PROJECT ACTION MEMO

Port of Tacoma Commission

Item No: 6A
Meeting Date: 11/21/23

DATE: November 13, 2023

TO: Port of Tacoma Commission

FROM: Eric Johnson, Executive Director

Sponsor: Tong Zhu, Chief Commercial & Strategy Officer

Project Manager: Tony Warfield, Sr. Project Manager

SUBJECT: Blair Waterway Navigation Channel Project Authorization and Design Agreement Approval (Tacoma Harbor Navigation Improvement Design Agreement and Authorization)

A. **ACTION REQUESTED**

Request Authorization for the Executive Director to enter into the Tacoma Harbor Navigation Improvement Design Agreement with the US Army Corps of Engineers and project authorization in the amount of $5,615,000 for a total authorized amount of $5,615,000, for work associated with the Blair Waterway Navigation Channel Deepening Design, Master Identification No. 101651.01.

Strategic Plan Initiatives: EV-2, TA-1 and EL-4.

B. **SYNOPSIS**

In August 2018, the Northwest Seaport Alliance (NWSA) signed an agreement with the US Army Corps of Engineers (Corps) to conduct a feasibility study of deepening the Blair Waterway navigation channel in Tacoma. That study was completed May 2022 with a signed Chief's Report and recommendation that the project move forward. Congress authorized the project and approved funding in December of 2022. The Port of Tacoma (Port) has been working with the Corps to develop a design agreement to move the project from the Feasibility stage through final design.

C. **BACKGROUND**

Container ships are getting much larger. Previously ships generally carried a few thousand twenty-foot equivalent units (TEUs). Now ships are calling the Puget Sound gateway that are often twelve to fifteen thousand TEUs. Soon ships carrying eighteen plus thousand TEUs will be typical. As ships have gotten larger their draft requirements have significantly increased. In the 1990s, depths of minus forty-two feet Mean Lower Low Water (MLLW) would suffice. In the earlier part of this century minus fifty-one feet MLLW was necessary. Going forward, depths of approximately minus fifty-seven feet MLLW will be necessary.

To remain competitive in the international container shipping business, ports must be able to handle the largest ships calling at their locations. For Seattle and Tacoma Harbors that means handling super post Panamax ships carrying eighteen thousand plus TEUs.

To do so, navigation channels and berth areas at international terminals must be deepened to approximately minus 57 feet MLLW plus up to two feet of over dredge.

The Corps completed a Feasibility Study and Environmental Assessment that found deepening the Blair Waterway would have a substantial return on investment. That deepening effort was found to have a benefit/cost ratio of over ten (for every dollar invested 10 would be returned to the US economy as part of this effort). The federal government generally only requires a cost/benefit ratio of three for a project to move forward.

Given the need and potential return on investment, the Port/NWSA established a dredging program to modernize the Blair Waterway. That program of work includes dredging the navigation channel, deepening berth areas at international container terminals and using some of the clean dredge material for habitat improvements. This request is focused on the navigation channel.

D. **PROGRAM DETAILS**

The total Tacoma Harbor Deepening Program was discussed in detail in a March 7, 2023, NWSA Managing Member memo. It is a program of work that will include approximately nine individual, but closely related projects. In short, that Program's scope and schedule includes:

- Design of the Navigation Channel with the Corps Q4 2023-2026
- Design of berth areas, the Tru-Grit/CanAm cleanup, and habitat improvements 2023-2025
- Construction of Husky Berth area improvements, the Tru-Grit/CanAm cleanup and potentially habitat improvements 2025-2026
- North navigation channel dredging 2026-2027
- Construction of WUT improvements and potentially habitat improvements 2026-2027
- Mid-navigation channel dredging 2027-2028
- Construction of PCT improvements 2027-2028
- South navigation channel and turning basin dredging 2028-2029

Scope of this Project:

- Design of Blair Waterway navigation channel dredge
- Sediment characterization for navigation channel
- Ship Simulation to inform final design of navigation channel and potentially the East Commencement Habitat Opportunity (ECHO) area
- Design of protective berm at ECHO area including coastal engineering analysis
- Close coordination with the Puyallup Tribe of Indians, US Coast Guard, Puget Sound Pilots and Department of Natural Resources regarding design concepts for ECHO

Project Schedule:

Sign Design Agreement	December 12, 2023
Establish Design Team	Q4 2023
Ship Simulation	Q4 2024
Final Design	Q2 2026

E. **FINANCIAL SUMMARY**

Estimated Cost of This Project
The Port's total estimated cost of the Design for this project is $5,615,000. This includes $5,265,000 as part of the design agreement with the Corps and $350,000 in staff time. Of the $5,265,000 owed the Corps approximately $3,110,000 of it will be provided as Work In Kind (WIK). Services by the Port for WIK include:

- Participation in ship simulation
- Participation in design review
- Sediment suitability sampling
- Potentially geotechnical investigations and analysis
- Public, stakeholder, and Tribal outreach

If the cost of this estimate is anticipated to exceed the authorized amount, additional Commission authorization will be requested.

Estimated Total Cost Dredge Program

The total known program costs are $150,063,000 to the Port and NWSA. Unknown costs include the Tru-Grit cleanup and the design and construction of the PCT berth areas. Of the known cost approximately $53M would be applied to the NWSA and $97M to the Port of Tacoma.

Estimated Sales Tax
The total estimated sales tax to be paid to local and state governments for this project is not yet determined.

Anticipated Navigation Channel Cost Details

Item	This Request	Total Previous Requests	Total Request	Total Project Cost	Cost to Date	Remaining Cost
DESIGN	$5,615,000	$0	$5,615,000	$5,615,000	$0	$5,615,000
CONSTRUCTION	$0	$0	$0	$ 85,000,000	$0	$ 85,000,000
TOTAL	**$5,615,000**	**$0**	**$5,615,000**	**$90,615,000**	**$0**	**$90,615,000**

Source of Funds
The current Capital Investment Plan (CIP) allocates $81,000,000 for this project. As cost estimates are refined in the design process, the CIP will be updated as necessary.
Financial Impact
The project costs will be capitalized as Land so there will be no depreciation expense.

F. **DREDGING PROGRAM COSTS**

Item	Project Cost	Cost to Date	Remaining Cost	Fund Source
Feasibility Study	$ 1,783,000	$ 1,783,000	$0	NWSA
Nav Channel Design	$5,615,000	$0	$5,615,000	Port
Nav Channel CONSTRUCTION	$ 85,000,000	$0	$ 85,000,000	Port
Tru-Grit Cleanup Design*	$75,000	0	$75,000	Port
Tru-Grit Cleanup Construction	TBD	$0	TBD	Port
ECHO Design	$1,100,000	$1,460	$1,098,535	Port
ECHO Construction	$5,350,000	$0	$5,350,000	Port
Husky Design	$2,112,500	$12,037	$2,100,463	NWSA
Husky Construction	$18,407,500	$0	$18,407,500	NWSA
WUT Design	$2,532,500	$11,124	$2,521,376	NWSA
WUT Construction	$28,087,500	$0	$28,087,500	NWSA
PCT Design	TBD	TBD	TBD	NWSA
PCT Construction	TBD	TBD	TBD	NWSA
TOTAL**	**$150,063,000***	**$1,807,621**	**$148,255,379***	

*** SAMPLING COSTS TBD**
****** DOES NOT INCLUDE TRU-GRIT CONSTRUCTION OR ANY COSTS ASSOCIATED WITH PCT.

G. **ECONOMIC INVESTMENT/JOB CREATION**
This project fits into a much larger program of work to modernize the Blair Waterway. That work started with the strengthening of the Pier 3 crane rail over a decade ago and has continued with the realignment and strengthening of Pier 4, new cranes at Husky and WUT, crane raising at PCT, and the various dredging and environmental projects as discussed above.

H. **ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS**
Alternative 1) No Action. Do not team with the Corps to design a deepening project for the Blair Waterway navigation channel. Navigation channel remains at -51’ and likely do not deepen berth areas.

Alternative 2) Team with Corps to deepen the Blair Waterway navigation channel in the context of the larger Blair Waterway deepening program.

Alternative 2 is the recommended course.

I. **ENVIRONMENTAL IMPACTS/REVIEW**

Permitting: The Corps is responsible for obtaining approvals to deepen the navigation channel. The Corps does not permit their own work, but has completed consultation under the Endangered Species Act. The Corps will lead obtaining any other necessary approvals.

Remediation: The Feasibility Study assumes 16% of the dredge material will not be eligible for open water disposal and will need to be disposed of at an approved upland facility. Under a different authorization, the Port intends to remove contaminated material near Parcel 115 prior to the Corps dredge of the north portion of the waterway. Similar cleanup work may be necessary near the Tribe's Blair Backup property and/or other properties contingent on the results of sediment sampling.

Stormwater: N/A

Air Quality: There will be some minor temporary negative construction impacts. However, according to the Corps' Tacoma Harbor Deepening Feasibility Study/Environmental Assessment, having larger vessels calling less often is likely to improve air quality.

J. **PREVIOUS ACTIONS OR BRIEFINGS FOR THIS PROJECT**

Date	Action	Amount
March 7, 2023	Managing Member Dredge Program Briefing	$0

K. **ATTACHMENTS TO THIS REQUEST**

- Slide presentation.
- Draft Blair Waterway Navigation Channel Design Agreement

L. **NEXT STEPS**

- Executive Director signs Design Agreement with Corps December 12, 2023
- Establish design team with Corps Q1 2024
- Ship Simulation Q4 2024