

Installation or Replacement Of One (1) Boatlift Per Property

**Programmatic Biological Evaluation
Installation or Replacement
Of One (1) Boatlift Per Property
Version: 13 October 2000**

1. Summary of Activity:

a. In all Fresh Waters *excluding* Columbia River mainstem: Installation or replacement of one (1) uncovered boatlift at an existing pier or dock, provided that: work is done in approved work window; no work is done over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds) or in or adjacent to spawning habitat for listed or proposed fish species; no large woody debris is removed; all structural steel members are pre-painted and dried prior to installation; only non-treated wood shall be used; only two (2) new piles (steel or non-treated wood) may be driven and only if necessary for boatlift installation; if a barge is used, the barge does not ground out and the barge is not over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds); and existing boat lifts to be removed are removed in their entirety.
[RGP, LOP, or NWP 3]

b. In the Columbia River mainstem *including* Snake River and Baker Bay: Installation or replacement of one (1) uncovered boatlift at an existing pier or dock, provided that: work is done in approved work window; no work is done over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds) or in or adjacent to spawning habitat for listed, proposed or forage fish species; no large woody debris is removed; all structural steel members are pre-painted and dried prior to installation; only non-treated wood shall be used; only two (2) new piles (steel or non-treated wood) may be driven and only if necessary for boatlift installation; if a barge is used, the barge does not ground out and the barge is not over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds); and existing boat lifts to be removed are removed in their entirety.
[RGP, LOP, or NWP 3]

c. In all Marine/Estuarine Waters *excluding* Baker Bay: Installation or replacement of one (1) uncovered boatlift at an existing pier or dock, provided that: work is done in approved work window; no work is done over or adjacent to vegetated shallows or spawning habitat for forage species; no large woody debris is removed; all structural steel members are pre-painted and dried prior to installation; no wood or piles treated with creosote or pentachlorophenol shall be used, only two (2) new piles may be driven and only if necessary for boatlift installation; if a barge is used, the barge does not ground out and the barge is not over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds); and existing boat lifts to be removed are removed in their entirety. [RGP, LOP, or NWP 3]

2. Programmatic Description: Individual permits (IPs), letters of permission (LOPs), Nationwide Permit 3 (NWP 3), and several Regional Permits (RGPs) may authorize placement of boatlifts into navigable waters of the U.S in the State of Washington. This programmatic biological evaluation applies only to such activities where one (1) uncovered boatlift is installed or replaced at an existing pier or dock. Work that cannot be designed or constructed to fit under this biological evaluation must go through individual informal or formal ESA consultation.

3. Project Location: In all navigable fresh and marine/estuarine waters, only in the counties of Washington State where the National Marine Fisheries Service and U.S. Fish and Wildlife Service have concurred that the project is not likely to adversely affect listed fish species and designated critical habitat and will not jeopardize proposed fish species or destroy or adversely modify proposed critical habitat.

4. Project Description: Installation or replacement of one (1) uncovered boatlift per property at an existing pier or dock in all navigable waters of Washington State. This programmatic biological evaluation does not cover any interrelated and/or interdependent work activities in any of the designated critical habitat areas, except those activities distinctly specified.

5. Project Construction Description:

a. Types of Boatlifts and Assembly Methods: There are several types of boatlifts typically used in navigable waters of Washington State. The two most common boatlifts are made of structural steel. One consists of various structural members that are pre-assembled at the construction yard and then brought to the site by barge and lifted in place with a crane sitting on the barge. Hydraulic assembly is completed at the project site after installation. The other common boatlift is also made of steel but is assembled at the project site. This boatlift requires the driving of two steel 8-inch piles that are then attached to a pier structure. The steel members of the boatlift are then welded and/or bolted together. The piles support the weight of the boat after assembly is completed.

The boatlifts come in four sizes based on the weight of the vessel and can accommodate boats from 4,000 pounds to 15,000 pounds. Boatlifts are used for boats ranging in size from 6-feet to 24-feet in length.

b. Construction Methods: As discussed above, one type of boatlift is pre-assembled and simply lifted into place by a crane mounted on a work barge. The other type of boatlift is unassembled and brought to the site by barge. Two 8-inch steel piles are driven with a barge-mounted pneumatic pile driver, standard drop-hammer, or vibratory pile driver, and then the remainder of the steel members are welded and/or bolted together to complete assembly. The existing

boatlift is removed by a crane mounted on a barge. The boatlift is unbolted from the piling if necessary and then lifted off the pier or piling in its entirety and placed on the barge. The length of the barge may be as long as 250 feet, but more typically 150-feet in length. The tug boat is 60 feet in length with engine power equivalent to an 100-foot pleasure vessel.

c. Materials Used: The two most common boatlifts discussed above utilize structural steel members. Some boatlifts may have wood components or piles. The steel must be pre-painted with standard marine paints and dried prior to use in water. Wood preservatives shall not be used in fresh waters and creosote or pentachlorophenol shall not be used in marine/estuarine waters.

d. Cleanup: All construction debris will be kept on the uplands or barge. If any construction debris inadvertently enters the aquatic environment, it shall be completely removed.

e. Construction Timing: The installation or replacement of one (1) uncovered boatlift per property can generally be accomplished in one or two workdays.

6. Action Area Description: The action area for the installation or replacement of one (1) uncovered boatlift per property in all navigable fresh, marine, and estuarine waters of Washington State is the boat lift and any associated piling, the barge and tug boat used to install the boat lift, a 25-foot radius¹ around the structure or piling for potential water quality impacts due to pile driving or anchoring of the barge, and a 1000-foot radius² around the piling (if used) for potential noise impacts associated with the pile driving. There is no interrelated and/or interdependent work in any upland or wetland areas that would be considered designated critical habitat.

7. Species and Habitat Information:

a. Species Present:³

1. For all Fresh Waters in Washington State, *excluding* the Columbia River mainstem and its tributaries: Puget Sound chinook salmon - status threatened (designated critical habitat); Hood Canal chum salmon - status threatened

¹ The determination of impact area for potential water quality impacts is based on personal communication with John Malek, Sediment Management, Environmental Protection Agency, on May 10, 2000. Mr. Malek stated that typically turbidity impacts of a pile driving, anchor placement or the like would not exceed a 15-foot radius, a 25-foot radius is the maximum extent of impact, regardless of substrate type and currents at a project site.

² The determination of direct impact area for noise impacts associated with pile driving of 1000-foot radius around the pile is based on information provided in Feist, 1991.

³ Other listed or proposed plants or animals may occur in the project area. However, this document addresses only listed or proposed fish species. Review of impacts to other listed or proposed species will be done on a case-by-case basis.

(designated critical habitat); Coastal/Puget Sound bull trout - status threatened; Ozette Lake sockeye salmon - status threatened (designated critical habitat); SW Washington/Columbia River/Coastal cutthroat trout - proposed threatened; and, Puget Sound coho salmon - candidate species.

2. For the Columbia River mainstem and its tributaries in Washington State, *including* Snake River and Baker Bay: Snake River sockeye salmon - status endangered (designated critical habitat); Snake River spring/summer chinook salmon - status threatened (designated critical habitat); Snake River fall chinook salmon - status threatened (designated critical habitat); Snake River steelhead - status threatened (designated critical habitat); Columbia River chum salmon - status threatened (designated critical habitat); Columbia River bull trout – status threatened; Lower Columbia River steelhead – status threatened (designated critical habitat); Lower Columbia River chinook salmon – status threatened (designated critical habitat); Middle Columbia River steelhead – status threatened (designated critical habitat); Upper Columbia River steelhead – status endangered (designated critical habitat); Upper Columbia River spring chinook salmon – status endangered (designated critical habitat); Upper Willamette River chinook salmon – status threatened (designated critical habitat); Upper Willamette steelhead – status threatened (designated critical habitat); and, SW Washington/Columbia River/Coastal cutthroat trout – proposed threatened.

3. For all Marine/Estuarine Waters in Washington State, *excluding* Baker Bay: Puget Sound chinook salmon, status threatened (designated critical habitat), Hood Canal chum salmon, status threatened (designated critical habitat), Coastal/Puget Sound bull trout, status threatened, Ozette Lake sockeye salmon, status threatened (designated critical habitat), SW Washington/Columbia River/Coastal cutthroat trout, proposed threatened, and, Puget Sound coho salmon, candidate species.

b. Species Utilization: Refer to Appendix B - Species Life Histories.

8. Activity History and Status: The following table is a breakdown of the number of boatlifts that have been authorized by the Corps of Engineers. The breakdown is organized by year and waterbody. The waterbody includes all creeks, streams, and unnamed tributaries that flow into it unless otherwise noted. Each of the waterbodies is categorized as below:

a. Marine: All marine waters within Washington State (i.e., Pacific Ocean, Willapa Bay, Grays Harbor, Strait of Juan de Fuca, Strait of Georgia, Puget Sound, Hood Canal, Sammish Bay, Skagit Bay, Totten Inlet, Dabob Bay, Commencement Bay, etc.). Because of the design of the Corps database, it was not possible to separate out tidal areas from the minor freshwater creeks, streams, and unnamed tributaries that flow into these waterbodies.

b. Fresh: All fresh waters within Washington State including all rivers, tributaries, lakes, and reservoirs (regardless of size) and excluding the Columbia River mainstem (i.e., Snoqualmie River, Skagit River, Puyallup River, Nisqually River, Cowlitz River, Yakima River, Wenatchee River, Snake River, Pend Oreille River, Lake Washington, Lake Sammamish, Lake Chelan, Moses Lake, Baker Lake, Spanaway Lake, etc).

c. Columbia River: Mainstem Columbia River within Washington State, including the Snake River, Baker Bay, and lakes and reservoirs (i.e. Lake Entiat, Lake Wallula, Franklin D. Roosevelt Lake, Priest Rapids Lake, etc.). Data for all tributaries are including in “freshwater” areas.

To determine the number of boat lift authorizations, all finalized permit actions were cross-referenced with the work type “watercraft lift.” The cross-referencing ensures that the activity is properly categorized and each authorization is only counted once. The following data includes before– and, when applicable, after-the-fact authorizations. In comparing the Corps database with one year of data from WDFW (1998) for other activities (WDFW information does not separate boatlifts from other miscellaneous shoreline structures), the Corps database is relatively similar.

Table 1: Historical Record of Corps Authorization of Boat Lifts

WATERBODY	1995	1996	1997	1998	1999
Marine	3	6	1	6	0
Fresh	23	26	24	35	20
Columbia River	0	0	0	0	0
TOTAL	26	32	25	41	20

In light of the recent listings under ESA, the Corps proposes to track these activities as outlined in the “Programmatic Biological Evaluation Notification and Tracking Description” in addition to existing notification and tracking procedures.

10. Environmental Baseline: Refer to Appendix C – Environmental Baseline.

11. Effects of the Action:

a. Direct Effects:

1. Water Quality (pile driving and propwash): The installation or replacement of a boatlift - including the driving of two 8-inch steel piles, spud or anchor placements for the barge in a manor to insure that the barge will not ground out, propwash from the barge and tug, and the operation of the boatlift and vessel - will have a temporary impact on water quality. These activities would produce temporary, localized sediment plumes within the action area that would dissipate following cessation of the activity. The “plume” should settle out of the water column to background levels within one hour, depending on sediment type and currents. In

order to minimize turbidity during construction, work will only occur during approved work windows when listed, proposed or forage fish species are least likely to be present. The impacts to water quality due to the installation or replacement of a boatlift as described above is considered insignificant and/or discountable.

2. Water Quality (pile treatment and slag): No treated wood or piles shall be used in fresh waters and no piles treated with creosote or pentachlorophenol shall be used in marine/estuarine waters, in order to be covered under this informal consultation. Studies by NMFS have shown that the primary metal of concern in pile treatment is copper as it is the “most acutely toxic”. (NMFS, 1998.) Copper has been shown to be the most actively leaching metal with arsenic and chromium rating second. (Warner and Solomon, 1990.) About 300 compounds including polycyclic aromatic hydrocarbons (PAHs) – which are also known to be very toxic and bioconcentrate - are found in creosote. (NMFS, 1998) Exposure to these chemicals could result in the death of both adults and juveniles of the listed or proposed fish species or prey organisms. (NMFS, 1998.) Dioxins are found in pentachlorophenol. When wood is treated with pentachlorophenol, the dioxins are likely to leach into the water column. Exposure of female fish species, including salmon and trout, to dioxins and dioxin-like contaminants cause increased larval mortality. (Hornung, et al, 1998). There is the potential for slag to enter the water column when signs are welded to the pile or dolphin. The amount of slag from welding one sign would be no more than 1 square inch. This amount is so small that any impact to water quality is insignificant and/or discountable. Using these methods of installation, adverse effects associated with pile treatment and/or slag are insignificant and/or discountable.

3. Habitat Health (noise): Pile driving activities can generate considerable noise and vibration impacts. Juvenile pink and chum salmon have showed some avoidance of an immediate area of pile driving activity, but did not change their shoreline orientation or cease foraging (Feist et al., 1996). There is no conclusive evidence showing any long term effects on juvenile growth rates or feeding patterns from noise or vibration generated from pile driving activities. Other minor noise impacts from welding, hammering and placing and removing the boatlifts may also occur during the installation or replacement of the boatlifts. These noise levels would be lower decibels than noise levels associated with pile driving activities. In order to ensure the adult and juvenile listed or proposed fish species will not be disturbed by pile driving, vibration, or other noise impacts associated with the above described activities, work will be limited to approved work windows when listed, proposed or forage fish species are least likely to be present. By constructing in the approved work windows, noise impacts are insignificant and/or discountable.

4. Habitat Health (vegetated shallows): The installation or replacement of a boatlift could disturb vegetated shallows. Vegetated shallows can support forage

fish species that the listed or proposed fish species are dependent upon, such as herring spawning in eelgrass beds in marine areas. Boat activity in or adjacent to vegetated shallows has been documented to damage and/or destroy vegetated shallows. (NOAA, 1998) To be covered by this informal consultation, no construction activities will occur in or adjacent to (within 300 feet) a vegetated shallow. By staying away from vegetated shallows, impacts to habitat are insignificant and/or discountable.

b. Indirect Effects: The effects resulting from the activity that are later in time could include oil or gas spills, disruption of migration, or disturbance or destruction of vegetated shallows.

1. Water Quality: The operation of the boatlift and the boat may result in an insignificant and discountable amount of oil, gas, and paint peeling into the water. The boats at the piers and boatlifts are not fueled at the pier but at fueling docks. Painting of the boats does not occur at the pier either. However, from regular operation of the vessel there will likely be some small amounts of oil or gas spilling and paint peeling from the boat or boatlift. There is the potential for the boat to be damaged from a storm or other unforeseen activity while being placed in the water or removed by the boatlift which could result in a greater amount of oil or gas leakage. One of the general implementation conditions of this programmatic biological evaluation requires immediate notification to the State oil spill response team in such an event.

2. Habitat (vegetated shallows): Operation of the boatlift and boat moorage could damage or destroy vegetated shallows. (NOAA, 1998) In order to ensure vegetated shallows are not disturbed, there shall be no construction of activities in or adjacent to (within 300 feet) a vegetated shallow. Thus, effects from the boatlift that occur later in time are considered to be insignificant and/or discountable and will not alter the present environmental baseline. This is true whether the lift is for non-commercial or commercial use.

3. Habitat (shading): The presence of the boatlift may add additional shading impacts. However, the boatlifts are attached to existing piers. Shading from the boatlift would be less than an additional 25 square feet. The shading from the existing structure already either creates additional predator habitat or forces listed or proposed fish into deeper waters to avoid the structure. The additional shading from the boatlift will not result in any additional impacts that have not occurred already due to the presence of the existing structure.

c. For all other pathways and indicators not specifically mentioned above, the activity will not alter the present environmental baseline.

d. Determination of Effect: The installation or replacement of one (1) uncovered boatlift at an existing pier or dock may affect, but is not likely to adversely affect listed fish species and designated critical habitat identified above and will not

jeopardize proposed fish species or destroy or adversely modify proposed critical habitat. identified above, provided that:

1. In all Fresh Waters *excluding* Columbia River mainstem:

- Work is done in approved work window.
- No work is done over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds) or in or adjacent to spawning habitat for listed or proposed fish species.
- No large woody debris is removed.
- All structural steel members are pre-painted and dried prior to installation.
- Only non-treated wood shall be used.
- Only two (2) new piles (steel or non-treated wood) may be driven and only if necessary for boatlift installation.
- If a barge is used, the barge does not ground out and the barge is not over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds).
- Existing boatlifts to be removed are removed in their entirety.

2. In the Columbia River mainstem *including* Snake River and Baker Bay:

- Work is done in approved work window.
- No work is done over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds) or in or adjacent to spawning habitat for listed, proposed or forage fish species.
- No large woody debris is removed.
- All structural steel members are pre-painted and dried prior to installation.
- Only non-treated wood shall be used.
- Only two (2) new piles (steel or non-treated wood) may be driven and only if necessary for boatlift installation.
- If a barge is used, the barge does not ground out and the barge is not over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds).
- Existing boatlifts to be removed are removed in their entirety.

3. In all Marine/Estuarine Waters *excluding* Baker Bay:

- Work is done in approved work window.
- No work is done over or adjacent to vegetated shallows or spawning habitat for forage species.
- No large woody debris is removed.
- All structural steel members are pre-painted and dried prior to installation.
- No wood or piles treated with creosote or pentachlorophenol shall be used.
- Only two (2) new piles may be driven and only if necessary for boatlift installation.

- If a barge is used, the barge does not ground out and the barge is not over or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds).
- Existing boatlifts to be removed are removed in their entirety.