



# WASHINGTON STATE

## Joint Aquatic Resources Permit Application (JARPA) Form<sup>1,2</sup> [\[help\]](#)

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE 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) [\[help\]](#)

Marine Carbon Dioxide Removal Pilot Project (Project Macoma)

### Part 2—Applicant

The person and/or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle)

Waknitz, Jesse

2b. Organization (If applicable)

Port of Port Angeles

2c. Mailing Address (Street or PO Box)

338 West First Street

2d. City, State, Zip

Port Angeles, WA 98362

2e. Phone (1)

(360) 417-3452

2f. Phone (2)

(360) 460-1364

2g. Fax

2h. E-mail

jessew@portofpa.com

<sup>1</sup>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.
- 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.

<sup>2</sup>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](http://www.epermitting.wa.gov/site/alias_resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx).

For other help, contact the Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or [help@oria.wa.gov](mailto: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.) [\[help\]](#)

<b>3a.</b> Name (Last, First, Middle)			
Jensen, Josh			
<b>3b.</b> Organization (If applicable)			
Anchor QEA, Inc.			
<b>3c.</b> Mailing Address (Street or PO Box)			
1201 Third Avenue, Suite 2600			
<b>3d.</b> City, State, Zip			
Seattle, WA 98101			
<b>3e.</b> Phone (1)	<b>3f.</b> Phone (2)	<b>3g.</b> Fax	<b>3h.</b> E-mail
(206) 287-9130		(206) 287-9131	jjensen@anchorqea.com

## 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.

<b>4a.</b> Name (Last, First, Middle)			
<b>4b.</b> Organization (If applicable)			
<b>4c.</b> Mailing Address (Street or PO Box)			
<b>4d.</b> City, State, Zip			
<b>4e.</b> Phone (1)	<b>4f.</b> Phone (2)	<b>4g.</b> Fax	<b>4h.</b> 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.

<b>5a.</b> Indicate the type of ownership of the property. (Check all that apply.) <a href="#">[help]</a>			
<input type="checkbox"/> Private			
<input type="checkbox"/> Federal			
<input checked="" type="checkbox"/> Publicly owned (state, county, city, special districts like schools, ports, etc.)			
<input type="checkbox"/> Tribal			
<input type="checkbox"/> Department of Natural Resources (DNR) – managed aquatic lands (Complete <a href="#">JARPA Attachment E</a> )			
<b>5b.</b> Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) <a href="#">[help]</a>			
1433 Marine Drive			
<b>5c.</b> City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) <a href="#">[help]</a>			
Port Angeles, WA 98362			
<b>5d.</b> County <a href="#">[help]</a>			
Clallam County			
<b>5e.</b> Provide the section, township, and range for the project location. <a href="#">[help]</a>			
<b>¼ Section</b>	<b>Section</b>	<b>Township</b>	<b>Range</b>
NW	04	31N	06W
<b>5f.</b> Provide the latitude and longitude of the project location. <a href="#">[help]</a>			
<ul style="list-style-type: none"><li>Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)</li></ul>			
Lat: 48.128749 N / Long: -123.458501 W			
<b>5g.</b> List the tax parcel number(s) for the project location. <a href="#">[help]</a>			
<ul style="list-style-type: none"><li>The local county assessor's office can provide this information.</li></ul>			
063000-50-5520			
<b>5h.</b> Contact information for all adjoining property owners. (If you need more space, use <a href="#">JARPA Attachment C.</a> ) <a href="#">[help]</a>			
<b>Name</b>	<b>Mailing Address</b>	<b>Tax Parcel # (if known)</b>	
Port of Port Angeles	1114 E Eighth St	063000190090,	
	Port Angeles, WA 98362	063000079620,	
Lower Elwha Klallam Tribe	2851 Lower Elwha Rd	063099190035	
	Port Angeles, WA 98363	063099190045	
<b>5i.</b> List all wetlands on or adjacent to the project location. <a href="#">[help]</a>			
None			

<b>5j.</b> List all waterbodies (other than wetlands) on or adjacent to the project location. <a href="#">[help]</a>
Port Angeles Harbor
<b>5k.</b> Is any part of the project area within a 100-year floodplain? <a href="#">[help]</a>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
<b>5l.</b> Briefly describe the vegetation and habitat conditions on the property. <a href="#">[help]</a>
The project area is an industrial log yard within Terminal 7 that has been cleared and is primarily unvegetated. Plant species have grown through cracks in the pavement and riprap along the shoreline and mostly include weedy grass and shrub species, such as Himalayan blackberry ( <i>Rubus armeniacus</i> ), Scotch broom ( <i>Cytisus scoparius</i> ), and common dandelion ( <i>Taraxacum officinale</i> ). Port Angeles Harbor is mapped with fringe (patchy) kelp in the nearshore environment (WDNR 2024).
<b>5m.</b> Describe how the property is currently used. <a href="#">[help]</a>
The property at the Port of Port Angeles (Port) in Port Angeles, Washington, is currently used as a log yard. The Port would modify its use of the log yard to accommodate the pilot project. A portion of the site is currently unused by the logging process and is available for temporary lease by the Port.
<b>5n.</b> Describe how the adjacent properties are currently used. <a href="#">[help]</a>
<p>The proposed pilot project would not affect current uses on nearby or adjacent property. The site and adjacent land to the west is zoned industrial, which is consistent with the proposed pilot project. To the east of the project site is the Port Angeles Yacht Club marina. Port Angeles Harbor is directly to the north of the property. The pier structure and berth area are currently used for moorage of an oil response vessel. Port Angeles Harbor is used by commercial and recreational watercraft.</p> <p>To the south and west of the property is Tse-whit-zen, an ancestral village and cemetery of the Lower Elwha Klallam Tribe. Tse-whit-zen is a village of continuous uninterrupted use by the Klallam Tribe, extending as far back as 2,700 years. The village was used extensively as a year round place of habitation, as well as for traditional practices of sea mammal hunting, shellfish harvesting, and open marine water fishing. A large cemetery and numerous burials are associated with the village. The Lower Elwha Klallam Tribe continues to maintain a cemetery at the site.</p>
<b>5o.</b> Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. <a href="#">[help]</a>
There are three structures on the site. The first structure is a two-room building. The larger room is an uninsulated space with walls made up of a combination of concrete, masonry, and wood framing. The wood-framed walls have metal siding and door openings. The roof is supported by wood framing. The second structure is a 16-inch-thick concrete retaining wall extending north from the building. The wall is about 16 feet high and 75 feet long. The third structure is a dock that extends from the property and connects to a wharf that was used to moor ships while loading logs. The dock includes relic wood chip conveyor infrastructure that was used for past wood chip transfer activities. The wood chip conveyor is currently not in operation.
<b>5p.</b> Provide driving directions from the closest highway to the project location, and attach a map. <a href="#">[help]</a>
Heading east from the US-101 Highway, turn right onto East Front Street and drive straight through town until the slight bend in the road transitions to Marine Drive. The project site would be located on the right, west of the Port Angeles Yacht Club.

## Part 6—Project Description

**6a.** Briefly summarize the overall project. You can provide more detail in 6b. [\[help\]](#)

Project Macoma, LLC, a wholly owned subsidiary of Ebb Carbon, is proposing a temporary pilot-scale marine carbon dioxide removal (mCDR) project (pilot project or Project Macoma) at a site within Terminal 7 of the Port.

Ebb Carbon's mCDR technology removes acid from seawater, generating alkaline-enhanced seawater. The alkaline-enhanced seawater is returned to the ocean, which enables the ocean to draw down and store additional carbon dioxide (CO<sub>2</sub>) from the atmosphere.

The proposed pilot project, owned and operated by Project Macoma, LLC, would intake seawater via a barge moored at the Terminal 7 dock and pipe the seawater over the existing Terminal 7 pier structures to a modular treatment facility that would process seawater to form an alkaline enhanced stream that would be returned to Port Angeles Harbor via the barge-based outfall system. Project Macoma, LLC, plans to undertake this pilot project with the Pacific Northwest National Laboratory, the University of Washington, and other agency and scientific partners. Project Macoma, LLC, and the Lower Elwha Klallam Tribe are discussing the potential for partnership on this pilot project. The proposed pilot project would run for approximately 1.5 years, beginning in the summer of 2024.

**6b.** Describe the purpose of the project and why you want or need to perform it. [\[help\]](#)

Ebb Carbon developed its mCDR technology to address the climate crisis. Ebb Carbon has tested its technology in laboratory settings.

The purposes of Project Macoma for Project Macoma, LLC, are to operate Ebb Carbon's mCDR technology at a pilot scale to evaluate how the technology functions under real-world conditions, support scientific research through scientific and academic collaborations, and gather additional data to inform future deployments. This field trial is conservatively designed to remove 500 net tons of CO<sub>2</sub> from the atmosphere per year and to reduce ocean acidification locally.

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

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

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

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

- ☐ Other: Barge-based outfall structure and associated intake structure connected to an onshore mCDR facility

<b>6e.</b> Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. <a href="#">[help]</a> <ul style="list-style-type: none"> <li>Identify where each element will occur in relation to the nearest waterbody.</li> <li>Indicate which activities are within the 100-year floodplain.</li> </ul>
<p>The upland portion of the project site is not within the 100-year floodplain. The barge would be located within a Zone AE floodplain, which is subject to inundation by a 1% annual chance flood event (FEMA 2023). This area's base flood elevation is 13 feet North American Vertical Datum of 1988 (NAVD88). Section 2 of Exhibit 1, Project Description, provides details on construction activities, methods, and equipment used for each project element.</p>
<b>6f.</b> What are the anticipated start and end dates for project construction? (Month/Year) <a href="#">[help]</a> <ul style="list-style-type: none"> <li>If the project will be constructed in phases or stages, use <a href="#">JARPA Attachment D</a> to list the start and end dates of each phase or stage.</li> </ul>
Start Date: <u>July 2024</u> End Date: <u>October 2024</u> <input type="checkbox"/> See JARPA Attachment D
<b>6g.</b> Fair market value of the project, including materials, labor, machine rentals, etc. <a href="#">[help]</a>
Approximately \$9,000,000
<b>6h.</b> Will any portion of the project receive federal funding? <a href="#">[help]</a> <ul style="list-style-type: none"> <li>If <b>yes</b>, list each agency providing funds.</li> </ul>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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.) [\[help\]](#)

<b>7a.</b> Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. <a href="#">[help]</a>
<input checked="" type="checkbox"/> Not applicable
<b>7b.</b> Will the project impact wetlands? <a href="#">[help]</a>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't know
<b>7c.</b> Will the project impact wetland buffers? <a href="#">[help]</a>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't know
<b>7d.</b> Has a wetland delineation report been prepared? <a href="#">[help]</a> <ul style="list-style-type: none"> <li>If <b>Yes</b>, submit the report, including data sheets, with the JARPA package.</li> </ul>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>7e.</b> Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? <a href="#">[help]</a> <ul style="list-style-type: none"> <li>If <b>Yes</b>, submit the wetland rating forms and figures with the JARPA package.</li> </ul>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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

Not applicable.

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

Not applicable.

**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 <sup>1</sup>	Wetland type and rating category <sup>2</sup>	Impact area (sq. ft. or Acres)	Duration of impact <sup>3</sup>	Proposed mitigation type <sup>4</sup>	Wetland mitigation area (sq. ft. or acres)
Not applicable.						

<sup>1</sup> 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.

<sup>2</sup> Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

<sup>3</sup> Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.

<sup>4</sup> 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. [\[help\]](#)

Not applicable.

**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. [\[help\]](#)

Not applicable.

## 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

The pilot project would require the intake and discharge of seawater in Port Angeles Harbor to remove additional CO<sub>2</sub> from the atmosphere and store it in the ocean as dissolved inorganic carbon. By nature, the pilot project is designed to improve conditions in the aquatic environment by safely and permanently removing acid from seawater locally.

An Ecological Safety Methodology (ESM) is the monitoring tool developed for the pilot project that would help to ensure that discharges to Port Angeles Harbor do not result in adverse environmental effects (see Appendix B of the Biological Assessment in Exhibit 2). The ESM would provide ecological safety by identifying the circumstances under which delivery of alkaline-enhanced seawater could be modified for the protection of the marine environment. The ESM would also study the pilot project's benefits to the marine environment.

The pilot project, as a field trial of Ebb Carbon's mCDR technology, would include data collection and analysis by Project Macoma, LLC, and possibly others. During operations, the discharge of alkaline-enhanced seawater would be monitored for compliance with all regulatory requirements. Monitoring efforts of the pilot project's potential effects would begin once project deployment occurs. Water quality monitoring would be accomplished by attaching sensors to existing piers to collect regular measurements of water temperature, salinity, dissolved oxygen, turbidity and suspended solids, chlorophyll, pH, and the partial pressure of CO<sub>2</sub> (pCO<sub>2</sub>). Monitoring and modeling would also take place to measure the benefits of this discharge, including the resultant CO<sub>2</sub> removal and sequestration. Monitoring would occur during and after operations.

Biological monitoring surveys areas would be identified during a baseline study, including areas with aquatic vegetation, rocky substrate, and shellfish beds, and would be used to identify when adaptive management strategies may be triggered and to track potential beneficial impacts. Additional data collection or monitoring opportunities may be implemented following discussions with reviewing federal and state agencies, the Lower Elwha Klallam Tribe, Pacific Northwest National Laboratory, and the University of Washington. Baseline monitoring surveys would occur prior to pilot project implementation.

The project would require short-term construction, including installation of a barge, intake and outfall structures, and piping system that would connect to the new temporary onshore facility. Avoidance and minimization measures include reducing the aquatic and upland footprint of the pilot project to the extent feasible to run it effectively and gather adequate scientific data to inform future deployments. Construction impacts would be minimized by reducing the amount of excavation to the extent practicable and installing temporary, modular equipment instead of permanent structures.

During construction and operation of the pilot project, best management practices (BMPs) would be implemented to further avoid and minimize potential impacts to the environment. BMPs include, but are not limited to, the following:

- Work would be performed according to the requirements and conditions of the project permits and approvals.
- Construction activities would be completed consistent with the Temporary Erosion and Sediment Control and stormwater site plans prepared for the pilot project. Erosion control measures may include installing a stabilized construction access; construction road stabilization; installing mulching, nets, and blankets; applying surface roughing, gradient terraces, interceptor dikes, and swales; dust control; material delivery storage and containment; outlet protection; and installing waffles, filter berms, or silt fencing.
- A Contaminated Materials Management Plan would be prepared and implemented during construction to address potential issues if contaminated soils are encountered.
- The contractor would be required to develop and implement a Spill Prevention, Control, and Countermeasure Plan to be used for the duration of the pilot project to safeguard against unintentional release of fuel, lubricants, or hydraulic fluid from construction equipment.
- Construction equipment used on the project would be maintained in good working order to minimize airborne emissions.
- Dust control measures, such as application of water, would be employed during construction, as necessary.
- No uncured concrete would be in contact with surface waters.
- The contractor would be required to properly maintain construction equipment and vehicles to prevent them from leaking fuel or lubricants; if there is evidence of leakage, the further use of such equipment would be suspended until the deficiency has been satisfactorily corrected.
- Excess or waste materials would not be disposed of or abandoned in Port Angeles Harbor or allowed to enter waters of the state.
- Project Macoma, LLC, would adopt and implement the Port's Storm Water Pollution Prevention Plan that specifies measures to avoid and minimize impacts to surface, ground, and stormwater water and drainage pattern impacts.
- Project Macoma, LLC, would develop, maintain, and implement a chemical management plan that includes specific procedures for procurement, delivery, transfer, storage, inventory, use, spill



prevention and cleanup, emergency response, and disposal. All employees and contractors would receive chemical management training within 1 month of hiring and annually thereafter.

- New light fixtures for overwater structures would be directed away from the water to the extent practicable to minimize impacts on aquatic species.
- The intake screen would be designed to screen fish from entering the intake facilities in compliance with current fish screening guidelines from the Washington Department of Fish and Wildlife and the National Marine Fisheries Service.
- All intake will go through multimedia filtration consisting of carbon filtration, sand filtration, and granular activated carbon filtration. All multimedia filters have to be backflushed daily, whereby trapped constituents like plankton will be returned to Port Angeles Harbor.
- A Monitoring and Inadvertent Discovery Plan for cultural resources would be prepared and implemented during project 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   ☐ Don't know

The pilot project is intended to be temporary and would include efforts to collect data and run models to measure its long-term benefits.

Impacts from the pilot project may include overwater coverage from the moored barge in an existing berthing area and discharge of seawater with a higher pH from the outfall structure affixed to the barge. These impacts are assessed in the Biological Assessment prepared for the pilot project (Exhibit 2).

The long-term benefits from carbon storage are anticipated to outweigh the potential short-term impacts from the pilot project. The potential benefits and impacts would continue to be studied throughout operation of the pilot project, and a mitigation plan would be developed if required by agencies during the permit review process.

**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. [\[help\]](#)

Not applicable.

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

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name <sup>1</sup>	Impact location <sup>2</sup>	Duration of impact <sup>3</sup>	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Temporary Barge Installation	Port Angeles Harbor	Terminal 7 Berth	18 months	None	3,200 sq. ft.
Intake/Outfall Structures	Port Angeles Harbor	Terminal 7 Berth	18 months	None	207 linear feet from outfall
Onshore Excavation (if required)	Port Angeles Harbor	Terminal 7 Shoreline	1 month	None	20 sq. ft.
Onshore Fill	Port Angeles Harbor	Terminal 7 Shoreline	1 month	None	21,018 sq. ft.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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. [\[help\]](#)

No fill material would be placed into nearby surface waters.

Above-grade gravel fill would be used for the vehicle access paths and the areas where the containers are located. This excludes the existing electrical area, which would not receive fill. Based on the approximate area of 21,018 square feet, the pilot project would use 12 inches of aggregate base under trailers and for access area. These include approximately 950 cubic yards of hauled loose aggregate gravel and approximately 800 cubic yards of compacted aggregate gravel, for a total of approximately 1,750 cubic yards.

**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. [\[help\]](#)

No dredging or material removal would occur in nearby surface waters.

Elements of design that would involve potential onshore trenching and/or excavation include the following:

- One to two copper ground rods (10 feet long and 3/4 inch in diameter) would be placed adjacent to each container/trailer corner, and two to four ground rods would be placed at each electrical building/shed. The ground rods would be driven vertically into the ground for site/system grounding. All ground cable and ground connections to equipment would be run above grade.
- An equipment pad would be constructed for the site electrical shed.
- Improvements to the existing utility vault's main electrical room may include excavation of a conduit trench between the existing electrical room and existing City of Port Angeles utility transformer vault (on the northwest side of the utility vault). This conduit trench excavation may be avoided or minimized if an above-grade conduit is permitted by the City when the new transformer is installed.
- Excavation would be avoided for anchorage of trailers/containers/tanks for the electrical shed foundation and the utility vault building electrical area by laying down gravel and anchoring the trailers/containers/tanks to concrete blocks, if necessary.

**8h.** Have you prepared a Water Quality Monitoring Plan (WQMP) for all in-water work (below ordinary high water), over water work or discharges to waters of the state?

☐ Yes ☒ No

If NO describe the monitoring that you will be conducting including parameters, equipment and locations, or explain why monitoring will not be necessary. [[help](#)]

No discharge of dredge or fill material would occur in-water for construction or operation of the pilot project.

Water quality monitoring during operation of the pilot project would be accomplished by attaching sensors to existing piers to collect regular measurements of water temperature, salinity, dissolved oxygen, turbidity and suspended solids, chlorophyll, pH, and pCO<sub>2</sub>. Less frequent (up to weekly) seawater samples would be collected and analyzed for total alkalinity and dissolved inorganic carbon.

## 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
U.S. Army Corps of Engineers	Pam Sanguinetti	(206) 764-6904	January 2024
U.S. Army Corps of Engineers	Lance Lundquist	(206) 764-6909	January 2024
National Marine Fisheries Service/ U.S. Fish and Wildlife Service	Sara Tillery	(253) 888-4788	January 2024
National Marine Fisheries Service	Lisa Abernathy	(206) 526-4742	December 2024
Ecology	Loree Randall	(360) 485-2796	December 2024
Ecology	Laurie Niewolny	(360) 584-8852	December 2024
Ecology	John Diamant	(360) 819-3824	January 2024
Washington Department of Fish and Wildlife	Danielle Zitomer	(360) 764-0866	January 2024
City of Port Angeles	Ben Braudrick	(360) 417-4804	January 2024

<p><b>9b.</b> 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? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• If <b>Yes</b>, list the parameter(s) below.</li> <li>• If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: <a href="https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d">https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d</a>.</li> </ul>
<p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No</p>
<p>Port Angeles Harbor in the vicinity of the pilot project is listed on the Ecology 303(d) List as a Category 5 water for bacteria (Ecology 2024).</p>
<p><b>9c.</b> What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="http://cfpub.epa.gov/surf/locate/index.cfm">http://cfpub.epa.gov/surf/locate/index.cfm</a> to help identify the HUC.</li> </ul>
<p>17110020</p>
<p><b>9d.</b> What Water Resource Inventory Area Number (WRIA #) is the project in? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up">https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up</a> to find the WRIA #.</li> </ul>
<p>WRIA 18 Elwha – Dungeness Watershed</p>
<p><b>9e.</b> Will the in-water construction work comply with the State of Washington water quality standards for turbidity? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="https://ecology.wa.gov/Water-Shorelines/Water-quality/Freshwater/Surface-water-quality-standards/Criteria">https://ecology.wa.gov/Water-Shorelines/Water-quality/Freshwater/Surface-water-quality-standards/Criteria</a> for the standards.</li> </ul>
<p><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not applicable</p>
<p><b>9f.</b> If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• If you don't know, contact the local planning department.</li> <li>• For more information, go to: <a href="https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases">https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases</a>.</li> </ul>
<p><input type="checkbox"/> Urban    <input type="checkbox"/> Natural    <input checked="" type="checkbox"/> Aquatic    <input type="checkbox"/> Conservancy    <input checked="" type="checkbox"/> Other: <u>Industrial</u></p>
<p><b>9g.</b> What is the Washington Department of Natural Resources Water Type? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="http://www.dnr.wa.gov/forest-practices-water-typing">http://www.dnr.wa.gov/forest-practices-water-typing</a> for the Forest Practices Water Typing System.</li> </ul>
<p><input checked="" type="checkbox"/> Shoreline    <input type="checkbox"/> Fish    <input type="checkbox"/> Non-Fish Perennial    <input type="checkbox"/> Non-Fish Seasonal</p>
<p><b>9h.</b> Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• If <b>No</b>, provide the name of the manual your project is designed to meet.</li> </ul>
<p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No</p>
<p>Name of manual: _____</p>

**9i.** Does the project site have known contaminated sediment? [\[help\]](#)

- If Yes, please describe below.

☒ Yes   ☐ No

The pilot project is located within an uplands area of Terminal 7 that is a part of Agreed Order DE 21560 and within a portion of Western Port Angeles Harbor that is under Agreed Order DE 9781, both issued under the Washington State Model Toxics Control Act. The site of the pilot project is also near sediments that are a part of the Rayonier Mill Cleanup Site.

Since the early 1900s, effluent discharged into the area from industrial facilities operating in Port Angeles Harbor. The distribution of hazardous substances corresponds with the locations of historical industrial activities and wastewater discharge sites identified within Port Angeles Harbor. Discharges resulted in harbor sediments contaminated by petrochemicals, polychlorinated biphenyls (PCBs), dioxins, and heavy metals (NOAA 2023).

The resulting contamination is in intertidal and subtidal sediments over the entirety of Port Angeles Harbor. Eleven sediment studies between 2002 and 2013 revealed hazardous substances at concentrations above state and federal standards, indicating potential injuries to benthic organisms, fish, shellfish, and birds (NOAA 2023). The pilot project is designed to be temporary and modular to allow future cleanup activities to occur, if and as required. The design of the intake and outfall system would be located near the surface of the water column and would not cause potentially contaminated sediments to be resuspended.

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

The Port was established in 1923. Terminal 7 is designated as a lay berth facility and was built after 1950. It has been used as a log yard in the last decade.

**9k.** Is the project located in or adjacent to a designated state or federal contaminated site or clean-up site. (e.g. MTCA or CERCLA)?

- If Yes, provide any additional details below.

☒ Yes   ☐ No

See response to 9i.

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

- If Yes, attach it to your JARPA package.

☒ Yes   ☐ No

The Cultural Resources Assessment is in progress and will be provided under separate cover.

**9m.** 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. [\[help\]](#)

These species or critical habitats are listed in the Biological Assessment (Exhibit 2).

**9n.** 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. [\[help\]](#)

These species or habitats are listed in the Biological Assessment (Exhibit 2).

## 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](mailto: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 The Port of Port Angeles (lead agency). The expected decision date is March 2024.

☐ 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

##### Washington Department of Fish and Wildlife:

☒ Hydraulic Project Approval (HPA)    ☐ Fish Habitat Enhancement Exemption – [Attach Exemption Form](#)

##### Washington Department of Natural Resources:

☐ Aquatic Use Authorization

Complete [JARPA Attachment E](#) and submit a check for \$25 payable to the Washington Department of Natural Resources.

**Do not send cash.**

##### Washington Department of Ecology:

☐ Section 401 Water Quality Certification

☐ Authorization to impact waters of the state, including wetlands (Check this box if the proposed impacts are to waters not subject to the federal Clean Water Act)

**FEDERAL AND TRIBAL GOVERNMENT**

**United States Department of the Army (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:**

For projects or bridges over waters of the United States, contact the U.S. Coast Guard at:

☐ Bridge Permit: [D13-SMB-D13-BRIDGES@uscg.mil](mailto:D13-SMB-D13-BRIDGES@uscg.mil)

☐ Private Aids to Navigation (or other non-bridge permits): [D13-SMB-D13-PATON@uscg.mil](mailto:D13-SMB-D13-PATON@uscg.mil)

**United States Environmental Protection Agency:**

☐ 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)

**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. JW (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. JW (initial)

Jesse Waknitz - Environmental Manager	<b>Jesse Waknitz</b> Digitally signed by Jesse Waknitz Date: 2024.02.01 06:31:07 -08'00'	<b>2/1/2024</b>
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.

Joshua Jensen - Environmental Planner		2/20/2024
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.

Jesse Waknitz - Environmental Manager	<b>Jesse Waknitz</b> Digitally signed by Jesse Waknitz Date: 2024.02.01 06:47:41 -08'00'	<b>2/1/2024</b>
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. 09/2018



## References

- Ecology (Washington State Department of Ecology), 2024. Water Quality Atlas. Accessed January 12, 2024. Available at: <https://apps.ecology.wa.gov/waterqualityatlas/wqa/map>.
- FEMA (Federal Emergency Management Agency), 2023. FEMA National Flood Insurance Program Flood Insurance Rate Map for Clallam County, Washington, and Incorporated Areas. Map Number 5300210505D. Map revised January 31, 2023.
- NOAA (National Oceanic and Atmospheric Administration), 2023. Western Port Angeles Harbor, Hazardous Waste Site. Last updated September 5, 2023. Accessed February 15, 2024. Available at: <https://darrp.noaa.gov/hazardous-waste/western-port-angeles-harbor>.
- WDNR (Washington Department of Natural Resources), 2024. Coastal Atlas Map. Accessed January 2, 2021. Available at: <https://apps.ecology.wa.gov/coastalatlasmap>.

**Exhibit 1:**  
**Project Description**

# Attachment 1

## Plan Set

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**Exhibit 2:**  
**Biological Assessment**