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SEPA Checklist Differences Memorandum
Point Hudson Marina Breakwater Reconstruction
Jefferson County

This memo has been compiled as a supplement to the *Point Hudson Breakwater Replacement SEPA Environmental Checklist*, February 2022. This memo will provide details on an additional project feature, design changes, and clarifications on mitigation measures. Differences include steel pipe pile quantities, new habitat conservation measures, and the structure footprint.

This memo will cover any changes proposed since the submittal of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* dated August 5, 2016, and the *SEPA DNS (LUP16-064)*, dated October 19, 2016. Proposed changes include the clarification of the in-water work window for both seasons of construction. Construction will be conducted below and above the High Tide Line (HTL) and is anticipated to be completed in two seasons. Work below the HTL and in-water will be conducted during the in-water work window of September 15- January 15 during both seasons.

Rock Habitat Feature
As part of the September 15th work window start date, the Port and resource agencies have worked out a habitat offset plan. The plan involves salvaging larger rock from the north breakwater and placing that salvaged rock, in 30 feet of water or greater, between the mooring buoy and the end of the south breakwater. The purpose of this work is to provide a habitat feature which would offset potential impacts from the early start to the work window to various species of rockfish and lingcod that Washington Department of Fish and Wildlife (WDFW) have documented utilizing the south breakwater. Based on WDFW's research through the local dive community, it has been documented that juvenile rockfish and lingcod use the south breakwater for rearing up till the end of September. The intent of this work is to provide a nearby habitat feature free of creosote for those species to continue rearing with minimal impact from the project. The rock will be salvaged from the north breakwater during the 2022 construction season. The rock will be conserved from an inundated section of the north breakwater starting around elevation zero to minus 10 feet. This provides rocks with the maximum algae and micro-invertebrate coating which will enhance the habitat value of the structure so it can function at year one of installation.

The feature will be constructed with approximately 1.5 to 1 slopes starting at sea floor elevation of -30 feet and ending around elevation -50 feet. This work would require about 900 cubic yards (CY) of material and will remain in place as a permanent habitat feature to augment the habitat provided by the new breakwaters. The permanent footprint will be approximately 55 feet wide, 49 feet long, and 15 feet tall and would cover about 2,700 square feet (SF) of seafloor. It is anticipated the material will be placed with a bottom dump barge.

Also, to enhance the habitat value the Port intends to enter a partnership with the Port Townsend Marine Science Center to relocate rock dwelling invertebrates and other species from the south breakwater to this new habitat feature. The work will occur after the 2022 work window and prior to the September 15th start of the 2023 work window.

Design Changes

The new project design has changed from a steel pipe plumb pile and sheet pile combi-wall to a double wall consisting of closely spaced, steel pipe batter piles, filled with large competent rock that are similar in appearance and function to the existing structure. The battered pile/rock breakwaters will have different wave energy dissipation properties than the vertical, non-permeable steel sheet pile structures. They will dissipate wave energy as a result of surface roughness, therefore reducing bottom scour and wave velocities along the outside of the breakwater structures. The design changes include a new 4-foot-thick armor slope at 2 horizontal:1 vertical to be placed on the shoreline on the marina basin side to provide protection against waves directly adjacent to the new breakwater.

In sections "Earth" and "Water" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* August 2016, it states that in-water activities will include the removal of approximately 9,218 CY of existing breakwater fill with the addition of approximately 3,198 CY of new rock/fill and 109 steel piles. In-water design changes include:

- Removal of approximately 4,537 CY of existing breakwater and bulkhead fill.
- Removal of approximately 5,865 CY of foundation excavation material.
- Maintenance dredging of the navigation channel will remove 1,045 CY of sediment in the navigation channels surrounding the breakwaters.
- Addition of 6,427 CY of armor stone and 2,257 CY of bedding stone below HTL within the entire breakwater and adjacent shorelines.
- Addition of 861 CY of beach compatible material below the HTL.
- Increase in the number of steel pipe batter piles needed: 416 steel pipe piles (footprint of 417 SF) and 0 LF (linear feet) of sheet piling.
- Use of substantially smaller piles (12.75- and 16-inch diameters piles instead of 24-, 30-, 36-, 42-, and 48-inch diameter piles).
- Rock habitat feature fill of 900 CY, as described in the section above.

Additionally in section "Earth", all excavated material, with the exception of the material used for the rock habitat feature, will be transported via a barge, offloaded, and disposed of upland at a permitted facility rather than being deposited at an in-water location.

In section "Animals" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* August 2016, it states that there will be a recovery of approximately 16,500 SF of natural habitat. Design changes include:

- Total removal of breakwaters will include 17,315 SF of rock and debris below HTL.
- The new breakwater footprints will be 14,444 SF in area.
- A total of 2,871 SF of habitat will be recovered.

Furthermore, in section "Animals" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* August 2016, it states there will be an addition of a soldier pile wall and 5,250 SF of concrete pile cap on the breakwater. Both elements have been eliminated.

Additionally, section "Animals" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* August 2016, states that the entrance channel width will be narrowed from approximately 140 feet to 95 feet between the jetties and that the north jetty will be shortened and moved further into the marina. Under the new project design, the northern jetty will now be reconstructed to one right angle and shortened in its extent toward the southern jetty by approximately 12 feet. The southern bulkhead replacement will have an increase in area of approximately 91 SF within the marina. The entrance channel width will be slightly widened from approximately 83 feet to 89 feet between the breakwaters, reducing the total breakwater area that protrudes into the bay, and reducing the breakwater footprints by 12%.

Extent of the Aquatic Project Area

The *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* August 2016, states that the project area is within FEMA Zones A&V at a NAVD 88 elevation of 19.0 feet, but updated FEMA floodplain FIRMette data designates the project area as FEMA Zone AE at a NAVD 88 elevation of 12.0 feet.

In section "Plants" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* August 2016, it states that a small patch of eelgrass (approximately 600 SF in size) would be removed. However, eelgrass bed boundaries have been incorporated into project deign maps for avoidance and protection. There are currently 3 separately mapped beds within the project vicinity that will not be removed.

In section "Animals" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist,* August 2016, the number of piles to be vibrated and proofed per day would be restricted to four to reduce noise duration. The use of substantially smaller piles now restricts this number to 8, for 30 minutes each. The number of impact-proofed piles will be restricted to one per day. No more than 10% of all piles will be impact-proofed. By increasing the number of piles to be installed with a vibratory pile driver from 4 to 8 there is no change in the overall extent of the aquatic project area and no significant impacts to listed species within the project action area. The immediate injury area will increase by a small amount however it is unlikely a Southern Resident Killer Whale (SRKW) would be within proximity of the construction activities to cause harm. Listed rock fish will not be impacted as species will likely swim away from disturbance. Impacts to aquatic species would be a result of the volume of pile driving under the water rather than the length of time the activities occur. Duration may have impacts however these impacts are unknown and have not been identified.

Mitigation Measures

Additional conservation measures have been incorporated into the project accordingly to the change in project design.

- A bubble curtain and/or a wood block cushion which meets both USFWS and NMFS programmatic conditions will be used for sound attenuation.
- Construction noise which is above background levels will occur for no more than 10 hours a day allowing undisturbed access to marine habitat for 14 hours a day.
- Non-barge-based equipment will be refueled at a distance of at least 50 ft from the shore, or where applicable.
- A WQMPP has been prepared as of November 2021.
- A Spill, Prevention, Control, and Countermeasure (SPCC) Plan will be prepared.

- Installation of temporary shoring to reduce beach migration during construction.
- An inadvertent discovery plan has been prepared.
- If pilings cannot be fully extracted, appropriate capping with compatible material will occur. All areas around removed piles will be capped with approximately two feet of beach compatible material, extending at least one foot outside of the existing breakwater footprint.

Section "Earth" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist*, August 2016, states that some of the removed breakwater rock may be reused at the Port's Boat Haven breakwater. This action is no longer included in the project mitigation measures.

Section "Environmental Health" of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist*, August 2016, does not include the 303(d) listed chemicals found within a portion of inner Port Townsend Bay to the southwest of the project. The SPCC Plan will provide advanced planning for potential spill sources and hazardous materials (gasoline, oils, chemicals, etc.) that the Contractor may encounter or utilizes as part of conducting the work. The SPCC plan will outline roles and responsibilities, notifications, inspection, and response protocols.

This memo includes changes made since the submittal of the *Point Hudson Breakwater Replacement SEPA Environmental Checklist*, 2016. Specifically the following sections were updated with the following details:

- *Page 2*: Proposed timing has changed to the following construction phasing:

Construction Start:	Construction End:
September 2022 (North Breakwater)	February 2023 (North Breakwater)
September 2023 (South Breakwater)	February 2024 (South Breakwater)

- *Page 2*: The project is now exempt from obtaining Dredge Material Management Office disposal authorization.

- *Page 7, Section 1. Environmental Elements, 1. Earth e.*: The new structure design no longer includes sheet piles in the new breakwaters and implements a greater number of smaller-in-size pipe piles.

- *Page 8, Section 1. Environmental Elements, 1. Earth h.*: The new project design implements a water quality monitoring and protection plan (WQMPP) (February 2022).

- *Page 9, Section 3. Water, a. Surface Water 2)*: There will be no in-water disposal of any excavated materials, rather disposal will occur at an offsite landfill. Additionally, equipment will be barge-mounted for dredging and excavating.

- *Page 10, Section 3. Water, a. Surface Water 5)*: The new SEPA Checklist consists of updated FEMA floodplain FIRMette data. While the 2016 data designates the project area within FEMA Zones A&V at a NAVD 88 elevation of 19.0 feet, the updated FEMA floodplain FIRMette data designates the project area as FEMA Zone AE at a NAVD 88 elevation of 12.0 feet.

- *Page 12, Section 4. Plants, b.*: Upon the completion of an Eelgrass Survey (August 2020), the project has been planned to avoid any alterations to the eelgrass beds. There will be a short-term loss of individual macroalgae species expected to recolonize upon the completion of the project.

- *Page 12, Section 4. Plants, d.*: Under design changes, 2,871 SF of habitat will now be recovered. Proposed measures to preserve/enhance wildlife includes the addition of a rock habitat feature.

- *Page 13, Section 4. Plants, e.*: There are no noxious weeds/invasive species known to be on or near the site.

- *Page 13, Section 5. Animals, b. and c.*: The updated list of threatened and endangered species no longer includes the Steller sea lion. The project site is included as a region of waterfowl wintering and migration areas and part of the Pacific Flyway route for migratory birds.

- *Page 16, Section 7. Environmental Health, b. Noise 2)*: The project construction plan now includes a greater quantity of smaller in size pipe piles. The number of piles to be vibrated in per day will be restricted to 8 and the number of impact-proofed piles will be restricted to one per day. Steel piles will not be proofed within 2 hours of sunrise or sunset at any time during the construction period. Construction will potentially occur six days a week.

- *Page 17, Section 8. Land and Shoreline Use, f.*: The current comprehensive plan designation of the project site is City of Port Townsend-City Limits, as Point Hudson has incorporated into the city.

- *Page 19, Section 10. Aesthetics a.*: The proposed navigation aid will be at the tallest height of any structure at 22.0 ft. MLLW, and there will be no structures created above roadway/ground level.

- *Page 21, Section 12. Recreation b.*: A section of the South Breakwater's pedestrian walkway is currently blocked off from access. Additionally, its replacement is contingent on the project budget at the time of project bidding.

- *Page 22, Section 13. Historical and Cultural Preservation a.-d.*: A new Section 106 processes has been completed with the following updates:

a. The breakwater structures are determined eligible for listing on the National Register of Historic Places as contributing resources to the Point Hudson NRHP-eligible historic district, but the City of Port Townsend Architectural Review Committee has concurred that the structure would not be adversely affected by the undertaking. The proposal to reconstruct the breakwaters is necessary for the integrity of the historical site as well as prevention of loss or damage of property within the marina and shoreline. USFWS reviewed the totality of the currently defined project scope under the National Historic Preservation Act (NHPA) Section 106, including the Cultural Resources Assessment Report and Historic Preservation Inventory Form for the breakwaters; the USFWS

completed consultation with THPOs and the Washington SHPO (under DAHP tracking code 2021-03-01539) for the described project. While the surrounding community has been deemed a National Register of Historic Places-eligible historic district, impacts from this project have been reviewed by the USFWS RHPO and determined to have no adverse effects to cultural or historic resources under 36CFR800.5.b. The Washington SHPO (DAHP) concurred with these findings in their correspondence letter from DAHP dated October 27, 2021.

b. Two underwater cultural resources were identified in the vicinity of the proposed rock nursery, including a sunken barge approximately 30 feet off the end of the south breakwater and "Saint Brendan's Cathedral," a massive underwater submarine fence anchor dating to WWII, but a determination that the project activities would not affect either resource was made.
c. The methods used to assess the potential impacts to cultural and historic resources were consultation with tribes and the DAHP and a cultural resources assessment.
d. An inadvertent discovery plan has been prepared.