

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
ACTION ITEM

| | |
|------------------------|----------------------|
| Item No. | <u>5C</u> |
| Date of Meeting | <u>April 7, 2020</u> |

DATE: March 24, 2020

TO: Managing Members

FROM: John Wolfe, CEO
Sponsor: Tong Zhu, Chief Commercial Officer
Project Manager: Tony Warfield, Environmental Senior Project Manager

SUBJECT: Tacoma Harbor Deepening

A. ACTION REQUESTED

Staff requests an increase in project authorization in the amount \$129,000 for a total authorized amount of \$1,629,000, for work associated with the Tacoma Harbor Deepening project, Master Identification Nos.201060.01 and 201060.02.

B. SYNOPSIS

The Northwest Seaport Alliance (Alliance) in cooperation with the US Army Corps of Engineers (Corps) is evaluating the feasibility of deepening the Blair Waterway to accommodate ultra large super post-Panamax container ships in the South Harbor. Staff seeks an increase in authorization of \$129,000 to cover the remainder of our obligation to the Corps, staff time and contract contingency to address Puyallup Tribal fishery and other environmental concerns, and complete the feasibility study.

C. BACKGROUND

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 Northwest Seaport Alliance (Alliance), as the non-federal sponsor, 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 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 (twenty-foot equivalent unit) 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 outlined 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. This consists 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.

D. PROJECT SCHEDULE

| Activity/Milestone | Timeframe | Notes |
|---------------------------------------------------|---------------------------|----------------------------|
| Kick-off (Agreement Signing) | Aug 21, 2018 | Complete |
| Alternatives Milestone | Nov 19, 2018 | Complete |
| Public scoping | Jan-Feb 2019 | Complete |
| Tentatively Selected Plan | Oct 21, 2019 | Complete |
| Publish Draft Study and EA Start 60-day review | Dec 6, 2019 | Complete |
| Public Comment on Draft Reports | Dec 2019 through Jan 2020 | Complete |
| Agency Decision Milestone | Apr 16, 2020 | |
| Final Report and EA | Dec 2020 | |
| Chief’s Report | Jun-Aug 2021 | |
| Congressional Authorization/Begin PED | TBD | Earliest 2022 |
| Phase 1 Construction | TBD | Earliest 2024, likely 2025 |

EA = Environmental Assessment
 PED = Preconstruction Engineering & Design

E. FINANCIAL IMPLICATIONS

Project Cost

| | Original Authorization | This Request | Total Project Cost | Cost to Date | Remaining Cost |
|----------------------------|------------------------|-------------------|---------------------|---------------------|-------------------|
| Feasibility Study | \$ 1,500,000 | | | | |
| Complete Feasibility Study | | \$ 129,000 | \$ 1,629,000 | \$ 1,414,000 | \$ 215,000 |
| Total | | \$ 129,000 | \$ 1,629,000 | \$ 1,414,000 | \$ 215,000 |

Project Cost Details

| Cost Item | Cost to Date |
|-------------------------|--------------------|
| Direct payment to Corps | \$800,000 |
| Consultants | \$375,000 |
| Staff Time | \$227,000 |
| Misc. | \$12,000 |
| Subtotal | \$1,414,000 |

| Remaining Cost Item | Remaining Cost |
|------------------------------|------------------|
| Direct Payment to Corps | \$150,000 |
| Staff Time | \$40,000 |
| Comment Response Contingency | \$25,000 |
| Total Costs | \$215,000 |

The Corps has agreed to \$550,000 in Alliance Work In Kind (WIK) payments. This amount is subtracted from the \$1,500,000 the Alliance originally agreed to pay the Corps for the Feasibility Study leaving a \$950,000 direct cash payment owed to the Corps. The \$375,000 paid to consultants (sediment characterization and Sitcum feasibility analysis), \$12,000 of miscellaneous costs (support public meetings, graphics and travel of Alliance/Port staff and Puget Sound Pilots to Vicksburg, MS for ship simulation), total estimated Alliance staff time of \$267,000 and \$25,000 in contract contingency total \$679,000. This will exceed the \$550,000 allotted for Alliance WIK by \$129,000.

Source of Funds

The current Capital Investment Plan (CIP) Budget allocates \$1,629,000 for this project, of which \$1,414,000 has already been spent.

Financial Impact

Project costs will be expensed as incurred. The 2020 budget included \$389,000 in expense for this project. This increase in expense is expected to be offset by other spending savings during the year and will not materially impact the Alliance/Port's financial performance.

F. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1) Do Nothing. Corps will stop working on the project once their portion of the local sponsor funding is spent.

Alternative 2) Authorize an additional \$129,000 to cover our funding obligation to the Corps and staff time to continue to support the feasibility study, Environmental Assessment and address Tribal concerns.

Alternative 2 is the recommended course.

G. ENVIRONMENTAL IMPACTS/REVIEW

Permitting: To be completed by Corps during Preconstruction Engineering and Design (PED). Berth areas to be designed, permitted and constructed by Alliance/Home Port.

Remediation: Evaluated in Draft Environmental Assessment (EA). Corps' current working assumption is 16% of material is unsuitable for open water disposal. None of that material is anticipated to meet criteria for hazardous waste.

Stormwater: Evaluated in Draft EA. No impacts are anticipated.

Air Quality: Evaluated in Draft EA. Finds both per container and overall reductions in air emissions as larger more efficient ships displace smaller less efficient ships.

H. ATTACHMENT TO THIS REQUEST

- Computer slide presentation.
- Puyallup Tribe of Indians letter to Corps

I. PREVIOUS ACTIONS OR BRIEFINGS

| <u>Date</u> | <u>Action</u> | <u>Amount</u> |
|------------------|--------------------------------|--------------------|
| December 3, 2019 | Managing Members Briefing | \$0 |
| August 14, 2018 | Managing Members Authorization | \$1,500,000 |
| TOTAL | | \$1,500,000 |

Attachment: Letter and Comments from Puyallup Tribe of Indians



Puyallup Tribe of Indians



February 14, 2020

VIA U.S. MAIL AND ELECTRONIC MAIL

U.S. Army Corps of Engineers
Seattle District
CENWS-PMP
PO Box 3755
Seattle, WA 98124-3755

Re: Tacoma Harbor Draft Feasibility Report and Environmental Assessment

The Puyallup Tribe of Indians hereby submits the attached comments to the Draft Feasibility Report for the Tacoma Harbor Navigation Study (“the Draft Study”) that was released for public comment on December 18, 2019. We look forward to continued Government to Government Consultation on this project.

The Puyallup Tribe is a federally recognized Indian Tribe with its reservation located in Tacoma and surrounding communities in the State of Washington. The Tacoma Harbor Navigation Improvement project and its associated changes to operations within the Port of Tacoma are proposed to be conducted within and adjacent to the 1873 Survey Boundary for the Puyallup Tribe’s Reservation. In addition to other lands, the Tribe owns land that will be directly impacted by this project. The lands owned by the Tribe are located within the Port of Tacoma and used for Port operations, as restoration sites providing critical and essential fish habitat, as cultural sites, and as marinas for both recreational and commercial boat traffic. Certain Tribal Lands will be directly impacted by the Port’s need to cut back Tribal Properties to complete the dredging associated with the project. Tribal members reside within miles of the facility and conduct usual and accustomed cultural activities, including fishing and shellfish harvesting, within the project or near the facility in Commencement Bay.

The Tribe, through the Medicine Creek Treaty of 1854, has a treaty right to fish in the waters of Commencement Bay and surrounding Tacoma Harbor and waters that will be impacted by the development and use at the proposed project site. The impacts to the waters, shorelines, habitat, and surrounding shoreline properties and uses go to the heart of the Tribe’s culture and livelihood with potential impacts to fish, other wildlife, and natural resources, as well as impacts to the health and welfare of Tribal members. As is secured in Article VI, cl. 2 of the U.S. Constitution, the Treaty “shall be the supreme Law of the Land.” As affirmed by *U.S. v. Washington*, the rights arising from the Medicine Creek Treaty cannot be diminished or interfered with absent authority from Congress.



While the Tribe appreciates the work performed by the Army Corps of Engineers, the Draft Feasibility Study and Environmental Assessment lack necessary details and analysis to fully assess the impacts of the project. This facility is proposed on the 1873 Survey Area, and on what were once the ancestral lands of the Tribe. Since the Tribe's lands were taken, the lands have been significantly degraded by decades of heavy industrial use, leading to significant declines in fisheries and other natural resources that have directly impacted the life and culture of every Tribal Member. This project will disturb decades old contamination and environmental harms that have been deposited in the Blair Waterway. The impacts, if not fully assessed for avoidance, reduction, and mitigation may have dire consequences on the already heavily impacted natural and cultural resources of the Tribe. We implore the Army Corps of Engineers to complete an Environmental Impact Statement to identify and assess the full suite of impacts from the proposed project.

The Feasibility Study, by design, is focused on whether the project, if undertaken, provides a sufficient federal economic benefit to justify the expenditure of federal funds, and the Environmental Assessment is not designed to undertake the data analysis necessary to assess all the impacts associated with this project. The Blair Waterway, Commencement Bay, and the natural and cultural resources surrounding the project area are a complex, diverse ecosystem which are already heavily burdened. The waters contain three fish species listed under the Endangered Species Act which, in spite of over twenty years of regulated recovery efforts, are continuing to decline. These declines are heavily impacting Tribal members and endangered marine mammals. The project, and its associated dredging and future operations, have the potential to impact human health as well. The analysis to date does nothing to assess the both short term and long term potential human health impacts for this proposal.

The Corps and the Port have continued to propose a mitigation site, called the Saltchuck Site, to mitigate impacts and utilize any dredge material suited for disposal in the nearshore habitat. However, not enough is known about the sediments or the impacts of such a use to determine if such an exercise would result in mitigation benefits. It is also unknown how long it would take to see any measurable benefit from such a project. The project must entail more than just deposit of the dredge material. For example, eelgrass will need to be planted for such a mitigation benefit to be realized. Yet the draft study does not address any of these concerns. It is impossible, without more, to know if the Saltchuck site is feasible, much less how long it may take to realize any mitigation benefit from such an undertaking. And EIS is necessary to evaluate the many details of such a mitigation proposal.

In addition to the above concerns and those in the attached technical comment document, the Tribe is concerned that the Draft Study fails to account for compliance with Tribal laws, the Land Claims Settlement or protecting Tribal Treaty Rights. The Corps, as part of its trust responsibility to the Tribe, must account for these matters in its analysis. Furthermore, while we appreciate the discussions we have had with the Corps, we are concerned that the Draft Study overstates the extent of consultation with the Tribe. Surprisingly, in evaluating structures and items impacted by the project, the Draft Study also fails to even mention the impacts and costs associated with relocating

the Tribe's boat on the impacted property, the loss of upland for the Tribe, and demolition of the structures on the impacted properties along the Blair Waterway.

The Tribe requests further government to government consultation to continue to receive and analyze the information necessary to evaluate this project. The Tribe again requests an EIS be prepared to complete the necessary review and evaluate all the cost and benefits of this project. Only after such review and evaluation can the Tribe ascertain the impact to the Tribe's Treaty Rights, natural resources, and cultural resources.

Please contact our legal counsel, Lisa A.H. Anderson at (253) 573-7852, to schedule further government to government consultation. Please also continue to work with all of our technical staff to exchange information and analysis in a timely manner. The Tribe reserves its rights to present additional comments throughout the review process.

Sincerely,

A handwritten signature in blue ink, appearing to read 'DZ Bean', with a horizontal line extending to the right.

David Z. Bean, Chairman
Puyallup Tribal Council

Attachment

Puyallup Tribe of Indians
Tacoma Harbor Deepening Draft FR/EA Technical Comments
February 14, 2020

The Puyallup Tribe provides the following preliminary technical comments on the Tacoma Harbor Deepening Draft FR/EA. The Draft represents a basic starting point for deeper analysis into the significant environmental impacts that can be expected from this proposal. However, due to the very basic and preliminary nature of the data collected and known to date, the Puyallup Tribe recommends further evaluation of the impacts through the process of development of an Environmental Impact Statement for the proposal.

The Tribe has the following specific comments regarding the document:

Executive Summary, Page III- The premise that no significant adverse effects to protected species and commercially important species is entirely unfounded. Long term disruption to the prey base will occur as a result of sediment dredging and unavoidable turbidity plumes that result from dredge tool operations, lifting of the clamshell bucket and dumping of slurry onto barges. Such a conclusion is entirely unsupported, rashly speculative and is entirely blind to the reality of a project of this scope, size and duration.

There is no commitment to construct the Saltchuk intertidal and subtidal restoration site. It currently is not included as part of the Tentatively Selected Plan (TSP). If the economics are not favorable to beneficially use a portion of the dredged sediments, it may not be included as part of the TSP at all, nor as a consequence receive federal funding. Even if the Port decided to build Saltchuk independently of the Blair Deepening project, non-federal funding for the project has not been secured. Substantial delay and temporal loss realizing environmental benefits associated with the project could realistically result if the restoration project is not included as part of the TSP.

Evaluation of beneficial use of the dredged material for construction of the Saltchuk restoration site is included in the TSP, possibly as part of any proposed mitigation for impacts for the project but such a conclusion is not clear. Ongoing evaluation of the Saltchuk site is pending the Corp's ecosystem restoration unit's decision to use a nearshore habitat valuation model. Tribal technical staff are not familiar with this model and have requested coordination with the Corps on this matter, yet no discussions have occurred to date. How will this model be used in making decisions about Saltchuk? What empirical data is included in the model? Furthermore, the speculative nature of

the Saltchuck project results in a complete lack of substantively viable compensatory mitigation for the proposal.

With the speculative nature of the Saltchuck project, no compensatory mitigation is proposed as part of the TSP. The failure to identify mitigation is based on a finding of “no significant adverse effects to protected species and no significant adverse impacts to commercially important species or protected marine mammals.” It is premature to make such a determination, particularly when data and analysis is lacking regarding the potential of the Blair deepening project to affect contaminated groundwater from several hazardous waste sites on the Blair Waterway. These sites are discussed further below.

Furthermore, there are tribal commercial harvesting areas for crab that will likely be impacted by extended construction activities (19 months over 3 years), ongoing shipping operations, and periodic maintenance dredging of the Blair Waterway. This will result in lost opportunities for the Tribe to harvest crabs and a diminishment of treaty rights as well as likely impacts to distribution and abundance of crabs in tribal harvesting areas.

The area near the mouth of the Blair Waterway supports a productive Dungeness crab (DC) treaty harvest. The migratory nature of the crab implies that individuals harvested in the area may spend time in the Blair. The dredging activity would cause mortalities as well as degrade the habitat for several years and ultimately affect abundance in the vicinity.

Puyallup Tribal shellfish biologists have found that DC abundance in the area follows a “boom and bust” cycle. Test fishing in the area shows that abundance is in the beginning of a “boom” phase. In case earlier test sampling was conducted during a “bust” phase, test fishing should be conducted in the near future.

The Saltchuck project would eliminate crab harvest area. It is unclear if DC would be displaced elsewhere or if the loss of habitat would result in a decrease in abundance. The shallow subtidal area proposed to be created may provide juvenile rearing habitat that may partially offset any decrease in adult habitat.

The EA Executive Summary states that “the Corps has coordinated with natural resource agencies and tribes on their concerns, conclusions, and recommendations regarding project impacts.” (p.iii) This is tribal technical staff’s first opportunity to review the Corp’s environmental analysis and resulting conclusions and recommendations. Overall, we find the environmental analysis to be incomplete and insufficient, preventing accurate conclusions regarding impacts to the tribal treaty fishery, natural resources, or to the tribal membership. Coordination has not occurred with us regarding our concerns, conclusions, and recommendations regarding project impacts.

Several avoidance and minimization measures to “ensure impacts are less than significant” (p.iii) are reportedly included in the EA. Avoidance and minimization measures are often discussed so generally throughout the document that it is

impossible for the reader to understand how impacts of the project will be adequately addressed. Specific avoidance and minimization measures need to be developed and included as a stand-alone section in the EA to afford an adequate opportunity to review relative to project impacts.

2.5 Planning constraints

The study has identified, as a constraint, that the project area is within Treaty-reserved usual and accustomed (U&A) fishing areas for the Tribe. As a result, the study concludes that plans will avoid or minimize impacts to tribal fishing consistent with treaty obligations.

The direct impacts of this are inconclusive in how fishing impacts will avoid an active Tribal Fishery to be consistent with treaty obligations. The duration of the work is unclear in how it could impact temporal treaty fishing times in the future. Also, there is no detail in how impacts will be minimized within the study. The long term permanent impacts to the Tribal fishery are also not identified.

3 Plan Formulation

3.2.1 No mention is given to forecasted changes in drive types used in new and larger ships as well as tug assist vessels. How will the use of azimuth drives affect sediment resuspension and the need for dredging as well as the need for maintenance of side slopes?

3.2.7 What is actually involved in slope strengthening? The term is not defined or explained.

4 Environmental Consequences

4.3 Figure 4.3 (p.63) does not include all mitigation and restoration projects that may be affected by the proposed deepening of the Blair Waterway. EPA Region 10 GIS (attached herein) developed a figure that includes the Earley and Slip 5 sites near the mouth of the Blair Waterway, the Fairliner site, as well as the Rhone-Poulenc wetland habitat sites. How will these restoration and mitigation sites be affected by construction as well as ongoing shipping operations? How will prop wash associated with ongoing shipping operations affect the substrates, as well as the biota of these sites?

4.3.2.1. Include EQC Riverboat and shoreside building as part of the list of facilities and infrastructure along the Blair Waterway. Costs to relocate and dock facilities should be included as part of the costs of the project.

4.4.2 It is not clear why section 4.4.2 is included here at all as it has no bearing on the surrounding environment.

4.7 Water Quality. Outer Commencement Bay, where Saltchuk is located, is 303d listed for bacteria, dissolved oxygen, PCBs, and Bis (2-ethylhexylphthalate). Where and when were the water quality and sediment samples leading to the listing taken? Were

the samples collected in the vicinity of where Saltchuk may be constructed? What were the sample concentrations? Confirmation sampling for these parameters should be repeated prior to construction of Saltchuk. If low dissolved oxygen or elevated PCBs in sediments persists in the vicinity of where Saltchuk may be constructed, project design should take this issue into account. We would like further coordination with the Port on these issues.

How is grading of the side slopes of the channel to prevent sloughing going to be done? Perturbations of side slope sediments may create preferential pathways for contaminated groundwater from adjacent hazardous waste sites, as well as re-suspend potentially contaminated sediments into the water column. How will this be prevented? How are 2:1 ratios going to be maintained? How are impacts to salmon and benthic organisms going to be avoided and minimized in these areas?

4.8 The project airshed is designated a maintenance area for PM_{2.5} and PM₁₀. The airshed is recently no longer a maintenance area for carbon monoxide or ozone. The preferred alternative, deepening the waterway to -57MLLW, will result in significant increases in these and other pollutant as well as greenhouse gasses (see Tables 4-13 and Table 4-16) yearly as a result of construction alone. A potential long-term overall reduction in these pollutants wouldn't be realized until 14 years down the road, if at all depending on the number of vessel calls dropping as expected from 590 to 428. In the long term, this estimate will be driven by market demand, so there is a high degree of uncertainty to the estimate. In the intervening time, for the first 14 years, there will be an additional 23,000 tons of greenhouse gasses emitted, 111 tons of nitrogen oxides as well as other pollutants that will be emitted. How are these impacts to people who live and work within the airshed, including the tribal membership, going to be avoided or mitigated? What additional control technologies may be implemented to mitigate these impacts? What are the cumulative effects of adding all these additional pollutants into an airshed that has only recently been designated a maintenance area?

4.10 Sea Level Rise considerations should encompass more than the deck height limits of different terminals along the Blair Waterway when comparing to 2050 and 2100 planning horizons. While berthing areas are mentioned in the impact analysis, planning horizons are connected to the terminal deck heights in the table. Inundation at supporting terminal modal yards will subject the viability of the investment earlier than impacts to the decks without proper shoreline armoring and seawall investments. The table should be connected to the lowest points of the waterway subject to inundation.

Additionally, modelling should include king tide event analysis connected to sea level rise. Where the report concludes small risks in the 2050 planning horizon and moderate risks in the 2100 horizon, not including king tide risks in conjunction with sea level rise will no take into account the costs necessary to protect properties, roads, and terminals active during those extreme events.

4.10.2 How will projected sea level rise actually be calculated into the dredging need and target depth? What factor(s) are being used and over what time period?

4.11 Based on the Phase I Site Assessment prepared by the Corps (Appendix H), there are 43 MTCA sites surrounding the Blair Waterway, along with 6 RCRA sites, 4 CERCLA sites, and 4 NPL sites. Fifteen of these sites have known contaminated groundwater and are located immediately next to Blair Waterway. The recommendation of the assessment is as follows: *potential side slope impacts should be evaluated relative to groundwater. The depth and flow regime of any adjacent groundwater plumes should be evaluated to determine if adverse impacts, specifically redirecting contaminated groundwater flow towards the channel, result from actions in the waterway.* When is this evaluation going to be done, what is the potential harm to the fishery and biota, and what actions are going to be undertaken to prevent contaminated groundwater from being directed towards the Blair channel as a direct result of the proposed project? The results of this and the other site investigations below should be included in the environmental impact analysis, subject to tribal and public review.

Two NPL sites, Commencement Bay Nearshore Tidelands and Glenn Springs Holdings (Occidental), are among the contaminated groundwater sites immediately next to the Blair Waterway. Will the proposed action adversely impact the partial de-listing of the operable unit associated with Blair waterway sediments? The Phase I Site Assessment also recommends confirmation that no impacts to the Occidental groundwater plume, located beneath the Blair-Hylebos peninsula, result from the dredge of the Blair waterway sediments. There is a potential preferential pathway of contaminants given the dense sands at -51 to -57 feet that have the potential to transmit contaminated groundwater. This investigation work needs to be included in the environmental impact analysis, subject to tribal and public review.

TruGrit Abrasives Incorporated is another site managed by the Washington State Department of Ecology under the MTCA program. The Phase I study also recommends confirming the side slopes of the proposed dredge prism do not overlap with the metal contamination in the sediments at the TrueGrit site. Results of the recommended investigation should be included in the environmental impact analysis as well. Without this information, the environmental analysis is incomplete and insufficient and prevents adequate tribal and public review of project impacts.

At the former Lincoln Avenue ditch site adjacent to the Blair Waterway, contamination remains in place along the shoreline below elevation 12 ft MLLW and extends 30 feet water ward from the top of bank. There are institutional controls in place that place limits on future construction to prevent release of contamination. Soil and sediments contaminated with arsenic, dioxin, and PCBs above relevant MTCA thresholds are present at the site. Contaminated groundwater is also present. Borehole data at the Lincoln Avenue ditch site indicates materials -51 to -57 feet primarily consists of dense sand and if disturbed, have the potential to transmit contaminated groundwater. The borehole location under the ditch overlaps with side slopes associated with the

proposed navigation channel. Given this overlap and presence of institutional controls, we understand coordination with the EPA is required. The results of further investigation work regarding the potential release of PCBs, dioxin and arsenic in the waterway as a result of the deepening should be included in the environmental analysis subject to tribal and public review. We are requesting coordination with the Corps and Port on the investigation and results of these hazardous waste sites.

4.12. One of the primary concerns of the tribes Fisheries program pertains to impacts to juvenile salmonids resulting from the dredging action and ancillary effects to the side slopes of the waterway. While we understand the side slopes are not targeted for deepening, it's likely some portions will succumb to gravity either immediately or subsequently to the dredging action. It is also likely that side slopes will subside and slump over time as a result of dredging. These areas need to be characterized uniformly to identify the contaminant risks associated with and in proximity to existing or prior industrial uses of the site.

Sites of concern include the TruGrit and former Martinolich Shipbuilding Company (Defunct since 1974) site that has been implicated for high concentrations of copper and zinc. Curiously, the Landau Associates Inc. RIFS Report (2014) for site #1294 is not even cited in the appendices yet provides perhaps the most recent and detailed analysis of sediment findings available. Additionally, this work indicates exceedances for these two elements at a depth approaching the -40' contour line and in immediate proximity to the targeted dredge boundary.

Little mention of benthic community types, species diversity, population estimates or recent characterization work of any kind is provided. Are we to assume that the Army Corps believes dredging impacts to these resources are inconsequential or that the benthic communities that will be eliminated are insignificant? The removal of up to 6' of sediment will effectively erase all established life from the sea floor hence setting the recovery clock back to zero.

The tribe is very concerned over the impacts to salmonid prey species that originate from these areas as well as the long term effects on prey base availability that may result from a multiyear, continuously operated dredging effort and subsequent loss of prey base in the water column. The proposed dredge area encompasses 214.5 acres and will take years to recolonize.

4.13.5 The review of previous studies concerning the impacts of contaminants on a variety of fish species are in agreement that short term sub-lethal effects are possible. However, no study has evaluated the synergistic effects of exposure to the many contaminants encountered during the outmigration period. Collective stressors including: altered habitat condition, diminished prey base, elevated TSS, and exposure to persistent organic compounds are just a few of the cumulative effects that contribute to diminished survival rates exhibited by salmonid fishes in Puget Sound over the last two decades.

Project mitigation strategies must reflect an awareness of cumulative effects and provide measureable improvements to this lowered baseline condition. Declining habitat productivity must be countered with offsets that not only mitigate for habitat injury but actually reverse the current trend of declining survival rates. Whether or not the Saltchuk concept will provide mitigation for this is unknown and will remain so for decades pending the findings from long term performance monitoring, trend analysis and comparisons of biological metrics of before and after conditions.

No mitigation provisions whatsoever are mentioned that might address the temporal loss of habitat suitability and displacement (work zone avoidance), prey base elimination, contaminant exposure and the additive nature of these impacts toward diminished survival rates in salmonid fishes.

4.13 Fish Concentrations of PCBs and other bioavailable contaminants are expected to increase during dredging due to re-suspension of contaminated sediments and expected to remain elevated in the food chain for about 2-3 years after completion of the project. What is the expected increase in the biota from these contaminants? What is the additional risk to the tribal membership and other populations that eat proportionately higher levels of salmon and seafood than other populations?

4.17 Cultural Resources. The proposed project area, including potential disposal areas are all within an area of high potential for impacting cultural resources. While the current Cultural Resource Analysis is satisfactory, the proposed project will require an inadvertent discovery plan, on-site monitoring and direct communication with the Tribal Historic Preservation Officer.

5.0 Tentatively Selected Plan

5.4 Real Estate Considerations

The Draft States:

The Blair Waterway is an existing Federal project. The Port of Tacoma granted in 1964 two perpetual easements (Tracts 100E & 100E-2) to the Corps for this project. The non-Federal sponsor (NFS) is required to furnish all lands, easements, rights-of-way, relocations, and disposal (LERRD) for the proposed widening and deepening. To address real estate interests, the NFS will obtain a channel improvement easement over the whole Federal channel south of the 11th street right of way. The sponsor will receive LERRD credits for the new lands needed on the expanded channel summarized in Table 5-2 below.

| Table 5-2 Lands Needed for NED Channel Tract | Interest | Owner | Acres |
|----------------------------------------------|------------------------------|------------------------------------------|-------------------------|
| 100E-3 | Channel Improvement Easement | PORT OF TACOMA | 146.5 (38.88 New Acres) |
| 101E | Channel Improvement Easement | PUYALLUP TRIBE OF INDIANS FEE LANDS | 2.22 |
| A | Channel Improvement Easement | USA IN TRUST (PUYALLUP TRIBE OF INDIANS) | 1.84 |

Costs of land acquisition may not include a Yellow-book Appraisal of Federal Trust Lands. Additionally, it is unclear how channel easements and cutbacks will impact existing Tribal assets along the channel (shoreside building, loss of square footage of land, etc). After channelization easements are established, will navigational buffers still be appropriate for existing EQC riverboat to be located back in its current location? Will the docking infrastructure need to be removed as part of the project effort? Will existing shoreside building have to be demolished?

Will the Tribe receive Appendix G – Real Estate Plan as one of the parties that are subject to the easement acquisition plan?

6.0 Compliance*

List of Laws for compliance does not include the Puyallup Land Claims Settlement or Treaty of Medicine Creek.

Appendix A, Economics, Sections 7.1.5

The Environmental Justice component of the study fails to mention the Puyallup Tribe whose lands the project interfaces with. The Medicine Creek Treaty of 1854 ceded the Tribe’s traditional usual and accustomed lands and established the Puyallup Reservation as the permanent homelands for the Puyallup people. The development of the tideflats over the next century would directly impact the Tribe’s tribal fisheries, dispossess it of its federally reserved homelands, and impact the Tribe’s ability to deliver essential services to its people. The Harbor Deepening Project encompasses the geography of the Blair Waterway, the Saltchuk Site, and disposal sites within Commencement Bay. The need for easements over tribal trust land and dredging and disposal of soils next to areas where tribal treaty rights are actively practiced need to be analyzed from an environmental justice perspective. The Puyallup Tribe will face disproportional impact compared to any other income group, ethnicity, or community of people. As our trustee, the federal government and thus the Army Corps has a legal

obligation and fiduciary duty, which should be recognized and elevate the review taken to a higher standard in this analysis. This fiduciary duty includes protecting treaty rights, lands, assets, and resources.

Appendix C.

3.0 The ratio of impacted area (Blair Navigation Channel) to proposed restored area (Saltchuk), is roughly 214.5: 64 acres or 3.35 to 1.

Impacts discussed above (Executive Summary comments) to the tribal commercial Dungeness crab harvest areas should be discussed here as well.



**THE NORTHWEST
SEAPORT ALLIANCE**
Gateway to Solutions

Item No: 5C_supp
Date of Meeting: April 7, 2020

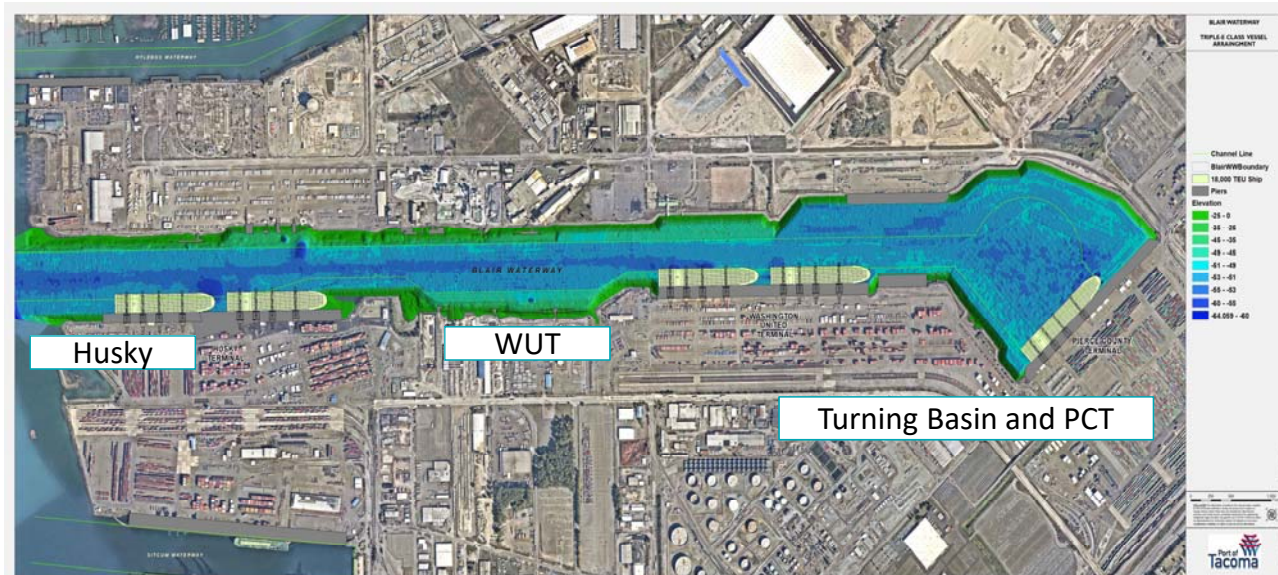
Project Authorization for Tacoma Harbor Deepening

Presenter: Tony Warfield
Title: Environmental Senior Project Manager

Action Requested Tacoma Harbor Deepening

Request increase in project authorization in the amount \$129,000, for a total authorized amount of \$1,629,000, for the Tacoma Harbor Deepening, Master Identification Nos. 201060.01 and 201060.02.

Blair Waterway Existing Conditions and Potential Ultra Large Ship Facilities





Background Tacoma Harbor Deepening

- Feasibility Study began August of 2018
- Completed:
 - Alternatives Milestone
 - Scoping
 - Tentatively Selected Plan
 - Public Comment Period
- Agency (Corps) Decision Milestone April 2020
- Final Feasibility Study and Environmental Assessment December 2020
- Chief's Report June-August 2021

Financial Implications Tacoma Harbor Deepening

- The estimated cost of the Alliance's obligations for the Feasibility Study is \$1,629,000.
- The current Capital Investment Plan (CIP) allocates \$1,629,000 for this project. The CIP will be updated during the 2021 budget cycle to include a construction estimate for 2024.
- This work and associated budget is consistent with the NWSA valuation.

Financial Summary Tacoma Harbor Deepening

| Item | Budget Estimate | Cost to Date | Remaining Cost |
|------------------------------|--------------------|--------------------|------------------|
| Consultants | \$375,000 | \$375,000 | \$0 |
| Direct Payment to Corps | \$950,000 | \$800,000 | \$150,000 |
| Staff | \$267,000 | \$227,000 | \$40,000 |
| Misc | \$12,000 | \$12,000 | \$0 |
| Comment Response Contingency | \$25,000 | 0 | \$25,000 |
| PROJECT TOTAL | \$1,629,000 | \$1,414,000 | \$215,000 |

Note: Original Authorization was for \$1,500,000

Environmental Impacts/Review Tacoma Harbor Deepening

Permitting:

- Channel to be completed by Corps during Preconstruction Engineering and Design (PED).
- Berth areas to be designed, permitted and constructed by Alliance/Home Port.

Remediation:

- Working assumption is 16% of material is unsuitable for open water disposal.
- No material anticipated to meet hazardous waste criteria.

Environmental Impacts/Review Tacoma Harbor Deepening

Stormwater:

- No impacts based on Environmental Assessment.

Air Quality:

- Environmental Assessments find reduction in per container air emissions.
- Environmental Assessments find total absolute reduction in long-term air emissions.

Conclusion Tacoma Harbor Deepening

Request increase in project authorization in the amount \$129,000, for a total authorized amount of \$1,629,000, for the Tacoma Harbor Deepening, Master Identification Nos. 201060.01 and 201060.02.



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