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April 29, 1998

Project Number 7752

979

Mr. James Shafer
Remedial Project Manager
Northern Division, Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, Pennsylvania 19113

Reference: CLEAN Contract No. N62472-90-D-1298
Contract Task Order No. 0302

Subject: Submittal of Minutes
EAB Meeting No. 13

Dear Mr. Shafer:

Enclosed are three copies of the minutes to the Ecorisk Advisory Board (EAB) Meeting No. 13, which was held on April 22, 1998. These minutes were prepared to describe technical discussions and agreements made during that meeting.

If you have any questions about this material, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read "Stephen S. Parker".

Stephen S. Parker
Project Manager

SSP/rt

Enclosure

- c: K. Coyle, NETC Newport - (w/enc. - 4)
- D. Egan, TAG - (w/enc. - 1)
- K. Finkelstein, NOAA - (w/enc. - 1)
- T. Fredette, USACOE - (w/enc. - 1)
- K. Keckler, U.S. EPA - (w/enc. - 4)
- P. Kulpa, RIDEM - (w/enc. - 4)
- J. Stump Gannett Fleming - (w/enc. - 2)
- NETC Restoration Advisory Board - (w/enc. - 4)
- J. Trepanowski/G. Glenn, B&RE (w/enc. - 1)
- File 7752-3.2 (w/o enc.)

Brown & Root Environmental



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ATTACHMENT A
MINUTES OF THE 13th ECORISK ADVISORY BOARD MEETING
NETC Newport, Building 1
April 22, 1998

Meeting Attendees:

Jim Shafer, U.S. Navy Northern Division
David Barclift, U.S. Navy Northern Division
Barbara Douglas, U.S. Navy Northern Division
Kevin Coyle, NETC Newport PWD (Environmental)
Stephen Parker, Tetra Tech NUS Inc.
Gordon Bullard, Tetra Tech NUS Inc.
Diane McKenna, Tetra Tech NUS Inc.
Greg Tracey, SAIC
Kymberlee Keckler, U.S. Environmental Protection Agency
Cynthia Hanna, U.S. Environmental Protection Agency
Jennifer Stump, Gannet Fleming
Bart Hoskins, Lockheed Martin
Ken Finkelstein, NOAA
Paul Kulpa, Rhode Island Department of Environmental Management
Chris Deacutis, Rhode Island Department of Environmental Management
Tom Fredette, US Army Corps of Engineers, New England
Dave Egan, Aquidneck Island Citizens Advisory Board TAG

Meeting Convened at 10:00 AM

Jim Shafer (U.S. Navy, Northern Division) opened the meeting, and there were introductions around the table. Mr. Shafer indicated that the meeting was originally scheduled to address recent work at the Derecktor Shipyard, but would also like to also discuss some of the possible revisions to the Draft Feasibility Study Report (FS) for McAllister Point Landfill.

Derecktor Shipyard Human Health Risk Assessment

Stephen Parker (Tetrattech NUS Inc.) reminded everyone that the draft Human Health Risk Assessment Report (HHRA) was issued in March, and during the preparation of the PRGs it became apparent that dry weight analytical data for shellfish was incorrectly used for the calculation of risk to humans. Therefore, the risk was recalculated using data converted to wet weight. Mr. Parker provided revised sections of the draft HHRA report that reflected the changes from the use of the new data.

Kymberlee Keckler (USEPA) asked if these revised sections reflected the comments her office had submitted, and Mr. Parker responded that they do not. However, Mr. Parker noted that the Navy concurs with the EPA comments and after the RIDEM comments are received, the response documents will be prepared and the revision will be prepared using the wet weight data and the comment responses as appropriate.

Mr. Parker asked when RIDEM would have comments to the draft HHRA report, and Paul Kulpa (RIDEM) responded that the letter would be issued Friday April 24, 1998. He indicated that RIDEMs comments would not likely be considered overly significant by the Navy.

Cynthia Hanna (USEPA) asked what was meant on the HHRA Section 6 tables by "NT". There was some speculation and the question was tabled for the interim. {After the author was contacted by phone, Mr. Parker responded that the NT indicated no toxicity value pertinent to the effect (cancer or non-cancer effect) was available.} Mr. Parker indicated that an acronym list would be included in the revised report.

Derecktor Shipyard Still Water Basin Evaluation

Mr. Parker indicated that there was an outstanding issue with the approach for the Stillwater Basin Evaluation (SBE) at Derecktor Shipyard. He reviewed that there was a concern from RIDEM that the ERA did not identify the apparent stress to the biota growth in that area, and that the SBE focused on the oxygen and other chemistry in the water column.

Christopher Deacutis (RIDEM) responded that perhaps the Navy was focusing on the water column too much, and if this investigation shows that oxygen and stress from the water is not obviously the limiting factor, there will still be a question as to the reason for the lack of life in the sediment within that basin.

There was some general discussion regarding the results of the toxicity tests performed on the sediments at these stations for the ERA, and the use of the disk arrays. The arrays were described and it was clarified that the closest disk to the sediment/water interface is approximately 8-10 inches. Mr. Deacutis stated that if there was a periodic stress that is not oxygen related, or if the stress is occurring only below that 8 inches, the SBE would not record that indication. It was agreed that the deployments would be retrieved with RIDEM oversight, and the anchors, which consist of standard concrete construction blocks, would be inspected, and qualitatively evaluated for growth at that time. Jennifer Stump (Gannet Fleming) also indicated that she will also oversee retrieval of the deployments.

Retrieval of the deployments is set for May 18 (May 19 weather date).

Mr. Deacutis also indicated that RIDEM wished other stations be evaluated, and another discussion ensued. Greg Tracey (SAIC) described the reasons for selecting the stations where disks are deployed, and it was agreed that the still-water basin north of Pier 2 was not a comparative location due to ship traffic and the presence of a different hydrographic regime.

Mr. Tracey asked if there was a consensus among the group that the data that is being collected is useful. It was agreed that Tetra Tech would host a dial-in conference call as soon as it could be arranged to discuss this further.

Derecktor Shipyard PRGs for Off Shore

Greg Tracey led a presentation on the development of the preliminary remediation goals (PRGs) for the marine sediments at Derecktor Shipyard. The presentation focused on the risk that was calculated in the Ecological Risk Assessment (ERA) (SAIC and URI, May 1997), how the polygons were established, and the back calculation of sediment concentrations to serve as cleanup goals.

Jennifer Stump (Gannett Fleming) asked how the data from 1993 and 1994 was used in the development of the PRGs. Mr. Tracey indicated that while only the data collected in 1995 was used to calculate risk and PRGs, the older data could be used to compare sediment concentrations to PRGs since the same laboratories did the chemical analysis and the same QA/QC operations were used.

Ken Finkelstein (NOAA) asked what "ND" indicates in Tables 3 and 5 for metals. Mr. Tracey pointed out that ND stands for "No Data" but really should indicate no analysis, since pore water metals were not measured, leaving no data for amphipod toxicity. Mr. Tracey reminded the group that toxicity was measured from elutriate instead of pore water at this site. Mr. Finkelstein also noted that toxicity shown for the arabacia in Table 6.6-2 is presumed to be all from the six contaminants under the NOEQ column on Table 5 of the PRG document.

Mr. Tracey described the use of the limiting COC, and the general principal that if you clean up the contaminant that causes most of the risk, you will be taking care of the other contaminants that are also contributing to risk.

Regarding Table 15, Ken Finkelstein asked if the TEV HQ is 3.5, indicating that it is 3.5 times greater than the PRG, and if human health risk drives the cleanup action, why are the other pathways shown? Mr. Tracey responded that the risk managers may determine at a later time that one pathway should be disregarded, and this shows the other pathway results.

Regarding Table 16, Kymberlee Keckler asked why values are shaded, but not carried further for a PRG recommendation. Mr. Tracey responded that the shaded values are sediment based numbers representing combined exposure pathway. The risk assessment identified these numbers with the conservative assumption that the receptor would be exposed for the life of the organism (the example given was the avian receptor is assumed to feed at this site exclusively for life). The recommended PRG is the risk assessor's first attempt at accounting for some of the uncertainty.

Jennifer Stump asked why there is a high risk shown at station 27, but based on the PRG, no recommended action at that area. Mr. Tracey responded that PCBs drove risk at that station and are bioaccumulated compounds that drop out with TOC normalization (TOC was high throughout the study area).

Ms. Stump also expressed concern over the use of the 1993 and 1994 data to map PRGs. Mr. Tracey responded that no quality of data is lost, it is only done to refine the areas, as a subsequent (pre-design) investigation would do.

Ms. Stump also asked what the correlation between the literature BSAFs and the BSAFs derived from prey concentrations measured in the present investigation. Mr. Tracey responded that it falls within a factor of 2, which is remarkably close. He also noted that the avian aquatic predator pathways are based on that correlation.

There was some general discussion regarding the recommended PRGs that focused mostly on the question of whether the modeled TEV HQ-1 should be discounted. Ken Finkelstein and Bart Hoskins (Lockheed Martin) both indicated it is counterproductive to model out a conclusion just to discount it at the end based on professional judgment. However, it was also recognized that applying the TEV - HQ = 1 would be difficult to carry over to design of a remedial action since all

areas tested would exceed the cleanup standard due to highly conservative exposure assumptions.

Chris Deacutis stated that RIDEM has published new salt water criteria which should be considered for this document:

<u>Element</u>	<u>Salt Water Acute</u>	<u>Salt Water Chronic</u>
Copper	4.8	3.1
Lead	210	8.1
Mercury	1.8	2.5
Silver	2.9	Not Established
Zinc	90	81

Note: (units are in ug/l)

Mr. Tracey concluded the presentation by asking the reviewers to consider his points and forward comments appropriately.

BREAK

McAllister Point Landfill Revised FS

Diane McKenna (Tetrattech NUS Inc.) led a discussion focusing on different elements and options that are being considered in the revised Feasibility Study report (FS) for McAllister Point Landfill. These were described from a revision to Table 4-1 from the draft FS report (Attachment A to these minutes) and are summarized below:

- long term O&M monitoring of access restrictions under NS-2
- inclusion of biota sampling, and additional stations (on and off shore) as part of the long term monitoring program under various options
- use of a natural cap and a multi-media cap
- a new capping option that includes excavation of enough waste materials to install a cap to match the existing near shore elevations
- disposal of dredged or excavated material under the existing cap at McAllister
- use of mechanical dredging for the offshore areas
- the area known as Area B is now considered an off shore area, although it is still being considered an area of elevated risk

Ms. McKenna introduced photos taken from the intertidal area of the landfill that show the substrate present and the nature of materials intertwined within the sand/gravel/cobble mix. Greg Tracey presented underwater photos and side scan survey results of the subtidal area (to within 70 feet of the low tide line) showing substrate in that area and the lack of foreign material on the surface.

Kymerlee Keckler requested that the photos be included as an appendix to the revised FS report, and it was agreed that this would be appropriate, since the photos help to define the extent of surficial physical debris and characterize substrate in these areas.

Jennifer Stump asked what the depth to bedrock was in the intertidal area. Steve Parker responded that bedrock is exposed at the ground surface at the north end of the landfill and is approximately 10-12 feet at the southern slope. In one boring to the west of NSB-4, it is

20 feet below surface of the sediment. Mr. Parker referred Ms. Stump to subtidal boring logs presented in the Phase III Technical Memorandum (B&R Environmental, April 1997) Appendix B.

Ms. McKenna presented a drawing that indicates how a cap placed on the existing grade would change the shoreline of the landfill. She pointed out that the approximate low water line would become the high tide line, and the intertidal area would extend out into the bay, on approximately the same slope that is currently present. This would increase the intertidal area from 1.1 acres to 1.9 acres.

Barbara Douglas (US Navy North Div.) observed that this would only be the case if the cap extended around the entire length of the landfill shoreline. Ms. McKenna agreed and stated that actual capped areas may not cover the whole area identified as nearshore (Area A), but this would be defined as a part of the pre-design process if this option was selected.

Ms. McKenna also presented possible near-shore cap options that are being considered for the revised FS. These cap changes are being considered based on concerns that the conceptual designs provided in the Draft FS may adversely affect intertidal habitat. The different cap options are provided in Attachment A to these minutes, and are described below:

- near-shore multimedia cap placed on top of existing grade (no dredging) using permeable geotextile on both sides of concrete armament system - This would be best suited for high energy areas (between NSB-4/5 and NSB 1). Concrete would protect the upper layer of the geotextile from puncture and assist in its proper placement.

Kymberlee Keckler asked if the objects protruding from the intertidal area would be removed, and Ms. McKenna clarified that the concrete/geotextile would be placed on a subgrade that was prepared to the extent possible.

Jennifer Stump observed that a permeable geotextile is proposed, and asked its purpose. Ms. McKenna pointed out that it is to provide a barrier to sediment migration from the underlying waste materials, as well as an indicator layer to show erosion of natural cover materials prior to disruption of the cap. Ms. McKenna also pointed out that if an impermeable material placed to prevent groundwater movement, only displacement of groundwater to the seaward edge of the cap would be likely.

Jennifer Stump asked if the concrete would be anchored into bedrock. Ms. McKenna stated that it would not, rather its own weight would hold the material in place.

Kymberlee Keckler asked how wide the cap would be. Ms. McKenna explained that the cap is costed to cover all the near-shore area that is shown on the figure (Area A) but actual extent would be determined from the pre-design investigation (PDI).

- near-shore natural cap placed on existing grade (no dredging) - This option presents less protection against erosion in high energy areas, since there is no indicator layer, and geotextile is not present to prevent sediment migration to the surface. It is considered as protective for the low energy areas where erosion is less of a concern.

Chris Deacutis asked how the matrix and the slope would change wave action causing additional erosion. Ms. McKenna responded that this option would provide the same slope

and same matrix as is present in the intertidal area to the north of the landfill minimizing change, but this would be considered fully during the design if this option was selected.

- near-shore multimedia cap placed to match existing grade, requiring approximately 3 feet of material be dredged out - This would be the same option as the first, although with the added cost and difficulty of dredging and disposal.
- near-shore natural cap placed to match existing grade, also requiring approximately 3 feet of material to be dredged out - This also would add to the cost and difficulty via dredge and disposal options.

A question was raised about the cost of this option, and Ms. McKenna explained that the costs had not been worked out completely, but it would come close to the dredging costs for this area.

- off shore natural cap, 2 feet of material placed on top of target areas.

Jim Shafer reported that Daniel Averett (U.S. Army Corps of Engineers Waterways Experiment Station) had comments regarding the cost stated in the draft FS, and agreed that it is accurate, based on the existing knowledge. He observed that because of the difficulty level, mechanical dredging should be considered. Cost described in the FS is higher than typical dredging projects because of the location in a shallow marine environment and the matrix.

It was observed that the costs will be different for areas B&C and it was agreed that if practical, the costs would be estimated separately.

Jennifer Stump asked how long the Navy would expect the habitat to take to recover under different options. Steve Parker indicated that it is 2 years since the completion of construction, and habitat has recovered. Assuming a similar and suitable habitat is provided, it is reasonable to assume that the habitat would recover to the current condition within the same time frame. Ms. Stump asked if a function/value assessment would be performed to support this and it was agreed that an evaluation of the existing conditions would be provided. Greg Tracey received a reference from Ms. Stump for this objective.

Ms. McKenna concluded by stating that she made the presentation in order to narrow down the alternatives discussed in the FS, and she presented these different options here at the meeting in an effort to get consensus on whether she should evaluate the cap on grade or the cap after partial dredge. Kimberlee Keckler observed that the FS should evaluate both options so that the least damaging alternative can be identified. Jennifer Stump observed that the FS should evaluate the short term and long term benefits of each, and suggested that both be included. Jim Shafer agreed that both would be costed and analyzed in the FS.

Kimberlee Keckler asked why disposal at a RCRA D facility is being considered, and there was a general discussion about whether the material present in the subtidal area should be handled as RCRA C waste. Ms. Keckler stated that the EPA believes that it is RCRA C waste, and Mr. Shafer stated that the Navy does not agree. It was agreed that the legal representatives from the Navy and EPA would address this issue at a later date. It was not determined how the revised FS would address this issue, or if the submittal date would be delayed until the issue was resolved.

The Meeting Adjourned at 2:15 PM.

**TABLE 4-1
SUMMARY OF REMEDIAL ALTERNATIVES AND THEIR COMPONENTS
MARINE SEDIMENT/MANAGEMENT OF MIGRATION
FEASIBILITY STUDY REPORT
MCALLISTER POINT LANDFILL, NETC, NEWPORT, RI**

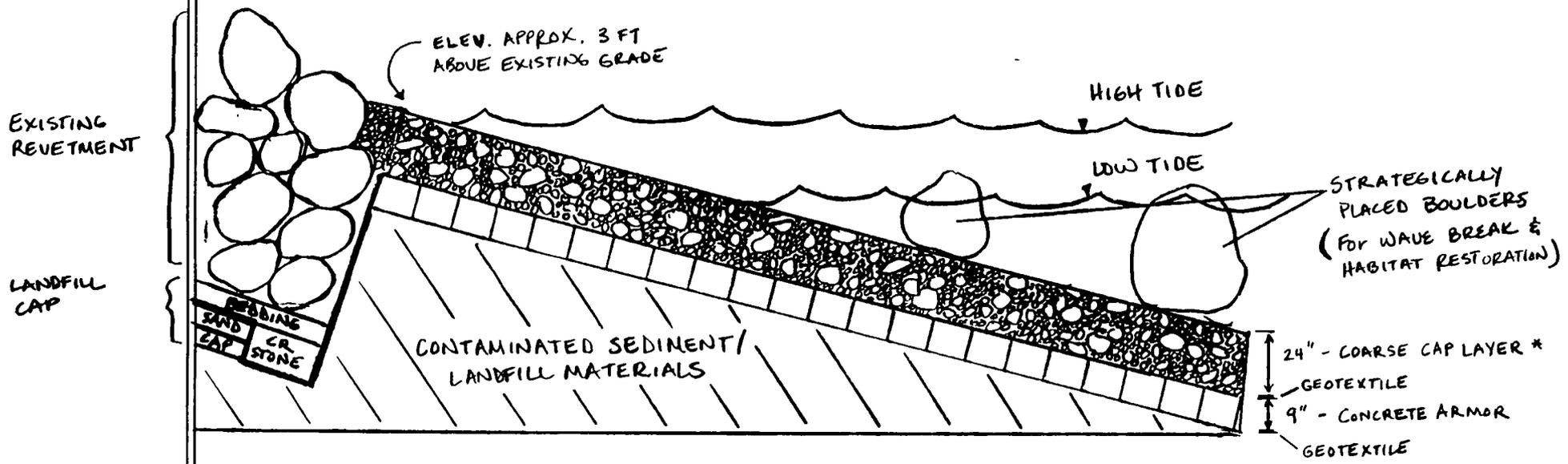
AREA	ALTERNATIVE	KEY COMPONENTS
NEARSHORE (INTERTIDAL ZONE)	NS-1: No Action	<ul style="list-style-type: none"> • Five-Year Reviews
	NS-2: Limited Action	<ul style="list-style-type: none"> • Access Restrictions (Fencing/Buoys/Signs) • Institutional Controls (Use Restrictions) • <u>Long-Term O&M of Access Restrictions</u> • Long-Term Monitoring (Sediment <u>& Biota</u> Sampling and Analysis) • Five-Year Reviews
	NS-3: Containment	<ul style="list-style-type: none"> • Pre-Design Investigation • Site Preparation/Grading (Removal of Rocks & Debris) • Disposal of Debris at Municipal Landfill or Recycling Center • <u>Excavate amt. equal to cap thickness (possible option)</u> • <u>Disposal of sediment at MPLF or RCRA D facility (possible)</u> • Installation of Multi-Media Cap <u>and Natural Cap</u> • Long-Term O&M • Long-Term Monitoring (Sediment Sampling and Analysis) • Five-Year Reviews
	NS-4: Removal and Off-Base Disposal Option A: Without Treatment Option B: With Treatment	<ul style="list-style-type: none"> • Pre-Design Investigation • Site Preparation (Removal of Debris/Grading/Engineering Controls at Toe of Landfill) • Mechanical Excavation and/or Dredging • Sediment Dewatering • Water Treatment and Discharge to Bay • Disposal of Debris at Municipal Landfill or Recycling Facility • Option A: Disposal of Sediment <u>at MPLF</u> or RCRA Subtitle D Landfill • Option B: Disposal of Majority of Sediment <u>at MPLF</u> or/and RCRA Subtitle D Landfill (with ~ 10% Requiring Solidification/Stabilization) and Minor Volume (any classified as hazardous) at <u>MPLF</u>
OFFSHORE (REMOTE)	OS-1: No Action	<ul style="list-style-type: none"> • Five-Year Reviews
	OS-2: Limited Action	<ul style="list-style-type: none"> • Long-Term Monitoring (Sediment <u>and Biota</u> Sampling and Analysis) • Five-Year Reviews
	OS-3: Containment	<ul style="list-style-type: none"> • Pre-Design Investigation • Installation of <u>Natural Cap</u> • Long-Term O&M • Long-Term Monitoring (Sediment Sampling and Analysis) • Five-Year Reviews
	OS-4: Removal and Off-Base Disposal	<ul style="list-style-type: none"> • Pre-Design Investigation • <u>Mechanical and Hydraulic</u> Dredging • Sediment Dewatering • Water Treatment and Discharge to Bay • Disposal of Sediment <u>at MPLF or/and RCRA</u> Subtitle D Landfill

ATTACHMENT B
SELECTED HANDOUTS AND OVERHEADS PRESENTED

TA
NS

NEARSHORE MULTI-MEDIA CAP - NO DREDGE

- PLACE IN HIGH ENERGY AREAS



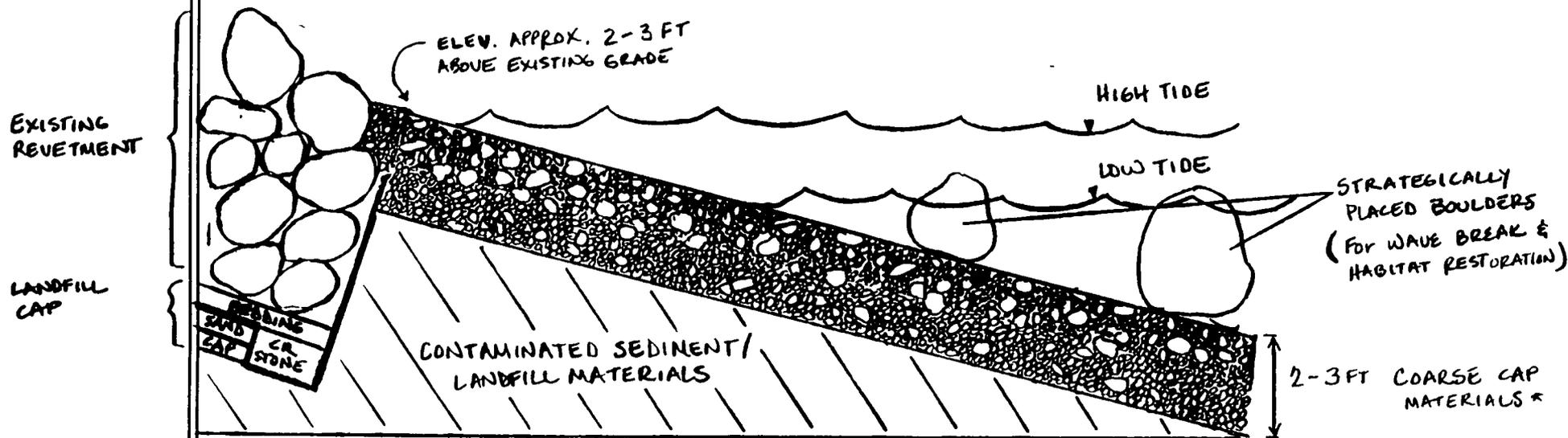
* Coarse cap layer = coarse sand, gravel, & rock - similar to existing substrate, but w/ 10-20% coarser component to resist erosion

NOT TO SCALE

1B
NS

NEAR-SHORE NATURAL CAP - NO DREDGING

- PLACE IN LOW ENERGY AREAS (South Depositional Area)



* Coarse cap layer = coarse sand, gravel,
& rock - similar to existing substrate,
but w/ 10-20% coarser component to resist erosion

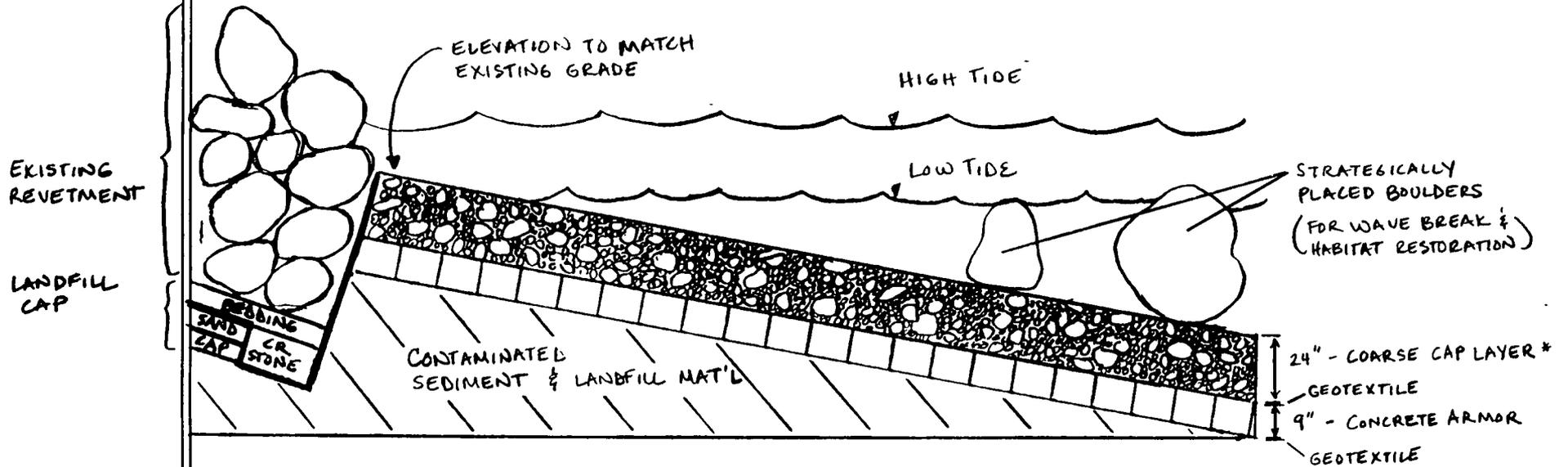
NOT TO SCALE

2A

NS

NEARSHORE MULTI-MEDIA CAP - W/ DREDGING

- PLACE IN HIGH ENERGY AREAS



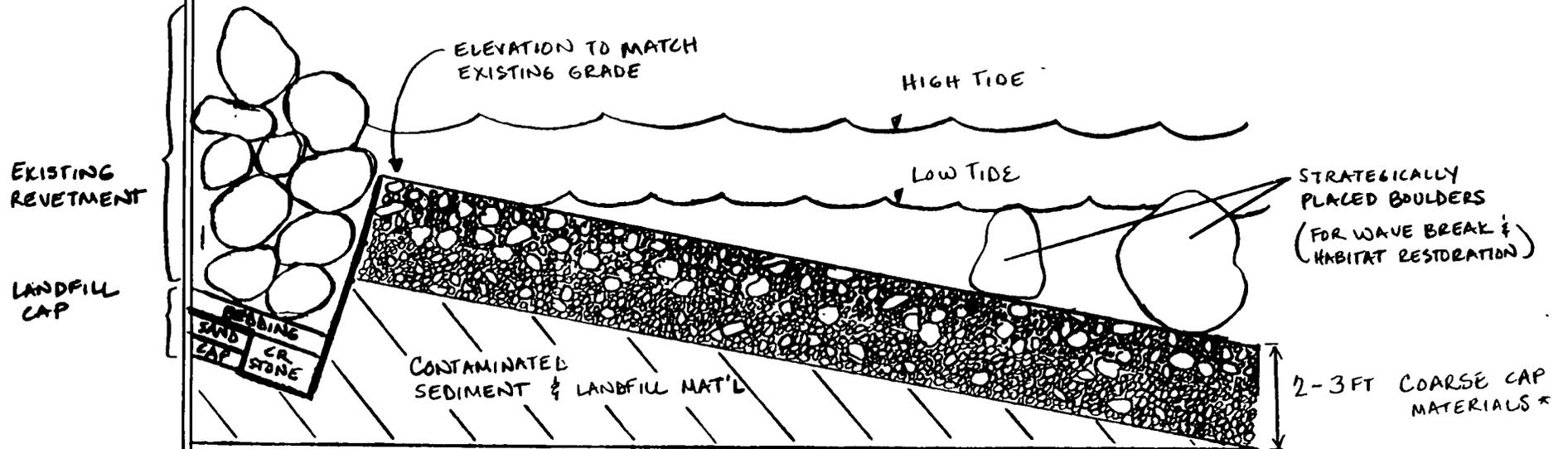
* Coarse cap layer = coarse sand, gravel, rock - similar to existing substrate, but w/ 10-20% coarser component to resist erosion

NOT TO SCALE

2B
NS

NEARSHORE NATURAL CAP - W/ DREDGING

- PLACE IN LOW ENERGY AREAS (South Depositional Area)

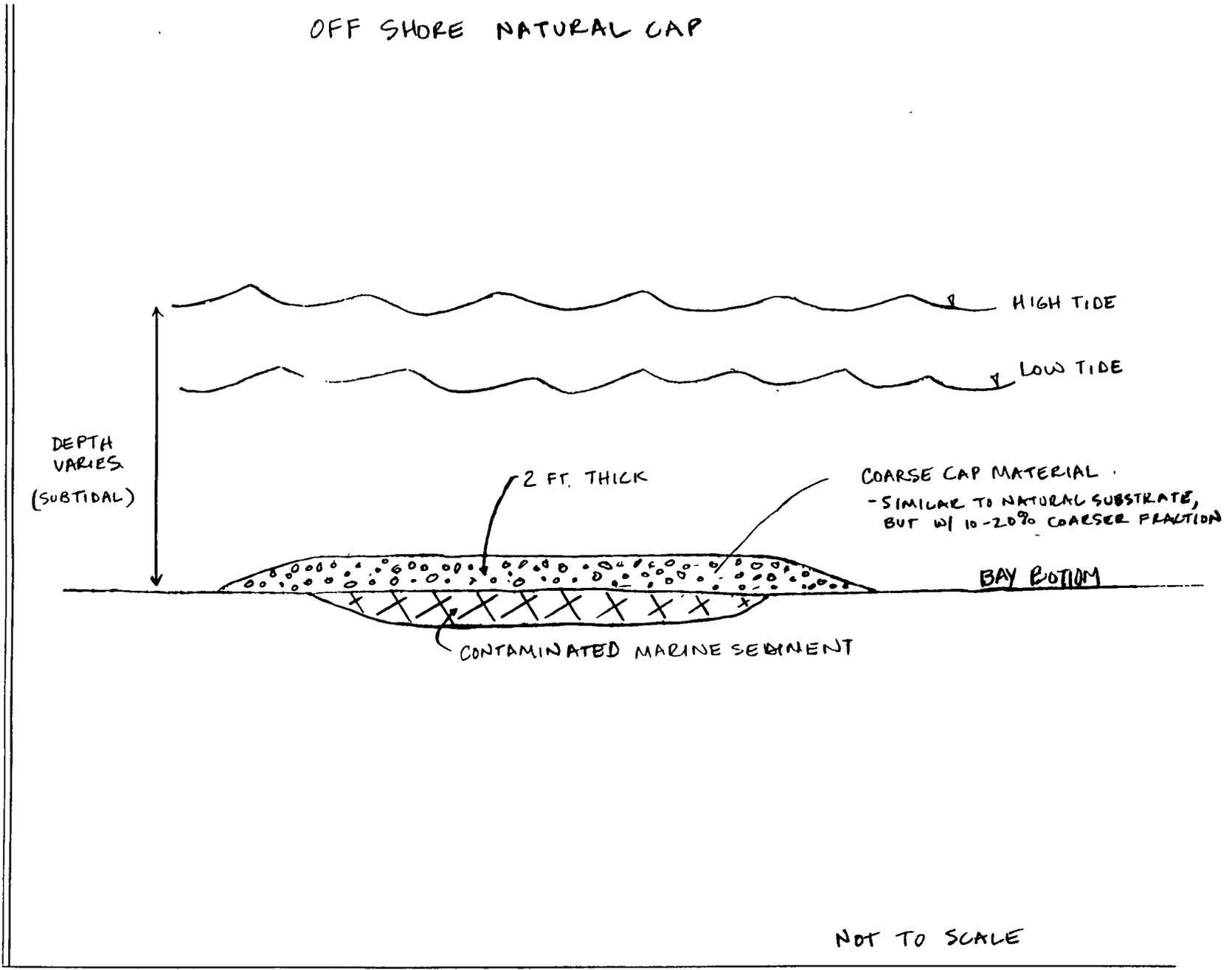


* Coarse cap layer = coarse sand, gravel, & rock - similar to existing substrate, but w/ 10-20% coarser component to resist erosion

NOT TO SCALE

OS - 1

OFF SHORE NATURAL CAP



ATTACHMENT C
AGENDA AND ATTENDANCE LIST

AGENDA

EAB Meeting No. 13

APRIL 22, 1998

Building 1, NETC Newport

1000 - Convene

- 1. Derecktor Shipyard Human Health Risk Assessment -**

Comments and Revisions

- 2. Derecktor Shipyard Stillwater Basin Evaluation -**

**Activity to date
Comments to the approach**

- 3. Derecktor Shipyard PRGs for Marine Sediments**

**Approach for Development of PRGs
Selected PRGs**

Technical Meeting for McAllister Point Landfill

immediately following the EAB

- 1. Discussion of remedial options to be presented in the revised FS**
- 2. Other topics as appropriate**

ECORISK ADVISORY MEETING NO. 13

April 22, 1998

<u>INDIVIDUAL</u>	<u>AFFILIATION</u>	<u>PHONE</u>
David Barcliff	North Div	XXXXXXXXXX
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BARBARA DOUGLAS		XXXXXXXXXX
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JAMES SHAFER	TAG Technical Advisor	XXXXXXXXXX
Stephen S. Parker	NORTH DIV	(410) 575-XXXX
Gordon Bullard	Tetratech	XXXXXXXXXX
Diane McKenna	TENUS	XXXXXXXXXX
Kimberlee Yeckler	TENUS	11
Bart Hoskins	USEPA	XXXXXXXXXX
	Lockheed Martin ESAT Contract to EPA	XXXXXXXXXX
Cynthia Honne	USEPA	XXXXXXXXXX
Ken Finkelstein	NOAA	XXXXXXXXXX
Chris Deacutis	RIDEM	XXXXXXXXXX
{Tom Fredette	Amy Corps NE}	