Project Name: Emma Schmitz (Alki) Coastal Erosion Control: Seawall Replacement

Applicant: U.S. Army Corps of Engineers, Seattle District

Project Description: Construct a 500 linear foot seawall providing coastal protection for public lands and infrastructure.

Project Location: Emma Schmitz Memorial Park at 4701 Beach DR SW, Seattle, King County.

Public Notice Date: June 4, 2019
Comment Period Ends: June 25, 2019


Ecology will review the work pursuant to Section 401 of the Clean Water Act, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

Ecology is requesting comments from the public, state and local agencies, tribes, and other interested parties to evaluate the impacts of each proposed activity. Conventional mail or e-mail comments on this public notice will be accepted and made part of the record.

Comments should be sent to:
Department of Ecology—SEA Program
Federal Project Coordinator
Post Office Box 47600
Olympia, Washington 98504
or

To obtain a hard copy of the project information, please call 360-407-6076.
Planning, Environmental and Cultural Resources Branch

401/CZM Federal Permit Coordinator
Shorelands & Environmental Assistance Program
Washington Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear 401/CZM Federal Permit Coordinator:

The U.S. Army Corps of Engineers, Seattle District (Corps) is proposing to construct a 500 linear foot seawall immediately adjacent to and seaward of an existing deteriorated wall. This action is required to provide coastal erosion protection for public utilities, roadways, and public lands. The project will involve a new soldier pile wall with concrete lagging spanning the length of the project using concrete-encased steel beams to support soldier piles spaced at several foot intervals. Small concrete lagging panels would be installed in front of the soldier piles and would be designed to withstand coastal storm events. Buried toe protection would be placed at the base of the soldier pile wall to prevent scour and undermining of the wall. This work would occur between July 15 and February 15, which is within the approved in-water work window.

Prior coordination occurred under reference number EN-ER-14-07 on the “Integrated Draft Detailed Project Report and Environmental Assessment (Draft DPR/EA) for the Alki Coastal Erosion Control Project”. The Corps is requesting Individual 401 Water Quality Certification review and Coastal Zone Management (CZM) Consistency concurrence from the Washington State Department of Ecology (Ecology) for the construction of the Emma Schmitz (Alki) Seawall.

Pursuant to the Shoreline Management Act of 1972 (RCW 90.58), the Corps finds this proposal is consistent to the maximum extent practicable with the State of Washington Shoreline Management Program. Enclosed is additional documentation to support our request, which includes a Clean Water Act 404(b)(1) analysis, CZM determination of consistency, Joint Aquatic Resources (JAR) form, and JAR form attachments.
If you have any questions or need additional information, please contact Ms. Katie Whitlock at Kaitlin.E.Whitlock@usace.army.mil or at 206-764-3576.

Sincerely,

[Signature]

Scott Pozarycki
Environmental Analysis Section Chief, Planning, Environmental and Cultural Resources Branch

4 Encls:
1: Early coordination letter and DPR-EA comments from Ecology (2016)
2: JAR Form with attachments
3: CZM CD
4: 404(b)(1) analysis
Part 1–Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [help]

Emma Schmitz (Alki) Coastal Erosion Control Project: Section 103 Coastal Storm Damage Reduction

Part 2–Applicant

The person and/or organization responsible for the project. [help]

2a. Name (Last, First, Middle)

2b. Organization (If applicable)

U.S. Army Corps of Engineers (Corps)

2c. Mailing Address (Street or PO Box)

4735 East Marginal Way South

2d. City, State, Zip

Seattle, Washington, 98134

2e. Phone (1) 2f. Phone (2) 2g. Fax 2h. E-mail

1Additional forms may be required for the following permits:
- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 794-3485.
- If your project might affect species listed under the Endangered Species Act, you will need to fill out a Specific Project Information Form (SPIF) or prepare a Biological Evaluation. Forms can be found at http://www.nws.usace.army.mil/Missions/CivilWorks/Regulatory/PermitGuidebook/EndangeredSpecies.aspx.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.


For other help, contact the Governor’s Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.
### Part 3–Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.)  [help]

<table>
<thead>
<tr>
<th>3a. Name (Last, First, Middle)</th>
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</thead>
<tbody>
<tr>
<td>Whitlock, Kaitlin, Elise</td>
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<table>
<thead>
<tr>
<th>3b. Organization (If applicable)</th>
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<tbody>
<tr>
<td>U.S. Army Corps of Engineers</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>3c. Mailing Address (Street or PO Box)</th>
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<tbody>
<tr>
<td>P.O. Box 3755</td>
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</table>

<table>
<thead>
<tr>
<th>3d. City, State, Zip</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Seattle, Washington, 98124</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3e. Phone (1)</th>
<th>3f. Phone (2)</th>
<th>3g. Fax</th>
<th>3h. E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>206-764-3576</td>
<td></td>
<td></td>
<td><a href="mailto:Kaitlin.E.Whitlock@usace.army.mil">Kaitlin.E.Whitlock@usace.army.mil</a></td>
</tr>
</tbody>
</table>

### Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both upland and aquatic ownership because the upland owners may not own the adjacent aquatic land.  [help]

- [ ] Same as applicant. (Skip to Part 5.)
- [ ] Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- [ ] There are multiple upland property owners. Complete the section below and fill out JARPA Attachment A for each additional property owner.
- [ ] Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don’t know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete JARPA Attachment E to apply for the Aquatic Use Authorization.

<table>
<thead>
<tr>
<th>4a. Name (Last, First, Middle)</th>
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<table>
<thead>
<tr>
<th>4b. Organization (If applicable)</th>
<th></th>
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<tbody>
<tr>
<td>City of Seattle, Department of Parks and Recreation (project partner)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4c. Mailing Address (Street or PO Box)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Dexter Avenue N</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4d. City, State, Zip</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle, Washington, 98109</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4e. Phone (1)</th>
<th>4f. Phone (2)</th>
<th>4g. Fax</th>
<th>4h. E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>206-684-4075</td>
<td></td>
<td>206-615-1813</td>
<td><a href="mailto:PKS_Info@seattle.gov">PKS_Info@seattle.gov</a></td>
</tr>
</tbody>
</table>
Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [help]

☐ There are multiple project locations (e.g. linear projects). Complete the section below and use JARPA Attachment B for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]

☐ Private
☐ Federal
☒ Publicly owned (state, county, city, special districts like schools, ports, etc.)
☐ Tribal
☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)

5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]

4701 Beach Drive SW

5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]

Seattle, Washington, 98116

5d. County [help]

King County

5e. Provide the section, township, and range for the project location. [help]

<table>
<thead>
<tr>
<th>¼ Section</th>
<th>Section</th>
<th>Township</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>24N</td>
<td>03E</td>
<td></td>
</tr>
</tbody>
</table>

5f. Provide the latitude and longitude of the project location. [help]

- Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)

47.561593, -122.404898

(https://www.google.com/maps/@47.561593,-122.4053415,450m/data=!3m1!1e3?hl=en)

5g. List the tax parcel number(s) for the project location. [help]

- The local county assessor's office can provide this information.

7936000015

5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]

<table>
<thead>
<tr>
<th>Name</th>
<th>Mailing Address</th>
<th>Tax Parcel # (if known)</th>
</tr>
</thead>
</table>

Please see Attachment C.
5i. List all wetlands on or adjacent to the project location. [help]

There are no wetlands on or adjacent to the project location.

5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]

Puget Sound.

5k. Is any part of the project area within a 100-year floodplain? [help]

☒ Yes (waterward of the seawall; Attachment 5k) ☐ No ☐ Don't know

5l. Briefly describe the vegetation and habitat conditions on the property. [help]

The upland area of the property is a grassy strip with a few trees at the top of the seawall with walking/biking paths and benches. A cobble beach runs at the toe of the seawall throughout the area. Outside of the construction limits, eelgrass (Zostera marina) beds are patchy along the shoreline from Alki Point to the north and past Lincoln Park to the south. The fringes of patchy beds are just offshore and in shallow waters all along the Puget Sound shoreline of Seattle. The construction area is cobble beach habitat. Bull kelp (Nereocystis luetkana) is absent from the shoreline directly adjacent to the project site, but has a patchy presence to the north and south of the project. A large kelp bed occurs north of Lincoln Park which is located approximately 2 miles south of the project area. While the density of the bull kelp in this area has decreased precipitously since the mid-1980’s, the distribution of the kelp does not appear to have substantially changed over the same time frame. In 1996, Laminaria kelp was observed in many places where bull kelp was observed in previous years.

5m. Describe how the property is currently used. [help]

The proposed project is located at the southern end of Emma Schmitz Memorial Park. The park is a grassy strip with a few trees at the top of the seawall with walking/biking paths and benches that provide recreational opportunities for local residents. The northern section of the park also has stairs, which allow visitors access to the cobble beach that runs at the toe of the seawall throughout the area.

5n. Describe how the adjacent properties are currently used. [help]

There are multiple single-family residential properties across the street. Me-Kwa-Mooks Park is set back from the project area behind two blocks of residences.

5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [help]

Beach Drive Southwest is a main arterial that connects the west side of West Seattle to Alki Point with average daily traffic of over 5,000 vehicles. A 54-inch sewer main that services 20,000 residents and commercial businesses in the area with a capacity of up to 8 million gallons a day runs parallel to the shoreline and Beach Drive, adjacent to the existing seawall structure. The sewer main is owned and maintained by King County and is buried beneath the surface at a depth of approximately 10 feet below the roadway surface and as close as 2 feet landward from the face of the existing seawall. In addition to the sewer and roadway, there is a Puget Sound Energy gas line and a Seattle Public Utilities water line located beneath the centerline of Beach Drive Southwest.

5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]
Directions to 4701 Beach Drive SW, Seattle, Washington, 98116:
From Highway 509, continue onto East Marginal Way South.
Take the exit toward West Seattle and turn right onto S Horton St.
Turn right onto the West Seattle Bridge ramp.
Continue onto Fauntleroy Way SW.
Continue onto SW Genesee St to SW Hudson St.
Turn right onto SW Genesee St, then left onto 49th Ave SW.
Turn right onto SW Hudson St.
Continue onto SW Jacobsen Rd, then right onto Beach Drive SW.
Project location is approximately 0.2 miles on the left on Beach Drive SW.

Part 6—Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [help]

The Corps proposes to construct a 500 linear foot seawall to provide coastal erosion protection for public utilities, roadways, and public lands. The project will involve construction of a new seawall immediately adjacent to and seaward of an existing deteriorated wall.

The design is for a soldier pile wall with concrete lagging spanning the length of the project using concrete-encased steel beams to support soldier piles spaced at several foot intervals. Small concrete lagging panels would be installed in front of the soldier piles and would be designed to withstand coastal storm events. Buried toe protection would be placed at the base of the soldier pile wall to prevent scour and undermining of the wall.
6b. Describe the purpose of the project and why you want or need to perform it.  

The purpose of the project is to protect utility and transportation infrastructure, as well as a public park. The project is needed because the existing seawall, built in 1927, has significantly deteriorated over time as a result of storm-induced damages from Puget Sound.

The seawall protects a 54 inch sewer main installed by King County in 1955. The sewer main runs parallel to the shoreline and services over 20,000 customers with a capacity of up to 8 million gallons of flow daily. The seawall also protects Beach Drive Southwest, a main arterial that connects the west side of West Seattle to Alki Point with average daily traffic of over 5,000 vehicles. In addition to the sewer and roadway, there are several single family homes located near the damaged site, as well as a Puget Sound Energy gas line and a Seattle Public Utilities water line located beneath the centerline of Beach Drive Southwest and the public park lands of Emma Schmitz Memorial Overlook.

6c. Indicate the project category. (Check all that apply) [help]

- [ ] Commercial
- [x] Residential
- [ ] Institutional
- [ ] Transportation
- [ ] Recreational
- [x] Maintenance
- [ ] Environmental Enhancement

6d. Indicate the major elements of your project. (Check all that apply) [help]

- [ ] Aquaculture
- [ ] Bank Stabilization
- [ ] Boat House
- [ ] Boat Launch
- [ ] Boat Lift
- [ ] Bridge
- [ ] Bulkhead
- [ ] Buoy
- [ ] Channel Modification
- [ ] Culvert
- [ ] Dam / Weir
- [ ] Dike / Levee / Jetty
- [ ] Ditch
- [ ] Dock / Pier
- [ ] Dredging
- [ ] Fence
- [ ] Ferry Terminal
- [ ] Fishway
- [ ] Float
- [ ] Floating Home
- [ ] Geotechnical Survey
- [ ] Land Clearing
- [ ] Marina / Moorage
- [ ] Mining
- [ ] Outfall Structure
- [ ] Piling/Dolphin
- [ ] Raft
- [ ] Retaining Wall (upland)
- [ ] Road
- [ ] Scientific Measurement Device
- [ ] Stairs
- [ ] Stormwater facility
- [ ] Swimming Pool
- [ ] Utility Line

- [x] Other: Seawall
6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [help]
   • Identify where each element will occur in relation to the nearest waterbody.
   • Indicate which activities are within the 100-year floodplain.

The recommended plan consists of a new soldier pile wall with precast concrete lagging constructed immediately in front of the existing seawall structure to a height of +22 feet mean lower low water (MLLW); the height is two feet higher than the existing structure to account for storm wave heights and future sea-level rise (Please see attached plans). Columns shafts, 30 inches in diameter, will be augered 6 foot on center to a depth of 22 feet below the existing ground upon into which steel H piles will be inserted and filled with concrete. Precast concrete face panels will then be placed vertically between columns to create the wall panels and placed to a depth below the scour level to minimize scour risks associated with long term storm events.

Storm waves coincident with extreme water levels can reflect off the wall and develop a standing wave pattern in front of the wall which is conducive to scour. As a result, scour at the base of the new structure is likely to occur and toe protection is required to mitigate this risk. Further, USACE Engineering Manual (EM) 1110-2-110 recommends the use of toe protection to ensure seawalls are not undermined. Therefore, a buried toe will be constructed on the seaward side of the seawall to ensure the seawall is not undermined from scour caused by standing waves. The feature also provides additional lateral support to resist earth pressures pushing the wall seaward. In order to minimize impacts, three feet of toe berm armor stone over one foot of filter rock will be buried below grade. The two layer filter and armor rock toe (four to seven tons each) will be embedded below the existing grade and buried with a 1-12" gravel/cobble beach fill. The gravel/cobble layer will have a 5-foot top width and a 2H:1V slope, for a total width of approximately 14 feet.

The total length of the new seawall is approximately 500 feet. The new seawall will tie into the riprap placed by the City in 1998 on the north end and an existing private seawall on the south end. The north end tie-in will entail pulling back some of the riprap and tapering the wall height down into the riprapped area, and then reworking the riprap in front of the tapered section. The south end tie-in will entail overlapping the new wall seaward of the neighboring wall, and joining the two with anchor bolts. The tie-in will be designed to ensure that most of the force applied to the joint will be borne by the new wall.

The existing seawall will be left in place and buried with backfill material to provide a stable and safe slope up to the existing sidewalk grade.

6f. What are the anticipated start and end dates for project construction? (Month/Year) [help]
   • If the project will be constructed in phases or stages, use JARPA Attachment D to list the start and end dates of each phase or stage.

   Start Date: 15 July 2020   End Date: 15 February 2021   ☐ See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [help]

Approximately $2.4 million for construction

6h. Will any portion of the project receive federal funding? [help]
   • If yes, list each agency providing funds.

☒ Yes: U.S. Army Corps of Engineers  ☐ No  ☐ Don’t know

Part 7—Wetlands: Impacts and Mitigation

☐ Check here if there are wetlands or wetland buffers on or adjacent to the project area.
   (If there are none, skip to Part 8.) [help]

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [help]

☒ Not applicable
7b. Will the project impact wetlands? [help]

- Yes  - No  - Don't know

7c. Will the project impact wetland buffers? [help]

- Yes  - No  - Don't know

7d. Has a wetland delineation report been prepared? [help]

- If Yes, submit the report, including data sheets, with the JARPA package.

- Yes  - No

7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [help]

- If Yes, submit the wetland rating forms and figures with the JARPA package.

- Yes  - No  - Don't know

7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [help]

- If Yes, submit the plan with the JARPA package and answer 7g.

- If No, or Not applicable, explain below why a mitigation plan should not be required.

- Yes  - No  - Don't know

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [help]

7h. Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [help]
<table>
<thead>
<tr>
<th>Activity (fill, drain, excavate, flood, etc.)</th>
<th>Wetland Name(^1)</th>
<th>Wetland type and rating category(^2)</th>
<th>Impact area (sq. ft. or Acres)</th>
<th>Duration of impact(^3)</th>
<th>Proposed mitigation type(^4)</th>
<th>Wetland mitigation area (sq. ft. or acres)</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

\(^1\) If no official name for the wetland exists, create a unique name (such as 'Wetland 1*'). The name should be consistent with other project documents, such as a wetland delineation report.

\(^2\) Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

\(^3\) Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.

\(^4\) Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available:

7i. For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [help]

7j. For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [help]

Part 8—Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, "waterbodies" refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [help]

☒ Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [help]

☐ Not applicable
Several best management practices (BMPs) will be used to avoid and minimize impacts:

- Minimize on-site equipment maintenance and ensure all equipment and materials are clean to minimize potential for contamination.
- No aquatic vegetation would be covered by the new wall or temporary berm (if used) within the delineated construction limits.
- All work will be completed between July 16 and February 15. The work window avoids sensitive migration periods for salmonids, including bull trout. Other work windows apply to forage fish; however, forage fish species are not known to use the project site.
- Work will be completed at low tides or out of the water as much as feasible; work in front of the existing wall would be limited to the established construction limits at approximately +3 ft MLLW.
- Excavated material may be used to create temporary berm to isolate the construction site; a sump pump may be used to help dewater the construction area.
- Construction limits will be clearly delineated.
- Any beach logs moved during construction shall be immediately replaced after construction.
- Work will occur during daylight hours only.
- The vertical columns will be constructed by drilling and placing forms for concrete, as opposed to pile driving to minimize noise impacts.

8b. Will your project impact a waterbody or the area around a waterbody? [help]

☑ Yes: minor impacts to a waterbody  ☐ No
8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [help]
   - If Yes, submit the plan with the JARPA package and answer 8d.
   - If No, or Not applicable, explain below why a mitigation plan should not be required.

☐ Yes  ☒ No  ☐ Don't know

Mitigation is not required. The impacts will not be significant due to the avoidance or minimization of impacts with BMPs.

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.
   - If you already completed 7g you do not need to restate your answer here. [help]

8e. Summarize impact(s) to each waterbody in the table below. [help]

<table>
<thead>
<tr>
<th>Activity (clear, dredge, fill, pile drive, etc.)</th>
<th>Waterbody name¹</th>
<th>Impact location²</th>
<th>Duration of impact³</th>
<th>Amount of material (cubic yards; CY) to be placed in or removed from waterbody</th>
<th>Area (sq. ft. or linear ft.) of waterbody directly affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pile installation</td>
<td>Puget Sound</td>
<td>New seawall</td>
<td>Permanent</td>
<td>About 74 piles</td>
<td>0.02 acres</td>
</tr>
</tbody>
</table>
| Fill                                            | Puget Sound      | Behind new seawall | Permanent           | Sand: 659.1 CY  
Soil: 1,134.7 CY                                                                 | Approximately 500 linear feet                             |
| Cut and fill for erosion protection             | Puget Sound      | Buried in front of new seawall | Permanent           | Erosion Protection  
Excavation = 1,254 CY (Cut)  
Gravel = 600 CY (Fill)  
Buried Armor (four to seven tons each) = 330.5 CY (Fill)  
Filter rock = 226.5 CY (Fill)  
Net fill: 97 CY                                                                 | Approximately 500 linear feet                             |
| Place sand                                      | Puget Sound      | In front of new seawall | Permanent           | Unknown                                                                     | Approximately 500 linear feet                             |

¹ If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.
² Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.
³ Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.
8f. For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [help]

Erosion protection quantities at the base of the seawall:
Erosion Protection Excavation = 1,254 CY (Excavate)
Gravel = 600 CY (Fill)
Buried Armor (four to seven tons each) = 330.5 CY (Fill)
Filter = 226.5 CY (Fill)
Piles = about 74
Net fill = 97 CY

Material behind new seawall:
Sand: 659.1 CY
Soil: 1,134.7 CY

All sand, soil, and gravel fill material will be commercially sourced. Material will be placed with the use of heavy machinery with tracks such as excavators and bobcats. Final amount of sand placed would be coordinated with the USFWS and NMFS.

8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [help]

Erosion protection quantities at the base of the seawall:
Erosion Protection Excavation = 1,254 CY (Excavate)
Gravel = 600 CY (Fill)
Buried Armor (four to seven tons each) = 330.5 CY (Fill)
Filter = 226.5 CY (Fill)
Piles = about 74
Net fill = 97 CY

Material behind new seawall:
Sand: 659.1 CY
Soil: 1,134.7 CY

Excavation of material will be done with heavy machinery with tracks such as excavators and bobcats. The excavated material may be utilized for temporary berm then regraded back into the beach profile following construction of the toe protection.

Part 9—Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [help]

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>Contact Name</th>
<th>Phone</th>
<th>Most Recent Date of Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>USFWS</td>
<td>Emily Teachout</td>
<td>360-753-9583</td>
<td>January 4, 2019</td>
</tr>
<tr>
<td>NMFS</td>
<td>Jennifer Quan</td>
<td></td>
<td>January 4, 2019</td>
</tr>
<tr>
<td>Ecology</td>
<td>Rebekah Padgett</td>
<td>360-407-6076</td>
<td>January 8, 2019</td>
</tr>
</tbody>
</table>
9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List?  [help]
   - If Yes, list the parameter(s) below.
   - If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d.

   ☐ Yes  ☑ No

Marine waters in the project area are not on the 303(d) list, but marine waters approximately 1/2 mile to the north and 1/3 mile to the south of the project area are classified as Category 5 for bacteria.

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in?  [help]
   - Go to http://cpub.epa.gov/surf/locate/index.cfm to help identify the HUC.

17110013

9d. What Water Resource Inventory Area Number (WRIA #) is the project in?  [help]
   - Go to https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up to find the WRIA #.

WRIA 9

9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity?  [help]

☑ Yes  ☐ No  ☐ Not applicable

9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation?  [help]
   - If you don't know, contact the local planning department.

☑ Urban  ☐ Natural  ☐ Aquatic  ☐ Conservancy  ☐ Other: __________

9g. What is the Washington Department of Natural Resources Water Type?  [help]

☐ Shoreline  ☑ Fish  ☐ Non-Fish Perennial  ☐ Non-Fish Seasonal

9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual?  [help]
   - If No, provide the name of the manual your project is designed to meet.

☑ Yes  ☐ No

Name of manual: __________
9i. Does the project site have known contaminated sediment? [help]
   - If Yes, please describe below.

| □ Yes | X No |

9j. If you know what the property was used for in the past, describe below. [help]

The seawall was constructed in 1927. A small park landward of the seawall has been used for recreation and scenic viewing for local residents.

9k. Has a cultural resource (archaeological) survey been performed on the project area? [help]
   - If Yes, attach it to your JARPA package.

| X Yes | □ No |
Several species protected under the ESA in King County are listed below. Northern spotted owl, Canada lynx, gray wolf, grizzly bear, and North American wolverine are not expected to occur at this urban project site due to lack of available habitat.

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Critical Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marbled Murrelet</td>
<td>Threatened</td>
<td>Designated, not in project area</td>
</tr>
<tr>
<td><em>Brachyramphus marmoratus</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern spotted owl</td>
<td>Threatened</td>
<td>Designated, not in project area</td>
</tr>
<tr>
<td><em>Strix occidentalis caurina</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastal/Puget Sound Bull Trout</td>
<td>Threatened</td>
<td>Designated</td>
</tr>
<tr>
<td><em>Salvelinus confluentus</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puget Sound Chinook Salmon</td>
<td>Threatened</td>
<td>Designated</td>
</tr>
<tr>
<td><em>Oncorhynchus tshawytscha</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puget Sound Steelhead</td>
<td>Threatened</td>
<td>Designated</td>
</tr>
<tr>
<td><em>Oncorhynchus mykiss</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bocaccio</td>
<td>Endangered</td>
<td>Proposed</td>
</tr>
<tr>
<td><em>Sebastes paucispinis</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eulachon</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Thaleichthys pacificus</em></td>
<td>Threatened</td>
<td>Designated, not in project area</td>
</tr>
<tr>
<td>Yelloweye rockfish</td>
<td>Threatened</td>
<td>Proposed</td>
</tr>
<tr>
<td><em>Sebastes ruberrimus</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green sturgeon</td>
<td>Threatened</td>
<td>Designated, not in project area</td>
</tr>
<tr>
<td><em>Acipenser medirostris</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humpback Whale</td>
<td>Endangered</td>
<td>Not designated</td>
</tr>
<tr>
<td><em>Megaptera novaeangliae</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern Resident Killer Whale</td>
<td>Endangered</td>
<td>Designated</td>
</tr>
<tr>
<td><em>Orcinus Orca</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leatherback Sea Turtle</td>
<td>Endangered</td>
<td>Designated, not in project area</td>
</tr>
<tr>
<td><em>Dermochelys coriacea</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada lynx</td>
<td>Threatened</td>
<td>Designated, not in project area</td>
</tr>
<tr>
<td><em>Lynx canadensis</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gray wolf</td>
<td>Endangered</td>
<td>Designated, not in project area</td>
</tr>
<tr>
<td><em>Canis lupus</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grizzly bear</td>
<td>Threatened</td>
<td>Not designated</td>
</tr>
<tr>
<td>U<em>rsus arctos horribilis</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North American wolverine</td>
<td>Proposed</td>
<td>Not proposed</td>
</tr>
<tr>
<td><em>Gulo gulo luteus</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9m. Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [help]

- Estuarine and Marine Wetland (estuarine intertidal NWI code E2USP)
- Estuarine and Marine Wetland (estuarine intertidal NWI code E2USN)
- Estuarine and Marine Wetland (estuarine intertidal NWI code E2RSP)
- Estuarine and Marine Deepwater
- Hardshell Clam
- Biodiversity Areas and Corridor (Me Kwa Mooks Park approximately 2 blocks away on the other side of the residential area)

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at http://apps.oria.wa.gov/opas/.
- Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.
- For a list of addresses to send your JARPA to, click on agency addresses for completed JARPA.

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [help]

- For more information about SEPA, go to https://ecology.wa.gov/regulations-permits/SEPA-environmental-review.

□ A copy of the SEPA determination or letter of exemption is included with this application.

□ A SEPA determination is pending with ________________ (lead agency). The expected decision date is ____________.

□ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [help]

□ This project is exempt (choose type of exemption below).
  □ Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?
  
  □ Other: __________________________________________________________________________

  □ SEPA is pre-empted by federal law.

10b. Indicate the permits you are applying for. (Check all that apply.) [help]

LOCAL GOVERNMENT

Local Government Shoreline permits:

□ Substantial Development □ Conditional Use □ Variance
□ Shoreline Exemption Type (explain): __________________________________________________________________________

Other City/County permits:

□ Floodplain Development Permit □ Critical Areas Ordinance

STATE GOVERNMENT
<table>
<thead>
<tr>
<th>Washington Department of Fish and Wildlife:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Hydraulic Project Approval (HPA) □ Fish Habitat Enhancement Exemption – Attach Exemption Form</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Washington Department of Natural Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Aquatic Use Authorization</td>
</tr>
<tr>
<td>Complete JARPA Attachment E and submit a check for $25 payable to the Washington Department of Natural Resources. Do not send cash.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Washington Department of Ecology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Section 401 Water Quality Certification</td>
</tr>
</tbody>
</table>

**FEDERAL AND TRIBAL GOVERNMENT**

<table>
<thead>
<tr>
<th>United States Department of the Army (U.S. Army Corps of Engineers):</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Section 404 (discharges into waters of the U.S.) □ Section 10 (work in navigable waters)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>United States Coast Guard:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ General Bridge Act Permit □ Private Aids to Navigation (for non-bridge projects)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>United States Environmental Protection Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Section 401 Water Quality Certification (discharges into waters of the U.S.) on tribal lands where tribes do not have treatment as a state (TAS)</td>
</tr>
</tbody>
</table>

**Tribal Permits:** (Check with the tribe to see if there are other tribal permits, e.g., Tribal Environmental Protection Act, Shoreline Permits, Hydraulic Project Permits, or other in addition to CWA Section 401 WQC)

| □ Section 401 Water Quality Certification (discharges into waters of the U.S.) where the tribe has treatment as a state (TAS). |
Part 11—Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [help]

11a. Applicant Signature (required) [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. ___________ (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. ___________ (initial)

FEDERAL PROJECT - NO SIGNATURE

Applicant Printed Name  Applicant Signature  Date

11b. Authorized Agent Signature [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

FEDERAL PROJECT - NO SIGNATURE

Authorized Agent Printed Name  Authorized Agent Signature  Date

11c. Property Owner Signature (if not applicant) [help]

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

FEDERAL PROJECT - NO SIGNATURE

Property Owner Printed Name  Property Owner Signature  Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 08/2018