

# SEATTLE HARBOR NAVIGATION IMPROVEMENT PROJECT

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## APPENDIX H

### Public Comments and Agency Responses

### Final Integrated Feasibility Report and Environmental Assessment



**US Army Corps  
of Engineers®**  
Seattle District



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# 1 Introduction

This document responds to comments received on the Seattle Harbor Navigation Improvement Project (Project) Draft Integrated Feasibility Report and Environmental Assessment (FR/EA) by the U.S. Army Corps of Engineers (Corps). Comments were submitted verbally at the public meeting held in Seattle, Washington, on August 18, 2016. Comments were also received in writing through letters and electronic mail. A total of 16 comment submittals were received. All, but one of the comments were received during the 30-day open public comment period of August 2, 2016 through August 31, 2016.

## 2 Environmental Review Process

On August 2, 2016, the Corps released the Draft Integrated Feasibility Report and Environmental Assessment for public review. Printed copies of the FR/EA were available for public review at local public libraries. Additionally, the documents were available for public review on the following website: [tinyurl.com/SeattleHarborGI](http://tinyurl.com/SeattleHarborGI).

The public review and comment period on the FR/EA began on August 2, 2016, and closed on August 31, 2016. One public meeting was held to receive public comment on the FR/EA and Appendices in Seattle, Washington, on August 18, 2016.

## 3 Document Organization and List of Commenters

This document contains copies of comments received during the comment period followed by the Corps' responses to those comments. Each comment is numerically coded in the margin of the comment letter, based on the order of the comments presented in the letter. The comments and responses are presented as follows:

- Comments received at the public meetings, with responses (Section 4)
- Comments by email with responses (Section 5)
- Comments by mail with responses (Section 6)

A total of 16 comment submittals were received on the Draft Integrated Feasibility Study and Environmental Assessment. Each comment submittal was given a comment identification code. One comment was provided verbally at the August 18, 2016 public meeting. This comment submittal is identified as PM1. 13 comments were provided by email; these submittals are identified as E1 to E13. The remaining 2 comments were received by postal mail; these submittals are identified as M1 and M2. Each comment submittal is listed below in Table 1.

**Table 1: Public Comment Submittals received on the Seattle Harbor Navigation Improvement Project.**

<b>Comment Identification</b>	<b>Date on Letter/Email</b>	<b>Commenter</b>	<b>Organization/Affiliation</b>
<b>Comments received at the August 18, 2016 public meeting</b>			
PM1	8/15/2016	James Rasmussen	Duwamish River Cleanup Coalition
<b>Comments received via email</b>			
E1	8-10-2016	Kristin Meira	Pacific Northwest Waterways Association
E2	8-5-2016	Eric Schinfeld	Washington Council on International Trade
E3	8-5-2016	John P. Naylor	Western Distribution Services
E4	8-9-2016	Matt Harris	Washington State Potato Commission
E5	8-26-2016	Capt. Peter A. Giese	Private citizen
E6	8-30-2016	Maud Daudon	Seattle Metropolitan Chamber of Commerce
E7	8-30-2016	Don Schilling	Wesco International
E8	8-29-2016	Paul Torrey	Vigor
E9	8-26-2016	Paul Busnardo	CellMark, Inc.
E10	8-31-2016	Alison O'Sullivan	Fisheries Department, Suquamish Tribe
E11	8-31-2016	Mark H. Gleason	Washington Maritime Federation
E12	8-29-2016	Bob Watters	SSA Marine
E13	9-13-2016	Glen R. St. Amant	Fisheries Division, Muckleshoot Indian Tribe
<b>Comments received via postal mail</b>			
M1	8-5-2016	Laura Daniels	Anderson Hay & Grain Co., Inc.
M2	8-11-2016	Capt. David Grobschmit	Puget Sound Pilots

## 4 Public Meeting Comments and Responses

### 4.1 Comments Received at the August 18, 2016 Public Meeting – Public Meeting Transcript

NATIONAL HARBOR NAVIGATIONAL IMPROVEMENT PROJECT

-- PUBLIC COMMENTS --

South Seattle Community College

Georgetown Campus

6737 Corson Avenue South

Seattle, Washington

August 18, 2016

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SEATTLE, WASHINGTON; THURSDAY, AUGUST 18, 2016

6:55 P.M.

--oOo--

MR. RASMUSSEN. I am the director of the Duwamish River Cleanup Coalition, which is a community advisory group to EPA on the cleanup site, which is the Duwamish River. We were the technical advisory group to the community on the cleanup of the Duwamish River. I say that before I spell my name, because that way my time doesn't start yet. James, J-a-m-e-s, Rasmussen, R-a-s-m-u-s-s-e-n, a good Indian name.

The comments that I would like to make is that the community really needs to be able to see, specifically, exactly where the contaminated material is on the west waterway. It's already been cleaned up; it's already been capped. And, when you say we're going to dredge, the community really wants to understand where that is, where it is today, not necessarily where it was years ago when it was done, but where it is today, because we know that scour happens in that area, and we know that there's a lot of things that happen in that other area.

The other thing is, tonight is the first I've ever heard that we're also including the east waterway. And, when we're also including the east waterway, that means we're

PM1-1

PM1-2

1 actually increasing truck traffic. And, when you start  
2 saying about environmental effects, you need to seriously  
3 involve truck traffic as environmental effects of the  
4 community, because that has not really been dealt with as an  
5 issue to this point.

6 Now, what we would like to be able to see is  
7 that the Port can work with the communities that their truck  
8 traffic is working through that have some -- not some of  
9 the -- highest asthma rates in the state of Washington  
10 because of diesel particulate that go through their  
11 neighbors. And, when I look at your environmental effects,  
12 that is not really spelled out there. And, unfortunately,  
13 that is something that is incredibly important to the  
14 communities that this will affect.

15 So, when we're talking about both east and  
16 west waterway, increasing not just truck traffic by a little  
17 bit, meaning west waterway, but now also the east waterway  
18 we're increasing truck traffic by a large amount. The EPA is  
19 concerned about these things. These things are coming up in  
20 a lot of different studies throughout EPA. And we're  
21 worried, how can we work with these things. We want to be  
22 able to work with the Port of Seattle, but we also don't want  
23 you to get in the way, okay? So, when I asked you how  
24 come -- who was involved in that meeting in November in 2014,  
25 communities should have been involved so that you would have

PM1-2

1 heard about these things already.

2 Benefit/cost ratio -- you're not taking into  
3 account the health of the communities that have had to suffer  
4 under truck traffic in this neighborhood for generations, and  
5 you need to do that, because that is a cost that is being  
6 borne upon everywhere here. Thank you.

7 (Public comments concluded at 6:59 p.m.)

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PM1-2

## 4.2 Responses to Public Meeting Comments

### 4.2.1 Response to Public Comment PM-1

PM1-1: Thank you for your comments regarding the Seattle Harbor Navigation Improvement Project. The Corps has prepared a detailed map for the Seattle Harbor project depicting the location of relevant sediment remediation sites in relation to the project area. This map and general descriptions of sites is included in Chapter 4 of the Final Feasibility Report and Environmental Assessment.

PM1-2: A discussion of traffic impacts has been added to Section 4.18 (Public Health and Safety) of the Final Feasibility Report and Environmental Assessment. The planned changes for traffic engineering around the Port of Seattle are independent of the deepening project and are therefore not analyzed for how the alternatives affect the plans. The proposed navigation improvement to deepen the East and West Waterways would have no effect to traffic associated with the port terminals.

## 5 Individual Email Comments and Responses

### 5.1 Comment Letter E1 – Kristin Meira – Pacific Northwest Waterways Association



August 10, 2016

Nancy Gleason  
U.S. Army Corps of Engineers  
CENWS-PM-ER  
P.O. Box 3755  
Seattle, WA 98124

RE: Draft Feasibility Report for the Seattle Harbor Deepening Project

Dear Ms. Gleason,

Thank you for the opportunity to comment on the draft feasibility report for the Seattle Harbor Deepening project. On behalf of the Pacific Northwest Waterways Association (PNWA), I am writing to support the plan the U.S. Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor. Our region's world class ports have long helped the Pacific Northwest occupy a position among the nation's top export gateways. Deepening Seattle's navigation channels to 57' will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, protect U.S. jobs, and enhance the infrastructure that allows our region's farmers and manufacturers connect to global markets.

PNWA is a non-profit trade association that advocates for federal policies and funding in support of regional economic development. We represent over 135 public and private sector member organizations in Oregon, Washington, and Idaho. Members include public ports, navigation, transportation, trade, tourism, agriculture, forest products, energy and local government interests.

Deepening the East and West Waterways to 57' will allow the newest and largest ships to call at Seattle Harbor, a key location for the Northwest Seaport Alliance. The Northwest Seaport Alliance has a world class container facility at the Harbor, which is linked to two major rail lines, intermodal yards, and is in close proximity to the second largest distribution center on the West Coast. Deepening the channel to 57' will allow the Northwest Seaport Alliance to take full advantage of the benefits offered by the next generation of ships, and protect U.S. jobs and exports.

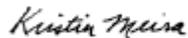
The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports just five years ago. Today the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs. Even larger vessels are expected within the next few years. As the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships, including deepening the federal channels serving its terminals.

Insufficient channel depths require ocean carriers to take on less cargo or delay departures. This increases the costs to shippers, especially for U.S. exports, which tend to be heavier than imports. It also has financial implications for ocean carriers and can induce them to discontinue services to a port. The NWSA competes with ports throughout North America, but competition is especially intense with the Canadian ports of Vancouver and Prince Rupert, which have no depth limitation. If the world's major ocean carriers reduce services to Puget Sound it will have serious repercussions for our region's and nation's economy.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Achieving this goal also requires deeper navigation channels. PNWA strongly supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

Thank you again for the opportunity to comment on this critical project for the Northwest.

Sincerely,



Kristin Meira  
Executive Director  
Pacific Northwest Waterways Association

#### 5.1.1 Response to Comment Letter E1

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.2 Comment Letter E2 – Eric Schinfeld – Washington Council on International Trade



August 5, 2016

To Whom It May Concern:

On behalf of the Washington Council on International Trade (WCIT) and its members, I am writing to support the plan the Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor. Our region's world class ports have long helped the Pacific Northwest occupy a position among the nation's top export gateways. Deepening Seattle's navigation channels to 57' will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, protect US jobs and enhance the infrastructure that allows our region's farmers and manufacturers connect to global markets.

WCIT is the only organization in Washington dedicated exclusively to advocating for public policies that increase our state's international competitiveness. On behalf of its members — manufacturers, farmers, retailers and service providers – WCIT advocates for trade policies and investments that benefit Washington's workers and employers.

The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports just five years ago. Today the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs. Even larger vessels are expected within the next few years. As the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships, including deepening the federal channels serving its terminals.

Insufficient channel depths require ocean carriers to take on less cargo or delay departures. This increases shippers' costs, especially for exports, which tend to be heavier than imports. It also has financial implications for ocean carriers and can induce them to discontinue services to a port. The NWSA competes with ports throughout North America, but competition is especially intense with the Canadian ports of Vancouver and Prince Rupert, which has no depth limitation. If the world's major ocean carriers reduce services to Puget Sound it will have serious repercussions for our region's economy.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Yet achieving this goal also requires deeper navigation channels. WCIT enthusiastically supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

Yours,



Eric Schinfeld  
President  
Washington Council on International Trade

### 5.2.1 Response to Comment Letter E2

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

### 5.3 Comment Letter E3 – John P. Naylor – Western Distribution Services



Western Distribution Services  
600 Powell Ave SW  
Renton, WA 98057

August 5, 2016

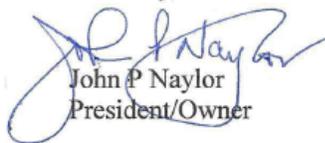
On behalf of Western Distribution Services LLC (WDS), I am writing to support the plan the Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor. Our region's world class ports have long helped the Pacific Northwest occupy a position among the nation's top export gateways. Deepening Seattle's navigation channels to 57' will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, protect US jobs and enhance the infrastructure that allows our regions farmers and manufacturers connect to global markets.

WDS is a 3 P/L company dealing with imports and exports in the food industry. The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports just five years ago. Today the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs. Even larger vessels are expected within the next few years. As the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships including deepening the federal channels serving its terminals.

Insufficient channel depths require ocean carriers to take on less cargo or delay departures. This increase costs, especially for exports, which tend to be heavier than imports. Food products in general faces intense competition in overseas markets. In this business environment, it is critical that our growers are able to access efficient, reliable supply chains. We also recognize that failing to provide adequate channel depths can have financial implications for ocean carriers and induce them to discontinue services to a port. If the world's major ocean carriers reduce services to Puget Sound it will have serious repercussions for our industry and our region's economy.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Yet achieving this goal also requires deeper navigation channels. WDS enthusiastically supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

Sincerely,



John P. Naylor  
President/Owner

Western Distribution Services, LLC 600 Powell Ave. SW Renton, WA 98057  
T: 425-970-6950 F: 425 9706952

### 5.3.1 Response to Comment Letter E3

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.4 Comment Letter E4 – Matt Harris – Washington State Potato Commission



WASHINGTON STATE POTATO COMMISSION  
108 INTERLAKE ROAD, MOSES LAKE, WA 98837  
PH: 509 765-8845 FAX: 509 765-4853 WWW.POTATOES.COM

August 09, 2016

Nancy Gleason  
U.S. Army Corps of Engineers  
CENWS-PM-ER  
P.O. Box 3755  
Seattle, WA 98124-3755

RE: Support for the Seattle Harbor Navigation Improvement Project

On behalf of Washington State potato growers, I am writing to provide comments supporting the Army Corps of Engineers (Corps) proposed plan for deepening the East and West Waterway in Seattle Harbor. Our regions ability to export is reliant on viable port infrastructure, including access to larger vessels. Deepening Seattle's navigation channels to 57' will help the Northwest Seaport Alliance (NWSA) remain globally competitive.

Our growers produced over 10 billion pounds of potatoes on 170,000 acres this past year. That harvested crop is mostly used in processing applications--for example, the production of frozen french fries, potato chips, and dehydrated potato products such as instant mashed potatoes. We also have a robust fresh potato and a growing chip stock industry which supports a resilient food security presence, domestically and around the globe. We estimate that 9 out of every 10 potatoes grown in Washington will leave the state. This production provides \$7.4 billion dollars in direct and indirect economic benefit while supporting more than 36,000 jobs. Improving our ability to access larger container vessels is necessary.

The largest container vessels calling West Coast ports today have roughly twice the capacity of those that serve Puget Sound ports five years ago. It is our understanding the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs. Larger vessels are being deployed and as the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships including deepening the federal channels serving its terminals.

Insufficient channel depths require ocean carriers to take on less cargo or delay departures. This increases costs, particularly for exports which tend to be heavier than imports. Please keep in mind, our potato products can be sourced from other international markets and delays in transit tarnish the reliability of our competitiveness. We also recognize that failing to provide adequate channel depths will negatively impact an ocean carrier's decision to call the NWSA. Our family farms cannot bear the cost of hauling potatoes to California for export services.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Yet achieving this goal also requires deeper navigation channels. We support the Seattle Harbor Navigation Improvement Project and thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Harris".

Matt Harris  
Assistant Executive Director  
Director of Governmental Affairs  
Washington State Potato Commission

### 5.4.1 Response to Comment Letter E4

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.5 Comment Letter E5 – Capt. Peter A. Giese – Private Citizen

**From:** [Peter Giese](#)  
**To:** [SeattleHarbor](#)  
**Subject:** [EXTERNAL] Seattle's future  
**Date:** Friday, August 26, 2016 10:38:45 AM

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COE,

I strongly urge you to deepen Seattle's harbor. If the plan is technically feasible and environmentally sensible, for Seattle to remain a port of choice, it must be completed. Shippers have been paying for the harbor to be maintained but the funding, at this time, is funneled to the East coast and the Great Lakes, leaving Seattle paying for the benefit of others. We are a gateway from the Orient and to maintain Puget Sound as a port of efficiency, we must go deep to accommodate the ever increasing size of ships. Puget Sound has proven we can handle the large ships, from tugs, cranes, railway and Pilots, we can do the job. That only leaves the water - deepen the waterways.

Capt. Peter A Giese

### 5.5.1 Response to Comment Letter E5

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.6 Comment Letter E6 – Maud Daudon – Seattle Metropolitan Chamber of Commerce



August 30, 2016

Nancy Gleason  
U.S. Army Corps of Engineers  
CENWS-PM-ER  
P.O. Box 3755  
Seattle, WA 98124-3755

Dear Ms. Gleason:

On behalf of the Seattle Metropolitan Chamber of Commerce, I am writing to support the plan the Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor, and the project's commitment to addressing any mitigation requirements that result from the environmental assessment currently underway. Our region's world-class ports have long helped the Pacific Northwest occupy a position among the nation's top export gateways. Deepening Seattle's navigation channels to 57 feet will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, protect U.S. jobs and enhance the infrastructure that allows our region's farmers and manufacturers connect to global markets.

The Seattle Metro Chamber is the largest and most diverse business association in the region, representing 2,200 member companies and a workforce of approximately 700,000. With more than 40 percent of all jobs in Washington state tied to international trade, the Chamber is an advocate for our regional ports and waterways and a champion for wise investments and projects that maximize our region's competitiveness in global and local markets. The Seattle Harbor Navigation Improvement Project is a prime example of such an investment.

The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports just five years ago. Today the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs. Even larger vessels are expected within the next few years. As the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships, including deepening the federal channels serving its terminals.

Insufficient channel depths require ocean carriers to take on less cargo or delay departures. This increases shippers' costs, especially for exports, which tend to be heavier than imports. It also has financial implications for ocean carriers and can induce them to discontinue services to a port. The NWSA competes with ports throughout North America, but competition is especially intense with the Canadian ports of Vancouver and Prince Rupert, which has no depth limitation. If the world's major ocean carriers reduce services to Puget Sound, there will be serious repercussions for our region's economy.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Yet achieving this goal also requires deeper navigation channels. The Seattle Metro Chamber supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

Sincerely,



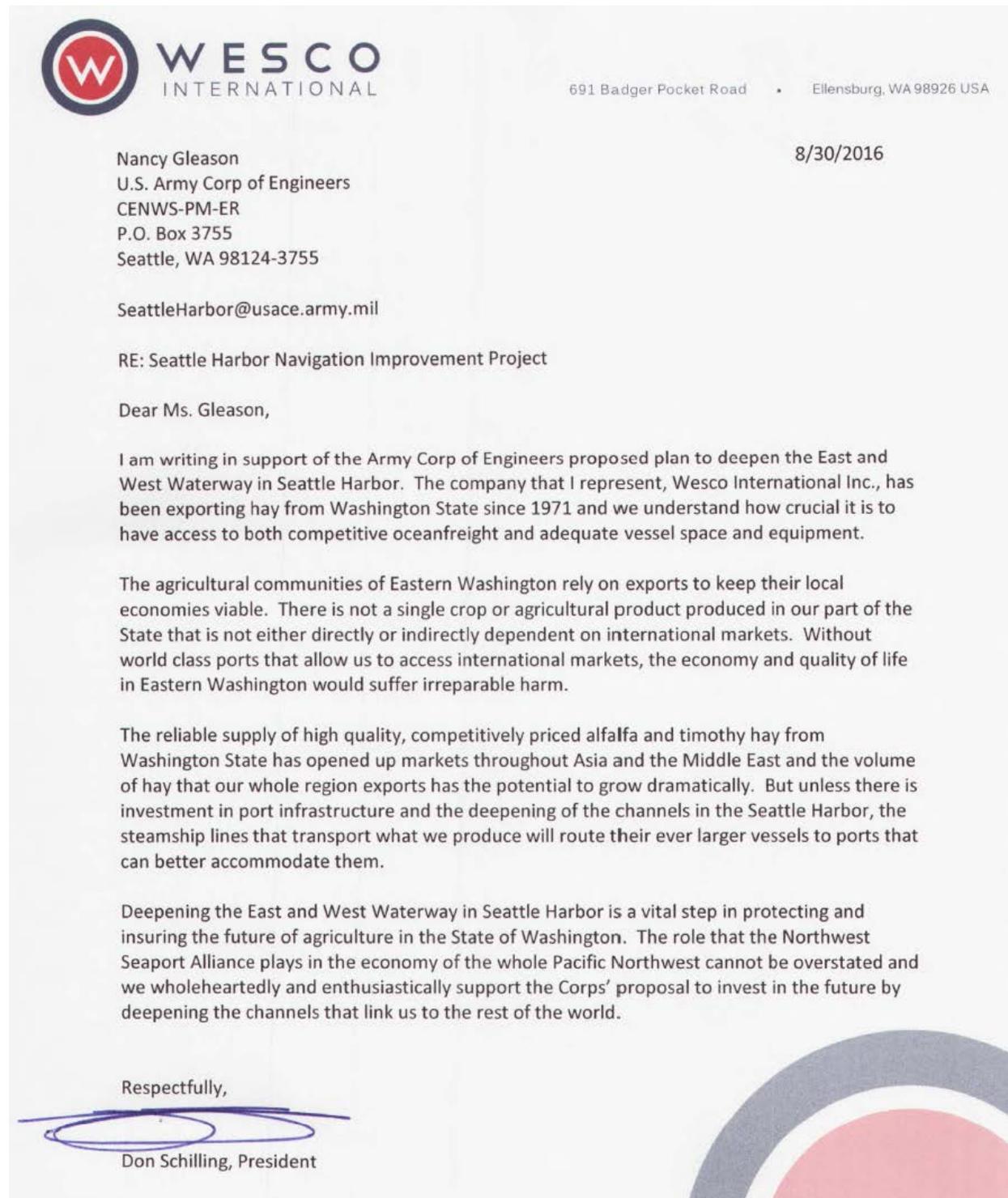
Maud Daudon  
President & CEO

seattle metropolitan chamber of commerce  
1301 Fifth Avenue, Suite 1500, Seattle, WA 98101 | p: (206) 389-7200 | f: (888) 392-7295 | [seattlechamber.com](http://seattlechamber.com)

### 5.6.1 Response to Comment Letter E6

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.7 Comment Letter E7 – Don Schilling – Wesco International



### 5.7.1 Response to Comment Letter E7

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.8 Comment Letter E8 – Paul Torrey – Vigor

**From:** [Paul A. Torrey](#)  
**To:** [SeattleHarbor](#)  
**Subject:** [EXTERNAL] USACE Draft Feasibility Report for Seattle Harbor Navigation Improvement Project  
**Date:** Monday, August 29, 2016 5:38:20 PM

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To: US Army Corps of Engineers  
Seattle District

Re: Public Comments Sought Regarding Seattle Harbor Navigation Improvement Project

Vigor Shipyard is located on the NE corner of Harbor Island and on the West Waterway. Our facility and business will be directly affected by the proposed project. We are generally supportive of area navigation improvements, and this project. However, we have the concerns and comments outlined below which required your attention. Until such time as these are addressed, we cannot offer our full support for this project:

1. Vigor completed Superfund cleanup of the sediments around the shipyard in 2005, under EPA direction. Concurrent with the sediment cleanup, we constructed aquatic habitat restoration areas along the West Waterway. Those areas were certified clean, and have been monitored consistently to ensure productive aquatic habitat conditions. In addition, we are currently working with the Federal Natural Resource Trustees to reach agreement on an additional substantial off-channel aquatic habitat area that will be constructed by Vigor on Vigor property in the SW portion of the Shipyard. We expect to construct this new habitat area in 2018-2019. Our sediment cleanup and habitat restoration projects will have a combined value of over \$40 Million. This is a significant investment that we have made to improve the health of the area sediments and aquatic habitat systems.

**We are extremely concerned about the potential for the proposed USACE deepening to re-contaminate or negatively affect sediment and habitat quality at our shipyard.** Your project proposes to disturb a significant area of contaminated sediments immediately adjacent to our recently cleaned up sediments and the habitat restoration site we are about to construct. We are concerned about chemical contamination and siltation caused by your proposed work. We would like to see significantly more detail on the dredging BMPs and technologies that you will use to prevent recontamination of our sediment areas. We would like to require that you perform pre-dredge and post-dredge characterization of our sediment surfaces, to confirm that they have not been negatively impacted by your work. If our sediment or habitat areas are damaged or impacted by your work, we would expect USACE to fully repair that damage, to the satisfaction of the Natural Resource Trustees and EPA.

2. We berth vessels of all types at our piers along the West Waterway. Our review of your project documents indicates that the proposed widening of the Federal Channel boundary may decrease the width of our berthing areas along the West Waterway by approximately 25 feet. Please confirm this information. If our review is correct, this is a significant concern to us. We would offer instead that the northern-most 1000 feet of the Approach Reach be shifted to the West slightly so as to not encroach on vessel moorage in this area. Furthermore, if such a shift is not incorporated into the design, we request that there be an allowance written into the regulations which allows for temporary berthing that encroaches within the new boundary.
3. During detailed planning and design of the improvements in the West Waterway, we would like to be coordinated with directly, to ensure that our facilities are not compromised by the work, and to coordinate construction access, environmental protection and monitoring relative to potential recontamination of Vigor Shipyard sediment and habitat restoration site surfaces. Our contact person is: Paul A. Torrey / [Paul.A.Torrey@Vigor.net](mailto:Paul.A.Torrey@Vigor.net), 206-623-1635 x453.

Thank you for the opportunity to comment on this project.

E8-1  
E8-2  
E8-3

Sincerely,

**Paul Torrey**

Special Assistant to the SVP of Ship Repair

phone: 206.623.1635 x 453

cell: 206.571.7098

[Paul.A.Torrey@Vigor.Net](mailto:Paul.A.Torrey@Vigor.Net)

[Vigor.net](http://Vigor.net)



**TRUTH:** We seek the truth, and we speak the truth.

**RESPONSIBILITY:** We act on what we know is right.

**EVOLUTION:** We seek mastery, and we adapt to a changing world.

**LOVE:** We care about the people we work with and the world we live in.

### 5.8.1 Response to Comment Letter E8

E8-1: Thank you for your comments regarding the Seattle Harbor Navigation Improvement Project. During dredging of contaminated sediments, the Corps will employ dredging Best Management Practices (BMPs) similar to those utilized during Superfund sediment remediations conducted in other parts of the Lower Duwamish and Puget Sound region. Additionally, water quality monitoring will be conducted during dredging efforts to monitor for various physical parameters, including turbidity. These efforts will help to minimize suspended sediments and the potential for recontamination in other parts of the waterway. A characterization of the sediments, both within the dredge footprint and along the perimeters, will also help to inform the potential for recontamination and specific management measures that could be employed to reduce the potential for contaminant resuspension.

E8-2: Based on coordination with Paul Torrey in April 2017, the Corps has confirmed that the deepening project footprint will not encroach on Vigor's vessel moorage in the area of concern. The final deepening project footprint is presented in the Final Feasibility Report and Environmental Assessment.

E8-3: Comment noted. The Corps will continue to coordinate with Vigor directly during final design and construction.

## 5.9 Comment Letter E9 – Paul Busnardo – Cellmark, Inc.



August 26, 2016

Nancy Gleason  
U.S. Army Corps of Engineers  
CENWS-PM-ER  
P.O. BOX 3755  
Seattle, WA 98124-3755

Dear Nancy Gleason:

On behalf of CellMark, I am writing to support the plan the Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor. Our region's world class ports have long helped the Pacific Northwest occupy a position among the nation's top export gateways. Deepening Seattle's navigation channels to 57' will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, protect US jobs and enhance the infrastructure that allows our region's farmers and manufacturers connect to global markets.

CellMark, Inc supplies over 5 Million tons of pulp, paper, recycled fibre and continues to grow in Metals and Chemical sectors. CellMark is a top exporter of the NWSA for many years and continued growth depends on the ability to keep the seaports at a competitive advantage. This includes the NWSA's ability to accommodate the growing size of the world's container vessels.

The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports just five years ago. Today the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs. Even larger vessels are expected within the next few years. As the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships, including deepening the federal channels serving its terminals.

Insufficient channel depths require ocean carriers to take on less cargo or delay departures. This increases costs, especially for exports, which tend to be heavier than imports. The paper industry faces intense competition in overseas markets. In this business environment, it is critical that our growers are able to access efficient, reliable supply chains. We also recognize that failing to provide adequate channel depths can have financial implications for ocean carriers and induce them to discontinue services to a port. If the world's major ocean carriers reduce services to Puget Sound it will have serious repercussions for our industry and our region's economy.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Yet achieving this goal also requires deeper navigation channels. CellMark, Inc., enthusiastically supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

Sincerely,

Paul Busnardo  
Senior Vice President  
CellMark, Inc.

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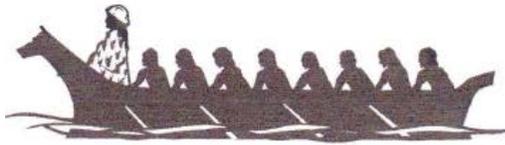
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### 5.9.1 Responses to Comment Letter E9

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.10 Comment Letter E10 – Alison O’Sullivan – Fisheries Department, Suquamish Tribe



FISHERIES DEPARTMENT  
360/598-3311  
Fax 360/598-4666

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### THE SUQUAMISH TRIBE

P.O. Box 498, Suquamish, Washington 98392

August 31, 2016

Nancy Gleason  
U.S. Army Corps of Engineers  
CENWS-PM-ER  
P.O. Box 3755  
Seattle, Washington 98124-3755

Subject: Seattle Harbor Navigation Draft Feasibility Report, Environmental Evaluation (August 2016)

Ms. Gleason:

Thank you for the opportunity to review and comment on the Seattle Harbor Navigation Draft Feasibility Report, Environmental Evaluation. The Suquamish Tribe (“Tribe”) is a signatory to the 1855 Treaty of Point Elliott. 12 Stat. 927. Article 5 of the Point Elliott Treaty secures the Tribe’s “right of taking fish at usual and accustomed fishing grounds and stations.” Article VI, cl. 2 of the United States Constitution provides that all treaties made under the authority of the United States “shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby....” *United States v. Washington* (Boldt I), 384 F.Supp. 312, 330 (W.D.Wash.1974); *Washington v. Washington State Commercial Passenger Fishing Vessel Ass’n*, 443 U.S. 658, 674-76 (1979).

The Suquamish people lived, gathered food, ceremonial and spiritual items, and hunted and fished for thousands of years in western Washington. Treaty-reserved resources situated on and off the Port Madison Indian Reservation include, but are not limited to, fishery and other natural resources situated within the Suquamish Tribe’s (“Tribe”) adjudicated usual and accustomed (U and A) fishing area. The Suquamish Tribe’s U and A extends well beyond Reservation boundaries and includes marine waters of Puget Sound from the northern tip of Vashon Island to the Fraser River in Canada, including Haro and Rosario Straits, the streams draining into the western side of Puget Sound and also Hood Canal.

The Tribe seeks protection of all treaty-reserved cultural, fishery, and other natural resources through avoidance of impacts to habitat and natural systems. The Tribe urges the U.S. Army Corps of Engineers (Corps) to avoid in-water and land use decisions that will impact these treaty-reserved resources within the Tribe’s adjudicated U&A. The Tribes comments are as follows.

#### GENERAL COMMENTS

##### Navigational Dredging

Routine dredging, the excavation of soft bottom substrates, is used to create deep water navigable channels or to maintain existing channels that periodically fill with sediments. Dredging navigable waters is a continuous impact primarily affecting benthic and water-column habitats

Dredging has many impacts to aquatic ecosystems. Hydrodynamic regimes (flow patterns) are altered and physical habitats are changed (bathymetry and benthic habitat features), which result in both short and long-term impacts to ecosystems. Dredging causes direct removal or burial of organisms and habitats, which can damage spawning and nursery habitats. Increased turbidity and sedimentation are also common impacts associated with dredging. This reduces light availability, which impacts photosynthesis necessary for phytoplankton, and other aquatic organisms. Tides and currents expand turbidity and sedimentation impacts to ranges outside of the action area of dredging and can re-circulate toxic contaminants from the disturbed sediments. Invasive species can be transported through dredges and equipment associated with dredging. Furthermore, disposal of dredged sediments can lead to areas of reduced dissolved oxygen through introduction of nutrients and organic matter and contribute to cumulative impacts of additional materials containing low level contaminants.

E10-1

#### Vessel Traffic

There is no discussion regarding the indirect impacts of larger vessels utilizing the waterways. Additional tug assists to help larger vessels and vessels with decreased maneuverability transit the harbor will result in more scour. How will this affect Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial assumptions or existing remedial actions? Larger vessels also take up more area within the waterway constricting the navigable area. How will this affect vessel traffic and potentially impact Tribal treaty fishery activities? Larger vessels take longer to unload, will this result in vessels anchoring in Elliot Bay waiting to access the terminals? If so, this has the potential to impact Tribal treaty fishery activities, how will this be addressed?

E10-2

#### Elliott Bay Open Water Disposal Site

As stated in the draft Feasibility Report and Environmental Assessment, it is assumed that most of the existing contaminated sediments will be remediated through the CERCLA process prior to the deepening, and that the dredged materials would mainly consist of sediments eligible for open water disposal based on Dredged Material Management Program (DMMP) criteria. However, DMMP criteria are generally based on natural background conditions and that criteria for some contaminants (namely bio-accumulatives such as PCBs and dioxins) are above concentrations that would be considered protective of human health based on tribal exposure parameters. Therefore, the Tribe does not support the disposal of the dredged materials in the Elliott Bay Open Water Disposal site unless the level of protectiveness is based on Suquamish tribal exposure parameters.

E10-3

### SPECIFIC COMMENTS

#### Section 4.3 Context for Cumulative Impacts Analysis

- Text does not discuss slope stabilization needs associated with the proposed deepening and widening. Text only states that “*extensive* stabilization will not be pursued”. Additional details are needed identifying areas that will require or likely require additional stabilization.

E10-4

#### Section 4.6 Water Quality

- How will changes in salinity affect constructed restoration sites in the area? The Tribe has concerns regarding ongoing success of restoration sites that may be affected by changes in salinity. The document states that modeling has shown minimal increases may occur, however, modeling needs to be verified by onsite data collection. The Tribe requests that pre and post monitoring occur.

E10-5

Section 4.10 Hazardous, Toxic and Radioactive Waste and Appendix G

- The text describing the CERCLA sites and various Operable Units (OU's) is not clear and needs to be re-worked. There are 10 OU's identified within the Harbor Island superfund site, however only the East Waterway, West Waterway, Todd Shipyard and Lockheed Shipyard are within the project area. It would also be helpful if sites located within the Lower Duwamish Waterway are mentioned. Even if outside of the immediate project area they still are in the project vicinity.
- Are there MTCA, other clean-up sites, or areas with sediment exceedences within the project area?

E10-6

Section 4.10 Hazardous, Toxic and Radioactive Waste, 5.2 Dredging and Dredged Material Management, and Appendix C and G

- Discussion is needed regarding the Pacific Sound Resources (PSR) site. Will the navigation channel deepening affect containment and issues with contaminant migration?
- How will dredging and widening affect sediment transport, flow, and slope stability in the East and West waterway? Will this affect restoration sites? Will changes affect CERCLA remedial assumptions about sedimentation and natural recovery rates? Please explain how potential impacts to restoration sites, CERCLA Monitored Natural Recovery (MNR) and Engineered Natural Recover (ENR) remedies will be evaluated during the feasibility and Pre-Construction, Engineering and Design (PED) phases.
- There is no map or information discussing existing containment, CAP and/or Confined Aquatic Disposal (CAD) locations within the Lower Duwamish Waterway. If there are any within the project area how will they be addressed?
- Management and disposal of any remaining contaminated sediments relies on assumptions regarding the locations and volumes of sediment that would require upland disposal. The draft document acknowledges CERCLA actions have yet to be completed. Additional data will need to be collected to ensure that the extent of contamination is well understood, clearly delineated and that all contaminated sediments are disposed of properly.

E10-7

Section 7.2 Tribal Government Consultation and Coordination Process

- As stated in the text, consultation with the Tribe throughout the feasibility, PED and construction phases is essential.

E10-8

Thank you for the opportunity to provide these comments. If you have any questions or would like to discuss these comments, please contact me directly at (360) 394-8447.

Sincerely,



Alison O'Sullivan  
Biologist, Environmental Program

5.10.1 Response to Comment Letter E10

E10-1: Thank you for your comments regarding the Seattle Harbor Navigation Improvement Project. The Corps recognizes that establishing and maintaining navigation channels can have deleterious effects to the local ecosystem in which the channels are developed. The East and West Waterways were dredged to their current depths approximately 80 years ago and have had minimal maintenance dredging due to a very slow rate of shoaling in the channels. The natural and socioeconomic resources are presented in the Feasibility Report and Environmental Assessment along with the environmental impacts analysis to each

resource. Environmental effects of the proposed action have been determined not to pose a significant impact to the ecosystem of the project area.

E10-2: Tugs transiting the waterway are limited to maneuvering within the navigation channel boundaries and adjacent berths, with the exception of emergency maneuvers. As such, there should be no unanticipated impacts on existing CERCLA remedies that would be negatively impacted by tug scour (i.e. isolation caps). Tug scour that could occur within the navigation channel and berthing areas is not expected to disturb sediment that is considered contaminated, assuming that remaining sediment at the dredge surface meets State of Washington's antidegradation standard. While tug scour has not been quantified for the Seattle Harbor study, estimates of tug scour in the Lower Duwamish Waterway range from 0.5 to 3cm (AECOM 2012). Given that this degree of scour is assumed to occur in areas of the navigation channel with authorized depths of -20 to -30 MLLW, the greater depths proposed for this project would expect to see less scour potential than the Lower Duwamish.

The proposed navigation improvements will have no effect to the size of the vessels that the shipping companies choose to deploy on the shipping routes. Larger ships are already on these routes, more are on order and will be deployed as soon as they are built.

E10-3: To clarify, most of the existing contaminated sediments will be remediated through the CERCLA process prior to the deepening on the East Waterway only. Material on the West Waterway will not be remediated through the CERCLA process, as the "no action" alternative was identified as the selected remedy in the West Waterway Operable Unit. West Waterway material that does not meet the DMMP guidelines for open-water disposal will be dredged and placed upland. Material that meets the DMMP guidelines will be dredged and placed at the Elliott Bay disposal site. One of the hallmarks of DMMP is consistency in the application of evaluation procedures for material proposed for open-water disposal. Therefore, the Dredged Material Management Program dredged material evaluation procedures in place at the time of full characterization will be utilized in making a suitability determination for dredged material from the West Waterway.

E10-4: Slope stability is a concern when dredging near engineered structures such as piers and subaqueous caps. The proposed project would dredge a 500-foot channel inside each waterway to a depth of -57' MLLW. The designed channel sideslopes would be 2 horizontal on 1 vertical (2:1). In each Waterway the projected sideslopes would tie-in to the existing grade within the established berthing areas maintained by the Port of Seattle. The Port of Seattle is performing terminal upgrades on their piers to ensure existing structures have been reinforced to ensure slope stability for the required dredging depth (Northwest Seaport Alliance 2015). It is assumed that any subaqueous caps developed for the existing CERCLA sites would be incorporated into the design during the pre-construction, engineering, and design phase of this project to ensure static stability of the cap.

E10-5: According to the Salinity Modeling Report that describes modeling specifically for the proposed project, the harbor deepening will allow the average extent of the salinity wedge to propagate further upstream for the low and medium flow cases of Green River discharge, but not at the average annual flow discharge. No changes to shoreline vegetation are expected because the estuary is highly stratified; therefore, salinity will remain at depth and the freshwater will remain on top and will therefore not affect shoreline vegetation. The estimated greater extent of the salt wedge would provide a slightly longer

mixing zone for the sensitive life stage in which juvenile salmonids undergo smoltification along the estuary. Restoration sites along the Lower Duwamish River would not see deleterious effects. The turning basin will have higher salinity at the bottom, but the top layer will remain fresh.

E10-6: Sites upstream of the Seattle Harbor project boundary, specifically the Lower Duwamish Waterway Superfund Site, will not be impacted by the proposed project. Within the immediate vicinity of the East and West Waterways, only those areas that are in-water sediment remediation sites were identified given the potential impacts and overlap with the Seattle Harbor project. A majority of the Harbor Island Operable Units referenced in the comment are in the upland portion of the site and are not expected to be impacted by this project.

Sediment remediation sites in the Seattle Harbor project area are being managed through the CERCLA program. There are upland sites not regulated by CERCLA in proximity to the project area. These are generally sites of spill responses, hazardous waste generation, or collection sites and are not anticipated to impact sediment quality in the project area.

E10-7: The Seattle Harbor study does not directly overlap any portion of the Pacific Sound Resources (PSR) site, and is thus not expected to have any direct impacts to the existing remedy. In regards to slope stability, all navigation deepening will be formulated to ensure slope stability throughout the site. For purposes of the feasibility study, a 2:1 slope is assumed throughout both waterways. However, additional analysis will be done during later phases of design to make additional modification for any specific areas that may warrant further assessment of slope stability. In regards to sediment transport, each waterway receives minimal sediment load, as much of the coarser grained material is removed further upstream on the Duwamish Waterway during routine O&M dredging. Additionally, the East Waterway is separated from the Duwamish Waterway by a shallow sill minimizing the quantity of sediment reaching the waterway from riverine sources. Thus, most of the sedimentation will occur from finer grained sediments transported in suspension which eventually settles during quiescent conditions. A hydrodynamic numerical model was developed for this project to investigate changes to salinity and currents in each waterway for the with-project conditions relative to the without-project condition. In general, current velocities were only found to change within +/- 0.1 meter/s (0.3 feet/s) during the maximum ebb and flood currents in each waterway. This suggests that due to the minor changes in the tidal hydraulics, sediment transport patterns will not significantly change. However, sedimentation rates are anticipated to increase slightly following channel deepening as deeper channels become more efficient sediment traps. The historic and predicted shoaling rates for each waterway are computed in Appendix B of the Feasibility Report and Environmental Assessment.

There is a Confined Aquatic Disposal (CAD) site in the southern portion of West Waterway. The Corps has developed a project map that depicts the location of the CAD within the East Waterway based on best available information; the site is located at Station 12+50 (i.e. 1,250 feet from the south end of West Waterway) and is approximately 75 feet to the east of the channel centerline. During the pre-construction, engineering, and design phase, a full suitability determination will be completed in accordance with Dredged Material Management Program standards. The scope of the suitability determination will include additional samples in/around the CAD footprint in order to confirm the boundaries of the footprint and verify whether the site and contaminated material is located within the deepening footprint of the Federal

navigation channel. Based on the results of the suitability determination, the site will either be avoided or unsuitable material will be removed.

In February of 2016, the Corps conducted a partial suitability determination to provide conceptual level estimates of sediment that would be suitable for in water disposal and what portion would require upland disposal. A full suitability determination was not conducted at this time given recency requirements for no more than three years old prior to construction. A full suitability determination will be conducted prior to construction to ensure the site is adequately characterized for disposal purposes.

E10-8: The Corps will continue to coordinate with the Tribe throughout the feasibility, design, and construction phases.

## 5.11 Comment Letter E11 – Mark H. Gleason – Washington Maritime Federation



August 31, 2016

Seattle Harbor Navigation Improvement Project  
ATTN: Nancy Gleason  
US Army Corps of Engineers  
CENWS-PM-ER  
P.O. Box 3755  
Seattle, Washington 98124

Dear Ms. Gleason,

The Washington Maritime Federation (WMF) is an association of associations, comprised of maritime and business organizations, ports, organized labor, workforce and economic development organizations that have come together to support the maritime industry. By bringing together these representatives and supporters of the many diverse segments of the maritime industry and the greater business community at large, the Federation attempts to build consensus, provide a unified voice, and join together to drive change in matters of common interest. The Federation supports policy and investment priorities that contribute to the vitality, growth and resilience of Washington's maritime industry. As such, we welcome the opportunity to provide comment to the US Army Corps of Engineers and the Port of Seattle regarding the *Seattle Harbor Navigation Improvement Project*.

Washington's global competitiveness depends upon ongoing access to our state through our harbors. This project is a critical infrastructure improvement that will ensure the Port of Seattle is able to accommodate the increasingly larger container vessels calling on West Coast ports. While the Port now regularly receives calls from ships with the capacity of up to 10,000 TEU's (20' equivalent unit), the trend in shipping is towards larger vessels. In order to remain competitive the Port will need to improve its ability to accommodate larger capacity vessels of between 14,000-18,000+ TEU's. Specifically, the tentatively selected plan would provide for -57' Mean Lower Low Water (MLLW) for both the East and West Waterways. The plan would also widen the approaches to 700 feet in order to improve navigation safety at the entrance to each channel.

These combined improvements will allow the Port of Seattle to safely and efficiently handle these and future larger vessels. As such, we urge the Corps and the Port of Seattle to proceed with the project. If you have additional questions, please do not hesitate to contact us at [info@maritimefederation.com](mailto:info@maritimefederation.com).

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark H. Gleason", is positioned above a horizontal line.

Mark H. Gleason, Director  
Washington Maritime Federation  
[mgleason@maritimefederation.com](mailto:mgleason@maritimefederation.com)  
(206) 321-8693 (mobile)  
(206) 389-7307 (direct)

#### 5.11.1 Response to Comment Letter E11

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.12 Comment Letter E12 – Bob Watters – SSA Marine



August 29, 2016

Nancy Gleason  
US Army Corp of Engineers  
CENWS-PM-ER  
PO Box 3755  
Seattle, WA 98124-3755

**RE: USACE Deepening Draft Feasibility Report & Environmental Assessment for Seattle Harbor**

Dear Ms. Gleason,

On behalf of SSA Marine, I am writing to support the plan the Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor. The Seattle Harbor houses one of the US' premier port gateways serving not only the Pacific Northwest but also the Mid-West and East Coast. It's critical to the economies of the Pacific Northwest and the US in general, that this harbor be able to service the shipping industry's most economical ships transporting cargo to and from the US. Deepening Seattle's navigation channels to 57' will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, and enhance the infrastructure important for US competitiveness in the global market.

As the terminal operator for both T-18 and T-30 in the Seattle Harbor, we have heard directly from the shipping lines, their desire to deploy these large ships in Seattle, they have also expressed the need for a deeper channel to allow these ships to call our market.

The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports just five years ago. Today the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs.

As the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships, including deepening the federal

channels serving its terminals. Failing to provide adequate channel depths can have financial implications for ocean carriers, limiting full utilization of a ship and potentially influencing vessel string routing decisions.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Yet achieving this goal also requires deeper navigation channels. [Organization] enthusiastically supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

Sincerely,



Bob Watters  
Senior Vice President  
SSA Marine

#### 5.12.1 Response to Comment Letter E12

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 5.13 Comment Letter E13 – Glen R. St. Amant – Fisheries Division, Muckleshoot Indian Tribe



### **MUCKLESHOOT INDIAN TRIBE** **Fisheries Division**

39015 - 172<sup>nd</sup> Avenue SE • Auburn, Washington 98092-9763  
Phone: (253) 939-3311 • Fax: (253) 931-0752



13 September 2016

U.S. Army Corps of Engineers  
Attn: Ms. Nancy C. Gleason  
CENWS-PM-ER  
P.O. Box 3755  
Seattle, WA 98124

Re: Comments on Draft Integrated Feasibility Report and Environmental Assessment for the Seattle Harbor Navigation Improvement Project, Seattle, Washington (August, 2016)

Dear Ms. Gleason:

The Muckleshoot Indian Tribe Fisheries Division has reviewed the above-referenced draft Integrated Feasibility Report and Environmental Assessment (Report). Actions and operations evaluated in this draft Report occur within the Tribe's Usual and Accustomed Fishing Area. The U.S. Army Corps of Engineers (Corps) is undertaking this project in partnership with the Port of Seattle, the study's non-Federal sponsor. The purpose of the report is to provide "documentation of the plan formulation process to select a recommended navigation improvement plan, along with environmental, engineering, and cost details of the recommended plan, which will allow additional design and construction to proceed following approval of this report." The project area evaluated in the draft Report includes the East and West Waterways of the Duwamish River.

The purpose of this letter is to provide comments on the draft Report, specifically regarding potential significant impacts to Muckleshoot treaty-reserved fishing and potential impacts to fisheries resources. The Tribe reserves the right to submit additional comments to the U.S. Army Corps of Engineers regarding this project at a later date.

The draft Report identifies two action alternatives, the National Economic Development Plan and the Locally Preferred Plan, that share in common a recommendation to expand the existing authorized width of the navigation channels in the East and West Waterways by an additional 150' at the mouth of each Waterway, and by an additional 50' in the remainder of the West Waterway and the majority of the East Waterway. These alternatives differ in the amount of deepening proposed, one being -56' MLLW and the other being -57' MLLW. Both of these action alternatives would enable increased vessel traffic, larger vessels, and vessels transiting through a wider navigation channel.

Both of these action alternatives have the potential to generate substantial short-term and long-term impacts to Muckleshoot treaty-reserved fishing. Short-term impacts would result from the proposed dredging and associated construction work, which would span an estimated two-years for both alternatives. This construction work has the potential to significantly displace or otherwise impact Tribal fishing in this area during the two seasons of in-water work, including areas outside of the East and West Waterways. These construction impacts could be compounded if the proposed work were to occur concurrent with other potential projects in the area, such as the proposed Port of Seattle Terminal 5 strengthening work. Long-term impacts would result from the expanded and deepened navigation channel, enabling larger vessel use, increased vessel traffic, and vessels transiting over a wider navigation channel, all within an extremely important area of Tribal fishing. Long-term impacts would also be generated by the increased maintenance dredging that would be facilitated by each action alternative.

E13-1

Beyond the potential for this project to cause significant short- and long-term impacts to Tribal fishing in the area, we have the following additional comments based on discussions in the draft Report:

**Sections 4.6.2 and 4.6.3 (Water Quality).** The proposed action alternatives have the potential to result in long-term impacts to habitat in the Duwamish River. Both alternatives discuss the potential to result in “a half-mile upstream migration of the maximum extent of the saltwater wedge.” The draft Report then describes this impact as not significant, based on an analysis in Appendix B. Based on our review of Appendix B, we found no such analysis. Please describe, in detail, the predicted changes to the upstream and downstream impacts to the salt wedge based on the action alternatives. In addition, please provide an analysis of habitat impacts based on this change.

E13-2

**Section 4.10 (Hazardous, Toxic, and Radiological Waste).** Discussion of the West Waterway Operable Unit cleanup status is inaccurate. The draft Report states that no future remedial actions are anticipated. However, pages 34 and 35 of the 2003 EPA Record of Decision states:

*“In addition, for the following reasons, EPA expressly determines that the No Action decision in the ROD with respect to PCBs will be revisited if information gathered from dioxin-like PCB congener analyses undertaken for the Lower Duwamish Waterway Superfund site indicate that similar analyses are warranted for the West Waterway OU to ensure protectiveness of human health and the environment. This determination is based on the following circumstances, and is in addition to EPA’s normal capacity to re-open decisions whenever new information suggests EPA should do so to ensure adequate protection of human health and the environment:*

E13-3

- *The West Waterway OU is contiguous with and down river from the LDW site.*
- *EPA believes that sources of PCBs found in the West Waterway OU may include the LDW site.*

- *All West Waterway OU PCB data utilized for this decision have been evaluated by the total PCB or Aroclor method.*
- *In the future, environmental samples from the LDW site will be analyzed for dioxin-like PCB congeners, as set forth in the December 20, 2000 LDW RI/FS AOC and attached SOW.*

E13-3

*EPA commits to review West Waterway OU in light of LDW and decisions and new scientific information or methodologies at a future time.”*

Based on the Record of Decision in the LDW regarding PCBs, this analysis is still pending from EPA regarding additional remedial actions within the West Waterway OU.

**Section 4.11 (Benthic Organisms).** This section mentions the presence of Dungeness and red rock crab and various bivalve species. We have outstanding concerns about potential impacts to shellfish species as a result of the proposed action. This section states that the “abundance and diversity of the benthic assemblage may be able to recover and become similar to those of the benthic community that existed previously depending on depth, substrate, and other factors.” The report later states that no compensatory habitat mitigation is proposed. Please provide an analysis of the proposed alternatives on shellfish species.

E13-4

**Section 6.7 (Federal Trust Responsibility).** This section inaccurately states both the role of Muckleshoot Indian Tribe representation in this process, as well as the potential impacts to Tribal fishing resulting from this project. Although Muckleshoot Fisheries staff attended two planning-level meetings for this process, the Tribe was not consulted regarding developing action alternatives that would avoid or minimize impacts to Tribal fishing or in identifying the substantial impacts created by the alternatives discussed in the draft Report. In addition, the U.S. Army Corps of Engineers and the Port of Seattle did not adequately evaluate impacts to Tribal fishing from the action alternatives discussed in the draft Report. Since this project has potential significant impacts to Muckleshoot treaty-reserved fishing that were neither analyzed nor discussed by the Corps with the Tribe, we do not agree that coordination to date has been sufficient to address the Federal Government’s trust responsibility.

E13-5

In summary, we believe it is critically important for the U.S. Army Corps of Engineers to meet with the Muckleshoot Indian Tribe Fish Commission on a government-to-government basis as soon as possible to discuss potential significant impacts from this proposed action on Muckleshoot treaty-reserved fishing in the area. Based on these discussions, changes to the proposed action alternatives in the draft Report may be warranted.

Thank you for the opportunity to comment on this draft Report. The Tribe appreciates your careful consideration of these comments. For additional questions regarding these comments, please contact me at (253) 876-3130.

Sincerely,



Glen R. St. Amant  
Habitat Program Manager

#### 5.13.1 Response to Comment Letter E13

E13-1: Thank you for your comments regarding the Seattle Harbor Navigation Improvement Project. The Draft Feasibility Report and Environmental Assessment recommended widening the East and West Waterways by 150 feet at the entrances to achieve 700-foot-wide channels, an additional 50 feet in the inner reaches of each waterway to achieve 550-foot-wide channels, as well as deepening both Waterways to -57 feet below mean lower low water. Based on feedback during the review period for this report, the Corps is planning to widen the entrance reaches to 700 feet for safety considerations; however, the Corps is no longer recommending widening the inner navigation channels. The recommended width of each Federal channel will remain 500 feet in the Final Feasibility Report and Environmental Assessment. The Final Feasibility Report and Environmental Assessment includes an updated project footprint map reflecting these channel dimensions.

In an attempt to ameliorate some of the effects of the dredging, and as a result of the anticipated dynamic timing and locations of individual tribal fishing vessels, the dredging will be coordinated with the Tribe prior to the initiation of construction activities to ensure equipment will be positioned to avoid conflicts with tribal fishing vessels and nets during construction. In addition, although construction will occur over a two-year period (limited to in-water work windows), there will only be a single dredge with a single barge and tugboat operating in one waterway at a time; the work on both waterways will not be concurrent. Regarding the timing of construction for harbor improvements, dredging for deepening the Federal navigation channels is unlikely to occur simultaneously with local service facility improvements (e.g., the Terminal 5 Improvement Project led by the Port of Seattle) because these projects are at different phases of planning, will receive their funding from different sources, and will be years apart in timing. Potential short-term impacts can be further reduced by slowing dredging production and adjusting equipment locations to avoid conflicts with tribal fishing areas. Given these measures, the Corps anticipates minimal short-term impacts to treaty-reserved fishing as a result of the Federal deepening project.

Results of a vessel and commodity forecast can be used to help clarify the vessel traffic concerns raised. The Corps' economic analysis indicates that larger vessels are anticipated to arrive in Seattle in the future

regardless of whether the Federal deepening project occurs. Although larger vessels are expected to arrive and depart from the Port of Seattle irrespective of whether the navigation channels are deepened or widened, the Corps' economic analysis indicates that deeper channels would allow for fewer total vessel calls. After Federal project implementation, vessel calls would be reduced by approximately 10% due to more efficient loading of containerships. The Corps anticipates that continued collaboration and coordination with the Tribe will result in minimal long-term impacts to treaty-reserved fishing due to increased efficiencies associated with transit, loading, and unloading, as well as an overall reduction of vessels calling in Seattle.

Following implementation of the recommended plan, the Corps has estimated that maintenance dredging may occur more frequently (increasing from every 25 years to every 10 years with an approximate duration of 42 days). Maintenance dredging would not be required throughout the navigation channels, but rather at specific locations of shoaling. Similar to initial construction practices, the maintenance dredging equipment will be positioned to avoid conflicts with tribal fishing vessels and nets. Therefore, the Corps anticipates minimal long-term impacts to treaty-reserved fishing due to future maintenance of the channels.

E13-2: Section 4.6.2 of the Draft Feasibility Report and Environmental Assessment accurately reflects the findings in the Salinity Modeling Report that there will be no change to the maximum extent of the salt wedge in the Duwamish River. However, section 4.6.3 of the draft Feasibility Report and Environmental Assessment contained a mistake; the sentence reading "...may cause a half-mile upstream migration of the maximum extent of the saltwater wedge", instead should accurately read, and "...may cause a half-mile upstream migration of the average extent of the saltwater wedge". The Corps has corrected this text for the Final Feasibility Report and Environmental Assessment. Additionally, the Salinity Modeling Report was inadvertently left off Appendix B and will be included in the Final Feasibility Report and Environmental Assessment. This report was provided to the Tribe as soon as the mistake was detected (September 20, 2016). Further analysis of potential for effects to restoration sites and natural resources in the saltwater mixing zone shows the estimated greater average extent of the salt wedge would provide a slightly longer mixing zone for the sensitive life stage in which juvenile salmonids undergo smoltification and require a range of salinities along the estuary for this transition. This is considered advantageous and a positive effect because it expands the available habitat area for acclimatization to saltwater. No changes to shoreline vegetation are expected because the salinity will not change to an extent that would affect shoreline plant species.

E13-3: Per the Record of Decision (ROD) for the West Waterway OU, "EPA commits to review West Waterway OU in light of Lower Duwamish Waterway data and decisions and new scientific information or methodologies at a future time." For purposes of the formulation and evaluation of alternatives in the Corps' feasibility study, it is assumed that the current ROD for the West Waterway OU, including the No-Action decision, is the current and authoritative representation of EPA's future planned action. If the ROD is re-opened by EPA, the Corps will re-evaluate assumptions relating to formulation and evaluation of alternatives in the West Waterway. Any specific questions regarding the potential re-evaluation of the West Waterway OU should be directed to the EPA Region 10 office.

E13-4: The Corps has also revised Section 4.11 of the Feasibility Report and Environmental Assessment to provide greater detail on existing conditions and to provide a qualitative risk assessment for crab, shrimp, and bivalve impacts from the Federal project. Although we recognize the importance of the benthic community to the overall health of the estuary, the benthic community at the depth range in these waterways is not an important prey source for the federally protected species or other commercially important species present. Therefore, the effects to benthic organisms, which would only endure for up to three years after dredging is complete, are not considered a significant impact to this ecosystem. A review of relevant scientific literature regarding impacts of dredging to benthic invertebrates supports this conclusion and has been added to the Feasibility Report and Environmental Assessment.

E13-5: The Corps has continued coordination since receipt of the comment letter included in this appendix. The Corps provided a letter to the Tribe dated March 24, 2016 to provide additional information regarding the Federal project in response to questions and discussions resulting from a Government-to-Government meeting held October 28, 2016 with the Muckleshoot Tribal Fish Commission. The Corps will continue coordination with the Tribe during the design and construction phases.

## 6 Individual Mailed Comments and Responses

### 6.1 Comment Letter M1 – Laura Daniels – Anderson Hay and Grain Co. Inc.



PIONEERING DEPENDABLE OPPORTUNITIES FOR AGRICULTURE WORLDWIDE

P.O. BOX 99 910 S. ANDERSON ROAD ELLENSBURG, WA 98926 PHONE 509-925-9818 FAX 509-962-6785

August 5, 2016

On behalf of Anderson Hay and Grain Co., Inc, I am writing to support the plan the Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor. Our region's world class ports have long helped the Pacific Northwest occupy a position among the nation's top export gateways. Deepening Seattle's navigation channels to 57' will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, protect US jobs and enhance the infrastructure that allows our region's farmers and manufacturers connect to global markets.

Forage/Hay exports are one of our region's biggest volume exports. To compete globally and even to remain competitive versus PSW exports our ports in Seattle and Tacoma must be able to attract import cargo that allows our region to export (via the backhaul). It is said that 40% of Washington State jobs are tied to international trade – as such it is vitally important for our ports to be able to handle big ships.

The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports just five years ago. Today the NWSA regularly receives calls from ships with capacities up to 10,000 TEUs. Even larger vessels are expected within the next few years. As the primary container gateway for the Pacific Northwest, the NWSA must take steps to better accommodate these ships, including deepening the federal channels serving its terminals.

Insufficient channel depths require ocean carriers to take on less cargo or delay departures. This increases costs, especially for exports, which tend to be heavier than imports. Hay shipments from the United States face intense competition in overseas markets. In this business environment, it is critical that our growers are able to access efficient, reliable supply chains. We also recognize that failing to provide adequate channel depths can have financial implications for ocean carriers and induce them to discontinue services to a port. If the world's major ocean carriers reduce services to Puget Sound it will have serious repercussions for our industry and our region's economy.

The NWSA and other trade and transportation stakeholders are modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest. Yet achieving this goal also requires deeper navigation channels. Anderson Hay and Grain Co., Inc. enthusiastically supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

LAURA DANIELS  
OCEAN SHIPPING COORDINATOR  
ANDERSON HAY & GRAIN CO., INC.  
VISIT US AT: [www.Anderson-Hay.com](http://www.Anderson-Hay.com)  
PIONEERING DEPENDABLE OPPORTUNITIES FOR AGRICULTURE WORLDWIDE.

#### 6.1.1 Response to Comment Letter M1

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.

## 6.2 Comment Letter M2 – Capt. David Grobschmit – Puget Sound Pilots



August 11, 2016

To whom it concerns-

I am writing to support the plan the Army Corps of Engineers has proposed for the deepening of the East Waterway and West Waterway in Seattle Harbor. The region's world class ports have given the US Pacific Northwest position as one of the country's strategic gateways for cargo. Deepening Seattle's navigation channels (waterways) to 57' will help the Northwest Seaport Alliance (NWSA) remain a preferred port of call for the world's largest ships, and enhance the infrastructure important for US competitiveness in the global market.

Puget Sound Pilots are tasked with the safe transportation of foreign and domestic waterborne commerce in the Puget Sound area. There are approximately 7,500 ship transits annually in this area and the deepening project in the Seattle waterways will provide greater under keel clearances, which in turn, makes deep draft ship maneuverability safer.

The largest container vessels calling at West Coast ports today have roughly twice the capacity of those that served Puget Sound ports from just five years ago. Today our members regularly pilot ships with capacities up to 10,000 TEUs, and it has gone even higher, as high as 18,000 TEUs. What this means is the length, beam and draft has dramatically increased, every improvement in our waterways will help in the continuous effort by making this region a highly competitive one.

As the primary gatekeeper regarding the safety of our container gateway transits for the Pacific Northwest, we all must take steps to better accommodate these ships, including deepening the federal channels serving its terminals. Failing to provide adequate channel depths can have financial implications for ocean carriers, limiting full utilization of a ship and potentially influencing vessel string routing decisions.

Puget Sound Pilots applauds the NWSA and other trade and transportation stakeholders for modernizing marine terminals and enhancing freight infrastructure throughout the region in order to maintain world-class ports in the Pacific Northwest, achieving this goal requires deeper navigation channels in the ports waterways.

In closing, Puget Sound Pilots fully supports the alternative the Corps of Engineers has proposed for the Seattle Harbor Navigation Improvement Project.

Sincerely,



Captain David Grobschmit  
President Puget Sound Pilots

### 6.2.1 Responses to Comment Letter M2

Thank you for your comment and support of the Seattle Harbor Navigation Improvement Project.