

28 February 1994

SUBJECT: DETERMINATION OF THE SUITABILITY OF DREDGED MATERIAL TESTED UNDER PSDDA EVALUATION PROCEDURES FOR THE WARREN AVENUE CSO (CITY OF BREMERTON) FOR DISPOSAL AT THE PSDDA ELLIOTT BAY OPEN WATER DISPOSAL SITE.

1. The City of Bremerton proposes to dredge 3-4,000 cubic yards of sediments as part of its construction of an outfall at Bremerton Washington. The following summary reflects the PSDDA agencies' (Corps of Engineers, Department of Ecology, Department of Natural Resources and the Environmental Protection Agency) consensus decision on the acceptability of the sampling plan and all relevant test data to make a determination of suitability for the disposal of the material at the PSDDA Elliott Bay open-water disposal sites.
2. The ranking for the project area is "moderate", based on the guidance provided in the PSDDA Management Plan Report, Phase II (page A-11) for the Port Washington Narrows area.
3. A sampling and analysis plan was not developed for this project prior to initiation of sampling and testing. The PSDDA agencies became aware of the project with the initiation of biological testing. At that time, the agencies met with the project consultants and agreed that bioassay testing could proceed, but that in the absence of an approved sampling plan, the acceptability of the sampling and chemical testing could not be determined until the full data report was received. A sampling and analysis plan was submitted as part of the final report. Sampling for this project was initiated on 12 April 1993.
4. Two dredged material management units (DMMU) were characterized, one surface (C-1) and one subsurface (C-2). Samples were taken from two locations and composited for each analysis.
5. The chemistry data indicated several detected exceedances of the Dredging Year 1993 PSDDA screening levels (SL) for composite C-1 and one exceedance of PSDDA SLs for composite C-2. These values are listed in Table 1. There were no exceedances of any bioaccumulation triggers or maximum levels. There were detection limit exceedances for PCBs in both composites.
6. The SL exceedances for C-1 and C-2 triggered the requirement for biological testing under the tiered testing approach. The amphipod 10-day acute toxicity test, echinoderm sediment larval combined mortality and abnormality (effective mortality) test, the Neanthes 20-day biomass test and the Microtox bacterial luminescence test were conducted. PSDDA interpretation guideline specified in the Phase II Management Plan Report (September 1989), modified by changes made at the second and fourth annual review meetings, were used to evaluate the bioassay data. The control sediment for the amphipod and Neanthes bioassays was collected at West Beach. The reference sediment (all bioassays) came from West Beach. The seawater control for the sediment larval test was collected one mile west of Deception Pass.
7. There were no hits for any of the bioassays. Reference sediments and negative controls performed within their respective performance standards and there were no quality assurance problems with any of the tests. Both C1 and C2 passed biological testing.

8. There were some minor QA/QC problems encountered in the chemical analysis. The holding time for ammonia was exceeded, as was the holding time for some semi-volatile analyses (by one day). Matrix spike recoveries for several metals was below the acceptable limits. These QA problems did not affect the decision to conduct bioassays, nor the final determination regarding the suitability of the sediment for open-water disposal.

9. In summary, PSDDA approved protocols and procedures were followed, and quality assurance, quality control guidelines specified by PSDDA were generally complied with. The data gathered were deemed sufficient and acceptable for regulatory decision-making under the PSDDA program. Based on the results of the chemical and biological testing, the PSDDA agencies concluded that up to 4,000 cubic yards of proposed dredged material were suitable for unconfined open-water disposal at a PSDDA dispersive or non-dispersive site.

9. This memorandum documents the suitability of proposed dredged sediments for disposal at a PSDDA open-water disposal site. It does not constitute final agency approval of the project. A public notice will be issued for this project. During the public comment period which 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.

Concur:

3/11/94
Date

3/11/94
Date

3/16/94
Date

3/16/94
Date

Date

David Kendall
David Kendall, Ph.D
Seattle District Corps of Engineers

Stephanie Stirling
Stephanie Stirling
Seattle District Corps of Engineers

Justine Barton
Justine Barton
Environmental Protection Agency, Region X

Sandra L. Manning
Sandra Manning
Washington Department of Ecology

Gene Revelas¹
Washington Department of Natural Resources

1. Project not reviewed; suitability determination deferred to other PSDDA agencies

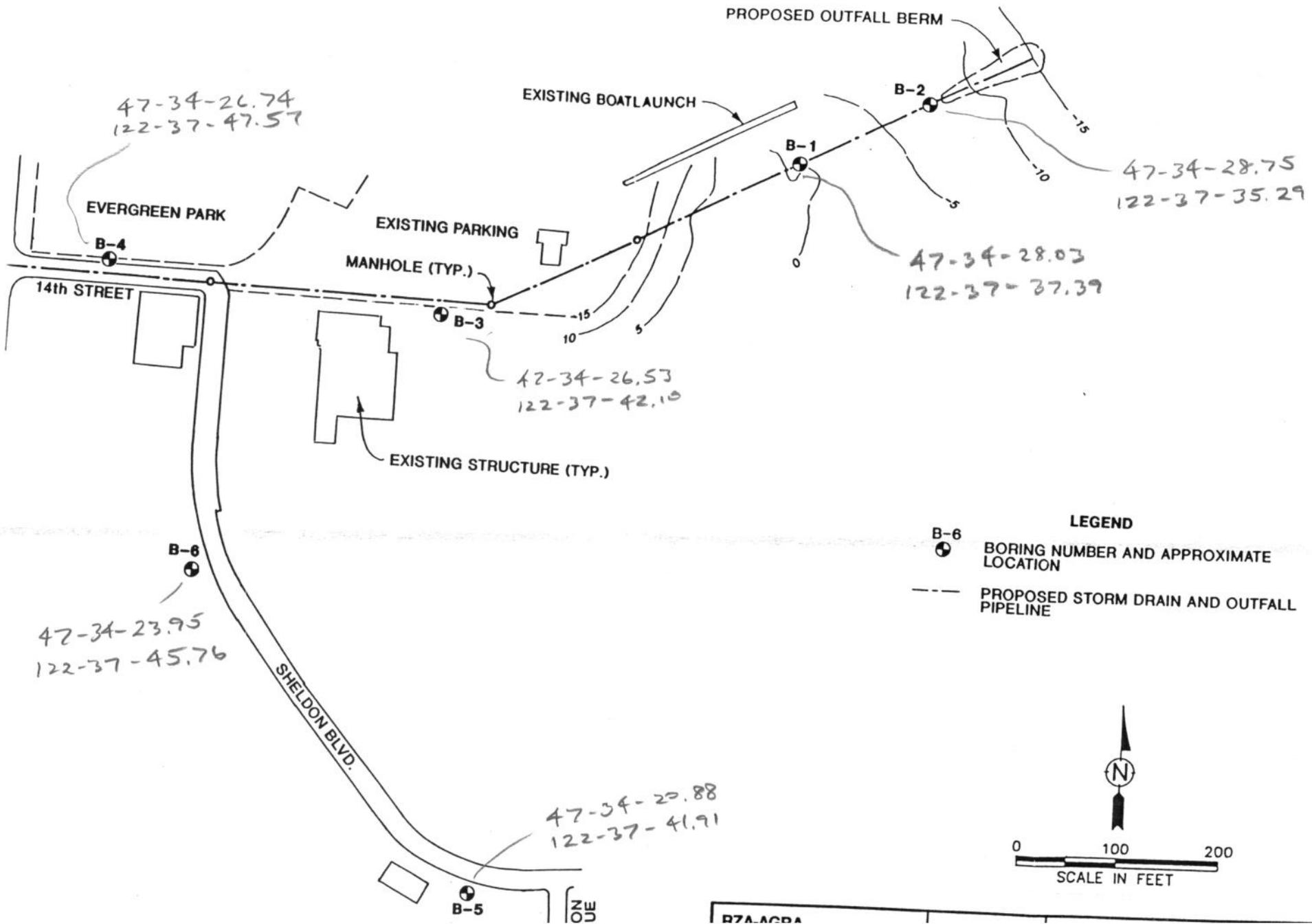
Copies Furnished:

Claudia Quate/CENPS-OP-RG
Steve Cappellino/Parametrix
DMMO file

EPA/Justine Barton
DOE/Sandra Manning
DNR/Gene Revelas

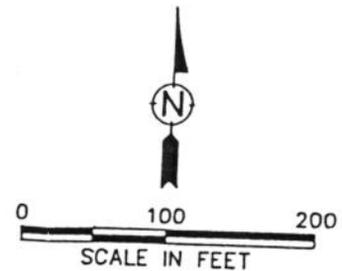
Table 1

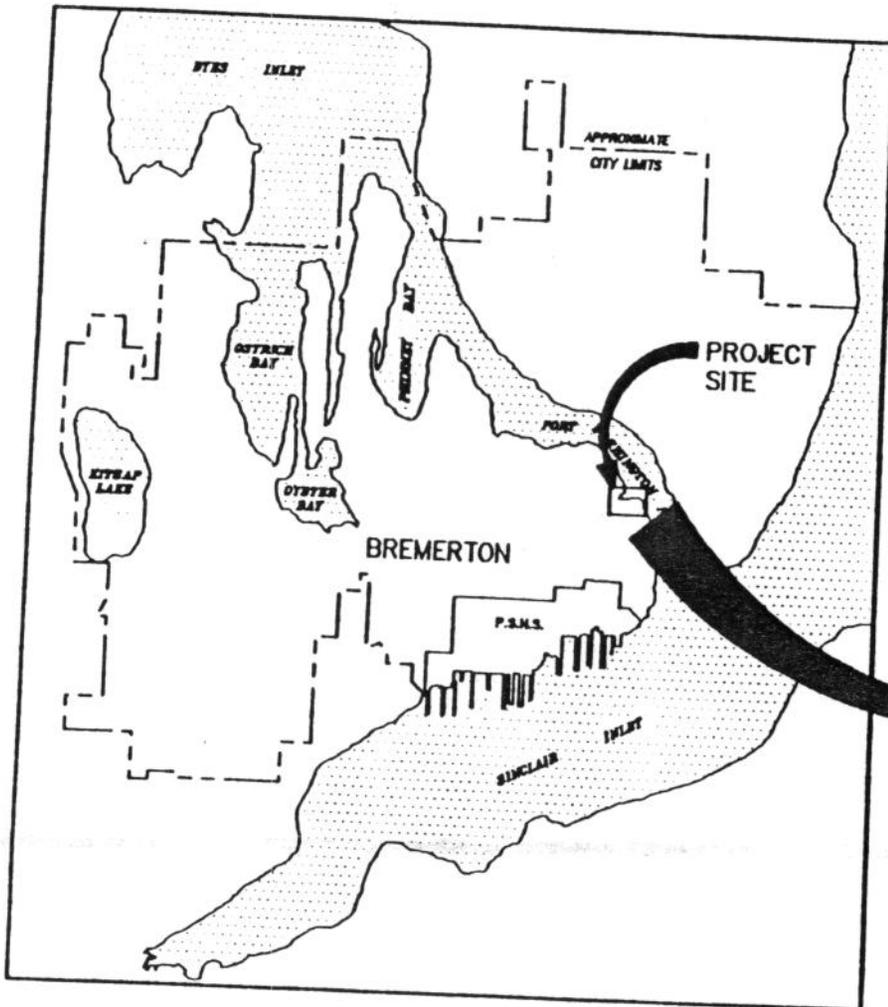
Analyte	C-1	C-2	PSDDA SL
Mercury	0.23		0.21
Zinc		170	160
Anthracene	130		130
Pyrene	510		430
Indeno(1,2,3,-cd)pyrene	120		69
Phenol	130		120
4-Methylphenol	1000		120



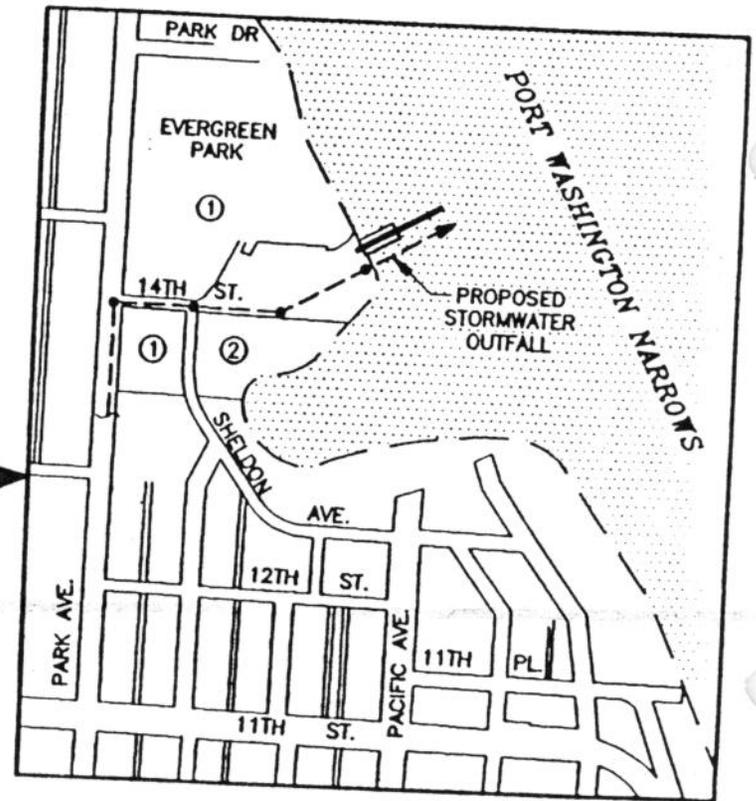
LEGEND

- B-6  BORING NUMBER AND APPROXIMATE LOCATION
-  PROPOSED STORM DRAIN AND OUTFALL PIPELINE





VICINITY MAP

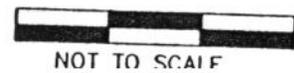


LOCATION MAP

Ref: 93-2-01578
 Proposed: Outfall, Dredging,
 Place fill, Open Water Disp.

PURPOSE: CONSTRUCT STORMWATER OUTFALL
 VERTICAL DATUM: N.O.S. MLLW=0.0
 ADJACENT PROPERTY OWNERS:
 ① CITY OF BREMERTON
 ② BREM-AIR, INC.

VICINITY MAP



IN: WASHINGTON NARROWS, Sinclair Inlet
 AT: CITY OF BREMERTON
 COUNTY OF: KITSAP STATE OF: WASHINGTON
 APPLICATION BY: BREMERTON DEPARTMENT OF
 PUBLIC WORKS AND UTILITIES