WMCSF
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 990
Seattle, Washington 98101-3140

Reply To
Attn Of: ETPA-088

June 28, 2012

CERCLA Clean Water Act Substantive Requirements for Water Quality

Pacific Sound Resources – Marine Sediments Unit
Mouth of Duwamish River/West Waterway
Elliott Bay, Seattle, Washington

Introduction. This Water Quality Certification (certification) has been completed in support of remedial work at the Pacific Sound Resources (PSR) Superfund site. The PSR site is located on the south shore of Elliott Bay, west of the West Waterway at 2801 S.W. Florida Street, Seattle, Washington. The site was used for wood treatment operations from 1909 to 1994, and was separated into two Operable Units for investigation and cleanup purposes – an upland unit and a marine sediments unit (MSU). The record of decision identified limited dredging and sediment capping as the remedy for the MSU. Individual remedial areas (RAs) within the MSU had specific site and operational considerations that required different cap designs, cap materials, and construction methods. RA5 is a 22 acre offshore area, ranging from approximately 140 to 240 feet in depth. RA5 design specifications called for a minimum cap of 27 inches (24 inches following consolidation) of sandy dredged material.

Cap construction activities for RA5 were conducted in January and February 2005, using sandy dredged material from the Seattle District Corps of Engineers (Corps) Snohomish River navigation maintenance project. Initial post-construction monitoring in RA5 found that the cap did not meet design thickness. The current proposal is to use sandy dredged material from the Corps Swinomish Channel navigation maintenance project to augment thin areas of the RA5 cap. The EPA anticipates placing up to 35,000 cubic yards (cy) of dredged Swinomish sand by bottom dump barge in areas of the cap represented by RA5-13 and RA5-05 from the most recent PSR Long Term Monitoring Report (dated August 1, 2008). Should the EPA remedial project manager determine additional funds are available, material may also be placed in the vicinity of RA5-14A. The final volumes and placement locations will be determined once the Corps has selected a contractor and specifics of transportation costs and barge size are known. To provide context, placement of 35,000 cy (the maximum) would require approximately 15 placement events using a 2,500 cy barge.

The dredging/capping actions may be initiated starting July 16, 2012 and must be completed prior to February 15, 2013.

The EPA is responsible for review of this project to insure compliance with the substantive requirements of the Clean Water Act Section 40L The State of Washington water quality standards (Chapter 173-201A WAC) were used for the EPA's evaluation, these standards being normally applicable and used the by the State of Washington for Section 401 certification of non-CERCLA actions. Elliott Bay proper, east of a line between Pier 91 and Duwamish Head, is classified as having an "excellent" aquatic life uses designation (Chapter 173-201A WAC Table 612). The anti-degradation policy of the State of Washington, in addition to preservation of

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beneficial uses, is a major factor in our analysis. Analysis of environmental effects of capping at PSR is provided in the project-specific Environmental Assessment -- Federal Maintenance Dredging Swinomish Federal Navigation Channel, dated May 2012. The most recent (2007) status of on-site conditions is provided in the PSR Long Term Monitoring Final Report, dated August 1, 2008.

A copy of this certification will be included in the EPA's PSR site file as part of the record for this action and provided to the Corps and all other contractors and subcontractors performing in-water work at the PSR site. The EPA reserves the right and responsibility to revoke, amend or revise this certification at any time.

Construction Activities. No changes to the RA5 cap design, footprint or placement methods are proposed from the original capping remediation project as carried out in early 2005. However, the EPA anticipates more accurate predictions for the placement of dredged material on site due to the relative coarseness of Swinomish Channel dredged material, compared to the Snohomish River dredged material used in 2005. The Corps performed initial predictive modeling in support of a detailed design, including identification of initial bottom dump barge drop locations (see attached Plate C-1). The actual number of placement events and their distribution will depend on the size of the barge provided by the contractor ahd the final design/placement details. Final target locations ahd final project volume cannot be determined until a contractor is selected and costs/barge sizes are known. This certification covers placement of up to 35,000 cy of Swinomish dredged material at the PSR site, though the likely actual volume is less than that.

Certification. The EPA certifies that the work proposed complies with applicable provisions of Section 301, 302, 303, 306, and 307 of the Clean Water Act, as amended. This certification is subject to the following conditions:

1. A final project construction plan/design, including fmal project volume and individual bottom dump barge target locations must be coordinated with the EPA and the Washington Department of Natural Resources (WDNR) once a Corps contractor has been selected.

2. In-water work may begin on July 16, 2012 and may continue through February 14, 2013; thereafter this certification will expire.

3. Copies of this certification will be kept on the job site, readily available for reference by the EPA, the contractor, subcontractors, and other federal, state and local government inspectors. The EPA retains jurisdiction to make further modifications to this certification through written amendment.

4. Water quality standards pertaining to Elliott Bay will apply to this project, except in the immediate zone of compliance, during and immediately following each dredged material placement.

5. For the capping activity, the entire water column within 300 feet, measured from the outer edges of the bottom dump barge, on any individual disposal, will constitute the zone of compliance for turbidity and dissolved oxygen. Dissolved oxygen levels are not expected to drop below ambient levels due to the nature of the project – which includes placement of individual barge loads of clean sandy Swinomish dredged material over designated areas of the RA5 cap. While a zone of compliance has been established, water quality monitoring for turbidity and DO will not be required. Factors in this decision include:

a. The nature of this activity is similar to routine open water disposal events that occur at the nearby Elliott Bay non-dispersive open water dredged material disposal site, where disposal of more fine-grained dredged material regularly occurs, without the requirement for water quality monitoring.
b. The Swinomish Channel dredged material is particularly clean and sandy – as documented in the signed interagency Suitability Determination for characterization of Swinomish Channel dredged material, dated December 11, 2009.
c. In 2005, identical bottom dump barge placement was used to construct the current cap over contaminated sediments. Subsequent on-site monitoring in 2007 showed that RA5 surface chemistry levels now meet the Sediment Management Standards SQS, even in those areas such as RA5-13 and RA5-05 that received only 1 to 4 inches of capping material.[1] Thus, while bottom dump placement of cap material will result in the resuspension of clean surface sediment particles into the water column, resuspension of the underlying contaminated sediment into the water column and mixing of these sediments into the cap is not anticipated. While some short term turbidity will be caused by the use of bottom dump barge placement, the final conditions on site are anticipated to remain relatively clean.
d. There is no indication that this activity has the potential to cause a long-term loss of sensitive or important habitat, interfere with existing characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health. The overall goal of the project is to further enhance long term conditions and beneficial uses in Elliott Bay.

6. Care shall be taken to prevent any petroleum products or other deleterious or toxic materials from entering the water as a result of any activity. If a significant oil sheen is observed in the vicinity of the capping operations, immediate action must be taken to modify the activity and prevent further degradation, or the activity shall cease. The EPA will be notified of the condition immediately.

7. If distressed or dying fish are observed in the vicinity of the operation, immediate action must be taken to modify the activity and prevent further degradation, or the activity shall cease. The EPA will be immediately notified of the condition. Dead fish should be collected and appropriately preserved in the event that post-mortem tests or evaluations are necessary. The EPA reserves the right to coordinate with federal, state and tribal fish experts and require such tests.

8. The contractor should monitor for floatable debris immediately post-placement. Should floatable debris be introduced into Elliott Bay by the capping activities, it must be collected and suitably disposed at an upland location.

9. A final post-construction report should include the time, location, and volume of each barge load of material placed at PSR. In addition, the report should indicate the area of the Swinomish Channel where the dredged material originated, as well as any other details of note that might help inform future dredged material placement activities at PSR. This report should be provided to the WDNR and the EPA.

[1] With the exception of one chemistry duplicate from RA-14A – located in the deepest area of the cap that appears not to have received material in 2005.

Notification. The EPA shall be notified at least 5 days prior to initiation of dredging and capping, and immediately upon any failure to comply with conditions of the certification. Following placement of the last barge load of material on site, the EPA shall also be notified. The contact for questions or coordination on this certification is Justine Barton at 206-553-6051; Address: 1200 Sixth Ave., Suite 900, ETPA-088, Seattle, Washington, 98101; Email: barton.justine@epa.gov.

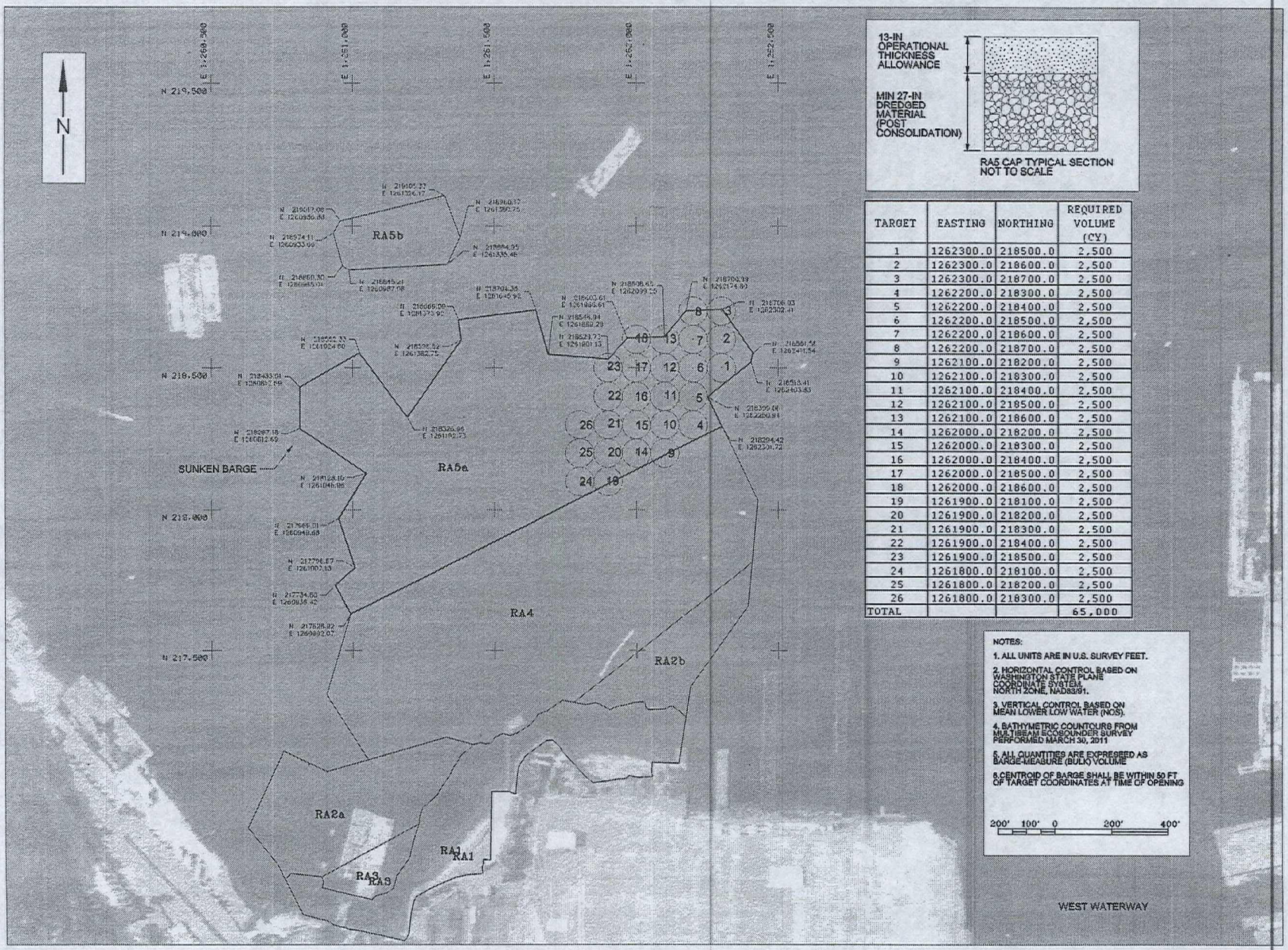
PREPARED AND APPROVED BY:

Justine Barton

Justine Barton
Sediment Management Unit
Office of Ecosystems, Tribal and Public Affairs

6/28/12
Date

cc:
EPA (Ravi Sanga)
Corps (John Pell)
Corps (Bob Donnelly)
Ecology (Loree Randall)
WDNR (Celia Barton)



RA5 CAP TYPICAL SECTION
NOT TO SCALE

TARGET	EASTING	NORTHING	REQUIRED VOLUME (CY)
1	1262300.0	218500.0	2,500
2	1262300.0	218600.0	2,500
3	1262300.0	218700.0	2,500
4	1262200.0	218300.0	2,500
5	1262200.0	218400.0	2,500
6	1262200.0	218500.0	2,500
7	1262200.0	218600.0	2,500
8	1262200.0	218700.0	2,500
9	1262100.0	218200.0	2,500
10	1262100.0	218300.0	2,500
11	1262100.0	218400.0	2,500
12	1262100.0	218500.0	2,500
13	1262100.0	218600.0	2,500
14	1262000.0	218200.0	2,500
15	1262000.0	218300.0	2,500
16	1262000.0	218400.0	2,500
17	1262000.0	218500.0	2,500
18	1262000.0	218600.0	2,500
19	1261900.0	218100.0	2,500
20	1261900.0	218200.0	2,500
21	1261900.0	218300.0	2,500
22	1261900.0	218400.0	2,500
23	1261900.0	218500.0	2,500
24	1261800.0	218100.0	2,500
25	1261800.0	218200.0	2,500
26	1261800.0	218300.0	2,500
TOTAL			65,000

NOTES:

1. ALL UNITS ARE IN U.S. SURVEY FEET.
2. HORIZONTAL CONTROL BASED ON WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83/91.
3. VERTICAL CONTROL BASED ON MEAN LOWER LOW WATER (NOS).
4. BATHYMETRIC COUNTOURS FROM MULTIBEAM ECOSOUNDER SURVEY PERFORMED MARCH 30, 2011
5. ALL QUANTITIES ARE EXPRESSED AS BARGE-MEASURE (BULK) VOLUME
6. CENTROID OF BARGE SHALL BE WITHIN 50 FT OF TARGET COORDINATES AT TIME OF OPENING

200' 100' 0 200' 400'

IF SHEET MEASURES LESS THAN 22" X 34" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

US Army Corps of Engineers
Seattle District

Symbol	Description	Date	Appr.	Checked	Description

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

Prepared by:

Designed by: S. BROWN
Drawn by: S. BROWN
Checked by: D. MICHALSEN
Date: 05 APR 12
Scale: X
Sht:

PSR DISPOSAL SITE

RA5 CAPPING PLAN

SEATTLE WASHINGTON

Plate number: C-1
Sheet 1 of 1

DATE AND TIME PLOTTED: 05-APR-2012 13:54 DESIGN FILE: O:\COASTAL ENGINEERING\PROJECTS\PSR\RA5\RA5_SWINMISH_DESIGN_CAPPING_PLAN.DGN