

MEMORANDUM FOR RECORD

December 16, 2015

SUBJECT: DETERMINATION REGARDING THE SUITABILITY OF PROPOSED DREDGED MATERIAL FROM THE FAZIO BROTHERS SAND COMPANY, COLUMBIA RIVER SAND-MINING PROJECT, VANCOUVER, WASHINGTON (Permit Ref. # NWS-2003-1265) EVALUATED UNDER SECTION 404 OF THE CLEAN WATER ACT FOR UPLAND PLACEMENT IN SAND PIT FOR COMMERCIAL RESALE.

1. Introduction. This memorandum reflects the consensus determination of the Dredged Material Management Program (DMMP) agencies (U.S. Army Corps of Engineers, Washington Departments of Ecology and Natural Resources, and the Environmental Protection Agency) regarding the suitability of sediment proposed for dredging from the Columbia River federal navigation channel and an immediately adjacent anchorage area in the vicinity of Vancouver, Washington for upland placement, with drainage water returned to the river.

2. Background. The Portland District U.S. Army Corps of Engineers (USACE) holds the federal responsibility to maintain the Columbia River Navigation Channel at the authorized depth. Fazio Brothers Sand Company has dredged this reach of the Columbia River since the 1970s, operating a commercial sand mining operation while maintaining safe navigable depths in the federal shipping channel. Fazio Brothers has a 20-year agreement with the USACE and the ports of Longview, Kalama, Woodland, Vancouver, and Portland to maintain Fazio Brothers' property for the deposition of dredged Columbia River sand. These agreements provide the USACE with dredging and placement capacity for dredged sand in a reach of the river where placement options are extremely limited. Fazio Brothers sells the sand for commercial upland use.

3. Project. Fazio Brothers Sand Company proposes to dredge up to 325,000 cubic yards (cy) of sediment annually, with hydraulic placement at their upland facility (Figure 1). The purpose of the dredging is to help maintain the shipping and anchorage channels at safe navigable depths while obtaining sand from the channel for commercial resale. Proposed dredging is to occur on the Washington State side of the Columbia River, in the federal navigation channel and anchorage area, as described below and depicted in Figure 2:

- a) in the federal navigation channel and up to 100 foot outside of it, between Columbia River miles (CRM) 94 and 100 to a maximum depth of -60 feet Columbia River Datum (CRD);
- b) in the established freighter anchorage area from CRM 96 to 99.5, also to a maximum depth of -60 ft. CRD; and
- c) in the navigation channel between CRM 100 and 100.5 to a maximum depth of -48 feet CRD.

While several types of dredges (including hydraulic cutterhead, hopper and clamshell) may be used, all material will be transferred via pipeline to the existing upland sandpit.

4. USACE Portland District Project Review Group Suitability Determination. As part of maintaining the federal navigation channel, Portland District conducts periodic sediment sampling to ensure that material from the channel can continue to be dredged and placed without adverse environmental impacts. The Columbia River Mainstem Channel was last sampled and tested in August 2008 (NWP 2009), with some supplemental sampling in 2011. Both sampling events were taken into account in a suitability determination for Columbia River navigation channel dredging prepared by the

Portland District Dredging Project Review Group in 2011 (PDPRG 2011). The Project Review Group (now known as the Portland Sediment Evaluation Team, or PSET) consists of the Corps of Engineers, Environmental Protection Agency, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Washington Department of Ecology, and Oregon Department of Environmental Quality.

Per the PSET 2011 suitability determination, the CR navigation channel is ranked "very low" due to "coarse-grained material deposited by energetic flows." Fine-grained material occurs within the navigation channel but is an extremely small portion of the dredged material. The supplemental sampling done in 2011 targeted some of that fine-grain material, found on the Oregon side edge of the channel at approximately RM 101, directly downstream of the confluence with the Willamette River. Those fine sediments showed levels of both zinc and Total PCBs above the interim guideline values then in use on the Columbia River (Corps *et al* 2006 and 2009). However, the levels found in the material are below guidelines for freshwater sediments that were updated in 2013 (DMMP/RSET 2015). Data is summarized in Table 1.

Table 1. Results of analysis of fine-grained sediment samples. Only Zinc and Total PCBs were detected above existing SLs.

Sample No.	River Mile	Sample Year	Gravel (%)	Sand (%)	Fines (%)	Zinc (ppm dry wt.) 2009 SL=130 2013 SL= 3200	Total PCBs (ppb dry wt.) 2009 SL= 60 2013 SL= 110
BC-91	100.8	2008	0.1	18.5	81.5	102	69
01	100.81	2010	4	34	62	169	< 2.1
02	100.85		1	10	89	152	89
03	100.96		0	60	40	54.0	< 2.1
04	101.05		0	21	79	62.5	29

Table adapted from PDPRG 2011

The PSET SD found that the portion of fine material was so low that all material from the area proposed for sand mining met exclusionary criteria under the Clean Water Act (sediment composed primarily of sand; found in an area of high current energy with large bed loads, and sufficiently removed from sources of pollution.) No further chemical or biological testing was required. All material was determined to be suitable for open-water disposal for 10 years from the time of first sampling. Recency for the 2008 sampling will expire in August 2018.

5. DMMP Determination. The Corps of Engineers study found that the sediment in the area proposed by Fazio Brothers for dredging and upland placement is primarily sand suitable for open-water disposal. In this case -- where the sand will be placed upland, with return water filtered through weirs prior to return to the river -- no further sampling is considered necessary by the DMMP for the duration of the existing suitability determination, i.e. until August 2018.

For any dredging and disposal after August 2018, the DMMP will require additional characterization. A Sampling and Analysis plan must be submitted to the DMMP for approval prior to any sampling and testing. **An updated suitability determination must be completed by the DMMP prior to any dredging after August 2018.**

This memorandum does *not* constitute final agency approval of the project. During the public comment period that follows a public notice, the resource agencies will provide input on the overall project. A final decision will be made after full consideration of agency input, and after an alternatives analysis is done under section 404(b)(1) of the Clean Water Act. This memorandum also does not constitute agency

approval for any specific use of the material obtained by Fazio Brothers during the proposed dredging. Those projects are subject to separate review and permitting.

6. References.

Corps, EPA, Ecology, WDNR, ODEQ, IDEQ, NMFS, and USFWS 2006. *Interim Final Sediment Evaluation Framework for the Pacific Northwest*. Published September 30, 2006, by the Regional Dredging Team, 194 pp + Appendices.

Corps, EPA, Ecology, WDNR, ODEQ, IDEQ, NMFS, and USFWS. 2009. *Sediment Evaluation Framework for the Pacific Northwest*. Published May 2009, by the Regional Dredging Team, 128 pp + Appendices.

DMMP/RSET 2015. *RSET/DMMP Program Update: Proposal to Revise Freshwater Sediment Screening Levels*. Prepared by Laura Inouye (Washington Department of Ecology), Jeremy Buck (U.S. Fish and Wildlife Service), June Bergquist (Idaho Department of Environmental Quality), Jonathan Freedman (Environmental Protection Agency – Region 10), and James McMillan (US Army Corps of Engineers – Portland District) for the RSET Agencies. Update dated October 2015.

NWP 2009. *Columbia River Mainstem Federal Navigation Channel Sediment Quality Evaluation Report*. Prepared by Tim Sherman and Wendy Briner for Portland District, Corps of Engineers. September 2009.

PDPRG 2011. *CENWP-EC-HR Memorandum for Portland District Operations Division, Waterways Maintenance (CENWP-OD-NW) (Stokke); Portland District Project Review Group dredged material suitability determination for the Columbia River Mainstem*. July 12, 2011.

7. Agency Signatures.

Concur:

Date Lauran Warner - Seattle District Corps of Engineers

Date Justine Barton - Environmental Protection Agency

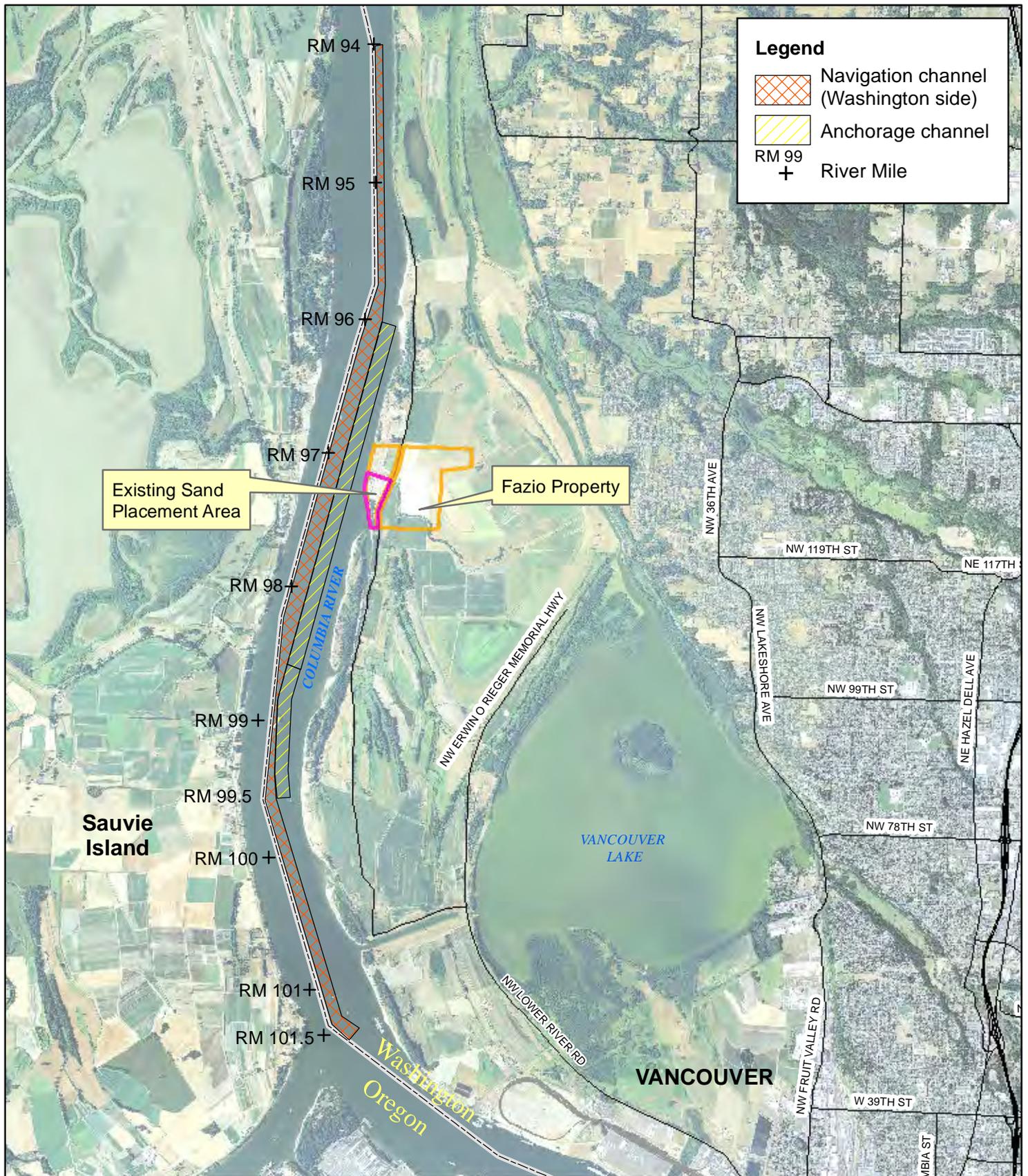
Date Laura Inouye, Ph.D. - Washington Department of Ecology

Date Celia Barton - Washington Department of Natural Resources

Copies furnished:

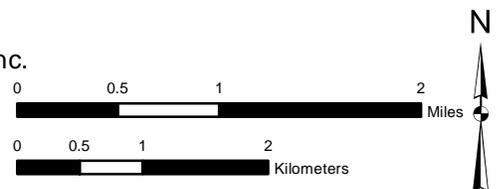
DMMP signatories
Kristen Hafer, CENWS-OD-RG
James Holm, CENWP-EC-HR
Don Hardy, BergerABAM

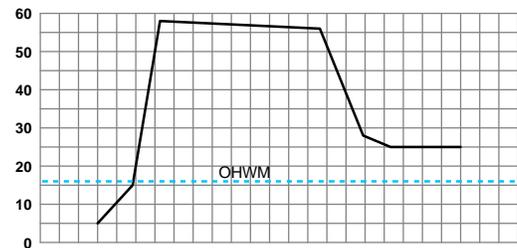
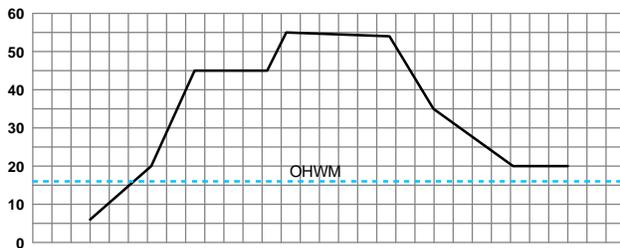
Figures attached



Purpose: Dredge sand for commercial re-sale
 Location: 45.71348, -122.75315
 Datum: CRD
 Proposed: Dredging
 Reference Number: USACE Permit No. 2003 01265
 In: Columbia River, RM 94 to 101.5
 County and State: Clark, Washington
 Date: 23 October 2015

FIGURE 1 - VICINITY MAP
 Fazio Brothers Sand Company, Inc.
 12112 NW LOWER RIVER ROAD
 VANCOUVER, WA 98660
 NWS-2003-1265





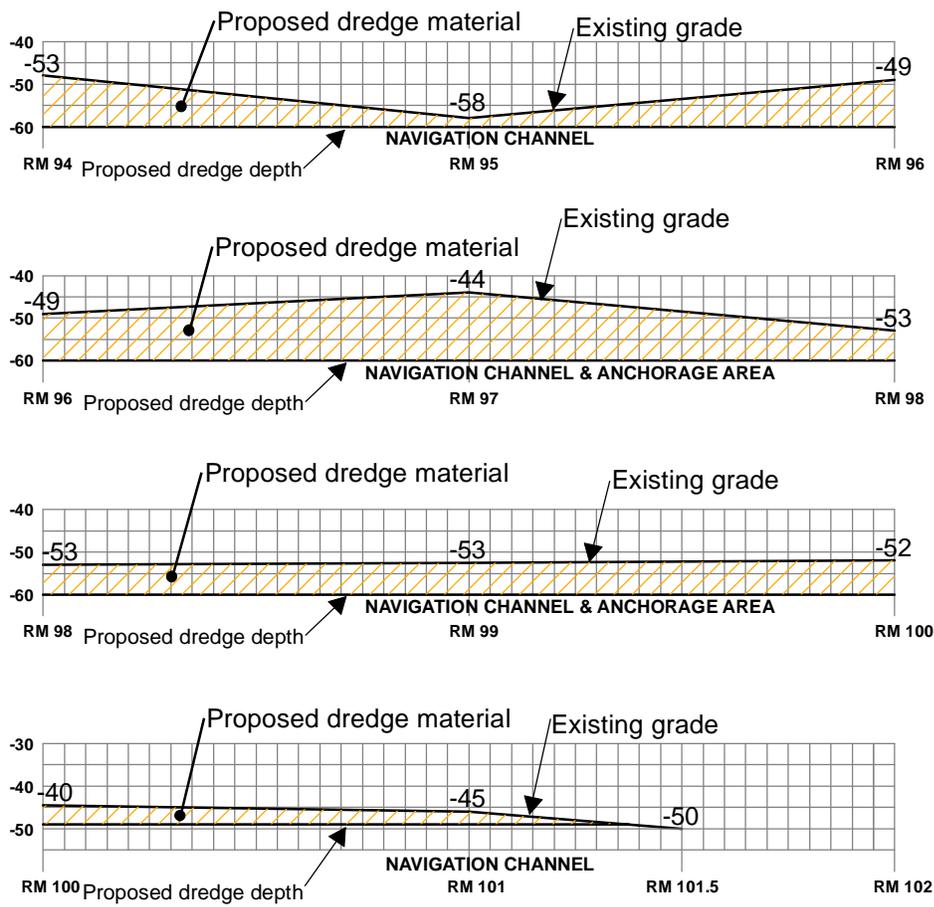
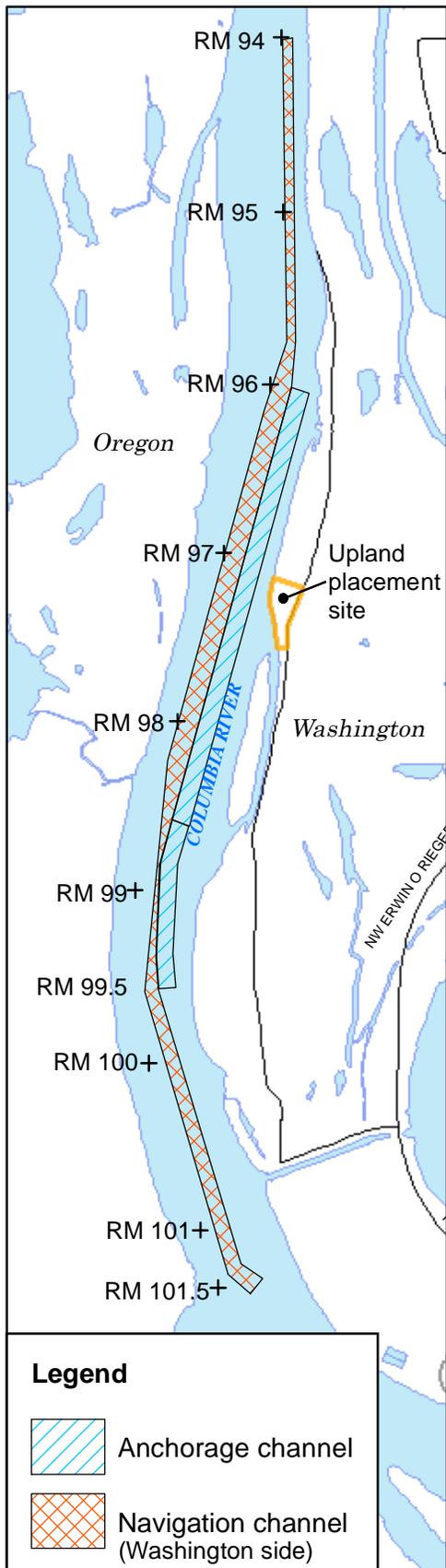
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FIGURE 2 - PLAN VIEW - UPLAND PLACEMENT SITE (SAND PIT)

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Columbia River Mile	Existing Depth of River	Proposed Depth of River Navigation Channel	Proposed Depth of River Anchorage Area
RM 94	-53	-60	N/A
RM 95	-58	-60	N/A
RM 96	-49	-60	-60
RM 97	-44	-60	-60
RM 98	-53	-60	-60
RM 99.5	-53	-60	-60
RM 100	-52	-48	N/A
RM 101	-57	-48	N/A
RM 101.5	-61	-48	N/A

Legend

- Anchorage channel
- Navigation channel (Washington side)

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FIGURE 3 - SITE PLAN - IN-WATER

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