PORT OF SEATTLE MEMORANDUM

COMMISSION AGENDA – STAFF BRIEFING

Item No.	7c				
0.7.5			20	•	

Date of Meeting November 30, 2009

DATE: November 24, 2009

TO: Tay Yoshitani, Chief Executive Officer

FROM: Stephanie Jones Stebbins, Senior Manager, Seaport Environmental Programs

Michael Burke, Senior Manager, Container Leasing and Operations

SUBJECT: Terminal 5 Maintenance Dredging Update

BACKGROUND

In September 2008, the Port Commission approved funding to begin permitting and design for Terminal 5 Maintenance Dredging. Since then, we have developed a plan for a comprehensive approach to the project that will address the specific characteristics of shoaling within the three berths at the facility. To date we have had discussions with the Corps of Engineers (COE) and Dredged Material Management Office (DMMO) about our approach, and are planning to submit the Joint Aquatic Resources Permit Application (JARPA) later this month. Once submitted, the COE will coordinate the involvement of other resource agencies and notify the public for comments.

The way we are approaching this maintenance dredging effort reflects lessons learned from recent projects at Terminal 30, Terminal 91, and Terminal 18. It also reflects changes necessary to be consistent with technical guidance that has recently been developed by the COE. Our approach is different from past dredging projects in three principal ways.

First, we will be requesting approval to include an additional one-foot (1') of "advance maintenance dredging" below the project depth for each berth. Advance maintenance dredging is permitted in critical and fast-shoaling areas as a means to extend the interval between dredging events and ensure the reliability and least overall cost of operating and maintaining the project authorized dimensions. Because the shoaling experienced at T-5 berths results in part from episodic under pier sloughing, it is difficult to predict and resolve through a routine of regular planned maintenance. As such, doing the maintenance in advance allows for a safer and more proactive approach, anticipating the high spots that occur rather than reacting to them. For our project, advance maintenance dredging would increase the required dredging depth from -45' MLLW to -46 MLLW for Berth 1, and from -50' MLLW to -51' MLLW for Berths 2 and 3.

Second, we are characterizing the geometry of the dredge prism in a manner that more accurately portrays the amount of overdepth excavation that is anticipated. Overdepth excavation occurs due to the inherent margin of error that results from equipment tolerances, survey inaccuracies, wave and wind conditions, water depth and human factors. Our recent experience with dredging

COMMISSION AGENDA

T. Yoshitani, Chief Executive Officer November 24, 2009 Page 2 of 3

projects indicates that we can expect 50-75% of sediments to be removed from two feet (2') below the required dredging depth, and another 5-10% removed below that if rocks or large debris are dislodged in deeper sediments. Figure 1 illustrates both the advance maintenance dredging concept and anticipated overdepth excavation as it relates to the project.

The third component of the Terminal 5 maintenance-dredging project that is different from previous Port dredging applications is phasing of the work over a ten (10) year period. A benefit of this approach is that we can differentiate dredging that is needed immediately, or in the very near-term, from dredging that is less critical and that can be deferred to future years, all within a single planning effort. Phasing also allows us to segregate those dredging events that will utilize open-water disposal options from those that will be required to use an upland disposal site.

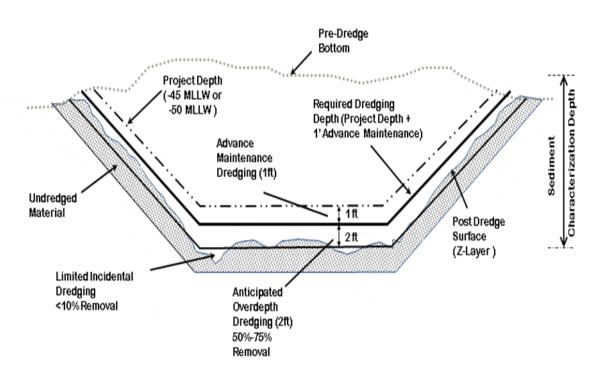


Figure 1 Typical dredge zones and dredge prism geometry

To accommodate a phased project plan, we will be requesting a programmatic project authorization from the COE pursuant to 33 CFR 325.6 that would be in effect for ten (10) years. A programmatic approach will promote comprehensive management of maintenance dredging at T5, allowing us to anticipate and control costs as well as environmental impacts. It also serves to minimize redundancies associated with contracting, permitting and the public involvement process. Table 1 identifies the proposed phasing schedule, including anticipated dredge volumes, depths and disposal methods.

COMMISSION AGENDA

T. Yoshitani, Chief Executive Officer November 24, 2009 Page 3 of 3

Table 1. Anticipated phasing schedule, volumes, depths and disposal method

Berth	Phase	Project Depth (ft MLLW)	Advance Maintenance Depth	Overdepth (50-75% removal)	Incidental Excursions (5-10% removal)	Dredge Volume (cubic yards)	Estimated Schedule	Anticipated Disposal Method
Berth 1	II	-45	-46	-48	-50	3,800	2011-2012	Upland
Berth 2	I	-50	-51	-53	-55	3,000	2010-2011	Open water & Upland
Berth 3	II	-50	-51	-53	-55	7,700	2011-2012	Upland
Future "as- needed" maintenance (all berths)	III	-45/-50	-46/-51	-48/-53	-50/-55	<40,000	2012-2020	TBD

The COE public notice process that is usually undertaken for individual dredging events would now be combined into a single comprehensive notice that the public would receive following our application later this month.

It is important to note that the programmatic approach will not reduce regulatory oversight and environmental protection. Conditions of the programmatic approvals would necessarily require that the Port coordinate each dredging event with the respective regulatory agencies and tribes. Each planned phase of dredging, including future "as-needed" phases, would not move forward without their concurrence or approval.

Finally, it should be noted that sediments within the dredge prism in Berth 2 have already been assessed and a significant portion satisfy the regulatory criteria for open water disposal. It should be recognized that the open water disposal option allows for a significant cost savings compared to upland disposal options. The Commission should also be aware that regulations may be changing in the near future, and the open water disposal option for Berth 2 may likewise change. The option may be preserved, however, if permit applications are submitted prior to the new regulations becoming effective. Either way, the Commission would retain the ability to decide whether the dredge spoils should be disposed of at an open water site or upland site.

The project team is excited to undertake next steps for this project, which include submittal of the JARPA, stakeholder coordination, Phase I and II dredge design, and the procurement process.