



Neah Bay Oil Spill Response Access Dock Construction

The Makah Tribe

2020 BUILD Grant Application

2018 BUILD Project Point of Contact

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Attachments (provided on the project [website](#))

- Full Benefit Cost Analysis
- Letters of Support
- Engineering and Design Information
- Additional Supporting Information

FULL APPLICATION, LETTERS OF SUPPORT, AND SUPPORTING MATERIALS AVAILABLE AT:

[MAKAH 2020 BUILD APPLICATION WEBSITE](#)



ABBREVIATIONS LIST

BCA	Benefit Cost Analysis
BE	Biological Evaluation
BUILD	Better Utilizing Investments to Leverage Development
CANUSPAC	Canada-United States Pacific Geographical Annex
COVID-19	2019 Novel Coronavirus
DNS	Determination of Non-Significance
DOT	United States Department of Transportation
ERTV	Emergency Response Towing Vessel
ESA	Endangered Species Act
FONSI	Finding of No Significant Impacts
HPA	Hydraulic Project Approval
HVPA	Higher Volume Port Area
Makah	Makah Tribe
marina	Port of Neah Bay Marina
MMPA	Marine Mammal Protection Act
MECRA	Makah Employment and Contracting Rights Act
MECRO	Makah Employment and Contracting Office
MSRC	Marine Spill Response Corporation
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRC	National Response Corporation
NOAA	National Oceanic and Atmospheric Administration
RRT	Region 10 Regional Response Team
SEPA	Washington State Environmental Protection Act
SPCC	Spill Prevention Control and Countermeasures Plan
SRKW	Southern Resident Killer Whales
Strait	Strait of Juan de Fuca
STIP	Statewide Transportation Improvement Program
TIGER	Transportation Investment Generating Economic Recovery
U&A	Usual and Accustomed fishing area
U.S.	United States
USACE	United States Army Corps of Engineers
USFW	United States Department of Fish and Wildlife
VTRA	Vessel Traffic Risk Assessment
WA	Washington
WDFW	Washington State Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WDOE	Washington State Department of Ecology
WSDOT	Washington State Department of Transportation



1 PROJECT DESCRIPTION

The western entrance to the Strait of Juan de Fuca (Strait) is a critical waypoint on the maritime transportation highway that connects the Pacific Northwest to the rest of the world through international commerce, our robust fishing industry, and maritime transportation and travel. Any cargo ship, oil tanker, cruise ship, or fishing vessel transiting to the major Ports of Seattle, Tacoma, Vancouver, or Nanaimo enters and exits through the Strait, passing directly through the Makah Treaty Area and offshore of Neah Bay, Washington. Neah Bay is part of the traditional homeland and current Reservation of the Makah Tribe (“Kwih-dich-chuh-ahtx”), a federally recognized Indian Tribe which manages the Port of Neah Bay. The Makah are indigenous to the Northwestern portion of the Olympic Peninsula in Washington State and have relied on the ecologically rich marine waters of the region to support our livelihoods and food security, natural resources-based economy, and cultural and spiritual practices for millennia. Though maritime commerce provides substantial benefits to the Pacific Northwest region, its operations also pose certain risks to the fishing industry, the shipping industry, the marine environment, and the economy, culture, and identity of the Makah Tribe, which are continually at risk from oil spills and dangerous vessel traffic incidents.

The requested grant of \$20,420,122 would be used to construct an extension to the recently built tribal fishing dock to provide reliable infrastructure and moorage support for enhanced oil spill prevention and response capability at Neah Bay. Currently, spill prevention and response capacity at the Port of Neah Bay is constrained by limited infrastructure, space, and the lack of a temporary storage barge for recovered oil. This project addresses those issues by building the underlying infrastructure necessary to support current and expanded prevention and response resources in order to keep pace with both increasing vessel traffic and a changing risk profile, as well as the enhanced response requirements of the Higher Volume Port Area (HVPA).

This shovel ready project will increase the safety of marine transportation in our region and contribute to the protection of the environment and communities, like the Makah Tribe, that rely on it. Neah Bay is a particularly strategic location for this investment as described below.

Anticipated benefits include:

- **Expanded Prevention and Response Capacity Assets:** The new dock will provide berths for additional spill prevention and response vessels and specifically a storage barge needed to address large spills within 100 miles of Neah Bay, including in rough ocean and weather conditions. Additional resources are necessary to keep pace with increasing vessel traffic and changing risk in our waters.
- **Improved Preparedness:** The new dock, designed for the size and needs of critical spill prevention and response vessels will provide safe and efficient long-term mooring for these vessels currently moored at the Port of Neah Bay Marina (marina). The spill prevention and response vessels currently stationed in Neah Bay are berthed at marina infrastructure that was designed for much smaller fishing and recreational vessels. This will reduce maintenance costs and reduce the risk of significant damage to the marina facilities, adding years of functional operation to the marina.



- **Improved Access:** The current dock is only accessible on foot. The new spill response dock will be accessed via the trestle for the Makah Commercial Fishing Dock that is designed for two-way truck access. This will greatly improve access conditions and enhance loading/unloading operations for the spill response vessels.
- **Job Creation and Revenue:** This project will directly create jobs for approximately 5% of the local community. It will also provide a foundation for infrastructure improvements and free up space in the marina for the Makah fishing fleet - a major economic driver - to expand, creating additional jobs and food security. The Makah Tribe's combined treaty fisheries generate approximately \$10 million a year for our treaty fishermen and their families. This project will also generate an additional \$283,000 in revenue for the marina annually.
- **Environmental Protection and Quality of Life:** By enhancing oil spill prevention and response capacity, this project will protect the biodiversity of our marine waters and the health and wellbeing of the Makah Tribe, other fishing communities, and the millions of Americans who visit this region for nature-based tourism. The spill prevention and response vessels moored in Neah Bay act as a line of defense in protecting our marine Treaty Trust Resources.

Previous studies have indicated that the entrance to the Strait is a particularly high-risk area for vessel traffic.¹ The history of oil spills in this region as well as the frequency and location of deployments of existing oil spill prevention resources from Neah Bay continue to confirm this risk profile.² Furthermore, the recent approval of new maritime infrastructure projects in our region means that vessel traffic will increase dramatically and introduce new and challenging petroleum products into our marine transportation system. These investments in the infrastructure of the Port of Neah Bay will help address this ongoing marine transportation hazard.

This project represents the final step of several years of work, planning, and significant investments from the Tribe (over \$10 million) and the federal government through a TIGER Grant awarded in 2014 (\$1.1 million). This project also has multi-faceted support from industry, state agencies, federal agencies, Tribes, elected representatives, and the maritime sector and is the result of years of innovative relationship building among the Makah Tribe, the shipping industry, Oil Spill Response Contractors, the US Coast Guard, and other federal and state agencies.

1.1. The Transportation Challenge & How This Project Addresses It

This project arises out of the need to ensure that there is sufficient infrastructure and capacity to adequately support oil spill and vessel traffic incident response in our transboundary waters. Specifically, it addresses the need to increase the prevention and response capacity in Neah Bay, which is strategically positioned at the mouth of the Strait and therefore critical to the prevention and response to vessel traffic incidents in the western extent of the Strait of Juan de Fuca and on the outer coasts of both Washington and southern British Columbia. Given the geographical extent of protection offered by the assets stationed in Neah Bay, this project provides benefits at the local, regional, and international scales.



The maritime area around Neah Bay, is a high-risk area for vessel traffic safety and oil spill incidents,³ as the inbound vessel traffic converges heading into the Ports of Seattle, Tacoma, and Vancouver (see Fig.7 for vessel traffic density map). The oil spill risks in this region are constantly evolving as maritime infrastructure projects are proposed and approved in both the United States and Canada. New marine infrastructure projects have been proposed on the Canadian side of the border, including the expansion of the Trans Mountain Pipeline and the creation of a second major terminal at Roberts Banks, which will accommodate larger vessels than the current terminal. A 2015 Vessel Traffic Risk Assessment found that these projects will add both significant vessel traffic and a new kind of risk to our region in the form of diluted bitumen. The recent approval of the Trans Mountain Expansion project alone will introduce an additional 348 laden oil tankers per year into our waterways, which represents a seven-fold increase in tanker traffic,⁴ and a fully laden oil tanker transiting through the Makah Treaty Area every day. Despite the impending increase in vessel traffic, corresponding enhancements of the prevention, preparedness, and response systems to address these increases are yet to be implemented. Due to our strategic location of the Port of Neah Bay, this project to increase spill prevention and response resources will play an essential role in expanding system capacity and providing vital investments in our infrastructure.

In addition to the increase in risk associated with increased vessel traffic, the risk to the environment and our fisheries is compounded by the fact that the vessels departing the Trans Mountain Terminal will transport diluted bitumen - a heavy mixed oil which has been shown to sink in water in recent spills. The technology to effectively contain or recover submerged diluted bitumen does not exist,⁵ making these Neah Bay-based prevention resources all the more essential to the protection of our region. Prevention of all spills, diluted bitumen and conventional crude, is essential to protecting our treaty fisheries and the environment.

This issue is compounded by the fact that weather and ocean conditions in the Strait and on the Outer Coast can limit the ability of some vessels to navigate safely. The new dock would allow us to house response equipment on the scale that is needed to assist larger vessels, even in severe weather and ocean conditions. Finally, the 2010 U.S. Coast Guard Authorization Act mandated that Neah Bay be designated a HVPA⁶ to address vessel traffic risks. It is the Makah Tribal Council's formal understanding that this change extended the boundary of HVPA out 50 miles west of Neah Bay, as opposed to its previously designated location in Port Angeles, WA. This new designation extends significantly further out into the Pacific Ocean, making the Port of Neah Bay an even more critical point in our region's prevention and response system. The Makah Tribal Council understands that satisfying the requirements of this designation requires additional investments to the current oil spill response infrastructure at Neah Bay, including the stationing of additional vessels and a temporary oil storage barge at the Port of Neah Bay. This US DOT BUILD project is an investment in the underlying infrastructure necessary to support the additional assets. The Makah Tribe continues formal government-to-government consultation with the U.S. Coast Guard on the implementation of this ruling.

Five oil spill prevention and response vessels currently moor at the Port of Neah Bay Makah Marina (vessels shown in Fig.1 below):



- Denise Foss (approx. 110 ft., emergency response towing vessel [ERTV] operated by Foss Maritime Company)
- Arctic Tern (approx. 80 ft., oil skimmer operated by the Marine Spill Response Corporation [MSRC])
- Cape Flattery (approx. 110 ft., spill response vessel operated by National Response Corporation [NRC])
- Loon (approx. 20 ft., MSRC vessel)
- Barge (approx. 20 ft., NRC vessel)



Figure 1. Prevention and response vessels currently stationed at the Port of Neah Bay (Source: Makah Tribe, 2014)

These vessels are too large for the marina and are shortening the lifespan of its existing facilities. The marina and dock facilities were designed to accommodate the typical fishing vessel, (around 50 ft and 10 tons). The Foss ERTV is twice as long and weighs 98 tons and currently has to depart from the marina at extreme low tides due to the depth of the marina. Constructing a new response dock with deeper moorage will both allow us to more safely, effectively, and economically house the current response assets and ensure that we can house the additional prevention and response assets needed to address the changing risks in our region. The construction of the new dock will also return that space to the Makah fishing fleet (for which it was designed) and free up space at the existing dock to accommodate transient vessels for moorage or requiring safe harbor.

This project will address the transportation challenge at both the regional/transboundary and local scales, in part because Neah Bay is uniquely and strategically positioned to provide essential prevention and response capacity to the region. The strategic location of Neah Bay has been understood for millennia - providing trade, political, and food resource advantages to the Makah people,⁷ later being used by the U.S. government as a military defense position, navigation post, lighthouse, and weather station,⁸ as well as a current U.S. Coast Guard station. The success of the Emergency Response Towing Vessel (ERTV) currently stationed in Neah Bay is a testament to the importance of Neah Bay as a base for vessel traffic safety and oil spill prevention and response capacity. The Port of Neah Bay was chosen as the site of the new oil



response access dock because it is an essential part of the marine highway on the Pacific Coast. It is the only harbor with marine facilities north of San Francisco whose entrance does not have a bar.⁹ This means that even in poor weather, emergency vessels can depart from the Port of Neah Bay to respond to vessels in distress, including oil tankers.

In order to protect the environment, the Makah Tribe, and other coastal fishing communities as increases in vessel traffic occur, it is essential that investments are made into prevention and response capacity. The proposed dock will accommodate Responder Class emergency response vessels and large oil spill containment barges. These facilities will enable assets stationed in Neah Bay to effectively address potential spill events within 100 nautical miles of Neah Bay, even in extreme ocean and weather conditions.

1.2. Project History and Previously Completed Elements

The BUILD grant will allow the Makah Tribe to complete the final stage (Phase IIB) of a phased project that began in 2013, with the goal of improving the Neah Bay oil response capabilities, as outlined in Table 1 below.

Table 1. Phased Project Schedule

Phase	Status	Funding
Phase I (2013–2014): Replacement of and Upgrades to Existing Commercial Fishing Dock	Complete	Makah Tribe: \$10 million
Phase IIA (2014–2017): Plan for Oil Spill Response Access Dock	Complete	2014 TIGER Grant: \$1,101,904 Makah Tribe: \$88,523
Phase IIB (2020–2022): Construction of Oil Spill Response Access Dock	Shovel Ready. Pending funding.	Request for 2020 BUILD Grant Funding: \$20,420,122

Phase I (see Figure 2 below) improved the mobility and operations of vessels (primarily local and commercial fishing vessels) bringing commercial products to buyers at the Port of Neah Bay by replacing an existing commercial fishing dock at Neah Bay. Phase I was designed to accommodate the proposed future extension (Phase II) to provide a dedicated oil spill response access dock. The new commercial dock was designed with features intended to complement spill response needs including a crane to assist in the deployment of oil spill equipment and an access trestle that can accommodate semi-truck traffic and other large vehicles needed to transport the response equipment and supplies to the response vessels.





Figure 2. Dock constructed in Phase 1 of the project (Source: Makah Tribe, 2020)

Phase IIA, which consisted of planning, permitting, and design of the response access dock, was awarded a 2014 TIGER Grant (planning, rural) for \$1,101,904 (Makah Tribe Oil Spill Response Access Dock Plan). The Makah Tribe is proud to report that the Tribe has completed all planning tasks, has nearly finished design drawings, and has received all required permits. Phase IIA is complete and shovel ready for Phase IIB.

The 2020 BUILD grant will fund construction activities for Phase IIB (see Fig.2 below for rendering of complete Phase IIB), which will complete the entire project through the construction of the new infrastructure designed and permitted under Phase IIA. The project will consist of constructing an extension to the existing commercial fishing dock in order to provide the adequate, dedicated infrastructure that is necessary to support enhanced oil spill prevention and response capacity in Neah Bay for oil spills offshore and in the Strait of Juan de Fuca. Please note that the Makah Tribe previously applied for a BUILD grant in 2018. This is an updated and expanded application.

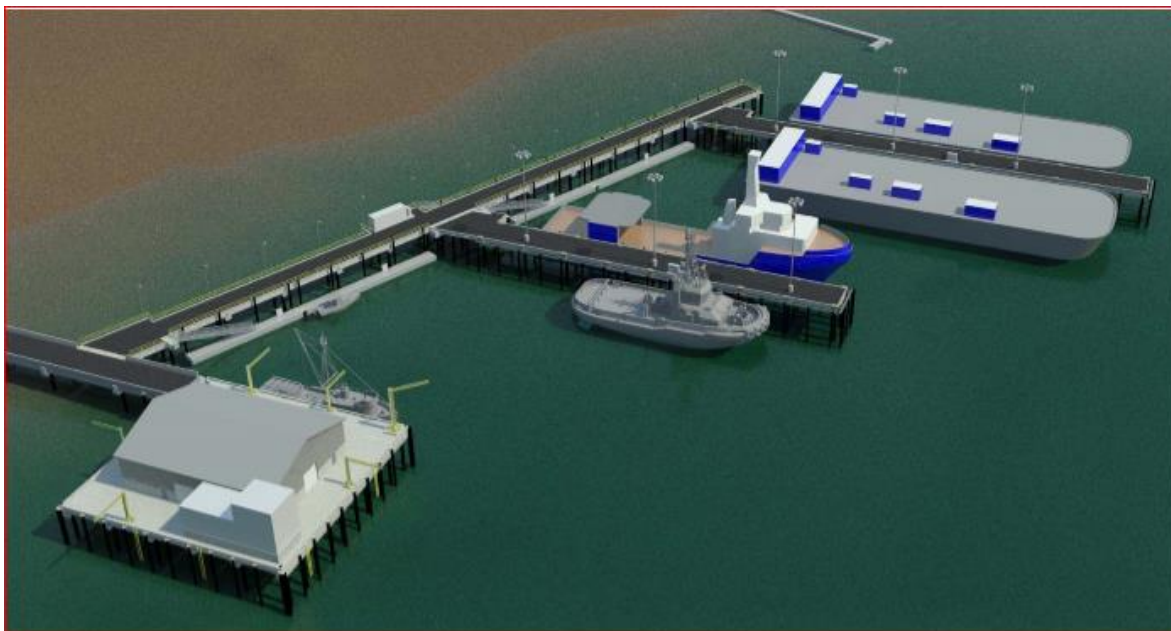


Figure 3. Rendering of new response dock and potential new vessels upon completion of Phase IIB (Source: BergerABAM 2017)



1.3. Project Context and Remote Community Benefits

The response access dock is an important economic sustainability enhancement project for the Makah People and related stakeholders, including the U.S. Coast Guard and shipping companies, and will protect the important natural resources of a significant marine shipping corridor. The Makah Tribe, along with many rural coastal and natural-resource dependent communities (both tribal and non-tribal) in the region will benefit from this project. Adequate emergency response is vital not only to the Tribe, but to all residents of the Puget Sound area, commercial fishing businesses and shipping companies, and to the regional environment that supports all other stakeholders.

The Makah Tribe has called the spectacular Neah Bay area home since time immemorial. Today, the Makah still practice our ancient heritage, teach the Makah language to our children, hold dance practices, and participate in canoe journeys. For thousands of years, Makah people have depended on the bountiful natural resources from the ocean, rivers, and forests for our livelihoods and cultural and spiritual wellbeing. The Makah Tribe's rights to hunt, fish, gather, whale, and seal within our Usual and Accustomed harvest area (U&A, see Fig. 3 below) are protected by the 1855 Treaty of Neah Bay between the Makah Tribe and the federal government.

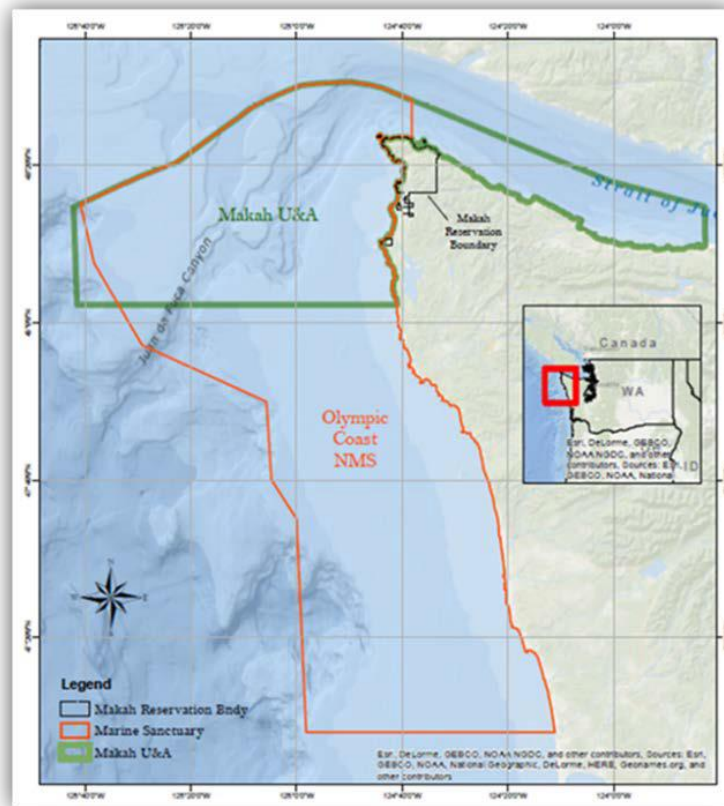


Figure 4. Reservation lands and Usual and Accustomed Fishing Area (U&A) of the Makah Tribe. Note co-located National Marine Sanctuary.

Today, Neah Bay is a commercial fishing and timber community, as well as a tourist and sport-fishing destination - an economy which would be uniformly devastated by a major oil spill. We



estimate that tribal fishing supports 50% of the local economy on an annual basis and indirectly supports up to 96% of the local Makah community. There are currently 3,101 enrolled Makah members, and approximately 1,463 people living on the Reservation (including a non-Indian population of around 300). The Makah Tribal Council and its administration work to improve these numbers each year by focusing on the goals of the Tribe's strategic plan, of which the proposed project is a major element.

The Makah Tribe has had over 2 million gallons of oil spilled within our U&A since the 1970s. Our previous experience with oil spills has demonstrated that even though the probability of an oil spill is small, the potential consequences to our precious treaty resources are very high. These experiences have required that the Makah Tribe become deeply engaged in the oil spill prevention, preparedness, and response community of the Pacific Northwest and our transboundary waters in particular. The Tribe has had a memorandum of agreement (MOA) with the USCG District 13 for several years which formalizes the implementation of our ongoing government-to-government work. The Makah Tribe was also the first Tribe to become a voting member of the Region 10 Regional Response Team and we participate actively in the RRT and the Northwest Area Committee. We are also the only Tribe who is a voting member in the Puget Sound Harbor Safety Committee, an industry vessel traffic forum, and have several partnerships with Canadian government and industry entities. This project is informed by this experience and the input of our partners (for more information on partnerships, see Sec. 4.B.b)

The Makah Tribe has also worked to implement several infrastructure projects which, in combination with this project, enhance our ability to provide oil spill prevention and response capacity, as well as increasing our all-hazards preparedness. Recent work includes:

- **Oil Spill Response Equipment Grant:** to purchase a small tribally owned vessel, a truck, new boom and response equipment, and funding to hold HAZWOPER trainings
- **NOAA Marine Debris Removal:** In 2018, we removed 3 vessels from the Makah Marina to improve navigational safety
- **Marina Water Infrastructure:** We are currently working with the Makah Tribal Council to replace outdated water infrastructure in the marina to support vessel safety
- **Broadband and Communications:** Neah Bay recently received improved broadband services and obtained an additional cell phone provider, which has improved connectivity and cell service.

1.4. Technical Statement of Work

A summary of the technical statement of work is outlined below. More detailed engineering drawings, construction estimates, and specifications can be found on the project [website](#). See Fig. 4 below for a drawing of the completed project.

The project consists of the construction of a dock extension with three new finger piers using fixed pile-supported structures extending northwestward from the existing commercial fishing dock trestle. The project site was chosen because the spill dock extension can utilize the existing commercial fishing dock trestle, thereby eliminating the need for a second trestle and the amount of new overwater construction and dredging.



The extension will connect to the existing fishing dock trestle approximately 40 feet south of the wharf platform and will be approximately 563 feet in length, extending to the northwest. Two finger piers, approximately 325 and 340 feet in length, will extend to the north from the angled dock extension to create slips for the vessels. The extension and finger piers will have pre-cast concrete deck panels, along with gangways and fenders. The structure will have electrical, water, firewater and stormwater collection systems.

Approximately 180,000 cubic yards of dredging will be required to achieve sufficient draft (-25 feet) to accommodate the draft of the response vessels during all tide conditions. This will greatly enhance the mobility of the response fleet compared to the current draft of the marina that is not deep enough for the spill vessel at very low tides. During those times the vessel is stationed outside the entrance to Neah Bay.

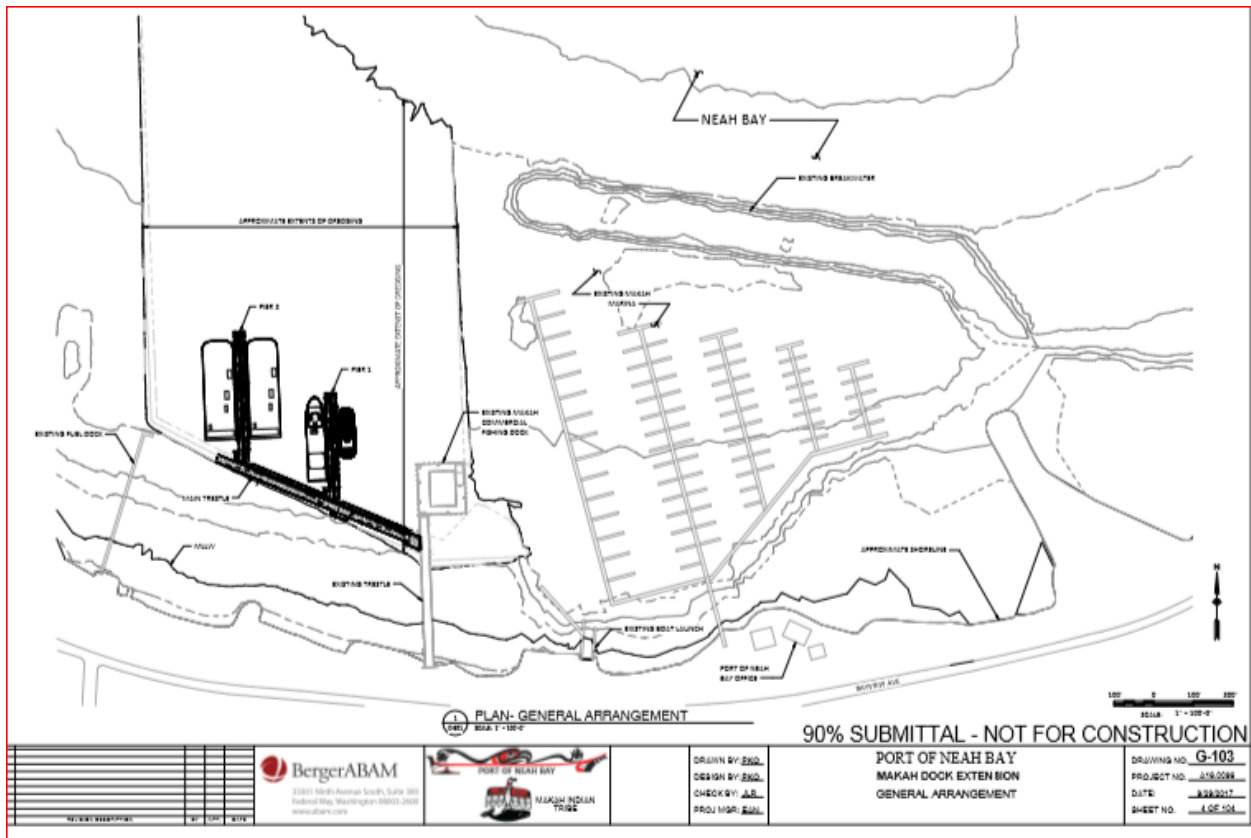


Figure 5. Oil Spill Response Access Dock Phase II (Source: BergerABAM 2017)

2 PROJECT LOCATION

The project is located in Neah Bay on the Makah Reservation in Clallam County in Washington State (zip code: 98357). Neah Bay is not located within an Urbanized Area and is eligible for rural grant funds. Neah Bay is a census-designated place located on the northwestern-most tip of the Olympic Peninsula, near the Pacific Ocean boundary of the Strait of Juan de Fuca. The center of the Strait is the international border between the United States and Canada. Neah Bay is



accessible from U.S. Route 101 via State Route 112. The bay is located at lat 48°21'56"N and long 124°36'25"W. The Makah U&A is also co-located with the Olympic Coast National Marine Sanctuary, indicating its ecological value and importance. The project vicinity and proposed project site are shown in Figure 5 below.

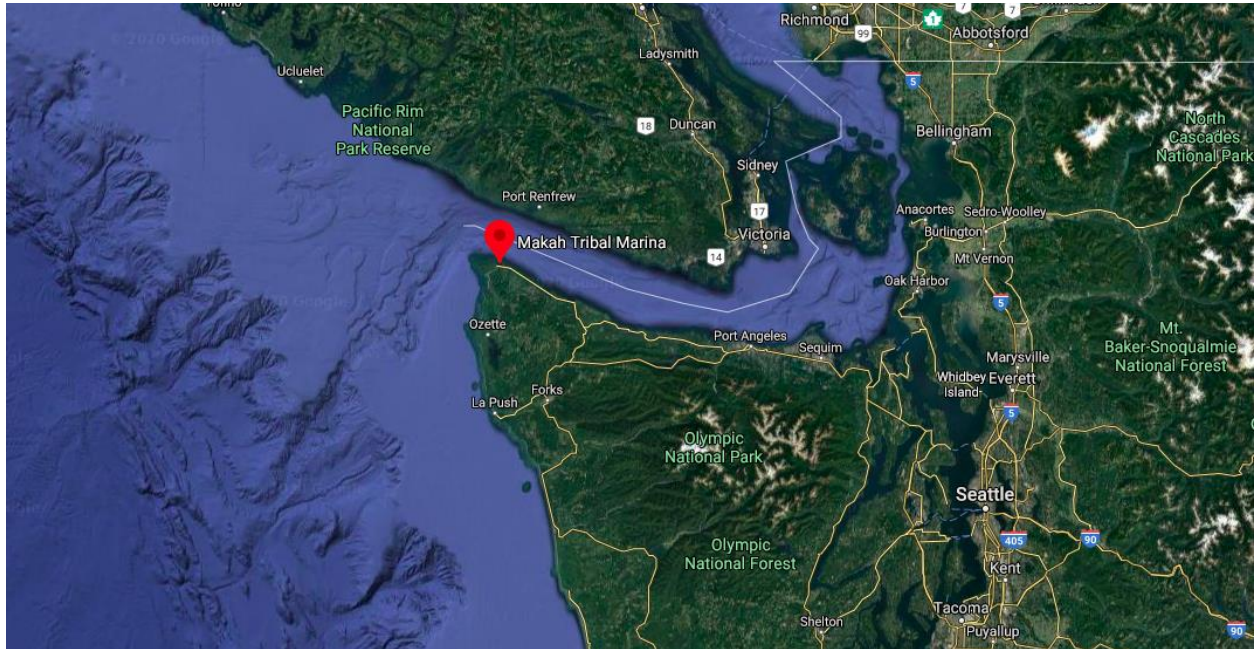


Figure 6. Vicinity Map of Neah Bay (Source: Google Maps, 2020)

The Makah Reservation is remote and access is limited, with the most common route to Neah Bay via a long, twisting highway that is prone to mudslides. The only other access is by small boat or helicopter. Neah Bay is located over 60 miles from the closest town with services. In the event of an emergency, especially an oil spill, the community needs to be able to respond efficiently and effectively to protect the traditions, cultures, and economy of the Makah People. The proposed response access dock will be an essential asset for the Makah to facilitate response efforts. The next closest response point is Port Angeles, approximately 70 miles to the east.

3 GRANT FUNDS, SOURCES, USES OF PROJECT FUNDS

The Tribe has already committed \$10,000,000 (\$10 million) to Phase I. The 2014 grant funded 87% (\$1,101,904) of Phase IIA, with the remaining \$88,523 provided by the Tribe. The Makah Tribe is requesting \$20,420,122 to complete the construction of the dock extension. The grant will cover bidding, construction, and project management (Phase IIB) and will result in the completion of this phased project. The Tribe has limited sources of revenue as it levies no sales or property taxes. Therefore, as allowed by the BUILD grant requirements for rural areas, no matching funds are provided by the Tribe. A budget summary is provided below in Table 2. Additional information is available on the project [website](#).



Table 2. Budget Summary - Phase IIB Oil Spill Response Dock

Neah Bay Oil Spill Response Dock, Phase IIB Cost (2020 dollars)			
Item Description	Use of Funds		Source of Funds
	Cost (\$)	Distribution (%)	BUILD
Project Administration/Management	\$2,476,430	12.1	BUILD
Dock Extension Construction	\$10,979,223	53.8	BUILD
Dredging (Site Work)	\$3,053,880	15.0	BUILD
Derelict Dock Demolition (Mitigation)	\$1,409,000	6.9	BUILD
Contingency	\$2,751,589	13.5	BUILD
WA Department of Natural Resources Funding (Credit)	-\$250,000	(1.2)	DNR
Project Total Cost	\$20,420,122	100.1	

4 SELECTION CRITERIA

4.1 Primary Selection Criteria

4.1.1 Safety

This project will significantly increase the safety of vessel traffic in the Strait of Juan de Fuca as well as on the Pacific marine highway. Ships transiting the Strait include inbound and outbound vessels from the United States and Canada. Deep-draft vessels include cargo vessels, passenger ships, oil tankers, and a ferry. In addition to oil carried as cargo by tankers, all deep-draft vessels carry a considerable amount of fuel (up to four million gallons). There are approximately 11,000 deep-draft transits through the Strait of Juan de Fuca per year.¹⁰ In 2019 alone, there were over 1,000 oil tanker and articulated tug barges (ATB) transits through the Strait (over 600 entering transits).¹¹ As a result of the Trans Mountain Expansion, Canadian oil tanker traffic will increase from five tankers per month to as many as 34, which represents an approximately 700 percent increase.¹²

Vessels transiting the Strait of Juan de Fuca occasionally lose power or experience navigational issues as they travel into the Strait. Prior to 2020, we believed that many of these ships losing power were experiencing difficulty switching to low-sulfur fuel as they neared WA waters. In 2020, new International Maritime Organization regulations regarding low-sulfur fuels should have alleviated this problem. However, the ERTV rescue rate remains unchanged thus far in 2020, re-affirming studies that show that this area is high risk for vessel traffic incidents. Powerless or otherwise disabled vessels run the risk of drifting onto the rocks at the shoreline



and spilling oil. In 1999, Washington State recognized the need for oil spill response capabilities in the area, stationed an ERTV permanently in Neah Bay. The Neah Bay-based ERTV rescues, on average, one vessel every 1 to 3 months. Since 1999, 79 incidents have required the deployment of a tug from Neah Bay, including four incidents in 2018. Out of the 79 deployments of the ERTV, 22 required the ERTV to provide a towline (see Fig. 6 below for a map of these rescues).¹³ The State Department of Ecology estimates that these actions have prevented millions of gallons of oil from spilling into Washington waters.

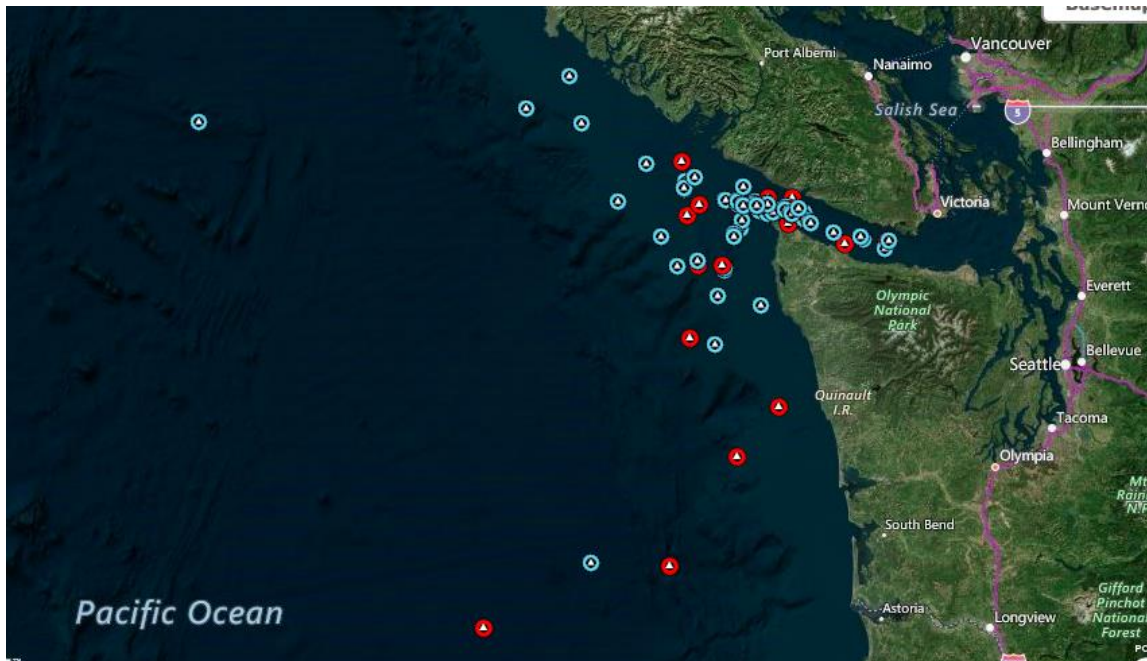


Figure 7. Rescues made by the Emergency Response Towing Vessel (ERTV) currently stationed in Neah Bay. Red dots indicate that a tow line was passed (Source: WA Ecology Spills Program, 2020)

The response access dock will increase the capacity of the response in Neah Bay to match the increase in vessel traffic in the Strait, a match that is essential for environmental protection and the maintenance of maritime commerce. Not only is Neah Bay central to the many recent saves, as well as previous oil spill incidents prior to the stationing of the ERTV and other resources, it is also the only harbor north of San Francisco that does not have a bar at its entrance. During inclement weather, response vessels based elsewhere may not be able to leave their harbor safely. The closest current facility along the Strait is located east of Neah Bay in Port Angeles. Even in good conditions, vessels leaving Port Angeles can take more than 5 hours to reach the exit from the Strait into the Pacific Ocean.

These improvements to the response access dock will ensure that it can be used safely and effectively during a response and provide additional space to vessels in distress. The existing dock infrastructure is not designed for the large response vessels currently moored there, shortening the life of the structure and increasing the potential for unsafe conditions. The new dock will fix this safety concern and free up safe and accessible space for the Makah fishing fleet and/or any vessels in distress who call on the Port of Neah Bay.



4.1.2 State of Good Repair

This project is necessary to maintain the safety and good repair of the existing infrastructure, ensure the continued safety of valuable federal, industry, and tribal response equipment, and maintain safe maritime transportation across our transboundary waters. The Makah Tribal Council is committed to this project, as evidenced by its inclusion in the Tribe's strategic plan and as Tribal Council priority for several years as well as our significant previous investments (\$10 million plus) in the prior phases of construction and planning. As evidenced by our ability to leverage capital to support the initial phases of this project, and our excellent grants management with DOT on the TIGER grant, this project is appropriately capitalized.

Not only is this project shovel-ready, the need to complete it is urgent, due to the expedited degradation of the existing infrastructure caused by housing vessels much larger than the intended purpose and the need for expanded response capacity consistent with changing vessel traffic and risk. While the response vessels are moored there, they cause excessive wear and tear by daily operations and could cause more substantial damage during a storm or during an accident. Furthermore, the marina cannot accommodate easy loading or access because it can be accessed only by pedestrians. With the new response access dock, trucks will be able to access emergency response vessels, more services can be offered, and further damage to the marina facilities will be prevented. The Makah Marina is multi-functional in that it also supports the Makah Fishing Fleet and a charter fishing business - both of which provide significant revenue to the Tribe, support the majority of the Makah community, and contribute to the economic vitality of the region.

Because Neah Bay is strategically located within a transboundary waterway, our local spill response contractors as well as the staff and leadership of the Makah Tribe, are involved with transboundary spill response planning and exercises. Neah Bay could be an important staging area in the event of a significant spill that crossed the US-Canadian boundary. Additionally, the Makah Tribe is the southernmost band of the Nuu-Chah-Nulth People and our First Nations of Canada relatives sometimes travel to Neah Bay by boat. We also receive international guests at the marina with some frequency and interact with federal Customs and Border Patrol officers regularly. The new dock would contribute to improved transboundary coordination and border security, both in the event of an incident as well as on a daily basis.

In order to maintain the response access dock in a state of good repair following construction, the Tribe has passed a resolution to set aside 20% of the revenue generated from long-term leases at the marina for ongoing maintenance and repair of the access dock and marina facilities. As detailed in the benefit-cost analysis, additional revenue is also anticipated from the Makah Marina after the response vessels move to the response access dock (see Economic Competitiveness below for details).

4.1.3 Economic Competitiveness

This project protects the essential Strait of Juan de Fuca, a maritime trade route of national and international importance. The Strait provides access to ports in Washington State and British Columbia that are key entry points for Asian intermodal cargo that is transported throughout the United States and Canada. Fig. 7 below demonstrates the scale of vessel traffic in this region. This trade route is essential for the U.S. to remain competitive in a global economy by



facilitating the efficient, reliable, and safe movement of goods through maritime commerce - uninterrupted by costly and damaging oil spills.

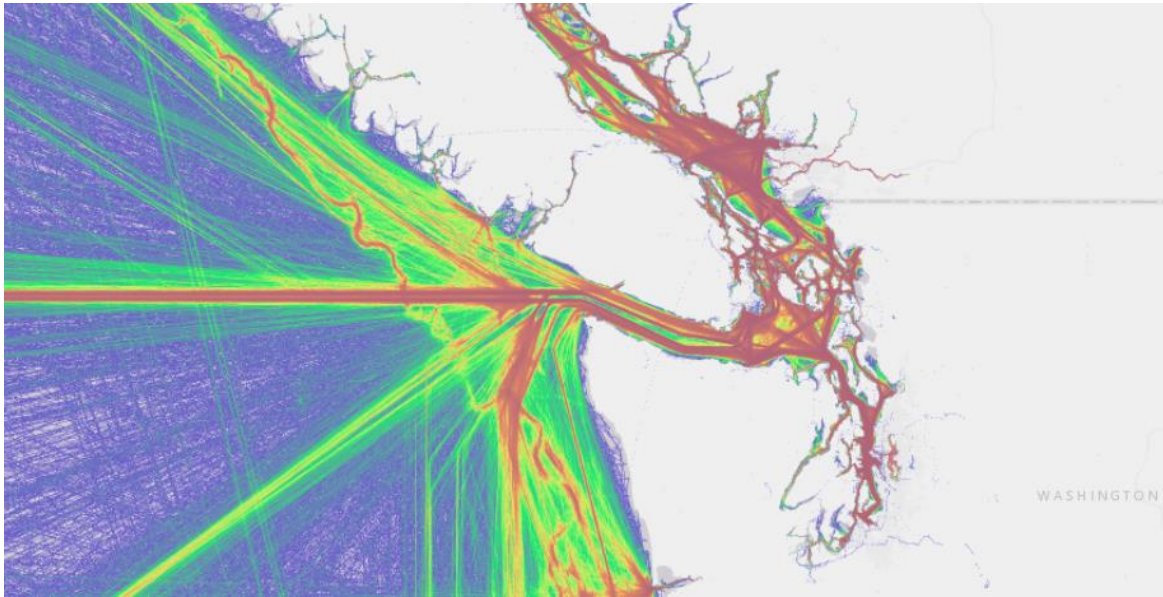


Figure 8. 2017 Vessel traffic density map (Source: NOAA Environmental Response Management Application, 2020)

The project also protects the regional economy of the Pacific Northwest, contributes to the preparedness safety net that supports new projects and the jobs they create, prevents costs associated with oil spills, and creates local jobs and economic opportunity in rural Neah Bay. All of these factors contribute to helping the US remain competitive in a global economy by facilitating the efficient, reliable, and safe movement of goods through maritime commerce - uninterrupted by costly and damaging oil spills.

This project will help protect the regional economy of the Pacific Northwest from an economically and ecologically damaging oil spill that could quickly grind our maritime economy to a halt. Neah Bay provides critical prevention and response resources to vessels of all types transiting to major ports in the Pacific Northwest, which contribute significantly to the economy of the region. The Northwest Seaport Alliance (Ports of Seattle and Tacoma) provides over 58,400 direct jobs and contributes over \$12.4 billion in direct revenue to Washington State on an annual basis.¹⁴ The Port of Vancouver sustains 115,300 jobs and contributes over \$8.4 billion to the Canadian economy.¹⁵ Commercial and recreational fishing contribute an estimated \$4.9 billion (note - this study was conducted in 2006, this is closer to \$6.2 billion in 2020) to the WA economy each year.¹⁶ The Makah Tribe's combined treaty fisheries alone generate approximately \$10 million a year for our treaty fishermen, their families, and our community. A major spill or incident near the mouth of the Strait could have significant negative impacts to these major industries and the economic viability of our region.

The new maritime infrastructure projects that this dock will support (e.g. Trans Mountain Expansion Project) will add thousands of jobs to the regional economy and attract new export markets by providing shorter transportation routes that will allow vessels to avoid the Panama Canal when transporting supplies to China and other markets along the Pacific Ocean. As the



export/import and transportation industries continue to grow and vessel traffic increases, the need for corresponding increases in oil spill response will also increase. As these economically important projects are implemented and vessel traffic increases, the need for spill response capacity will also increase to maintain safety standards. Funding the expansion of the Makah Dock is a proactive measure to help ensure that this additional capacity can be stationed and maintained appropriately.

Oil spills are very expensive. There were 757 confirmed oil spill events in the Puget Sound between 2010 and 2013, and the risk of large spill events near the mouth of the Strait is projected to increase as a result of increases in shipping traffic, as previously indicated. An independent study determined that a single large spill event of 300,000 gallons would result in a natural resource damage assessment (NRDA) cost of \$364 million (mean value reported in 2016 dollars).¹⁷ Larger spills, on par with the Exxon Valdez incident, could cost the Washington economy billions.

This project will create local jobs and economic opportunity for the rural community of Neah Bay. Re-allocating the dock capacity currently dedicated to the response vessels will decrease costs and increase access for the operation of the Tribe's commercial fleet. Representing over 50% of the local economy, keeping the fishing industry healthy and productive is essential for Neah Bay to remain economically competitive. We estimate that the project would immediately create 30 local construction jobs over a period of one year, as well as 24 full-time positions for qualified tribal members. With only around 1600 people living on the Reservation, 74 jobs is significant and could employ just under 5% of the local population. The Makah Tribe uses local members for construction projects and requires projects to help fund its retraining and job placement programs. Multiple prospective employees have obtained the required hazardous waste operations and emergency response certifications to work in spill prevention and clean-up roles. These provisions are set forth and enforced under the Makah Employment and Contracting Rights Act (MECRA). The Makah Employment and Contracting Rights Office (MECRO - part of the tribal organization) received more than \$84,000 in revenue for operations from the construction contract for Phase I. It is anticipated that similar revenue would be collected for construction of the response access dock.

The 2012–2016 American Community Survey estimates unemployment on the reservation to be 18.6 percent compared to 7.9 percent in the state and 7.4 percent nationally. The proportion of individuals living below the poverty level is estimated to be 19.1 percent on the reservation compared to 14 percent nationally. These jobs are very important in an economically distressed area, such as the Makah Reservation, where employment opportunities are limited.

Additionally, following the construction of the response access dock, additional revenue will be generated at the Makah Marina. The marina forgoes \$1.00 per foot of each vessel per night as a result of having to refuse safe harbor to vessels that could use the slips that are occupied by the response vessels. Over the next 10 years, the Tribe estimates \$283,800 per year (2017 dollars) in additional revenue as a result of increased moorage at the marina. With a 20 percent set aside for operation and maintenance expenses, the Tribe would generate about



\$1.7 million over the next 30 years for transportation-related activities, including dock maintenance and repair. The Makah Tribe has limited sources of revenue as it levies no sales or property taxes.

4.1.4 Environmental Sustainability and Benefits

This project provides significant environmental benefits in that it helps prevent adverse environmental impacts from hazardous materials releases that would threaten the health of numerous protected species. These benefits are discussed in more detail below, but we also want to address the issue of energy efficiency, reduction of dependence on fossil fuels, and emissions reductions. Ultimately, this project is focused on providing a safety net for the continued transportation of oil products. Nonetheless, it still makes important contributions to reducing emissions and is energy efficient. As mentioned previously, some of the response vessels have to leave the dock at extreme low tides due to the limited depth of the marina. They usually navigate out of the marina and idle until the tide is high enough for them to return. This process is incredibly fuel-intensive and we calculate that it costs the vessels between \$590,000 and \$1.8 million in fuel each time there is an extreme low tide. This dock expansion will allow the vessel to remain at port during low tides, contributing to significant local emissions reduction, lower operating costs, and reduced fuel use. Additionally, stationing new vessels in Neah Bay at the new dock will not only enable faster response to the dangerous Outer Coast area, it will also enable less fuel use and more energy efficient responses to vessels in distress. Finally, this project is an important piece of infrastructure for the rural Olympic Peninsula. As global dependence on fossil fuels decreases and therefore the need for spill response equipment decreases, the dock could easily be repurposed to support the needs of that new economy.

An oil spill would negatively impact numerous facets of the environment, including water quality, marine life, birds, terrestrial mammals, and others. The environmental impacts of an oil spill in this area would vary depending on the specifics of a given incident but impacts from prior spills provide an understanding of the magnitude of potential impacts.

Three oil spills in the area (1972, 1988, and 1991) resulted in more than 3 million gallons of oil on the Makah Reservation, each spill devastating the Makah's natural resources.¹⁸ The 1991 event spilled an estimated 361,000 gallons of oil off the coast of Cape Flattery (approximately 4.5 miles northwest of Neah Bay).¹⁹ According to the Final Restoration Plan and Environmental Assessment (April 2000), while the heaviest oiling occurred at the Makah Reservation and Olympic National Park, oil and environmental impacts occurred from Vancouver Island (British Columbia), along the entire Washington shoreline, to the northern beaches of Oregon.²⁰ The spill damaged the aquatic habitat with toxic concentrations of oil and killed a minimum of 4,300 seabirds (at least 30 species of seabirds were impacted), including approximately 7 to 11 percent of the total outer coast population of the federally threatened marbled murrelet. An unknown number of marine mammals, including sea otters and harbor seals, were injured or killed as a result of the spill. The highly endangered Southern Resident Killer Whales (SRKW), which live in these waters (see Fig. 8 below for SRKW Critical Habitat designation), would also be at extreme risk from an oil spill.²¹ The impacts of a spill to the fragile SRKW population would be catastrophic and devastating to SRKW recovery efforts. Evidence from the Exxon Valdez spill demonstrates that killer whale populations affected by major oil spills are slow to recover, if they do so at all.²²





Figure 9. Southern Resident Killer Whale Designated Critical Habitat (Source: NOAA Environmental Response Management Application, 2020)

By equipping Neah Bay with dedicated and adequate oil spill response infrastructure, the project will reduce the spread of a spill should one occur, in addition to reducing the potential for spills to occur in the first place. Environmental impacts, such as those seen in 1991, will be greatly reduced through the proposed project. The region that would be better protected as a result of the construction of the response access dock includes:

Bird Habitat

- The Pacific Flyway, an important north-south flyway for migratory birds in America, extending from Alaska to Patagonia
- Habitat for over 100 marine bird species, some of which are listed as protected under the Migratory Bird Treaty Act
- Critical habitat for birds listed under the Endangered Species Act (ESA), including the threatened marbled murrelet and endangered short-tailed albatross

Habitat for Marine Mammal Species

- Harbor seals, river otters, sea otters, Steller sea lions, common minke whales, harbor porpoises, California grey whales, and Southern Resident Killer Whales

Fish Habitat

- Habitat for over 200 species of fish
- Habitat for threatened or endangered species, including Chinook salmon, steelhead, and bull trout
- Migration and spawning grounds

Habitat for Other Species

- Over 1,500 invertebrate species
- More than 500 marine plant species
- Designated Critical Habitat for Endangered Populations including northern spotted owl, marbled murrelet, bull trout, Chinook salmon, streaked horned lark, and southern resident orca

Protected Areas

- Olympic Coast National Marine Sanctuary (see Fig. 3)
- Tribal hunting and fishing areas protected by treaties
- Olympic National Park
- Five national wildlife refuges





Figure 10a and 10b. Images from the remote Outer Coast of Washington State (Source: Makah Tribe, 2020)

It is important to note that protecting fish habitat, in particular salmon habitat, is essential not only to marine mammals that rely on fish as a food source but is also essential to protecting the Makah's way of life and economy. Details regarding the environmental impacts of the project and corresponding mitigation plans are included in the Assessment of Project Risks and Mitigation Strategies Section below (Sec. 5.C).

4.1.5 Quality of Life

Shipping traffic in the Strait of Juan de Fuca has the potential to jeopardize the Makah culture and identity and derail the efforts of the Makah Tribe to make improvements to our quality of life. Ecology's 2015 Vessel Traffic Risk Assessment confirmed that the entrance of the Strait of Juan de Fuca is one of the areas that will experience a large increase in the risk of an oil spill due to proposed increases in vessel traffic.²³ As stated by Ecology, "an oil spill in this area would pose a substantial threat to Puget Sound's environment, economy, and culture."²⁴

The Makah quality of life is enriched by a culture whose long-standing reliance on the fishing industry drives local economic activity. An oil spill could destroy the fish stocks and other life in the ocean that the Makah depend on for sustenance and commercial export. Local harvest of resources is essential to the food security of the Makah people. Subsistence surveys conducted between 1997-1999 found that 99 percent of Makah households participated in subsistence activities annually with over 80 species used in the subsistence practices.²⁵ While seafood consumption is far below historic and preferred levels, the 1997-1999 surveys indicate that Makah annual per capita consumption of fish and shellfish was around 126 pounds and comprised nearly half of the total meat in our diets. Currently, more than 50 percent of the local economy is supported by the Tribe's commercial fishing industry, which supports the financial and nutritional security of between 75-95 percent of the local population.





Figure 11. The Makah Fishing Fleet supports the vast majority of the community (Source: Makah Tribe, 2020)

Gathering, hunting, and fishing rights are protected by the Treaty of 1855 between the Makah Tribe and the federal government. Unemployment and poverty rates at the reservation continue to exceed those of the state or national averages. The Makah Tribal Council and its administration are working hard each year to improve these numbers and reverse this trend. This project will create at least 54 direct local jobs for tribal members - a significant number in a community of 1600 people. Once complete, the response access dock will continue to improve access to local jobs through the increased availability of slips at the Makah Marina, in addition to its benefits to spill response and environmental protection.

Even though the chance of a large incident occurring is low, the results of such an incident would be devastating to the Makah Tribe and the entire region. As indicated in “Scoping Suggestions for the Risk of Accidents Associated with Vessel Traffic,” a major oil spill could cost the Washington economy \$10.8 billion and impact 165,000 jobs.²⁶ These figures are quoted from 2004 so their conversion to 2020 dollars results in a cost that is half again as high – approximately \$15 billion. The Deepwater Horizon incident in the Gulf of Mexico has accounted for rehabilitation costs as high as \$38 billion and that total grows as other costs of restoration continue to be tallied.

Preventing and reducing the impacts of an oil spill is essential to the Neah Bay community. A spill would threaten the community’s housing and infrastructure located along the beach at Neah Bay, the community’s access to food sources, the local fishing economy, and the Tribe's traditional canoeing program. The proposed access response dock will become a great asset for the United States and Canada to facilitate improved response efforts and to the Makah; completion of the project represents an insurance policy to protect the traditions, culture, and economic activity that comprise the Tribe’s way of life.



4.2 Secondary Selection Criteria

4.2.1 Innovation: Technology, Project Delivery, Financing

The response access dock project is innovative in several ways.

- **Design Foresight:** The goal of establishing a response access dock as an extension of the commercial fishing dock constructed in 2014 was an important consideration in the design of the fishing dock. The fishing dock incorporated features that would facilitate the future extension for the oil response access dock without significant change to the structure; utility corridors were designed to accommodate the future expansion, and the access trestle is designed for two-way truck traffic to better handle supplies transferred during an emergency response. This forward thinking set the stage for cost-effective design of the expansion.
- **Trained/Certified Response Workforce:** Since the Tenyo Maru oil spill, the Makah Tribe has provided oil spill clean-up training to local residents and keeps a current call log of certified clean-up workers in the event of a spill, regardless of its size. The Tribe has a memorandum of understanding with NRC that the Tribe will provide responders if needed, and there is also an inventory of regularly stockpiled clean-up supplies.
- **Intertidal Habitat Protection:** The response access dock was designed so that all structural features will be located in deeper water beyond the more critical intertidal and shallow water habitat at the site. This greatly reduces the impact of the structure on the aquatic habitat.
- **Historic Beach Restoration:** Material dredged to deepen the berth areas at the response access dock will be used to restore a historic beach located east of the dock that has been severely eroded.
- **Partnerships:** The project also includes innovative partnerships and requires significant cooperation between project parties, including the U.S. and Canadian governments, private industry, non-profits, and environmental groups. An oil spill would threaten both U.S. and Canadian resources and the Tribe has proactively worked with multiple layers of government to develop a solution to oil spill response. The Tribe was successful in bringing the project to the attention of Washington Governor Jay Inslee who met with Canadian Prime Minister Justin Trudeau and discussed the response access dock. Talking points from that discussion are include on the project [website](#). Other partnerships include:
 - The Washington DNR is committed to improving aquatic habitat by removing derelict piles, structures and sunken vessels and is contributing \$250,000 to the cost of the mitigation action to remove a derelict timber structure (see Sec. 5.B.)
 - The USACE has almost completed a Feasibility Study for dredging to deepen the entrance channel to Neah Bay under Section 107 of the Rivers and Harbors Act. This work is anticipated to happen within a similar timeframe as the project and will further improve safety and navigability of large vessels accessing Neah Bay and will increase Neah Bay’s safe harbor capabilities. The Makah Tribe is the non-federal sponsor for this project and has contributed \$216,000 to date.
- **Financing:** The success of Neah Bay as an oil spill prevention and response hub in the Pacific Northwest is, in part, a result of innovative and collaborative financing. The Tribal government has invested several million dollars into this project and has utilized federal and state funding to support the planning and early preparatory stages of the



project. The Tribe relies on a robust partnership with the Oil Spill Response Organizations (MSRC and NRC) stationed in Neah Bay and the ERTV is currently industry-funded as a requirement of WA State law.

4.2.2 Partnership

While the Makah Tribe is taking the lead on the design and construction of the response access dock, the project is a partnership between the Tribe and numerous public and private entities. The dock will serve the U.S. Coast Guard, oil spill response vessels, and the Makah Tribe, and will directly benefit all vessel traffic in the Strait of Juan de Fuca. The dock will also support the USACE Section 107 channel deepening project. The response access dock is truly a partnership and one piece in a much larger effort to increase the safety of oil transportation through the State of Washington and its waters.



Figure 12. *Government-to-Government: a piece of artwork commissioned in honor of the historic signing of the MOA between the Makah Tribal Council and the USCG District 13. Artist: Nytom*

Throughout the planning and design phase, members of the staff of the Makah Tribe have coordinated with the U.S. Coast Guard (both District 13 and Sector Puget Sound), the Canadian Coast Guard and Transport Canada, the state of Washington, and other regulatory agencies. Makah staff members have working relationships with multiple industry organizations and agencies, including the Pacific States/British Columbia Oil Spill Task Force, Marine Exchange of Puget Sound, the Puget Sound Harbor Safety Committee (PSHSC) and joint transboundary PSHSC-Pacific Coast Marine Advisory Review meetings, and the Northwest Indian Fisheries Commission. The Makah Tribe is also a voting member of the Region 10 Response Team (RRT), and continues to actively work within both the RRT and the Northwest Area Committee to ensure the health and safety of Region 10, including via this project. Furthermore, at the 2018 CANUSPAC Exercise, the Makah Tribe, along with other Tribes and First Nations, proposed the Indigenous Caucus to support existing transboundary partnerships and foster new ones to enhance Indigenous participation in spill response planning. In addition, the response access dock will enable private industry to meet U.S. Coast Guard and state mandates.



The Makah Tribe will continue to link partnerships and coordinate with stakeholders until the project is constructed to protect the water quality of the Strait and the marina facilities that support the culture, traditions, economy, and way of life of the members of the Makah Tribe. The Tribe worked with all agencies listed below to complete Phase I, the replacement of the commercial fishing dock. Strong ties and relationships were established in Phase I, maintained and strengthened with Phase IIA, and will continue in Phase IIB.

Partners providing letters of support:

Note that we anticipate letters of support from the following partners. However, due to delays resulting from COVID-19, we have not yet received letters from all our anticipated partners. We will continue to add them to the project [website](#) as we receive them.

- U.S. Senator Patty Murray
- U.S. Senator Maria Cantwell
- U.S. Representative Derek Kilmer (letter received)
- Canadian Coast Guard
- Olympic Coast National Marine Sanctuary (letter received)
- WA Department of Ecology Spills Program
- Port of Seattle (letter received)
- Foss Maritime
- Marine Spill Response Corporation
- Puget Sound Harbor Safety Committee
- Pacific Merchant Shipping Association (letter received)
- Trans Mountain Corporation

Additional partners contacted regarding the project:

- U.S. Department of Transportation
- U.S. Army Corps of Engineers
- U.S. Department of Commerce National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS)
- U.S. Navy Spill Response
- U.S. Maritime Administration
- U.S. Coast Guard
- Homeland Security Border Patrol - location was a former Port of Entry
- Washington State Department of Transportation (WSDOT)
- Washington Department of Fish and Wildlife
- Washington Department of Natural Resources
- Clallam County
- Puget Sound Partnership
- The Nature Conservancy
- Canadian Government
- Pacific States - British Columbia Oil Spill Task Force
- Kinder Morgan Westridge Terminal
- BP Cherry Point Refinery
- ARCO Refinery
- National Response Corporation



- Commercial Fishers
- Makah Fishers

Other planned engagement and partnership:

- Environmental Advocacy Groups
- Local Governments
- Maritime Service Organizations
- Local Tribes
- Recreational Users
- Washington State Ferry System
- Passenger Vessel Companies
- Public Ports
- General Public

5 ENVIRONMENTAL RISK REVIEW

We want to emphasize to DOT that this project is shovel-ready and the Makah Tribe and our partners are deeply committed to its completion. Years of planning and preparatory work have already occurred as well as millions of dollars of investment by the Tribe (as well as the federal government). The project has already received all of its necessary permits and approvals and we have detailed mitigation strategies in place both for the minimal environmental disturbances caused by the project as well as in the event of unforeseen delays or challenges.

5.1 Project Schedule

Given the completion of Phase I, the Port's desire to complete the project, and the need to rapidly expand prevention and response capacity consistent with increasing vessel traffic and risk, the Makah Tribe plans to pursue an aggressive schedule with completion of Phase II construction by the March 2022 (see Table 3, Project Schedule below).

The anticipated construction schedule is based on several expectations. Based on the existing 90 percent construction drawings, and an assumed 90 days to USACE Section 10/404 permit approval, the Tribe anticipates complete bid documents to be ready in December 2020. If in-water construction takes place in July 2021, above-water dock construction can take place following the end of the fisheries season beginning in November 2021. If an issue arises with any of the cited assumptions, the Tribe anticipates that construction would be delayed by only one year, for completion at the beginning of 2023. An overview of the entire project is provided in Table 5 below. Because we already have all of the existing approvals and permits, this project can begin construction immediately upon receiving grant funding. Please note that no property or right-of-way acquisition is needed as the property is fully owned and managed by the Port.



Table 3. Project Schedule

Item	Date
Commercial Fishing Replacement Dock (Phase I) Planning	September 2013
Phase I Permitting	December 2013
Phase I Design	November 2013
Phase I Construction	January 2014 - September 2014
Oil Spill Response Access Dock (Phase II) Planning	2014-2017
Phase IIA Permitting	Applications Submitted: February 2017; all Permits Approved: December 2018
Phase IIB 90% Engineering Design	October 2018
Phase IIB Final Design and Bid Documents	December 2020
Phase IIB Bidding and Award	December 2020 - June 2021
Phase IIB Construction	July 2021 – February 2022
Phase IIB Project Completion	March 2022

5.2 Required Approvals: Environmental Permits and Reviews, State and Local Approvals, Federal Transportation Coordination

Phase II permitting requirements were identified and initiated during the planning and permitting portion of the project (Phase IIA, funded through the 2014 TIGER Grant), and all required permit applications and environmental studies have been prepared and are approved. Required permits, reviews and/or approvals and the corresponding responsible agencies are identified below. In addition to the information presented below, the Tribal Transportation and Land Use Planner, Michelle Smith, has coordinated with WSDOT and the Washington State Peninsula Regional Transportation Planning Organization to include the response access dock on the Statewide Transportation Improvement Program.

- **Tribal Approvals:**
 - Makah Tribe State Historic Preservation Act/ Section 106 Review
 - Section 401 Water Quality Certification (Makah Tribe and Washington Department of Ecology)
 - Coastal Zone Management Concurrence
- **U.S. Army Corps of Engineers**
 - National Environmental Policy Act (NEPA) Review - Finding of No Significant Impacts (FONSI)
 - Rivers and Harbors Act Section 10 In or Overwater Construction Permit
 - Clean Water Act Section 404 Permit for Placement of Fill or Dredged Material into Waters of the U.S.
 - Dredged Material Management Program Suitability Determination
- **United States Department of Fish and Wildlife, National Marine Fisheries Service, Washington Department of Fish and Wildlife**
 - Endangered Species Act Concurrence (USDFW/NMFS)
 - Marine Mammal Protection Act Concurrence (NMFS)
 - Hydraulic Project Approval (WDFW)



- **Washington State Department of Ecology (WDOE)**
 - Washington State Environmental Policy Act (SEPA) Review- Determination of Non-Significance (DNS)
 - Section 401 Water Quality Certification
 - Coastal Zone Management Concurrence
- **Washington State Department of Natural Resources (WDNR)**
 - Aquatic Use Authorization – to be issued prior to construction
 - Aquatic Lands Right of Entry – to be issued prior to construction
 - Expanded Aquatic Land Lease – to be issued prior to construction

In order to obtain these permits and/or approvals, environmental studies were conducted to identify and detail project impacts and proposed avoidance, minimization and mitigation measures incorporated in the project design. These studies include engineering design, biological evaluation (BE), cultural resources review, dredged material characterization and review for construction impacts such as noise, water quality and potential spills of hazardous materials. Plans for controlling and monitoring water quality, noise impacts to marine mammals have been submitted for approval along with the permit applications. These documents are available on the project [website](#).

The minor impacts identified generally consist of dredging and shading of deepwater habitat due to the new overwater dock structures and loss of benthic substrate due to the placement of piles to support the structures. These impacts were avoided and minimized via the engineering design and mitigation as described below.

- The project site was chosen because building an extension from the trestle of the existing commercial fishing dock eliminates the need for a new shoreline connection and minimizes the amount of new overwater construction and shading. The proposed design also allows the extension to be constructed in deeper water, and thereby minimizes the amount of dredging necessary to accommodate vessel berthing and transit. The new structure will therefore not impact any intertidal habitat.
- The amount of overwater concrete placement will be minimized by using precast structural elements (pile caps, stringers, etc.) for about 67 percent of the total concrete needed to build the trestle and dock. This reduces the risk that concrete could be spilled into the water during construction,
- The new structure is designed to capture and treat all stormwater prior to discharge.
- Pile installation will be conducted during the in-water work window for Tidal Reference Area 10 approved by the Washington Department of Fish and Wildlife (WDFW), the period established to minimize impacts to aquatic species. All in-water work will be completed within the work window (16 July to 15 February), when ESA-listed species are least likely to be present.
- The design includes using vibratory pile installation methods to for about 90% of the pile driving activities to reduce the amount of underwater noise generated during pile installation Impact driving will only be used to conduct pile “proofing” to confirm that the design loading capacity is achieved.
- A bubble curtain or other similarly effective noise attenuation device will be employed during all impact pile proofing.



- A marine mammal monitoring plan was developed and will be conducted during all steel pile installation and removal activities for the project.
- A water quality monitoring plan has been developed to monitor and control releases of suspended sediment, turbidity, and sediment-associated contaminants during dredging, and to ensure compliance with Washington State Water Quality Standards (173-201A WAC) and Makah Tribe Water Quality Standards for Surface Waters. The plan describes water quality monitoring parameters, methods, locations, and frequencies; evaluation criteria; and contingency response and notification procedures in the event a water quality criterion is exceeded during dredging or other in-water work.
- A spill prevention control and countermeasures (SPCC) plan will be prepared by the contractor. The SPCC plan will outline best management practices, responsive actions in the event of a spill or release, and notification and reporting procedures. The plan will also outline management elements, such as personnel responsibilities, project site security, site inspections, and training.

Measures to mitigate the minor unavoidable impacts and/or improve the quality of the habitat in the project area included the following:

- **Beach Restoration:** Approximately 187,000 cubic yards of dredged material from the extension project will be placed on the southeast shoreline to restore a historic beach that has eroded since the jetty along the north side of the bay was constructed. This material has been deemed suitable for in-water placement in accordance with Washington State Sediment Management Standards and as described in the Dredged Material Management Program Suitability Determination (Appendix B to the BE). The site will also be used for material dredged for the future USACE navigation channel project (see p.3 of the BE).
- **Derelict Dock Removal:** An existing unused dock located west of the project site burned in July 2017. Approximately 15 tons of burned piles, decking, and associated debris have been removed by the Makah Tribe, resulting in the removal of 3,840 square feet of overwater shading, and roughly 70 piles or 123 square feet of piling, to date. The remaining portions of the dock will be removed as mitigation for overwater coverage caused by the new extension. WDNR has committed to providing \$250,000 to the cost of this mitigation.
- **Debris Removal:** Approximately 400 tons of debris were removed from the project area when the commercial fishing dock (Phase I) was constructed in 2014. A 2016 survey (Phase IIA) identified additional remaining debris in the vicinity of the extension and the commercial dock, including remaining metal debris, tires, fishing nets, piping, generators, and various other items. That debris will be removed during Phase IIB.
- **Sunken Vessel Removal (Complete):** Three derelict sunken vessels in the Makah Marina were removed through a NOAA Marine Debris grant of \$150,000. The Tribe contributed a 100% match to the grant for this activity. The vessels have an estimated combined benthic footprint of 2,355 square feet.

In sum, the proposed project will address an existing threat to the environment, the proposed actions include benefits to the environment (e.g., beach restoration), and appropriate mitigation measures have been identified to address potential impacts associated with the construction



and/or operation of the dock extension. The project will also reduce fossil fuel use and emissions locally.

5.3 Assessment of Project Risks and Mitigation Strategies

This project is relatively straightforward and low-risk. The Tribe has already committed over \$10 million to the project and our commitment to this project remains strong. There are no real estate transactions required to complete this project as all of the land and resources are tribally owned. Particularly given the impacts of COVID-19 on local unemployment rates, we do not anticipate challenges with labor availability locally. However, this is not to say that the project is wholly without risk. Potential risks and proposed mitigation strategies are below:

- **Environmental and Weather Delays:** The Port of Neah Bay's location means that sometimes access can be challenging, due to mudslides, downed trees, and road work. Weather can be extreme and winter storms frequently cause power outages that may last for several days. However, due to the shovel-ready nature of the project and our aggressive proposed timeline (see Table 3), we anticipate that, even if the project is conditions-delayed due to weather or access issues, it should still be completed within one additional year of the original timeline, in the spring of 2023.
- **Availability of contractors and construction materials:** There is an unknown risk of the potential impacts of the COVID-19 pandemic on the availability of contractors, labor and materials and the associated costs. The project cost estimates provided in this application assume pre COVID-19 conditions.

6 BENEFIT COST ANALYSIS SUMMARY

The Benefit-to-Cost Analysis (BCA) examined the economic benefits associated with the completion of the proposed project at the Port of Neah Bay. The completion of the project would allow for medium and large oil spill responses from Port of Neah Bay, eliminate the need for existing response vessels to leave the harbor in extreme low tides and reduce the annual maintenance of existing Port of Neah Bay Marina.

Oil spill response benefits are calculated based on the findings of 2015 Vessel Traffic Risk Assessment (VTRA) report by Washington State Department of Ecology and the United States Environmental. The report elaborated on how probability of oil spills for different sized event categories are expected to increase over the upcoming years. The BCA considers the current and future probabilities of large events (over 100,000 gallons) described in the VTRA to estimate benefits associated to a quick and effective response from the Port. The ability to respond to these events will generate total benefits of \$40,155,276 over the analysis horizon discounted to 2018 at 7%.

Under the current conditions, due to existing draft limitations in the dock, response vessels and tugs need to leave the bay during extreme low tidal events (about 60 time per year). The project will generate environmental, operational and maintenance benefits by eliminating this need and saving labor and fuel needed for vessels to leave the harbor. Over the analysis horizon total



benefits from elimination of the need for existing vessels to leave the harbor in extreme low tides will be equal to \$1,183,782 discounted to 2018 at 7%.

The completion of the project will also reduce the annual maintenance costs of mooring the existing prevention and response vessels at the marina. Since the marina docks were not designed for these vessels, annual maintenance costs of the dock have risen above the baseline. Completion of the proposed project will provide a new mooring for existing vessels and reduce the maintenance costs of the existing marina. Over the analysis horizon total benefits from reduction in maintenance cost of the marina will be equal to \$94,668 discounted to 2018 at 7%.

This BCA reflects USDOT’s standard guidance regarding forecast periods and discount rates. As such, all estimates were calculated over a 30-year forecast period, starting in 2023, after the project’s completion. The project has been determined to have a **Benefit-Cost Ratio of 2.24 at a 7% discount rate.**

Table 4. Benefit Cost Analysis Summary

Category	Present Value \$2018 at 7% discount rate
Environmental Sustainability due to prevention of oil spills	\$40,155,276
Prevented vessel traveling due to low-low tide events (including emission reduction, value of time and fuel operational costs)	\$1,183,782
Operating and Maintenance	-\$5,415,961
State of Good Repair	\$94,668
Total Benefits	\$36,017,765
Residual Value	\$895,014
Design and Construction Costs	\$16,450,804
Benefit-to-Cost Ratio	2.24
Net Present Value	\$20,461,974



7 NOTES AND REFERENCES

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