must be complete. Do not stockpile dredged material waterward of the OHWL.

(c) To avoid fish stranding, the bed must not contain pits, potholes, or large depressions upon completion of the dredging.

(d) The department may require a boom or similar device to contain floatable materials during the dredging of a lake or pond.

(e) Dispose of dredged bed materials at a department-approved in-water disposal site or outside the floodplain so they do not reenter state waters. The department may allow dredged material placement in areas for beneficial uses such as beach nourishment or capping of contaminated sediments.

(f) Hopper dredges, scows and barges used to transport dredged materials to the disposal or transfer sites must completely contain the dredged material to minimize turbidity.

(g) To avoid attracting fish with light during nighttime dredging operations, limit dredging operations to daylight hours unless there are engineering, safety or environmental constraints.

220-110-180 Sand and gravel removal

The requirements of this section do not apply to suction dredging for mineral prospecting covered in WAC 220-110-300, or to diver operated dredging for aquatic plant control covered in WAC 220-110-290. Although some of the requirements in this section may apply to culvert or ditch (waters of the state altered by people) maintenance, this section does not specifically cover these project types.

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

The mechanical removal of sand and gravel from river channels is done to collect material to produce construction aggregate.

Sand and gravel deposited by river processes is used as construction aggregate for roads and highways (base material and asphalt), pipelines (bedding), septic systems (drain rock in leach fields), and concrete (aggregate mix) for highways and buildings. In some

areas, people remove aggregate primarily from river deposits, either from pits in river floodplains and terraces, or by removing gravel directly from riverbed with heavy equipment.

(2) FISH LIFE CONCERNS

Removing sand and gravel from the active channel bed may affect sediment movement if it disrupts the sediment balance in the river. This disruption may cause channel adjustments that extend considerable distances beyond the excavation site. Instream sand and gravel removal changes the channel shape and bed elevation and may involve extensive clearing of vegetation, flow diversion, sediment stockpiling, and excavation of deep pits. Sand and gravel removal can also produce a local sediment shortage that can reduce spawning potential and success in gravel-starved stream reaches. Loss of gravel bar head control can create significant channel head cutting upstream from the project. Trenches or pits in the bed can trap fish Other effects of instream gravel removal include reduced loading of large woody material in the channel, which is important as cover for fish and short term loss of insects and stream bugs that are food for fish.

(3) SAND AND GRAVEL REMOVAL - GENERAL

(a) Limit sand and gravel removal to exposed bars. Sand and gravel removal must not result in a lowering of the average channel cross-section profile either in the work area or downstream of it. The department may authorize the removal of additional sand and gravel, including removal from wetted portions of the channel, where the project is an integral part of a department approved comprehensive flood control plan.

(b) The department may require an analysis of the extraction rate to the ambient rate at which sediment is replenished by natural bedload transport processes.

(c) The department requires a quantitative site assessment to document habitat changes. This includes pre-project and post-project channel cross-section surveys for commercial sand and gravel removal projects. The department may also require pre-project and post-project channel cross-section surveys as part of a comprehensive flood control plan. The department may require annual surveys conducted in the fall as a provision of a multi-year HPA. The surveys must reference cross-sections vertically to a permanent benchmark and horizontally to a permanent baseline. The cross-sections must be surveyed perpendicular to the high flow channel every one hundred feet through the work area and at cross-sections upstream and downstream at adjacent channel riffles. The HPA application submitted to the department must include the pre-project survey information. The permittee or authorized agent must submit the post-project survey to the department within ninety days of completion of removal of sand and gravel or the expiration date of the HPA, whichever occurs first.

(4) SAND AND GRAVEL REMOVAL CONSTRUCTION

(a) The department must establish an excavation line, which is then identified in the HPA.

(b) Place boundary markers to identify the excavation zone. The department must approve the location of the boundary markers prior to the start of sand and gravel removal.

(c) Excavation must begin at the excavation line and proceed toward the bank or the center of the bar, perpendicular to the alignment of the watercourse.

(d) Do not remove bed material from the waterside of the excavation line.

(e) Equipment must not enter or operate within the wetted perimeter of the watercourse.

(f) Remove sand and gravel within the excavation zone from a point beginning at the excavation line and progressing upward toward the bank or the center of the bar on a minimum two percent gradient. The department may require a survey of the excavation zone upon completion of the sand and gravel removal operation to ensure the operation maintained a two percent gradient and that no depressions exist. When required, the permittee or authorized agent must pay for the survey.

(g) At the end of each workday, the excavation zone must not contain pits, potholes, or depressions that may trap fish because of fluctuation in water levels.

(h) Limit stockpiling of material waterward of the OHWL, after the initial bed disturbance, to avoid impacts to fish life. If the department approved stockpiling waterward of the OHWL, completely remove the material prior to the onset of fish spawning in the vicinity or the onset of increasing stream flows. The department will determine timing restrictions on a site-specific basis. If the water level rises and makes contact with stockpiles, further operation of equipment or removal of the stockpiles may not proceed unless the department authorizes the work.

(i) Leave the upstream end of the sand and gravel bar undisturbed to maintain watercourse stability waterward.

(j) Retain large woody material waterward of the OHWL. Large wood within the excavation zone must be repositioned within the watercourse. Other debris must be disposed of so it does not reenter the watercourse.

(k) Sand and gravel washing or crushing operations must take place above the above the limits of anticipated floodwater.

220-110-190 Water crossing structures

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions

depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions. A person can find appropriate methods to design water crossing structures in the Department's *Water Crossing Design Guidelines*, as well as other published manuals and guidelines.

(1) DESCRIPTION

Water crossings are structures constructed to facilitate the movement of people, animals, or materials across or over water from bank to bank. These structures include bridges, culverts, fords and conduit crossings. This chapter covers bridges, culverts, and fords. WAC 220-110-270 covers conduit crossings. Generally, people use bridges to cross over larger streams and rivers, or over unstable channels; they use culverts to cross over smaller streams with an average channel width less than fifteen feet and they use fords when other stream crossing options would result in a greater impact to fish and their habitats.

(2) FISH LIFE CONCERNS

A person must design water crossing structures in fish-bearing streams to allow fish to move freely through them at all flows when fish are expected to move. All water crossings, even those in streams with no fish, must retain upstream and downstream connection in order to maintain natural channel processes. These processes include the movement and distribution of wood and sediment and the shifting of channel patterns. Water crossings that are too small in relation to the stream can block or alter these processes.

Fords have a high potential to generate and deliver sediment and may impede fish passage. However, under limited circumstances, fords may be considered when they provide better protection to fish and their habitats than other water crossing structures.

(3) PERMANENT WATER CROSSING STRUCTURES - GENERAL

(a) The water crossing design must provide unimpeded passage for all species of adult and juvenile fishes.

(b) The water crossing design must maintain the physical characteristics of a natural stream channel throughout the water crossing. The department will make an exception where there are manmade features in the floodplain that are outside the control of the applicant and they are unlikely to be removed. If channelization, encroachment, or other human-made changes have degraded the channel in the vicinity of the crossing, the design must have a similar slope, cross section and velocity distribution expected under prevailing conditions in the reach.

(i) Similar slope: The slope should be that of an equilibrium channel and not over-steepened.

(ii) Similar cross section: The cross section must have the same channel bed width, a thalweg, and overbank areas, as necessary.

(iii) Similar velocity distribution: The cross section must have a varied velocity distribution for passage of fish at all sizes and abilities; particularly, low velocity margins and a high velocity central zone.

(c) The water crossing design must ensure that upstream and downstream channel processes and functions are unconstrained by the structure so they do not cause discernible impacts to fishlife. All water crossings must provide for the processes and functions listed in provision (i) to (ix) below. By complying with the provisions under subsections (4) and (6) of this chapter the applicant is assumed to provide these processes and functions.

(i) Low flow continuity from upstream through the water crossing structure to downstream. Crossings in stream channels that normally dry out or have disconnected pools during the low flow period need not provide continuity.

(ii) Flood flow conveyance. The water crossing structure must pass the one-hundred year peak flow or other design flood flows approved by the department with consideration of the debris likely to be encountered.

(iii) Floodplain continuity. The natural dynamics of a floodplain must be maintained, including connectivity with side channels and off-channel habitats.

(iv) Large wood transport. The water crossing must be designed and constructed to pass large woody material expected to be transported by the channel upstream.

(v) Sediment transport. The water crossing must be designed and constructed to pass sediment.

(vi) Hydraulic diversity. Hydraulic diversity must be maintained because it influences fish habitat in several ways including fish dispersal, habitat use, and competitor/prey relationships.

(vii) Stream margin habitat. The water crossing must be designed and constructed to maintain the shallow, low velocity stream margin habitat typical of non-channelized streams.

(viii) Sediment gradation continuity. The water crossing must be designed and constructed to maintain sediment gradation downstream.

(ix) Natural evolution of the channel planform and longitudinal profile. The water crossing must allow the natural evolution of the channel planform and profile.

(d) The department prohibits culvert baffles and downstream control weirs except to correct fish passage problems at existing structures.

(e) To determine the average bankfull width for water crossing structure design, a person must use a minimum of three typical bankfull widths, measured in a

stream reach that is characteristic of a natural stream. A person must measure widths that describe normal conditions at straight channel sections and outside the influence of any culvert, bridge abutments or other artificial or unique channel constriction.

(f) A person must remove all structural elements of the replaced water crossing structure including abutments, piers, pilings, sills, foundations, armor rock, aprons, wing walls, guide walls, culverts and approach fills, unless authorized by the department.

(4) BRIDGE DESIGN

(a) An HPA is required for construction or structural work associated with any bridge structure waterward of or across the OHWL of state waters. A HPA is also required for bridge painting and other maintenance where there is potential for wastage of paint, sandblasting material, sediments, or bridge parts into the water.

(b) A full span design must pass the one-hundred year peak flow or other design flood flow approved by the department.

(c) The design must pass ice, large wood and associated woody material and sediment likely to move under the bridge during the one-hundred year flood flows or the design flood flow approved by the department.

(d) Where there are existing flood control levees at the bridge construction site, or other infrastructure that is not the property of the bridge owner, the department may approve a shorter bridge span than required in this section.

(e) A bridge in a watercourse with an active floodplain must have a span wide enough to prevent a significant increase in the main channel average velocity. This velocity must be determined at the one hundred-year flood flow or the design flood flow approved by the department.

(f) A person must design (size) the bridge to account for the lateral migration expected to occur during the bridge's lifespan to minimize the need for bank armoring.

(g) The design must have at least three feet of clearance between the bottom of the bridge structure and the water surface at the one-hundred year peak flow. The department may grant an exception based on engineering justification provided by the applicant.

(h) The design and alignment of the bridge must not cause bed scour and bank erosion.

(i) Unless there are geological, engineering or safety constraints, the bridge design must avoid the need for scour protection. Where mid-channel piers are necessary, design them so no additional scour protection is required. If scour protection is unavoidable, the design must minimize the scour protection to the amount needed to protect piers and abutments. The design must specify the size and placement of the scour protection so it withstands expected peak flows.

(j) The waterward face or all bridge elements that may come in contact with waters of the state, including but not limited to abutments, piers, pilings, sills, foundations, armor rock, riprap, aprons, wing walls, and approach fill must be landward of the OHWL. The requirement excludes mid-channel piers.

(k) Bank armoring associated with bridge design and construction must be limited to the amount necessary to support abutment and fill at a safe angle of repose.

(5) BRIDGE CONSTRUCTION

(a) A person must use a cofferdam structure or similar structure to separate mid-channel construction within waters of the state.

(b) If excavation or other construction activities take place waterward of the OHWL the work area must be isolated from the stream flow by using a cofferdam, bypass or similar structure.

(c) A person must minimize damage to the bed when placing the bridge structure.

(d) A person must use biotechnical slope protection outside the bridge shadow. The department may grant exceptions for chronic instability, adverse road geometry, or other conditions outside the control of the owner.

(6) CULVERT DESIGN

(a) Stream simulation design

(i) A stream simulation culvert must be designed and constructed to comply with the following requirements:

(A) The stream channel must generally have a channel bed width that is fifteen feet ($\leq$15 ft.) or less. However, the department may approve a stream simulation culvert in channels with a channel bed width greater than fifteen feet.

(B) The width of the channel-bed inside a stream simulation culvert at the elevation of the streambed must be equal to or greater than one and two-tenths times the average channel bed width plus two feet (1.2 BFW + 2 ft.).

(C) The stream simulation culvert must be set at the same gradient as the prevailing stream gradient.

(D) The slope of the bed inside a stream-simulation culvert must not exceed the slope of the upstream channel by more than twenty-five percent.

(E) The stream simulation culvert must be countersunk a minimum of thirty percent and a maximum of fifty-percent of the culvert rise.

(F) The particle size of sediment placed inside the stream-simulation culvert must be plus or minus twenty percent of the median particle size found in a representative reference reach of the same stream . The department may approve exceptions if the proposed alternative sediment is appropriate given the circumstances.

(b) No-slope design

(i) A no-slope culvert must be designed and constructed to comply with the following requirements:

(A) The stream channel must generally have a channel bed width that is eight feet (<8 ft.) or less and a gradient less than three percent (< 3%). However, in some site-specific situations the department may approve no-slope in channels with a gradient up to five percent (5%).

(B) The culvert is installed at zero gradient.

(C) The length of the culvert must not exceed seventy-five feet.

(D) The width of the channel-bed inside a no-slope culvert at the elevation of the streambed must be equal to or greater than the average channel bed width.

(E) The no-slope culvert is counter sunk a minimum of twenty percent of the culvert rise at the culvert outlet downstream and a maximum of forty-percent of the culvert rise at the culvert inlet upstream.

(F) The no-slope culvert must be filled to the depth of the countersink stated in (6)(b)(i)(E) with material similar to what is found in the adjacent channel streambed unless either of the following conditions exist:

1. The culvert is located in a wetland or in an area where the channel-bed is predominately fine sediment and the culvert will be backwatered, or

2. The culvert will fill quickly because of the frequent rate of sediment transported through the culvert and will not cause excessive cutting or slumping of the upstream channel.

(ii) Combining the requirements for culvert width and countersinking, the culvert must meet the following requirements:

(A) For a circular culvert, the minimum culvert diameter must be equal to or greater than the average channel bed width plus twenty-five percent.

(B) For a culvert with an oval cross section (elliptical, pipe arch, or “squashed” pipe) the horizontal width must be equal to or greater than the average channel bed width plus twenty-five percent.

(C) For a box or pipe arch culvert, the span must be equal to or greater than the average channel bed width.

(c) Requirements for Other Permanent Culvert Design

(i) The department will approve alternative culvert designs provided the design complies with Subsection (3) General Design Requirement for Water Crossing Structures and the design provides equal or greater protection for fish life as the stream simulation and no-slope design methods.

(d) Temporary Culvert Design Requirements

(i) The department must determine allowable placement of temporary culvert and time limitations based on the specific fish resources of concern at the proposed water crossing location.

(ii) The design of the temporary crossing must maintain structural integrity at the peak flow expected to occur while the crossing is in place.

(iii) Where fish passage is a concern, the temporary culvert must provide unimpeded fish passage.

(iv) A person must remove the temporary culvert and block all approaches to vehicular traffic prior to the expiration of the HPA.

(7) CULVERT CONSTRUCTION

(a) A person must establish the culvert invert elevation with reference point(s) or benchmark(s) created prior to starting work on this project. The reference point(s) must be clearly marked and preserved for post-project compliance. Prior to backfilling, the invert elevation, as stated on the plans, must be confirmed relative to the reference points with at least a construction-grade leveling device (such as an optical auto-level or laser level).

(b) A person must install 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 department may grant exception if installing the culvert in the flowing stream reduces siltation or turbidity.

(c) A person must embed the top of footings of bottomless culverts sufficiently below potential scour depth to prevent exposure of the footing surface and undermining .

(d) The owner(s) must maintain to ensure it complies with Subsection (3) General Design Requirement for Water Crossing Structures.

(e) If the culvert becomes a hindrance to fish passage, the owner must obtain a HPA and provide prompt repair.

(8) PERMANENT FORD DESIGN

(a) A person must design and maintain a ford so the ford does not create a channel constriction, impede fish passage, block debris passage or degrade water quality to the detriment to fish life.

(b) The department will authorize construction of new fords in limited situations when it is the least impacting water crossing option. The following are examples of situations where the department may authorize a ford:

(i) Where there is no maintenance access during winter months or early spring and the crossing has a high risk of failure from rain-on-snow events.

(ii) The road is seasonally inaccessible due to snow pack, weather, or other conditions that seasonally limit access to the water crossing structure;

(iii) The stream has extreme seasonal flow variations and low flows during anticipated ford use;

(iv) The channel has low bank height and low gradient approaches;

(v) The stream has dynamic floodplains, such as alluvial fans; or

(vi) The stream is subject to mass wasting events, debris transport, or extreme peak flows.

(c) Permanent fords must not impede fish passage.

(d) Fords must be located outside of all known or suspected fish spawning areas such as pool tailouts.

(e) Fords must only be used during periods of no or low stream flow (whether dry or frozen) to minimize the delivery of sediment to the stream.

(f) Traffic should be separated from flowing water by utilizing vented fords or other appropriate alternatives.

(9) TEMPORARY FORD DESIGN

(a) The department may permit temporary fords only during the time of year that avoids high stream flows or expected fish spawning or migration.

(b) If fill is associated with the driving surface of a temporary ford, it must consist of clean washed gravel between one-quarter and four inches in diameter.

(c) If the natural streambed is composed of material smaller than gravel, then the temporary ford design must maintain a positive separation between the watercourse bed and all fill associated with the ford to ensure that material used in ford construction is removable.

(10) FORD CONSTRUCTION

(a) Fords must be constructed during periods of low or no stream flow or in isolation from flowing water.

(b) Fords must be constructed perpendicular to the stream flow, or as close to perpendicular as practicable.

(c) Fords must be constructed using material approved by the department.

(d) If the streambed does not have a firm rock or gravel base, install clean, washed rock or gravel to reduce sedimentation. Concrete, pavement or other debris should not be used to construct hardened fords. Placement of material should be limited to the approaches and crossing.

(e) A person must countersink the prism of the ford below the watercourse bed. A person must design the prism to withstand overtopping flood events, and natural debris.

(f) Fill associated with the driving surface of a permanent ford must consist of material that will not attract spawning fish.

(g) A person must protect the driving surface of ford approaches from erosion to ensure that erodible fines do not enter waters of the state.

(h) Fords must be regularly inspected and maintained to provide for fish passage and maintain water quality.

(11) WATER CROSSING ABANDONMENT (REMOVAL)

(a) Water crossing removal must be compliant with the following provisions. In all instances a person must protect the job site from erosion and revegetate the site.

(i) When removing temporary crossings, a person must remove the temporary culvert, bridge, ford and any imported fill. The site must be restored to a similar width, depth, gradient and substrate composition as the channel segments upstream and downstream from the crossing. If water-rounded granular materials were used for fill, and they are similar to those found in the existing channel bed, the Department may allow the materials to remain on the site.

(ii) When removing permanent crossings, a person must remove all the components of a bridge or culvert crossing (approach fill, sills, stringers, deck, riprap, guardrails, etc.). The department may approve leaving trees or other vegetation, fill materials when appropriate, or untreated log bridge stringers. The site must be restored to the original contours or a configuration approved by the department.

(iii) When removing an existing bridge in preparation for a new bridge crossing, a person must remove all the existing bridge components (approach fill, sills, stringers, deck, riprap, guardrails, etc.) within the floodplain. The department may approve the partial removal of certain components when the impacts of leaving them are minor. The site must be restored to the original contours or a configuration approved by the department.

220-110-200 Fish passage improvement structures

The requirements in this section apply to fish ladders, weirs constructed for fish passage management, roughened channels, trap-and-haul operations, and hydraulic design culvert retrofits. All projects must meet the requirements in WAC 220-110-080– General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Fishways facilitate the passage of fish through or around a barrier. They restore upstream and downstream fish access to habitats that have become isolated by human activities (e.g., placement of culverts, dams, and other artificial obstructions). Fishways can be mitigation measures for adverse effects associated with flow control structures.

(2) FISH LIFE CONCERNS

Barriers can block fish from using productive upstream spawning and rearing habitat. The primary goal is to remove fish passage barriers and to ensure unimpeded passage of fish at all life stages, as well as to maintain natural channel processes and function. However in some situations, it is not possible to remove the barrier and fish ways may provide an alternative mitigation measure. The department generally does not recommend the use of fishways because they can be partial barriers to fish passage. Fish passage structures that primarily consider the passage of one species or class of species may unintentionally limit the passage of other fish species. Species selection can alter species composition and community relationships upstream of the passage barrier, with important implications for conservation of individual species and biodiversity.

(3) FISH PASSAGE IMPROVEMENT STRUCTURE DESIGN

(a) The department may not authorize fish passage structures over permanent natural barriers unless it is necessary to restore native fish species.

(b) The HPA application must have site and biological information relevant to the specific project, such as information on species present, hydrology and topography, and existing adjacent structures.

(c) The department may require compensatory mitigation if a fish passage structure constructed as mitigation cannot pass all for all fish species present at all mobile life stages.

(d) The design must consider site-specific conditions that could affect the function of the fishway, including; meander migration or vertical change in streambed elevation; debris and bedload movement; tampering, vandalism and poaching.

(e) The fish passage structure design must withstand the maximum expected flow.

(f) The fish passage structure must not result in significant migratory delays or mortality to fish life due to disorientation, distraction, predation, stress, or injury for target species.

(g) The fish passage structure must have the capacity to accommodate expected run sizes to prevent crowding and delay of target fish species migration.

(4) TEMPORARY FISH PASSAGE IMPROVEMENT STRUCTURES DESIGN

(a) The department may require the installation of a temporary fish passage structure to provide passage through temporary obstructions. The department may not require a fish passage structure if a barrier exists for such short duration that it is determined by the department that no lasting impacts to fish life will occur.

(b) An owner must maintain a fish passage structure in an effective condition. If the structure becomes a hindrance to fish passage for target species, the owner must obtain a HPA and provide prompt repair.

(c) The department may approve temporary fishways when permanent structures are damaged or are under construction, maintenance, or repair, for enhancement projects, or for seasonal water diversion structures such as irrigation diversion dams.

(d) Temporary fishways must remain operational for the duration of the temporary obstruction and must be maintained and adjusted as necessary to provide efficient passage of fish life.

(5) FISH LADDER DESIGN

(a) The department may authorize a fish ladder under the following situations:

(i) The fish ladder will enable fish passage at an existing barrier, but only until the existing barrier structure is replaced.

(ii) The department determines that a bridge, culvert, or roughened channel is not practicable due to the nature of the obstruction such as a flow control structure or the slope of the stream.

(b) The fish ladder design must be appropriate for the slope of the channel, water surface elevations, species present, flow regime, and conditions of the channel.

(c) The fish ladder design must prevent fish from leaping out of the structure.

(d) The fish ladder pool volume must provide the hydraulic and fish capacity necessary for passage of all target adult and juvenile fish.

(e) The fish ladder entrance:

(i) Must provide sufficient streaming flow attraction during high and low flows, without excessive velocity or turbulence, to ensure fish can locate and enter the fish ladder without significant delay.

(ii) Must minimize distractions that lure fish away from the entrance to prevent fish from becoming trapped, injured, or stranded.

(iii) Must be large enough to accommodate all expected debris and ice without damage or loss of passage efficiency.

(iv) Must provide a stable flow pattern and uniform velocity at the entrance pools and transition channels to allow fish to pass through the structure unimpeded.

(v) Must provide multiple entrances if a single entrance cannot attract and provide passage to all adult and juvenile fish. If the work area has multiple zones where fish accumulate, each zone must have a minimum of one entrance.

(vi) May be required to have artificial light to optimize fish passage.

(f) Fish ladder auxiliary water system:

(i) May be required to have an auxiliary water system (AWS) to supply supplementary water to ensure fish are attracted to the fish ladder.

(ii) Must have a diffuser design that discourages attraction of fish life to it and

to protect fish from injury.

(iii) Must minimize the size the spaces between diffuser to exclude and prevent injury to the smallest fish present.

(iv) Must not use an auxiliary water supply from external sources that could confuse the homing instinct of fish.

(g) The department may require screening of the AWS may be to prevent harm to fish life.

(h) The department may require a trash rack at the AWS intake.

(i) Fish Ladder Exit:

(i) Must have a water depth at the exit that is comparable to the depth within the fish ladder.

(ii) Must hast the fish ladder exit located to ensure fish can safely exit the structure, without susceptibility to predators, without becoming disoriented, and with the ability to continue their upstream migration.

(iii) Must have the fish ladder exit designed to protect it from damage by debris.

(6) FISH LADDER CONSTRUCTION

(a) Ground or ground smooth to the touch, all edges and surfaces exposed to fish, with all edges aligning in a single smooth plane, to reduce the potential for contact injury.

(7) FISH LADDER MAINTENANCE

(a) Continuously supply the fish ladder with sufficient water to safely and efficiently pass fish at least ninety percent of the time, both upstream and downstream of the obstruction. If target fish species are present and actively migrating, sufficient water must be available to pass fish through the fish ladder, or the fish must be able to safely pass without the need of a fish ladder.

(b) An owner must inspect the fish ladder for proper function at a frequency determined by the department.

(i) Place wood and sediment retrieved during inspection and maintenance downstream of the fishway.

(c) Individuals performing operations or maintenance must be sufficiently trained to operate the fish ladder.

(d) The department may require shutdown of the fish ladder during high flows if the flow exceeds the fish passage design flow. However, a fish ladder must not be inoperable due to high flows for a period greater than seven days during the migration period for the target fish species.

(8) FISH PASSAGE WEIR DESIGN

(a) Design the weir to control the water surface elevation at weir to provide fish passage over or through an obstruction.

(b) Design the weir to minimize impacts to natural channel geometry.

(c) Design the weir to ensure continued fish passage for all species present at all mobile life stages.

(i) The department may grant exceptions in cases when it is implementing a program to restore native fish species or to protect native fish species from the introduction of non-native fish species, and fish passage blockage is an intended component of the project.

(9) ROUGHENED CHANNEL DESIGN

(a) The department may authorize a roughened channel to facilitate the passage of fish around abrupt hydraulic drops, through culverts, or at diversion sites for water withdrawal.

(b) Only qualified professionals should design roughened channels.

(c) The department may require a roughened channel to bypass around an obstruction where non-leaping fish are present or when other types of fish passage improvement structures would not sufficiently pass fish.

(d) Roughened channels must meet the minimum hydraulic requirements of a hydraulic design culvert such as velocity, drop, turbulence, and flow requirements.

(e) Roughened channels must minimize impact on the existing fish life and their habitat in the channel.

(f) The size and gradation of roughened channel bed material must resist erosion at the design flood and must result in a dense structure that prevents subsurface flow.

(10) TRAP-AND-HAUL OPERATIONS

(a) The department requires an HPA for installation, maintenance and removal of fish traps for trap-and-haul activities.

(b) The fish trap design must withstand the maximum expected flow.

(c) Operate the fish trap in a manner that prevents crowding and delay of target fish species migration.

(11) HYDRAULIC DESIGN CULVERT FISH PASSAGE DESIGN

(a) The department may permit an existing hydraulic design culvert to remain until the end of its design life or until another more appropriate culvert design can be constructed; or, under exceptional circumstances, where other culvert methods cannot apply.

(b) Before obtaining a permit to retrofit a culvert or construct a fish passage improvement structure using the hydraulic design method, a person must submit hydrology data and hydraulic design documentation prepared by a licensed professional engineer that demonstrates compliance with this section to the satisfaction of the department.

(c) The hydraulic design fish passage structure must include consideration of flood capacity for current conditions and future changes likely to occur within the stream channel, and debris and bedload passage.

(d) Plans submitted to the department for retrofit of a culvert or to construct a fish passage improvement structure using the hydraulic design method must address the following design criteria:

(i) Minimum water depth at any location within a hydraulic design passage structure, without a natural bed, must be at least eight-tenths foot.

(ii) The minimum depth of flow in the passage structure is determined by:

(A) The low flow design, which is the two-year seven-day low flow discharge for the subject basin.

(B) When flow information is unavailable for the site, the department may authorize the use of calibrated flows from a comparable gauged site or the depth of the culvert when no water is flowing.

(iii) Maximum water velocity may not exceed the values in Table 1 at any point within a culvert. Measure maximum water velocity at the high fish passage design flow.

Table 1: Maximum Velocity Design Criteria for Hydraulic Design Culvert Installation

Culvert Length	Maximum Velocity
10 – 100 ft	4.0 feet per second
100 - 200 ft	3.0 feet per second
> 200 ft	2.0 feet per second

(e) The maximum hydraulic drop within the culvert or at the culvert inlet or outlet may not exceed one-half foot. When a drop has a submerged jet (the lowest part of a is below the downstream water surface) or is part of a natural or roughened channel design, this drop limit may be exceeded when approved by the department.

(f) Water turbulence within the culvert must not be a barrier to passage of target fish species.

(g) The department may modify or approve design flow criteria for specific proposals as necessary to address unusual fish passage requirements.

220-110-210 Channel change/ realignment

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending

upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

The department discourages channel changes/realignments and will only approve them where the applicant can demonstrate benefits or lack of adverse impact to fish life. As a last resort, a person may relocate a channel where erosion threatens a building or road. Channel relocation is often a means to solve problems of channel encroachment and/or confinement, and foster the development of a new, static channel with healthy riparian buffers. A person can relocate the entire channel to a new alignment, or just move the channel side-to-side within the existing alignment. Channel relocation permanently changes the location of the channel while preserving or recreating other characteristics, such as the overall channel profile, pattern, cross-section, and bed elevation.

(2) FISH LIFE CONCERNS

Channel change/realignment is a major undertaking involving the reconstruction of the channel bed, habitat features, channel banks, and floodplain. In-channel work will have a much greater impact on the bank and channel when compared with off-channel work. Channel realignment and bank regrading typically destroys bank and bed habitat in the active channel and will temporarily lead to elevated suspended sediment concentrations. This may result in the downstream burial of invertebrates, elevated suspended solids, and habitat destruction.

Preventing a channel from naturally migrating across the floodplain eliminates sources of woody material, sediment, and side channels needed to maintain and create fish habitat. Natural channels evolve over time and migrate across their floodplains. When a channel naturally moves to a new alignment, it leaves behind important fish habitat such as floodplain sloughs and side channels. These habitats have a limited longevity, sometimes less than twenty years. If the natural channel processes are restricted or interrupted, these habitats will diminish because the impaired channel processes cannot replace them.

(3) CHANNEL CHANGE AND REALIGNMENT DESIGN

(a) When approved, a channel change may occur provided:

(i) Permanent new channels must be, at a minimum, similar in length, width, depth, flood plain configuration, and gradient, as the old channel.

(ii) The new channel incorporates fish habitat components, bed materials, meander configuration, and native or other approved vegetation equivalent to or greater than that which previously existed in the old channel.

(4) CHANNEL CHANGE AND REALIGNMENT CONSTRUCTION

(a) During construction, isolate the new channel from the flowing stream by plugs at the upstream and downstream ends of the new channel.

(b) Before water is diverted into a permanent new channel, a person must complete the following actions:

(i) Install approved fish habitat components according to an approved design, with bed materials and bank protection to prevent erosion.

(ii) Divert flow into a new channel by:

(A) First removing the downstream plug;

(B) Removing the upstream plug; and

(C) Closing the upstream end of the old channel. The stream channel downstream of the work area must never be dewatered by more than half the flow, even momentarily. At least half the flow of the stream must always be conveyed to the channel downstream. Special care to comply with this requirement must be maintained when the new channel is first being hydrated.

(c) Filling of the old channel must begin from the upstream closure and the fill material must be compacted. Water discharging from the fill must not adversely affect fish life.

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

220-110-220 Large woody material placement, repositioning, and removal in freshwater areas

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Large woody material (LWM) is trees and tree parts that mainly enter stream channels from streambank undercutting, wind throw, and slope failures. Public agencies and others reposition and remove large woody material where it is necessary to address a threat to life, the public, or property. LWM is placed in streams for the restoration or creation of fish habitat.

(2) FISH LIFE CONCERNS

Large woody material provides shelter for fish from high flows and predators. Sediment

trapped by large woody material may create spawning areas for salmon and trout. Large woody material also provides habitat for aquatic insects that fish eat.

Large woody material plays a major role in the shape of stream channels by forming pools and increasing stream meandering and sediment storage. Large woody material dissipates flow energy, resulting in improved fish migration and channel stability.

(3) LARGE WOODY MATERIAL PLACEMENT, REPOSITIONING AND REMOVAL – GENERAL

(a) The department will approve the repositioning or removal of large woody material within the watercourse where it is necessary to protect life, the public, property, or where it is necessary to construct or mitigate for a hydraulic project. The department will require the placement of the repositioned or removed wood directly back in the channel or in the floodplain, side channels, or along banks.

(b) The department will approve placement of large wood back in the channel to provide stable, functional fish habitat. This may include placing channel-spanning logs, creating log jams, or introducing a single large log or rootwad to the channel.

(4) LARGE WOODY MATERIAL PLACEMENT, REPOSITIONING OR REMOVAL CONSTRUCTION

(a) Station equipment on the bank, bridge, or other approved location when placing, repositioning, or removing large woody material.

(b) 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 avoid damage to riparian vegetation. Where necessary, the department may authorize the cutting of the large woody material to a size that allows suspension during removal, but still retains value as a habitat structure.

(c) Use skid logs or similar methods to avoid bank damage where they cannot suspend large woody material above the bed and banks. Upon completion of the yarding operation, remove skid logs in a manner that avoids damage to streambanks and vegetation, and restore the bank to pre-project condition.

(d) Do not disturb large woody material embedded in a bank or bed except as authorized by the department.

(e) When repositioning or removal of large woody material is authorized, fill and smooth over any depressions created in the bed with material that has the same composition as native material. Fill material must be sloped towards the bank at a slope appropriate for the prevailing condition. Reslope and revegetate disturbed banks.

(f) Minimize the release of bedload, logs, or debris downstream when repositioning or removing large woody material.

(g) Do not cut firewood from accumulations of large woody material in stream or river channels.

220-110-230 Beaver dam management

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A person may need to remove, breach or modify a beaver dam to prevent damage to private and public land or infrastructure caused by flooding. Removal is normally accomplished using hand tools or equipment such as backhoes.

Installation of a water level (flow) control device may be a preferred alternative to dam removal or breaching of an established dam that has created or maintains a wetland. A person can install a water level control device to maintain a desirable beaver wetland. These devices are installed at the intended depth, extending upstream and downstream of the dam. This preserves the pond's habitat benefits.

Another alternative to dam removal or breaching is the installation of a beaver exclusion device. These devices prevent beavers from building a dam at the mouth or inside of culverts and blocking water flow.

(2) FISH LIFE CONCERNS

Beavers play an important ecological role in creating and maintaining ponds and wetlands for fish and wildlife habitat. Ponds also provide surface water storage that improves summer flows, as well as improving water quality through sediment retention. It is important to exercise caution when breaching, notching or removing a dam. These activities can negatively affect fish and their habitat by de-watering the upstream pond, stranding fish, releasing sediment and large volumes of water (that can be devoid of oxygen) downstream. The release of sediment can affect downstream spawning areas. The breaching or removal of a beaver dam may not prevent future beaver activity in the area. Persistent breaching or removal of a beaver dam can increase the risk of negative impacts to fish habitat. In these instances, the department may recommend the landowner consider other beaver management techniques.

(3) REMOVAL OR BREACHING A BEAVER DAM

(a) Beaver dams should only be removed or modified when:

(i) The continued existence of the beaver dam poses an imminent threat to the integrity of water crossing structures, or to private and public land or infrastructure;

(ii) The beaver dam has been in existence for one year or less. Older dams will be considered on a site-specific basis.

(b) The department will evaluate whether or not compensatory mitigation is required to offset habitat loss caused by the removal or breaching of any beaver dam more than one year old. The department will not require compensatory mitigation for the removal of beaver dams less than one year old.

(c) The department may allow the use of explosives to remove a beaver dam if they determine it is the alternative with the fewest impacts.

(d) Install effective sediment and erosion control measures before starting work to prevent the entry of sediment into the watercourse. Inspect them regularly during the course of construction and make all necessary repairs if any damage occurs.

(e) Minimize damage to stream-adjacent vegetation. Revegetate disturbed areas and protect against erosion.

(f) Beaver dam management activities must take place when the work will cause the least impact to fish life. Except in the case of emergency or imminent danger, all work must occur in summer low flow periods when spawning or incubating fish are less likely to be present. Remove or notch beaver dams by hand or with hand-held tools and hand-operated or motorized winches. The department will authorize the use of heavy equipment if there are engineering, safety or environmental constraints.

(g) Remove the dam gradually to allow the water to release slowly and prevent the downstream release of accumulated sediment at the bottom of the pond, or cause damage or erosion to the stream bed and banks. The notch must not extend below the height of the accumulated sediment.

(h) The width of the breach in the beaver dam must not exceed the width of the original stream channel to prevent bank erosion and flooding of adjacent properties.

(i) The department will specify the sequence in which to breach or remove a series of dams to avoid severe flooding and damage to fish habitat.

(j) Leave LWM imbedded in the stream bed or banks undisturbed.

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

(4) WATER LEVEL CONTROL DEVICE INSTALLATION

(a) Design and install water level control devices so that during low flows (when beaver are more actively increasing dam height), the flow passes through the device.

(b) Design and install water level control devices so that during high flows (when fish are moving and beaver are less likely to be adding height to their dam), the

device will pass sufficient flow over and around the dam to pass fish.

(c) Install water level control devices in beaver ponds with pool depth of four feet or more. If the water level control device is installed in water shallower than four feet, the design must have an enclosure to protect the water intake.

(d) Maintain the water level control device to ensure it functions as designed.

(5) BEAVER EXCLUSION DEVICES

(a) Design, install, and maintain guards, grates, grills, fences and other beaver exclusion devices to provide unimpeded fish passage and to prevent beavers from plugging a culvert.

220-110-240 Pond construction

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A person may construct an out-of-channel pond for livestock watering, irrigation, fire protection or another purpose.

(2) FISH LIFE CONCERNS

A person must physically preclude fish from entering ponds not intended as fish habitat to prevent fish from being injured or killed. Ponds can contribute to increased water temperatures in a watercourse, which may impact the survival of fish that need cold water for survival.

(3) POND CONSTRUCTION

(a) Do not construct ponds within the watercourse.

(b) Pond construction activities involving diversion of state waters are dependent upon first obtaining a water right. This requirement does not apply to construction of stormwater pond facilities landward of the OHWL.

(c) Design and construct the pond to protect fish life:

(i) Design, construct, and screen ponds to prevent the entry of fish unless the pond will provide beneficial habitat, as determined by the department; in which case, the design and construction must provide free and unrestricted fish access.

(ii) Locate the pond return flow to minimize the length of the bypass reach, unless the intent of the bypass reach is to enhance fish life or habitat.

(iii) Isolate the work area from the watercourse during construction of the

pond, diversion system, and the return flow system.

(iv) Design and construct the pond so the outflow temperature is not harmful to fish life.

220-110-250 Water diversions and intakes

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Surface water diversions are common instream features in agricultural areas where the water is used for irrigation. Throughout the state, people also divert water for other agricultural, hydropower, industrial, recreational, residential, municipal, and hatchery purposes.

(2) FISH LIFE CONCERNS

To protect fish, including salmon and steelhead, Washington State law (RCW 77.57.070 and RCW 77.57.010) requires that all surface water diversions be screened to prevent fish from being drawn into the diversions where they are at risk for injury or death.

(3) WATER DIVISIONS AND INTAKES - GENERAL

(a) A written HPA is not required for emergency water diversions during emergency fire response. A person must notify the department prior to the emergency diversion, when possible. When prior notification is not possible, a person must notify the department within twenty-four hours of the emergency diversion.

(b) The department cannot use the hydraulic code to limit the amount or timing of water diverted under a water right. However, the department requires an HPA for work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state, or that will utilize any of the waters of the state in order to divert water pursuant to a water right.

(c) Regulation of water flow from a permanent permitted irrigation structure by operating valves, or manipulating stop logs, check boards or headboards, does not require an HPA. Any hydraulic project activity related to a change in the manner or location of water diversion will require an HPA modification.

(d) The department must allow a person who has gravel berm dam diversion permitted by the department prior to January 1994 to continue to have the dam provided it complies with the provisions of the HPA. However, the department can condition the approval of gravel berms.

(4) WATER DIVERSION AND INTAKE CONSTRUCTION

(a) Construct a gravel berm dam with gravels available on site waterward of the OHWL, or with clean round gravel transported to the site. Bed disturbance must be limited to the minimum necessary to achieve the provisions of the water right. Do not use dirt from outside the OHWL to seal the dam and logs or woody material waterward of the OHWL for construction of the dam, unless specifically authorized.

(b) Logs and large woody material may be relocated waterward of the OHWL if they block water flow into the ditch or inhibit construction.

(c) As long as enough water can be diverted to satisfy the water right, the diversion dam must be constructed so that it does not hinder upstream and downstream adult and juvenile fish passage. If passage problems develop, department personnel may require modification of the gravel berm dam after consultation with the owner.

(d) At pump stations, screens and headgate areas, a person may use a backhoe or suction dredge to remove accumulated silts and gravel from the pumping sump. Place material removed so it will not reenter state waters.

(e) Equip any device used for diverting water from a fish-bearing watercourse with a fish guard to prevent passage of fish into the diversion device pursuant to RCW 77.57.040 and77.55.320.

(f) Maintain (sediment and debris removal) diversion canals to provide maximum hydraulic gradient in the diversion canal in order to minimize the need for work within the natural watercourse.

(g) A person must first obtain a water right before they can construct a structure that diverts state waters.

220-110-260 Outfall structures in freshwater areas

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Outfalls move water from one place to another, typically to a body of water. They may convey irrigation water, stormwater, or other waste materials. The department recommends that energy dissipation structures be constructed at the landward side of buffers, to cause discharged water to infiltrate into the soil of the buffer or to sheet flow through the buffer into the stream.

(2) FISH LIFE CONCERNS

Outfalls can cause scouring or erosion of the bed. This can cause an increase in sediment supply to downstream reaches of rivers and streams. Outfalls can also cause bank erosion. This can cause a direct loss of bank side riparian habitat. In addition, outfalls can entrain fish.

(3) LIMIT OF DEPARTMENT AUTHORITY OVER STORMWATER OUTFALL PROJECTS

(a) The department may not condition HPAs for storm water discharges in locations covered by a national pollution discharge elimination system municipal storm water general permit for water quality or quantity impacts. The HPA is required only for the actual construction of any storm water outfall or associated structures.

(b) In locations not covered by a national pollution discharge elimination system municipal storm water general permit, the department may issue HPAs that contain provisions that protect fish life from adverse effects, such as scouring or erosion of the bed of the water body, resulting from the direct hydraulic impacts of the discharge.

(i) Prior to the issuance of an HPA under this subsection, the department must:

(A) Make a finding that the discharge from the outfall will cause harmful effects to fish life:

(B) Transmit the findings to the applicant and to the city or county where the project is being proposed; and

(C) Allow the applicant an opportunity to use local ordinances or other mechanisms to avoid the adverse effects resulting from the direct hydraulic discharge. The forty-five day requirement for HPA issuance under RCW 77.55.021 is suspended during the time period the department is meeting the requirements of this subsection.

(ii) After following the procedures in (b) of this subsection, the department may issue an HPA that prescribes the discharge rates from an outfall structure that will prevent adverse effects to the bed or flow of the waterway. The department may recommend, but not specify, the measures required to meet these discharge rates. The department may not require changes to the project design above the mean higher high water mark of marine waters or the ordinary high water mark of freshwaters of the state.

(4) OUTFALL DESIGN AND CONSTRUCTION

(a) Construct the outfall structure according to a design approved by WDFW to prevent the entry of adult or juvenile fish.

(b) Protect the watercourse bank and bed at the point of discharge using bioengineering methods or other department-approved methods to prevent scouring.

(c) Design and locate outfalls so that outflow or any associated energy dissipaters

do not cause loss of fish and shellfish habitat. The department may require that energy be dissipated using one or more of the following methods, or other effective method proposed by a person:

(i) Existing natural habitat features (large logs, root wads, natural large rocks or rock shelves, etc.), without degrading these features;

(ii) Pads of native plants (live willow or dogwood stakes or other native shrubs) and biodegradable fabric;

(iii) Imported fish habitat components (large woody material);

(iv) Manufactured in-line energy dissipaters, such as a tee diffuser;

(v) Rounded rock energy dissipation pads;

(vi) Angular rock energy dissipation pads, if the department determines other options are impracticable.

220-110-270 Utility crossings in freshwater areas

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Utility lines are cables and pipelines that transport gas, telecommunications, fiber optics, power, sewer, oil and water lines from one side of a watercourse to the other.

(2) FISH LIFE CONCERNS

Utility crossings pose a risk to fish and fish habitat due to potential changes of substrates, destabilization of streambanks and channels, loss of riparian habitat, and release of excessive sediment once stream flows resume. Trenching through streambanks and channels alters habitat and substrate characteristics and hence their productivity. Trenching may also cause the proportion of surface and subsurface flows to shift, altering stream hydrology.

The department prefers trenchless crossing methods that cause very little disturbance to the streambed and banks such as high-pressure directional drilling or punch and bore crossings.

(3) UTILITY LINE DESIGN

(a) Align the conduit as nearly perpendicular to the watercourse as possible.

(b) Avoid crossing on meander bends, braided streams, alluvial fans, active floodplains or any other area that is inherently unstable and may result in the

erosion and scouring of the streambed.

(c) Avoid areas of groundwater upwelling or locations within one hundred feet upstream of fish spawning areas.

(4) UTILITY LINE CONSTRUCTION

(a) Install the conduit at sufficient depth below the watercourse to prevent natural scouring of the streambed from exposing the pipeline or cable.

(b) If the method used is boring or jacking:

(i) Isolate pits from surface water flow to prevent bore-hole collapse; and

(ii) Route wastewater from project activities and dewatering to an area outside the OHWL to allow removal of fine sediment and other contaminants prior to discharging the wastewater to state waters.

(c) If the method used is trench excavation:

(i) Trench widths should be as narrow as possible to accommodate the pipe/line and achieve that depth.

(ii) Excavate trenches in the dry or isolate them from the flowing watercourse by the installation of a cofferdam, culvert, flume, or other approved method;

(iii) Plowing, placement, and covering must occur in a single pass of the equipment; and

(iv) Limit disturbance of the bed and banks to the amount necessary to complete the project.

(d) If the method used is directional drilling:

(i) Design the drill path to an appropriate depth below the watercourse to minimize the risk of frac-out and to a depth to prevent exposure of the line due to natural scouring of the streambed.

(ii) Locate the drill entry and exit points away from the banks of the watercourse to minimal impact on these areas.

(e) Backfill trenches with approved materials and return the bed to pre-project condition prior to returning flow.

(f) Dispose of excess spoils so they will not reenter the watercourse.

(g) Isolate the conduit approach trench from the watercourse until the conduit is laid across the watercourse.

220-110-280 Felling and yarding of timber

All projects must meet the requirements in WAC 220-110-080 – General mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may

be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Timber felling includes “bucking” or cutting the felled tree into predetermined log lengths and also includes limbing of the bucked tree. Yarding is the process of hauling logs from the cutting area to the landing and includes skidding (i.e., dragging the logs across the ground).. There are three major kinds of yarding systems; ground based, cable and aerial logging.

(2) FISH LIFE CONCERNS

Felling and yarding of timber can damage the aquatic and streambank riparian habitat.

(3) FELLING AND YARDING

(a) Do not fell trees into or across a watercourse, with identifiable bed or banks, except where the department authorizes the activity in specific provisions of an HPA.

(b) Trees or logs which accidentally enter a watercourse, with identifiable bed or banks, must remain where they enter unless the department specifically authorizes the removal of parts or all of the trees or logs.

(c) Use full suspension when transporting across a watercourse, with identifiable bed or banks, so no portion of the logs or limbs can enter the watercourse or damage the bed and banks. The department requires full suspension to prevent damage to riparian vegetation.

(d) Place cable tailholds across watercourses with identifiable bed or banks, provided they keep the number of yarding roads to a minimum. When changing roads, a person must move the cable around or over the riparian vegetation and banks to avoid damage to the vegetation and banks.

(e) Remove limbs or other small debris that enters the watercourse, with identifiable bed or banks, concurrently with each change in yarding road, or within seventy-two hours after entry into the watercourse or prior to the onset of high flows if anticipated to occur within 72 hours. They must place the limbs and other small debris above the anticipated limits of floodwater. Remove limbs or other small debris from dry watercourses prior to the normal onset of high flows. A person must not disturb large woody material that was in place prior to felling and yarding of timber.

(f) Take precautions to minimize the release of sediment to waters downstream from the felling or yarding activity. Use sediment control devices, including, but not limited to, loose straw with a filter fabric check dams, as necessary to avoid the release of sediment downstream. Remove accumulated sediment from above check dams prior to their removal.

(g) Do not conduct skidding, ground lead yarding or operate equipment within flowing waters in channels with defined bed or banks.

220-110-290 Aquatic plant removal and control

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

This section covers the physical and mechanical methods for aquatic plant removal and control. It does not address aquatic plant control using grass carp, herbicides or water column dye. Aquatic plant removal and control methods include physical, mechanical, biological and chemical control methods. Often the best approach to aquatic plant control and removal is through the development of a vegetation management plan. A vegetation management plan is a comprehensive approach to control of aquatic plants where all forms of control strategies are considered and usually some combination of techniques is selected and implemented in a planned manner. These plans are based on the idea that decisions should be centered upon an understanding of the biology and ecology of the aquatic plant to be controlled and the environmental characteristics of the site. Integrated vegetation management planning is encouraged at all times to comprehensively address aquatic plant problems for a watercourse. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(2) FISH LIFE CONCERNS

Beneficial plants play a significant role in lakes and streams, by providing food and habitat for fish, stabilizing shorelines, and contributing to nutrient cycling. Sometimes beneficial plants can grow in overabundance. This is usually the result of excessive inputs of nutrients, such as nitrogen or phosphorus. In contrast, aquatic noxious weeds can threaten native vegetation, and fish, shellfish and their habitat.

(3) LIMIT OF AUTHORITY

(a) An activity conducted solely for the removal or control of Spartina does not require an HPA.

(b) An activity conducted solely for the removal or control of purple loosestrife and which is performed with hand-held tools, hand-held equipment, or equipment carried by a person when used does not require an HPA.

(c) Any other activity conducted solely for the removal or control of aquatic noxious weeds or aquatic beneficial plants must require either a copy of the current

Aquatic Plants and Fish pamphlet HPA available from the department or an individual HPA.

(4) HAND REMOVAL

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department must serve as an HPA, unless otherwise indicated, and be on the job site at all times. Hand removal or control of aquatic plants is useful for eradication of an aquatic noxious weed early infestation. Hand removal or control can be effective for small, confined areas. Hand removal or control of both aquatic noxious weed and aquatic beneficial plant projects must comply with the following technical provisions except where otherwise indicated:

(i) Due to potential impacts to sockeye spawning areas, the department requires prior authorization for raking in Baker Lake and Lakes Osoyoos, Ozette, Pleasant, Quinault, Sammamish, Washington and Wenatchee. Authorization may or may not be given for raking, and if given, may require mitigation through a written agreement between the applicant and the department for impacts by raking to the spawning area.

(ii) Work is restricted to the use of hand-pulling, hand-held tools or equipment, or equipment that is carried when used.

(iii) Removal or control of aquatic beneficial plants to maintain an access for boating or swimming is allowed along a maximum length of 10 linear feet of the applicant's shoreline. The department requires prior authorization for boating and swimming access projects which cover a larger.

(iv) Where possible, remove the entire plant when using hand-pulling for aquatic noxious weeds.

(v) Make every effort to completely remove detached plants and plant fragments from waters of the state when using hand removal to remove or control aquatic noxious weeds. Dispose of detached plants and plant fragments at an upland site so they do not reenter waters of the state.

(vi) Do not remove or disturb existing fish habitat components such as logs, stumps, and large boulders.

(vii) Make every effort to avoid the spread of plant fragments through equipment contamination. Persons or firms using any equipment to remove or control aquatic plants must thoroughly remove and properly dispose of all viable residual plants and viable plant parts from the equipment prior to the equipment's use in waters of the state.

(5) BOTTOM BARRIERS AND SCREENS

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department must serve as an HPA, unless otherwise indicated, and be on the job site at all times. Bottom barriers or screens are useful for eradication of an aquatic noxious weed early infestation. Bottom barriers or screens are best used in small, confined areas where control of all plants is desirable. Bottom barrier or

screen projects for both aquatic noxious weed or aquatic beneficial plant control or removal must comply with the following technical provisions except where otherwise indicated:

(i) Due to potential impacts to sockeye spawning areas, the department requires prior authorization for activities in Baker Lake and Lakes Osoyoos, Ozette, Pleasant, Quinault, Sammamish, Washington, and Wenatchee. Authorization may or may not be given for the activity, and if given, may require mitigation through a written agreement between the applicant and the department for impacts by the activity to the spawning area.

(ii) For removal and control of aquatic noxious weeds, bottom barrier or screen material cannot cover more than fifty percent of the length of the applicant's shoreline. Bottom barrier or screen projects covering a larger area require prior authorization by the department. Bottom barrier or screen and anchor material consisting of biodegradable material may be left in place. Unless otherwise approved by the department, completely removed within two years of placement bottom barrier or screen and anchor material that is not biodegradable to encourage re-colonization of aquatic beneficial plants.

(iii) To remove or control aquatic beneficial plants to maintain for boating or swimming, a bottom barrier or screen and anchor material that is either biodegradable or non-biodegradable may be installed along a maximum length of ten linear feet of the applicant's shoreline. A Bottom barrier or screen projects for boating and swimming access which cover a larger area requires prior authorization by the department.

(iv) Securely anchor a bottom barrier or screen material with pea-gravel filled bags, rock or similar mechanism to prevent billowing and movement offsite.

(v) Regularly maintain a bottom barrier or screen and anchors while in place to ensure the barrier or screen and anchors are functioning properly. Barriers or screens that have moved or are billowing must immediately be securely reinstalled or removed from waters of the state.

(vi) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the waterbody if necessary to properly install the bottom barrier or screen. Do not remove these habitat components from the waterbody.

(vii) Make every effort to avoid the spread of plant fragments through equipment contamination. Persons or firms using any equipment to remove or control aquatic plants must thoroughly remove and properly dispose of all viable residual plants and viable plant parts from the equipment prior to the equipment's use in waters of the state.

(6) WEED ROLLING

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department must serve as an HPA, unless otherwise indicated, and be on the job site at all times. Weed rollers are best used when control of all aquatic plants is desired. Weed rolling projects for both aquatic noxious weed or aquatic beneficial plant control or removal must comply with the following technical provisions except where otherwise indicated:

(i) Due to potential impacts to sockeye spawning areas, the department requires prior authorization for activities in Baker Lake and Lakes Osoyoos, Ozette, Pleasant, Quinault, Sammamish, Washington, and Wenatchee. Authorization may or may not be given for the activity, and if given, may require mitigation through a written agreement between the applicant and the department for impacts by the activity to the spawning area.

(ii) Weed rollers cannot be used to remove an aquatic noxious weed early infestation. Use of weed rollers to remove or control all other infestation levels of aquatic noxious weeds, cannot cover an area of more than two thousand five hundred square feet. The department requires prior authorization for weed roller projects covering a greater area.

(iii) Where the intent is to remove or control aquatic beneficial plants, the department requires prior authorization.

(iv) Make every effort to completely remove detached plants and plant fragments from waters of the state when using weed rollers to remove or control aquatic noxious weeds. Dispose of detached plants and plant fragments at an upland site so they do not reenter waters of the state.

(v) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the waterbody if necessary to properly install the weed roller. These habitat components must not be removed from the waterbody.

(vi) Make every effort to avoid the spread of plant fragments through equipment contamination. Persons or firms using any equipment to remove or control aquatic plants must thoroughly remove and properly dispose of all viable residual plants and viable plant parts from the equipment prior to the equipment's use in waters of the state.

(7) MECHANICAL HARVESTING AND CUTTING

(a) A copy of the current Aquatic Plants and Fish pamphlet available from the department must serve as an HPA, unless otherwise indicated, and be on the job site at all times. Mechanical harvesting and cutting projects for both aquatic noxious weed or aquatic beneficial plant control or removal must comply with the following technical provisions except where otherwise indicated:

(i) Do not use mechanical harvesters and cutters to remove an aquatic noxious weed early infestation.

(ii) The department requires prior authorization If the intent of the project is

to remove aquatic beneficial plants.

(iii) Make every effort to completely remove detached plants and plant fragments from the waters of the state when using mechanical harvesters or cutters to remove or control aquatic noxious weeds. Dispose of detached plants and plant fragments at an upland site so they do not reenter waters of the state.

(iv) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the waterbody if necessary to operate the equipment. Do not remove these habitat components from the waterbody.

(v) Only conduct mechanical harvester and cutter operations in waters of sufficient depth to avoid bottom contact with the cutter blades.

(vi) Operate mechanical harvesters and cutters at all times in a manner that causes the least adverse impact to fish life.

(vii) Immediately and safety return all fish life to the waterbody that become entrained in the cut vegetation during mechanical harvester operations.

(viii) Make every effort to avoid the spread of plant fragments through equipment contamination. Persons or firms using any equipment to remove or control aquatic plants must thoroughly remove and properly dispose of all viable residual plants and viable plant parts from the equipment prior to the equipment's use in waters of the state.

(ix) Limit alteration or disturbance of the bank and bank vegetation to that necessary to conduct the project. Protect all disturbed areas from erosion, using vegetation or other means. Revegetate the banks within one year with native or other approved woody species.

(8) ROTOVATION

(a) The department requires an individual HPA for rotovation projects. Rotovation projects for both aquatic noxious weed or aquatic beneficial plant control or removal must comply with the following technical provisions except where otherwise indicated:

(i) Do not use rotovators to remove an aquatic noxious weed early infestation.

(ii) Make every effort to completely remove detached plants and plant fragments from the waterbody when using rotovation to remove or control aquatic noxious weeds. Dispose of detached plants and plant fragments at an upland site so they do not reenter waters of the state.

(iii) Keep rotovators well-maintained and use food-grade oil in the hydraulic systems.

(iv) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the waterbody if necessary to operate the equipment. These habitat components cannot be removed from the waterbody.

(v) Operate rotovators at all times in a manner the will cause the least adverse impact to fish life.

(vi) Make every effort to avoid the spread of plant fragments through equipment contamination. Persons or firms using any equipment to remove or control aquatic plants must thoroughly remove and properly dispose of all viable residual plants and viable plant parts from the equipment prior to the equipment's use in waters of the state.

(vii) Limit alteration or disturbance of the bank and bank vegetation to that necessary to conduct the project. Protect all disturbed areas from erosion, using vegetation or other means. Revegetate the banks within one year with native or other approved woody species.

(viii) Rotovation must not occur in fish spawning areas unless approved by the department.

(9) AQUATIC PLANT DREDGING

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department must serve as an HPA for diver-operated dredging only, unless otherwise indicated, and must be on the job site at all times. Dredging projects for both aquatic noxious weed or aquatic beneficial plant control or removal must comply with the following technical provisions except where otherwise indicated:

(i) Due to potential impacts to sockeye spawning areas, the department requires prior authorization for activities in Baker Lake and Lakes Osoyoos, Ozette, Pleasant, Quinault, Sammamish, Washington, and Wenatchee. Authorization may or may not be given for the activity, and if given, may require mitigation through a written agreement between the applicant and the department for impacts by the activity to the spawning area.

(ii) Keep equipment well-maintained and use food-grade oil in the hydraulic systems.

(iii) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the waterbody if necessary to operate the equipment. These habitat components must not be removed from the waterbody.

(iv) Conduct dredging at all times with dredge types and methods that cause the least adverse impact to fish life.

(v) Make every effort to avoid the spread of plant fragments through equipment contamination. Persons or firms using any equipment to remove or control aquatic plants must thoroughly remove and properly dispose of all viable residual plants and viable plant parts from the equipment prior to the equipment's use in waters of the state.

(vi) Upon completion of the dredging, the bed must not contain pits, potholes, or large depressions to avoid stranding of fish.

(vii) Limit alteration or disturbance of the bank and bank vegetation to that necessary to conduct the project. Protect all disturbed areas from erosion, using vegetation or other means. Revegetate the banks within one year with native or other approved woody species.

(b) Diver-operated dredging only. The use of diver-operated dredging is useful to remove an aquatic noxious weed early infestation, and to assist in long-term maintenance following control or removal via other methods.

(i) Removal of plants and plant fragments from the watercourse must be as complete as possible when using diver-operated dredging to remove or control aquatic noxious weeds. Remove plants and plant fragments from the dredge slurry prior to its return to the waterbody. Dispose of dredged bed materials, including detached plants and plant fragments, at an upland disposal site so as not to reenter state waters.

(ii) Operate a hydraulic dredge with the intake at or below the surface of the material being removed. Only raise the intake a maximum of three feet above the bed for brief periods of purging or flushing the intake system.

(iii) Prior authorization from the department is required If the intent of the project is to remove or control aquatic beneficial plants.

(c) Dredging other than diver-operated dredging. The department requires an individual HPA for all aquatic plant control or removal dredging projects that are not diver-operated dredging projects. All dredging other than diver-operate dredging must comply with the following technical provisions:

(i) Do not use a dragline and clamshell dredges to remove an aquatic noxious weed early infestation.

(ii) Every effort must be made to completely remove plants and plant fragments from the waterbody when using dredging to remove or control aquatic noxious weeds. Dispose of dredged bed materials, including detached plants and plant fragments, at an upland disposal site so as not to reenter water of the state.

(iii) Do not conduct dredging in fish spawning areas unless approved by the department.

(iv) Operate a hydraulic dredge with the intake sufficiently above the root system of the vegetation being removed so the bed is not excessively disturbed. Only raise the intake a maximum of three feet above the bed for brief periods of purging or flushing the intake system.

(v) If a dragline or clamshell is used, operate in a manner that minimizes turbidity. During excavation, complete each pass with the clamshell or dragline bucket. Do not stockpile dredged material waterward of the ordinary high water line.

(10) WATER LEVEL MANIPULATION

(a) The department requires an individual HPA for water level manipulation. The use of water level manipulations (drawdowns) to remove or control aquatic noxious weeds or aquatic beneficial plants by exposing plants and root systems to extreme temperature and moisture conditions may be appropriate under specific circumstances. Accurate plant identification is important to ensuring any degree of success. Water level manipulation projects for both aquatic noxious weed or aquatic beneficial plant control or removal must comply with the following technical provisions except where otherwise indicated:

(i) Conduct water level manipulation in a manner that causes the least adverse impact to fish life.

(ii) Water level manipulation must occur gradually and in a controlled manner to prevent a sudden release of impounded water or sediments which may result in downstream bed and bank degradation, sedimentation, or flooding. Water levels must be drawndown and brought back up at rates predetermined in consultation with and approved by the department. Instream flow requirements must be maintained as water levels are brought back up.

(iii) Protect all disturbed areas from erosion, using vegetation or other means. Revegetate the banks within one year with native or other approved woody species.

220-110-300 Mineral prospecting

This chapter has rules necessary to protect fish life that apply to mineral prospecting projects. All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic requirements for HPAs, and any requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Mineral prospecting projects excavate, process, or classify aggregate using hand-held mineral prospecting tools and mineral prospecting equipment. When prospectors locate valuable minerals through prospecting, they may attempt to recover larger quantities of the minerals using a variety of machines, including suction dredges, high bankers, and heavy equipment. The rules in this section apply to the use of hand-held mineral prospecting tools and small-motorized equipment.

(2) FISH LIFE CONCERNS

Mineral prospecting and mining activities can harm fish and their habitat. Direct impacts can include: (1) mortality from the physical effects of disturbing eggs or fry incubating

within the bed; (2) mortality from passing vulnerable fish through mineral prospecting equipment; (3) lower environmental productivity resulting from habitat modifications (e.g., altered streambeds or water quality). Indirect impacts can include changes in food resources and human disturbances. The department minimizes impacts of mineral prospecting by restricting the type of mining equipment, limiting excavation zones within streams, and setting allowable work windows.

(3) GENERAL REQUIREMENTS

(a) A copy of the current Gold and Fish pamphlet is available from the department or its website, and it contains the rules which a person must follow when mineral prospecting under its authority.

(b) Alternatively, a person may request exceptions to the Gold and Fish pamphlet by applying for a standard individual written HPA as described in WAC 220-110-060. The department must deny an HPA when, in the judgment of the department, the project will result in direct or indirect harm to fish life, unless adequate mitigation can be assured by conditioning the HPA or modifying the proposal. The department may apply saltwater provisions to written HPAs for tidally influenced areas upstream of river mouths and the mainstem Columbia River downstream of Bonneville Dam where applicable.

(c) Nothing in Chapter 220-110 WAC relieves a person of the duty to obtain landowner permission and any other necessary permits before conducting any mineral prospecting activity.

(4) MINERAL PROSPECTING IN FRESHWATER WITHOUT TIMING[1]

(a) A person may mineral prospect year-round in all freshwaters of the state, except lakes. A person must follow the rules listed below, but they do not need to have them on the job site when working in freshwaters of the state.

(b) A person may use only hand-held mineral prospecting tools and the following mineral prospecting equipment when mineral prospecting without timing restrictions:

(i) Pans;

(ii) Spiral wheels; and

(iii) Sluices, concentrators, mini rocker boxes, and mini high-bankers with riffle areas totaling three square feet or less, including ganged equipment.

(c) A person may not use vehicle-mounted winches. A person may use one hand-operated winch to move boulders, or large woody material that is not embedded or located within the wetter perimeter. A person may use additional cables, chains, or ropes to stabilize boulders, or large woody material that is not embedded.

[1] This section has been altered in only minor ways from the rule as published in 2008, including that the figures have been omitted to make the file a little smaller.

(d) A person may work within the wetted perimeter only from one-half hour before official sunrise to one-half hour after official sunset.

(e) A person may not disturb fish life or redds within the bed. If a person observes or encounters fish life or redds within the bed, or actively spawning fish when collecting or processing aggregate, a person must relocate their operation. A person must avoid areas containing live freshwater mussels. If a person encounters live mussels during excavation, a person must relocate their operations.

(f) Aggregate excavation, collection and removal:

(i) A person may only excavate by hand or with hand-held mineral prospecting tools.

(ii) A person may not excavate, collect, or remove aggregate from within the wetted perimeter. See Figures 1 and 2.

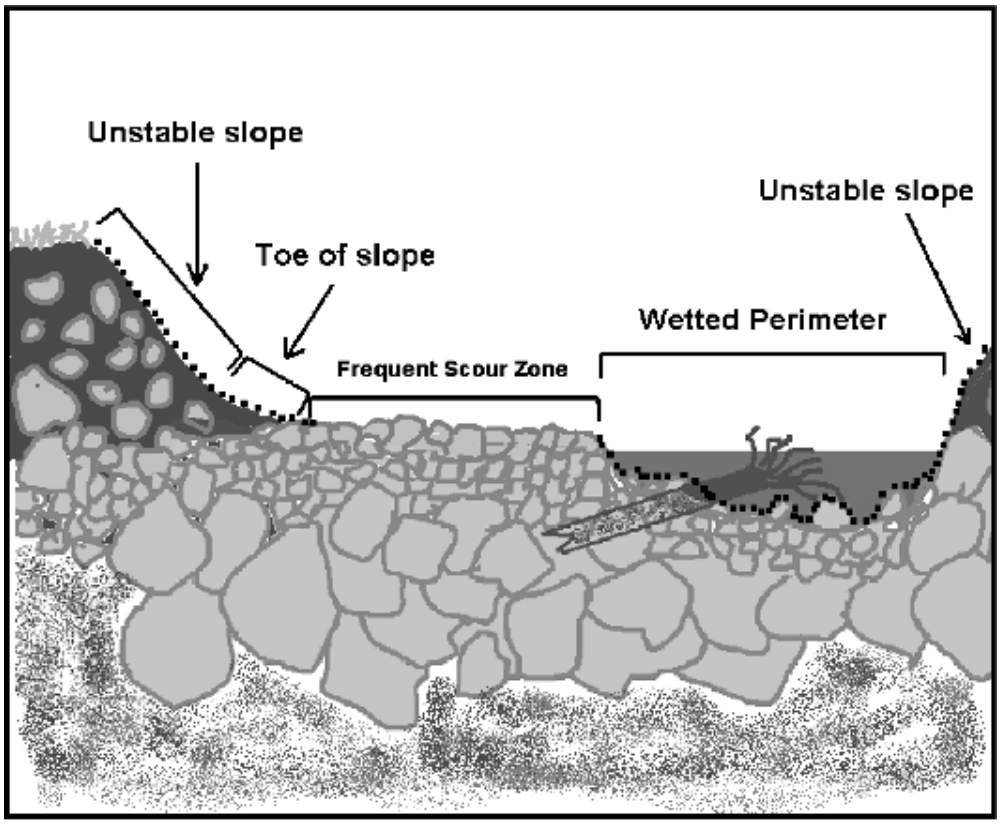

Figure 1: Cross section of a typical body of water, showing areas where excavation is not permitted under rules for mineral prospecting without timing restrictions. Dashed lines indicate areas where excavation is not permitted.

(iii) A person may work in only one excavation site at a time. However, a person may use a second excavation site as a settling pond. Multiple individuals may work within a single excavation site.

(iv) A person may not stand within, or allow aggregate to enter, the wetted perimeter when collecting or excavating aggregate.

(v) A person must fill all excavation sites and level all tailing piles prior to moving to a new excavation site or abandoning an excavation site. If a person moves boulders, a person must return them, as best as a person can, to their approximate, original location.

(vi) A person may not undermine, move, or disturb large woody material embedded in the slopes or located wholly or partially within the wetted perimeter. A person may move large woody material and boulders located entirely within the frequent scour zone, but a person must keep them within the frequent scour zone. A person may not cut large woody material. See Figure 2.

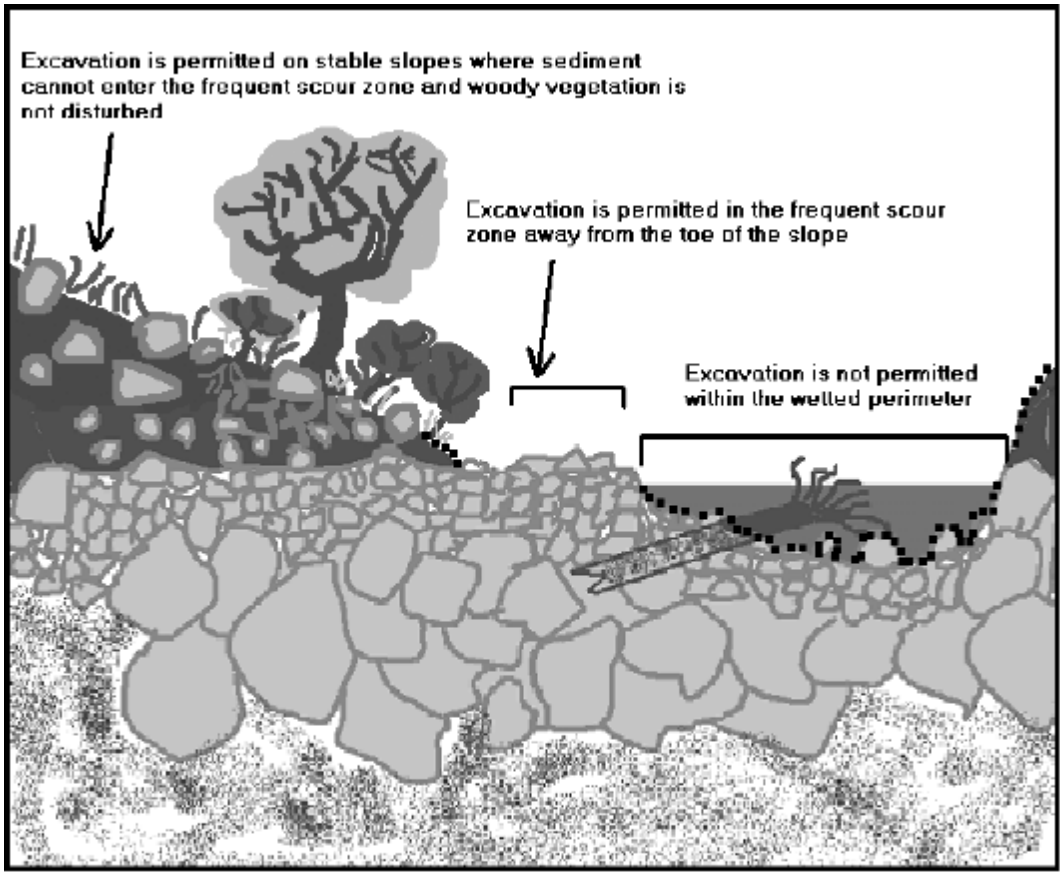

Figure 2: Permitted and prohibited excavation sites in a typical body of water under rules for mineral prospecting without timing restrictions. Dashed lines indicate areas where excavation is not permitted.

(vii) A person may not undermine, cut, or disturb live, rooted woody vegetation of any kind.

(viii) A person may not excavate, collect, or remove aggregate from the toe of the slope. A person also may not excavate, collect, or remove aggregate from an unstable slope or any slope that delivers, or has the potential to deliver sediment to the wetted perimeter or frequent scour zone. See Figures 3 and 4.

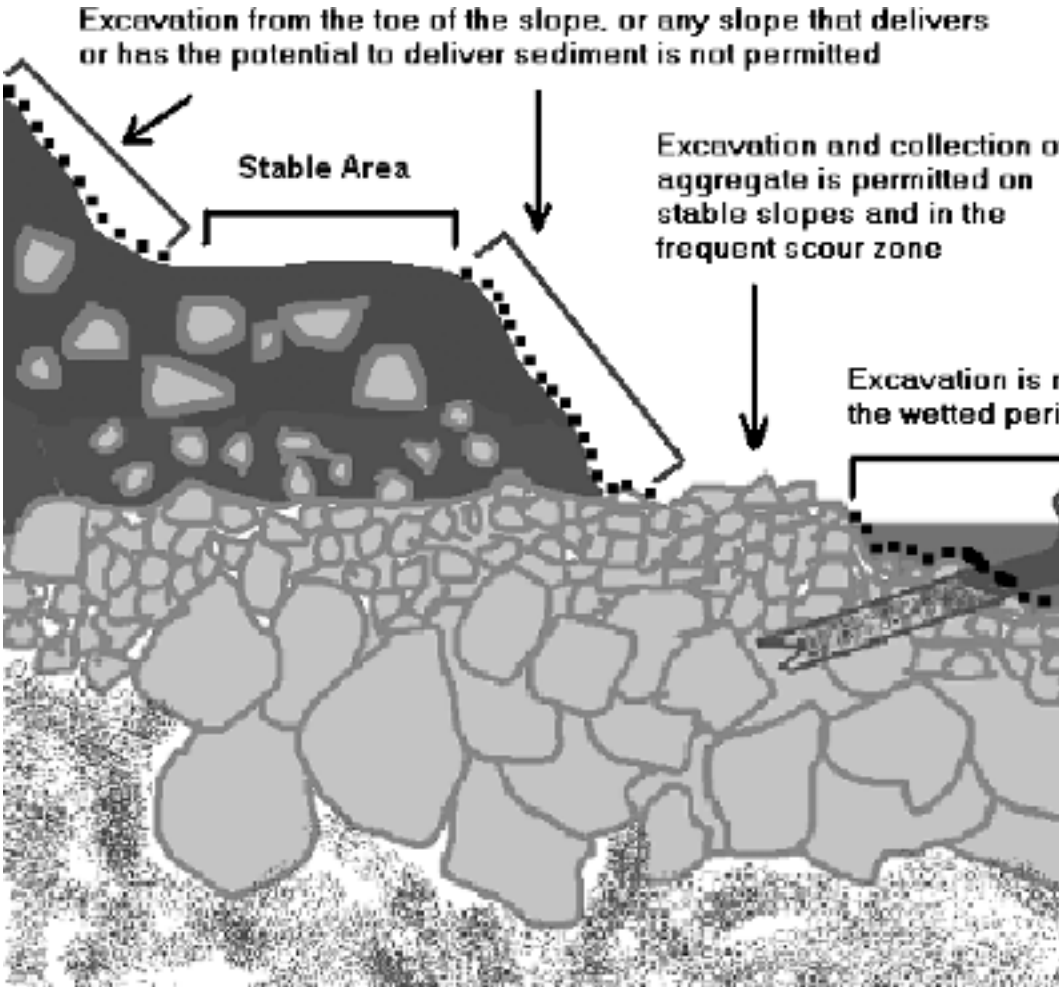

Figure 3: Aggregate excavation, collection and removal limits on stream banks

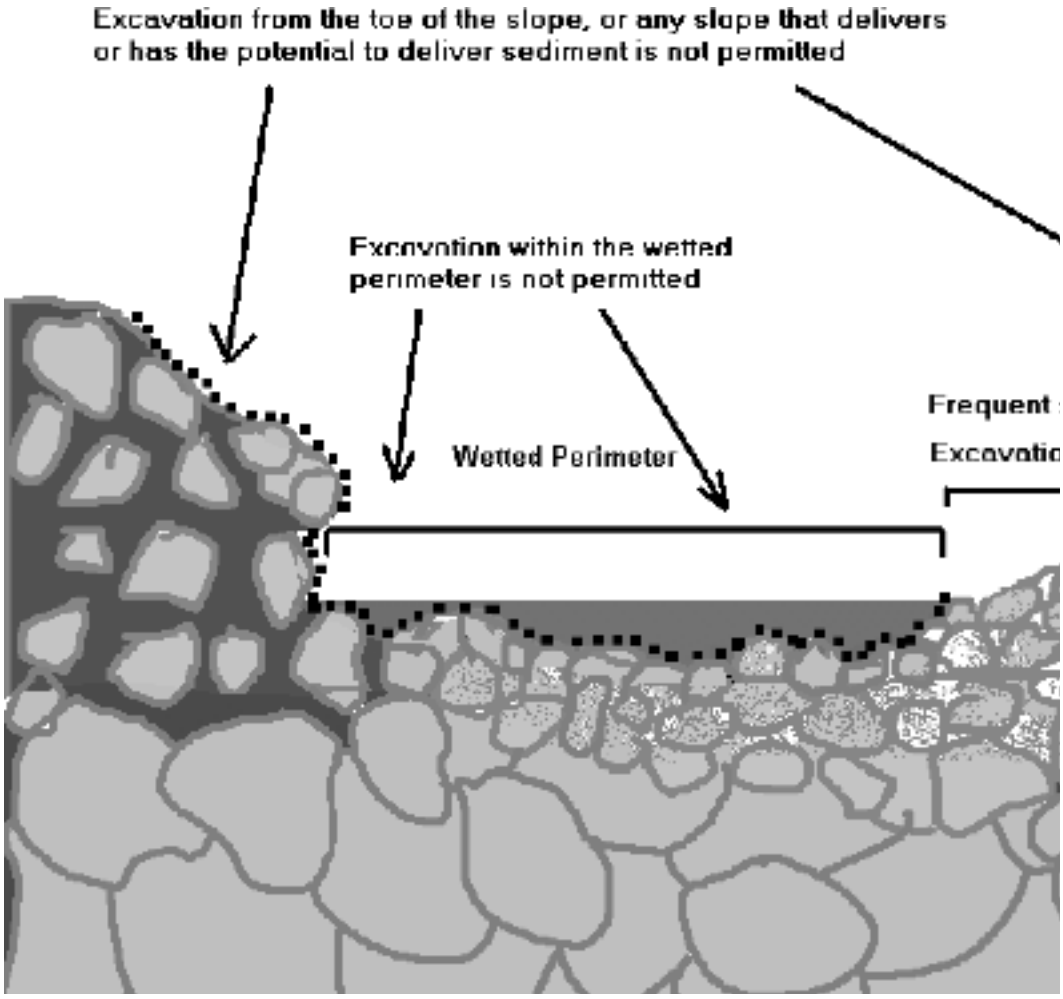

Figure 4: Aggregate excavation, collection and removal within the wetted perimeter is not permitted.

(g) Processing aggregate:

(i) A person may stand within the wetted perimeter when processing aggregate with pans; spiral wheels; and sluices.

(ii) A person may not stand on or process directly on redds, or disturbs incubating fish life. A person may not allow tailings, or visible sediment plumes (visibly muddy water) to enter redds or areas where fish life are located within the bed.

(iii) A person may not level or disturb tailing piles that remain within the wetted perimeter after processing aggregate.

(iv) A person must classify aggregate at the collection or excavation site prior to processing, if a person collected or excavated it outside the frequent scour zone.

(v) A person may process only classified aggregate within the wetted perimeter when using a sluice.

(vi) The maximum width of a sluice, measured at its widest point, including attachments, must not exceed twenty-five percent of the width of the wetted perimeter at the point of placement.

(vii) A person may process with a sluice only in areas within the wetted perimeter that are composed primarily of boulders and bedrock. A person must separate sluice locations by at least fifty feet. A person may not place structures within the wetted perimeter to check or divert the water flow.

(viii) A person may operate mini high-bankers or other concentrators only outside the wetted perimeter. A person may only supply water to this equipment by hand or by a battery-operated pump with a screened intake (see subsection (4)(g)(ix) below). A person may not allow visible sediment or muddy water to enter the wetted perimeter. A second excavation site may be used as a settling pond.

(ix) Under RCW 77.57.010 and 77.57.070, any device a person uses for pumping water from fish-bearing waters must be equipped with a fish guard to prevent passage of fish into the pump intake. A person must screen the pump intake with material that has openings no larger than five sixty-fourths inch for square openings, measured side to side, or three thirty-seconds inch diameter for round openings, and the screen must have at least one square inch of functional screen area for every gallon per minute (gpm) of water drawn through it. For example, a one hundred gpm-rated pump would require a screen with a surface area of at least one hundred square inches.

(x) A person may not excavate, collect, remove, or process aggregate within four hundred feet of any fishway, dam, or hatchery water intake.

(xi) A person may not disturb existing habitat improvement structures or stream channel improvements.

(xii) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department, and the Washington military department emergency management division, of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the prospecting impacts.

(5) MINERAL PROSPECTING IN FRESHWATERS WITH TIMING RESTRICTIONS[2]

(a) A person may mineral prospect in freshwaters of the state only during the times and with the mineral prospecting equipment limitations identified in subsection (7). A person must follow the rules listed below, and a person must have the

[2] This section has been altered in only minor ways from the rule as published in 2008, including that the figures have been omitted to make the file a little smaller.

rules on the job site when working in freshwaters of the state.

(b) A person may use only hand-held mineral prospecting tools and the following mineral prospecting equipment when mineral prospecting with timing restrictions:

(i) Pans;

(ii) Spiral wheels;

(iii) Sluices, concentrators, rocker boxes, and high-bankers with riffle areas totaling ten square feet or less, including ganged equipment;

(iv) Suction dredges should have suction intake nozzles with inside diameters of five inches or less, but must be no greater than five and one-quarter inches to account for manufacturing tolerances and possible deformation of the nozzle. The inside diameter of the dredge hose attached to the nozzle may be no greater than one inch larger than the suction intake nozzle size; See Figure 5.

Figure 5: Dredge Intake nozzle

(v) Power sluice/suction dredge combinations that have riffle areas totaling ten square feet or less, including ganged equipment, suction intake nozzles with inside diameters that should be five inches or less, but must be no greater than five and one-quarter inches to account for manufacturing tolerances and possible deformation of the nozzle, and pump intake hoses with inside diameters of four inches or less. The inside diameter of the dredge hose attached to the suction intake nozzle may be no greater than one inch larger than the suction intake nozzle size; and See Figure 5.

(vi) High-bankers and power sluices that have riffle areas totaling ten square feet or less, including ganged equipment, and pump intake hoses with inside diameters of four inches or less.

(c) The widest point of a sluice, including attachments, must not exceed twenty-five percent of the wetted perimeter at the point of placement.

(d) The suction intake nozzle and hose of suction dredges and power sluice/suction dredge combinations must not exceed the diameters allowed in the listing for the stream or stream reach where a person are operating, as identified in

subsection (7) of this section.

(e) A person may not use vehicle-mounted winches. A person may use one motorized winch and one hand-operated winch to move boulders and large woody material that is not embedded, and additional cables, chains, or ropes to stabilize them.

(f) Equipment separation:

(i) A person may use hand-held mineral prospecting tools; pans; spiral wheels; or sluices, mini rocker boxes, or mini high-bankers with riffle areas totaling three square feet or less, including ganged equipment, as close to other mineral prospecting equipment as desired.

(ii) When operating any sluice or rocker box with a riffle area exceeding three square feet (including ganged equipment), suction dredge, power sluice/suction dredge combination, high-banker, or power sluice within the wetted perimeter, a person must be at least two hundred feet from all others also operating this type of equipment. This separation is measured as a radius from the equipment the person is operating. A person may locate this equipment closer than two hundred feet if only one piece of equipment is operating within that two hundred foot radius. See Figure 6.

(iii) When operating any sluice or rocker box with a riffle area exceeding three square feet (including ganged equipment), suction dredge, power sluice/suction dredge combinations, high-banker, or power sluice outside of the wetted perimeter that discharges tailings or wastewater to the wetted perimeter a person must be at least two hundred feet from all others also operating this type of equipment. This separation is measured as a radius from the equipment the person is operating. A person may locate this equipment closer than two hundred feet if only one piece of equipment is operating within that two hundred foot radius. See Figure 6.

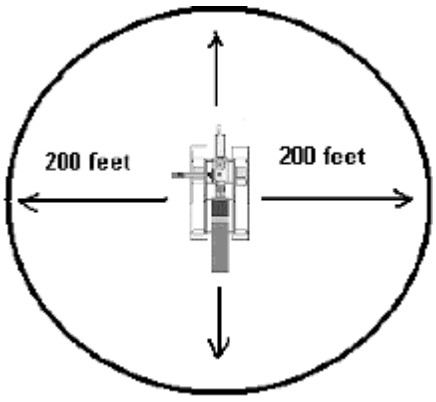

Figure 6: Equipment separation requirement

(g) Under RCW 77.57.010 and 77.57.070, any device a person uses for pumping

water from fish-bearing waters must be equipped with a fish guard to prevent passage of fish into the pump intake. A person must screen the pump intake with material that has openings no larger than five sixty-fourths inch for square openings, measured side to side, or three thirty-seconds inch diameter for round openings, and the screen must have at least one square inch of functional screen area for every gallon per minute (gpm) of water drawn through it. For example, a one hundred gpm-rated pump would require a screen with a surface area of at least 100 square inches.

(h) All equipment fueling and servicing must be done so that petroleum products do not get into the body of water or frequent scour zone. If a petroleum sheen or spill is observed, a person must contact the Washington military department emergency management division. A person must immediately stop their activities, remove their equipment from the body of water, and correct the source of the petroleum leak. A person may not return their equipment to the water until the problem is corrected. A person must store fuel and lubricants outside the frequent scour zone, and in the shade when possible.

(i) A person may work within the wetted perimeter or frequent scour zone only from one-half hour before official sunrise to one-half hour after official sunset. If their mineral prospecting equipment exceeds one-half the width of the wetted perimeter of the stream, a person must remove the equipment from the wetted perimeter or move it so that a minimum of fifty percent of the wetted perimeter is free of equipment between one-half hour after official sunset to one-half hour prior to official sunrise.

(j) A person may not excavate, collect, remove, or process aggregate within four hundred feet of any fishway, dam, or hatchery water intake.

(k) A person must not disturb existing habitat improvement structures or stream channel improvements.

(l) A person may not undermine, move, or disturb large woody material embedded in the slopes or located wholly or partially within the wetted perimeter. A person may move large woody material and boulders located entirely within the frequent scour zone, but a person must keep them within the frequent scour zone. A person may not cut large woody material.

(m) A person may not undermine, cut, or disturb live, rooted woody vegetation of any kind.

(n) A person individual may work in only one excavation site at a time. However, a person may use a second excavation site as a settling pond. Multiple individuals may work within a single excavation site.

(o) A person must fill all excavation sites and level all tailing piles prior to working another excavation site or abandoning the excavation site.

(p) A person may not excavate, collect, or remove aggregate from the toe of the slope. A person also may not excavate, collect, or remove aggregate from an

unstable slope or any slope that delivers, or has the potential to deliver, sediment to the wetted perimeter or frequent scour zone. See Figures 7 and 8.

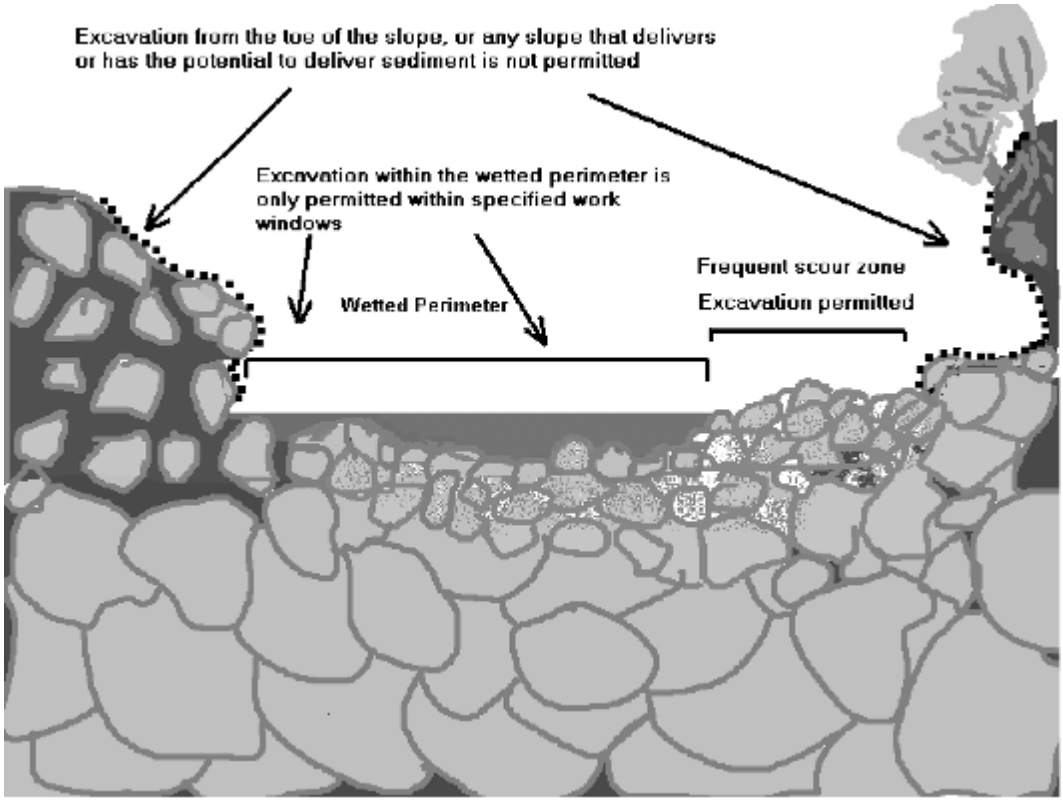

Figure 7: Cross section of a typical body of water showing unstable slopes, stable areas, and permissible or prohibited excavation sites under rules for mineral prospecting with timing restrictions. Dashed line indicates areas where excavation is not permitted

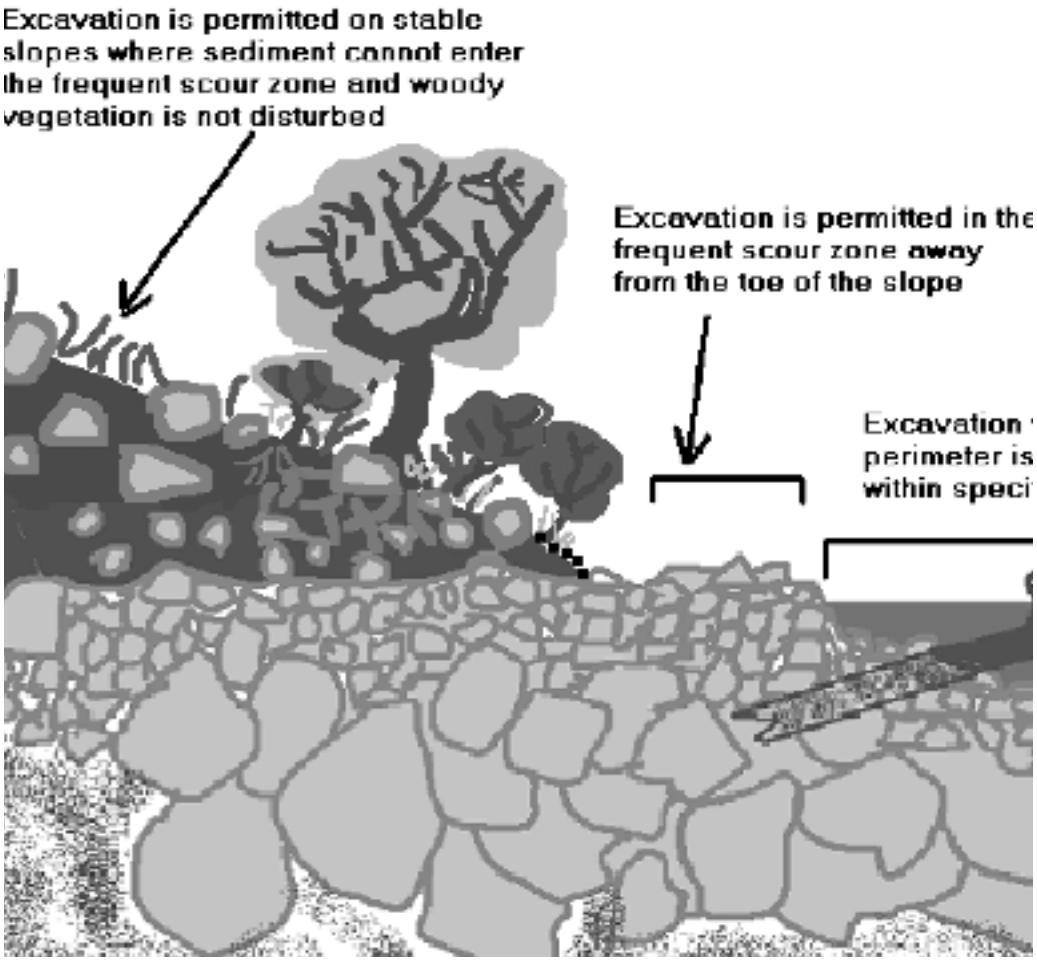

Figure 8: Cross section of a typical body of water showing unstable slopes, stable areas, and permissible or prohibited excavation sites under rules for mineral prospecting with timing restrictions. Dashed line indicates areas where excavation is not permitted

(q) A person may partially divert a body of water into mineral prospecting equipment. However, at no time may the diversion structure be greater than fifty percent of the width of the wetted perimeter, including the width of the equipment. A person may not divert the body of water outside of the wetted perimeter.

(r) A person may use materials only from within the wetted perimeter, or artificial materials from outside the wetted perimeter, to construct the diversion structure by hand. A person must remove artificial materials used in the construction of a diversion structure and restore the site to its approximate original condition prior to abandoning the site.

(s) A person may process aggregate collected from the frequent scour zone:

(i) At any location if a person uses pans; spiral wheels; mini rocker boxes; mini high-bankers; or sluices or other concentrators with riffle areas totaling three square feet or less, including ganged equipment.

(ii) Only in the frequent scour zone or upland areas landward of the frequent scour zone if a person use power sluice/suction dredge combinations, high-bankers, or power sluices with riffle areas totaling ten square feet or less, including ganged equipment; or sluices or rocker boxes that have riffle areas totaling more than three, but less than ten square feet, including ganged equipment. A person may not discharge tailings to the wetted perimeter when using this equipment. However, a person may discharge wastewater to the wetted perimeter provided its entry point into the wetted perimeter is at least two hundred feet from any other wastewater discharge entry point.

(t) A person may process aggregate collected from upland areas landward of the frequent scour zone:

(i) At any location if a person uses pans; spiral wheels; or sluices, concentrators, mini rocker boxes, and mini high-bankers with riffle areas totaling three square feet or less, including ganged equipment. A person must classify the aggregate at the excavation site prior to processing with this equipment within the wetted perimeter or frequent scour zone.

(ii) Only at an upland location landward of the frequent scour zone if a person use power sluice/suction dredge combinations; high-bankers; power sluices; or rocker boxes. A person may not allow tailings or wastewater to enter the wetted perimeter or frequent scour zone.

(iii) Within the wetted perimeter or frequent scour zone with a sluice with a riffle area greater than three square feet. A person must classify the aggregate at the excavation site prior to processing with a sluice with a riffle area exceeding three square feet.

(u) A person may use pressurized water only for crevicing or for redistributing dredge tailings within the wetted perimeter. No other pressurized water use is permitted.

(v) A person may conduct crevicing in the wetted perimeter, in the frequent scour zone, or landward of the frequent scour zone. The hose connecting fittings of pressurized water tools used for crevicing may not have an inside diameter larger than three-quarters of an inch. If a person crevice landward of the frequent scour zone, a person may not discharge sediment or wastewater to the wetted perimeter or the frequent scour zone.

(w) A person must avoid areas containing live freshwater mussels. If a person encounters live mussels during excavation, a person must relocate their operations.

(x) A person may not disturb redds. If a person observe or encounter redds, or actively spawning fish when collecting or processing aggregate, a person must relocate their operations.

(y) If at any time, as a result of project activities, a person observes a fish kill or fish

life in distress, a person must immediately cease operations and notify the Washington department of fish and wildlife, and the Washington military department emergency management division of the problem. A person may not resume work until the Washington department of fish and wildlife gives approval. The Washington department of fish and wildlife will require additional measures to mitigate the prospecting impacts.

(6) MINERAL PROSPECTING ON OCEAN BEACHES

(a) A person may mineral prospect year-round on ocean beaches of the state. A person must follow the rules listed below, and must have the rules on the job site when working on ocean beaches of the state.

(b) A person may mineral prospect only between the line of ordinary high tide and the line of extreme low tide on beaches within the Seashore Conservation Area established under RCW 79A.05.605 and managed by Washington State Parks and Recreation Commission.

(c) No written or pamphlet HPA is required for mineral prospecting conducted south of the Copalis River, provided a person operates landward of the upper limit of ghost shrimp burrowing in the beach, and waterward of the ordinary high tide line, and a person does not use freshwater from fish-bearing streams during operations.

(d) A person may use only handheld mineral prospecting tools and the following mineral prospecting equipment:

(i) Pans;

(ii) Spiral wheels;

(iii) Sluices, concentrators, rocker boxes, and high-bankers with riffle areas totaling ten square feet or less, including ganged equipment;

(iv) Suction dredges that have suction intake nozzles with inside diameters that should be five inches or less, but must be no greater than five and one-quarter inches to account for manufacturing tolerances and possible deformation of the nozzle. The inside diameter of the dredge hose attached to the nozzle may be no greater than one inch larger than the suction intake nozzle size;

(v) Power sluice/suction dredge combinations that have riffle areas totaling ten square feet or less, including ganged equipment, suction intake nozzles with inside diameters that should be five inches or less, but must be no greater than five and one-quarter inches to account for manufacturing tolerances and possible deformation of the nozzle, and pump intake hoses with inside diameters of four inches or less. The inside diameter of the dredge hose attached to the suction intake nozzle may be no greater than one inch larger than the suction intake nozzle size; and,

(vi) High-bankers and power sluices that have riffle areas totaling ten square feet or less, including ganged equipment, and pump intake hoses with

inside diameters of four inches or less.

(e) When operated in fish-bearing freshwater streams the widest point of a sluice, including attachments, must not exceed twenty-five percent of the width of the wetted perimeter at the point of placement.

(f) A person may not use vehicle-mounted winches. A person may use one motorized winch and one hand operated winch to move boulders and large woody material that is not embedded, and additional cables, chains, or ropes to stabilize them.

(g) Under RCW 77.57.010 and 77.57.070, any device a person use for pumping water from fish-bearing waters must be equipped with a fish guard to prevent passage of fish into the pump intake. A person must screen the pump intake with material that has openings no larger than five sixty-fourths inch for square openings, measured side to side, or three thirty-seconds inch diameter for round openings, and the screen must have at least one square inch of functional screen area for every gallon per minute (gpm) of water drawn through it. For example, a one hundred gpm-rated pump would require a screen with a surface area of at least 100 square inches.

(h) All equipment fueling and servicing must be done so that petroleum products do not get into the body of water. If a petroleum leak occurs, a person must immediately stop their activities, remove their equipment from the body of water and beach, and correct the source of the petroleum leak. A person may not return their equipment to the water or beach until the problem is corrected. A person must store fuel and lubricants away from the water inside a vehicle or landward of the beach, and in the shade when possible.

(i) A person may work only from one-half hour before official sunrise to one-half hour after official sunset. If their mineral prospecting equipment is being used in a fish-bearing freshwater stream and it exceeds one-half the width of the wetted perimeter of the stream, a person must remove the equipment from the wetted perimeter or move it so that a minimum of fifty percent of the wetted perimeter is free of equipment between one-half hour after official sunset to one-half hour prior to official sunrise.

(j) A person may not undermine, cut, disturb, or move large woody material or woody debris jams.

(k) A person individual may work in only one excavation site at a time. However, a person may use a second excavation site as a settling pond. Multiple individuals may work within a single excavation site.

(l) A person must backfill all trenches, depressions, or holes created in the beach during project activities before working another excavation site (except during use as a settling pond) or leaving the excavation site.

(m) A person may partially divert a body of water into mineral prospecting equipment. However, at no time may the diversion structure be greater than

fifty percent of the width of the wetted perimeter of a fish-bearing freshwater stream, including the width of the equipment. A person may not divert the body of water outside of the wetted perimeter of that stream.

(n) A person may use materials only from within the wetted perimeter, or artificial materials from outside the wetted perimeter, to construct the diversion structure by hand. A person must remove artificial materials used in the construction of a diversion structure and restore the site to its approximate original condition prior to abandoning the site.

(o) A person may use pressurized water only for redistributing dredge tailings within the wetted perimeter. No other pressurized water use is permitted.

(p) A person may not disturb live razor clams or other shellfish within the bed. If a person observes or encounters live razor clams or other shellfish during excavation, the person must relocate their operations.

(q) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department, and the Washington military department emergency management division of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the prospecting impacts.

(7) AUTHORIZED WORK TIMES AND MINERAL PROSPECTING EQUIPMENT RESTRICTIONS BY SPECIFIC STATE WATERS FOR MINERAL PROSPECTING AND PLACER MINING PROJECTS

(a) Mineral prospecting and placer mining under subsections (5) and (6) may only occur in the state waters, with the equipment restrictions, and during the times specified in the following table of authorized work times.

(b) The general work time for a county applies to all state waters within that county, unless otherwise indicated in the table.

(c) The work time for state water identified in the table of authorized work times applies to all its tributaries, unless otherwise indicated. Some state waters occur in multiple counties. Check the table for the county in which mineral prospecting or placer mining is to be conducted to determine the work time for that state water.

(d) Where a tributary is identified as a boundary, that boundary is the line perpendicular to the receiving stream that is projected from the most upstream point of the tributary mouth to the opposite bank of the receiving stream. See Figure 9.

(e) Mineral prospecting and placer mining within state waters identified in the table of authorized work times as "submit application" are not authorized under the Gold and Fish pamphlet. A written individual HPA is required for these state waters.

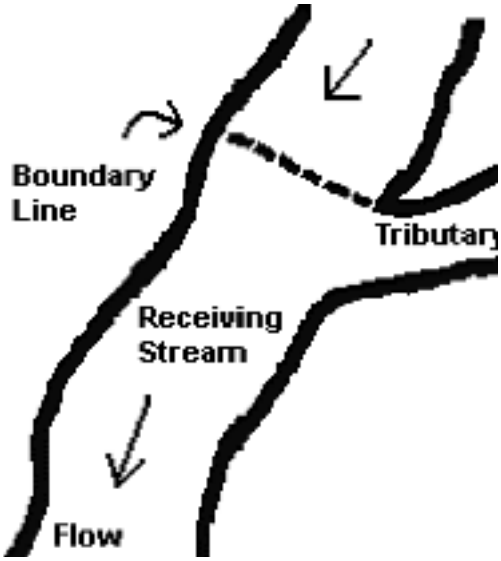

Figure 9: How to determine where the boundary is located if a tributary listed as a boundary

(f) Mineral prospecting using mineral prospecting equipment that has suction intake nozzles with inside diameters that should be four inches or less, but must be no greater than four and one-quarter inches to account for manufacturing tolerances and possible deformation of the nozzle is authorized only in the state waters identified in the table of authorized work times, and any tributaries to them, unless otherwise indicated in the table. The inside diameter of the dredge hose attached to the nozzle may be no greater than one inch larger than the nozzle size.

(g) Mineral prospecting using mineral prospecting equipment that has suction intake nozzles with inside diameters that should be five inches or less, but must be no greater than five and one-quarter inches to account for manufacturing tolerances and possible deformation of the nozzle is authorized only in the state waters identified in the table of authorized work times. The inside diameter of the dredge hose attached to the nozzle may be no greater than one inch larger than the nozzle size. A person may use only mineral prospecting equipment with suction intake nozzle inside diameters of four and one-quarter inches or less in tributaries of these state waters. The inside diameter of the dredge hose attached to the nozzle may be no greater than one inch larger than the nozzle size.

Table 2
AUTHORIZED WORK TIMES AND MINERAL PROSPECTING EQUIPMENT RESTRICTIONS BY SPECIFIC STATE WATERS FOR MINERAL PROSPECTING AND PLACER MINING PROJECTS

Washington Counties and State Waters Water Resource Inventory Area (WRIA)	Mineral Prospecting Is Allowed Only Between These Dates	State Waters (and tributaries, unless otherwise indicated) in Which A person May Use	State Waters (NOT including tributaries) in Which A person May Use Mineral Prospecting Equipment with a Five and

in parentheses		Mineral Prospecting Equipment with a Four and One-Quarter Inch Maximum Suction Intake Nozzle Inside Diameter	One-Quarter Inch Maximum Suction Intake Nozzle Inside Diameter
Adams County	July 1 - October 31	X	–
Crab Creek (41.0002)	July 16 - February 28	X	X
Esquatzel Creek (36.MISC)	June 1 - February 28	X	X
Palouse River (34.0003)	July 16 - February 28	X	X
Asotin County	July 16 - September 15	X	–
Snake River (35.0002)	See below	–	–
Alpowa Creek (35.1440)	July 16 - December 15	X	–
Asotin Creek (35.1716)	July 16 - August 15	X	–
Couse Creek (35.2147)	July 16 - December 15	X	–
Grande Ronde River (35.2192)	July 16 - September 15	X	X
Tenmile Creek (35.2100)	July 16 - December 15	X	–
Benton County	June 1 - September 30	X	–
Columbia River	See below	–	–
Glade Creek (31.0851)	August 1 - September 30	X	–
Yakima River (37.0002)	June 1 - September 15	X	X
Amon Creek (37.0009)	June 1 - September 30	X	–
Corral Creek (37.0002)	June 1 - September 30	X	–
Spring Creek (37.0205)	June 1 - September 30	X	–
Chelan County	July 16 - August 15	X	–
Columbia River	See below	–	–
Antoine Creek (49.0294) - Mouth to falls at river mile 1.0	July 1 - February 28	X	–
Antoine Creek (49.0294) - Upstream of falls at river mile 1.0	July 1 - March 31	X	–
Chelan River (47.0052) - Mouth to Chelan Dam	July 16 - September 30	X	X
Colockum Creek (40.0760)	July 1 - October 31	X	–
Entiat River (46.0042) - Mouth to	July 16 - July 31	X	X

Entiat Falls			
Entiat River (46.0042) - Upstream of Entiat Falls	July 16 - March 31	X	–
Crum Canyon (46.0107)	July 16 - March 31	X	–
Mad River (46.0125)	July 16 - July 31	X	–
Indian Creek (46.0128)	July 16 - February 28	X	–
Lake Chelan (47.0052)	Submit Application	–	–
Railroad Creek (47.0410)	July 16 - September 30	X	–
Stehekin River (47.0508)	Submit Application	–	–
Twenty-five Mile Creek (47.0195)	July 16 - September 30	X	–
Other Lake Chelan tributaries outside of North Cascades National Park	July 1 - August 15	X	–
Other Lake Chelan tributaries within North Cascades National Park	Submit Application	–	–
Number 1 Canyon (45.0011)	July 1 - February 28	X	–
Number 2 Canyon (45.0012)	July 1 - February 28	X	–
Squilchuck Creek (40.0836) - Mouth to South Wenatchee Avenue	July 1 - September 30	X	–
Squilchuck Creek (40.0836) - Upstream of South Wenatchee Avenue	July 1 - February 28	X	–
Stemilt Creek (40.0808) - Mouth to falls	July 1 - September 30	X	–
Stemilt Creek (40.0808) - Upstream of falls	July 1 - February 28	X	–
Wenatchee River (45.0030) - Mouth to Hwy 2 Bridge in Leavenworth	July 15 – September 30	X	X
Wenatchee River (45.0030) – Hwy 2 Bridge in Leavenworth to Lake Wenatchee	July 15 – August 15	X	X
Beaver Creek (45.0751)	July 1 - September 30	X	–
Chiwaukum Creek (45.0700)	July 1 - July 31	X	–

Chiwawa River (45.0759) - Mouth to Phelps Creek	July 1 - July 31	X	X
Chiwawa River (45.0759) - Upstream of Phelps Creek	July 1 - July 31	X	–
Deep Creek (45.0764)	July 1 - February 28	X	–
Phelps Creek (45.0875)	July 16 - August 15	X	–
Icicle Creek (45.0474) - Mouth to Johnny Creek	July 1 - July 31	X	X
Icicle Creek (45.0474) - Upstream of Johnny Creek	July 1 - July 31	X	–
Fourth of July Creek (45.0525)	July 1 - February 28	X	–
Lake Wenatchee (45.0030)	Submit Application	–	–
Little Wenatchee (45.0985) - Mouth to Wilderness Boundary	July 1 - July 31	X	X
Little Wenatchee (45.0985) - Upstream of Wilderness Boundary	Submit Application	–	–
White River (45.1116) - Mouth to White River Falls	July 1 - July 31	X	X
White River (45.1116) - Upstream of White River Falls	July 1 - February 28	X	–
Nason Creek (45.0888)	July 1 - July 31	X	–
Peshastin Creek (45.0232) - Mouth to Negro Creek	July 16 - August 15	X	–
Peshastin Creek (45.0232) - Upstream of Negro Creek	August 1 - February 28	X	–
Ingalls Creek (45.0273) - Mouth to Cascade Creek	Submit Application	–	–
Ingalls Creek (45.0273) - Upstream of Cascade Creek	July 16 - February 28	X	–
Negro Creek (45.0323) - Mouth to falls at stream mile 2.9	Submit Application	–	–
Negro Creek (45.0323) - Upstream of falls at stream mile 2.9	July 16 - February 28	X	–
Ruby Creek (45.0318)	July 16 - February 28	X	–
Tronson Creek (45.0346)	August 1 - February 28	X	–

Scotty Creek (45.0376)	August 1 - February 28	X	–
Shaser Creek (45.0365)	August 1 - February 28	X	–
Clallam County	July 16 - September 15	X	–
Clallam River (19.0129)	August 1 - August 15	X	–
Dungeness River (18.0018)	Submit Application	–	–
Independent Creek (18.MISC)	August 1 - August 31	X	–
Elwha River (18.0272)	August 1 - August 15	X	X
Hoko River (19.0148)	August 1 - September 15	X	–
Jimmycomelately Creek (17.0285)	August 1 - August 31	X	–
Lake Ozette (20.0046)	Submit Application	–	–
Little Quilcene River (17.0076)	July 16 - August 31	X	–
Lake Ozette tributaries	July 16 - September 15	X	–
Lyre River (19.0031)	August 1 - September 15	X	–
McDonald Creek (18.0160)	August 1 - September 15	X	–
Morse Creek (18.0185)	August 1 - August 15	X	–
Ozette River (20.0046)	July 16 - September 15	X	–
Pysht River (19.0113)	August 1 - September 15	X	–
Quillayute River (20.0096, 20.0162, 20.0175)	August 1 - August 15	X	X
Bogachiel River (20.0162)	Submit Application	–	–
Calawah River (20.0175)	August 1 - August 15	X	X
Salmon Creek (17.0245)	July 16 - August 31	X	–
Sekiu River (19.0203)	August 1 - September 15	X	–
Snow Creek (17.0219)	July 16 - August 31	X	–
Sol Duc River (20.0096)	Submit Application	–	–
Lake Pleasant (20.0313)	Submit Application	–	–
Lake Pleasant tributaries	July 16 - September 15	X	–
Sooes River (20.0015)	July 16 - September 15	X	–
Clark County	July 16 - September 30	–	–
Columbia River	See below	–	–
Lacamas Creek (28.0160) - Mouth to dam	August 1 - August 31	X	–

Lacamas Creek (28.0160) - Upstream of dam	August 1 - September 30	X	–
Lewis River (27.0168)	August 1 - August 15	X	X
East Fork Lewis River (27.0173) - Mouth to Lucia Falls	August 1 - August 15	X	X
East Fork Lewis River (27.0173) - Lucia Falls to Sunset Falls	August 1 - February 28	X	X
East Fork Lewis River (27.0173) - Upstream of Sunset Falls	August 1 - February 28	X	–
Lake River (28.0020)	January 1 - December 31	X	X
Burnt Bridge Creek (28.0143)	August 1 - August 31	X	–
Salmon Creek (28.0059)	August 1 - August 31	X	–
Whipple Creek (28.0038)	August 1 - September 30	X	–
North Fork Lewis River (27.0334) - Confluence of East Fork to Merwin Dam	August 1 - August 15	X	X
Cedar Creek (27.0339)	August 1 - September 15	X	–
North Fork Lewis River (27.0334) - Merwin Dam to Lower Falls	July 16 - August 15	X	X
Canyon Creek (27.0442)	July 16 - February 28	X	–
North Fork Lewis River (27.0168) - Upstream of Lower Falls	July 16 - August 15	X	X
Washougal River (28.0159) - Mouth to headwaters	August 1 - August 31	X	X
Columbia County	July 16 - September 30	X	–
Touchet River (32.0097)	August 1 - August 15	X	X
Grande Ronde River tributaries (35.2192)	July 16 - August 15	X	–
North Fork Touchet/Wolf Fork (32.0761)	Submit Application	–	–
South Fork Touchet (32.0708)	Submit Application	–	–
Tucannon River (35.0009)	July 16 - August 15	X	X
Walla Walla River (32.0008) - Mouth to Oregon State line	July 16 - September 15	X	X
Mill Creek (32.1436) - Mouth to Oregon State line	August 1 - August 15	X	–

Cowlitz County	July 16 - September 30	X	–
Chehalis River (22.0190/23.0190) - South Fork Chehalis River - Mouth to Fisk Falls	August 1 - August 31	X	X
Chehalis River (22.0190/23.0190) - South Fork Chehalis River - Upstream of Fisk Falls	August 1 - August 31	X	–
Columbia River	See below	–	–
Abernathy Creek (25.0297)	July 16 - September 15	X	–
Burke Creek (27.0148)	August 1 - August 31	X	–
Burris Creek (27.0151)	August 1 - August 31	X	–
Bybee Creek (27.0142)	August 1 - August 31	X	–
Canyon Creek (27.0147)	August 1 - August 31	X	–
Coal Creek (25.0340)	July 16 - September 15	X	–
Clark Creek (25.0371)	August 1 - August 31	X	–
Cowlitz River (26.0002) - Mouth to barrier dam at river mile 49.5	July 16 - August 15	X	X
Coweeman River (26.0003) - Mouth to Baird Creek	August 1 - August 31	X	X
Coweeman River (26.0003) - Upstream of Baird Creek	August 1 - August 31	X	–
Cowlitz River (26.0002) - Tributaries below barrier dam to mouth	July 16 - September 30	X	–
Owl Creek (26.1441)	July 16 - September 15	X	–
Toutle River (26.0227)	July 16 - August 15	X	X
North Fork Toutle River (26.0314) - Mouth to Debris Dam	July 16 - August 15	X	X
North Fork Toutle River (26.0314) - Upstream of Debris Dam	July 16 - August 15	X	–
Green River (26.0323) - Mouth to Shultz Creek	July 16 - September 30	X	X
Green River (26.0323) - Upstream of Shultz Creek	July 16 - September 30	X	–
South Fork Toutle (26.0248) -	July 16 - September 15	X	X

Mouth to Bear Creek			
South Fork Toutle (26.0248) - Upstream of Bear Creek	July 16 - September 15	X	–
Tributaries to Silver Lake	July 16 - September 30	X	–
Germany Creek (25.0313)	July 16 - September 15	X	–
Kalama River (27.0002) - Mouth to Kalama Falls	August 1 - August 15	X	X
Kalama River (27.0002) - Upstream of Kalama Falls	August 1 - August 15	X	–
Lewis River (27.0168) - Mouth to East Fork Lewis River	August 1 - August 15	X	X
North Fork Lewis River (27.0334) - Confluence of East Fork to Merwin Dam	August 1 - August 15	X	X
North Fork Lewis River (27.0334) - Merwin Dam to Lower Falls	July 16 - August 15	X	X
Mill Creek (25.0284)	July 16 - September 15	X	–
Schoolhouse Creek (27.0139)	August 1 - August 31	X	–
Douglas County	July 1 - September 30	X	–
Columbia River	See below	–	–
Douglas Creek Canyon (44.0146)	May 16 - January 31	X	–
Foster Creek (50.0065)	August 1 - April 15	X	–
McCarteney Creek (44.0002)	July 1 - February 28	X	–
Pine/Corbaley Canyon Creek (44.0779)	September 16 - April 15	X	–
Rock Island Creek (44.0630)	July 1 - September 30	X	–
Ferry County	July 1 - August 31	X	–
Columbia River	See below	–	–
Kettle River (60.0002)	June 16 - August 31	X	X
Boulder Creek (60.0130) - Mouth to Hodgson Road Bridge	Submit Application	–	–
Boulder Creek (60.0130) - Upstream of Hodgson Road Bridge	June 16 - February 28	X	–
Deadman Creek (60.0008) - Mouth to SR395 Crossing	Submit Application	–	–

Deadman Creek (60.0008) - Upstream of SR395	June 16 - February 28	X	–
Goosmus Creek (60.0254)	June 16 - February 28	X	–
Toroda Creek (60.0410)	July 1 - September 30	X	–
San Poil River (52.0004)	June 16 - September 30	X	X
Granite Creek (52.0099) - Mouth to Powerhouse Dam	June 16 - September 30	X	–
Granite Creek (52.0099) - Upstream of Powerhouse Dam	June 16 - February 28	X	–
West Fork San Poil River (52.0192) - Mouth to Deep Creek	June 16 - September 30	X	X
West Fork San Poil River (52.0192) - Upstream of Deep Creek	June 16 - September 30	X	–
Gold Creek (52.0197)	June 16 - February 28	X	–
Franklin County	June 1 - September 30	X	–
Columbia River	See below	–	–
Snake River	See below	–	–
Palouse River (34.0003)	July 16 - February 28	X	X
North bank tributaries of the lower Snake River between Palouse River and the mouth of the Snake River	June 16 - October 31	X	–
Garfield County	July 16 - September 30	X	–
Snake River (35.0003)	See below	–	–
Alpowa Creek (35.1440)	July 16 - December 15	X	–
Asotin Creek (35.1716)	July 16 - August 15	X	–
Deadman Creek (35.0688)	July 16 - December 15	X	–
Grande Ronde River tributaries (35.2192)	July 16 - August 15	X	–
Meadow Creek (35.0689)	July 16 - December 15	X	–
Tucannon River (35.0009) - Mouth to Panjab Creek	July 16 - August 15	X	X
Tucannon River (35.0009) - Upstream of Panjab Creek	July 16 - August 15	X	–

Pataha Creek (35.0123) - Mouth to Pataha Creek	January 1 - December 31	X	–
Pataha Creek (35.0123) - Upstream of Pataha Creek	July 16 - December 31	X	–
Grant County	July 1 - October 31	X	–
Columbia River	See below	–	–
Crab Creek (41.0002)	July 16 - September 15	X	X
Grays Harbor County	July 16 - October 15	X	–
Chehalis River (22.0190/23.0190) - Mouth to Porter Creek	August 1 - August 31	X	X
Chehalis River (22.0190/23.0190) - Porter Creek to Fisk Falls	August 1 - August 15	X	X
Chehalis River (22.0190/23.0190) - Upstream of Fisk Falls	August 1 - August 15	X	–
Cedar Creek (23.0570)	August 1 - September 30	X	–
Cloquallum Creek (22.0501)	August 1 - September 30	X	–
Porter Creek (23.0543)	August 1 - September 30	X	–
Satsop River (22.0360)	August 1 - August 31	X	X
Wishkah River (22.0191)	August 1 - October 15	X	X
Wynoochee River (22.0260)	August 1 - September 30	X	X
Copalis River (21.0767)	August 1 - October 15	X	X
Elk River (22.1333)	July 1 - October 31	X	X
Hoquiam River (22.0137)	August 1 - October 15	X	X
Humptulips River (22.0004) - Mouth to Forks	August 1 - September 30	X	X
Humptulips River (22.0004) - Upstream of Forks	August 1 - September 30	X	–
Johns River (22.1270)	August 1 - September 30	X	X
Moclips River (21.0731)	August 1 - October 15	X	X
North River (24.0034)	August 1 - September 30	X	X
Queets River (21.0001)	August 1 - August 15	X	X
Quinault River (21.0398)	August 1 - August 15	X	X
Raft River (21.0337)	August 1 - October 15	X	X
Island County	June 16 - October 15	X	–

Cavalero Creek (06.0065)	June 16 - December 15	X	–
Chapman Creek (06.0070)	June 16 - December 15	X	–
Crescent Creek (06.0002)	June 16 - December 15	X	–
Cultus Creek (06.0026)	June 16 - March 15	X	–
Deer Creek (06.0024)	June 16 - March 15	X	–
Dugualla Creek (06.0001)	June 16 - March 15	X	–
Glendale Creek (06.0025)	June 16 - December 15	X	–
Kristoferson Creek (06.0062-06.0063)	May 1 - December 15	X	–
Maxwelton Creek (06.0029)	June 16 - December 15	X	–
North Bluff Creek (06.0006)	June 16 - March 15	X	–
Old Clinton Creek (06.0023)	June 16 - March 15	X	–
Jefferson County	July 16 - October 31	X	–
Big Quilcene River (17.0012) - Mouth to Falls	July 16 - August 31	X	X
Big Quilcene River (17.0012) - Falls to Forks	August 1 - February 28	X	X
Big Quilcene River (17.0012) - Upstream of Forks	August 1 - February 28	X	–
Bogachiel River (20.0162)	Submit Application	–	–
Chimacum Creek (17.0203)	July 16 - September 15	X	–
Donovan Creek (17.0115)	July 1 - October 15	X	–
Dosewallips River (16.0442)	July 16 - August 15	X	–
Duckabush River (16.0351)	July 16 - August 15	X	–
Dungeness River (18.0018)	August 1 - August 15	X	–
Elwha River (18.0272)	August 1 - August 15	X	X
Goodman Creek (20.0406)	August 1 - September 15	X	–
Hoh River (20.0422)	August 1 - August 15	X	X
Little Quilcene River (17.0076)	July 16 - August 31	X	–
Queets River (21.0001)	August 1 - August 15	X	X
Matheny Creek (21.0165)	August 1 - August 15	X	–
Sams River (21.0205)	August 1 - August 15	X	X
Quinault River (21.0398)	August 1 - August 15	X	X

Salmon Creek (17.0245)	July 16 - August 31	X	–
Skokomish River (16.0001)	August 1 - August 31	X	X
Snow Creek (17.0219)	July 16 - August 31	X	–
Tarboo Creek (17.0129)	August 1 - September 30	X	–
Thorndyke Creek (17.0170)	August 1 - October 15	X	–
King County	July 16 - September 30	X	–
Cedar River (08.0299) - Mouth to Forks	August 1 - August 31	X	X
Cedar River (08.0299) - Upstream of Forks	August 1 - August 31	X	–
Issaquah Creek (08.0178)	August 1 - August 31	X	–
Sammamish River (08.0057)	August 1 - August 31	X	–
Steele Creek (08.0379)	July 16 - February 28	X	–
Green River (Duwamish River) (09.0001) - Mouth to Sawmill Creek	August 1 - August 31	X	X
Green River (Duwamish River) (09.0001) - Upstream of Sawmill Creek	August 1 - August 31	X	–
Lake Washington tributaries (08.LKWA)	August 1 - August 31	X	–
Snoqualmie River (07.0219) - Mouth to Snoqualmie Falls	August 1 - August 15	X	X
Snoqualmie River (07.0219) - Snoqualmie Falls to mouth of South Fork	July 16 - February 28	X	X
Patterson Creek (07.0376)	July 16 - September 30	X	–
Middle Fork Snoqualmie River (07.0219) - Mouth to Taylor Creek	July 16 - February 28	X	X
Middle Fork Snoqualmie River (07.0219) - Upstream of Taylor Creek	July 16 - February 28	X	–
Goat Creek (07.0754)	July 16 - February 28	X	–
North Fork Snoqualmie River (07.0527) - Mouth to Lennox Creek	July 16 - February 28	X	X

North Fork Snoqualmie River (07.0527) - Upstream of Lennox Creek	July 16 - February 28	X	–
Deep Creek (07.0562)	July 16 - February 28	X	–
Illinois Creek (07.0624)	July 16 - February 28	X	–
Lennox Creek (07.0596)	July 16 - February 28	X	–
Bear Creek (07.0606)	July 16 - February 28	X	–
Raging River (07.0384)	August 1 - September 15	X	X
South Fork Skykomish River (07.0012) - Mouth to Sunset Falls	August 1 - August 15	X	X
South Fork Skykomish River (07.0012) - Upstream of Sunset Falls	August 1 - August 15	X	–
Beckler River (07.1413) - Mouth to Boulder Creek	August 1 - August 15	X	X
Beckler River (07.1413) - Upstream of Boulder Creek	July 16 - February 28	X	–
Rapid River (07.1461) - Mouth to Meadow Creek	August 1 - August 31	X	X
Rapid River (07.1461) - Upstream of Meadow Creek	August 1 - February 28	X	–
Index Creek (07.1264) - Mouth to Mud Lake Creek	August 1 - August 31	X	–
Index Creek (07.1264) - Upstream of Mud Lake Creek including Salmon Creek	July 16 - February 28	X	–
Miller River (07.1329) - Mouth to Forks	August 1 - August 15	X	X
Miller River (07.1329) - Upstream of Forks	August 1 - August 15	X	–
Coney Creek (07.1347)	July 16 - February 28	X	–
East Fork Miller River (07.1329) - Mouth to Great Falls Creek	July 16 - August 15	X	–
East Fork Miller River (07.1329) - Upstream of Great Falls Creek	July 16 - February 28	X	–
Foss River (07.1562) - Mouth to Forks	July 16 - August 31	X	X

East Fork Foss River (07.1562) - Mouth to Burn Creek	July 16 - August 15	X	X
East Fork Foss River (07.1562) - Upstream of Burn Creek	July 16 - February 28	X	–
West Fork Foss River (07.1573) - Mouth to falls at River Mile 2.0	July 16 - August 31	X	–
West Fork Foss River (07.1573) - Upstream of falls at River Mile 2.0	July 16 - February 28	X	–
West Fork Miller River (07.1335)	July 16 - February 28	X	X
Money Creek (07.1300) - Mouth to 0.5 mile upstream of Kimball Creek	August 1 - August 31	X	–
Money Creek (07.1300) - Upstream of 0.5 mile upstream of Kimball Creek	August 1 - February 28	X	–
Kimball Creek (07.1301)	August 1 - August 31	X	–
Tye River (07.0012) - Mouth to Alpine Falls	August 1 - August 31	X	X
Tye River (07.0012) - Upstream of Alpine Falls	July 16 - February 28	X	–
South Fork Snoqualmie River (07.0467)	July 16 - February 28	X	X
Denny Creek (07.0517)	July 16 - February 28	X	–
Tolt River (07.0291) - Mouth to forks	August 1 - August 31	X	X
North Fork Tolt River (07.0291) - Mouth to Yellow Creek	July 16 - September 15	X	X
North Fork Tolt River (07.0291) - Upstream of Yellow Creek	July 16 - February 28	X	–
South Fork Tolt River (07.0302) - Mouth to dam	July 16 - September 15	X	X
South Fork Tolt River (07.0302) - Upstream of Tolt Reservoir	July 16 - February 28	X	–
Yellow Creek (07.0337)	July 16 - February 28	X	–
White River (10.0031)	July 16 - August 15	X	X
Greenwater River (10.0122)	July 16 - August 15	X	X
Kittitas County	July 1 - September 30	X	–

Brushy Creek (40.0612)	July 1 - February 28	X	–
Colockum Creek (40.0760)	July 1 - October 31	X	–
Quilomene Creek (40.0613)	July 1 - October 31	X	–
Stemilt Creek (40.0808) - Upstream of falls	July 1 - February 28	X	–
Tarpiscan Creek (40.0723)	July 1 - February 28	X	–
Tekiason Creek (40.0686)	July 1 - February 28	X	–
Whisky Dick Creek (40.0591)	July 1 - February 28	X	–
Yakima River (39.0002) - Roza Dam to Teanaway River	August 1 - August 31	X	X
Naches River (38.0003) - Tieton River to Bumping River	July 1 - August 15	X	X
Little Naches River (38.0852) - Mouth to Matthew Creek	July 16 - August 15	X	X
Little Naches River (38.0852) - Upstream of Matthew Creek	July 16 - August 15	X	–
Pileup Creek (38.0932)	July 16 - August 31	X	–
Gold Creek (38.MISC)	July 16 - February 28	X	–
Swauk Creek (39.1157)	July 16 - September 30	X	–
Baker Creek (39.1157)	July 16 - September 30	X	–
First Creek (39.1157)	July 16 - September 30	X	–
Iron Creek (39.1157)	July 16 - September 30	X	–
Williams Creek (39.1157)	July 16 - September 30	X	–
Boulder Creek (39.1157)	July 16 - February 28	X	–
Cougar Gulch (39.1157)	July 16 - February 28	X	–
Lion Gulch (39.1157)	July 16 - February 28	X	–
Yakima River (39.0002) - Teanaway River to Easton Dam	August 1 - August 31	X	X
Yakima River (39.0002) - Upstream of Easton Dam	August 1 - August 31	X	X
Cle Elum River (39.1434) - Mouth to Dam	July 16 - August 31	X	X
Cle Elum River (39.1434) - Upstream of Cle Elum Dam	Submit Application	–	–
Big Boulder Creek	August 1 - February 28	X	–

(39.1434MISC)			
Camp Creek (39.1434MISC)	August 1 - February 28	X	–
Fortune Creek (39.1434MISC)	August 1 - August 15	X	–
South Fork Fortune Creek (39.1434MISC)	August 1 - February 28	X	–
Howson Creek (39.1434)	July 16 - February 28	X	–
Little Salmon Le Sac Creek (39.1482)	August 1 - August 15	X	–
Paris Creek (39.1434MISC)	August 1 - February 28	X	–
Salmon Le Sac Creek (39.1520)	August 1 - February 28	X	–
Kachess River (39.1739) - Upstream of Lake Kachess	Submit Application	–	–
Kachess River (39.1739) - Below Dam	July 16 - August 15	X	X
Box Canyon Creek (39.1765)	Submit Application	–	–
Mineral Creek (39.1792)	August 1 - August 15	X	–
Lake Keechelus (39.1842) tributaries	July 16 - August 15	X	–
Gold Creek (Lake Keechelus) (39.1842)	Submit Application	–	–
Manastash Creek (39.0988)	July 16 - September 30	X	–
Naneum Creek (39.0821)	July 16 - September 30	X	–
Taneum Creek (39.1081) - Mouth to I-90	July 16 - August 31	X	–
Taneum Creek (39.1157) - Upstream of I-90	July 16 - September 30	X	–
Teanaway River (39.1236)	July 16 - August 31	X	X
NF Teanaway River (39.1260)	Submit Application	–	–
Umtanum Creek (39.0553)	July 16 - September 30	X	–
Wenas Creek, Below Dam (39.0032)	July 16 - October15	X	–
Wenas Creek, Upstream of Wenas Lake (39.0032)	July 16 - February 28	X	–
Other Yakima River tributaries not listed	July 16 - August 31	X	–
Kitsap County	July 16 - October 15	X	–

Anderson Creek (15.0211)	August 1 - November 15	X	–
Barker Creek (15.0255)	August 1 - September 30	X	–
Big Beef Creek (15.0389)	August 1 - August 15	X	–
Big Scandia Creek (15.0280)	August 1 - September 30	X	–
Blackjack Creek (15.0203)	August 1 - September 30	X	–
Burley Creek (15.0056)	August 1 - September 30	X	–
Chico Creek (15.0229)	August 1 - October 15	X	–
Clear Creek (15.0249)	August 1 - September 30	X	–
Curley Creek (15.0185)	August 1 - September 30	X	–
Dewatto River (15.0420)	August 1 - August 15	X	–
Dogfish Creek (15.0285)	August 1 - September 30	X	–
Gorst Creek (15.0216)	August 1 - August 31	X	–
Grovers Creek (15.0299)	August 1 - September 30	X	–
Johnson Creek (15.0387)	August 1 - October 31	X	–
Ollala Creek (15.0107)	August 1 - September 30	X	–
Ross Creek (15.0209)	August 1 - November 15	X	–
Salmonberry Creek (15.0188)	August 1 - November 30	X	–
Seabeck Creek (15.0400)	August 1 - August 15	X	–
Steele Creek (15.0273)	August 1 - September 30	X	–
Tahuya River (15.0446)	August 1 - August 31	X	X
Union River (15.0503)	August 1 - August 31	X	X
Klickitat County	July 15 - September 30	X	–
Alder Creek (31.0459)	August 1 - September 30	X	–
Chapman Creek (31.0192)	August 1 - September 30	X	–
Glade Creek (31.0851)	August 1 - September 30	X	–
Juniper Canyon Creek (31.0378)	August 1 - September 30	X	–
Klickitat River (30.0002) - Mouth to Klickitat hatchery	Submit Application	–	–
Klickitat River (30.0002) - Upstream of Klickitat hatchery	Submit Application	–	–
Little White Salmon River (29.0131) - Mouth to Cabbage Creek	July 16 - January 31	X	X

Little White Salmon River (29.0131) - Upstream of Cabbage Creek	July 16 - January 31	X	–
Pine Creek (31.0354)	August 1 - September 30	X	–
Rock Creek (31.0014)	August 1 - September 30	X	–
Six Prong Creek (31.0465)	August 1 - September 30	X	–
White Salmon River (29.0160) - Mouth to Cascade Creek	July 16 - August 15	X	X
White Salmon River (29.0160) - Upstream of Cascade Creek	July 16 - August 15	X	–
Wood Gulch Creek (31.0263)	August 1 - September 30	X	–
Lewis County	August 1 - September 30	X	–
Chehalis River (22.0190/23.0190) - Mouth to South Fork Chehalis River	August 1 - August 15	X	X
Chehalis River (22.0190/23.0190) - Upstream of South Fork Chehalis River	August 1 - August 31	X	X
Newaukum River (23.0882) - Mouth to South Fork	August 1 - August 31	X	X
Newaukum River (23.0882) - Upstream of South Fork	August 1 - August 31	X	–
Skookumchuck River (23.0761)	August 1 - August 31	X	X
Cowlitz River (26.0002)	August 1 - August 15	X	X
Cispus River (26.0668) - Mouth to Squaw Creek (26.1010)	August 1 - August 15	X	X
Cispus River (26.0668) - Squaw Creek to Chambers Creek	July 16 - February 28	X	X
Cispus River (26.0668) - Upstream of Chambers Creek	July 16 - February 28	X	–
Yellowjacket Creek (26.0757)	August 1 - August 15	X	–
McCoy Creek (26.0766) - Mouth to lower falls	August 1 - August 15	X	–
McCoy Creek (26.0766) - Upstream of lower falls	July 16 - February 28	X	–
Walupt Creek (26.1010)	Submit Application	–	–
Packwood Lake Tributaries	August 16 - September 15	X	–

Tilton River (26.0560) - Mouth to North Fork	August 1 - September 30	X	X
Tilton River (26.0560) - Upstream of North Fork	August 1 - September 30	X	–
Toutle River (26.0227)	August 1 - August 31	X	X
North Fork Toutle River (26.0314)	July 16 - August 15	X	X
Green River (26.0323)	July 16 - September 30	X	X
Deschutes River (13.0028)	July 16 - August 31	X	X
Little Deschutes River (13.0110)	July 16 - February 28	X	–
Nisqually River (11.0008) - Upstream of Alder Lake	July 16 - September 30	X	X
Lincoln County	June 16 - February 28	X	–
Columbia River	See below	–	–
Hawk Creek (53.0101) - Mouth to falls	June 16 - August 31	X	–
Hawk Creek (53.0101) - Upstream of falls	June 16 - February 28	X	–
Upper Crab Creek (42.0001)	June 16 - February 28	X	–
Wilson Creek (43.0020)	June 16 - February 28	X	–
Mason County	August 1 - October 15	X	–
Cloquallum Creek (22.0501)	August 1 - September 30	X	–
Coulter Creek (15.0002)	August 1 - August 31	X	–
Dewatto River (15.0420)	August 1 - August 31	X	–
Goldsborough Creek (14.0035)	August 1 - October 15	X	–
John Creek (16.0253)	August 1 - August 31	X	–
Hamma Hamma River (16.0251) - Mouth to falls	August 1 - August 31	X	–
Johns Creek (14.0049)	August 1 - August 15	X	–
Lilliwaup River (16.0230) - Mouth to falls	August 1 - August 31	X	X
Lilliwaup River (16.0230) - Upstream of falls	August 1 - February 28	X	–
Mill Creek (14.0029)	August 1 - August 15	X	–
Satsop River (22.0360)	August 1 - August 31	X	–

Schaerer Creek (16.0326)	August 1 - August 31	X	–
Sherwood Creek (14.0094)	August 1 - August 15	X	–
Skokomish River (16.0001) - Mouth to Forks	August 1 - August 31	X	X
Skokomish River (16.0001) - Upstream of Forks	August 1 - August 31	X	–
Tahuya River (15.0446)	August 1 - August 31	X	–
Twanoh Creek (14.0134)	August 1 - October 31	X	–
Union River (15.0503)	August 1 - August 31	X	X
Okanogan County	July 1 - August 15	X	–
Aneas Creek (49.0243) - Mouth to falls	July 16 - August 31	X	–
Aneas Creek (49.0243) - Upstream of falls	July 1 - March 31	X	–
Chewiliken Creek (49.0232) - Mouth to falls	July 16 - August 31	X	–
Chewiliken Creek (49.0232) - Upstream of falls	July 1 - March 31	X	–
Chiliwist Creek (49.0034) - Mouth to falls	July 16 - August 31	X	–
Chiliwist Creek (49.0034) - Upstream of falls	July 1 - March 31	X	–
Foster Creek (50.0065)	July 1 - February 28	X	–
Methow River (48.0007) - Columbia confluence to Twisp River	July 1 - July 31	X	X
Methow River tributaries between Black Canyon Creek and Gold Creek	July 1 - February 28	X	–
Black Canyon Creek (48.0015) - Mouth to Left Fork	Submit Application	–	–
Black Canyon Creek (48.0015) - Upstream of Left Fork	July 1 - February 28	X	–
Gold Creek (48.0104) - Mouth to Foggy Dew Creek	Submit Application	–	–
Foggy Dew Creek (48.0153) - Mouth to Foggy Dew Falls	Submit Application	–	–

Foggy Dew Creek (48.0153) - Upstream of Foggy Dew Falls	July 1 - February 28	X	–
Middle Fork Gold Creek (48.0139)	July 1 - February 28	X	–
North Fork Gold Creek (48.0104)	Submit Application	–	–
Crater Creek (48.0177) - Mouth to Martin Creek	Submit Application	–	–
Crater Creek (48.0177) - Upstream of Martin Creek	July 1 - February 28	X	–
Martin Creek (48.0177)	July 1 - February 28	X	–
South Fork Gold Creek (48.0105) - Mouth to Rainy Creek	Submit Application	–	–
South Fork Gold Creek (48.0105) - Upstream of Rainy Creek	July 1 - February 28	X	–
Rainy Creek (48.0105)	July 1 - February 28	X	–
McFarland Creek (48.0090) - Mouth to Vinegar Gulch	Submit Application	–	–
McFarland Creek (48.0090) - Upstream of Vinegar Gulch	July 1 - February 28	X	–
Methow River tributaries between Libby Creek and Beaver Creek	July 1 - February 28	X	–
Beaver Creek (48.0307)	Submit Application	–	–
Frazer Creek (48.0309)	July 1 - February 28	X	–
Lightning Creek (48.0361)	July 1 - February 28	X	–
Middle Fork Beaver Creek (48.0307)	July 1 - February 28	X	–
South Fork Beaver Creek (48.0342)	July 1 - February 28	X	–
Libby Creek (48.0203) - Mouth to Hornet Draw Creek	Submit Application	–	–
Libby Creek (48.0203) - Upstream of Hornet Draw	July 1 - February 28	X	–
Methow River (48.0007) - Twisp River to Goat Creek	July 1 - July 31	X	X
Methow River (48.0007) - Upstream of Goat Creek	July 1 - July 31	X	–

Chewuch River (48.0728) - Mouth to Meadow Creek	July 1 - July 31	X	X
Chewuch River (48.0728) - Upstream of Meadow Creek	July 1 - February 28	X	–
Early Winters Creek (48.1408) - Mouth to Silver Star Creek	Submit Application	–	–
Early Winters Creek (48.1408) - Upstream of Silver Star Creek	July 1 - February 28	X	–
Goat Creek (48.1364) - Mouth to 500' upstream of Montana Creek	Submit Application	–	–
Goat Creek (48.1364) - 500' Upstream of Montana Creek to Roundup Creek	July 1 - February 28	X	–
Goat Creek (48.1364) - Upstream of Roundup Creek	Submit Application	–	–
Lost River (48.0592)	July 16 - August 15	X	X
Twisp River (48.0374)	July 1 - July 31	X	X
Buttermilk Creek (48.0466)	Submit Application	–	–
North Creek (48.0674)	Submit Application	–	–
North Fork Twisp River (48.0691)	July 1 - February 28	X	–
South Creek (48.0641) - Upstream of Louis Creek	July 1 - February 28	X	–
South Creek (48.0641) - Mouth to Louis Creek	Submit Application	–	–
South Fork Twisp River (48.0698)	July 1 - February 28	X	–
Wolf Creek (48.1300)	Submit Application	–	–
Myers Creek (60.0517)	July 1 - February 28	X	–
Bolster Creek (60.0517)	July 1 - February 28	X	–
Ethel Creek (60.0517)	July 1 - February 28	X	–
Gold Creek (60.0517)	July 1 - February 28	X	–
Mary Ann Creek (60.0517)	July 1 - February 28	X	–
North Fork Mary Ann Creek (60.0517)	July 1 - February 28	X	–
Okanogan River (49.0019) - Mouth to Zosel Dam	July 1 - August 31	X	X

Antoine Creek (49.0294) - Mouth to velocity gradient at river mile 1.0	July 1 - February 28	X	–
Antoine Creek (49.0294) - Upstream of falls	July 1 - March 31	X	–
Bonaparte Creek (49.0246) - Upstream of falls	July 1 - March 31	X	–
Bonaparte Creek (49.0246) - Mouth to Bonaparte Falls at river mile 1.0	July 1 - February 28	X	–
Loup Loup Creek (49.0048) - Mouth to Loup Loup Falls at river mile 2.4	July 1 - February 28	X	–
Loup Loup Creek (49.0048) - Upstream of Loup Loup Falls at river mile 2.4	July 1 - March 31	X	–
Mosquito Creek (49.0321) - Mouth to falls	July 1 - August 31	X	–
Mosquito Creek (49.0321) - Upstream of falls	July 1 - March 31	X	–
Nine Mile Creek (49.0516)	July 1 - February 28	X	–
Omak Creek (49.0138) - Mouth to Mission Falls at river mile 5.4	July 1 - February 28	X	–
Omak Creek (49.0138) - Upstream of falls	July 1 - March 31	X	–
Salmon Creek (49.0079) - Mouth to diversion	July 1 - August 31	X	–
Salmon Creek (49.0079) - Upstream of diversion	July 1 - February 28	X	–
Similkameen River (49.0325) - Mouth to Enloe Dam	July 1 - August 31	X	X
Similkameen River (49.0325) - Upstream of Enloe Dam	July 1 - October 31	X	X
Sinlahekin Creek (49.0349) - Mouth to barrier dam at Connors Lake	July 1 - August 31	X	–
Cecile Creek (49.0447)	July 1 - February 28	X	–
Chopaka Creek (49.0357)	July 1 - February 28	X	–
Toats Coulee Creek (49.0368)	July 1 - February 28	X	–

Cougar Creek (49.0368)	July 1 - February 28	X	–
Siwash Creek (49.0284) - Falls to headwaters	July 1 - March 31	X	–
Siwash Creek (49.0284) - Mouth to falls at river mile 1.4	July 1 - February 28	X	–
Tonasket Creek (49.0501) - Mouth to Tonasket Falls at river mile 1.8	July 1 - February 28	X	–
Tonasket Creek (49.0501) - Upstream of Tonasket Falls at river mile 1.8	July 1 - March 31	X	–
Tunk Creek (49.0211) - Mouth to falls	July 1 - February 28	X	–
Tunk Creek (49.0211) - Upstream of falls	July 1 - March 31	X	–
San Poil River (52.0004)	June 16 - September 30	X	X
West Fork San Poil (52.0192)	June 16 - September 30	X	X
Gold Creek (52.0197)	June 16 - February 28	X	–
Toroda Creek (60.0410)	July 1 - September 30	X	–
Pacific County	August 1 - September 30	X	–
Bear River (24.0689)	August 1 - September 30	X	X
Bone River (24.0405)	August 1 - September 30	X	–
Chehalis River (22.0190/23.0190)	August 1 - August 15	X	X
Columbia River	See below	–	–
Chinook River (24.MISC)	August 1 - September 30	X	X
Grays River (25.0093)	July 16 - September 15	X	X
Naselle River (24.0543)	August 1 - September 15	X	X
Nemah River (24.0460)	August 1 - September 30	X	X
Niawiakum River (24.0417)	August 1 - September 30	X	–
North River (24.0034)	August 1 - September 30	X	X
Palix River (24.0426)	August 1 - September 30	X	–
Willapa River (24.0251)	August 1 - September 30	X	X
Pend Oreille County	July 1 - August 31	X	–
Little Spokane River (55.0003)	August 1 - March 15	X	–

West Branch Little Spokane River (55.0439)	August 1 - March 15	X	–
Harvey Creek (62.0310) - Mouth to Rocky Fork of Harvey Creek	August 1 - August 31	X	–
Harvey Creek (62.0310) - Upstream of Rocky Fork of Harvey Creek	July 16 - February 28	X	–
Pend Oreille River (62.0002)	Submit Application	–	–
Big Muddy Creek (62.0279)	August 1 - March 15	X	–
Bracket Creek (62.0815)	August 1 - March 15	X	–
Calispel Creek (62.0628)	August 1 - August 31	X	–
Exposure Creek (62.0261)	August 1 - August 31	X	–
Kent Creek (62.0819)	August 1 - March 15	X	–
Le Clerc Creek (62.0415)	August 1 - August 31	X	–
Lime Creek (62.0014)	August 1 - March 15	X	–
Lodge Creek (62.0859)	August 1 - August 31	X	–
Lost Creek (62.0322)	August 1 - March 15	X	–
Marmust Creek (62.0842)	August 1 - March 15	X	–
Pee Wee Creek (62.0007) - Mouth to falls	August 1 - August 31	X	–
Pee Wee Creek (62.0007) - Upstream of falls	August 1 - March 15	X	–
Renshaw Creek (62.0310)	August 1 - March 15	X	–
Sullivan (O'Sullivan) Creek (62.0074)	August 1 - August 31	X	–
North Fork Sullivan Creek (62.0075)	August 1 - August 31	X	–
Tributaries of Deep Creek in Pend Oreille County (61.0195)	July 16 - August 15	X	–
Currant Creek (61.0249)	July 16 - August 15	X	–
Meadow Creek (61.0351)	July 16 - August 15	X	–
Rocky Creek (61.0364)	July 16 - August 15	X	–
Silver Creek (61.0195)	July 16 - August 15	X	–
Smackout Creek (61.0226)	July 16 - August 15	X	–
Pierce County	July 16 - August 31	X	–

Chambers/Clover Creek Watershed (12.MISC)	July 16 - September 30	X	–
Flett Creek (12.0009)	July 16 - October 31	X	–
Leach Creek (12.0008)	July 16 - September 30	X	–
Nisqually River (11.0008) - Mouth to Alder Lake	July 16 - August 31	X	X
Nisqually River (11.0008) - Upstream of Alder Lake	July 16 - September 30	X	X
Mashel River (11.0101) - Mouth to Busy Wild Creek	July 16 - September 30	X	X
Mashel River (11.0101) - Upstream of Busy Wild Creek	July 16 - September 30	X	–
Puyallup River (10.0021) - Mouth to PSE Electron Powerhouse Outfall	July 16 - August 31	X	X
Puyallup River (10.0021) - Upstream of PSE Electron Powerhouse Outfall	July 16 - August 15	X	X
Carbon River (10.0413)	July 16 - August 15	X	X
Cayada Creek (10.0525) - Mouth to falls about 800 feet upstream	July 16 - August 31	X	–
Cayada Creek (10.0525) - Upstream of the falls	January 1 - December 31	X	–
South Prairie Creek (10.0429)	July 16 - August 15	X	–
Voight Creek (10.0414) - Mouth to falls at River Mile 4.0	July 16 - August 31	X	–
Voight Creek (10.0414) - Upstream of falls River Mile 4.0	July 16 - February 28	X	–
White River (10.0031)	July 16 - August 15	X	X
Clearwater River (10.0080)	July 16 - August 15	X	X
Greenwater River (10.0122)	July 16 - August 15	X	X
Huckleberry Creek (10.0253)	July 16 - August 15	X	–
West Fork White River (10.0186)	July 16 - August 15	X	X
Sequalitchew Creek (12.0019)	July 16 - September 30	X	–
San Juan County	July 1 - August 31	X	–
Cascade Creek (02.0057), Orcas Island - Upstream of lower falls	July 1 - February 28	X	–

Cascade Creek (02.0057), Orcas Island, Buck Bay to falls located approximately 300 feet above mouth	July 1 - October 31	X	–
Doe Creek (02.MISC), San Juan Island, Westcott Bay to falls (approximately 250 feet from mouth)	June 16 - October 15	X	–
False Bay Creek (02.MISC) - San Juan Island; Mouth to lake	July 1 - October 31	X	–
Glenwood Springs, Orcas Island; direct tributary to Eastsound Bay	July 1 - October 15	X	–
Moran Creek (02.MISC) - Orcas Island; from Cascade Lake delta upstream 1/4 mile	July 1 - October 15	X	–
Unnamed Creek (02.0041) - San Juan Island; Mouth to lake	July 1 - October 15	X	–
Skagit County	August 1 - September 15	X	–
Granite Creek (04.2313) - Upstream of East Creek	July 16 - February 28	X	–
North Fork Stillaguamish River (05.0135) - Mouth to Squire Creek	August 1 - August 15	X	X
North Fork Stillaguamish River (05.0135) - Squire Creek to Cascade Creek	August 1 - August 15	X	–
North Fork Stillaguamish River (05.0135) - Upstream of Cascade Creek	July 16 - February 28	X	–
Samish River (03.0005)	August 1 - September 15	X	–
Skagit River (03.0176/04.0176)	Submit Application	–	–
Baker River (04.0435) - Mouth to Baker Dam	Submit Application	–	–
Cascade River (04.1411)	Submit Application	–	–
Day Creek (03.1435)	July 16 - February 28	X	–
Lookout Creek (04.1447)	July 16 - February 28	X	–
Sibley Creek (04.1481)	July 16 - February 28	X	–
Day Creek (03.0299) - Mouth to Rocky Creek	Submit Application	–	–

Day Creek (03.0299) - Upstream of Rocky Creek	August 1 - February 28	X	–
Finney Creek (04.0392) - Mouth to Big Fir Creek	Submit Application	–	–
Finney Creek (04.0392) - Upstream of Big Fir Creek	July 16 - February 28	X	–
Illabot Creek (04.1346)	Submit Application	–	–
Sauk River (04.0673) - Mouth to Forks	Submit Application	–	–
Sauk River (04.0673) - Upstream of Forks	August 1 - August 15	X	–
Suiattle River (04.0710)	August 1 - August 15	X	X
Wiseman Creek (03.0280) - Mouth to SR20	Submit Application	–	–
Wiseman Creek (03.0280) - Upstream of SR20	July 16 - February 28	X	–
South Fork Nooksack River (01.0246) - Mouth to falls at River Mile 30	Submit Application	–	–
South Fork Nooksack River (01.0246) - Falls at River Mile 30 to Wanlick Creek	Submit Application	–	–
South Fork Nooksack River (01.0246) - Upstream of Wanlick Creek	Submit Application	–	–
Skamania County	July 15 - September 15	X	–
Columbia River	See below	–	–
Cispus River (26.0668)	August 1 - August 15	X	X
Cispus River (26.0668) tributaries located in Skamania County	August 1 - October 31	X	–
East Fork Lewis River (27.0173) - Lucia Falls to Sunset Falls	August 1 - February 28	X	X
East Fork Lewis River (27.0173) - Upstream of Sunset Falls	August 1 - February 28	X	–
Green River (26.0323) (Tributary of North Fork Toutle River)	July 16 - September 30	X	X
Hamilton Creek (28.0303)	August 1 - August 31	X	–
Hardy Creek (28.0303)	August 1 - August 31	X	–

Little White Salmon River (29.0131) - Mouth to Hatchery	July 16 - August 15	X	X
Little White Salmon River (29.0131) - Hatchery to Cabbage Creek	July 16 - January 31	X	X
Little White Salmon River (29.0131) - Upstream of Cabbage Creek	July 16 - January 31	X	–
North Fork Lewis River (27.0168) - Merwin Dam to Lower Falls	July 16 - August 15	X	X
Canyon Creek (27.0442)	July 16 - February 28	X	–
North Fork Lewis River (27.0168) - Upstream of Lower Falls	July 16 - February 28	X	X
Washougal River (28.0159) - Mouth to Stebbins Creek	August 1 - August 31	X	X
Washougal River (28.0159) - Upstream of Stebbins Creek	August 1 - August 31	X	–
White Salmon River (29.0160) - Mouth to Cascade Creek	July 16 - August 15	X	X
White Salmon River (29.0160) - Upstream of Cascade Creek	July 16 - August 15	X	–
Wind River (29.0023)	August 1 - August 15	X	X
Woodward Creek (28.0298)	August 1 - August 31	X	–
Snohomish County	July 16 - September 15	X	–
Lake Washington tributaries	August 1 - August 15	X	–
Sauk River (04.0673) - Mouth to Forks	August 1 - August 15	X	X
Sauk River (04.0673) - Upstream of Forks	August 1 - August 15	X	–
Suiattle River (04.0710)	August 1 - August 15	X	X
Snohomish River (07.0012) - Mouth to Highway 9	August 1 - October 31	X	X
Snohomish River (07.0012) - Upstream of Highway 9	August 1 - August 15	X	X
Pilchuck River (07.0125) - Mouth to City of Snohomish diversion dam	August 1 - August 31	X	X
Pilchuck River (07.0125) - City of	August 1 - September 15	X	X

Snohomish diversion dam to Boulder Creek			
Pilchuck River (07.0125) - Upstream of Boulder Creek	August 1 - September 15	X	–
Skykomish River (07.0012) - Mouth to forks	August 1 - August 15	X	X
Deer Creek (05.0173) - Mouth to stream mile 0.5	August 1 - August 31	X	–
Deer Creek (05.0173) - Upstream of stream mile 0.5	August 1 - February 28	X	–
North Fork Skykomish River (07.0982) - Mouth to Bear Creek Falls	August 1 - August 31	X	X
North Fork Skykomish River (07.0982) - Bear Creek Falls to Deer Falls	August 1 - August 31	X	X
North Fork Skykomish River (07.0982) - Deer Falls to West Cady Creek	August 1 - February 28	X	X
North Fork Skykomish River (07.0982) - Upstream of West Cady Creek	August 1 - February 28	X	–
Howard Creek (07.1042)	July 16 - February 28	X	–
Silver Creek (07.1053) - Mouth to Lake Gulch	August 1 - August 31	X	–
Silver Creek (07.1053) - Upstream of Lake Gulch	August 1 - February 28	X	–
Troublesome Creek (07.1085)	August 1 - February 28	X	–
West Fork Troublesome Creek (07.1092)	August 1 - August 31	X	–
South Fork Skykomish River (07.0012) - Mouth to Sunset Falls	August 1 - August 15	X	X
Beckler River (07.1413) - Mouth to Boulder Creek	August 1 - August 15	X	X
Beckler River (07.1413) - Upstream of Boulder Creek	July 16 - February 28	X	–
Rapid River (07.1461) - Mouth to Meadow Creek	August 1 - August 31	X	X

Rapid River (07.1461) - Upstream of Meadow Creek	August 1 - February 28	X	X
Sultan River (07.0881) - Mouth to Diversion Dam at river mile 9.4	August 1 - August 15	X	X
Sultan River (07.0881) - Diversion Dam to Elk Creek	July 16 - February 28	X	X
Sultan River (07.0881) - Upstream of Elk Creek	July 16 - February 28	X	–
Wallace River (07.0940) - Mouth to Wallace Falls	August 1 - August 31	X	X
Wallace River (07.0940) - Upstream of Wallace Falls	August 1 - February 28	X	–
Olney Creek (07.0946) - Mouth to Olney Falls	August 1 - August 31	X	–
Olney Creek (07.0946) - Upstream of Olney Falls	August 1 - February 28	X	–
Snoqualmie River Mouth to Falls (07.0219)	August 1 - August 15	X	X
All other Snohomish River tributaries	August 1 - August 31	X	–
Stillaguamish River (05.0001) - Mouth to forks	August 1 - August 31	X	X
North Fork Stillaguamish River (05.0135) - Mouth to Squire Creek	August 1 - August 15	X	X
North Fork Stillaguamish River (05.0135) - Squire Creek to Cascade Creek	August 1 - August 15	X	–
North Fork Stillaguamish River (05.0135) - Upstream of Cascade Creek	July 16 - February 28	X	–
South Fork Stillaguamish River (05.0001) - Mouth to Deer Creek	August 1 - August 15	X	X
South Fork Stillaguamish River (05.0001) - Upstream of Deer Creek	August 1 - August 15	X	–
Spokane County	June 16 - August 31	X	–
Latah Creek (56.0003)	June 16 - August 31	X	–
Little Spokane River (55.0600) -	June 16 - August 31	X	X

Mouth to Deer Creek			
Little Spokane River (55.0600) - Upstream of Deer Creek	June 16 - August 31	X	–
Spokane River (57.0001)	June 16 - August 31	X	X
Stevens County	July 16 - August 31	X	–
Columbia River	See below	–	–
Big Sheep Creek (61.0150)	July 16 - August 15	X	–
Colville River (59.0002) - Mouth to the Falls	July 16 - September 30	X	X
Colville River (59.0002) - Upstream of the Falls	July 16 - September 30	X	X
Deep Creek (61.0195)	July 16 - August 15	X	–
Onion Creek (61.0098)	July 16 - August 15	X	–
Sheep Creek (59.0861)	July 16 - September 30	X	–
Lake Roosevelt tributaries from the mouth of the Spokane River to mouth of the Colville River	July 16 - February 28	X	–
Lake Roosevelt tributaries from the mouth of the Colville River north to the B.C. Border	July 16 - February 28	X	–
Tributaries of Little Spokane River (55.0600)	June 16 - August 31	X	–
Calispel Creek (62.0628)	August 1 - August 31	X	–
Other tributaries to the Pend Oreille River in Stevens County	July 1 - August 31	X	–
Thurston County	July 16 - September 15	X	–
Cedar Creek (23.0570)	August 1 - September 30	X	–
Chehalis River (22.0190/23.0190) - Upstream of Porter Creek	August 1 - August 15	X	X
Skookumchuck River (23.0761) - Mouth to Skookumchuck Reservoir	August 1 - August 31	X	X
Skookumchuck River (23.0761) - Upstream of Skookumchuck Reservoir	August 1 - August 31	X	–
Deschutes River (13.0028) - Mouth to Deschutes Falls	July 16 - August 31	X	X

Deschutes River (13.0028) - Upstream of Deschutes Falls	July 16 - August 31	X	–
Ellis Creek (13.0022)	May 16 - September 30	X	–
Little Deschutes River (13.0110)	July 16 - February 28	X	–
McLane Creek (13.0138)	August 1 - October 31	X	–
Percival Creek (13.0029)	July 16 - August 31	X	–
Nisqually River (11.0008)	July 16 - August 31	X	X
Tributaries of Nisqually River (11.0008)	July 16 - August 31	X	–
Porter Creek (23.0543)	August 1 - September 30	X	–
Schneider Creek (14.0009)	August 1 - October 31	X	–
Waddell Creek (23.0677)	August 1 - September 30	X	–
Woodard Creek (13.0012)	July 16 - August 31	X	–
Woodland Creek (13.0006)	July 16 - September 30	X	–
Wahkiakum County	July 16 - September 15	X	–
Columbia River	See below	–	–
Abernathy Creek (25.0297)	July 16 - September 15	X	–
Deep River (25.0011)	July 16 - September 15	X	X
Elochoman River (25.0236)	July 16 - September 15	X	X
Grays River (25.0093)	July 16 - September 15	X	X
Mill Creek (25.0284)	July 16 - September 15	X	–
Naselle River (24.0543)	July 16 - September 15	X	X
Skamokowa Creek (25.0194)	July 16 - September 15	X	–
Walla Walla County	July 16 - September 30	X	–
Walla Walla River (32.0008) - Mouth to Oregon state line	July 16 - September 15	X	X
Mill Creek (32.1436) - Mouth to Oregon state line	August 1 - August 15	X	–
Touchet River (32.0097) - Mouth to Forks	August 1 - August 15	X	X
North Fork Touchet/Wolf Fork (32.0761)	Submit Application	–	–
South Fork Touchet (32.0708)	Submit Application	–	–
Whatcom County	July 16 - August 15	X	–

Damfino Creek (00.0032)	July 16 - August 31	X	–
Nooksack River (01.0120)	Submit Application	–	–
Cascade Creek (02.0057) - Mouth to FR 37	Submit Application	–	–
Cascade Creek (02.0057) - Upstream of FR 37	July 16 - February 28	X	–
Middle Fork Nooksack River (01.0339) - Mouth to City of Bellingham Diversion Dam	Submit Application	–	–
Middle Fork Nooksack River (01.0339) - Upstream of City of Bellingham Diversion Dam	Submit Application	–	–
North Fork Nooksack River (01.0120) - Mouth to Nooksack Falls	Submit Application	–	–
North Fork Nooksack River (01.0120) - Upstream of Nooksack Falls	Submit Application	–	–
Barometer Creek (01.0513)	July 16 - February 28	X	–
Ruth Creek (01.0531)	July 16 - February 28	X	–
Swamp Creek (01.0518)	July 16 - February 28	X	–
Wells Creek (02.0057)	Submit Application	–	–
Bar Creek (01.0500)	July 16 - February 28	X	–
South Fork Nooksack (01.0246) - Mouth to Wanlick Creek	Submit Application	–	–
South Fork Nooksack (01.0246) - Upstream of Wanlick Creek	Submit Application	–	–
Samish River (03.0005)	July 16 - August 15	X	–
Skagit River (03.0176/04.0176)	Submit Application	–	–
Baker River (04.0435) - Mouth to Baker Lake Dam (04.0435)	Submit Application	–	–
Baker River (04.0435) - Baker Lake to national park boundary	Submit Application	–	–
Boulder Creek (04.0499)	July 16 - February 28	X	–
Park Creek (04.0506) - Mouth to fish passage barrier at river mile 1.6	Submit Application	–	–

Park Creek (04.0506) - Upstream of river mile 1.6	July 16 - February 28	X	–
Swift Creek (04.0509) - Mouth to Rainbow Creek	Submit Application	–	–
Swift Creek (04.0509) - Upstream of Rainbow Creek	July 16 - February 28	X	–
Ross Lake (03.0176/04.0176) tributaries	Submit Application	–	–
Ruby Creek (04.2199)	Submit Application	–	–
Canyon Creek (04.2458) - Mouth to Barron Creek	Submit Application	–	–
Canyon Creek (04.2458) - Upstream of Barron Creek and tributaries	October 1 - February 28	X	–
Barron Creek (04.2591)	October 1 - February 28	X	–
Boulder Creek (04.2478) - Mouth to 300 feet upstream	Submit Application	–	–
Boulder Creek (04.2478) - 300 feet upstream of mouth to headwaters	October 1 - February 28	X	–
Friday Creek (04.2549) - Mouth to 300 feet upstream	Submit Application	–	–
Friday Creek (04.2549) - 300 feet upstream of mouth to headwaters	October 1 - February 28	X	–
Holmes Creek (04.2473) - Mouth to 300 feet upstream	Submit Application	–	–
Holmes Creek (04.2473) - 300 feet upstream of mouth to headwaters	October 1 - February 28	X	–
Mill Creek (04.2504) - Mouth to 300 feet upstream	Submit Application	–	–
Mill Creek (04.2504) - 300 feet upstream of mouth to headwaters	October 1 - February 28	X	–
Nickol Creek (04.2476) - Mouth to 300 feet upstream	Submit Application	–	–
Nickol Creek (04.2476) - 300 feet upstream of mouth to	October 1 - February 28	X	–

headwaters			
North Fork Canyon Creek (04.2583) - Mouth to Elk Creek	Submit Application	–	–
Cascade Creek (05.2584)	October 1 - February 28	X	–
North Fork Canyon Creek (04.2583) - Upstream of Elk Creek	October 1 - February 28	X	–
Slate Creek (04.2557) - Mouth to falls at River Mile 0.6	Submit Application	–	–
Slate Creek (04.2557) - Upstream of falls at River Mile 0.6	October 1 - February 28	X	–
Granite Creek (04.2313) - Mouth to East Creek	Submit Application	–	–
Granite Creek (04.2313) - Upstream of East Creek and tributaries	October 1 - February 28	X	–
Saar Creek (00.0003)	August 1 - September 30	X	–
Silesia Creek (00.0042) - Canadian Border to Middle Fork	July 16 - August 15	X	–
Silesia Creek (00.0042) - Middle Fork to national park boundary	July 16 - February 28	X	–
Rapid Creek (00.0048)	July 16 - February 28	X	–
West Fork Silesia Creek (00.0044)	July 16 - February 28	X	–
Winchester Creek (00.0045)	July 16 - February 28	X	–
Whitman County	July 16 - December 15	X	–
Snake River (35.0002)	See below	–	–
Alkali Flats Creek (35.0570)	July 16 - December 15	X	–
Almota Creek (35.1017)	July 16 - December 15	X	–
Little Almota Creek (35.1018)	July 16 - December 15	X	–
Palouse River (34.0003) - Mouth to Palouse Falls	July 16 - September 30	X	X
Palouse River (34.0003) - Upstream of Palouse Falls	July 16 - February 28	X	X
Penewawa Creek (35.0916)	July 16 - December 15	X	–
Wawawi Canyon Creek (35.1165)	July 16 - December 15	X	–

Yakima County	June 1 - September 15	X	–
Glade Creek (31.0851)	August 1 - September 30	X	–
Klickitat River (30.0002)	Submit Application	–	–
Yakima River (37.0002/38.0002/39.0002) - Mouth to Roza Dam	June 1 - September 15	X	X
Ahtanum Creek (37.1382)	June 16 - September 30	X	–
North Fork Ahtanum Creek (37.1382)	Submit Application	–	–
South Fork Ahtanum Creek (37.1382)	Submit Application	–	–
Naches River (38.0003) - Mouth to Tieton River	July 1 - October 15	X	X
Naches River (38.0003) - Upstream of mouth of Tieton River to Bumping River	July 1 - August 15	X	X
Bumping River (38.0998)	July 16 - August 15	X	X
American River (38.1000)	Submit Application	–	–
Gold Creek (38.MISC)	July 16 - February 28	X	–
Kettle Creek (38.1033)	Submit Application	–	–
Miner Creek (38.1027)	July 16 - February 28	X	–
Morse Creek (38.1072) - Mouth to SR410 Crossing	August 1 - August 15	X	–
Morse Creek (38.1072) - Upstream of SR410 Crossing	August 1 - February 28	X	–
Rock Creek (38.MISC)	July 16 - February 28	X	–
Timber Creek (38.1062)	August 1 - August 15	X	–
Union Creek (38.1045) - Upstream of 500' above falls	August 1 - February 28	X	–
Union Creek (38.1045) - Mouth to 500' above falls	Submit Application	–	–
Other American River tributaries not listed	August 1 - February 28	X	–
Deep Creek (38.MISC)	Submit Application	–	–
Copper Creek (38.MISC)	August 1 - August 15	X	–
Cowiche Creek (38.0005) -	July 1 - September 30	X	–

Mouth to South Fork Cowiche Creek			
North Fork Cowiche Creek (38.0008)	July 1 - February 28	X	–
South Fork Cowiche Creek (38.0031) - Mouth to Reynolds Creek	July 1 - September 30	X	–
South Fork Cowiche Creek (38.0031) - Upstream of Reynolds Creek	July 16 - October 31	X	–
Granite Creek (38.MISC)	August 1 - August 15	X	–
Little Naches River (38.0852) - Mouth to Matthews Creek	July 16 - August 15	X	X
Little Naches River (38.0852) - Upstream of Matthews Creek	July 16 - August 15	X	–
Crow Creek (38.0858)	July 16 - August 15	X	–
Nile Creek (38.0692)	July 16 - October 15	X	–
Rattlesnake Creek (38.0518)	July 16 - August 15	X	–
Tieton River (38.0166) - Mouth to Rimrock Dam	July 1 - August 31	X	X
North Fork Tieton River (38.0291) - Below Clear Lake Dam	Submit Application	–	–
North Fork Tieton River (38.0291) - Upstream of Clear Lake	July 1 - August 15	X	–
Clear Creek (38.0317)	July 16 - February 28	X	–
South Fork Tieton River (38.0374) - Below South Fork Falls	Submit Application	–	–
South Fork Tieton River (38.0374) - Upstream of South Fork Falls	July 16 - February 28	X	–
Indian Creek (38.0302)	Submit Application	–	–
Tributaries of Tieton River below Rimrock Dam	July 16 - February 28	X	–
Umtanum Creek (39.0553)	July 16 - September 30	X	–
Wenas Creek (39.0032)	July 16 - October 15	X	–
Other Yakima River tributaries	July 16 - August 31	X	–

Columbia River	–	–	–
Mouth to the I-205 Bridge	August 1 - March 31	X	X
I-205 Bridge to Bonneville Dam	July 16 - September 15	X	X
Bonneville Dam to Snake River	July 16 - February 28	X	X
Snake River to Priest Rapids Dam	July 16 - September 30	X	X
Priest Rapids Dam to Mouth of Crab Creek	July 16 - February 28	X	X
Mouth of Crab Creek to Wanapum Dam	July 16 - September 30	X	X
Wanapum Dam to the SR 285 bridge in South Wenatchee	July 16 - February 28	X	X
SR 285 bridge in South Wenatchee to the SR 2 bridge	July 16 - September 30	X	X
SR 2 bridge to one mile downstream of the Chelan River	July 16 - February 28	X	X
From one mile downstream of the Chelan River to the SR 97 bridge	July 16 - September 30	X	X
From SR 97 bridge to Chief Joseph Dam	July 16 - February 28	X	X
Chief Joseph Dam to Grand Coulee Dam	June 16 - March 31	X	X
Grand Coulee Dam to Canadian border	Submit Application	–	–
All Columbia River tributaries	See county listings	–	–
Snake River	–	X	–
Mouth to Ice Harbor Dam	July 16 - September 30	X	X
Ice Harbor Dam to Mouth of Clearwater River	July 16 - March 31	X	X
Mouth of Clearwater River to State Line	August 1 - August 31	X	X
All Snake River tributaries	See county listings	–	–
Lakes	Submit Application	–	–
Strait of Juan de Fuca, Puget Sound, Hood Canal	Submit Application	–	–
Ocean Beaches within the Seashore Conservation Area	January 1 – December 31	X	X

established under RCW 79A.05.605			
All waters within Indian tribal reservation, national park, state park, or wilderness boundaries, except those within the Seashore Conservation Area established under RCW 79A.05.605	Submit Application	–	–

220-110-310 Tidal reference areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

The department has divided the coastline into tidal reference areas to delineate the major segments of the state's marine shorelines. These segments have similar coastal landforms. The authorized work times in saltwater areas is defined by tidal reference area.

(2) DEFINITIONS FOR TIDAL REFERENCE AREAS

(a) Tidal Reference Area 1 (Shelton): All saltwater areas in Oakland Bay and Hammersley Inlet westerly of a line projected from Hungerford Point to Arcadia.

(b) Tidal Reference Area 2 (Olympia): All saltwater areas between a line projected from Hungerford Point to Arcadia and a line projected from Johnson Point to Devil's Head. This includes Totten, Eld, Budd, Case and Henderson Inlets, and Pickering Passage.

(c) Tidal Reference Area 3 (South Puget Sound): All saltwater areas easterly and northerly of a line projected from Johnson Point to Devil's Head and southerly of the Tacoma Narrows Bridge.

(d) Tidal Reference Area 4 (Tacoma): All saltwater areas northerly of the Tacoma Narrows Bridge and southerly of a line projected true west and true east across Puget Sound from the northern tip of Vashon Island.

(e) Tidal Reference Area 5 (Seattle): All saltwater areas northerly of a line projected true west and true east across Puget Sound from the northern tip of Vashon Island and southerly of a line projected true east from Point Jefferson at 47° 45' N. latitude across Puget Sound. This area includes Port Orchard, Port Madison,

and Dyes and Sinclair Inlets.

(f) Tidal Reference Area 6 (Edmonds): All saltwater areas northerly of a line projected true east from Point Jefferson at 47° 45' N. latitude across Puget Sound and southerly of a line projected true east from Possession Point to Mukilteo and from Foulweather Bluff to Double Bluff.

(g) Tidal Reference Area 7 (Everett): All saltwater areas northerly of a line projected true east from Possession Point to Chennault Beach, easterly of a line projected 5° true from East Point to Lowell Point, and southerly of the Stanwood to Camano Island Highway. This area includes Port Gardner, Port Susan, and parts of Possession Sound and Saratoga Passage.

(h) Tidal Reference Area 8 (Yokeko Point): All saltwater area westerly and northerly of a line projected 5° true from East Point to Lowell Point, north of the Stanwood to Camano Island Highway, and easterly and southerly of Deception Pass Bridge and the Swinomish Channel Bridge on State Route 20. This area includes Holmes Harbor, Saratoga Passage, Skagit Bay, Similk Bay, and most of the Swinomish Channel.

(i) Tidal Reference Area 9 (Blaine): All saltwater area in Skagit County and Whatcom County that lies northerly of the Swinomish Channel Bridge on State Highway 536 and westerly and northerly of Deception Pass Bridge.

(j) Tidal Reference Area 10 (Port Townsend): All saltwater area of Puget Sound as defined in WAC 220-16-210 except Hood Canal south of a line projected from Tala Point to Foulweather Bluff, and except all waters defined in Tidal Reference Areas 1 through 9. Area 10 includes waters of the San Juan Islands, Admiralty Inlet, the Strait of Juan de Fuca, and associated bays and inlets.

(k) Tidal Reference Area 11 (Union): All saltwater area of Hood Canal southerly and easterly of a line projected from the northern entrance of Lilliwaup Bay to the northern entrance of Dewatto Bay.

(l) Tidal Reference Area 12 (Seabeck): All saltwater areas of Hood Canal northerly of a line projected from Lilliwaup Bay to Dewatto Bay and southerly of a line projected true east from Hazel Point. This area includes Dabob Bay and Quilcene Bay.

(m) Tidal Reference Area 13 (Bangor): All saltwater area of Hood Canal northerly of a line projected true east from Hazel Point and south of a line projected from Tala Point to Foulweather Bluff. This area includes Port Gamble.

(n) Tidal Reference Area 14 (Ocean Beaches): All saltwater area between Cape Flattery and the Oregon border at the mouth of the Columbia River, excluding Grays Harbor and Willapa Bay.

(o) Tidal Reference Area 15 (Westport): All saltwater area in Grays Harbor easterly of a line projected from the outermost end of the north jetty to the outermost end of the south jetty, and westerly of 123° 59' W. longitude.

(p) Tidal Reference Area 16 (Aberdeen): All saltwater area in Grays Harbor easterly

of 123° 59' W. longitude and westerly of the State Route 101 bridge across the Chehalis River.

(q) Tidal Reference Area 17 (Willapa Bay): All saltwater area in Willapa Bay easterly of a line projected from Leadbetter Point to Cape Shoalwater.

220-110-320 Authorized work times in saltwater areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

The department applies work windows to reduce the risk of impacts to fish life at critical life stages. In-water work is limited to non-critical periods of the year unless the permittee can take mitigation measures to eliminate risk during critical periods. For saltwater areas, the timing windows are based primarily on juvenile salmon, Pacific herring, surf smelt, Pacific sand lance, lingcod and rockfish habitat in nearshore waters.

(2) FISH LIFE CONCERNS

Work in or around saltwater of the state can harm fish life at various life stages including as eggs, juveniles, and spawning adults as well as the organisms upon which they feed. Therefore, this work must occur when a person can reduce the risk of these harmful effects.

(3) AUTHORIZED WORK TIMES

(a) The department must specify authorized work times for hydraulic projects in or adjacent to saltwater areas when it issues HPAs. The department may not permit work waterward of the OHWL for the following times, areas, and species.

(i) Tidal Reference Areas 1 through 17; March 1 through October 15 for projects in or adjacent to documented Pacific sand lance spawning beds.

(ii) Tidal Reference Areas 1 through 17; October 15 through May 15 for projects in or adjacent to documented juvenile lingcod settlement and nursery areas.

(iii) Tidal Reference Areas 1 through 17; October 15 through May 15 for projects in or adjacent to documented juvenile rockfish settlement and nursery areas.

(iv) Tidal Reference Area 14; October 1 through May 15 for projects in or adjacent to documented razor clam beds.

(v) Tidal Reference Areas 1 through 17; The authorized times and areas for

protection of migrating juvenile salmonid in the nearshore, and surf smelt and Pacific herring spawning beds are listed in the following table:

Table 3
Authorized times for Protection of Migrating Juvenile Salmonid, Surf Smelt and Pacific Herring Spawning Beds

AUTHORIZED TIMES			
TIDAL REFERENCE AREA	JUVENILE SALMONID MIGRATION, FEEDING AND REARING AREAS	DOCUMENTED SURF SMELT SPAWNING BEDS	DOCUMENTED HERRING SPAWNING BEDS
1	July 15 – February 15	—	April 1 – January 15
2	July 15 – February 15	April 1 – June 30	April 1 – January 15
3	July 15 – February 15	May 1 – September 30	April 1 – January 15
4	August 1 – February 15 for all work except dredging September 1 – February 15 for dredging	April 15 – September 30	April 15 – January 15
5	August 1 – February 15 for all work except dredging September 1 – February 15 for dredging in all areas except Duwamish Waterway October 16 – February 15 for dredging in the Duwamish Waterway upstream of the East and West Waterways	April 1 – August 31 in all areas except Eagle Harbor and Sinclair Inlet In Eagle Harbor and Sinclair Inlet, authorization is conditional upon inspection, because year-round spawning occurs.	May 1 – January 15
6	July 15 – February 15 for all work except dredging September 1 – February 15 for dredging	April 1 – August 31	—
7	July 15 – February 15 for all work except in Port Susan and dredging in Port Gardner July 15 – February 15 for all work in Port Susan September 15 – February 15 for dredging in Port Gardner	Authorization is conditional upon inspection, because year-round spawning occurs	April 15 – January 31

AUTHORIZED TIMES			
8	August 1 – February 15	Authorization is conditional upon inspection, because year-round spawning occurs	April 15 – January 31
9	August 1 – February 15	Authorization is conditional upon inspection, because year-round spawning occurs	April 15 – January 31 south of a line running due west from Governor's point June 15 – January 31 north of a line running due west from Governor's point
10	July 15 – February 15 July 15 – January 15 for all work from Tala Point to the Dungeness River September 1 – March 1 San Juan Islands	April 1 – July 31 except in the San Juan Islands where authorization is conditional upon inspection, because year-round spawning occurs	May 1 – January 15
11	July 15 – January 15	March 1 – September 15	April 1 – January 15
12	July 15 – January 15	March 1 – August 31	April 15 – February 15
13	July 15 – January 15	February 16 – July 31	April 15 – January 15
14	July 15 – February 15	October 1 – June 30	—
15	July 15 – February 15	—	February 1 – March 31
16	July 15 – February 15	—	March 15 – January 31
17	July 15 – February 15	—	March 15 – January 31

(vi) If the surf smelt spawning season for the project location is six months or longer, the department may permit work outside of the authorized work times provided:

(A) A department trained biologist, following the department's intertidal forage fish spawning habitat survey protocol per WAC 220-110-370, conducts a spawning survey at the work site;

(B) The results of the inspection show that no spawning is occurring or has recently occurred;

(C) The work commences within forty-eight hours the work site is surveyed; and

(D) If the permittee does not complete the work within seven days of the start of project, an additional survey is conducted. The biologist must conduct a survey every seven days until the work is completed. If a survey shows eggs are present, work must stop and the department must prohibit work waterward of the OHWL for a minimum of three weeks. Work may not begin until a new survey

shows there are no eggs present.

(b) The department may modify the authorized work times for site-specific conditions or project-specific work by considering the following:

(i) The expected impact of construction activities, equipment type and access.

(ii) Best management practices proposed by the project proponent, including proposed plans for:

(A) Sediment and erosion control containment and management at the work site.

(B) Wastewater containment and management at the work site.

(C) Riparian, wetland, and aquatic vegetation management at the work site.

(iii) Mitigation measures volunteered or imposed upon the project.

(iv) Weather or tidal conditions during, or predicted to occur, during construction activities.

(v) Other circumstances and conditions.

220-110-330 Saltwater habitats of special concern

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Saltwater habitats of special concern provide essential functions in the developmental life history of fish life. These areas include 1) spawning habitats for forage fish, 2) settlement and nursery areas for juvenile rockfish and lingcod, 3) migration, rearing and feeding areas for juvenile salmon, 4) settlement areas for native shellfish, 5) areas of native aquatic and riparian vegetation that support fish life, and 6) and feeder bluffs that form and maintain forage fish spawning beaches.

The presence of saltwater habitats of special concern or areas in close proximity with similar bed materials may restrict project type, design, location, and timing. Department staff, or a department trained biologist, may determine the location of such habitats by a site visit. In addition, the department may consider maps, publications and other available information to determine the location.

(2) FISH LIFE CONCERNS

The nearshore zone represents three critical “edge” habitats; the edge between upland

and aquatic environments, the edge between the shallow productive zone and deep water, and the edge between fresh and marine waters. Variations in wave energy, sediment delivery and movement, sunlight, water depth, salinity and location associated with "nearshore edges" create a broad range of physical conditions that support a wide diversity and abundance of fish life. Disruption of nearshore ecosystem processes and physical conditions in the nearshore can adversely affect ecological functions, which will in turn, cause a loss of fish life.

Hydraulic projects ranging from installing stairways across bluff faces, to building docks and bulkheads, to dredging contribute to a loss of habitat in the nearshore environment. Ongoing activities increasingly fragment and degrade the remaining habitat. Saltwater habitats of special concern require a higher level of protection due to the important ecological functions they provide.

(3) SALTWATER HABITATS OF SPECIAL CONCERN

(a) A person may request information from the department about the location of saltwater habitats of special concern.

(b) Saltwater habitats of special concern are fish habitats and may be categorized into the following types of areas:

(i) Pacific sand lance (*Ammodytes hexapterus*) spawning beds are located in the upper beach area in saltwater areas typically composed of sand and/or pea gravel.

(ii) Surf smelt (*Hypomesus pretiosus*) spawning beds are located in the upper beach area in saltwater areas typically composed of sand and/or small gravel and shell material. Pacific herring (*Clupea pallasi*) spawning beds occur in lower beach areas and shallow subtidal areas in saltwater areas. These beds may consist of seagrass, macroalgae, and other bed materials such as subtidal worm tubes.Lingcod (*Ophiodon elongatus*) settlement and nursery areas are located in beach and subtidal areas with sand, seagrass, subtidal worm tubes, and other bed materials.

(iii) Rockfish (*Sebastes* spp) settlement and nursery areas are located in kelp beds, seagrass, macroalgae, and other bed materials.

(iv) Juvenile salmonid (Family Salmonidae) migration corridors and rearing and feeding areas are ubiquitous throughout estuarine and shallow nearshore saltwater areas of the state.

(v) Olympia oyster (*Ostrea conchaphila)* settlement areas are located in sheltered bays and estuaries near low tide.

(c) The following vegetation occurs in or adjacent to many saltwater areas and serves essential functions in the developmental life history of fish life:

(i) Seagrasses (Zostera marina, Ruppia maritima and Phyllospadix spp.)

(ii) Kelp (Order Laminariales)

(iii) Other macroalgae

(iv) Intertidal wetland plants (except noxious aquatic weeds)

(v) Native riparian vegetation

(4) NEARSHORE ECOSYSTEM PROCESSES THAT FORM AND MAINTAIN SALTWATER HABITATS OF SPECIAL CONCERN

(a) Hydraulic projects should be located and constructed to avoid impacts to nearshore ecosystem processes that form and maintain habitat because impacts to these processes are difficult to mitigate.

(b) The following are nearshore ecosystem processes that form and maintain saltwater habitats of special concern including, but are not limited to:

(i) Sediment supply and transport;

(ii) Beach erosion and sediment accretion;

(iii) Distributary channel migration;

(iv) Tidal channel formation and maintenance; and

220-110-340 Intertidal forage fish spawning bed surveys

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

The department uses intertidal forage fish spawning bed surveys to determine presence, absence, quantity and timing of surf smelt (*Hypomesus pretiosus*) and Pacific sand lance (*Ammodytes hexapterus*) spawning. The department may require an applicant to hire a qualified, department-trained biologist to conduct an intertidal forage fish spawning survey prior to work in potential surf smelt and Pacific sand lance spawning habitat or in documented surf smelt spawning areas where the spawning season is six months or longer. The presence of eggs may restrict project type, design, location, and timing.

(2) FISH LIFE CONCERNS

Surf smelt and Pacific sand lance are important food for marine mammals, birds, and fishes, including Pacific salmon. The department protects forage fish spawning beds by limiting construction activities on beaches where spawning is documented.

(3) INTERTIDAL FORAGE FISH SURVEYS

(a) A biologist must complete the department's forage fish spawning beach survey training to be approved by the department to conduct intertidal forage fish spawning bed surveys.

(b) A biologist must follow the department-approved intertidal forage fish spawning protocol and use the standard department data sheets when conducting forage fish spawning beach survey. The protocol and data sheets are available on the department's website. The department may modify this protocol where it is only necessary to determine the presence or absence of surf smelt eggs.

(c) A biologist must submit the completed, standard department data sheets to the department within 48 hours of the survey.

(d) If a permittee wants to work in an area where the surf smelt spawning season is six months or longer, the permittee may have a biologist conduct an intertidal forage fish spawning bed survey to determine if surf smelt eggs are present. If the survey shows eggs are not present, the permittee may start work. The permittee must start work within 48 hours of a survey. If the permittee does not complete the work within seven days of the start of project, an additional survey is required. The biologist must conduct a survey every seven days until the work is completed. If a survey shows eggs are present, work must stop and the department must prohibit work waterward of the OHWL for a minimum of three weeks. Work may not begin until a new survey shows there are no eggs present.

(e) In documented intertidal forage fish spawning areas, the department must not allow work during surf smelt spawning seasons shorter than six months or during the Pacific sand lance spawning season. The department will make exceptions for projects receiving emergency, imminent danger and expedited HPAs.

(f) The department may require an intertidal forage fish spawning bed survey if the job site is in close proximity to documented forage fish spawning bed and the beach at the job site has similar bed materials.

220-110-350 Seagrass and macroalgae habitat surveys

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

The department may require an applicant to hire a qualified professional diver/biologist to conduct one or more seagrass and macroalgae habitat surveys. The department has developed survey guidelines for seagrass and macroalgae habitat to improve protection of these important habitats in Puget Sound and coastal waters. The guidelines contain

protocols for both preliminary and advanced surveys to assist in the evaluation of potential impacts to these habitats at job sites with various conditions. Statistical considerations are an integral part of the advanced surveys so the guidelines include a sample size calculator to aid in determining the appropriate number of samples the diver/biologist must take at a particular site. The guidelines are available on the department's website.

(2) FISH LIFE CONCERNS

Seagrass and macroalgae play a critical role in the nearshore ecosystem as primary producers, generating nutrients and substrate that form the base of the food chain. The dense and complex structure created by seagrass and macroalgae beds also provide refuge and foraging habitat for a wide range of fishes, invertebrates and other organisms, many of which are valued from a cultural and economic standpoint.

Direct impacts can occur on a local or site-specific scale through impacts to substrate and light levels. Dredging and filling, or otherwise altering the substrate can make a site uninhabitable for these plants and the numerous species dependent on them. For example, boat propellers and anchors can physically damage plants, disturb sediments, and alter the habitat by creating high-energy wakes. Overwater structures such as piers, docks, and floats decrease the amount of light available. This can cause a substantial reduction in the size and diversity of the plant community.

(3) SEAGRASS AND MACROALGAE SURVEYS

(a) The department may require an applicant to submit a seagrass and macroalgae survey as part of an HPA application for the following work:

(i) Construction of a new dock, mooring buoy or other overwater structure;

(ii) Construction of a replacement overwater structure outside the previously allowed footprint;

(iii) New dredging, trenching, filling or grading; or

(iv) Maintenance dredging, trenching, filling, or grading outside the previously allowed footprint.

(b) The department will use the survey to do the following:

(i) Determine if seagrass or macroalgae are present at the proposed work area.

(ii) Evaluate if the applicant can locate and construct the structure or activity to avoid or minimize impacts to seagrass or macroalgae.

(iii) Establish a location for the structure or activity that will minimize impacts when avoidance is not possible.

(c) Advanced surveys must occur between June 1 and October 1 and are conducted to do the following:

(i) Quantify the impact from the structure or activity to seagrass and macroalgae.

(ii) Quantify the performance of mitigation actions.

(d) The department must measure direct impacts by calculating the total area and density of seagrass and macroalgae affected by the project. The department uses this information to help calculate the size of the mitigation area required to compensate for seagrass and macroalgae loss.

(e) The department must measure mitigation success by comparing seagrass and macroalgae densities at a mitigation (or impact) site to those of a reference site. These comparisons must be statistically rigorous. The department has established monitoring standards for these surveys: a) $\alpha = 0.10$, b) power $(1 - \beta) = 0.90$, and c) a difference of mean eelgrass density of $\geq 20\%$. The department has developed survey guidelines for seagrass and macroalgae habitat. The department will consider other survey methods provided they meet the established monitoring standards.

(f) Divers/biologists who are professionals qualified to identify the predominant seagrass and macroalgae species in the work area must conduct the surveys.

(g) If the department approves a monitoring and contingency plan, the department may require a diver/biologist to monitor project impacts to determine seagrass or macroalgae loss and the required mitigation.

(h) Survey results and interpretation are subject to department approval.

220-110-360 Bulkheads and other bank protection in saltwater areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A bank protection structure is a permanent or temporary structure constructed for the purpose of protecting or stabilizing the bank. Bank protection methods are either hard or soft approaches. Soft approaches attempt to mimic natural processes with the use of biotechnical methods such as live plantings, rootwads, and large woody material (LWM) and beach nourishment. Typically, soft approaches are least impacting. Hard approaches armor the bank with material such as rock, concrete, or wood intended to prevent erosion of the bank. Some projects integrate both hard and soft approaches.

(2) FISH LIFE CONCERNS

Bulkheads and other bank protection alter the beach and disrupt nearshore ecosystem

processes and physical conditions. This alteration can cause a loss of the beach spawning habitat for Pacific sand lance and surf smelt and a loss of migration, feeding and rearing habitat for juvenile salmon. To protect fish life, the department must protect the beaches where spawning, mitigation, feeding and rearing occur and the nearshore ecosystem processes that form and maintain fish habitat.

(3) BULKHEADS AND OTHER BANK PROTECTION DESIGN

(a) If the OHWL re-establishes behind (landward) of a bulk protection structure, the department will consider the re-established OHWL to be the existing OHWL. if the breach was a result of storm damage or other natural conditions, the bank protection structure may be repaired or replaced in the existing footprint provided the work occurs within two years from the date the damage occurred.

(b) To be processed under RCW 77.55.141, a new, replacement, or repaired single-family residence bulkhead in saltwater areas must not result in the permanent loss of critical food fish or shellfish habitat.

(c) The department must process single-family residence bulkheads that will result in the permanent loss of critical food fish or shellfish habitat under RCW 77.55.021.

(d) The department may require an analysis performed by a civil, geotechnical or structural engineer licensed in the state of Washington to justify placement of a new bulkhead waterward of the OHWL and replacement and repair of a bulkhead that extends waterward of the existing structure.

(4) SINGLE-FAMILY RESIDENCE BULHEAD DESIGN PROCESSED UNDER RCW 77.55.141

(a) Locate the waterward face of a new bulkhead at or above the OHWL. Where this is not practicable because of geological, engineering, or safety concerns, the bulkhead may extend waterward of the OHWL the minimum distance needed to excavate for footings or place base rock. The bulkhead must not be located more than six feet waterward of the OHWL under any conditions.

(b) Do not locate the waterward face of a replacement or repaired bulkhead further waterward than the structure it is replacing. In cases where removal of the existing bulkhead will result in environmental degradation (e.g., release of deleterious material) or problems due to geological, engineering, or safety constraints, the department will authorize the replacement bulkhead to extend waterward of, but directly abutting, the existing structure. The design must use the structure with the least impact and method of construction in these instances.

(c) The department may require the incorporation of large woody material or native vegetation into the design of bank protection structures.

(5) BULKHEAD AND OTHER BANK PROTECTION DESIGN PROCESSED UNDER RCW 77.55.021

(a) Bank protection projects must minimize adverse impacts by using the least impacting, technically feasible alternative for stabilization at the site. Typically,

soft approaches are less impacting than hard approaches. Common alternatives below are in order from least to most impacting.

(i) Upland drainage control;

(ii) Vegetation protection, enhancement, and replacement;

(iii) Relocation of improvements or structures;

(iv) Beach nourishment;

(v) Large woody material placement;

(vi) Biotechnical methods;

(vii) Upland retaining walls;

(viii) Bulkheads and rock revetments placed landward of the OHWL; and

(ix) Bulkheads and rock revetments located at the OHWL.

(b) An HPA application for new, replacement, and rehabilitated bulkhead or other bank protection work must include a qualified professional's rationale for the proposed technique including:

(i) An assessment of the level of risk to existing buildings, roads, or services being threatened by the erosion;

(ii) Technical rationale specific to the design developed; and,

(iii) Evidence of erosion and/or slope instability to warrant the stabilization work.

(c) The department may require bioengineering methods to protect bank.

(d) The department may require the incorporation of large woody material or native vegetation into the design of bank protection structures.

(e) Locate the waterward face of a new bulkhead at or above the OHWL. Where this is not practicable because of geological, engineering, or safety concerns, the bulkhead may extend waterward of the OHWL the minimum distance needed to excavate for footings or place base rock.

(f) Do not locate the waterward face of a replacement or repaired bulkhead further waterward than the structure it is replacing. In cases where removal of the existing bulkhead will result in environmental degradation (e.g., release of deleterious material) or problems due to geological, engineering, or safety concerns, the department will authorize the replacement bulkhead to extend waterward of, but directly abutting, the existing structure. The design must use the structure and construction method with the least impact in these instances.

(g) The bank protection must not result in a net loss of critical food fish or shellfish habitats.

(6) BULKHEAD AND OTHER BANK PROTECTION CONSTRUCTION

(a) The department must apply timing constraints on a case-by-case basis for the protection of critical food fish or shellfish habitats. The department must

consider the construction techniques, location of the project, and characteristics of habitats potentially affected by the project. The department may inspect the work area to evaluate the particular habitats near the project.

(b) When single-family residence bulkhead project construction work may affect more than one critical food fish or shellfish habitat, the department must apply the more protective timing constraint.

(c) Because surf smelt spawn over extended periods, special conditions apply. If a bulkhead project may affect a documented surf smelt spawning bed, the department must impose timing conditions to protect surf smelt spawning beds.

(i) If the surf smelt spawning season for the project location is less than six months, the department may specify that construction take place outside of the spawning season.

(ii) If the surf smelt spawning season for the project location is six months or longer, a department-trained biologist must conduct an intertidal forage fish spawning habitat survey if the permittee wants to work in a documented area. The permittee must start work within forty eight hours of a survey that shows there are no eggs on the beach. If the permittee does not complete the work within seven days of the start of project, an additional survey is required. The biologist must conduct a survey every seven days until the work is completed. If a survey shows eggs are present, work must stop and the department must prohibit work waterward of the OHWL for a minimum of three weeks. Work may not continue until a new survey shows there are no eggs present.

(d) The department will not allow work during the Pacific sand lance spawning season if construction activities will occur in the upper beach area in a documented sand lance spawning area.

(e) During times when work in waters of the state is prohibited to protect nearshore juvenile salmonid migration, rearing, and feeding areas, the department may permit construction if the bulkhead is located at or landward of the OHWL, and if all construction work is conducted from the landward side of the project.

(f) The department may require the proponent to establish the horizontal distance of the structure from a permanent benchmark(s) (fixed objects) prior to commencing work on the project. The benchmarks must be located, marked and protected to serve as post project reference for ten years.

(g) Project activities must not occur when tidal waters inundate the work area including the work corridor, excluding the area occupied by a grounded barge.

(h) No stockpiling of excavated materials containing silt, clay, or fine-grained soil is allowed below the OHWL.

(i) The department may allow stockpiling of sand, gravel, and other coarse construction or excavated material below the OHWL. Place this material within the designated work corridor waterward of the bulkhead footing or base rock.

Remove all excavated or stockpiled material from the beach within seventy-two hours of construction.

(j) Backfill all trenches, depressions, or holes created during construction that are waterward of the OHWL prior to inundation by tidal waters.

(k) Retain all natural habitat features on the beach that are larger than four inches in diameter including trees, stumps and logs, and large rocks within the reach.

(l) The department may require placement of appropriately sized sand /gravel and other mitigation measures to offset and compensate for impacts to fish habitat.

220-110-370 Residential piers, ramps, floats, watercraft lifts and buoys in saltwater areas

The requirements in this section apply to the design and construction of docks, watercraft lifts and mooring buoys whether permanent, seasonal, or temporary, in saltwater areas. All projects must meet the requirements in WAC 220-110-090 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site-specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A pier is a stationary overwater structure supported by piling that extends out from the shoreline. A float is a walkway or other surface that floats on the water. A ramp is a walkway that connects a pier or other shoreline to a float and provides access between the two. Pilings, which are associated with several of these structures, are timber, steel, reinforced concrete or composite posts that are driven, jacked, or cast vertically into the bed. A watercraft lift is a structure that lifts boats and personal watercraft out of the water. A mooring buoy is floating surface structure used for private and commercial vessel moorage.

(2) FISH LIFE CONCERNS

Overwater and in-water structures can alter physical processes that create or maintain fish habitat. These include alteration of the light regime, hydrology, substrate conditions, and water quality. However, light reduction is the main impact to fish habitat. Light reduction, or shading, by overwater or in-water structures reduces survival of aquatic plants. Aquatic plants provide food, breeding areas, and protective nurseries for fish, shellfish, crustaceans and many other animals.

Shallow water provides juvenile fish a refuge from predators like larger fish. Overwater and in-water structures can alter movement of juvenile salmon, steelhead and other fish species. Structures grounding on the bed can physically block migration. The light/dark

of shading/no shading caused by overwater and in-water structures can affect migration behavior. Fish respond by moving into deeper water which increases the risk of predation.

(3) RESIDENTIAL PIER, RAMP, FLOAT, WATERCRAFT LIFT AND BUOY DESIGN - GENERAL

(a) Design and locate structures to avoid impacts to fish migration corridors, and fish spawning, nursery and settlement areas.

(b) New structures may be a pier only; pier, ramp and float; or a float only provided:

(i) Structures are located a minimum of twenty-five feet (measured horizontally from the edge of the structure) in all directions from seagrass and kelp.

(ii) In herring spawning areas, structures are located a minimum of twenty-five feet (measured horizontally from the edge of the structure) in all directions from macroalgae beds with algae species on which herring spawn.

(iii) Structures are designed and located to avoid adverse impacts to juvenile salmonid mitigation routes and rearing habitats.

(iv) If artificial nighttime lighting is used in the design, use low-intensity lights that are located and shielded to prevent light from shining on the water from sunset to sunrise.

(v) The design ensures floats do not ground on the bed.

(vi) The design does not include skirting. Use of skirting is prohibited.

(c) Replacement floating docks in saltwater areas may be authorized by the department provided:

(i) The replaced floating dock is not expanded.

(ii) The replaced floating dock is not re-located within waters of the state without written authorization from the department. The replaced structure must be removed and disposed of upland such that they do not re-enter such waters.

(iii) The replaced floating dock must not ground on the bed. There must be a minimum of eighteen inches of between beach and the bottom of the float.

(iv) A replacement floating dock six feet wide or less must have at least thirty percent functional grating of the deck surface. A replacement floating dock greater than six feet wide must have at least fifty percent functional grating installed in the deck surface. Flotation must be located under the solid decked area only. Functional grated decking is that portion of grated decking that is not obstructed by any timber or support structures, including float material or tubs. Grating must have at least a sixty percent open area.

(d) The design must not use treated wood for the decking of the structure. The

design may use ammoniacal copper zinc arsenate (ACZA) treated wood for structural elements.

(e) Treated wood structural elements subject to abrasion by vessels, floats or other objects must incorporate design features to minimize abrasion of the wood.

(f) All grating must have at least a forty-two to sixty percent open area areas depending on the percent of deck area covered. Grating must be oriented so the lengthwise opening is in direction that maximizes the amount of light penetration. Any objects on, above or below the grating should not block light penetration.

(g) The minimum number of piling necessary must be used to construct a safe structure.

(h) Piles must be no greater than 12 inches in diameter. Space 4-inch to 8-inch diameter piles no closer than 18 feet apart. Space 10-inch to 12-inch diameter piles no closer than 20 apart. The department will grant exception to the maximum pile diameter and minimum spacing if a qualified professional recommends a different standard to address public safety.

(i) New and replacement piling can be steel, concrete, recycled plastic or untreated or ammoniacal copper zinc arsenate (ACZA) treated wood that has undergone an industry standard post-treatment process that is verified with a certificate.

(j) ACZA treated wood piling must incorporate design features (e.g., abrasion resistant material: Ultra High Molecular Weight polyethene, or polypropylene rubbing strips) to minimize abrasion of the piling by vessels, floats or other objects.

(k) The department will only allow the use of fill around piling when the condition of the substrate prevents the use of driven piles.

(l) Fill material is limited to clean rock and concrete.

(m) Limit the total amount of fill to the minimum amount necessary to secure the piles.

(4) PIER DESIGN

(a) Piers must span intertidal and wetland plants (except noxious weeds), surf smelt, and Pacific sand lance spawning beds.

(b) The pier may not be more than six feet wide unless there are engineering or safety constraints.

(c) A pier greater than four feet (up to six feet) in width must have at minimum of thirty percent functional grating installed on the deck surface. Grating must have at least a sixty percent open area.

(d) If the pier is oriented in a north/south direction, grating must be installed in a direction that is parallel to the length of the pier for the entire length of the pier. If the pier is oriented in another direction, grating must be installed parallel to the width of the pier, evenly spaced along the entire length of the pier.

(e) The bottom of the pier must be at least four feet above the MHHW line elevation.

(5) RAMP DESIGN

(a) Ramps must not be more than four feet wide.

(b) Deck ramps entirely with grating.

(6) FLOAT DESIGN

(a) Floats must not exceed eight feet in width.

(b) The total length of single-family dock float(s) must not be more than thirty feet and the total length of joint-use dock float(s) must not be more than sixty feet unless there are engineering or safety constraints.

(c) If the float is positioned perpendicular to the ramp to serve as a ramp landing, it must not be more than six feet wide and ten feet long.

(d) A float six feet wide or less must have at least thirty percent functional grating of the deck surface. A float greater than six feet wide (up to eight feet) must have at least fifty percent functional grating installed in the deck surface. Flotation must be located under the solid decked area only. Functional grated decking is that portion of grated decking that is not obstructed by any timber or support structures, including float material or tubs. Grating must have at least a sixty percent open area.

(e) Flotation for the structure must be fully enclosed and contained in a shell (tub) that prevents breakup, or loss of the flotation material into the water, and is not readily subject to damage by ultraviolet radiation and abrasion.

(f) Helical screw or “duckbill” anchor(s), piling, piling with stoppers and float support/stub pilings may hold floats in place.

(g) If a design uses anchors to hold the float in place, the anchor lines must not rest on the substrate at any time.

(7) WATERCRAFT LIFT/GRID DESIGN

(a) Design the watercraft lift/grid to minimize shading caused by the structure.

(i) The watercraft lift/grid must be designed so that the bottom of the lift/grid rests at least 1 foot above the bed.

(ii) The minimum number of additional piles necessary to support the watercraft lift/grid must be used.

(b) Limit wall materials to the minimum open structural framework needed for roof support.

(c) Translucent roofing materials must be used to cover the roof area.

(8) BUOY DESIGN

(a) In waterbodies where buoy systems can potentially damage the bed and submerged aquatic vegetation, locate and design the buoy system to minimize damage.

(b) Locate the buoy at a sufficient depth to prevent vessel grounding.

(c) Locate the buoy to avoid shading impacts from vessels and/or damage from vessel propellers to submerged aquatic vegetation.

(d) Design the buoy system so that anchor lines do not drag.

(e) Use an embedment style mooring anchor instead of surface style mooring anchor unless there are engineering, safety or environmental constraints.

(f) Adequately size the mooring to prevent the anchor from shifting or dragging along the bed.

(g) The buoy must have a shell that is not readily subject to damage by ultraviolet radiation (sunlight) and abrasion caused by rubbing against vessels, the bed, and/or waterborne debris.

(9) RESIDENTIAL PIER, RAMP, FLOAT, WATERCRAFT LIFT AND BUOY CONSTRUCTION

(a) Operate and anchor vessels and barges in a manner that does not adversely impact seagrass, kelp or macroalgae species used as herring spawning substrate.

(b) The dock centerline must be re-established during the construction phase using the same methodology employed to establish the centerline during the vegetation survey.

(c) When practicable, use a vibratory hammer to drive steel piling.

(d) When impact pile driving, use the smallest drop or hydraulic impact hammer necessary to complete the job, and set the drop height to the minimum necessary to drive the piling.

(e) The department may require sound attenuation such as bubble curtains to minimize harm to fish from impact steel pile-driving noise.

(f) To avoid attracting fish with light during nighttime pile driving operations, limit pile driving to daylight hours.

(g) The department may require the following during piling removal:

(i) Use a vibratory system to dislodge piling unless there are engineering, safety or environmental constraints.

(ii) After removal, place the piling on a construction barge or other dry storage site.

(iii) If a treated wood pile breaks during extraction, remove the stump from the water column by fully extracting the stump, cutting it three feet below the substrate or pushing it to that depth.

(iv) Cap the buried stump with clean sediment that matches the native material.

(v) Fill holes left by piling extraction with clean sediment that matches the native material.

(h) Securely anchor floats and mooring buoys.

(i) If the department authorizes the use of a concrete anchor, use a pre-cast concrete anchor.

(j) Dispose of replaced piers, ramps floats, lines, chains, cables or mooring anchors in an upland area.

(k) Place floats and buoys removed seasonally in an upland area. Do not store on the beach.

220-110-380 Boat ramps and launches in saltwater areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A boat ramp is a sloping stabilized roadway constructed on the shoreline for launching boats from vehicular trailers. Ramps extend into the water at a slope of typically twelve to fifteen percent and are typically oriented perpendicular to the shoreline. Ramp widths vary with its intended use, whereas the length often depends on the slope of the shoreline and tidal amplitudes. Ramps are usually constructed in protected areas with access to deep water close to shore. Construction materials commonly consist of gravel, concrete, or asphalt; they are often associated with marinas and parking lots. A railway-type boat launch consists of a pair of railroad tracks supported by pilings extending from the upland down to the beach.

(2) FISH LIFE CONCERNS

A ramp replaces seabed habitat used by fish and shellfish. The large number of ramps in a given area increases the loss and fragments the seabed habitat. Ramps and launches placed above beach grade can block sediment movement (littoral drift). Ramp and launch placement and maintenance and associated vessel activity can cause disturbance or direct removal of aquatic vegetation.

(3) RAMP DESIGN

(a) Design and locate the boat ramp or launch to avoid adverse impacts to saltwater habitats of special concern.

(b) Design and locate boat ramps so the greatest amount of excavation occurs above the OHWL.

(c) Design boat ramps and launches to minimize interference with tidal currents and littoral drift. Common alternatives below are in order from least to most impacting.

(i) Elevated railway-type launches

(ii) Hoist or lift launches

(iii) Elevated ramps

(iv) Ramps constructed at beach grade

(d) The department will authorize boat ramps on marine accretion shoreforms (such as barrier beaches, points, spits, hooks) only if there will be no impact to natural physical processes that create and maintain shoreform habitats.

(e) Design the boat ramp to prevent erosive undercutting or breaking of ramp edges.

(f) Ramps constructed above the grade must have side slopes no steeper than one and one-half feet horizontal to one foot vertical.

(g) New dredging of the seabed to allow boats to access a boat ramp or launch is not authorized. The department will allow dredging to maintain access to an existing boat ramp or launch provided the access was dredged as part of the original project.

(h) Design boarding floats to minimize grounding on and shading of the bed and interference with tidal currents and littoral drift.

(i) Use the minimum number of piling necessary to construct a safe railway-type launch.

(j) Unless there are engineering, safety or environmental constraints, the rails of the rail launching system must lie on and follow the grade of the existing bed and bank.

(4) RAMP CONSTRUCTION

(a) (a) Use pre-cast concrete slabs to construct a concrete boat ramp below the OHWL or isolate the wet cement until it is fully hardened.

(b) (b) Construct the ramp or launch when the work area is not inundated by tidal water.

(c) (c) Securely anchor launching rails to the bed or support railway launch piling.

220-110-390 Marinas and terminals in saltwater areas

The requirements in this section apply to construction, maintenance, repair, and removal of marinas and marine terminals in saltwater areas. All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

A marina is a public or private facility providing vessel moorage space, fuel, or commercial services. Commercial services include but are not limited to overnight or live-aboard vessel accommodations (RCW 77.55.011(13)).

A terminal is a public or private commercial wharf located in the navigable waters of the state and used, or intended to be used, as a port or facility for the storing, handling, transferring, or transporting of goods, passengers, and vehicles to and from vessels (RCW 77.55.011(14)).

(2) FISH LIFE CONCERNS

Marinas and terminals can alter the physical processes that create or maintain fish habitat. Possible impacts may include alteration of the light regime, hydrology, substrate conditions, and water quality. Marinas and terminals often have a larger impact area than residential docks and are often associated with heavy boat traffic and human use. As a result, the size and amount of the potential impacts to fish life may be greater.

(3) MARINA AND MARINE TERMINAL DESIGN - GENERAL

(a) The department may require physical modeling, numerical modeling, or other information that demonstrates adequate water exchange and circulation post construction.

(b) The department prohibits the construction of marinas and terminals on or over the following saltwater habitats of special concern: Pacific herring spawning beds, and lingcod and rockfish settlement and nursery areas.

(c) Locate new marinas and terminals to avoid adverse impacts to surf smelt, Pacific sand lance, seagrass and kelp.

(d) Locate new marinas and terminals in areas naturally deep so dredging is not required.

(e) Locate new marinas and terminals in areas deep enough to prevent propeller wash impacts to the bed.

(f) Locate new marinas and terminals in areas with low or impaired biological integrity.

(g) Design marinas and terminals so most overwater coverage is in the deepest water practicable.

(h) Minimize the amount of pier area that directly contacts the shoreline to allow light penetration to the nearshore and shallow intertidal.

(i) Minimize the width of overwater and in-water structures.

(j) Use the minimum number of pilings necessary to construct a safe structure.

(k) Design piers and other above water structures as high as practical to increase light transmission.

(l) Use light-reflecting materials on the underside of above water structures, whenever practicable.

(4) MARINA DESIGN

(a) Unless there are engineering, safety or environmental constraints, floats six feet wide or less must have at least thirty percent functional grating of the deck surface. Floats greater than six feet wide must have at least fifty percent functional grating installed in the deck surface. Flotation may be located under the solid decked area only. Functional grated decking is that portion of grated decking that is not obstructed by any timber or support structures, including float material or tubs. Grating must have at least a forty-two to sixty percent open area areas depending on the percent of deck area covered by grating.

(b) Orient grating so the lengthwise opening is in the direction that maximizes the amount of light penetration. Any objects on, above or below the grating should not block light penetration.

(c) Unless there are engineering, safety or environmental constraints, site slips for smaller boats in shallower water and place slips for larger boats in deeper water.

(d) Locate new boathouses, houseboats, and covered moorages landward of minus twenty feet MLLW.

(e) Any replacement roof for a covered moorage and boathouse in water less than minus twenty feet MLLW must incorporate translucent materials or skylights in the roof.

(f) If artificial nighttime lighting is used in the design, use low-intensity lights that are located and shielded to prevent light from shining on the water from sunset to sunrise.

(g) The following requirements apply to marina construction shoreward of the existing OHWL:

(i) A single entrance may be required.

(ii) The entire inner shoreline must be in conformance with bulkheading provisions in WAC 220-110-380.

(h) The following requirements apply to marina construction waterward of the OHWL:

(i) Bulkheading of the beach area inside the marina must comply with the bulkheading provisions in WAC-220-110-380. Between the elevation of the toe of the bulkhead and MLLW the beach face must not exceed one and one-half feet horizontal to one foot vertical.

(ii) For a single entrance or breach marina, the breakwater structure may not exceed one and one half feet horizontal to one-foot vertical slope inside and outside the marina.

(i) The following requirements apply when a marina includes breaches that form shore breakwaters (jetties) and detached breakwaters:

(i) The toe of the shore breakwaters (jetties) may extend seaward to 0.0 MLLW, but may not extend seaward more than two hundred and fifty feet from OHWL.

(ii) The shore breakwaters must have a minimum slope of one and one half feet horizontal to one foot vertical throughout.

(iii) The breaches between the shore breakwaters and the detached breakwaters must be not less than twenty feet in width measured at the toe of the slope.

(5) BREAKWATER DESIGN

(a) Design and construct breakwaters to maintain intertidal and shallow subtidal migratory pathways for juvenile fish species.

(b) Unless there are engineering, safety or environmental constraints, use removable, floating breakwaters or wave boards.

(c) If permanent breakwaters are necessary, use submerged breakwaters in place of exposed breakwaters where appropriate.

(d) Construct isolated permanent breakwaters beyond the line of extreme low tide of permanent material.

(6) MARINA AND MARINE TERMINAL CONSTRUCTION

(a) Avoid use of continuous sheet piles.

(b) New and replacement piling can be steel, concrete, recycled plastic or untreated or ammoniacal copper zinc arsenate (ACZA) treated wood.

(c) ACZA treated wood piling must incorporate design features (e.g., metal bands) to minimize abrasion of the piling by vessels, floats or other objects.

(d) Unless there are geological, engineering or safety constraints, use a vibratory hammer to drive steel piling whenever practicable.

(e) The department may require sound attenuation such as a bubble curtain to minimize harm to fish from impact steel pile-driving noise.

(f) To avoid attracting fish with light during nighttime pile driving operations, limit pile driving to daylight hours.

(7) MARINA AND MARINE TERMINAL MAINTENANCE

(a) The department must issue, upon request, a renewable, five-year HPA for regular maintenance activities of a marina or terminal.

(b) For the purposes of this section, regular maintenance activities may include, but are not limited to:

(i) Maintenance or repair of a boat ramp, launch, or float within the existing footprint;

(ii) Maintenance or repair of an existing overwater structure within the existing footprint;

(iii) Maintenance or repair of boat lifts or railway launches;

(iv) Maintenance or repair of pilings, including the replacement of bumper pilings;

(v) Dredging of less than fifty cubic yards

(vi) Maintenance or repair of shoreline armoring or bank protection;

(vii) Maintenance or repair of wetland, riparian, or estuarine habitat; and

(viii) Maintenance or repair of an existing outfall.

(c) The five-year permit must include a requirement that a fourteen-day notice be given to the department before regular maintenance activities begin.

220-110-400 Dredging in saltwater areas

The requirements of this section do not apply to suction dredging for mineral prospecting covered in WAC 220-110-300. All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Dredging includes the removal of substrate to improve vessel navigation and to maintain navigation channels. Dredging is also used to clean up contaminated sediments.

(2) FISH LIFE CONCERNS

Dredging results in changes in bathymetry, habitat loss, and change to estuarine and nearshore marine ecosystem dynamics (e.g., salinity intrusion). Dredging converts intertidal habitat to subtidal habitat and shallower subtidal habitats to deeper subtidal habitats. Dredging affects the plant and animal assemblages that are uniquely adapted to the particular light, current, and substrate regimes of intertidal areas. By altering bathymetry and bottom substrates, such conversions produce a “trade-off” of intertidal and shallow-subtidal communities for deeper, subtidal communities.

In addition to changing the habitat, dredging may kill and injure fish and shellfish when dredging equipment traps fish and shellfish in the uptake of sediments and water. Suspended sediments released into the water column by dredging can affect fish by interfering with breathing and feeding, and by changing predator-prey relationships.

(3) DREDGING - GENERAL

(a) The department may require hydrodynamic modeling to assess changes in salinity, turbidity, and other physiochemical regimes for new dredging projects

and expansions.

(b) The department may require multi-season pre- and post-dredge project bathymetric biological surveys.

(c) Design project to avoid dredging projects and expansions that convert intertidal to subtidal habitat.

(d) The department prohibits new dredging in sand lance, surf smelt, and herring spawning beds, rockfish and lingcod settlement and nursery areas, and Olympia oyster and pinto abalone settlement areas.

(e) Dredging must avoid adverse impacts to seagrasses, kelp, macroalgae, intertidal vascular plants and geoduck tracts.

(f) Limit the depth of the maintenance dredging to no greater than the channel depth at the seaward end. The department may authorize dredging to depths greater than the channel at the seaward end only in berthing areas and turning basins for commercial shipping purposes.

(4) DREDGING CONSTRUCTION

(a) Conduct dredging with dredge types and methods that cause the least impacts to fish, shellfish and their habitat.

(b) Operate a hydraulic dredge with the intake at or below the bed surface. Raise the intake a maximum of three feet above the bed for brief periods of purging or flushing the intake system.

(c) Operate a dragline or clamshell to minimize turbidity. During excavation, each pass with the clamshell or dragline bucket must be complete. Dredged material must not be stockpiled waterward of the OHWL.

(d) Dispose of dredged bed materials at an approved in-water disposal site or in an upland location that the materials do not reenter state waters. The department may allow dredged material placement for beneficial uses such as beach nourishment or capping of contaminated sediments.

(e) Hopper dredges, scows and barges used to transport dredged materials to the disposal or transfer sites must completely contain the dredged material to minimize turbidity.

(f) To avoid attracting fish with light during nighttime dredging operations, limit dredging operations to daylight hours unless there are engineering, safety or environmental constraints

(g) In addition to those timing limitations listed in WAC 220-110-360, the department may further restrict dredge timing to protect other important fish life.

220-110-410 Artificial Aquatic Habitat Structures

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for

hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

An artificial aquatic habitat structure is a human placed and designed structure that is intended to provide long-term alterations to fresh or saltwater bottom or mid-water habitat. The structure is designed and located to contribute to the management of fish and shellfish. Examples include the construction of artificial reefs and the creation or restoration of spawning beds.

(2) FISH HABITAT CONCERNS

Artificial aquatic habitat structures draw large numbers of fish for the same reasons natural habitat structures do: they provide shelter, food, and a place for some species to spawn. They have holes and crevices in which both predator and prey can hide. However, these structures alter the seabed and change the natural habitat. This alteration can change the make-up of the fish community and displace fish that used the natural habitat. Since artificial aquatic habitat structures can draw large numbers of fish into one place they may worsen overfishing.

(3) ARTIFICIAL AQUATIC HABITAT STRUCTURE DESIGN

(a) Aquatic habitat structures must meet one or more of the following needs:

(i) Enhancement of fish viewing opportunity at a specific location.

(ii) Enhancement or conservation of aquatic resources.

(iii) Mitigation for impacted fish habitat.

(b) Resource benefits must outweigh negative impacts caused by construction and placement of the structure.

(c) The department may require compensatory mitigation for unavoidable construction impacts to fish, shellfish and their habitat.

(d) The department will require a preconstruction survey.

(i) Post-construction quarterly monitoring must follow recognized and acceptable biological protocols that are approved by the department. Results of completed surveys must be submitted to the department annually.

(ii) Saltwater sites require at least four preconstruction surveys. One survey must be conducted during each seasonal quarter (January – March, April – June, July – September, and October – December).

(iii) The department may require additional surveys.

(e) A complete application to construct an aquatic habitat enhancement structure must include the results of an approved pre-construction survey(s), a statement of the fishery or habitat need the proposed structure will address, ongoing maintenance needs, if any, and a plan for quarterly monitoring for two years after construction.

(f) Artificial aquatic habitat structures must fill a habitat need identified in (3)(a). HPA applications must include the target species, species groups, or life stages that a person wants to enhance or rebuild. The critical habitat and environmental requirements of those species must be identified.

(4) ARTIFICIAL AQUATIC HABITAT STRUCTURE CONSTRUCTION

(a) Locate the structure two-hundred yards away from other areas of hard-rock habitat to reduce the probability of an invasive species infestation.

(b) Locate the structure in an area that minimize disturbance to adjacent shorelines.

(c) Construct the structures with high density materials that are non-toxic and inert in sea water.

(d) Use clean materials (i.e., no materials that would leach metals, petroleum products or other hazardous materials) to construct the structure.

(e) At least ninety-five percent of the construction materials must be more than one foot in diameter.

(f) Avoid the use of vertical walls. Structures must consist of piles of loose material, or separate modules.

(g) The placement of the structure must minimize impacts to fish life and the habitat on the natural substrate covered by the materials.

(h) Total coverage of the natural substrate by reef material must not exceed fifty percent of the total permitted area.

(i) Any one rock pile or module must not cover more than ten percent of the total permitted area.

(j) The distance between each rock pile must exceed fifty feet.

220-110-420 Outfall and tide and flood gate structures in saltwater areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Outfalls move water from one place to another, typically to a body of water. Outfalls may convey stormwater, or other waste materials. Tide and flood gates

(2) FISH LIFE CONCERNS

Outfalls can increase erosion of the bed and bank, trap sediment and cause a direct loss of beach and bank side riparian habitat.

(3) LIMIT OF DEPARTMENT AUTHORITY OVER STORMWATER OUTFALL AND TIDE AND FLOODGATE PROJECTS

(a) The department may not condition HPAs for storm water discharges in locations covered by a national pollution discharge elimination system municipal storm water general permit for water quality or quantity impacts. The HPA is required only for the actual construction of any stormwater outfall or associated structures.

(b) In locations not covered by a national pollution discharge elimination system municipal storm water general permit, the department may issue HPAs that contain provisions that protect fish life from the direct hydraulic impacts of the discharge adverse effects, such as scouring or erosion of the waterbody bed.

(i) Prior to the issuance of an HPA under this subsection, the department must:

(A) Make a finding that the discharge from the outfall will cause harmful effects to fish life:

(B) Transmit the findings to the applicant and to the city or county where the project is being proposed; and

(C) Allow the applicant an opportunity to use local ordinances or other mechanisms to avoid the adverse effects resulting from the direct hydraulic discharge. The forty-five day requirement for HPA issuance under RCW 77.55.021 is suspended during the time period the department is meeting the requirements of this subsection.

(c) After following the procedures set forth in (b) of this subsection, the department may issue an HPA that prescribes the discharge rates from an outfall structure that will prevent adverse effects to the bed or flow of the waterway. The department may recommend, but not specify, the measures required to meet these discharge rates. The department may not require changes to the project design above the mean higher high water mark of marine waters, or the ordinary high water mark of freshwaters of the state.

(d) The department may not require a fishway on a tide gate, flood gate, or other associated man-made agricultural drainage facilities as a condition of a permit if such a fishway was not originally installed as part of an agricultural drainage system existing on or before May 20, 2003. The department may require a fishway on a tide or flood gate as part of a non-agricultural drainage system and on agricultural drainage system existing after May 20, 2003.

(4) OUTFALL DESIGN

(a) The shoreline bank and bed at the point of discharge must be protected using

bioengineering methods or other department-approved methods to prevent scouring.

(b) Design and locate outfalls so that outflow or any associated energy dissipaters do not cause loss of fish and shellfish habitat. The department may require that energy be dissipated using one or more of the following methods, or other effective method proposed by a person:

(i) Existing natural habitat features (large logs, root wads, natural large rocks or rock shelves, etc.), without degrading these features;

(ii) Pads of native plants (shrubs and grasses) and biodegradable fabric;

(iii) Imported fish habitat components (large woody material);

(iv) Manufactured in-line energy dissipaters, such as a tee diffuser;

(v) Rounded rock energy dissipation pads;

(vi) Angular rock energy dissipation pads, if other options are impracticable.

(c) The outlet of submerged outfall piping protruding above grade in marine environments must extend past minus thirty feet MLLW. An outfall pipe or other structural element that crosses a beach must be buried an adequate depth to prevent interruption of longshore sediment drift.

(5) OUTFALL CONSTRUCTION

(a) The department must apply timing constraints on a case-by-case basis for the protection of critical food fish or shellfish habitats. The department must consider the construction techniques, location of the project, and characteristics of habitats potentially affected by the project. The department may inspect the work area to evaluate the particular habitats near the project.

(b) During times when work in waters of the state is prohibited to protect nearshore juvenile salmonid migration, rearing, and feeding areas, the department may permit construction if the outfall is located at or landward of the OHWL, and if all construction work is conducted from the landward side of the project.

(c) The department may require the proponent to establish structure elevations relative to permanent benchmarks prior to commencing work on the project. The benchmarks must be located, marked and protected to serve as post project reference for ten years.

(d) Intertidal project activities must not occur when tidal waters inundate the work area including the work corridor, excluding the area occupied by a grounded barge.

(e) The outfall centerline must be re-established during the construction phase using the same methodology employed to establish the centerline during the vegetation survey.

(f) No stockpiling of excavated materials containing silt, clay, or fine-grained soil is allowed below the OHWL.

(g) The department may allow stockpiling of sand, gravel, and other coarse construction or excavated material below the OHWL. Place this material within the designated work corridor waterward of the OHWL. Remove all excavated or stockpiled material from the beach within seventy-two hours of construction.

(h) Backfill all trenches, depressions, or holes created during construction that are waterward of the OHWL prior to inundation by tidal waters.

(i) Retain all natural habitat features on the beach that are larger than four inches in diameter including trees, stumps and logs, and large rocks within the reach.

220-110-430 Utility crossings in saltwater areas

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Utility crossings are cables and pipelines that transport gas, telecommunications, fiber optics, power, sewer, oil and water lines underneath watercourses.

(2) FISH LIFE CONCERNS

Utility crossings pose a risk to fish and fish habitat due to potential changes of substrates, destabilization of marine shoreline and distributary channels, loss of riparian habitat, and loss of aquatic vegetation. Trenching through banks and the beach alters habitat and substrate characteristics and hence their productivity.

(3) UTILITY CROSSING DESIGN

(a) Locate utility crossings to avoid impacts to saltwater habitats of special concern.

(4) UTILITY CROSSING CONSTRUCTION

(a) Conduct excavation for and installation of cables, sewer lines, and other utilities with equipment and techniques that minimize adverse impacts to fish and shellfish and their habitats.

(b) Re-established the utility line centerline during the construction phase using the same methodology employed to establish the centerline during the vegetation survey.

(c) Excavation of trenches within the beach area must not occur when tidal waters inundate the work area.

(d) No stockpiling of excavated materials containing silt, clay, or fine-grained soil or bed material is allowed below OWHL.

(e) The department may allow stockpiling of sand, gravel, and other coarse

construction or excavated material below the OHWL. Place this material within the designated work corridor waterward of the OHWL. Remove all excavated or stockpiled material from the beach within seventy-two hours of construction.

(f) Backfill all trenches, depressions, or holes created during construction that are waterward of the OHWL prior to inundation by tidal waters.

(g) Retain all natural habitat features on the beach that are larger than four inches in diameter including trees, stumps and logs, and large rocks within the reach.

220-110-440 Boring

All projects must meet the requirements in WAC 220-110-080 – Mitigation requirements for hydraulic project approvals and the requirements in WAC 220-110-100 through 220-110-440 that are included in an HPA. The department will require certain technical provisions depending upon the individual proposal and site specific characteristics. Additional special provisions may be included, as necessary to address site-specific conditions.

(1) DESCRIPTION

Boring is used to obtain information about the physical properties of the bed. This information is often needed to design foundations for proposed structures and for repair of structures.

(2) FISH LIFE CONCERNS

Boring related impacts to fish life are usually minor and short-term. Short-term impacts resulting from the project include increased turbidity and noise levels and small vibrations created primarily from the drill rig.

(3) BORING CONSTRUCTION

(a) Only take samples within the proposed footprint of the new structure.

(b) Conduct boring in a manner that minimizes turbidity and discharge of silt to the water column.

(i) Completely contain each boring and cone penetration action within the casing.

(ii) Do not discharge turbid or slurry laden process water to state waters.

(iii) During collection of samples minimize the suspension of sediment. Place all excess sediment and water derived during coring activities in proper containers, labeled, characterized, and disposed of by the operators in accordance with the appropriate guidelines.

(iv) Deposit all waste material such as drill spoils and cuttings, construction debris, silt, excess dirt, excess gravel, or overburden resulting from this project in an upland such that it does not enter waters of the state.

(c) After geo-technical information has been logged, seal the borehole and

substrate surface with the appropriate material including bentonite grout, pellets and/or chips.

(d) Check drilling equipment daily for leaks and maintain and keep it in good repair to prevent lubricants, grease, and any other deleterious materials from entering the state waters.

220-110-450 Informal appeal of adverse administrative actions

(1) The department recommends that a person aggrieved by the issuance, denial, conditioning, or modification of an HPA contact the department employee responsible for making the decision on the HPA before initiating an informal appeal. Discussion of concerns with the department employee often results in a resolution of the problem without the need for an informal appeal.

(2) The department encourages aggrieved persons to take advantage of the informal appeal process before initiating a formal appeal. However, the informal appeal process is not mandatory, and a person may proceed directly to a formal appeal under WAC 220-110-490.

(a) This rule does not apply to any provisions or conditions in pamphlet HPAs. A person who disagrees with a provision or condition in a pamphlet HPA may apply for an individual, written HPA.

(b) Any person with legal standing may request an informal appeal of the following department actions:

(i) The issuance, denial, conditioning, or modification of an HPA; or

(ii) An order imposing civil penalties.

(3) A request for an informal appeal must be in writing and must be received by the department within thirty days from the date of receipt of the decision or order. "Date of receipt" means:

(a) Five business days after the date of mailing; or

(b) The date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the department, must constitute sufficient evidence of actual receipt. The date of actual receipt; however, may not exceed forty-five days from the date of mailing.

(4) A request for informal appeal must be mailed to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, 600 Capitol Way N., Olympia, Washington 98501-1091; e-mailed to HPAapplications@dfw.wa.gov; faxed to 360-902-2946; or hand-delivered to the Natural Resources Building, 1111 Washington Street S.E., Habitat Program, Fifth floor.

(5) The request must be plainly labeled as "Request for Informal Appeal" and must include the following:

(a) The appellant's name, address, e-mail address (if available), and phone number;

(b) The specific department action that the appellant contests;

(c) The date the department issued, denied, conditioned, or modified an HPA, or the date the department issued the order imposing civil penalties;

(d) The log number or a copy of the HPA, or a copy of the order imposing civil penalties;

(e) A short and plain statement explaining why the appellant considers the department action or order to provide inadequate protection of fish life or to be otherwise unlawful;

(f) A clear and concise statement of facts to explain the appellant's grounds for appeal;

(g) Whether the appellant is the permittee, HPA applicant, landowner, resident, or another person with an interest in the department action in question;

(h) The specific relief requested;

(i) The attorney's name, address, e-mail address (if available), and phone number, if the appellant is represented by legal counsel; and

(j) The signature of the appellant or his or her attorney.

(6) Upon receipt of a valid request for an informal appeal, the department may initiate a review of the department action. If the appellant agrees, and the appellant applied for the HPA, resolution of the appeal may be facilitated through an informal conference. The informal conference is an optional part of the informal appeal and is normally a discussion between the appellant, the department employee responsible for the decision, and a supervisor. The time period for the department to issue a decision on an informal appeal is suspended during the informal conference process.

(7) If a resolution is not reached through the informal conference process, the appellant is not the person who applied for the HPA, or the appeal involves an order imposing civil penalties, the HPA appeals coordinator or designee must conduct an informal appeal hearing. Upon completion of the informal appeal hearing, the HPA appeals coordinator or designee must recommend a decision to the director or designee. The director or designee must approve or disapprove the recommended decision within sixty days of the date the department received the request for informal appeal, unless the appellant agrees to an extension of time. The department must notify the appellant in writing of the decision of the director or designee.

(8) If the department declines to initiate an informal review of its action after receipt of a valid request, or the appellant still wishes to contest the department action following completion of the informal appeal process, the appellant may initiate a formal appeal under WAC 220-110-460. Formal review must be requested within the time periods specified in WAC 220-110-460.

220-110-460 Formal appeal of administrative actions

The department recommends that a person aggrieved by the issuance, denial, conditioning, or

modification of an HPA contact the department employee responsible for making the decision on the HPA before initiating a formal appeal. Discussion of concerns with the department employee often results in a resolution of the problem without the need for a formal appeal.

The department encourages aggrieved persons to take advantage of the informal appeal process under WAC 220-110-450 before initiating a formal appeal. However, the informal appeal process is not mandatory, and a person may proceed directly to a formal appeal.

This rule does not apply to any provisions or conditions in pamphlet HPAs. A person who disagrees with a provision or condition in a pamphlet HPA may apply for an individual, written HPA.

(1) Any person with standing may request a formal appeal of the following department actions:

(a) The issuance, denial, conditioning, or modification of an HPA; or

(b) An order imposing civil penalties.

(2) As required by the Administrative Procedure Act, chapter 34.05 RCW, the department must inform the HPA permittee or applicant, or person subject to civil penalty order of the department, of the opportunity for appeal, the time within which to file a written request for an appeal, and the place to file it.

(3) A request for formal appeal must be in writing and must be filed with the clerk of the pollution control hearings board (PCHB) and served on the department within thirty days from the date of receipt of the decision or order. "Date of receipt" means:

(a) Five business days after the date of mailing; or

(b) The date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the department, must constitute sufficient evidence of actual receipt. The date of actual receipt; however, may not exceed forty-five days from the date of mailing.

(4) Service on the department must be mailed to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, 600 Capitol Way N., Olympia, Washington 98501-1091; e-mailed to HPAapplications@dfw.wa.gov; faxed to 360-902-2946; or hand-delivered to the Natural Resources Building, 1111 Washington Street S.E., Habitat Program, Fifth floor.

(5) The request for formal appeal must contain the information required by WAC 371-08- The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, the deadline for requesting a formal appeal shall be within thirty days from the date of receipt of the department's written decision in response to the informal appeal.340.

(6) The department in its discretion may stay the effectiveness of any decision or order that has been appealed to the PCHB. The department will use the standards in WAC 371-08-415(4) to make a decision on any stay request. At any time during the appeal to the

PCHB, the appellant may apply to the PCHB for a stay of the decision or order, or removal of a stay imposed by the department.

(7) If there is no timely request for an appeal, the department action will be final and non-appealable.

220-110-470 Compliance

(1) DEPARTMENT PROGRAM

(a) The department will develop programs to encourage voluntary compliance by providing technical assistance consistent with statutory requirements. The programs must include, but are not limited to, technical assistance visits, printed information, information and assistance by telephone, training meetings, and other appropriate methods to provide technical assistance. In addition, the department must provide upon request a list of organizations, including private companies, which provide technical assistance. This list must be compiled by the department from information submitted by the organizations and does not constitute an endorsement by the department of any organization.

(2) TECHNICAL ASSISTANCE VISIT

(a) For the purposes of this chapter, a technical assistance visit is a visit by the department to a project site or other location that:

(i) Has been requested or is voluntarily accepted; and

(ii) Is declared by the department at the beginning of the visit to be a technical assistance visit.

(b) During a technical assistance visit, or within a reasonable time thereafter, the department must inform the permittee, landowner or contractor of any violations of law or department rules identified by the department as follows:

(i) A description of the condition that is not in compliance and the text of the specific section or subsection of the applicable state law or rule;

(ii) A statement of what is required to achieve compliance;

(iii) The date by which the department requires compliance to be achieved;

(iv) Notice of the means to obtain any technical assistance services provided by the department or others; and

(v) Notice of when, where, and to whom a request to extend the time to achieve compliance for good cause may be filed with the department.

(vi) A technical assistance notice is not a formal enforcement action and it not subject to appeal.

(3) NOTICE OF CORRECTION

(a) If in the course of any inspection or visit that is not a technical assistance visit, the department becomes aware of conditions that are not in compliance with applicable laws and rules enforced by the department and are not subject to

penalties as provided for in subsections (4), the department may issue a notice of correction to the responsible party that must include:

(i) A description of the condition that is not in compliance and the text of the specific section or subsection of the applicable state law or rule;

(ii) A statement of what is required to achieve compliance;

(iii) The date by which the department requires compliance to be achieved;

(iv) Notice of the means to contact any technical assistance services provided by the department or others; and

(v) Notice of when, where, and to who in the department a request to extend the time to achieve compliance for good cause may be filed.

(b) A notice of correction is not a formal enforcement action, is not subject to appeal, and is a public record.

(c) If the department issues a notice of correction, it must not issue a civil penalty for the violations identified in the notice of correction unless the responsible party fails to comply with the notice.

(4) CIVIL PENALTIES

(a) The department may issue a civil penalty provided for by law without first issuing a notice of correction if:

(i) The person has previously been subject to an enforcement action for the same or similar type of violation of Chapter 77.55 RCW or Chapter 220-110 WAC or has been given previous notice of the same or similar type of violation of the this statute or rule; or

(ii) Compliance is not achieved by the date established by the department in a previously issued notice of correction, if the department has responded to any request for review of such date by reaffirming the original date or establishing a new date; or

(iii) The violation has a probability of placing a person in danger of death or bodily harm, has a probability of causing more than minor environmental harm, or has a probability of causing physical damage to the property of another in an amount exceeding one thousand dollars; or

(iv) The violation was committed by a business that employed fifty or more employees on at least one day in each of the preceding twelve months.

(b) The department may impose a civil penalty of up to one hundred dollars per day for a violation of any provisions of chapter 77.55RCW or chapter 220-110 WAC. The department must impose the civil penalty with an order in writing delivered by certified mail or personal service to the person who is penalized. The notice must describe the violation, identify the amount of the penalty, identify how to pay the penalty, and identify the process for informal and formal appeals of the penalty. If the violation is an ongoing violation, the penalty may accrue for each additional day of violation.

(c) If not timely appealed under WAC 220-110-450 or 220-110-460, the civil penalty order is final and non-appealable. If appealed, the civil penalty becomes final upon issuance of a final order not subject to any further administrative appeal. When a civil penalty order becomes final, it is due and payable. If the civil penalty is not paid within thirty days after it becomes due and payable, the department may seek enforcement of the order under RCW 77.55.291 and RCW 34.05.578.

(d) The penalty imposed must become due and payable thirty days after receipt of a notice imposing the penalty unless an appeal is filed. Whenever an appeal of any penalty incurred under this chapter is filed, the penalty must become due and payable only upon completion of all review proceedings and the issuance of a final order confirming the penalty in whole or in part.

(e) If the amount of any penalty is not paid within thirty days after it becomes due and payable, the attorney general, upon the request of the director, must bring an action in the name of the state of Washington in the superior court of Thurston county or of any county in which such violator may do business, to recover such penalty. In all such actions the procedure and rules of evidence must be the same as an ordinary civil action. All penalties recovered under this section must be paid into the state's general fund.

(f) The department must comply with the requirements of RCW 34.05.110 before issuing a civil penalty to a small business as defined in that statute.

(5) TIME FOR COMPLIANCE

(a) The department must provide for a reasonable time to achieve compliance. Any person receiving a notice of correction pursuant to subsections (3) or (4) may request an extension of time to achieve compliance for good cause. Requests must be submitted to the department in writing following the procedures specified by the department in the notice. The department must respond in writing within ten calendar days.

(6) CRIMINAL PENALTY

(a) Under RCW 77.15.300, it is a gross misdemeanor to construct any form of hydraulic project or perform other work on a hydraulic project without having first obtained an HPA from the department, or, violate any requirements or conditions of the HPA for such construction or work.