

6 December 1991

**SUBJECT: DECISION ON THE SUITABILITY OF DREDGED MATERIAL TESTED UNDER PSDDA EVALUATION PROCEDURES FOR THE MORTON MARINE MAINTENANCE DREDGING PROJECT (OYB-2-013054) TO BE DISPOSED OF AT THE ELLIOTT BAY OPEN-WATER DISPOSAL SITE.**

1. 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 4,000 cubic yards of material proposed for dredging from the Morton Marine project site. The material characterized was in addition to the 3,990 cubic yards for which a suitability decision was made on 3 May 1990, and for which a section 10/404 permit was issued on 25 March 1991. The additional material represents sediments deposited by freshets during storms occurring during the winter of 1990/1991. Disposal will occur at the PSDDA Elliott Bay open-water disposal site.
2. The project area was ranked high. One dredged material management unit (DMMU C1), represented by two composited field samples, was subjected to concurrent chemical and biological testing.
3. Chemistry data indicated that no exceedances of the 1991 PSDDA screening levels (SL), detected or undetected, occurred for C1.
4. Using a tiered testing approach, no biological testing would be required. For this project, however, concurrent biological testing was conducted. The amphipod 10-day acute toxicity test, echinoderm sediment larval combined mortality and abnormality (effective mortality) test, the Neanthes 10-day acute toxicity test, and the Microtox bacterial luminescence test were conducted. PSDDA interpretation guidelines specified in the Phase II Management Plan Report (Sept 1989), modified by changes made at the second annual review meeting, were used to evaluate the bioassay data. West Beach (Whidbey Island) sand was used for the negative control sediment for the amphipod and Neanthes bioassays. The reference sediment (all bioassays) came from Carr Inlet.
5. There were no hits for the amphipod, sediment larval or Neanthes bioassays. Control and reference sediments met their PSDDA performance standards for all three bioassays.

In the Microtox bioassay, Laucks Testing did not run five replicates at the highest concentration. Only the dilution series was conducted for both the reference and test sediments, which included two replicates at the highest concentration. This was not considered a serious problem due to the following reasons:

- 1) The test sediment exhibited light enhancement for both replicates at the highest concentration. Light enhancement is considered a nontoxic response at this time. It is highly unlikely that the test sediment would have shown significantly greater light diminution relative to reference had five replicates been done.

2) Under PSDDA guidelines, the Microtox test alone cannot fail a test sediment (MPR-Phase II, page A-30). As part of the Section 401 Water Quality Certification process, Microtox hits may be used to corroborate hits under the two-hit rule for any of the other bioassays. In the present case there were no hits for the other bioassays. The Microtox results are inconsequential.

6. In summary, the PSDDA-approved sampling and testing plan was 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 chemical and biological testing, the following consensus decision was made by the PSDDA agencies:

All 4,000 cubic yards of additional accreted material proposed for dredging from Morton Marine (OYB-2-013054) are suitable for disposal at the Elliott Bay open-water site. The total volume of sediments found suitable for open-water disposal through two rounds of testing is 7,990 cubic yards.

Concur:

12/24/91  
Date

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David Kendall, Ph.D  
Seattle District Corps of Engineers

12/6/91  
Date

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Date

Justine Diane Smith  
Justine Smith  
Environmental Protection Agency, Region X

12/17/91  
Date

Richard L Vining  
Rick Vining  
Washington Department of Ecology

12/19/91  
Date

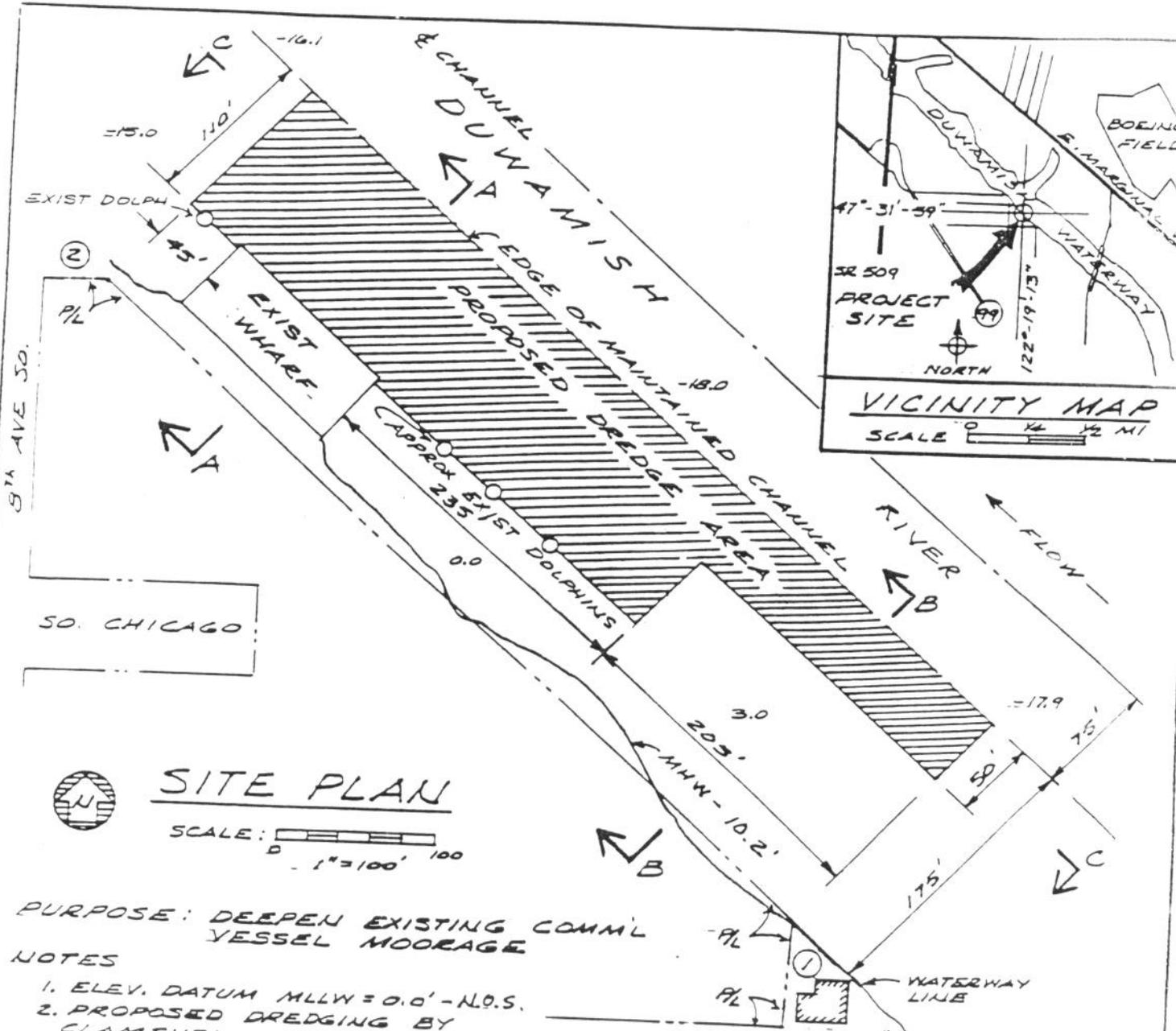
Gene Revelas  
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Washington Department of Natural Resources

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EPA/Justine Smith  
DOE/Rick Vining  
DNR/Gene Revelas  
DMMO file



**SITE PLAN**

SCALE: 1" = 100'

PURPOSE: DEEPEN EXISTING COMM'L VESSEL MOORAGE

**NOTES**

1. ELEV. DATUM MLLW = 0.0' - N.O.S.
2. PROPOSED DREDGING BY CLAMSHELL. APPROX. 3990 CY. OF SAND & SILT TO BE DISPOSED OF AT ELLIOTT BAY PSDDA DEEPWATER DISPOSAL SITE.
3. RSF. PERMITS  
 OYB-2-11947 , OYB-2-11282,  
 OYB-1-8905 , OYB-2-8338
4. ADJACENT PROPERTIES  
 (1) Wm. CARRIEL  
 850 So. KENYON , SEATTLE, WASH. 98108  
 (2) CITY OF SEATTLE  
 ENGINEERING DEPT.  
 708 MUNICIPAL BLDG, SEATTLE, WASH. 98104

- OYB-2-013054 -

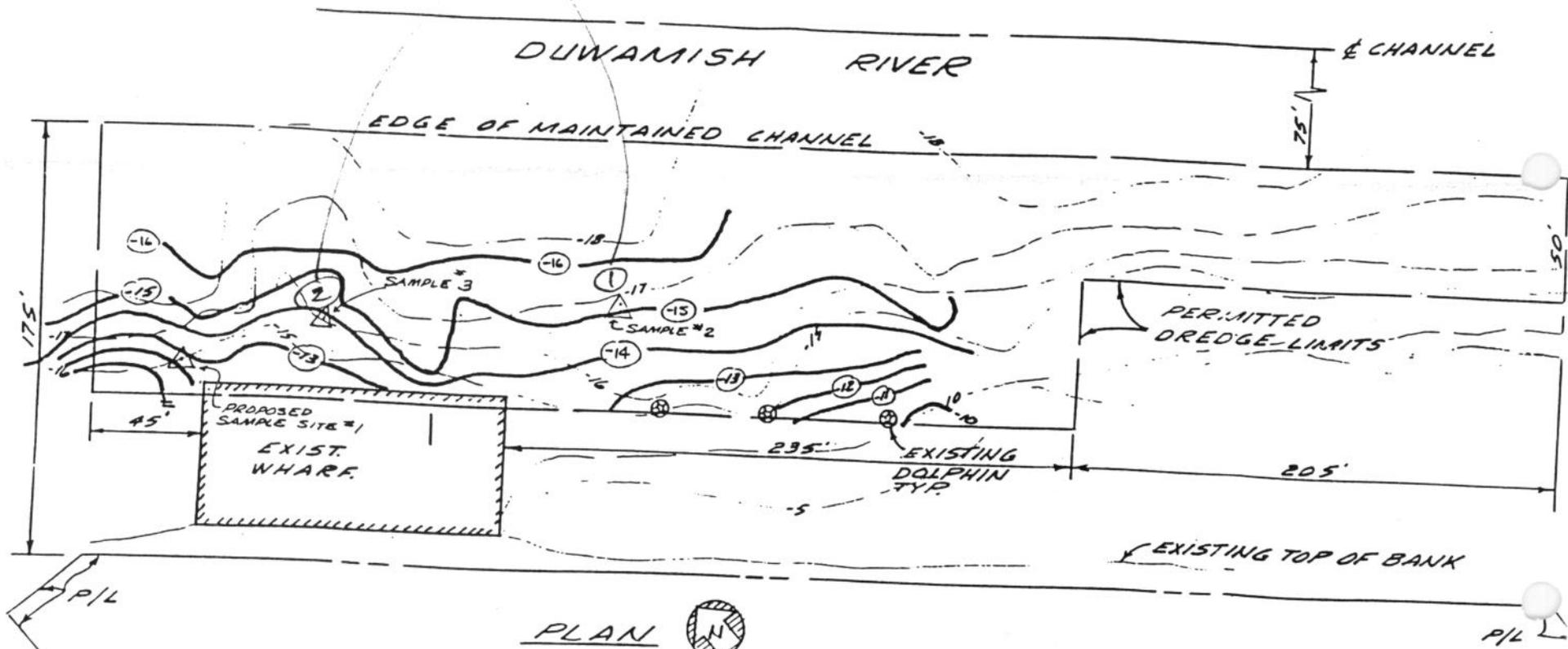
**PROPOSED DREDGING  
 W/ DEEPWATER DISPOSAL**

LOCATION:  
 DUWAMISH RIVER & ELLIOTT BAY  
 CITY OF SEATTLE  
 KING COUNTY, WASH.

APPLICANT  
 BROWN MORTON PROPERTIES  
 AGENT  
 JAY W SPEARMAN  
 CONSULTING ENGINEER

SHT 1 OF 4      5/18/90

in DAIS



SCALE IN FT. 0 20 40 60 80 100

APPROVED SAMPLE SITES

LEGEND

— 1991 SOUNDINGS  
- - - 1989 SOUNDINGS