

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA**  
**ACTION ITEM**

**Item No.** 6c  
**Date of Meeting** September 10, 2013

**DATE:** August 28, 2013  
**TO:** Tay Yoshitani, Chief Executive Officer  
**FROM:** Scott Pattison, Seaport Asset Manager  
Catherine Chu, Capital Project Manager  
**SUBJECT:** Terminal 5 and Terminal 91 Berth Maintenance Dredging  
(Expense Projects 104840 and U00067)

<b>Amount of This Request:</b>	\$2,700,000	<b>Source of Funds:</b>	General Fund/Ops
<b>Est. Total Project Cost:</b>	\$4,800,000		
<b>Est. State and Local Taxes:</b>	\$300,000	<b>Est. Jobs Created:</b>	35
<b>Net Proceeds to the Port:</b>	\$0		

**ACTION REQUESTED**

Request Commission authorization for the Chief Executive Officer to (1) delete Terminal 18 from the scope of the Maintenance Dredging Project; (2) add the East Cruise Berth at Terminal 91 to the scope of the Maintenance Dredging Project; (3) prepare plans, specifications and estimates, and (4) advertise for bids and award major construction contracts for Terminal 5 Phase II Maintenance Dredging and Terminal 91 East Cruise Berth Maintenance Dredging for an estimated cost of \$2,700,000. The total project cost (including Terminal 5 Phase I Maintenance Dredging) is estimated at \$4,800,000.

**SYNOPSIS**

The purpose of this project is to restore the berths at Terminal 5 (T-5) and Terminal 91 (T-91) East Cruise Berth to their designed depths to ensure these terminals remain accessible to deep-draft cargo and passenger vessels currently in service. It is necessary to perform maintenance dredging periodically at the Port's marine terminals because of vessel thrust in the berth areas and sediment deposits from the Duwamish River. The dredged materials will be disposed of at approved locations based on consultations with the regulatory agencies. Funds for this project in the amount of \$1,107,000 were included in the 2013 Operating Budget, and additional funds to complete the project will be included in the 2014 Operating Budget.

## **COMMISSION AGENDA**

Tay Yoshitani, Chief Executive Officer

August 28, 2013

Page 2 of 6

### **BACKGROUND**

Periodic maintenance dredging has been required to meet essential navigational access and berthing needs at the Port's marine cargo and cruise facilities and such need is expected to continue due to the greater frequency of deep-draft vessels calling at the Port. Staff continues to study the causes and rates of the sedimentation in navigation channels and berths and their impact on vessel operations. Two leading contributors to the need for ongoing maintenance dredging are sediment deposits from the Duwamish River and vessel thrust in berth areas.

On August 14, 2012, the Commission authorized \$1,950,000 to develop design documents, conduct sediment testing and environmental review, obtain permits, and prepare construction documents for the T-5 and T-18 Maintenance Dredging Project, and to advertise for bids and award major construction contracts for the first phase of maintenance dredging at T-5. Since then, the Port has completed construction of T-5 Phase I maintenance dredging and the design of T-5 Phase II maintenance dredging. Bathymetric surveys completed in 2013 indicate that Terminal 18 maintenance dredging can be deferred another year while we pursue a long-term programmatic permit at T-18 and the East Waterway.

In May 2013, high spots were discovered at the East Cruise Berth at T-91. To ensure unrestricted access by cruise ships calling at T-91, Port staff proposes to remove these high spots prior to the 2014 cruise season. In order to achieve the proposed schedule to complete this work, Seaport management authorized \$150,000 to fund initial design and permitting efforts.

This request deletes T-18 from the scope of the original project authorized by the Commission on August 14, 2012, and replaces it with maintenance dredging at the East Cruise Berth at T-91.

### **PROJECT JUSTIFICATION AND DETAILS**

The proposed project would restore all three containership berths at T-5 and the East Cruise Berth at T-91 to their designed depths. Doing so will ensure unrestricted access by vessels currently calling at these terminals.

#### ***Scope of Work***

This project includes dredging approximately 10,000 cubic yards of material from all three existing berths at T-5 to their designed depths. The designed depths for the South, Center, and North Berths are -45' Mean Lower Low Water (MLLW), -50' MLLW, and -50' MLLW respectively. This project also includes dredging approximately 2,000 cubic yards of material at the Terminal 91 East Cruise Berth to its designed depth of -35' MLLW. In addition, the project includes advance maintenance dredging and incidental over-dredging as allowed by the permits. The dredged material will be disposed of at approved locations based on consultations with the regulatory agencies comprising the Dredged Materials Management Program (DMMP). If required by the permit agencies, post-dredged surfaces will be covered with clean sand.

Staff analyzed the pros and cons of performing the two projects under one construction contract vis-à-vis two separate construction contracts, and decided that performing the two projects under

## **COMMISSION AGENDA**

Tay Yoshitani, Chief Executive Officer

August 28, 2013

Page 3 of 6

two construction contracts will allow T-5 work to move forward in advance of T-91 and afford greater flexibility in developing the T-91 program. Two separate contracts also allow greater flexibility to perform the work at each terminal with reduced impact on each terminal's vessel and terminal operations.

### ***Schedule***

The following are key milestones for the project if approved by the Commission:

	T-5	T-91
Advertise for bids	September 2013	October 2013
Award contract	October 2013	November 2013
Notice to proceed	December 2013	January 2014
Construction completion	February 2014	February 2014

### **FINANCIAL IMPLICATIONS**

<b><i>Budget/Authorization Summary</i></b>	Capital	Expense	Total Project
Previous Authorizations	\$0	\$2,100,000	\$2,100,000
Commission authorization for T-5 (Project 104840) on 8/14/2012		\$1,950,000	
Director level authorization for T-91 (Project U00067) on 6/13/2013		\$150,000	
Current request for authorization	\$0	\$2,700,000	\$2,700,000
Total Authorizations, including this request	\$0	\$4,800,000	\$4,800,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$0	\$4,800,000	\$4,800,000

<b><i>Project Cost Breakdown</i></b>	This Request	Previous Requests	Total Project
Construction	\$1,910,000	\$950,000	\$2,860,000
Construction Management	\$100,000	\$50,000	\$150,000
Design and Environmental Studies	\$220,000	\$690,000	\$910,000
Project Management and Contract Admin	\$160,000	\$120,000	\$280,000
Permitting	\$100,000	\$200,000	\$300,000
State & Local Taxes (estimated)	\$210,000	\$90,000	\$300,000
Total	\$2,700,000	\$2,100,000	\$4,800,000

Of the \$4,800,000 anticipated final total project cost, approximately \$4,270,000 is related to T-5 and \$530,000 is related to T-91.

### ***Budget Status and Source of Funds***

The 2013 Operating Budget included \$1,107,000 for spending related to Terminal 5 Phase II Maintenance Dredging project. Actual spending in 2013 is expected to be \$1,050,000. The

## **COMMISSION AGENDA**

Tay Yoshitani, Chief Executive Officer

August 28, 2013

Page 4 of 6

balance of spending from this authorization is scheduled for 2014 and will be included in the 2014 Operating Expense Budget.

The source of funds for this project will be the general fund.

### ***Financial Analysis and Summary***

<b>CIP Category</b>	Expense Project																																			
<b>Project Type</b>	Renewal and Replacement																																			
<b>Risk adjusted discount rate</b>	N/A																																			
<b>Key risk factors</b>	<ul style="list-style-type: none"> <li>• Key risk factors include potential cost overruns due to project time constraints and/or due to expansion of project scope due to higher than anticipated volumes of sediment and/or levels of sediment contamination.</li> <li>• Potential permit delays related to Terminal 91 could require T-91 to be constructed under a compressed schedule, resulting in increased costs beyond what is discussed in this authorization.</li> </ul>																																			
<b>Project cost for analysis</b>	\$4,800,000																																			
<b>Business Unit (BU)</b>	Container Operations/Cruise Operations																																			
<b>Effect on business performance</b>	<p>The estimated current year and future year project costs will have the following effect on Net Operating Income. Depreciation expense will not be impacted by this project, as this dredging project is an operating expense.</p> <table border="1"> <thead> <tr> <th><b>NOI (in \$000's)</b></th> <th><b>2012 Act</b></th> <th><b>2013 Frct*</b></th> <th><b>2014 Est</b></th> <th><b>TOTAL</b></th> </tr> </thead> <tbody> <tr> <td>Incremental Revenue</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Incremental OpExp-Container</td> <td>(154)</td> <td>(900)</td> <td>(3,216)</td> <td>(4,270)</td> </tr> <tr> <td>Incremental OpExp-Cruise</td> <td>-</td> <td>(150)</td> <td>(380)</td> <td>(530)</td> </tr> <tr> <td><b>NOI</b></td> <td><b>(\$154)</b></td> <td><b>(\$1,050)</b></td> <td><b>(\$3,596)</b></td> <td><b>(\$4,800)</b></td> </tr> <tr> <td>Depreciation</td> <td>\$0</td> <td>\$0</td> <td>\$0</td> <td>\$0</td> </tr> <tr> <td><b>NOI After Depreciation</b></td> <td><b>(\$154)</b></td> <td><b>(\$1,050)</b></td> <td><b>(\$3,596)</b></td> <td><b>(\$4,800)</b></td> </tr> </tbody> </table> <p><b>Note*:</b> Actual 2013 spending through July was approximately \$560K.</p>	<b>NOI (in \$000's)</b>	<b>2012 Act</b>	<b>2013 Frct*</b>	<b>2014 Est</b>	<b>TOTAL</b>	Incremental Revenue	-	-	-	-	Incremental OpExp-Container	(154)	(900)	(3,216)	(4,270)	Incremental OpExp-Cruise	-	(150)	(380)	(530)	<b>NOI</b>	<b>(\$154)</b>	<b>(\$1,050)</b>	<b>(\$3,596)</b>	<b>(\$4,800)</b>	Depreciation	\$0	\$0	\$0	\$0	<b>NOI After Depreciation</b>	<b>(\$154)</b>	<b>(\$1,050)</b>	<b>(\$3,596)</b>	<b>(\$4,800)</b>
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<b>IRR/NPV</b>	N/A																																			

### ***Lifecycle Cost and Savings***

Maintenance dredging is expected to occur every three to five years at T-5 and T-91 to maintain the terminals' berths at their design depths. Including advanced maintenance dredging in this project will extend the time before future maintenance dredging is needed in these locations, reducing the total cost of ownership to the Port.

## **COMMISSION AGENDA**

Tay Yoshitani, Chief Executive Officer

August 28, 2013

Page 5 of 6

## **STRATEGIES AND OBJECTIVES**

This project supports the asset preservation objective, ensures Seaport vitality and exhibits environmental stewardship by:

- Maintaining required navigation depth for deep-draft vessels.
- Ensuring environmental measures are taken to preserve and protect the marine environment while work is performed and following project completion.
- Including advanced maintenance dredging to reduce the frequency of future dredge projects.

## **TRIPLE BOTTOM LINE**

### ***Economic Development***

Maintaining container and cruise terminals at adequate depths for navigation maintains existing customer service and encourages business to grow.

### ***Environmental Responsibility***

Design and project implementation will include practices to avoid and minimize potential negative environmental effects during dredging. Dredged materials will be disposed of at approved locations based on consultations with and decisions of the regulatory agencies comprising the Dredge Materials Management Program.

### ***Community Benefits***

The permit process requires notification of neighboring communities, agencies of interest and appropriate environmental groups. The Muckleshoot and Suquamish Tribes will be consulted during the permitting process, with the objective of avoiding potential disruption of Treaty fishing access.

### ***Small Business***

The Office of Social Responsibility will coordinate with the project manager and the procurement department to determine opportunities for small business participation in support of the Resolution No. 3618.

## **ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1)** – Do nothing. This alternative would restrict access to the T-5 Container Terminal and T-91 Cruise Terminal during low tide. This would delay vessel operations, compromise customer service, and may result in loss of existing and future customers/vessels at our port. This alternative is not recommended.

**Alternative 2)** – Only dredge at T-5 or T-91 East Cruise Berth. Not dredging at both terminals would either limit access to the T-5 terminal or to the East Cruise Berth at T-91 with similar impacts to those listed in Alternative 1. This alternative is not recommended.

## **COMMISSION AGENDA**

Tay Yoshitani, Chief Executive Officer

August 28, 2013

Page 6 of 6

**Alternative 3)** – Proceed with both T-5 and T-91 maintenance dredging projects. Doing so would ensure berths at both terminals are able to handle vessels at their full design depths. **This is the recommended alternative.**

## **ATTACHMENTS TO THIS REQUEST**

None.

## **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

August 14, 2012 – The Commission authorized development of design documents and preparation of construction documents for maintenance dredging at Terminals 5 and 18 for an estimated cost of \$950,000 and advertisement and award of major construction contracts for the first phase of Terminal 5 and Terminal 18 Maintenance Dredging Project for an estimated cost of \$1,000,000.