

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
STAFF BRIEFING

Item No. 6A

Date of Meeting December 3, 2019

DATE: November 20, 2019

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tong Zhu, Chief Commercial Officer

Project Managers: Tony Warfield, Environmental Senior Project Manager,
Catherine Chu, Capital Project Manager
Ryan McFarland, Federal Government Relations Manager

SUBJECT: Briefing on Seattle and Tacoma Harbor Deepening

A. BRIEFING REQUESTED

Staff seek to brief the Managing Members on the status of the Seattle and Tacoma harbor deepening efforts being conducted in partnership with the US Army Corps of Engineers (Corps).

B. SYNOPSIS

The US Army Corps of Engineers (Corps) maintains the federal navigation channels in the United States. Corps projects to improve federal waterways follow a set process that begins with a study to determine the federal interest to make the improvements. The process takes place under the Corps' 3x3x3 Smart Planning process and is expected to take no longer than 3 years and cost no more than \$3 million. The Northwest Seaport Alliance (Alliance), as the non-federal sponsor, has authorized the payment of 50% of the cost of the study, or \$1.5M. The homeports asked the Corps to study the feasibility of deepening the East, West, and Blair Waterways to accommodate big ships.

The Feasibility Study to deepen Seattle Harbor East and West Waterways began in 2014 and was completed in 2018. Congress authorized the project in October 2018 making the project eligible for congressional appropriation for design and construction. Staff hope funding will be approved expect for North Harbor Preconstruction Engineering and Design as part of the FY 2020 Corps Work Plan. Once the project is federally funded for Preconstruction Engineering & Design, we will seek authorization for a design agreement with the Corps of Engineers, seek funding authorization for our share of the design costs, and will begin the design phase for the West Waterway. The Seattle Harbor Deepening project is expected to be designed and constructed in two phases, with the West Waterway design to begin as early as in FY 2020, pending funding authorizations, and with construction completion expected in

2024. East Waterway is expected to begin after completion of the West Waterway, and completion of the East Waterway could be more than 10 years out.

Since staff gave the Managing Members a full project briefing on the North Harbor project on December 5, 2017, this briefing is intended to focus on the South Harbor project.

The Tacoma Harbor formally began the process to deepen the Blair Waterway in August 2018. The Corps will publish the public review draft of the feasibility study and Environmental Assessment the first week of December of 2019. The Port of Tacoma is working with the Corps to study the feasibility of using dredge materials from this effort to build over 60 acres of nearshore habitat in Commencement Bay. The Corps Agency Decision Milestone is expected in April 2020, with a final Feasibility Report and Environmental Assessment in December 2020, and Chief's Report June 2021.

C. BACKGROUND

The shipping industry is rapidly increasing the size of ships to realize savings through economies of scale. These ships can carry more containers, lowering the unit cost per container when factoring in the costs of assets, labor and fuel. Smaller, less efficient ships are leaving the market and being scrapped. Within 10 years, the Alliance has seen an increase in the average ship size, and now sees regular calls of ships in the 10,000-14,000 TEU range. Almost all of the new ships being built are larger than 10,000 TEU. The industry is also consolidating into fewer, larger shipping lines. The top 5 shipping lines control 79% of the fleet capacity of ships 9,000 TEU or larger.

Ports in North America are investing in infrastructure to handle these ships efficiently, and the evolution of ship size is likely to mean consolidation of the industry to fewer, larger terminals that can handle large ships efficiently. These ships have drafts up to 54'. With the additional 10% of draft under keel required by the Puget Sound Pilots for safe transit, channel depth needed for a fully laden ship is -57' at Mean Lower Low Water (MLLW). Currently the berths and navigation channels in the Seattle Harbor are at -45' to -51' and in the Tacoma Harbor, the Blair Waterway, is -51' MLLW.

The Port of Prince Rupert has 60' of water or deeper at berth, and the Ports of LA and Long Beach have either completed projects, or are in the planning process, to construct deeper channels and berths at the majority of their container terminals.

Because the Pacific Northwest is rich in export cargo like seafood, agricultural and forest products, which are very heavy, ships need to be able to arrive and depart our port at their fully laden draft. If ships are restricted in movement by depth, they must either depart without a full payload of cargo or wait on the tide for enough water. These measures create financial and operational impacts through less efficient ships and terminal operations. The economics of less efficient ships could mean our gateway loses future business to those ports with water depth to handle them.

Federal navigation improvement projects take 10 years or longer and below is the general process:

Feasibility Process: The Corps' process for a Feasibility Study consists of various milestones, culminating in the final Chief's Report that is sent to Congress. The non-federal sponsor participates in the study in multiple ways, including performing designated work in-kind in lieu of cash funding. In both studies, this consisted of staff time for management of the study and meetings with the Corps, costs associated with public National Environmental Policy Act (NEPA) outreach meetings, contracts for outside vendors to conduct cargo, and vessel forecasts, graphics for the presentation materials and study documents, sediment sampling, data for the economic study, and other information, as well as expenses for two pilots to attend a ship simulation at the Corps' Engineer Research and Development Center in Vicksburg, MS.

Feasibility Study milestones include the following stages:

Alternatives Milestone – public scoping meetings, forecast future with/without project scenarios and arrive at alternatives to be studied.

Tentatively Selected Plan Milestone – the team more fully develops the best alternatives, identifies costs to implement each alternative, performs a cost/benefit analysis, sometimes performs a ship simulation, and arrives at a plan that is in the national interest according to its National Economic Development objectives and modeling.

Agency Decision Milestone – feasibility level analysis including environmental review, agency technical review, additional public review and initial policy review, assessment of public comments.

Civil Works Review Milestone – more thorough review of the analysis, some design work completed, certification of cost estimates and other work, complete policy review.

Final Report Milestone – Final report released to Chief Engineer.

Chief's Report Milestone – Chief Engineer signs and sends to Congress for authorization.

After the Feasibility Study is authorized and funding is appropriated, the next project stages are Preconstruction Engineering and Design (PED) and Construction. The non-federal sponsor also has a cost share obligation for these next stages, with a more varied percentage rate. Estimates of cost will be developed in Feasibility and refined in PED. Because berth infrastructure must also be at a depth to support the deepening, it is expected that the waterway improvements will take place in the outer reaches rather than the entire Blair Waterway.

D. CURRENT STATUS

The Draft Tacoma Harbor Feasibility Study and Environmental Assessment is expected to be published for public comment this December. Public meetings on those documents are expected January of 2020.

Schedule

Public Comment on Draft Reports	December 2019 through January 2020
Agency Decision Milestone	April 2020
Final Report and Environmental Assessment	December 2020
Chief's Report	June 2021

The Tacoma Harbor Deepening Project is expected to be designed in two phases and constructed in three phases. Staff anticipate congressional Authorization in 2022. Preliminary Preconstruction and Design (PED) Engineering would begin shortly thereafter. The earliest of the three construction phases is anticipated starting no earlier than 2025 and possibly as late as 2027.

E. COSTS

TACOMA HARBOR

Item	Total Cost	Federal	Port
Blair Waterway through Husky	\$48M	\$23M	\$25M
Blair Waterway Husky to WUT	\$136M	\$66M	\$70M
Turning basin including PCT	\$57M	\$23M	\$34M
Saltchuk (beneficial material use)	\$11M	\$7M	\$4M
Total Federal Project Costs	\$252M	\$119M	\$133M
<i>WUT berth and slope stability</i>	<i>\$44M</i>	<i>0</i>	<i>\$44M</i>
<i>Husky berth and slope stability</i>	<i>\$24M</i>	<i>0</i>	<i>\$24M</i>
<i>PCT berth and slope stability</i>	<i>\$44M</i>	<i>0</i>	<i>\$44M</i>
Total Non-Federal Costs	\$112M	0	\$112M
Total	\$364M	\$119M	\$245M

Note: Lines in *italics* (shaded yellow) are not part of the federal project but are necessary at some point to make use of the newly deepened federal channels.

F. FINANCIAL IMPLICATIONS

The NWSA opted to fund the Feasibility Study for the Tacoma Harbor consistent with its funding for the Feasibility Study for the Seattle Harbor. The estimated timeline for work in the Tacoma harbor currently falls outside the five-year capital investment plan. Future contributions beyond funding the studies by the NWSA have not been determined.

G. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

No Action: Do not engage in a harbor deepening with the Corps of Engineers. This action would save considerable capital but would place operational and vessel constraints on the Tacoma Harbor significantly weakening its competitive position.

Seek Federal Status for Sitcum Waterway: Currently the Sitcum Waterway is not a federal channel and thus has no authorized depth. The Port of Tacoma considered seeking federal authorization for a federal channel in the Sitcum but determined that given how small a channel in that area would be compared to the total project area and costs determined it not to be financially advisable.

H. ATTACHMENTS TO THIS REQUEST

- PowerPoint presentation

I. PREVIOUS ACTIONS OR BRIEFINGS

Seattle Harbor

<u>Action</u>	<u>Amount</u>
Commission Authorization – Port of Seattle	\$1,500,000
Commission Briefing – Port of Tacoma & Port of Seattle	\$0
Commission Authorization—Port of Tacoma & Port of Seattle Letters of Agreement with Muckleshoot Indian Tribe and Suquamish Tribe	\$0
TOTAL	\$1,500,000

The study is complete and total NWSA spending was approximately \$1.3 million.

Tacoma Harbor

<u>Date</u>	<u>Action</u>	<u>Amount</u>
	Executive Authorization	\$0
August 14, 2018	Managing Member Authorization –	\$1,500,000
TOTAL		\$1,500,000

The study is still underway and total NWSA spending through August is approximately \$1.0 million.

J. RISKS

- The Corps assumes a unit cost in the stretch from Husky to WUT that is 2.3 times higher than the rest of the project. That assumption is based on trying to avoid Tribal property and the contamination on its banks. The Port has existing agreements with the Puyallup Tribe of Indians to cutback the Blair Waterway, including cleaning up the bank on their

property. The Corps will not accept that agreement as a solution until such time as navigational easements and a cleanup plan are in place. Alternatively, the Port and Corps could explore operational constraints in that area avoiding the need for expensive underway structures. Either way, the fundamental risk is the Corps maintaining the existing design solution and thus keeping the cost in the area 2.3 times higher than necessary

K. NEXT STEPS

- Send letter of support for the Corps' process
- Complete the feasibility study with the Corps.
- Determine the appropriate project phasing given Tacoma Harbor facility usage and leases.