



US Army Corps
of Engineers
Seattle District

Interim Guidelines

and Permit Application and Reference Biological Evaluation Form

Maintenance, Modification, and Construction of Residential Overwater Structures in Inland Marine Waters Within the State of Washington



Effective: April 21, 2004

A permit must be obtained from the U.S. Army Corps of Engineers (Corps) for work in waters of the U.S. This includes the maintenance, modification and construction of overwater structures. Part of the Corps' permit application review process includes consultation on Endangered Species Act (ESA) issues. Consultation typically requires the permit applicant's submittal of a Biological Evaluation (BE), which is a report which details impacts to ESA listed species.

The Corps has completed a BE for proposed projects meeting these Interim Guidelines (Guidelines) for the maintenance, modification and construction of residential overwater structures in inland marine waters within the state of Washington. A permit applicant can "reference" this BE and submit project specific information as part of the permit application to expedite the preparation and review of a BE for this type of work. The proposed project should, but does not have to, meet all of the Guidelines described in this document. If the proposed project meets all of the Guidelines, the consultation process will be expedited. If the proposed project does not meet all of the Guidelines, the consultation process may be longer.

Once the Corps receives from the permit applicant complete BE information, the Corps will initiate informal consultation with the National Marine Fisheries Service and U.S. Fish and Wildlife Service. Once consultation has been completed, the Corps will finalize their permit decision and inform the applicant of the final decision. Work cannot commence until the permit applicant receives written verification from the Corps that a permit authorizes the work.

In an effort to minimize impacts to the aquatic environment and to streamline the application review process for applicants, the Corps, has developed these Guidelines regarding the proposed maintenance, modification, and construction of residential overwater structures in inland marine waters within the state of Washington. Please note that in Appendix I of this document are definitions and descriptions of terms used in this document. These Guidelines were developed for the Corps' preparation of a Regional General Permit (RGP). Until this RGP is issued, these Guidelines can be used to reduce impacts to the aquatic environment due to the construction and use of overwater structures.

To apply for a permit for a proposed project following these Guidelines, please read this document in its entirety and submit all of the required information.

Application Procedure: To apply for a permit, for a proposed project designed to the Guidelines, the prospective permittee must submit the following information:

1. A complete written application is one that fully describes the proposed work. To expedite the review process, the Corps requests that the applicants use Appendix A of these Guidelines as the application form.

A “complete application” also includes a vicinity map; plan, profile, and cross-section drawings of the proposed structures and over water structures on adjacent properties; and a description of any material that would be discharged (temporarily or permanently) into waters of the United States. (For assistance with preparation of the drawings, please refer to Appendix E, “Guidance for Completion of Drawings.”)

If the structure will be “joint use” you must:

- List all property owners using the joint use pier as co-applicants and they must sign the application form
 - Provide a joint use agreement (Agreement) signed by all involved property owners; the Agreement must state that each property owner voluntarily agrees to build no overwater structures on their property except for the maintenance or modification of the authorized joint use overwater structure (Note: upon issuance of the permit for the joint use overwater structure, all property owners must record this Agreement on their deeds.)
 - Show on a drawing the location of all properties involved in the joint use agreement
 - Note: “joint use” means constructed and utilized by more than one residential waterfront property owner or by a homeowner’s association that owns waterfront property
2. For activities that may affect historic properties, listed or eligible for listing, in the National Register of Historic Places, the notification must include a description of each historic property that may be affected by the proposed work and a map indicating the location of the property.
 3. Any other relevant information, such as
 - Eelgrass and macroalgae surveys: preliminary, intermediate, intensive
 - Forage fish habitat documentation
 - A list of Federally listed threatened and endangered species in the project vicinity and affected by the project (“project vicinity” generally includes the area within 1 mile of the project site)
 - Hydraulic Project Approval
 - Photographs of the project area and shoreline bank area.

Interim Construction Guidelines: The *italicized* text provides a description of the effects of construction and why these guidelines were developed.

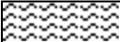
1. Piers: *Salmonids, including juvenile Chinook salmon and sub-adult and adult bull trout use the nearshore areas of Puget Sound for feeding, rearing, and as migratory corridors. As small individuals, they reside in shallow waters and eelgrass beds in shallow water. The larger predators are generally located in deeper water where small juvenile salmon are not located. As the small juvenile salmon grow they become less dependent on shallow water, eelgrass, and macroalgae and change their feeding habits and begin preying on forage fish such as herring, sand lance, and surf smelt. Forage fish adults spawn on the intertidal substrate, eelgrass, and macroalgae. Young forage fish provide the forage for juvenile Chinook salmon. Eelgrass, microalgae, and macroalgae, similar to terrestrial plants, are dependent on light for growth and*

survival. Since piers create shade, they negatively impact the ability of eelgrass, microalgae and macroalgae to grow and subsequently adversely impact the feeding, rearing, and refuge habitat of small juvenile salmonids. In addition, the shade created by the pier can provide cover for juvenile salmonid predators. Therefore, the amount of shade created by the pier needs to be minimized. This can be accomplished in several ways.

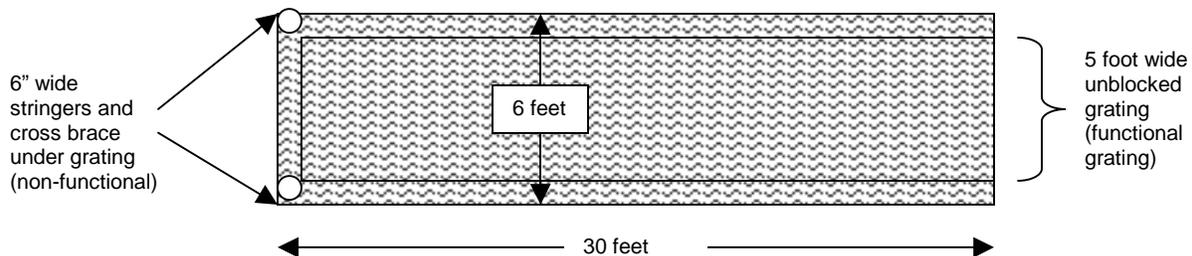
- a. The width of the modified portion of a pier or a proposed new pier must not exceed 6 feet.
- b. The following grating options are available to comply with the Construction Guidelines of the pier to minimize shading impacts taking into account the amount and location of grating and compass orientation. Refer to Specification 4 for additional grating requirements. Note: The permit application drawings must clearly and correctly show a north arrow with True and Magnetic North.

General Compass Orientation of Pier and Pier Width	Specific Degrees (North = 0) True North	% of Functional Grating on the Pier	Location of Grating on the Pier
N/S Only if width is greater than 4 feet	338 to 22 158 to 202	30	Along the length of the pier for the entire length of the pier
NE/SW And E/W Required for all piers irregardless of width	23 to 157 203 to 337	50	Along the width of the pier, interspersed along the entire length of the pier

“Functional grating” is grating which is not covered or blocked underneath by any objects. The percent of “functional grating” is in relation to the surface area of the pier.

See figures below to further explain these options:  = grating

Functional Grating:



Example: For this portion of a pier:

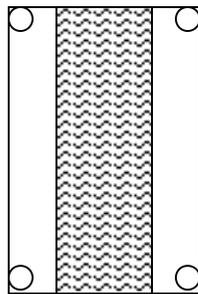
The total surface area of the pier is 6- by 30- feet = 180 square feet

The total functional grated surface area is 5- by 29.5-feet = 147.5 square feet

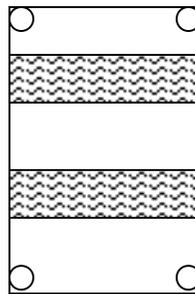
The percent of functional grating: 147.5 divided by 180 = 82%

Location of Grating:

Along the length of the pier



Along the width of the pier



- c. Pier configuration: The pier must be linear in a straight line. New, repair, or replacement of finger, “ell”, and “T” shaped piers cannot be constructed.
2. Floats: *Intertidal and sub-tidal substrate often supports aquatic vegetation such as eelgrass and macroalgae, as well as many benthic invertebrate species. The benthic invertebrates are an important food source of forage fish and juvenile salmonids. The solid surface of a float may inhibit light from entering the water. It is believed that the shadow cast by floats can discourage juvenile fish, especially salmonids, from passing under floats, often forcing these fish into deeper water to go around shaded areas. Thus increasing their chance of being preyed upon. Shading impacts to vegetation are discussed in the previous section. Therefore, it is important to reduce the amount of shade under a float. Grating the float surface and reducing the width of the float allows as much natural light as possible to reach vegetation important to fish and their forage species. Floats or concrete block anchors which rest on the tidal substrate or anchor chains that scrape the tidal substrate at low tide, damage the tidal substrate, impacting benthic invertebrates and vegetation, subsequently impacting fish species.*
 - a. For a single residential use structure, the float width cannot exceed 8 feet, the float length cannot exceed 20 feet, and the floatation can only be under solid decked areas; the following options regarding the Construction Guidelines are available that minimize shading impacts taking into account float width and amount of grating:
 - Option 1: A float with a width of 6 feet or less must have functional grating installed on at least 30 percent of the surface area of the float.
 - Option 2: A float with a width greater than 6 feet (up to 8 feet) must have functional grating installed on at least 50 percent of the surface area of the float.

- b. For a joint use overwater structure, the float width must not exceed 8 feet, the float length cannot exceed 40 feet, functional grating must be installed on at least 50 percent of the surface area of the float, and the floatation can only be under solid decked areas.
 - c. The applicant must demonstrate to the Corps, in writing, as part of the permit application, that to the maximum extent practicable, the float will be installed with the length in the north-south direction.
 - d. If the float is removed seasonally, the float should be removed from the water and placed in unvegetated uplands or paved areas. If the float is moved to a marina or other in-water facility for storage, the permittee must identify the area as part of their permit application so the Corps can verify that the facility has Corps authorization to store floats.
 - e. Floatation for the float shall be fully enclosed and contained in a shell (e.g., polystyrene tubs not shrink wrapped or sprayed coatings) that prevents breakup or loss of the floatation material into the water and is not readily subject to damage by ultraviolet radiation and/or abrasion caused by rubbing against piling and/or waterborne debris.
 - f. The floats cannot rest on the tidal substrate at any time. Stoppers on the piling anchoring the floats or stub piling must be installed such that the bottom of the floatation device is at least 1 (one) foot above the level of the substrate. The stoppers must be able to fully support the entire float.
 - g. Floats can be held in place with lines anchored with a helical screw anchor, piling, piling with stoppers and/or float support/stub pilings. For a single, residential use, 20-foot float, a maximum of 4 piling or helical screw anchors can be installed to hold the float in place. For a joint use 40-foot float, a maximum of 6 piling or helical screw anchors can be installed to hold the float in place. If anchors and anchor lines need to be utilized, the anchor lines shall not rest on the substrate at any time.
3. Ramps. *Ramps may inhibit light from entering the water. This loss of light impacts the growth rate of aquatic vegetation. This subsequently may impact the feeding and rearing habitat of fish. Also, the shadow created by the ramp may provide cover for predators of salmonid fish species. By grating the ramp and using a greater length, the ramp can span the shallow intertidal area, minimizing shading impacts to vegetation in the intertidal area.*
 - a. The width of the ramp connecting the pier and the float must not exceed 4 feet.
 - b. Grating shall cover the entire surface area of the ramp.
4. Grating. The grating must have at least 60 percent open area. The grating must be oriented to maximize the amount of light passage. This can be accomplished by orienting the lengthwise direction of the grate openings in the east-west direction. To ensure that light transmission is not impeded, grating must not be covered or blocked (on the surface or underneath) with any objects, such as, but not limited to, buildings, planters, storage sheds or boxes, nets, carpets, boards, tables, lawn furniture, or traction devices. Electrical boxes are permitted and must be shown on the plan drawings.

5. Piling. *The tidal and sub-tidal substrates often have very important habitat features for juvenile salmonids. Piling and pile driving displaces and disturbs this often sensitive substrate. Piling installed close together can cause floating debris to accumulate between piling, which could lead to shading of the substrate and impede juvenile salmonid movement along the shoreline. To minimize these effects the spacing between piling should be maximized.*
- a. Replacement or proposed new piling must be steel, concrete, plastic, or untreated or treated wood. Any piling subject to abrasion (and subsequently deposition of material into the water) must incorporate design features (e.g., plastic or metal bands) to minimize abrasion from the contact between the piling and the float(s) or attachments to the float(s).
 - b. New piling associated with a new pier must be spaced at least 20 feet apart (lengthwise along the structure) unless the length of structure itself is less than 20 feet. If the structure itself is less than 20 feet in length, piling can only be placed at the ends of the structure.
 - c. If the activity is only the replacement of existing piling on an existing pier: the piling can be replaced in the same general location and must not extend beyond the footprint of the existing structure (e.g., pier). The 20-foot spacing between piling is not required. Existing piling can be partially cut with a new piling secured directly on top, fully extracted, or cut 2-feet below the mudline. If treated piling are fully extracted or cut 2-feet below the mudline, the holes or piling must be capped with appropriate material. Hydraulic water jets cannot be used to remove piling.
 - d. A maximum of two moorage piling may be installed to accommodate the moorage of boats exceeding the length of the floats.
 - e. The diameter of steel piling cannot exceed 12 inches. If a drop hammer pile driver for steel piling is utilized, a sound attenuation device or system must be implemented during pile driving.
 1. For piling with a diameter of 10 inches or less, the sound attenuation device must include one of the following: the placement of a block of wood (minimum of 6 inches thick) between the hammer and the piling during pile driving or use a bubble curtain that distributes air bubbles around 100% of the perimeter of the piling over the full depth of the water column or any other Corps approved sound attenuation device. Information on bubble curtain design is available on the Corps' website.
 2. For piling with a diameter greater than 10 inches, up to 12 inches, the sound attenuation device must include the placement of a block of wood (minimum of 6 inches thick) between the hammer and the piling during pile driving and use a bubble curtain that distributes air bubbles around 100% of the perimeter of the piling over the full depth of the water column or any other Corps approved sound attenuation device. Information on bubble curtain design is available on the Corps' website.
6. Wood Treatment. *In tidal waters, the harsh conditions and salt water may result in leaching of chemicals used to preserve wood, into the water. These chemicals may be harmful to fish, shellfish, and humans.*

- a. No creosote, pentachlorophenol, CCA, or comparably toxic compounds not approved for marine use, shall be used for any portion of the overwater structure. For any ACZA treated wood, the wood must be treated by the manufacturer per the Post Treatment Procedures outlined in "BMP Amendment #1 - Amendment to the Best Management Practices (BMPs) for the Use of Treated Wood in Aquatic Environments; USA Version - Revised July 1996", by the Western Wood Preservers Institute, as amended April 17, 2002 or the most current BMPs. This information is available on www.WWPInstitute.org. Third party certification that the material was produced according to these BMPs must be provided to the Corps before authorized work can commence.
7. Skirting. *Skirted piers block light from reaching the water beneath the piers. Shading impacts are discussed in the pier section. The vertical boards may cause floating debris to accumulate between piling, which could lead to shading of the substrate and impede juvenile salmonid movement along the shoreline.*
 - a. New or replacement skirting cannot be constructed.
 8. Other Structures. *Structures on top of overwater structures can block the passage of light through grating. Also, the structures can cause additional shading impacts due to the height or size of the structure. Shading impacts are discussed in the pier section.*
 - a. The repair, maintenance, or replacement of existing structures, or the construction of new structures, such as, but not limited to, buildings, planters, storage sheds or boxes on over water structures cannot be constructed. Electrical utility boxes can be repaired, maintained or replaced under these Guidelines.
 9. Watercraft Moorage at Proposed Structures. *In some areas, watercraft tied to an overwater structure may rest on the substrate during low tide. The grounded watercraft may scrape or compact the substrate that adversely affects benthic invertebrates, eelgrass, microalgae and macroalgae. Compacted substrate reduces the likelihood that burrowing organisms can penetrate the substrate. A watercraft grid or lift will prevent a watercraft from resting on the substrate at low tide.*
 - a. Watercraft (e.g., motorized boats, jet skis, canoes, kayaks, or seaplanes) moored at modified or new structures cannot rest on the tidal substrate at any time. The applicant must demonstrate that the watercraft will not ground. If there is a potential for the watercraft to ground, the watercraft must either be placed on the overwater structure (but not on grated portion) or on an uncovered watercraft grid or an uncovered watercraft lift or elevated above the water on a davit.
 - b. Only one uncovered watercraft grid or uncovered watercraft lift can be installed at a single use overwater structure. A maximum of two uncovered watercraft grids or uncovered watercraft lifts can be installed at a joint use overwater structure.
 - c. A maximum of two additional piling may be used to attach the uncovered watercraft grid to the piling used for anchoring the floats.
 - d. The bottom of the uncovered watercraft grid shall be at least one foot above the level of the substrate.

- e. If a floating watercraft lift is installed, the lift cannot rest on the tidal substrate at any time.
10. Eelgrass/Macroalgae. *As discussed in the pier section, fish species are dependent upon eelgrass, macroalgae and microalgae directly or indirectly. The construction of overwater structures and the use of these structures have the potential to adversely affect these plants if they are located in the area. Therefore, it is important to identify if the plants exist in the project area and the project must be designed to avoid impacting (e.g., shade, propeller scour, watercraft ground, etc.) these areas. To minimize direct construction impacts and ongoing impacts, the overwater structures must be located away from eelgrass and macroalgae.*
- a. No eelgrass/macroalgae survey is required for the replacement of decking or a ramp.
 - b. For all other activities, the applicant must submit a preliminary eelgrass/macroalgae survey with their permit application to qualitatively assess the vegetation in the “project area” (see Appendix I for definition). If the applicant believes there are no eelgrass/macroalgae beds in the project area, they must submit photographs of the site taken at low tide during June 1 through October 1 (to most accurately reflect eelgrass/macroalgae bed distribution), showing the entire project area, to the Corps for a determination regarding the need for a preliminary eelgrass/macroalgae bed survey (see Appendix F). “Macroalgae beds”, for the purposes of these Guidelines, is defined as an area of the tidal substrate supporting attached macroalgae and covering 25% of the substrate.

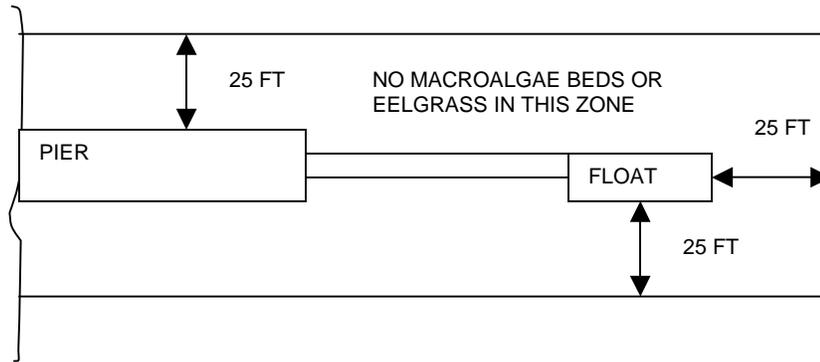
If eelgrass/macroalgae is found within the project area, and the WDFW has not documented Pacific herring spawning habitat (e.g., eelgrass) at the project site, an intermediate survey may need to be performed to map the distribution of vegetation relative to the proposed overwater structure (see Appendix G). The Corps will make this determination based on the quality of the preliminary survey and the potential for the site to contain undocumented Pacific herring spawning habitat, and will inform the applicant of the need for any additional surveys.

If there is documented Pacific herring spawning habitat (e.g., eelgrass) on the project site, the applicant must provide the Corps an intensive eelgrass/macroalgae survey to map the distribution of the spawning habitat relative to the proposed overwater structure (see Appendix H).

Note: As a condition to obtain a Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife, an eelgrass/macroalgae/forage fish survey is routinely required. If any of these reviews have been completed, and/or an HPA has been issued for the proposed work, this documentation can be submitted to the Corps to meet the requirements for an eelgrass/macroalgae/forage fish survey. If an HPA has been issued for the proposed work, the HPA should be submitted with the application to the Corps.

- c. No overwater structures or piling can be constructed or installed within 25 feet (horizontally), measured in all directions of macroalgae beds or eelgrass.

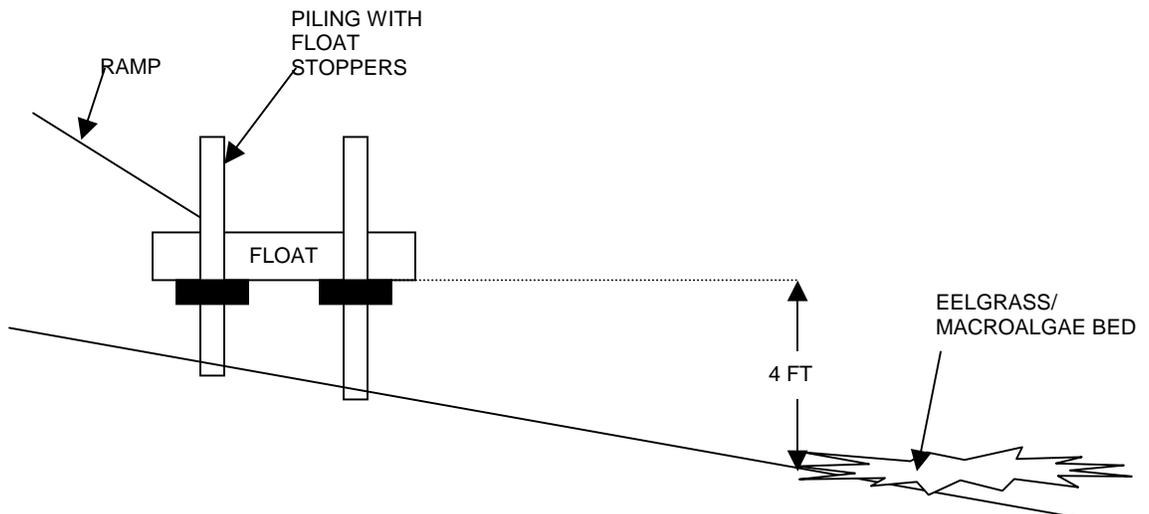
EXAMPLE, plan view:



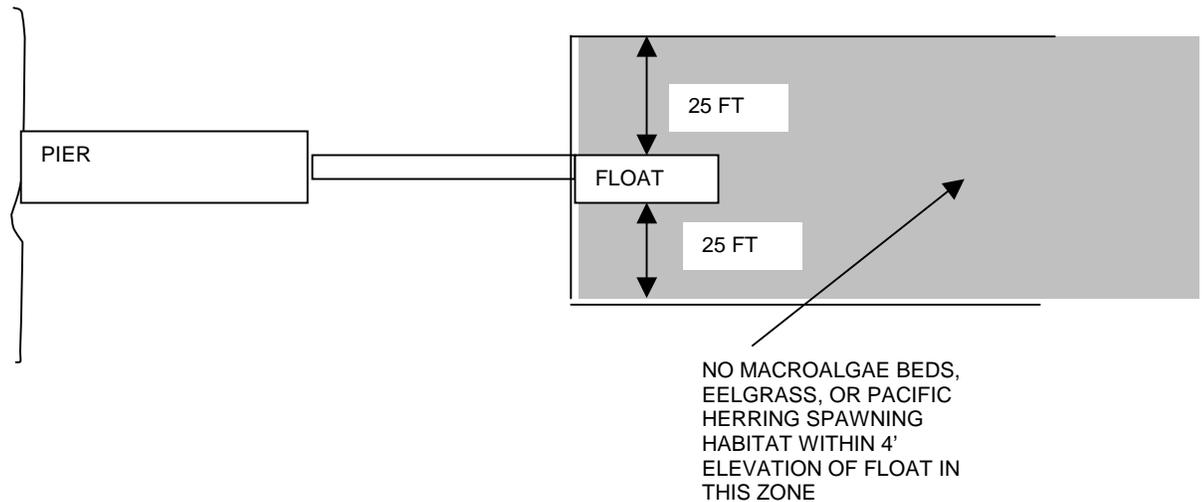
To minimize impacts from the use of the structures (e.g., boat use, prop scour), the overwater structures should be located at an elevation above eelgrass and macroalgae.

- d. No floats or float support piling can be constructed or installed within a 4 foot depth elevation between the top of the float stopper and the elevation of the landward most edge of the macroalgae bed or eelgrass. This restriction applies to a zone 25 feet wide on both sides of the float projecting waterward from the float (see example, elevation and plan view below). A drawing of depths and distance to macroalgae beds or eelgrass must be provided as part of the application.

EXAMPLE, elevation view:



EXAMPLE, plan view:



11. Forage Fish Habitat: *As discussed in the pier section, forage fish are important to juvenile salmonids. Therefore, adverse impacts to their habitat must be avoided or minimized.*
 - a. Piers and ramps that span documented surf smelt and/or sand lance spawning habitat is the preferred construction method, but is not required.
 - b. The number of piling in documented surf smelt and/or sand lance spawning habitat must be minimized, the spacing between pilings must be maximized, and the piling cannot consist of treated wood. Also, the piling diameter must not be more than 8 inches, to the maximum extent practicable. If pilings are to be placed in surf smelt and/or sand lance spawning habitat, the application must demonstrate why these impacts are not avoidable.
 - c. Floats, float support piling, helical anchors, or watercraft grids or lifts cannot be installed in documented Pacific herring, surf smelt and/or sand lance spawning habitat.
 - d. No floats, float support piling, or watercraft grids or lifts can be constructed or installed within a 4-foot depth elevation between the top of the float stopper and the elevation of the landward most edge of documented Pacific herring spawning habitat. This restriction applies to a zone 25 feet wide on both sides of the float projecting waterward from the float (see example, plan view in 10.d. above).
 - e. Information on the substrate types in the project area must be submitted as part of the permit application. If the Corps determines that there is potential undocumented surf smelt, Pacific herring, or sand lance spawning habitat, the Corps may request additional information from the applicant and the Corps will consult with the appropriate resource agencies. Project revisions may be required if undocumented surf smelt, Pacific herring, or sand lance spawning habitat is located in the project area.
12. Work Windows. *Different fish species have different migration and spawning life histories. Also, certain bird species, such as bald eagles, have certain times for wintering and nesting*

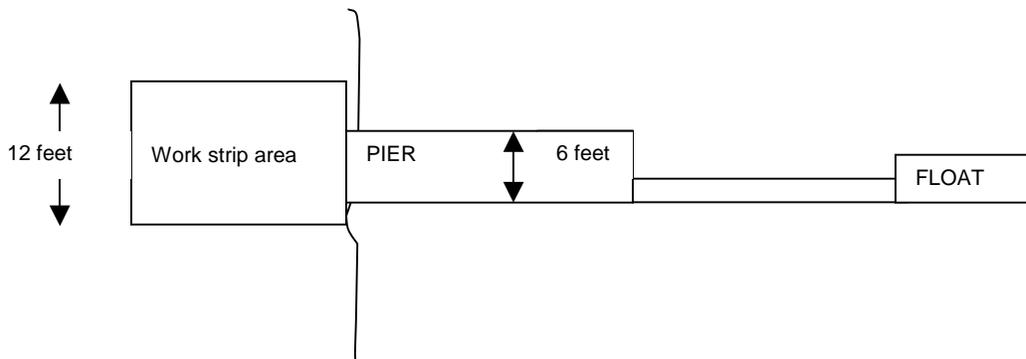
activities. To minimize impacts to these species, in-water construction should occur when the fish are not migrating or spawning or when the birds are not wintering or nesting.

- a. To minimize impacts to salmonid species and their forage fish species, construction work shall be conducted only during approved fish work windows (approved work windows, and any subsequent revisions, will be posted on the Regulatory Branch's website at www.nws.usace.army.mil/reg.html).
 - b. If there is documented or potential surf smelt or sand lance habitat at the project site and there is no approved work window for surf smelt or sand lance at the project site, the applicant must, prior to construction, have a qualified biologist or biologist certified by the Washington Department of Fish and Wildlife (WDFW) confirm, in writing, that no surf smelt or sand lance are spawning in the project area during the proposed project construction. This documentation must include the date of the inspection, the findings, and must be provided to the Corps, Seattle District, Regulatory Branch, FAX (206) 764-6602, prior to construction period. Address the letter or memorandum to the project manager and include the Corps permit reference number. If the qualified or certified biologist confirms that no surf smelt or sand lance are spawning in the project area, the permittee has 48 hours from the date of the survey to begin the work and two weeks from the date of the survey to complete all work that contacts the substrate waterward of mean higher high water. (Note: This notification to the Corps will occur after the applicant has already received a permit from the Corps.)
 - c. To minimize impacts to wintering or nesting bald eagles specific work windows must be adhered to. Based on the distance to the nearest bald eagle nest, nesting chronology, wintering concentrations, roost sites, potential perch sites, and foraging habitat, the Corps will determine the appropriate work window. The prospective permittee must agree to abide by the required bald eagle work windows. Generally, the work prohibition times are: January 1 through August 15 (for nesting areas) and November 1 through March 31 (for wintering areas) (the work windows, and any subsequent revisions, will be posted on the Regulatory Branch's website at www.nws.usace.army.mil/reg.html).
13. Work in the Dry. *Work performed in the water that disturbs the substrate can create turbid water. These sediments can be carried in the water and can be deposited on spawning gravels, eelgrass, microalgae, or macroalgae. This could adversely affect spawning of fish or the productivity of the eelgrass, microalgae, and macroalgae. Doing the work in the dry will reduce turbidity.*
- a. Work that involves the excavation of the substrate, bank, or shore of a water of the United States (e.g., removal of bank protection as a mitigation measure) shall occur in the dry (e.g., at low tide) whenever practicable.
14. Operation of Equipment. *These measures help to minimize impacts to organisms living in the tidal substrate and the waterbody.*
- a. Use of equipment on the beach shall be held to a minimum, confined to a single access point, and limited to a 25-foot work corridor on either side of the proposed work. To the maximum extent practicable, equipment shall be operated from the top of the bank, temporary work platform, barge, or similar out-of-water location.

- b. Equipment shall be operated in a manner that minimizes suspended particulates from entering the water column.
- c. Equipment with any identified problems, including leaks or accumulations of oil or grease, must be fixed and cleaned, away from the water, before its use as part of the project. Fuel hoses, oil drums, or fuel transfer valves and fittings, etc. shall be checked daily for drips or leaks, and shall be maintained and stored properly to prevent accidental spills.
- d. If barges are needed, barges may not ground on the substrate at any time.
- e. Depressions or trenches in beach areas, waterward of MHHW, created by construction equipment, shall be immediately restored to the original pre-project conditions (e.g., elevation and substrate material type).
- f. Any disturbance of the beach area by construction activities or equipment, which leaves exposed hardpan or clay, shall be restored to the original pre-project conditions (e.g., elevation and substrate material type) upon the immediate completion of construction and mitigation work.

15. Disturbance of Vegetation. *Bank vegetation is an important nutrient and habitat source for the aquatic environment. Decomposition of vegetation that falls into the water provides an important food source for invertebrates and fish. Through the natural process of trees falling into the water, the trees, particularly the branches and roots, provide complex habitat and refuge for fish and other aquatic species. In addition, bank vegetation diffuses sunlight providing cover and temperature regulation for upper intertidal habitats.*

- a. Existing habitat features (e.g., large and small natural woody debris) shall not be removed from the aquatic environment.
- b. Disturbance of bank vegetation shall be limited to a “work area strip” no wider than twice the width of the pier parallel to the pier, see figure below. There is no length requirement.



- c. If woody bank vegetation with a diameter at breast height (DBH) of 4-inches or greater needs to be removed within the “work area strip”, the applicant must submit photographs of the bank, work strip area, and areas immediately adjacent and a justification regarding

the proposed removal, to the Corps as part of the permit application. Approval for removal must be obtained from the Corps. Trees, to the maximum extent practicable, must be placed on the beach, onsite and anchored securely into place. If trees will not be placed on the beach, the applicant must explain why this is not practicable.

- d. Disturbed bank vegetation shall be replaced with the equivalent (e.g., if shrubs are removed, shrubs need to be planted) native species appropriate for the site. A planting plan must be provided. See Table 3 for list of approved plant species. Alternative species can be planted with approval from the Corps.

16. Mitigation Measures. *While the above described construction measures will minimize impacts to the aquatic environment due to the individual structures, impacts from these structures have not been fully avoided. The purpose of mitigation is to offset losses to the aquatic environment resulting from installation of an overwater structure. Overwater structures have the potential to degrade or destroy important habitat for threatened fish species. These mitigation measures will restore or create important fish habitat to offset the impact of the project.*

Based on the size of the project, a certain number of mitigation points will be required to mitigate for the impacts.

Table 1 is a list of different types of mitigation measures the applicant can select from to mitigate for the proposed overwater structure(s). Each mitigation measure is given a mitigation point value.

Table 2 describes the formula and method to be used to calculate how many mitigation points are required to mitigate for the impacts of the proposed project.

The first priority for mitigation work is onsite; however, if mitigation work cannot be completed onsite, the mitigation work may occur at a Corps' approved offsite location. If mitigation must be completed at an offsite location, justification must be provided as part of the permit application. The amount of mitigation may be increased if an offsite location is utilized to fully compensate for impacts of the project.

Note: Fractional numbers greater than or equal to 0.5 are rounded up and fractional numbers less than 0.5 are rounded down. Examples: The number 7.3 would be rounded down to 7. The number 6.5 would be rounded up to 7.

The proposed mitigation measures include the removal of manmade hardened shoreline. These mitigation measures are important because hardened shorelines cause beach erosion, lowering the beach elevation, decreasing shallow intertidal habitat, blocking natural erosion processes that feed the beach with sand, and removing overhanging vegetation important to the aquatic ecosystem. Removal of hardened shoreline and planting overhanging vegetation will help restore these processes. Existing man made structures can degrade the natural habitat by increasing shading, displacing the tidal substrate, or leaching contaminants into the aquatic environment. Increasing the amount of light under the structures by adding grating or using a light reflecting surface (e.g., white grating), will reduce shading impacts. Generally, eelgrass is not located at depths greater than -20 feet below MLLW, therefore locating structures over water at depths greater than -20 feet below MLLW will have few impacts to eelgrass.

Table 1. Mitigation Measure Options (MMO) and Corresponding Mitigation Points
 (Note: The terms “remove” or “relocate” means to remove from the area waterward of MHHW and dispose of or place in an appropriate upland or approved disposal area.)

Mitigation Measure Option #	Number of Mitigation Points	Mitigation Measure Description
1	1	Plant 4 trees and 4 shrubs (from the planting list and per planting specifications in these Guidelines) within 15 feet landward of the MHHW and parallel to the shoreline
2	1	Remove 1 pile located in the tidal substrate (if the pile is treated wood, use MMO #6 instead)
3	1	Permanently prevent an existing float from resting on the tidal substrate (at least 1 foot above the tidal substrate)
4	1	Install 9 square feet of functional grating on the proposed or existing structure <u>beyond</u> the requirements of these Guidelines
5	1	Permanently prevent an existing anchor line from scouring the tidal substrate
6	2	Remove 1 treated wood pile located in the tidal substrate
7	2	Remove 9 square feet of an existing overwater structure
8	3	Relocate 3 linear feet of hardened shoreline
9	4	Remove 3 linear feet of hardened shoreline and plant removal area with native vegetation (see Table 3)
10	4	Remove manmade debris (e.g., concrete rubble, tires, etc.) covering 9 square feet, from the tidal substrate
11	Varies	<p>Removal of an existing manmade groin, in its entirety. The number of mitigation points varies depending on the size of the groin. One mitigation point = 9 square feet (footprint) of groin removed.</p> <p>For example: The groin to be removed is 9 feet long and 3 feet wide. This structure has a footprint of 27 square feet. 27 divided by 9 equals 3 mitigation points.</p>
12	Varies	<p>Removal of an existing boat ramp, in its entirety. The number of mitigation points varies depending on the size of the boat ramp. One mitigation point = 9 square feet (footprint) of boat ramp removed.</p> <p>For example: The boat ramp to be removed is 12 feet long and 8 feet wide. This structure has a footprint of 96 square feet. 96 divided by 9 = 10.7 → 11 mitigation points.</p>
13	Varies	<p>Removal of an existing marine railway (two rails and support structures), in its entirety. The number of mitigation points varies depending on the length of the marine railway. One mitigation point = 3 linear feet of a pair of rails removed.</p> <p>Note: each rail is not counted separately.</p> <p>For example: The marine railway to be removed is 14 feet long. 14 divided by 3 = 4.6 → 5 mitigation points.</p>

Table 2. Number of Required Mitigation Points for Certain Project and Habitats

Specific Size and Location of Proposed Overwater Structure ↓	Habitat Categories		
	A	B	C
	Project is greater than 50 feet away from eelgrass, macroalgae, spawning and forage fish habitat	Project is 26 – 50 feet away from macroalgae beds and/or forage fish habitat	Project is 26-50 feet away from eelgrass
	# Required Mitigation Points	# Required Mitigation Points	# Required Mitigation Points
Structure size and/or number of piling is reduced or the same (and project meets Guidelines)	0	0	0
Per every ninety (90) square feet of pier, ramp, float, and the footprint of piling located in water shallower than –20 feet below MLLW for a single residential use overwater structure	1	1.5	2
Per every ninety (90) square feet of pier, ramp, float, and the footprint of piling located in water shallower than –20 feet below MLLW for a joint residential use overwater structure	0.5	0.75	1
Float located waterward of a water depth of –20 feet below MLLW	0	0	0

If the proposed structure is in Habitat Category B and C, the number of required mitigation points is the number in Habitat Category C.

The following examples are provided to illustrate how to use Tables 1 and 2 for a proposed project.

Example #1: A new **single** use overwater structure is proposed with the following components and corresponding footprint (in square feet). Note that even though some of the piling are located under the footprint of the pier, the surface area is counted separately because of the additional impact to the substrate.

10 piling (each 0.5 foot radius) $10 \times (\pi \times \text{radius}^2) = 10 \times (3.14 \times 0.5^2) = 7.85$ s.f.

Pier 80' by 4' = 320 s.f.

Ramp 36' by 4' = 144 s.f.

Float 20' by 6' = 120 s.f.

TOTAL size of proposed footprint = 592 s.f.

592 divided by 90 = 6.5 → 7 mitigation points

If the project site is in Habitat Category A: $7 \times 1 = 7$ mitigation points required.

As mitigation, the applicant will implement MMO #12 -- remove an existing

12- by 8-foot boat ramp = 96 s.f.

96 divided by 9 = 10.7 rounded up to 11 mitigation points. No additional mitigation is required for this project as the mitigation needs are exceeded.

If the project site is in Habitat Category B: $7 \times 1.5 = 10.5$ rounded up to 11 mitigation points required.

As mitigation, the applicant will implement MMO # 9 -- remove 9 linear feet of hardened bank protection and plant native vegetation in it's place (3 linear feet = 4 mitigation points => 9 linear feet = 12 mitigation points. No additional mitigation is required for this project as the mitigation needs are exceeded.

Example #2: An existing **single** use overwater structure is modified. The existing pier, ramp, float, and 16 piling have a footprint of 920 square feet. All structures are located landward of a water depth of -20 feet below MLLW

The new structure will be lengthened and widened for a total overwater coverage of 1,000 square feet that includes the removal of 4 piling. The size of the additional work will be: $1,000 - 920 = 80$ s.f., which needs to be mitigated.

80 divided by 90 = 0.89 rounded up to 1 mitigation point required.

If the project site is in Habitat Category A: $1 \times 1 = 1$ mitigation point required. As mitigation, the applicant will implement MMO# 2, one mitigation point is given per each of the 4 piling removed for a total of 4 mitigation points. No additional mitigation is required for this project as the mitigation needs are exceeded.

If the project site is in Habitat Category C: $1 \times 2 = 2$ mitigation points required. As mitigation, the applicant will implement MMO# 2, one mitigation point is given per each of the 4 piling removed for a total of 4 mitigation points. No additional mitigation is required for this project as the mitigation needs are exceeded.

Example #3: An existing **single** use overwater structure is being modified and will be reduced in size. The existing pier, ramp, and float have a footprint of 1200 square feet and have 20 piling. All

structures are located landward of a water depth of -20 feet below MLLW. The new structure will have a footprint of 950 square feet and will include the removal of 5 piling. No mitigation points are required.

Note: No “credit” is given for constructed mitigation points exceeding the required amount of required mitigation points. “Excess” mitigation cannot be traded, banked, or saved.

Mitigation Timing. The selected and Corps approved mitigation measures, except plantings, must be completed within 6 months from the date of project construction. Plantings must be installed during the appropriate time of year for the selected species and within one year of project construction.

Mitigation Planting. *The purpose of mitigation planting is to offset losses to the aquatic environment resulting from the installation of an overwater structure. The mitigation planting establishes a plant community and associated food web that can be utilized by foraging and migrating salmonids as they pass through the project area and provides complex shade for upper intertidal spawning forage fish.*

If plantings are selected as a mitigation option, the applicant must submit a planting plan, with their permit application, to be reviewed and approved by the Corps. See example planting plan below.

The prospective permittee will be required to establish and preserve the planting plot(s) at the project site for the duration that the overwater structure is in place.

The planting plot(s) will be planted (cuttings, burlapped roots or 1 – 5 gallon pots) with native shrubs and trees. The plantings must be located within 15 feet landward of the MHHW, planted in an alignment nearest to the water parallel to the shoreline. The shrubs will be planted at intervals of 3-feet on center, and the trees will be planted at intervals of 10-feet on center. The plant species must be from the plant list in Table 3, or the applicant can suggest other species but the Corps must approve the species before work commences.

EXAMPLE OF A PLANTING PLAN for 2 mitigation points

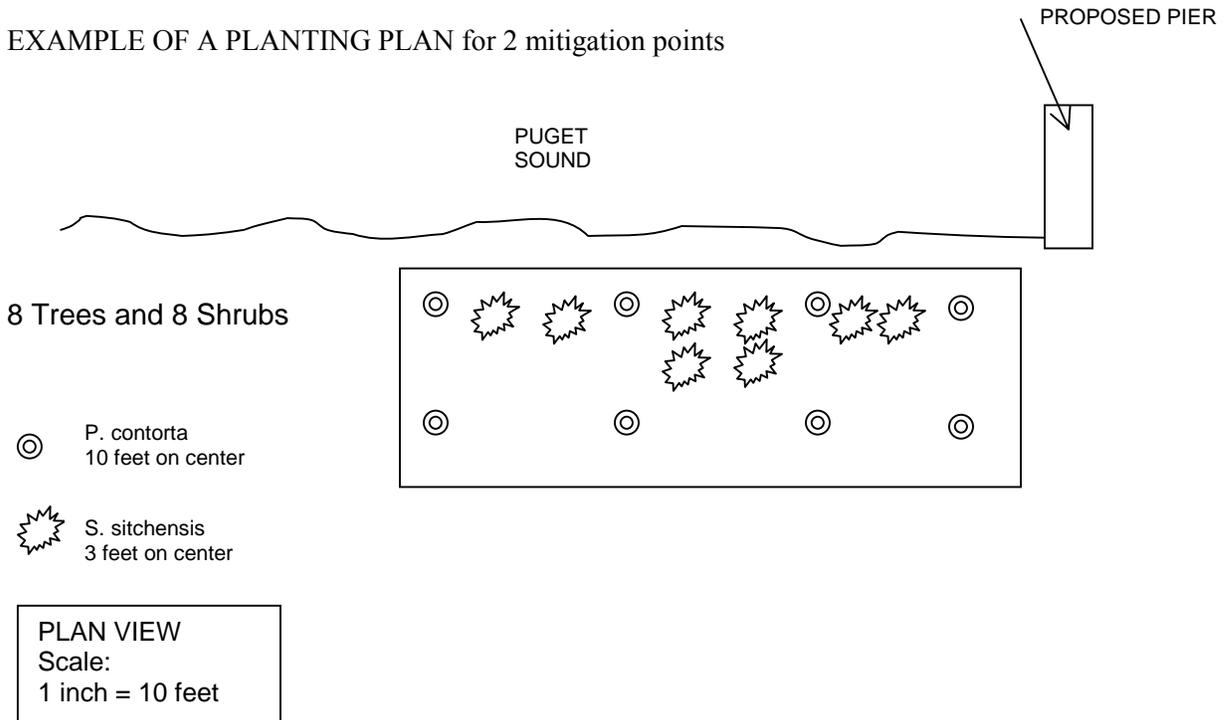


Table 3. List of Approved Plant Species (or the applicant can suggest other species but the Corps must approve the species before work commences)

Common Name	Scientific Name
Shrubs:	
Sitka willow	<i>Salix sitchensis</i>
Souler willow	<i>S. scouleriana</i>
Sandbar willow	<i>S. exigua</i>
Pacific willow	<i>S. lasiandra</i>
Hooker willow	<i>S. hookeriana</i>
Red osier dogwood	<i>Cornus stolonifera</i>
Trees:	
Black cottonwood	<i>Populus trichocarpa</i>
Douglas fir	<i>Pseudotsuga menzeisii</i>
Sitka spruce	<i>Picea sitchensis</i>
Shore pine	<i>Pinus contorta</i>

Mitigation Planting Performance Standards. One hundred percent survival of all planted trees and shrubs is required during the first and second years after planting the plot(s). During the third through fifth years after planting, 80 percent survival is required. The permittee must protect the planting plot(s) against predation (e.g., beavers)—the Corps recommends fencing. Individual plants that die must be replaced with native shrubs and trees taken from the species list above or other species approved by the Corps. Maintenance of the mitigation area includes removal and replacement of dead or dying plants and removal of invasive and/or noxious weeds. Maintenance does not include trimming or mowing of the plants. The plants must be allowed to develop naturally. During the 5 years of monitoring, the permittee must implement any Corps required contingency plans (e.g., additional plantings, planting different species) if the performance standards were not met.

Mitigation Reports. Should the Corps issue a permit, mitigation reports will need to be submitted.

- a. A report on mitigation completion or a status report on the project and mitigation, including as-built drawings, must be submitted to the Corps within 12 months from the date the Corps issues a permit to the permittee. The permittee can meet this reporting requirement by submitting a completed *Report for Mitigation Work Completion*, Appendix C, to the Corps.
- b. **If plantings are implemented:** Mitigation planting monitoring reports will be due annually for 5 years from the date the Corps accepts the as-built drawings. The mitigation monitoring report will include written and photographic documentation on tree and shrub mortality and replanting efforts. Photographs must be taken between June – August (the best time of year to show plant growth). Photographs must show a panoramic view of the entire mitigation planting area. A set point from where photos are taken must be established and used repeatedly for each monitoring year. The date of the photos must be noted on the monitoring report. The permittee can meet this reporting requirement by submitting a completed *Mitigation Planting Monitoring Report*, Appendix D, to the Corps.

APPENDIX A

Permit Application and Reference Biological Evaluation Form

Please fully complete this form and attach vicinity, plan, and elevation drawings and any other relevant information. Submit the information to: U.S. Army Corps of Engineers, Regulatory Branch, P.O. Box 3755, Seattle, WA 98124-3755

Referenced Biological Evaluation: *Biological Evaluation Regional General Permit for Modification and Construction of Residential Overwater Structures in Inland Marine Waters of Washington State, April 2004, U.S. Army Corps of Engineers, Seattle District, Regulatory Branch*

USFWS Reference Number: 1-03-I-0889

NMFS Reference Number: 2003/00214

Corps' Reference Number: _____
(Leave blank - to be entered by the Corps)

1. Applicant's name, address, telephone and fax number, and email:
Single or Joint Use: _____ If joint use, you must list the other waterfront property owners: name, address, and telephone number, as co-applicants. You must also provide a joint use agreement (Agreement) signed by all involved property owners; the Agreement must state that each property owner voluntarily agrees to build no overwater structures on their property except for the maintenance or modification of the authorized joint use overwater structure (Note: upon issuance of the permit for the joint use overwater structure, all property owners must record this Agreement on their deeds.)

2. Authorized agent's name, address, telephone and fax number, and email:

3. Contractor name, address, telephone and fax number, and email, and point of contact:

4. Specific location of project area:
Name of Waterway _____
Street Address _____
Section _____ Township _____ Range _____
Latitude _____ Longitude _____
City/County _____ (with Shoreline jurisdiction) Washington State
Parcel Number _____

5. Description of work and drawings (attach drawings on 8 ½- by 11-inch sheets, including a vicinity map, a plan view, and an elevation view; the drawings must include information as detailed on Appendix E – Drawing Checklist). The drawings must clearly show the factors detailed in the Guidelines. If joint use, the location of the other waterfront property(ies) must be shown on a map submitted to the Corps as part of the application.

Construction Guidelines: In order to facilitate the permit process, all of the construction Guidelines should be implemented. The entire text of the Construction Guidelines are listed in Interim Guidance document. Check each item that you will or will not implement. Check each item “not applicable” if they do not apply to your project. For example, if you will not install piling, check “not applicable” next to the item listing the piling requirements. **You must also complete the column on the right with your specific project information.**

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information												
			1.a. Piers: Pier width must not exceed 6 feet.	Width of proposed pier: _____ feet												
			b. Compass orientation of pier and the required % of functional grating, and location of grating on the pier: <table border="1" data-bbox="553 730 1164 1360"> <thead> <tr> <th data-bbox="553 730 719 919">General Compass Orientation of Pier and Pier Width</th> <th data-bbox="719 730 839 919">Specific Degrees (North = 0) True North</th> <th data-bbox="839 730 997 919">% of Functional Grating on the Pier</th> <th data-bbox="997 730 1164 919">Location of Grating on the Pier</th> </tr> </thead> <tbody> <tr> <td data-bbox="553 919 719 1108">N/S Only if width is greater than 4 feet</td> <td data-bbox="719 919 839 1108">338 to 22 158 to 202</td> <td data-bbox="839 919 997 1108">30</td> <td data-bbox="997 919 1164 1108">Along the length of the pier for the entire length of the pier</td> </tr> <tr> <td data-bbox="553 1108 719 1360">NE/SW And E/W Required for all piers irregardless of width</td> <td data-bbox="719 1108 839 1360">23 to 157 203 to 337</td> <td data-bbox="839 1108 997 1360">50</td> <td data-bbox="997 1108 1164 1360">Along the width of the pier, interspersed along the entire length of the pier</td> </tr> </tbody> </table>	General Compass Orientation of Pier and Pier Width	Specific Degrees (North = 0) True North	% of Functional Grating on the Pier	Location of Grating on the Pier	N/S Only if width is greater than 4 feet	338 to 22 158 to 202	30	Along the length of the pier for the entire length of the pier	NE/SW And E/W Required for all piers irregardless of width	23 to 157 203 to 337	50	Along the width of the pier, interspersed along the entire length of the pier	General compass orientation of pier: _____ Specific Degrees of compass orientation of pier based on true north: _____ % functional grating to be installed: _____ (attach calculations) _____ square feet of functional grating Location of grating on pier: _____
General Compass Orientation of Pier and Pier Width	Specific Degrees (North = 0) True North	% of Functional Grating on the Pier	Location of Grating on the Pier													
N/S Only if width is greater than 4 feet	338 to 22 158 to 202	30	Along the length of the pier for the entire length of the pier													
NE/SW And E/W Required for all piers irregardless of width	23 to 157 203 to 337	50	Along the width of the pier, interspersed along the entire length of the pier													
			c. The pier must be linear. New finger piers and “ell” and “T” piers are not authorized.													
			2.a. Floats: For a single use residential structure – the float width must not exceed 8 feet and the length cannot exceed 20 feet.	Width of proposed float: _____ feet Length of proposed float: _____ feet												
			a. Option 1: Float width is 6 feet or less. Functional grating on at least 30% of surface.	_____ square feet of functional grating Percent cover of surface with functional grating: _____ %												

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information
			Option 2: Float width greater than 6 feet. Functional grating on at least 50% of the surface.	_____ square feet of functional grating Percent cover of surface with functional grating: _____ %
			b. For a joint use residential structure – the float width must not exceed 8 feet and the length cannot exceed 40 feet. Grating must be installed on 50 percent of the surface area of the float.	_____ square feet of functional grating Percent cover of surface with functional grating: _____ %
			c. The float will be installed in a north-south direction, to the maximum extent practicable.	If float is not installed, lengthwise in a north-south direction, please attach reasons why.
			d. If the float is seasonally removed, it must be stored at a Corps approved location.	Will float be removed seasonally? Yes – No If yes, where will it be stored? _____ _____
			e. The floatation for the float shall be fully enclosed and contained in a shell.	
			f. The floats cannot rest on the tidal substrate. Stoppers or float support piling must be used such that the bottom of the floatation device is at least 1 (one) foot above the level of the substrate.	Float stoppers will be installed such that the bottom of the floatation device will be _____ feet above the level of the substrate.
			g Floats can be held in place with lines anchored with a helical screw anchor, piling, piling with stoppers and/or float support/stub pilings. For a single, residential use, 20-foot float, a maximum of 4 piling or helical screw anchors can be installed to hold the float in place. For a joint use 40-foot float, a maximum of 6 piling or helical screw anchors can be installed to hold the float in place. If anchors and anchor lines need to be utilized, the anchor lines shall not rest on the substrate at any time.	Number of proposed piling to hold float in place _____ A helical screw anchor will be used: Yes-No If Yes, describe the method used to prevent the line from resting on the substrate: _____
			3.a. Ramps: The width of the ramp cannot exceed 4 feet.	Width of ramp _____ feet
			b. Grating shall cover the entire surface area of the ramp.	

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information
			4. Grating must have at least 60% open area. Grating must be oriented to maximize the amount of light penetration and cannot be blocked by any objects above or below the grating.	Proposed grating has _____% open area
			5.a. Piling: Replacement or proposed new piling must be steel, concrete, plastic or treated wood. Treated wood pilings associated with the float(s) must incorporate design features (e.g., plastic or metal bands) to minimize abrasion from the contact between the treated wood and the float(s) or attachments to the float(s).	Type of material for piling: _____
			b. Piling supporting a new pier must be spaced no closer than 20 feet apart.	Number of proposed piling supporting the new pier: _____
			c. If the activity is only the replacement of existing piling on an existing pier: the piling can be replaced in the same general location and must not extend beyond the footprint of the existing structure (e.g., pier). The 20 foot spacing between piling is not required. Existing piling can be partially cut with a new piling secured directly on top, fully extracted, or cut 2-feet below the mudline. If treated piling are fully extracted or cut 2-feet below the mudline, the holes or piling must be capped with appropriate material. Hydraulic water jets cannot be used to remove piling.	Number of existing piling to be replaced: _____
			d. A maximum of 2 (two) moorage piling may be installed to accommodate the moorage of boats exceeding the length of the floats.	Number of proposed mooring piling: _____
			e. If a drop hammer pile driver for steel piling is utilized, a sound attenuation device or system must be implemented during pile driving. Steel piling cannot exceed a 12-inch diameter.	Diameter of steel piling: _____ feet
			1. Piling with diameter of 10 inches or less – one sound attenuation device	Type of sound attenuation device: _____ _____
			2. For piling with a diameter greater than 10 inches, up to 12 inches, the sound attenuation device must include the placement of a block of wood, minimum of 6 inches thick) between the hammer and the piling during pile driving <u>and</u> use a bubble curtain that distributes air bubbles around 100% of the perimeter of the piling over the full depth of the water column or any other Corps approved sound attenuation device.	Type of sound attenuation devices: _____ _____ _____
			6. Treated Wood: No creosote, pentachlorophenol,	If treated wood will be used,

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information
			CCA, or comparably toxic compounds not approved for marine use, shall be used for any portion of the over water structure. Treated wood must meet Post-Treatment Procedures.	list type of treatment: _____ You must also submit certification that the wood was treated by the appropriate and approved Post Treatment Procedures.
			7.a. Skirting: New or replacement skirting cannot be installed	
			8.a. The repair, maintenance, or replacement of existing structures, or the construction of new structures, such as, but not limited to, buildings, planters, storage sheds or boxes on over water structures cannot be constructed. Electrical utility boxes can be repaired, maintained or replaced.	
			9.a. Watercraft Moorage: Watercraft cannot rest on the tidal substrate at any time. If watercraft is placed on overwater structure, it must be placed on non-grated areas	At what water depth would moored watercraft ground out? _____ feet MLLW
			b. Only one uncovered watercraft grid or lift can be installed at a single use overwater structure and a maximum of two uncovered watercraft grids or lifts can be installed at a joint use overwater structure.	Number of proposed watercraft grid(s): _____ Number of proposed watercraft lift(s): _____
			c. A maximum of 2 additional piling may be used to attach the grid to the piling used for the floats.	Number of proposed piling to attach grid: _____
			d. The bottom of the watercraft grid shall be at least one foot above the level of the substrate.	The bottom of the watercraft grid will be _____ feet above the level of the substrate.
			e. If a floating watercraft lift is installed, the lift cannot rest on the tidal substrate at any time.	
			10.a. No eelgrass/macroalgae survey is required for the replacement of decking or a ramp.	
			b. For all other activities, the applicant must submit a preliminary/intermediate/intensive eelgrass/macroalgae survey. (As appropriate.)	Attach appropriate survey results to this application form.
			c. No overwater structures can be constructed within 25 feet (horizontally) measured in all directions of macroalgae beds or eelgrass.	Distance from proposed overwater structure to nearest surveyed macroalgae bed or eelgrass: _____ feet
			d. No floats or float support piling can be constructed within a 4-foot depth elevation between the top of the	Elevation from float to nearest surveyed macroalgae

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information
			float stopper and macroalgae bed and eelgrass. This restriction applies only to a zone 25 feet wide on both sides of the float.	bed or eelgrass: _____ feet
			11.a. Forage Fish Habitat - Piers and ramps can span documented sand lance and surf smelt spawning habitat.	
			b. The number of piling in documented sand lance and surf smelt spawning habitat must be minimized. The diameter of piling in this type of habitat must not be more than 8 inches and the piling cannot be treated wood.	If piling are placed in surf smelt and/or sand lance spawning habitat, explain why piling must be located in this area: _____ _____ _____
			c. Floats, float support piling, helical anchors and watercraft grids or lifts cannot be installed in documented Pacific herring, surf smelt and/or sand lance spawning habitat.	
			d. Floats, float support piling, and watercraft lifts cannot be installed within a 4-foot depth elevation of documented Pacific herring spawning habitat. This restriction applies only to a zone 25 feet wide on both sides of the float and waterward of the float.	
			e. Information on the substrate types in the project area must be submitted as part of the permit application. If the Corps determines that there is potential undocumented surf smelt, Pacific herring, or sand lance spawning habitat, the Corps may request additional information from the applicant and the Corps will consult with the appropriate resource agencies. Project revisions may be required if undocumented surf smelt, Pacific herring, or sand lance spawning habitat is located in the project area.	Describe substrate types and note the elevation (e.g. mud, sand, fine cobble, large rock; at +5 feet above MLLW, etc.) _____ _____ _____
			12.a. Work Windows: The required fish work window will be met.	The required fish work window at this project location is (per Corps' website):

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information
			<p>b. If there is documented surf smelt or sand lance habitat at the project site and there is no approved work window for surf smelt or sand lance at the project site, prior to construction, the applicant must have a qualified biologist or biologist certified by the Washington Department of Fish and Wildlife (WDFW) confirm, in writing, that no surf smelt or sand lance are spawning in the project area during the proposed project construction. Address the letter or memorandum to the project manager and include the Department of the Army permit reference number. If the qualified or certified biologist confirms that no surf smelt or sand lance are spawning in the project area, the permittee has 48 hours to begin the work and two weeks from the date of the inspection to complete all work contacting the substrate waterward of mean higher high water.</p>	<p>Documented Surf Smelt or Sand Lance habitat: Yes-No</p>
			<p>c. The required bald eagle work window will be met, as applicable to the project location. Work prohibition times: January 1 through August 15 (nesting areas) November 1 through March 31 (wintering areas)</p>	<p>The required bald eagle work window at this project location is [to be determined by the Corps]</p>
			<p>13. Work in the Dry: Work that involves the excavation of the substrate, bank, or shore shall occur in the dry whenever practicable.</p>	
			<p>14.a. Operation of Equipment: Use of equipment on the beach shall be held to a minimum, confined to a single access point, and limited to a 25-foot work corridor on either side of the proposed work. To the maximum extent practicable, equipment shall be operated from the top of the bank, temporary work platform, barge, or similar out-of-water location.</p>	
			<p>b. Equipment shall be operated in a manner that minimizes suspended particulates from entering the water column.</p>	
			<p>c. The required methods to identify problems and maintain and clean equipment will be implemented.</p>	
			<p>d. Barges may not ground on the substrate at any time.</p>	
			<p>e. Depressions or trenches in beach areas, waterward of MHHW, created by construction equipment, shall be immediately restored to the original pre-project conditions (e.g., elevation and substrate material type).</p>	

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information
			f. Any disturbance of the beach area by construction activities or equipment, which leaves exposed hardpan or clay, shall be restored to the original pre-project conditions (e.g., elevation and substrate material type) upon the immediate completion of construction and mitigation work.	
			15.a. Disturbance of Vegetation: Existing habitat features shall not be removed from the aquatic environment.	
			b. Disturbance of bank vegetation shall be limited to a work area strip no wider than twice the width of the pier. There is no length requirement.	If bank vegetation will be disturbed, what is the width of the disturbance area: _____ feet
			c. Removal of woody bank vegetation with a DBH of 4 -inches or greater within the work area strip must receive prior approval from the Corps. And material must be placed on the beach to the maximum extent practicable.	If woody bank vegetation with a DBH of 4 -inches or greater is planned to be removed, explain why it needs to be removed and describe where the cut woody vegetation will be placed: _____ _____ _____
			d. Disturbed bank vegetation shall be replaced with equivalent native species appropriate for the site. A planting plan must be provided.	If bank vegetation will be disturbed, list the species name of the replacement vegetation: _____ _____ _____

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Construction Guidelines	Specific Project Information
			16. Mitigation Measures: Mitigation measures will be completed for the required amount of mitigation points.	<p>Required number of Mitigation Points (see Table 2): (show your calculations)</p> <p>List selected Mitigation Measure Options(s) (see Table 1):</p> <p>Is the mitigation onsite/offsite? If offsite, provide a justification:</p>
			Mitigation Timing: The selected and approved mitigation measures, except plantings, must be completed within 6 months from the date of construction of the approved overwater structure. Plantings will occur during the appropriate time of year for the selected species and within one year of project construction.	
			Mitigation Plantings: The authorized species, number of plants, and correct spacing of plants will be utilized.	If plantings are proposed, attach planting plan.
			Mitigation Planting Performance Standards: The required performance standards will be met for the 5-year monitoring period.	
			Mitigation Reports: A report on mitigation completion or a status report on the project and mitigation, including as-built drawings, must be submitted to the Corps within 12 months from the date the Corps issues a permit to the permittee. If plantings are implemented: Mitigation planting monitoring reports will be due annually for 5 years from the date the Corps accepts the as-built drawings.	

If you checked “Will Not Implement” for any item, please provide a justification and an effects analysis (on ESA listed species): _____

APPLICATION IS HEREBY MADE FOR A PERMIT OR PERMITS TO AUTHORIZE THE ACTIVITIES DESCRIBED HEREIN. I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS APPLICATION, AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, SUCH INFORMATION IS TRUE, COMPLETE, AND ACCURATE. I FURTHER CERTIFY THAT I POSSESS THE AUTHORITY TO UNDERTAKE THE PROPOSED ACTIVITIES. I HEREBY GRANT TO THE AGENCIES TO WHICH THIS APPLICATION IS MADE, THE RIGHT TO ENTER THE ABOVE-DESCRIBED LOCATION TO INSPECT THE PROPOSED, IN-PROGRESS, OR COMPLETED WORK. I VOLUNTARILY AGREE TO MEET THE APPLICABLE REQUIREMENTS OF THE GUIDELINES. I AGREE TO START WORK ONLY AFTER ALL NECESSARY PERMITS HAVE BEEN RECEIVED.

Signature of Applicant

Date

Signature of Authorized Agent

Date

Signature of Contractor (if Contractor is known)

Date

APPENDIX B

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APPENDIX C

Status Report for Mitigation Work Completion

Within one (1) year of the date your permit was issued, submit this completed form to: U.S. Army Corps of Engineers, Regulatory Branch, P.O. Box 3755, Seattle, WA 98124-3755.

Corps' Reference Number: _____

Date the Corps Issued Your Permit: _____

Date this Report is Due: _____

Number of Mitigation Points Required by Corps: _____

Your Name: _____

Your Address: _____

Your City/State/Zip Code: _____

Your Phone Number: _____

Location of Mitigation: _____

You must attach to this form: As-built drawing(s) of planting areas (if installed), and
 Photographs of the mitigation area.

Describe mitigation activity performed: _____

Date completed: _____

If plantings were installed:

The vegetation you plant must be taken from this list of native species below or you can suggest other species but the Corps must approve the species before planting commences. Shrubs should be planted at 3-foot-on-center intervals and trees should be planted at 10-foot-on-center intervals. Be sure to protect your plantings—fencing is recommended.

Name of Species You Planted	Number Planted
Total Planted:	

Native tree list: *Populus trichocarpa*, *Pseudotsuga menziesii*, *Picea sitchensis*, *Pinus contorta*

Native shrub list: *Salix sitchensis*, *S. scouleriana*, *S. exigua*, *S. hookeriana*, *S. lasiandra*, *Cornus stolonifera*

APPENDIX D

Mitigation Planting Monitoring Report

Submit this completed form to: U.S. Army Corps of Engineers, Regulatory Branch, P.O. Box 3755, Seattle, WA 98124-3755. A completed form must be submitted 1, 2, 3, 4 and 5 years after the Corps accepts your as-built drawing of the mitigation planting area.

Corps' Verification Reference Number: _____

Date Your As-Builts Were Accepted by the Corps _____

Date This Report Is Due: _____

Number of Mitigation Points Required by the Corps: _____

Your Name: _____

Your Address: _____

Your City/State/Zip Code: _____

Your Phone Number: _____

You must attach to this form: Photographs of the mitigation area taken within the last month.

Conditions of your Corps permit require 100% survival of all planted trees and shrubs during the first and second years after planting. During the third through fifth years after planting, 80% survival is required. Individual plants that die must be replaced with a species from the list below or you can suggest other species but the Corps must approve the species before planting commences. At least two trees must be planted in your mitigation area. You must protect your mitigation area—fencing is recommended.

Date of Inspection	Species name of Dead Plants	Number of Dead Plants	Name of Species Replanted	Number Replanted

Native tree list: *Populus trichocarpa*, *Pseudotsuga menziesii*, *Picea sitchensis*, *Pinus contorta*

Native shrub list: *Salix sitchensis*, *S. scouleriana*, *S. exigua*, *S. hookeriana*, *S. lasiandra*, *Cornus stolonifera*

APPENDIX E - Drawing Checklist

1. GENERAL

- () Use clear black lettering and fewest number of sheets possible; use 8 ½- by 11-inch sheets
- () State the purpose of the proposed or existing work
- () List property owners and indicate number by number on plan view drawing
- () Show datum used in plan and elevation drawings
- () Use a graphic scale on all drawings
- () Use a north arrow; prepare drawing with north being directed to the top of the page
- () Label all proposed and existing work as such (e.g., Proposed Pier, Proposed Fill...)

2. TITLE BLOCK

- () A completed title block (first example) must be on first sheet; for subsequent sheets you can use the abbreviated form (second example)

PURPOSE: DATUM: ADJACENT PROPERTY OWNERS: 1. 2.	APPLICANT Reference Number LOCATION ADDRESS	PROPOSED: IN: NEAR/AT: COUNTY: STATE: WA SHEET * OF * DATE:
---	---	--

Reference #: Applicant: Proposed: At Washington Sheet * of * Date
--

3. VICINITY MAP

- () Clearly show location of project (e.g., arrow, circle, etc.)
- () List latitude, longitude, section, township, and range
- () Name waterways
- () Show roads, streets, and/or mileage to nearest town or city limits

4. PLAN VIEW

- () Show shorelines:
 - Tidal: Show mean high water (MHW) line, mean higher high water (MHHW) line
 - Lakes or streams: Show the ordinary high water (OHW) line
- () Show dimensions of proposed structures/fills; distance to property lines; encroachment beyond applicable shoreline; show wetland boundaries and specific impacts to wetlands
- () Indicate location, quantity, and type of fill, if any
- () Show all existing structures or fills on subject and adjacent properties
- () Show direction of currents such as tidal ebb and flood
- () Indicate adjacent property ownership

5. ELEVATION AND/OR SECTION VIEW

- () Show shorelines, MHW line, MHHW line, OHW line, wetland boundary
- () Show original and proposed elevations, water depths, dimensions of proposed structures or fills, and pertinent vertical dimensions to top and base of structure/fill; use the same vertical and horizontal scale, if possible

APPENDIX F

Preliminary Eelgrass/Macroalgae Habitat Survey Guidelines

The following preliminary eelgrass/macroalgae habitat survey guidelines will be applied for all proposed projects where eelgrass or significant macroalgae habitats are suspected to be present in the vicinity of the proposed project.

The applicant shall contract a qualified diver/biologist to conduct the preliminary eelgrass/macroalgae survey. The diver/biologist must be able to demonstrate the ability to identify the predominant macroalgae species native to the project area.

The preliminary eelgrass/macroalgae survey shall include:

1. The diver/biologist will survey transects perpendicular to and/or parallel to the shoreline including the outer extremities of the proposed project site.
2. Survey transects will include the entire project site and will be spaced at a maximum of 40 foot intervals.
3. Transect locations will be referenced to a permanent physical feature within the project site.
4. The qualitative distribution of macroalgae species along each transect will be documented.
5. Substrate characterizations along each transect will be documented.
6. A project site map will be developed indicating the qualitative distribution of eelgrass/macroalgae species, substrate characterization, approximate depth contours and the approximate location of the proposed project features.
7. Approximate depth contours will be established for the project site based on mean lower low water equal to 0.00 (MLLW= 0.00). Tidal reference and correction should be noted.
8. Survey documentation will also include the time of survey, date of survey, turbidity/visibility, presence of invertebrate /vertebrate species and miscellaneous antidotal observations pertinent to habitat characterization of the project site.
9. Preliminary surveys may be conducted at any time during the year. Surveys from June 1 through October 1 most accurately reflect macroalgae distribution and are therefore preferable.

APPENDIX G

Intermediate Eelgrass/Macroalgae Habitat Survey Guidelines

Intermediate eelgrass/macroalgae habitat survey guidelines will be applied in those instances where a proposed project is to be located within an area of documented eelgrass/macroalgae habitats but where herring spawning has not been documented.

The applicant shall contract a qualified diver/biologist to conduct the intermediate eelgrass/macroalgae survey. The diver biologist must be able to demonstrate the ability to identify the predominant macroalgae species native to the project area.

The intermediate eelgrass/macroalgae survey shall include:

1. Through prior consultation with the Washington Department of Fish and Wildlife (WDFW) habitat manager, specific macroalgae species will be identified for quantitative distribution evaluation.
2. The diver/biologist will survey transects perpendicular to the shoreline. Transects will be referenced to a permanent physical feature within the project location.
3. Transect length and location will be determined by project and site specifics. Transects will include the landward margin of the macroalgae habitat and should extend waterward to include the outer margin of the macroalgae habitat. At a minimum, transects will extend 25 feet waterward of the most waterward project feature.
4. Transect locations will be specified based on specific project and project site features. For pier/ramp/float structures, transects will include at a minimum:
 - (1) transects located at the center line of the proposed project.
 - (2) transects located 10 feet to each side of the outer edge of the proposed project.
 - (3) transects located 25 feet to each side of the outer edge of the proposed project.
5. For eelgrass, turion (shoot) counts shall be conducted along each transect at a maximum 20 foot intervals and shall include the inner and outer margins of the eelgrass bed. Eelgrass density counts will include three (3) 1/4 meter square counts as described by the corner of the 1/4 meter square pivoted around the 20 foot interval count point at approximately the 2, 6, 10 o'clock positions. The density count at each 20 foot count interval will be the average of the three (3) 1/4 meter square counts.
6. For non-eelgrass macroalgae species, percent cover estimates will be conducted along each transect at a maximum 20 foot interval and shall include the inner and outer margins of the macroalgae habitat. Percent cover estimates will include three (3) 1/4 meter square estimates as described by the corner of the 1/4 meter square pivoted around the 20 foot interval count point at approximately the 2, 6, and 10 o'clock positions. The percent cover estimate will be the average of the three (3) 1/4 meter square estimates.

7. Intermediate surveys will be conducted from June 1 through October 1.
8. Approximate depth contours will be established for the project site based on mean lower low water equal to 0.00 (MLLW= 0.00). Tidal reference and correction should be noted.
9. A site map will be developed indicating the qualitative distribution of eelgrass/macroalgae species, substrate characterization, approximate depth contours and the approximate location of the proposed project features.
10. Survey documentation will also include the time of survey, date of survey, turbidity/visibility, presence of invertebrate /vertebrate species and miscellaneous antidotal observations pertinent to habitat characterization of the project site.

APPENDIX H

Intensive Eelgrass/Macroalgae Habitat Survey Guidelines

Intensive eelgrass/macro algae habitat survey guidelines will be applied in those instances where a proposed project is to be located within an area of documented herring spawn.

The applicant shall contract a qualified diver/biologist to conduct the intermediate eelgrass/macro algae survey. The diver biologist must be able to demonstrate the ability to identify the predominant macro algae species native to the project area.

The intensive eelgrass/macro algae survey shall include:

1. Through prior consultation with the WDFW Area Habitat Biologist, specific macro algae species will be identified for quantitative distribution evaluation.
2. The diver/biologist will survey transects perpendicular to and/or parallel to the shoreline.
3. Transects will be referenced to a permanent physical feature within the project location.
4. Transect length and location will be determined by project and site specifics. Transects will include the landward margin of the macro algae habitat and should extend waterward to include the outer margin of the macro algae habitat. At a minimum, transects will extend 25 feet waterward of the most waterward project feature.
5. Transect locations will be specified based on specific project and project site features. For pier/ramp/float structures, transects will include at a minimum:
 - (1) transect located at the center line of the proposed project.
 - (2) transects located 10 feet to each side of the outer edge of the proposed project.
 - (3) transects located 20 feet to each side of the outer edge of the proposed project.
 - (4) transects located 30 feet to each side of the outer edge of the proposed project.

Note: additional transects may be included at the discretion of the applicant.

6. For eelgrass, turion (shoot) counts shall be conducted along each transect at a maximum 20-foot interval and shall include the inner and outer margins of the eelgrass bed. Eelgrass density counts will include three (3) 1/4 meter square counts as described by the corner of the 1/4 meter square pivoted around the 20 foot interval count point at approximately the 2, 6, 10 o'clock positions. The density count at each 20 foot count interval will be the average of the three (3) 1/4 meter square counts.
7. For non-eelgrass macroalgae species, percent cover estimates will be conducted along each transect at a maximum 20 foot interval and shall include the inner and outer margins of the macro algae habitat. Percent cover estimates will include three (3) 1/4 meter square estimates as described by the corner of the 1/4 meter square pivoted around the 20 foot interval count point at approximately the 2, 6, and 10 o'clock positions. The percent cover estimate will be the average of the three (3) 1/4 meter square estimates.
8. Intensive surveys will only be conducted from June 1 through October 1.
9. Approximate depth contours will be established for the project site based on mean lower low water equal to 0.00 feet (MLLW = 0.00 feet). Tidal reference and correction should be noted.
10. A site map will be developed indicating the qualitative distribution of eelgrass/macro algae species, substrate characterization, approximate depth contours and the approximate location of the proposed project features.

11. Survey documentation will also include the time of survey, date of survey, turbidity/visibility, presence of invertebrate /vertebrate species and miscellaneous anecdotal observations pertinent to habitat characterization of the project site.

12. Results of the intensive level survey will be compiled and sent to the WDFW Area Habitat Biologist for review.

Note: Deviations from the intensive level survey guidelines will not be acceptable unless agreed to through prior consultation with the WDFW Area Habitat Biologist.

APPENDIX I

Definitions, descriptions, and/or examples of Terms

“*Bank*” is the rising ground bordering the waterbody forming an edge or steep slope.

“*DBH*” (diameter at breast height) is the diameter of a tree (in inches) at the point 4.5 feet above the ground, measured from the uphill side.

“*Davit*” is a crane or hoist that is attached to the pier and projects over the water and is used to lift boats out of the water.

“*Eelgrass*” is a grass-like marine flowering vascular plant (*Zostera spp.*) with dark green, long, narrow, ribbon-shaped leaves that are typically 8 – 20 inches in length.

“*Float support piling*” is piling used to suspend the float above the tidal substrate. The float rests on top of the float support piling, not the tidal substrate.

“*Forage fish spawning habitat*” Detailed descriptions of forage fish habitat can be found at <http://www.wa.gov/wdfw/fish/forage>. Very generally, spawning habitat for the following forage fish are as follows: Pacific herring – eelgrass and macroalgae located between 0 to -10 feet tidal elevation; surf smelt – substrate consisting of pea gravel or coarse sand (gravel diameter 0.005 – 0.35 of an inch) between MHHW to +7 feet tidal elevation relative to the Seattle tide gauge; Pacific sand lance – substrate consists of pure fine grain sand beaches between MHHW to +5 feet tidal elevation, relative to the Seattle tide gauge.

“*Groin*” is a rigid structure (constructed of rock, wood, or other durable material) built out from the shore, usually perpendicular to the shoreline, to prevent erosion or to trap sand.

“*Hardened shoreline*” is the area of shoreline that is no longer natural but has been replaced with structures, including but is not limited to concrete, rock or timber bulkheads, riprap, or concrete boat ramp access.

“*Inland marine waters*” for the purposes of this Guidance are defined as tidally influenced waters within the state of Washington limited to the marine waters ranging from South Puget Sound and Hood Canal to and including the Strait of Juan de Fuca and the Strait of Georgia. This does not include the outer coast adjoining the Pacific Ocean or tidally influenced rivers (above river mile “zero”) draining into these water bodies.

“*Joint-use*” piers, floats, and ramps are constructed and utilized by more than one residential waterfront property owner or by a homeowner’s association that owns waterfront property.

“*Macroalgae*” includes large red, green, or brown algae and what are commonly known as seaweed or kelp. For the purposes of this Guidance only, any reference to macroalgae is a reference to macroalgae *attached to a substrate*, not drift macroalgae.

“*Macroalgae beds*”, for the purposes of this Guidance, is defined as an area of the tidal substrate supporting macroalgae attached and covering 25% of the substrate.

“*Mean higher high water (MHHW)*” is the elevation on the shore of tidal waters reached by the plane of the average of the higher of the two daily high tides, generally averaged over a period of 19 years. This elevation has been established at set tide gauges throughout Washington State. The MHHW for these tide gauges may be obtained by checking the following website:

<http://www.nws.usace.army.mil/hh/tides/tides.htm>

“*Mean high water (MHW)*” is the elevation on the shore of tidal waters reached by the plane of the average of the lower of the two daily high tides, generally averaged over a period of 19 years. This elevation has been established at set tide gauges throughout Washington State. The MHW for these tide gauges may be obtained by checking the following website:

<http://www.nws.usace.army.mil/hh/tides/tides.htm>

“*Offsite*” means outside the property boundaries of the waterfront property owner(s) proposing the project. For the purpose of this Guidance, the property boundary in the water, unless already shown on a deed or legal description, is a straight-line extension of the property line on the land, projected waterward, and perpendicular to the shoreline.

“*Onsite*” means within the property boundaries of the waterfront property owner(s) proposing the project. For the purpose of this Guidance, the property boundary in the water, unless already shown on a deed or legal description, is a straight-line extension of the property line on the land, projected waterward, and perpendicular to the shoreline.

“*Opening size*” of grating is the area enclosed between the rectangular bars and cross rods in bar grating, or the area enclosed between the bonds and strands in expanded grating.

“*Overwater structures*” for this Guidance, are defined as piers, ramps, floats, and their associated structures. Associated structures include piling, chain and anchors, ladders, handrails, steps, davits, swim steps, watercraft grids or lifts, and fill placed for fish habitat enhancement.

“*Percent open area*” is a relative measure of the degree which light can pass through grating. The manufacturer often provides this value. Otherwise, it can be calculated by dividing the opening size by the sum of the opening size and the surface area of the adjacent rectangular bars and cross rods.

“*Project area*” for the purposes of this Guidance is defined as the area the overwater structure will cover and 25 feet on all sides of the structures.

“*Single residential use*” piers, floats, and ramps are constructed and utilized by only one residential waterfront property owner.

“*Skirting*” is vertical boards along the edge of a pier extending downward.

“*Uplands*” (for the purposes of this Guidance) are non-wetland areas landward of the MHHW.

“*Watercraft grid*” is an open framework that may be supported by piling. The framework supports watercraft such that at low tide the watercraft rests on the grid instead of the tidal substrate.

“*Watercraft lift*” a floating, freestanding, or pier-affixed device which supports a watercraft and prevents the watercraft from resting on the tidal substrate