CENWS-OD-TS-DM

MEMORANDUM FOR RECORD 15 August 1998

SUBJECT: DETERMINATION ON THE SUITABILITY OF DREDGED MATERIAL FROM BLAIR WATERWAY, PUGET SOUND EVALUATED UNDER SECTION 404 OF THE CLEAN WATER ACT (CWA) FOR OPEN-WATER DISPOSAL AT THE COMMENCEMENT BAY NONDISPERSIVE DISPOSAL SITES.

1. The Corps proposes to deepen the Port of Tacoma's Blair Waterway in Commencement Bay. The project initially proposed included dredging 759,000 cy of material (-44 ft to 50 + 1 ft MLLW), which includes side slopes and one-foot of overdepth. The proposed dredged material would be disposed at the Commencement Bay nondispersive disposal site.

2. Subsequent to the characterization conducted and the results discussed below, the Corps project manager proposed some modifications to the project design, which would effectively increase the project volume to 1,140,000 cubic yards (-44 ft to 51 + 1 ft MLLW). The proposed changes would also expand the project outside the characterized area at two locations (Pierce County terminal and Blair terminal). Paragraph 7 below provides a summary of the DMMP agencies deliberations on the changes to the project design and whether or not the testing conducted based on the initial design for this project was adequate for regulatory decision making.

3. The project area was ranked low for this characterization by the DMMP agencies (Corps, EPA, Ecology, DNR). Based on a comprehensive review of previous testing and contaminated sediments remediation/removal the DMMP agencies agreed to allow a modified characterization that focused only on confirming the surface sediment quality. They agreed that based on previous cleanup and PSDDA dredging, the remaining sediments existing within the proposed dredging area of the navigable waterway consist of clean native sediments. Subsurface sampling/testing was therefore deemed unnecessary by the DMMP agencies for this characterization effort.

4. Sampling was initiated between 17-19 March, 1998, and consisted of collecting sixty grab (Van veen) samples, which were subsequently composited into ten analysis (e.g., six samples / composited sample) (see figure 1). The Agencies' approved sampling and analysis plan for testing surface sediment in Blair Waterway was followed, and quality assurance/quality control guidelines specified by the PSDDA Users Manual were generally complied with. The data gathered were deemed sufficient and acceptable for decision making by the DMMP Agencies based on best professional judgment.

5. Table 2 summarizes the sediment conventional parameters for the ten surface analyses conducted. Chemical analysis of the composited sample indicated that there were no detected or undetected exceedances of screening levels for all 58 chemicals of concern, including tributyltin.

6. Relevant dates for regulatory tracking purposes are included in Table 1.

Table 1. Regulatory Tracking Dates

SAP Approval date:	March 6, 1998
Sampling date(s):	March 17 -19, 1998
Data report submittal date:	June 10, 1998
Recency Determination Date: Low Concern (5-7 years)	March 2003 to 2005

Table 2. Sediment Conventional Results.

Parameter	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
Grain Size:										
% Gravel	0.8	0.1	0.8	<0.1	0.2	0.3	0.1	<0.1	0.2	<0.1
% Sand	43.4	52.8	30.3	31.5	31	34.9	45.2	31.7	30.1	32.7
% Silt	42.3	35.9	54.9	51	50.8	45	40.9	37.6	55.2	53.8
% Clay	13.4	11.2	13.9	17.5	18.1	19.9	13.9	15.6	14.7	13.6
% Fines (clay+silt)	55.7	47.1	68.8	68.5	68.9	64.9	54.8	53.2	69.9	67.4
Total Solids, %	65.1	69	65.8	62.3	63.9	60.8	67.1	63.5	63.3	65.2
Volatile Solids, %	4	3.1	3.1	3.2	2.6	3.2	2.4	3.1	3	3.6
Total Organic Carbon, %	1.2	1.6	0.99	1	0.89	1.1	0.7	0.83	0.8	2.1
Total Sulfides, mg/kg	--	--	--	--	--	--	--	--	--	--
Total Ammonia, mg/kg	9.2	8.7	6.2	6.3	5.1	7.6	2.4	2.7	2	3.7

7. The DMMP agencies discussed the changes to the project relative to the testing conducted to ascertain whether or not any additional testing would be necessary to address the deeper footprint and the expanded footprint. Table 3 summarizes the changes noted in the project volumes. After reviewing and discussing the information provided the DMMP agencies agreed that the increase in project depth did not warrant additional testing, as the additional material was in the native sediment layer. The uncharacterized volumes from the Pierce County Terminal and Blair Terminal areas were in areas where there was a low "reason to believe" and/or previously dredged areas under CERCLA cleanup actions. These proposed changes were coordinated with EPA superfund project managers and no additional testing was recommended based on their review. The DMMP agencies agreed based on best professional judgment that the initial characterization conducted would suffice for the redesigned project without any additional testing.

Table 3. Expanded project volumes for the Blair Channel Deepening Project

Dredging depth	Channel	Terminal 3	Pierce County Terminal (new)	Blair Terminal (new)	Totals
44 ft to 50 + 1 ft	713,000 cy	46,000 cy	-	-	759,000 cy
44 ft to 51 + 1 ft	970,000 cy	70,000 cy	50,000 cy	50,000 cy	1,140,000 cy

8. The agencies concluded that all 10 DMMU tested passed PSDDA nondispersive site guidelines for open-water disposal. The 1,140,000 cy of material is suitable for placement at the Commencement Bay open-water disposal site.

9. The chemical analytical data were also compared to the State Sediment Management Standards. No chemicals exceeded SMS (SQS) criteria. Based on this information, the DMMP agencies determined that the sediments from the Blair Waterway are chemically suitable for use in beneficial uses projects. Sediment conventional data is included in Table 2.

10. This memorandum documents the suitability of proposed dredged sediments from Blair Waterway for disposal at the Commencement Bay nondispersive open-water disposal site. However, this suitability determination does not constitute final agency approval of the project. A dredging plan for this project must be completed as part of the final project approval process. A final decision will be made after full consideration of agency input, and after an alternative analysis is done under Section 404(b)(1) of the Clean Water Act.

Concur:

9/1/98 Date	Lauren Cole-Warner, Seattle District Corps of Engineers
8/31/98 Date	David Kendall, Ph.D., Seattle District Corps of Engineers
8-20-98 Date	Justine Barton, Environmental Protection Agency
24 Aug 98 Date	Rick Vining, Washington Department of Ecology
26AUG98 Date	Ted Benson, Washington Department of Natural Resources

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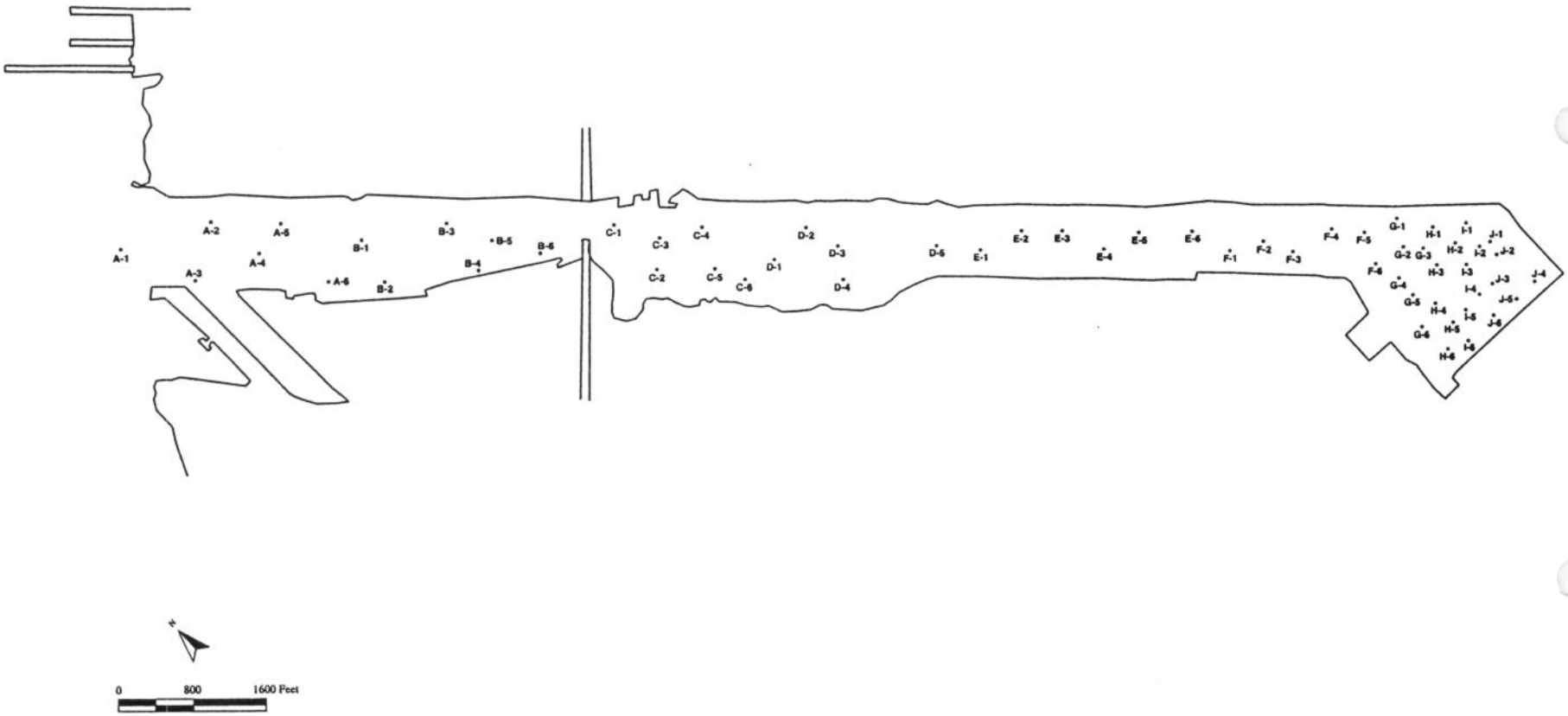
DMMO file



TRIPLIN Environmental Associates	**Figure 1**	Blair Waterway Sampling Locations	Blair Waterway May 1998

BW Report Fig 2.xls