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WASHINGTON STATE
Joint Aquatic Resources Permit Application (JARPA) Form[1]

USE BLACK OR BLUE INK TO ENTER ANSWERS IN WHITE SPACES BELOW.

US Army Corps of Engineers ®
Seattle District

AGENCY USE ONLY

Date received:

Agency reference #: _____

Tax Parcel #(s): _____

_____

_____

Part 1–Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [help][2]
Weaverling Spit Shoreline Restoration Phase II. Central Beach

Part 2–Applicant

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

2a. Name (Last, First, Middle) and Organization (if applicable)			
Woodward, Christine Samish Indian Nation			
2b. Mailing Address (Street or PO Box)			
P.O. Box 217			
2c. City, State, Zip			
Anacortes, WA 98221			
2d. Phone (1)	**2e.** Phone (2)	**2f.** Fax	**2g.** E-mail
(360-293-6404 ext 108)	360-661-6336	360-299-0790	cwoodward@samishtribe.nsn.us

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]

3a. Name (Last, First, Middle) and Organization (if applicable)
Woodward, Christine, Samish Indian Nation
3b. Mailing Address (Street or PO Box)

[1] Additional 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) 764-3495.
- 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/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_ESA
- If you are applying for an Aquatic Resources Use Authorization you will need to fill out and submit an Application for Authorization to Use State-Owned Aquatic Lands form to DNR, which can be found at http://www.dnr.wa.gov/Publications/aqr_use_auth_app.doc
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you think you will need a Shoreline permit, contact the appropriate city or county government to make sure they will accept the JARPA.

[2] To access an online JARPA form with [help] screens, go to http://www.epermitting.wa.gov/site/alias__resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx .
For other help, contact the Governor's Office of Regulatory Assistance at 1-800-917-0043 or help@ora.wa.gov.

P.O. Box 217
3c. City, State, Zip
Anacortes, WA 98221

3d. Phone (1)	**3e.** Phone (2)	**3f.** Fax	**3g.** E-mail
360-293-6404 xt 108	360-661-6336	360-299-0790	cwoodward@samishtribe.nsn.us

Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. [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 property owners. Complete the section below and fill out JARPA Attachment A for each additional property owner.

4a. Name (Last, First, Middle) and Organization (if applicable)
4b. Mailing Address (Street or PO Box)
4c. City, State, Zip

4d. Phone (1)	**4e.** Phone (2)	**4f.** Fax	**4g.** E-mail
( )	( )	( )	

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]
☐ State Owned Aquatic Land (If yes or maybe, contact the Department of Natural Resources (DNR) at (360) 902-1100)
☐ Federal
☐ Other publicly owned (state, county, city, special districts like schools, ports, etc.)
☒ Tribal
☐ Private
5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]
4701 Fidalgo Bay Road
5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]
Anacortes, WA. 98221

5d. County [help]

Skagit

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

¼ Section	Section	Township	Range
NW	32	35 North	2E

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

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

48.485 N lat / 122.594.W long

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

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

P33272 P33037

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

Name	Mailing Address	Tax Parcel # (if known)
Cove at Fidalgo LLC	4501 Fidalgo Bay Road Anacortes, WA 98221	119506, 33205
Grimm Living Trust & Grimm Joseph D Trustee	4205 Fidalgo Bay Road, Anacortes, WA. 98221 and 6315 NE 63rd St, Vancouver, WA 98661	
City of Anacortes	P.O. Box 547, Anacortes WA. 98221	P112899

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

None

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

Fidalgo Bay

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

☒ Yes ☐ No ☐ Don't know

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

Low lying grassy field. Low elevation bank with intertidal beach. 7 Planting beds for larger trees for shade were planted in spring of 2010.

Shoreline habitat is degraded and eroded. With recent heavy storms last winter, loss of shoreline has increased along with forage fish habitat.

Areas of forage fish usage but beach is inadequate for survival of eggs.

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

This area is currently being used as an area of low use by the public with some walking down to the beach by RV Park guests. It is used for several days during the year for Canoe Journey hosting site with areas to store traveling canoes.

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

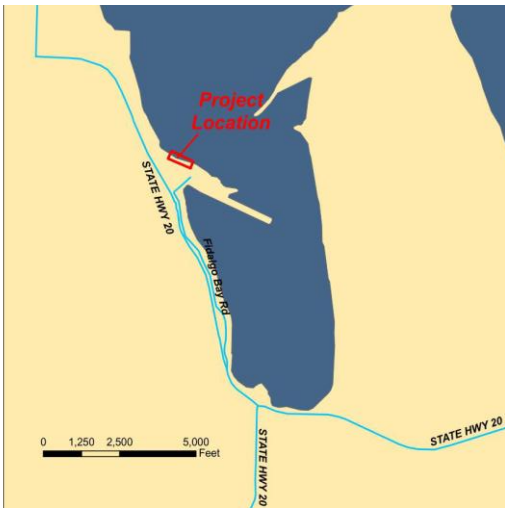
West of the project site is Phase I of the Weaverling Spit beach nourishment and enhancement project. East of the project site is the Fidalgo Rv Park owned by the Samish Indian Nation. The Rv Park has an active clamming beach and many people come for crab season.

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

There are no structures on the property (the RV park is just SE of the project area beach).

5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]

From Interstate 5 take exit 230/WA State Highway 20. Go west twelve (12) miles to Fidalgo Bay Road. Go slight right onto Fidalgo Bay Road. Take a right into the Fidalgo Rv Park.



Part 6–Project Description

6a. Summarize the overall project. You can provide more detail in 6d. [help]

The goals of the beach nourishment project is to enhance the degraded natural processes and nearshore functions that support beach habitats including forage fish spawning along the project area beach as well as provide erosion control for culturally sensitive areas along the backshore. This project is also intended to benefit Pacific salmon that use Fidalgo Bay and surrounding areas through enhanced forage fish production and improved migratory habitat. The specific target species is surf smelt (*Hypomesus pretiosus*) spawning habitat value through limited beach debris cleanup and sediment nourishment along the upper intertidal beach.

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

☐ Commercial ☐ Residential ☐ Institutional ☐ Transportation ☐ Recreational
☐ Maintenance ☒ Environmental Enhancement

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

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

☐ Other:

6d. Describe how you plan to construct each project element checked in 6c. 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 flood plain.

An area up to 500 feet long will be enhanced through beach nourishment at Weaverling Spit, Fidalgo Bay. Nourishment sediment is proposed to tie into the southeastern extent of the Phase 1 (2008-2009) project and extend to the birch tree where the sediment will tie into existing contours. The beach nourishment footprint would generally extend 55 to 70 feet waterward of the toe of the bank with the greatest width of up to 70 feet near the southeast end of the project and 10 to 30 ft landward of the top of the existing low bank. The toe of the nourishment area would be at approximately +2 ft MLLW elevation. The nourishment area would have a surface slope of 6.5:1 (horizontal: vertical) to +11.5ft MLLW. The berm crest width would be 8ft. The beach nourishment design would be able to accommodate some level of anticipated future sea level rise.

Constructing these slopes would encroach on the raised planting beds and therefore sediment placement around planting beds will require careful work to avoid damaging plantings. These slopes represent the best compromise between what is expected to be the adjusted beach slopes after several years and introducing slightly more sediment than may be stable at the site to maximize habitat benefit over time. Any planting bed similar to the one at station 8+00 that would get significantly covered with the proposed design should be lifted on the waterward side to meet proposed grade (Sheet 4).

The rose bushes between stations 6+55 and 7+10 will remain and therefore a slightly different design is required. Between stations 6+55 and 7+10 the elevation of the toe of the nourishment will still be +2 ft MLLW with a 6.5:1 slope but the upper extent will only be +11.0ft MLLW. Once the upper extent of +11.0 MLLW is reached, the elevation will remain constant until the toe of the roses as seen in cross section 7+00 on Sheet 4.

Nourishment sediment size was selected to maximize forage fish spawning habitat over time. Mitigation work at Lummi Shore Road in Bellingham Bay since 1996 included extensive sediment grain size analysis and surf smelt egg density sampling since 1996 (Johannessen and Waggoner 2008). Results of this work demonstrated that sediment at beach areas with high surf smelt egg density contained at least 40% 1-8 mm sediment (Johannessen 1998). These high utilization beach sites at Lummi Shore Road also contained moderate quantities of pebble, ranging up to 1 to 1 ½" in diameter. It is important to consider that sediment that is exclusively within this size range is very mobile on the upper beach (Nordstrom pers. com. 2009). The inclusion of a percentage of coarser gravel should moderate sediment transport somewhat. Also Puget Sound beaches rarely have such a narrow sediment size range, such that a wider size range is not only tolerable but desirable. The two layer beach nourishment approach described below for this project is based on similar approaches at North Beach Samish Island, Weaverling Spit Phase 1, and Seahurst Park South.

The approximately 2,300 cy of nourishment sediment for this project would be composed of a mix of pebbly sand to fine gravel to course gravel, ranging from approximately 0.04 in (1 mm) to 2 in., with more than 50% by weight of sediment in the 0.5" to 2" size range (course gravel) used to develop the desired slope of the nourished beach. Over 30% of the imported sediment is in the 0.125-0.75" size range. Coarser material would be included to both mimic natural beach conditions in this area and to aid in longevity of sediment in the project area. Associated slopes between the different types of gravels and sand are detailed in Sheet 4. The courser nourishment sediment would be placed on the existing sediments with the forage fish spawning mix ('fish mix') on top along the beach face and pebbly sand on top in the backshore berm as described in the details on Sheet 4. The slope between coarse nourishment sediment and the 'fish mix' is 5.5:1 while the slope between the course nourishment sediment and the pebbly sand in the back shore is 4:1.

The material specification for the Central Weaverling Spit nourishment project was developed using the site-specific needs of the project beach, assessment project recommendations, grain size analysis, and professional judgment based on past projects. The sediment specifications are provided in Tables 1 to 3. All sediment should be natural sub-angular to rounded material, as the native sediment is somewhat angular to sub-angular in general. The very limited amount of fines in the specification precludes the need to wash all of the sediment prior to transport.

Table 1. Sandy gravel for upper layer beach nourishment sediment specification. Material must be approved by project geologist.

Screen/Sieve Percent Passing
Approx. 1 ½ " (38mm) 100
¾ " (19mm) 65-80
¼ " (6.4mm) 50-70
#10 (2.0 mm) 10-20
#40 (0.42 mm) 0-5
#100 0-2

Table 2. Course gravel for lower layer beach nourishment sediment specification. Material must be approved by project geologist.

Screen/Sieve Percent Passing
Approx. 1 ½ " (38mm) 96-100
¾ " (19mm) 40-55
¼ " (6.4mm) 15-25

#10 (2.0 mm) 0-5
#100 0-2

Table 3. Pebbly sand for backshore nourishment specification; pit-run material is fully acceptable. Material must be approved by project geologist.

Screen/Sieve	**Percent Passing**
Approx. 1“ (25 mm)	100
¾ “ (19mm)	75-100
½” (13 mm)	60-85
¼ “ (6.4mm)	55-75
#10 (2.0 mm)	10-30
#40 (0.42 mm)	0-15
#100 (0.15 mm)	0-4

Drift Sills

The installation of 2 drift sills will be constructed out of large woody debris (LWD). These drift sills are in essence low profile, short groins that differ from groins in that they are only constructed to the elevation of the beach nourishment material, therefore they do not trap natural sediment in the system. LWD is chosen for habitat reasons, and the desire to keep hard rock structures off the beach, by adjacent staff and others. LWD can provide habitat benefits in that it has a complex rough surface and it also has a much higher chance of trapping additional LWD, to further add to the structural complexity of the beach. These two structures will be used across the upper approximate 30 ft of the beach at approximately state 7+75 and 9+00. They would extend all the way to the bank from the proposed +6 ft MLLW contour.

It is essential to obtain large diameter sound wood for this application. Pieces that are a minimum of 20 inches DBH (diameter at breast height) are desired. One piece of each sill will be at least 30ft long without the rootwad while the two other pieces for each sill will be approximately 12-14ft long with the rootmass still attached. Attached root-masses aide in the stability of the structure as well as its ability to trap additional LWD. Acceptable species include Douglas fir and Western Red Cedar, since these are the most durable of the local tree species in the marine environment. The shorter pieces with rootmasses will be secured on either side of the long piece and arranged so that one rootmass is waterward while the other is landward. See drawings for a conceptual sketch of the structures in plan view (Sheet 3) and cross section view (Sheet 4). LWD structures landward extent would be near extreme high water with approximately 2/3 of wood under proposed grade to hold placed gravel and material that accumulates in higher elevations in the tide cycle. Each structure should be anchored by a minimum of 2 anchors. It is recommended to use 2'x2'x6' concrete ecology blocks, poured with a 2.5-4 inch diameter hole in the blocks.

6e. What are the 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: September 1, 2012 End date: September 30, 2012 ☐ See JARPA Attachment D

6f. Describe the purpose of the project and why you want or need to perform it. [help]

Fidalgo Bay is noted for historic spawning areas of forage fish, however, armoring of the shoreline, loss of fine-grained beach sediment, and removal of native vegetation seriously hinders the habitat suitable for spawning areas. Combined with the 2008-2009 project, this Phase 2 project will give a total length of habitat restoration and beach enhancement along a single beach in Fidalgo Bay to 1,080 feet. In the fall of 2010, with funding from Washington State Department of Natural Resources, 7 planting beds were put in place along the project shoreline to begin creating shade for this current phase.

Beach nourishment at this location would be beneficial in terms of nearshore habitat improvement as well as to provide a moderate amount of protection against erosion of the midden in the low bank. Beach nourishment, as defined in a recent *Glossary of Coastal Geomorphology*, is “The natural or artificial supply of sand or gravel to a beach. Also termed beach restoration, beach fill, and beach renourishment” (Bird 2005). Another pair of well-respected authors recently described beach nourishment as “the artificial (mechanical) placement of sand along an eroded stretch of coast where only a small beach, or no beach, previously existed. Efforts to artificially maintain beaches that are deprived of natural sediment thus attempts to proxy nature and (re)nourish the beach by mechanical placement of sand. The beach sediment is thus “replenished by artificial means” (Finkl and Walker 2005). Beach nourishment is also referred to as beach replenishment, and locally it typically employs gravel for the main sediment type in Puget Sound (Shipman 2002).

The intent of the beach nourishment would be to provide relatively fine-grained sediment for potential spawning of surf smelt in the upper intertidal area waterward of the low bank. Surf smelt require an

abundance of 1-7 mm sediment in which to spawn (Pentilla 1978). This material is also called very coarse sand to fine gravel, just slightly smaller than what is commonly known as pea gravel. In this case nourishment sediment would be sized to provide a base for infill with abundant finer-grain sediment from the broad tide flats for enhancement of forage fish habitat. Surf smelt have been documented to spawn up to 0.5 ft vertically above MHHW and in some cases higher. That is the main reason for having increased beach elevation and providing a buffer between the existing bank, planting beds, and the midden. The secondary reason being to provide erosion protection for the culturally sensitive nearshore areas.
The reasonably long project area length (500 feet) and lack of southerly wind and wave exposure make the project viable. In addition, due to the slow to moderate erosion rate, it appears that beach nourishment is feasible erosion control approach at this site. Similar projects have been carried out at numerous locations in the northwest straits and Puget Sound (in recent decades) (Johannessen 2003, Zelo et al. 2000, Shipman et al. 2010). Of the sites monitored, results have revealed reasonable stability at similar projects with volume losses on the order of 0-7% of total nourishment volume over small periods (Johannessen and Chase 2005). With all of the known and suspected impacts of "hard shoreline armoring" such as bulkheads and seawalls, and the regulatory hurdles associated with their construction (MacDonald 1994, Thom et al 1994, Miles et al. 2001, Shipman et al. 2010), this approach is avoided wherever possible. Beach nourishment has the benefit of adding littoral sediment to the system, which is in severe deficit at this time at the subject property (MacLennan and Johannessen 2008).

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

$128,500.00

6h. Will any portion of the project receive federal funding? [help]

- **If yes**, list each agency providing funds.

☐ Yes ☒ 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 ☐ Not applicable

The project is designed to be self mitigating; and is essentially habitat enhancement.

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

N/A

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]

Activity (fill, drain, excavate, flood, etc.)	Wetland Name[1]	Wetland type and rating category[2]	Impact area (sq. ft. or Acres)	Duration of impact[3]	Proposed mitigation type[4]	Wetland mitigation area (sq. ft. or acres)

[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]

N/A

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]

N/A

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

Beach work will occur during low tide. Spill response plan will be maintained and used if needed. Temporary sediment and erosion control plan in place prior to construction.

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

☒ Yes ☐ 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 ☐ Not applicable

Beach work will occur during low tide. Spill response plan will be maintained and used if needed. Temporary sediment and erosion control plan in place prior to construction. Project manager will be on site at all times.

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]

The plan is meant to keep impacts to the marine environment at a minimum.

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

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name[1]	Impact location[2]	Duration of impact[3]	Amount of material to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
beach nourishment project to enhance the degraded natural processes and nearshore functions that support beach habitats including forage fish spawning along the project area beach as well as provide erosion control for culturally sensitive areas along the backshore.	Fidalgo Bay	In and adjacent to	Positive impact will be semi-permanent	2,300 cy of nourishment sediment placed	500 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]

Construction access from the previous project will be used for this phase and is shown on the site plans. The midden site could be traversed by trucks backing in to dump the gravel, likely with the use of steel plates over the lawn and midden. The spreading of material on the beach will require a dozer and likely also require a wheeled front-end loader. A moderate size tracked excavator will also be required for installing drift sills and moving the rocks and debris off the beach prior to nourishment. Gravel will likely be spread to either end first, working back toward the center.

The approximately 2,300 cy of nourishment sediment for this project would be composed of a mix of pebbly sand to fine gravel to course gravel, ranging from approximately 0.04 in (1 mm) to 2 in., with more than 50% by weight of sediment in the 0.5" to 2" size range (course gravel) used to develop the desired slope of the nourished beach. Over 30% of the imported sediment is in the 0.125-0.75" size range. Coarser material would be included to both mimic natural beach conditions in this area and to aid in longevity of sediment in the project area. Associated slopes between the different types of gravels and sand are detailed in Sheet 4. The courser nourishment sediment would be placed on the existing sediments with the forage fish spawning mix ('fish mix') on top along the beach face and pebbly sand on top in the backshore berm. The slope between coarse nourishment sediment and the 'fish mix' is 5.5:1 while the slope between the course nourishment sediment and the pebbly sand in the back shore is 4:1.
The material specification for the Central Weaverling Spit nourishment project was developed using the site-specific needs of the project beach, assessment project recommendations, grain size analysis, and professional judgment based on past projects. The sediment specifications are provided in Tables 1 to 3. All sediment should be natural sub-angular to rounded material, as the native sediment is somewhat angular to sub-angular in general. The very limited amount of fines in the specification precludes the need to wash all of the sediment prior to transport.

Drift sills: Pieces that are a minimum of 20 inches DBH (diameter at breast height) are desired. One piece of each sill will be at least 30ft long without the rootwad while the two other pieces for each sill will be approximately 12-14ft long with the rootmass still attached. Attached root-masses aide in the stability of the structure as well as its ability to trap additional LWD. Acceptable species include Douglas fir and Western Red Cedar, since these are the most durable of the local tree species in the marine environment. The shorter pieces with rootmasses will be secured on either side of the long piece and arranged so that one rootmass is waterward while the other is landward.
LWD structures landward extent would be near extreme high water with approximately 2/3 of wood under proposed grade to hold placed gravel and material that accumulates in higher elevations in the tide cycle. Each structure should be anchored by a minimum of 2 anchors. It is recommended to use 2'x2'x6' concrete ecology blocks, poured with a 2.5-4 inch diameter hole in the blocks.

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]

Remove beach debris and boulders from the beach with a moderate size tracked excavator.

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]

Agency Name	Contact Name	Phone	Most Recent

			Date of Contact
City of Anacortes	Don Measamer	360-293-1901	12/7/2011
		( )	
		( )	

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 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: http://www.ecy.wa.gov/programs/wq/303d/.

☐ Yes ☒ No

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help]

- Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC.

17110019

9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help]

- Go to http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm to find the WRIA #.

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

- Go to http://www.ecy.wa.gov/programs/wq/swqs/criteria.html for the standards.

☐ 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.
- For more information, go to: http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/211_designations.html.

☐ Rural ☒ Urban ☐ Natural ☐ Aquatic ☐ Conservancy ☐ Other _____

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

- Go to http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_watertyping.aspx for the Forest Practices Water Typing System.

☒ 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: NA

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

Always been a beach area. There was one home located upland from the project area.

9j. Has a cultural resource (archaeological) survey been performed on the project area? [help]

- **If yes**, attach it to your JARPA package.

☒ Yes ☐ No

9k. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [help]

Puget Sound Chinook- Not affected as work will occur outside fish window
Salmonid Fish habitat- Not affected as work will occur outside fish window
Bald Eagle- work will occur outside of nesting season
Marbled Murrelet- no effect

9l. 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]

Surf Smelt spawning 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.ecy.wa.gov/opas/.
- Governor's Office of Regulatory Assistance at (800) 917-0043 or help@ora.wa.gov.
- For a list of agency addresses to send your application, click on the "where to send your completed JARPA" at http://www.epermitting.wa.gov.

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

- For more information about SEPA, go to www.ecy.wa.gov/programs/sea/sepa/e-review.html.

☐ 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): Fish Habitat Enhancement Exemption

Other city/county permits:

☐ Floodplain Development Permit ☐ Critical Areas Ordinance

STATE GOVERNMENT

Washington Department of Fish and Wildlife:

☒ Hydraulic Project Approval (HPA) ☐ Fish Habitat Enhancement Exemption

Washington Department of Ecology:

☒ Section 401 Water Quality Certification

Washington Department of Natural Resources:

☒ Aquatic Resources Use Authorization

FEDERAL GOVERNMENT

United States Department of the Army permits (U.S. Army Corps of Engineers):

☒ Section 404 (discharges into waters of the U.S.) ☐ Section 10 (work in navigable waters)

United States Coast Guard permits:

☐ General Bridge Act Permit ☐ Private Aids to Navigation (for non-bridge projects)

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)

_____	_____	_____
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.

_____	_____	_____
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.

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.

_____	_____	_____
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 of Regulatory Assistance (ORA). People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341.
ORA publication number: ENV-019-09