

Meeting Minutes

**Restoration Advisory Board
Installation Restoration Program
Naval Submarine Base New London
Groton, Connecticut**

5 May 2004

Attendees:

Melissa (Griffin) Cokas (NLSB)
Noah Levine (RAB Member)
Deborah Downie (RAB Community Co-Chair)
Mark Lewis (CTDEP)
John Vitkevich (NSNPT RAB Member)
Patricia (Gohring) Barry (TTFW)

1. RAB members met at the SUBASE New London Pass and ID office at 11:45 am. Everyone was signed in and given tour handouts (attachment 1). The group then proceeded by van to the Site 7 Torpedo Shops. Ms. Melissa (Griffin) Cokas opened the RAB meeting at 12:15 pm giving an overview of the Torpedo Shop site. The historical contamination sources were described and the locations were identified. The potential disposal of solvents and chemicals into two septic systems and leaks and spills from former underground storage tanks were discussed. The proposed remedy, excavation of 1600 cubic yards of Polycyclic Aromatic Hydrocarbon (PAH) contaminated soils and 90 cubic yards of benzene contaminated soils with offsite disposal at an approved treatment, storage and disposal facility (TSDF), followed by verification sampling and site restoration to pre-remedial conditions, was explained to the attendees. After walking the site, the group proceeded to the Area A Downstream site.
2. The tour of Area A Downstream began at the entrance gate in the northwest portion of the site. Ms. Patricia (Gohring) Barry was introduced and began her presentation with a poster display and some map handouts (attachment 2). Ms. Barry gave the current status of the site and mentioned that EPA was presently reviewing the Year 3 Long Term Monitoring Report including the Post-Remedial Wetland Delineation and Functions and Values Assessment. After the overview, the group began a walking tour of the entire site. Ms. Barry pointed out the fact that the invasive species, cattail (*Typha* sp.) and common reed (*Phragmites australis*) had been nearly eliminated from on-site restored wetlands. The restoration appeared to be a success with limited invasive species present and a healthy, valuable, native species dominated vegetative wetland community covering the site. Extra time was taken to show the group the newly created vernal pool on the site. The group commented on the site looking great. At the conclusion of the tour the everyone boarded the van again to return to their cars.

3. The members discussed postponing the next RAB meeting, as August is usually a difficult time to meet. It was left that the scheduling of the next meeting would be determined by phone and email. Having no further business, Ms. Cokas closed the RAB meeting at 1:30 PM.

Torpedo Shops

- **Historical Contamination Sources:**

- Potential Disposal of Solvents/Chemicals into 2 septic systems
- Leaks/Spills from Former USTs

- **Proposed Remedy:**

- Excavation of

- 1600cy PAH Contaminated Soils
- 90cy Benzene Contaminated Soils

- Off-Site Disposal @ Approved TSDF

- Verification Samples

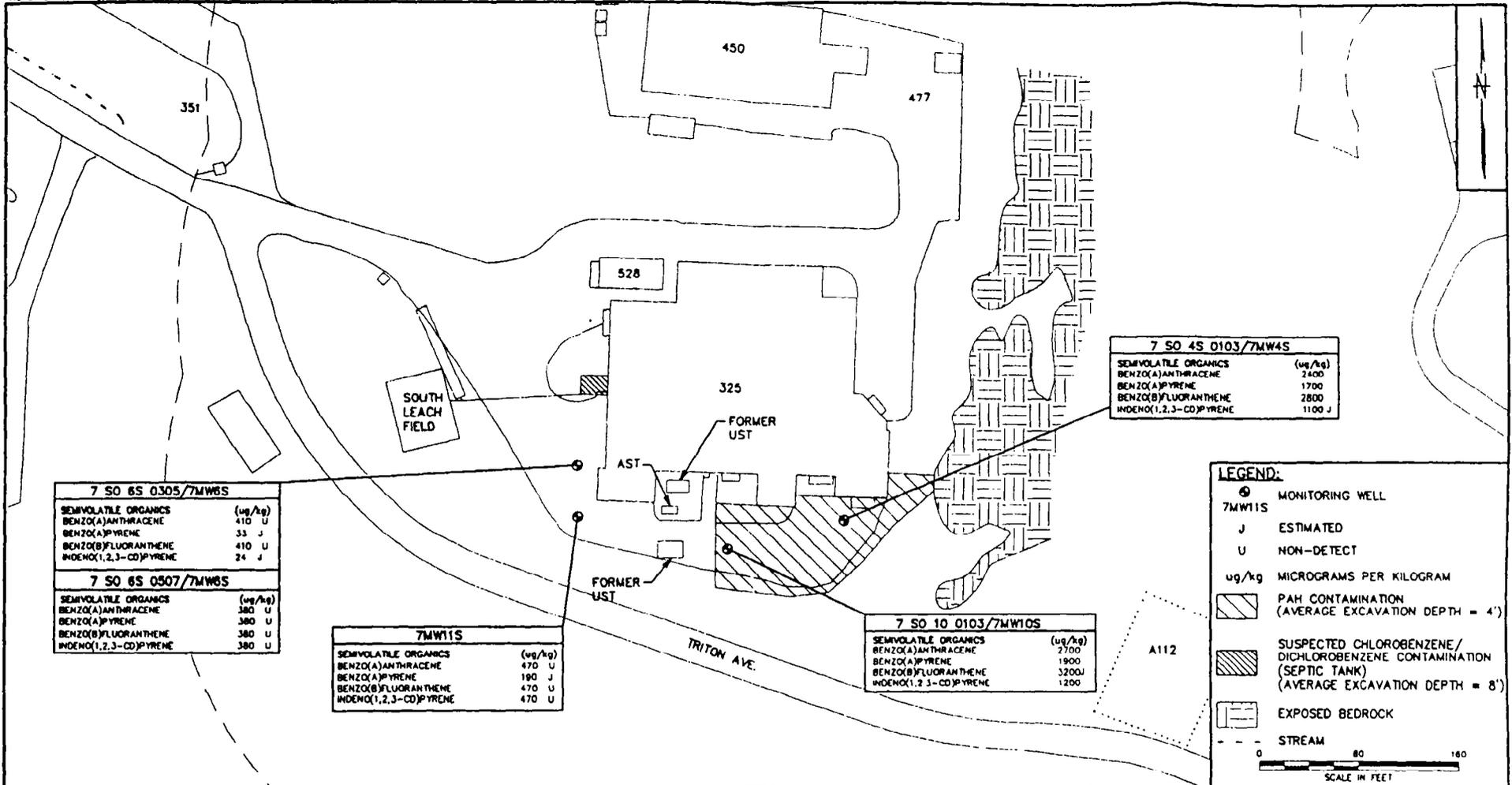
- Site Restoration

- Backfilling, Restoring Surface to Pre-remedial Condition

- **Public Meeting – June '04 (Date TBD)**

Wetlands Area A

- **2.4 Acres Disturbed During Remediation**
- **Long-Term Goal of Restoration Plan:**
 - **Successful Re-establishment of Disturbed Wetlands**
- **Monitoring Initiated Fall '00**
- **Wetland Restoration Completed Spring '01**
- **Invasive Species Nearly Eliminated**
- **Current Status:**
 - **YR3 Functions and Values Assessment Under EPA/CTDEP Review**
 - **Evaluate Performance Standards**
- **Next Step:**
 - **Determine What/How Long to Continue Monitoring**



7 SO 6S 0305/7MW6S	
SEMIVOLATILE ORGANICS	(ug/kg) 410 U
BENZO(A)ANTHRACENE	33 J
BENZO(A)PYRENE	410 U
BENZO(B)FLUORANTHENE	24 J

7 SO 6S 0507/7MW6S	
SEMIVOLATILE ORGANICS	(ug/kg) 380 U
BENZO(A)ANTHRACENE	380 U
BENZO(A)PYRENE	380 U
BENZO(B)FLUORANTHENE	380 U
INDENO(1,2,3-CD)PYRENE	380 U

7MW11S	
SEMIVOLATILE ORGANICS	(ug/kg) 470 U
BENZO(A)ANTHRACENE	190 J
BENZO(A)PYRENE	470 U
BENZO(B)FLUORANTHENE	470 U
INDENO(1,2,3-CD)PYRENE	470 U

7 SO 10 0103/7MW10S	
SEMIVOLATILE ORGANICS	(ug/kg) 3700
BENZO(A)ANTHRACENE	1900
BENZO(A)PYRENE	3200J
BENZO(B)FLUORANTHENE	1200

7 SO 4S 0103/7MW4S	
SEMIVOLATILE ORGANICS	(ug/kg) 2400
BENZO(A)ANTHRACENE	1700
BENZO(A)PYRENE	2800
BENZO(B)FLUORANTHENE	1100 J

LEGEND:

- ⊙ MONITORING WELL
- 7MW11S
- J ESTIMATED
- U NON-DETECT
- ug/kg MICROGRAMS PER KILOGRAM
- [Hatched Box] PAH CONTAMINATION (AVERAGE EXCAVATION DEPTH = 4')
- [Diagonal Hatched Box] SUSPECTED CHLOROBENZENE/DICHLOROBENZENE CONTAMINATION (SEPTIC TANK) (AVERAGE EXCAVATION DEPTH = 8')
- [Stippled Box] EXPOSED BEDROCK
- - - STREAM

SCALE IN FEET: 0, 80, 160

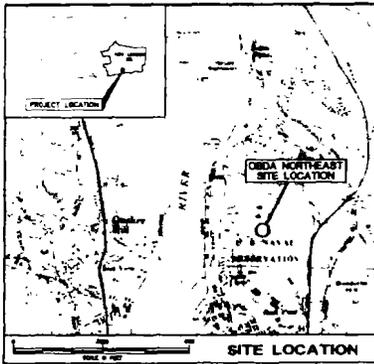
NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES	DRAWN BY	DATE	CONTRACT NO	OWNER NO
							DM	3/19/03	4286	0841
							CHECKED BY	DATE	APPROVED BY	DATE
							COST/SCHED-AREA		CAE	12/9/03
							SCALE		APPROVED BY	DATE
							AS NOTED		DRAWING NO.	REV

Tetra Tech NUS, Inc.

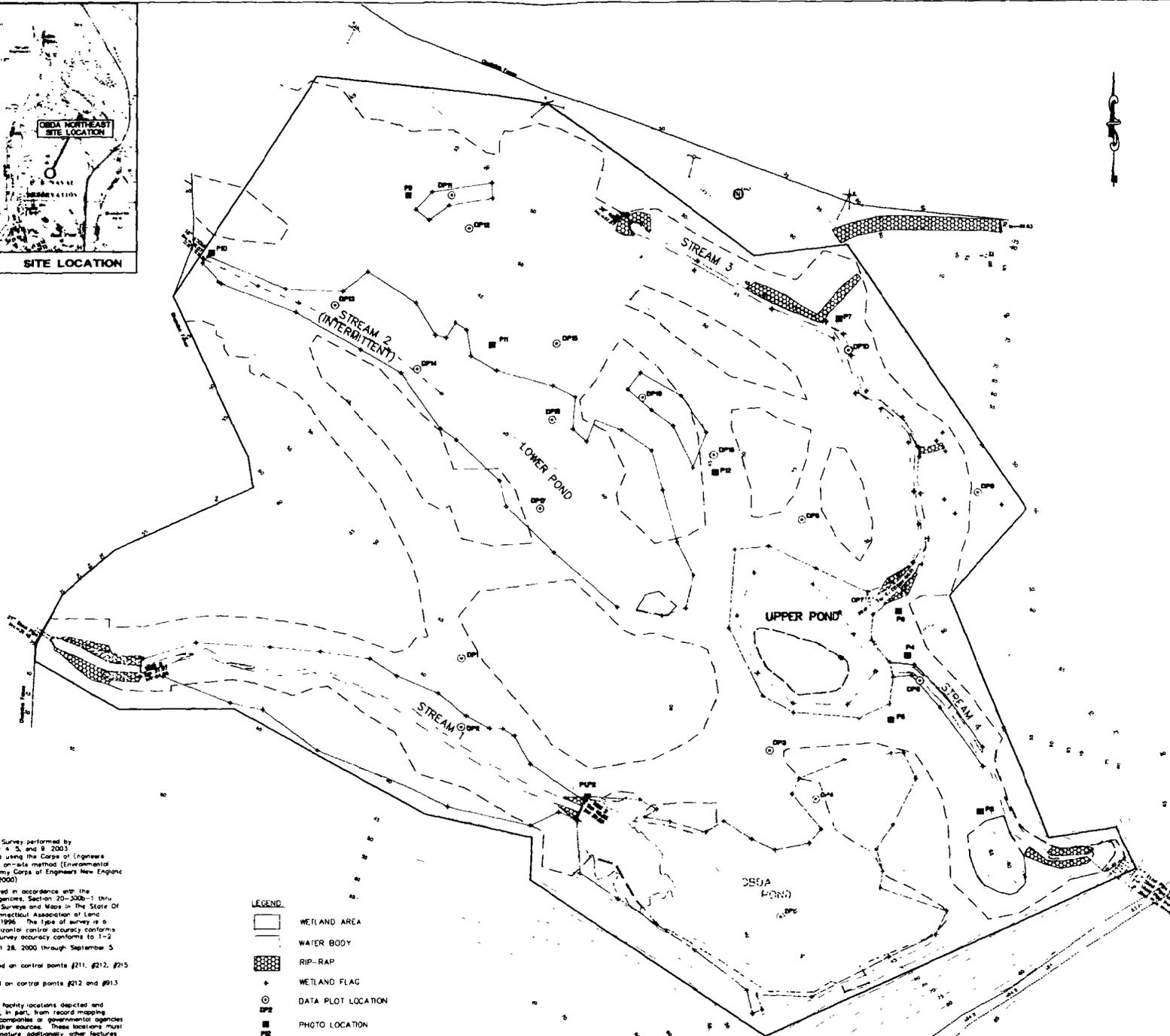
ESTIMATED EXTENT OF SOIL CONTAMINATION
AT SITE 7
NSB-NLON
GROTON, CONNECTICUT

DRAWING NO. **FIGURE 2-6** REV **0**

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SITE LOCATION

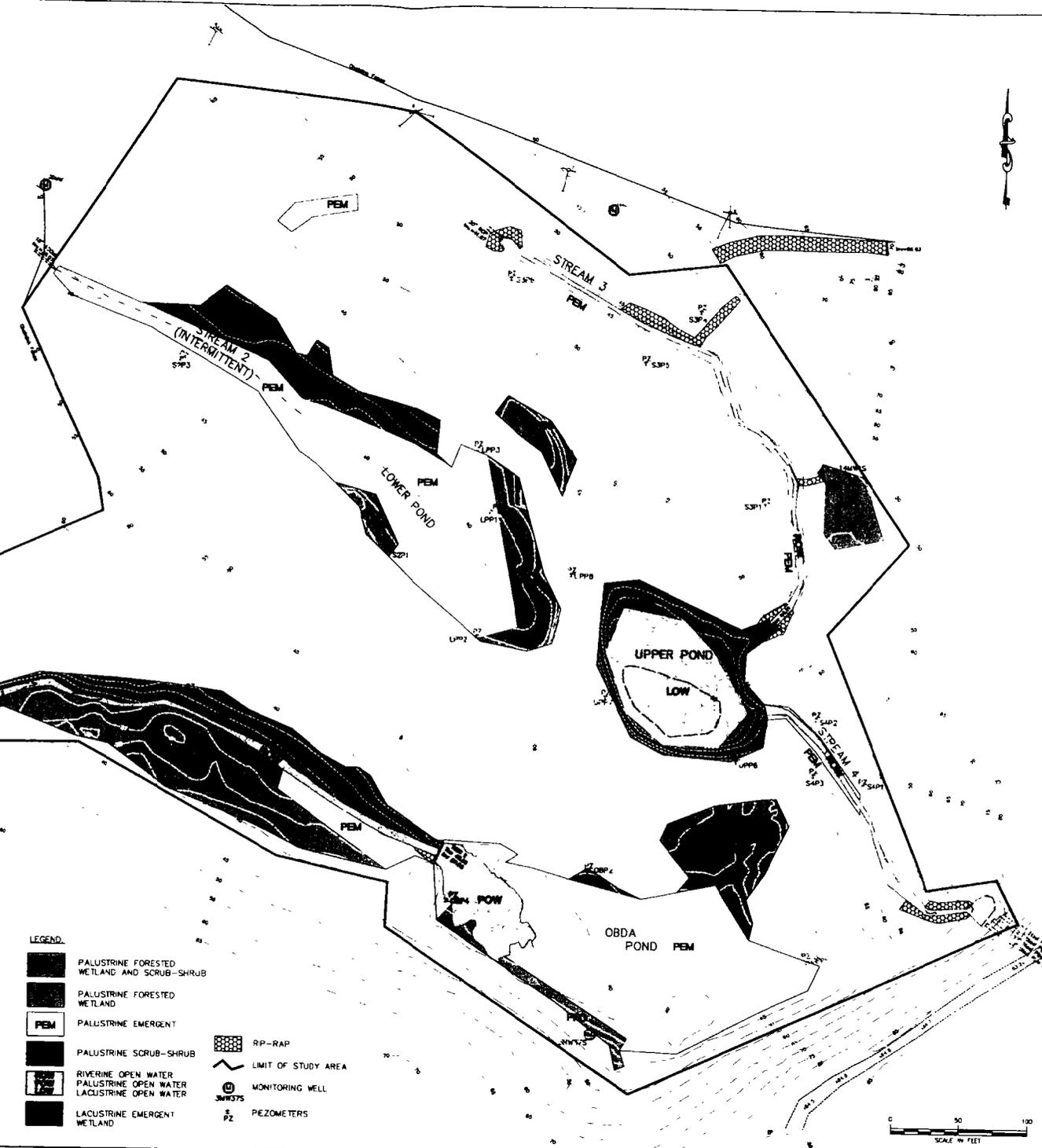
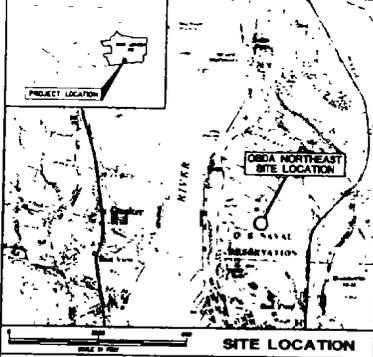


NOTES:

- 1 Wetland Delineation and GPS Field Survey performed by Tetra Tech, Inc. on September 4, 5, and 8, 2003. Wetland boundaries were delineated using the Corps of Engineers Wetland Delineation Manual (single or multi method) (Environmental Laboratory, 1987) and the U.S. Army Corps of Engineers New England District's supplemental guidance (2000).
- 2 Survey base plan has been prepared in accordance with the regulation of Connecticut State Agencies, Section 20-300b-1 thru 20-300b-20 the "Standards For Surveys and Maps in the State of Connecticut". Adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996. The type of survey is a "topographic survey" and the horizontal control accuracy conforms to Class A-2. The topographic survey accuracy conforms to 1-2.
- 3 Field survey was performed August 28, 2000 through September 3, 2000.
- 4 Horizontal Datum is NAD 83 based on control points #211, #212, #215 and #213.
- 5 Vertical Datum is NAVD 88 based on control points #212 and #213.
- 6 Contours are one meter.
- 7 Underground utility, structure and facility locations depicted and noted hereon have been compiled, in part, from record mapping supplied by the respective utility companies or governmental agencies from parcel testimony and from other sources. These locations must be considered as approximate in nature; additionally, other features may exist on the site, the existence of which are unknown to Compass Engineering Group, L.L.C. The exact location and existence of such features must be field determined and verified by the appropriate authorities prior to construction. Call Before You Dig 1-800-922-4455.

LEGEND	
	WETLAND AREA
	WATER BODY
	RIP-RAP
	WETLAND FLAG
	DATA PLOT LOCATION
	PHOTO LOCATION
	LIMIT OF STUDY AREA
	UNDISTURBED AREAS

	DATE: OCTOBER 2011	SCALE: AS SHOWN	DRAWN BY: J. COLE	CHECKED BY: J. COLE	DATE: 10/11/11
PROJECT: OVERBAK DISPOSAL AREA (OSDA) NAVAL SUBMARINE BASE NEW LONDON GROTON, CONNECTICUT POST-REMEDIATION WETLAND DELINEATION MAP					
PREPARED BY: COMPASS ENGINEERING GROUP, L.L.C. 100 WASHINGTON STREET BOSTON, MASSACHUSETTS 02108 TEL: (617) 457-4600					
PROJECT NO: 2292-031-1101 SHEET NO: 002-10-1.000 DRAWING NO:					
FIGURE 1 SHEET 1 OF 1					



- NOTES**
- Wetland Delineation and GPS Field Survey performed by Tetra Tech Fw Inc on September 4, 5, and 9, 2003. Wetland boundaries were delineated using the Corps of Engineers Wetland Delineation Manual routine on-site method (Environmental Laboratory 1987) and the U.S. Army Corps of Engineers New England District's supplemental guidance (2000).
 - Survey base plan has been prepared in accordance with the regulations of Connecticut State Agencies Section 20-300a-1 thru 20-300b-20, the "Standards For Surveys and Maps in the State of Connecticut". Adopted by the Connecticut Association of Land Surveyors, Inc. on September 28, 1996. This type of survey is a "Topographic Survey" and the horizontal control accuracy conforms to Class A-2. The topographic survey accuracy conforms to 1-2.
 - Field survey was performed August 20, 2000 through September 5, 2000.
 - Horizontal Datum is NAD 83 based on control points #211, #212, #215 and #213.
 - Vertical Datum is NAVD 83 based on control points #212 and #213.
 - Contours are one interval.
 - Underground utility structure and facility locations depicted and noted herein have been compiled in part, from record mapping supplied by the respective utility companies or governmental agencies and in part, from testimony and from other sources. These locations must be considered as approximate in nature, additionally other features may exist on the site, the existence of which are unknown to Composite Engineering Group, L.L.C. The size, location and existence of all such features must be field determined and verified by the appropriate authorities prior to construction. Call Before You Dig 1-800-922-4455.

LEGEND	
	PALUSTRINE FORESTED WETLAND AND SCRUB-SHRUB
	PALUSTRINE FORESTED WETLAND
	PEM PALUSTRINE EMERGENT
	PALUSTRINE SCRUB-SHRUB
	RIVERINE OPEN WATER
	LACUSTRINE OPEN WATER
	LACUSTRINE EMERGENT WETLAND
	RP-RAP
	LIMIT OF STUDY AREA
	MONITORING WELL
	PEZOMETERS



OVERBANK DISPOSAL AREA (OBDA) NAVAL SUBMARINE BASE NEW LONDON GROTON, CONNECTICUT POST-REMEDIATION WETLAND TYPE MAP	
Date: 20 OCTOBER 2003 Drawn by: J. DUBOIS Checked by: J. DUBOIS Design by: J. DUBOIS Prepared by: J. DUBOIS	Project: OBDA NORTHEAST SITE Location: GROTON, CONNECTICUT Scale: 1" = 100'
Company: POSTER WHEELER ENVIRONMENTAL CORPORATION 100 FEDERAL STREET GROTON, CONNECTICUT 06340 Tel: (815) 497-4949	
Project No: 03-001-1107 Date: 09-24-03 Drawing No: 03-001-1107-01 Sheet: 1 of 1	