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NAS BRUNSWICK
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PRESENTATION FROM 3 DECEMBER 2008 RESTORATION ADVISORY BOARD MEETING
NAS BRUNSWICK ME
12/3/2008
BRAC PMO NORTHEAST

**ATTACHMENT B:
PRESENTATIONS**



***Restoration Advisory Board
Meeting
3 December 2008***

Parkwood Inn, Brunswick, Maine

7:00 PM

(Printed on 100% post-consumer recycled paper)



Agenda - Restoration Advisory Board (RAB) Meeting
Naval Air Station Brunswick, Maine
Wednesday, 3 December 2008
Parkwood Inn
7:00 to 9:00 pm

7:00 – 7:15 Introductions

7:15 – 7:30 Old/New Business

- Schedule for 2009 RAB Meetings
- Community Items (SMP, Newsletter, AR, RAB Charter)

7:30 – 8:30 Field Work Status Updates

- Site 02
- Site 17
- 1,4-Dioxane Results (Preliminary)
- Bedrock Investigation Status Overview
- Extraction Well Pump Test
- Military Munitions Response Program (MMRP) Sites
- Site 07
- Site 9 & Naval Exchange Service Station (NEX)

8:30 – 9:00 Questions & Future RAB Agenda Topics

Meeting Agenda

Introductions

- *Navy BRAC Program Management Office Northeast Representatives:*
 - Mr. Todd Bober, P.E., Remedial Project Manager
 - Mr. Paul Burgio, BRAC Environmental Coordinator
- *Naval Air Station Brunswick Representatives:*
 - Captain William Fitzgerald, Commanding Officer
 - Mr. John James, Public Affairs Officer
 - Ms. Lisa Joy, Environmental Director
 - Mr. Michael Fagan, Installation Restoration Program

Introductions (cont.)

- *U.S. Environmental Protection Agency Representative:*
 - Mr. Michael Daly, Remedial Project Manager
- *Maine Department of Environmental Protection Representatives:*
 - Ms. Claudia Sait, Remedial Project Manager
 - Mr. Chris Evans, P.G., Project Geologist
- *Brunswick Area Citizens for a Safe Environment Consultant:*
 - Ms. Carolyn Lepage, C.G., Lepage Environmental
- *Midcoast Regional Redevelopment Authority (MRRA):*
 - Ms. Victoria Boundy, Planning and Environmental Manager
- *RAB Co-Chair – Local Citizen:*
 - Ms. Suzanne L. Johnson, Esq. McTeague Higbee Case
Cohen Whitney & Toker, PA

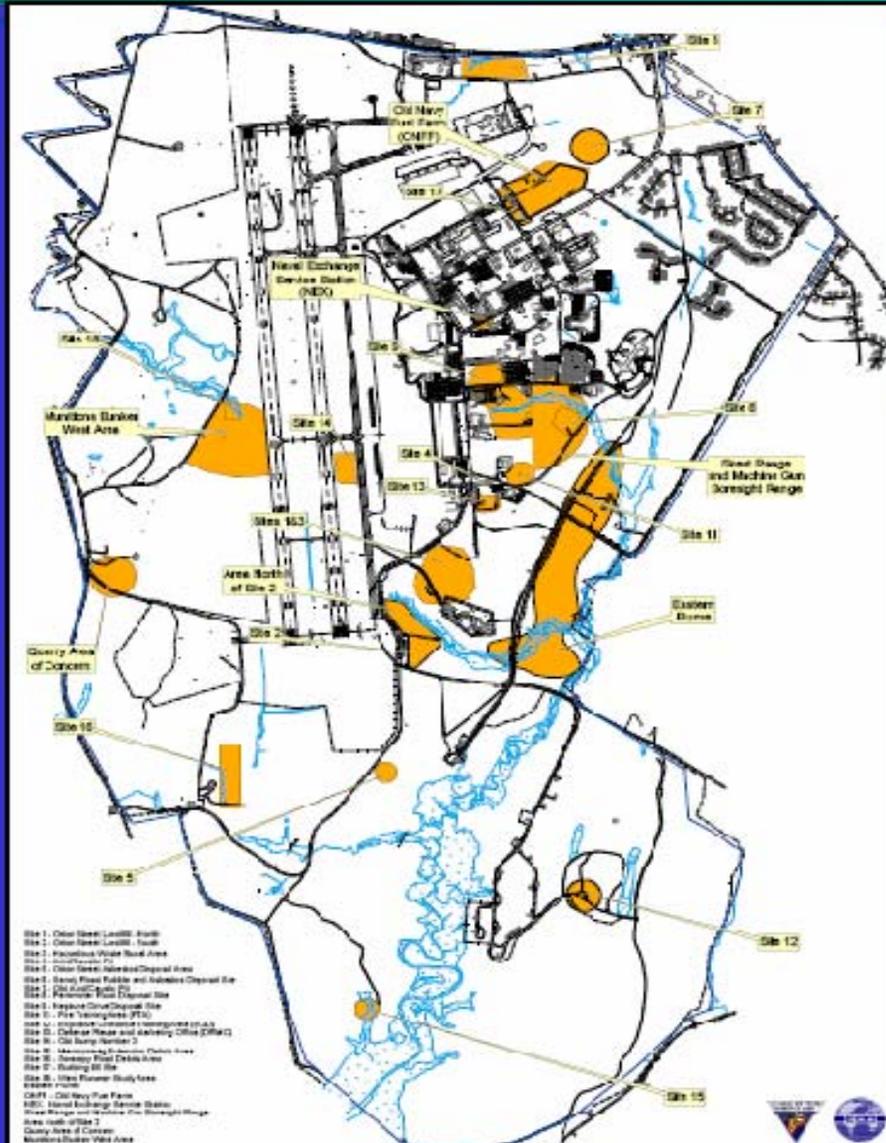
Meeting Agenda

- *Welcome!*
- **Introductions**
- **RAB Administrative Items (Navy)**
 - Schedule for 2009 RAB Meetings
 - Community Items (SMP, Newsletter, AR, RAB Charter)
- **Technical Presentations (Navy/TtNUS/ECC)**
 - Site 02 Landfill and Area North Investigation Update
 - Site 17 Remedial Investigation/Soil Removal Update
 - 1,4-Dioxane Investigation at Eastern Plume
 - Bedrock Investigation Status/Overview
 - Extraction Well Pump Test Update

Meeting Agenda (con't)

- **Technical Presentations (Navy/TtNUS/ECC)**
 - Military Munitions Response Program (MMRP) Sites
 - Site 07
 - Site 09 and Naval Exchange Service Station (NEX)
- **Questions and Future RAB Agenda Topics (Navy)**

NAS Brunswick Basewide Map – Environmental Restoration Areas



- Site 1 - Orion Street Landfill - North
- Site 2 - Orion Street Landfill - South
- Site 3 - Hazardous Waste Burial Area
- Site 4 - Acid/Caustic Pit
- Site 5 - Orion Street Asbestos Disposal Area
- Site 6 - Sandy Road Rubble and Asbestos Disposal Site
- Site 7 - Old Acid/Caustic Pit
- Site 8 - Perimeter Road Disposal Site
- Site 9 - Neptune Drive Disposal Site
- Site 11 - Fire Training Area (FTA)
- Site 12 - Explosive Ordnance Training Area (EOD)
- Site 13 - Defense Reuse and Marketing Office (DRMO)
- Site 14 - Old Dump Number 3
- Site 15 - Merriconeag Extension Debris Area
- Site 16 - Swampy Road Debris Area
- Site 17 - Building 95 Site
- Site 18 - West Runway Study Area
- Eastern Plume
- ONFF - Old Navy Fuel Farm
- NEX - Naval Exchange Service Station
- Skeet Range and Machine Gun Bore-sight Range
- Area North of Site 2
- Quarry Area of Concern
- Munitions Bunker West Area

RAB Administration Items

- **Schedule for 2009 RAB Meetings**

- **Feb 2009**
- **May 2009**
- **August 2009**
- **November 2009**

Dates to be determined

- **Community Items**

- **Final Site Management Plan**
- **Fall 2008 Newsletter**
- **Administration Record Update**
- **RAB Charter**



Proposed Field Schedule

Proposed Short-Term Field Schedule for NAS Brunswick:

<u><i>Action</i></u>	<u><i>Date</i></u>
• Site 02 Fieldwork	Completed
• NEX Pre-design Fieldwork	Completed
• NEX Remediation	Summer 09
• Site 07 Fieldwork	December 2008
• Site 09 Site Restoration	Completed
• Site 09 Well Replacement	Winter 08
• Site 09 Ash Delineation- Area North	Winter 08
• Background Work Plan	Winter 09

Proposed Field Schedule

Action

Date

- | | |
|--|-----------|
| • Extraction (EW-5B) Well Pump Test | Completed |
| • Site 17 RI Fieldwork | Winter 08 |
| • Site 17 Soil Removal Investigation
(South Avenue B) | Completed |
| • Eastern Plume 1,4 -Dioxane Investigation | On-Going |
| • Eastern Plume New Bedrock Wells | On-Going |
| • Old Navy Fuel Farm Well Repairs | Winter 08 |
| • Various Long-Term Monitoring Fall 08 | Completed |

Site 02 Inactive Landfill -Area North Investigation



Site 02 Status Update

<u><i>Action</i></u>	<u><i>Status/Schedule</i></u>
• Test Pit Excavations	Completed
• Geophysical Surveys	Completed
• Soil Borings	Completed
• Well Installations	Completed
• Groundwater Sampling	Completed
• Surveyor Mapping	Dec. 2008
• Data Review/Validation	Jan. 2009
• Report Submission	Feb. 2009

Site 02 Investigation Status

COMPLETED ACTIVITIES:

- **Conducted geophysical surveys to define the locations of buried metal objects.**
- **Excavated 11 test pits and collected 15 soil samples for analysis for VOCs, SVOCs, pesticides/PCBs and TAL metals.**
- **Test pits located to target geophysical anomalies and to define extent of ash-like material.**
- **Advanced 12 soil borings and submitted soil samples for analysis for VOCs, SVOCs, pesticides/PCBs and TAL metals.**
- **Installed 10 monitoring wells.**
- **Developed/sampled new monitoring wells for VOCs, SVOCs, pesticides/PCBs and TAL metals.**

Site 02 Soil Analytical Data

Parameter	Number of Detections	Number of Samples Analyzed	Minimum Detected Concentration (mg/kg)	Maximum Detected Concentration (mg/kg)	PAL ¹ (mg/kg)	Number of PAL Exceedences
Inorganics (mg/kg)						
ALUMINUM	28	28	1450	24300	7700*	14
ANTIMONY	18	28	0.05	3.6	3.1*	1
ARSENIC	28	28	0.85	7.6	0.39	28
CHROMIUM	28	28	3.3	41	23*	5
IRON	28	28	2820	29700	5500*	27
LEAD	28	28	2.3	228	40*	8
MANGANESE	28	28	21.6	613	180*	6
MERCURY	19	28	0.04	24.1	0.67*	3
NICKEL	28	28	2	530	160*	3
VANADIUM	28	28	6.1	6030	39*	5
PAHs (mg/kg)						
BENZO(A)ANTHRACENE	20	28	0.0025	1.4	0.15	5
BENZO(A)PYRENE	18	28	0.0078	1.2	0.015	15
BENZO(B)FLUORANTHENE	15	28	0.024	0.69	0.15	4
DIBENZO(A,H)ANTHRACENE	14	28	0.0086	0.39	0.015	9
INDENO(1,2,3-CD)PYRENE	23	28	0.0085	1	0.15	4
Pesticides (mg/kg)						
4,4'-DDT	21	28	0.00092	2.3	1.7	1

NOTES:

1. Oak Ridge National Laboratory (ORNL) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, July 7, 2008 available online at <http://epa-prgs.ornl.gov/chemicals/index.shtml>. Values represent the risk-based soil screening level for residential land use.

* Indicates that one-tenth RSLs are displayed for non-carcinogenic compounds to represent a target hazard quotient of 0.1.

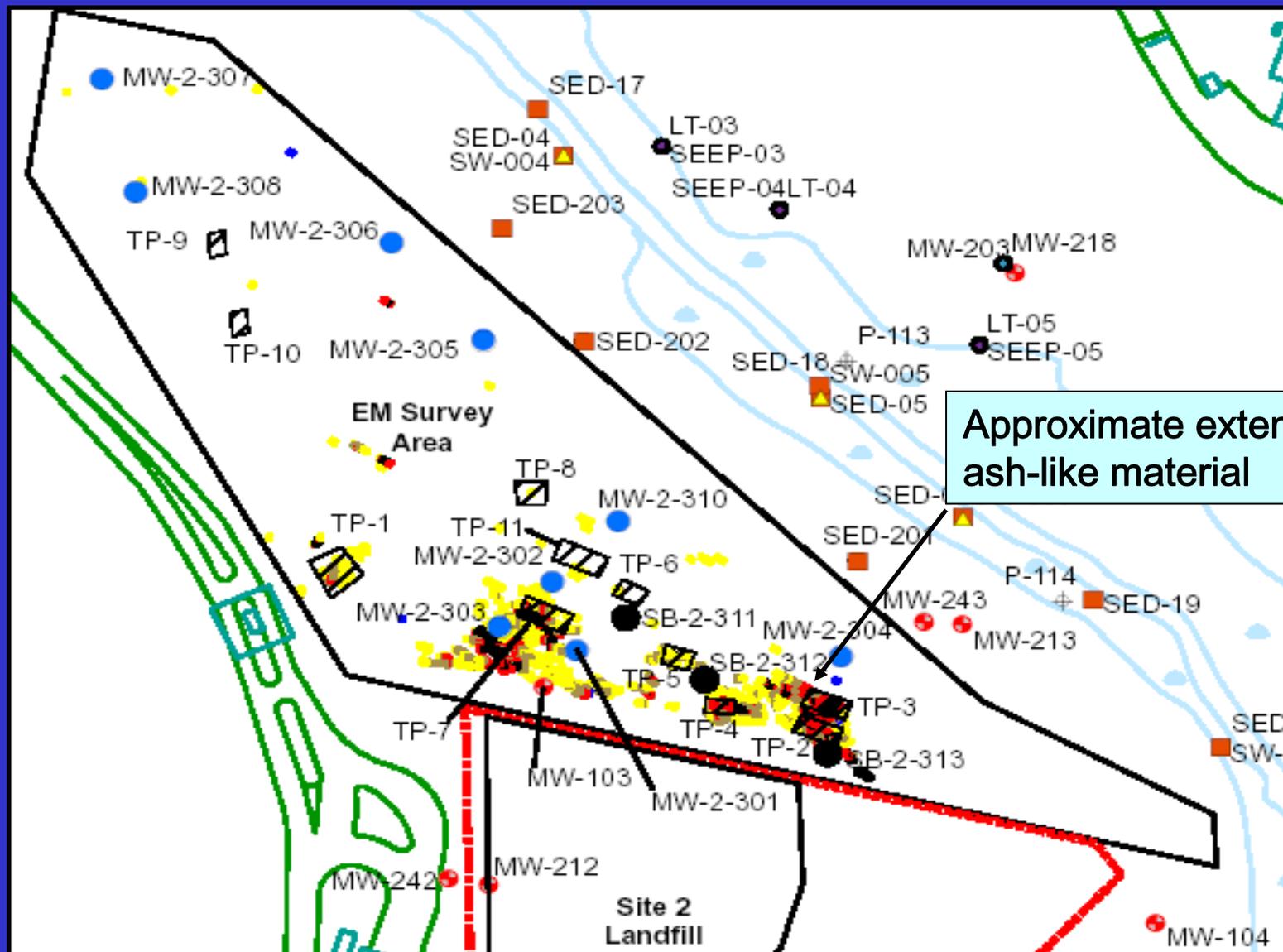
Site 02 Groundwater Analytical Data

Parameter	Number of Detections	Number of Samples Analyzed	Minimum Detected Concentration (mg/L)	Maximum Detected Concentration (mg/L)	PAL ¹ (mg/L)	Number of PAL Exceedences
<u>Inorganics</u>						
MANGANESE	12	15	0.0123	9.69	0.5	4
SODIUM	13	15	0.161	28.8	20	4
<u>VOCs</u>						
BROMODICHLOROMETHANE	1	17	0.013	0.013	0.006	1

NOTES:

1 - PAL is taken from Maine CDC, September 7, 2007, Maximum Exposure Guidelines (MEGs) for Drinking Water.

Site 02 - Area North - Geophysical Survey Results



Site 02 – Test Pit Excavation



Site 02 Investigation Status

UPCOMING ACTIVITIES:

- **Compile geophysical data to provide information on subsurface materials.**
- **Survey test pit, soil boring and monitoring well locations/elevations.**
- **Validate/evaluate soil data and groundwater monitoring data.**
- **Assess need for additional monitoring wells or soil borings to fill data gaps.**
- **Install additional soil borings and/or monitoring wells, if necessary.**
- **Report preparation/Submission: summarizing results of activities and provide recommendations for future activities, as necessary.**

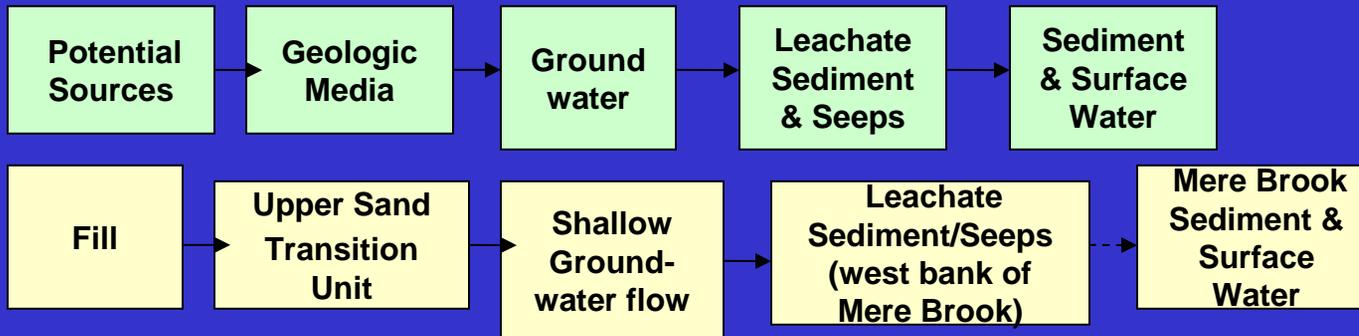
Site 02 Area North - Preliminary Conceptual Site Model

Potential Contaminants of Concern

Potential Sources and Contaminant Migration Pathways

PAHs in Site 02 Soil Include:

BENZO(A)ANTHRACENE
 BENZO(A)PYRENE
 BENZO(B)FLUORANTHENE
 DIBENZO(A,H)ANTHRACENE
 INDENO(1,2,3-CD)PYRENE
 PHENANTHRENE



Site 02 Soil

4,4-DDT
 PAHs
 Aluminum
 Antimony
 Arsenic
 Cadmium
 Chromium
 Iron
 Lead
 Manganese
 Mercury
 Nickel
 Vanadium

Site 02 GW

BDM
 Manganese
 Sodium

Leachate Seeps/Sediment³

4,4-DDT ¹	Iron(L), (LD) ^{1,2}
4,4-DDD ^{1,2}	Lead(L), (LD) ^{1,2}
Phenanthrene ² (LD) ^{1,2}	Manganese(L),
Aluminum(L) ^{1,2}	Mercury(L), (LD) ¹
Antimony (LD) ²	Nickel (L) ^{1,2}
Arsenic(L), (LD) ^{1,2}	Selenium (L),(LD) ^{1,2}
Barium (L), (LD) ^{1,2}	Silver (LD) ¹
Beryllium (L) ^{1,2}	Vanadium (L) ^{1,2}
Cadmium(LD) ²	Zinc (L), (LD) ^{1,2}
Chromium(L) ^{1,2}	Carbon Disulfide
(LD)	
Cobalt (L), (LD) ^{1,2}	
Copper (L) ^{1,2}	

Mere Brook SW³ and Sediment⁴

Aluminum(SW)^{1,2}
 Barium(SW), (SD)^{1,2}
 Beryllium(SW)^{1,2}
 Cadmium (SW)²
 Iron(SW)^{1,2}
 Lead(SW)^{1,2}
 Manganese(SW, (SD)^{1,2}
 Selenium (SD)¹
 Silver (SW)¹
 Zinc (SW)^{1,2}

Notes:

Potential Incomplete pathway - arrow

1- Detected in Site 03 leachate samples presented in Sites 1 and 3 and Eastern Plume Monitoring Event 30 Report April 2007 (ECC, Sept. 2008).

2- Detected in Site 02 groundwater samples collected 10-08.

3- Based upon Final Site 2 Monitoring Even 16 Report (ECC, Nov. 2008).

4- Based upon data presented in the Sites 1 and 3 and Eastern Plume Monitoring Event 30 Report April 2007 (ECC, Sept. 2008).

(L) =Leachate Seeps
 (LD) = Leachate Sediment
 (SW) =Mere Brook Surface Water
 (SD) =Mere Brook Sediment

Site 17 Remedial Investigation/ Soil Removal Action



Site 17 Remedial Investigation Status/Update

Action

Status/Schedule

- RI Phase I Fieldwork Oct. 2008
- RI Phase I Data Analysis/Validation Nov. 2008
- Phase II RI Field Work Dec. 2008
- Boring/Monitoring Well Survey Dec. 2008
- Phase II RI Data Analysis/Validation Jan. 2009
- Site 17 Draft RI Report Submission Apr. 2009
- Site 17 Focused Feasibility Study Summer 2009

Site 17 Remedial Investigation Status Update

COMPLETED ACTIVITIES:

- *Jan. 2008-* Developed a Sampling and Analysis Plan for soil and groundwater investigations.
- *Oct. 2008-* Collected soil samples for analysis from soil borings in 45 locations across the former pest control operation area.
- *Oct. 2008-* Submitted 72 soil samples for analysis for pesticides, herbicides, metals, cyanide and diesel range organics from the soil borings to define the extent of impact.
- *Oct. 2008-* Installed 4 temporary monitoring wells to assess the extent of impacts from the former pest operations.
- *Oct. 2008-* Developed 4 newly installed and 5 existing monitoring wells in preparation for Phase II Investigation.

Site 17 Remedial Investigation Status Update

INITIAL FINDINGS:

- A 1-1.5 foot thick black layer approximately 4 to 6 feet below grade in several borings located on the northern, southern side and in Avenue B as well as adjacent to the back of the operational buildings.
- Flame Ionization Detector screening measurements of the black layer yielded total VOC readings up to several thousand parts per million (ppm).
- Geotextile material was encountered in one boring (SB-17-141) at a depth of approximately 1 to 2 feet below grade.

Site 17 Remedial Investigation Status Update

UPCOMING ACTIVITIES

- Evaluate soil data collected during Phase I.
- Assess need for additional monitoring wells or soil borings to fill data gaps (Phase II).
- Install new soil borings and/or monitoring wells, if necessary (Phase II).
- Collect groundwater samples from new and existing monitoring wells.
- Survey soil boring and monitoring well locations and elevations.
- Validate/evaluate laboratory data.
- Prepare a Draft Remedial Investigation (RI) report.
- Prepare draft Focused Feasibility Study to evaluate cleanup options.

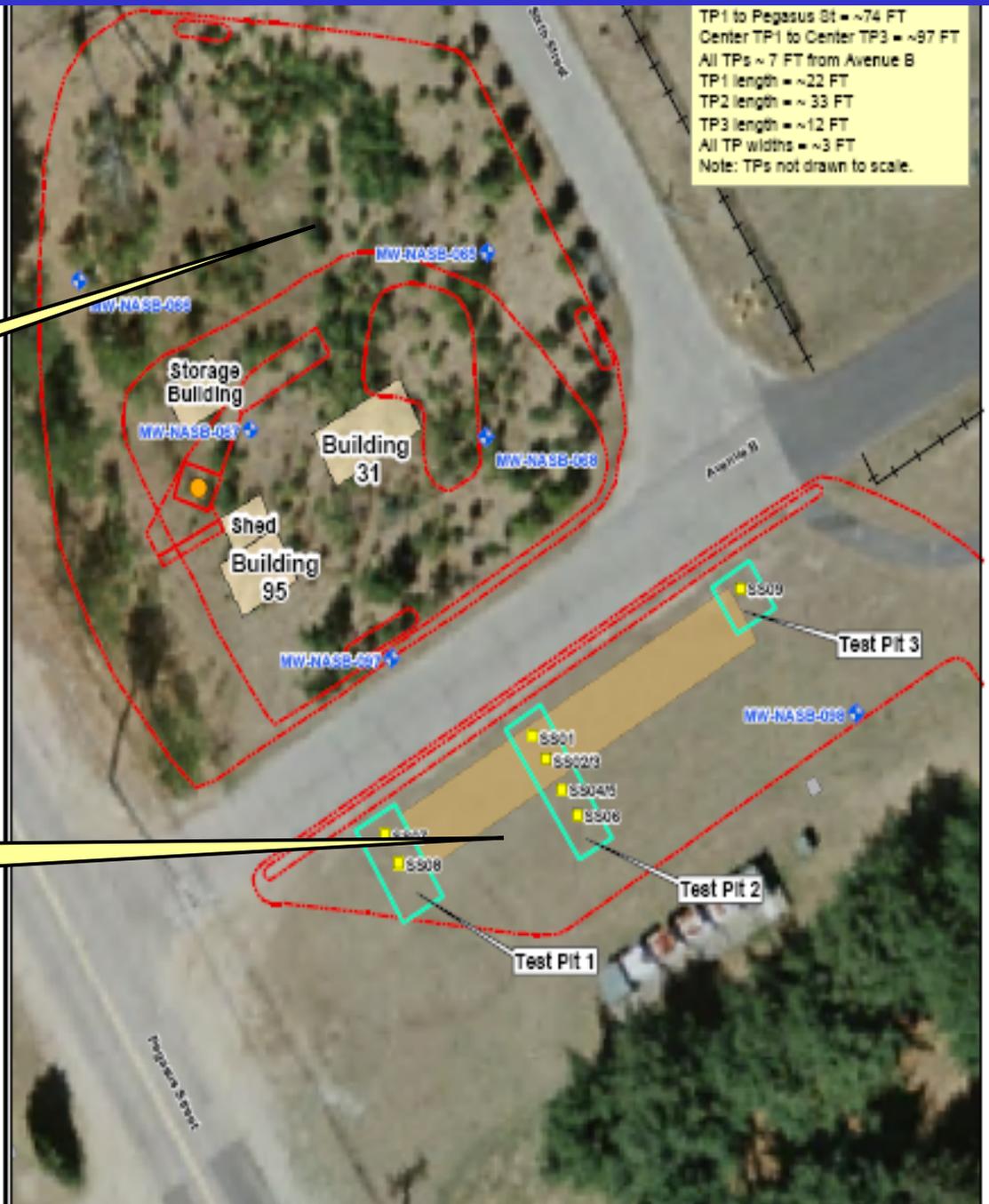
Site 17 Soil Removal Investigation- South of Avenue B

- **Objective of Investigation Activities**
 - To locate, identify and remove an approximate 6-inch layer of soil that was previously excavated in October 1994 from an area immediately south of Avenue B.
- **Status Update**
 - Conducted 3 test pit excavations on 14 Oct 2008.
 - Collected soil samples for pesticides analysis.
 - Evaluating cleanup options for soils in this area.

Site 17 – Soil Removal Investigation October 2008

Excavation
Boundary

Soil Relocation
Area (approx.)
1994

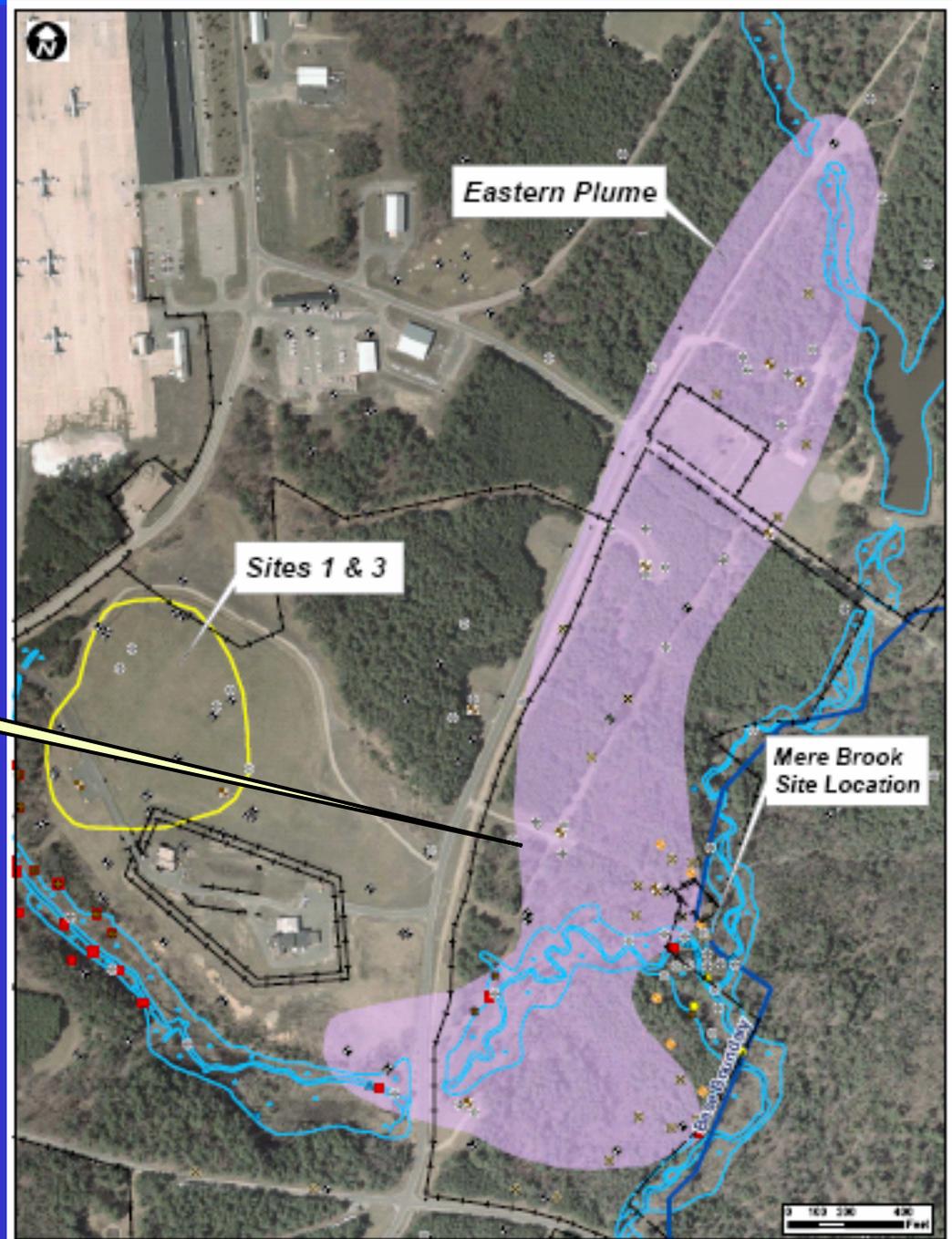


Site 17 – Test Pit Investigation 14 October 2008



Eastern Plume Investigation – 1,4 Dioxane

Eastern Plume



1,4-Dioxane Investigation Eastern Plume Status/Update

Action

- Porewater Sampling
- SAP for Groundwater Investigation
- Direct Push/Electrical Conductivity
- Discrete groundwater sampling
- Bedrock Groundwater Investigation
- Well Survey
- Monitoring Well Installation
- Groundwater Sample/Water Level Gauging
- Hydraulic Conductivity Testing
- Data Evaluation/Validation
- Draft Report Submission

Status Update

Aug. 08

Oct. 08

Nov.-Dec. 08

Nov.-Dec. 08

Nov. 08

Dec. 08

May. 09

Jun. 09

Jun. 09

Jul. 09

Sept. 09

1,4-Dioxane Investigation Eastern Plume Status/Update

COMPLETED ACTIVITIES:

- ***Aug. 2008-*** Porewater Sampling and developed a Sampling and Analysis Plan for soil and groundwater in *Sept. 2008*.
- ***Nov. 2008-*** Installed overburden wells and bedrock wells at 3 locations.
- ***Nov. 2008-*** Conducted downhole caliper, acoustic televiewer, heat-pulse-flowmeter, natural gamma, fluid resistivity and fluid temperature geophysical logging at 3 bedrock wells to determine locations of water-bearing fractures Completed bedrock monitoring wells.
- ***Nov. - Dec. 2008 -*** Conducted electrical conductivity profiling and groundwater samples from temporary well locations.

Direct-Push Electrical Conductivity Profiling Eastern Plume



1,4-Dioxane Investigation in the Eastern Plume - Status

UPCOMING ACTIVITIES

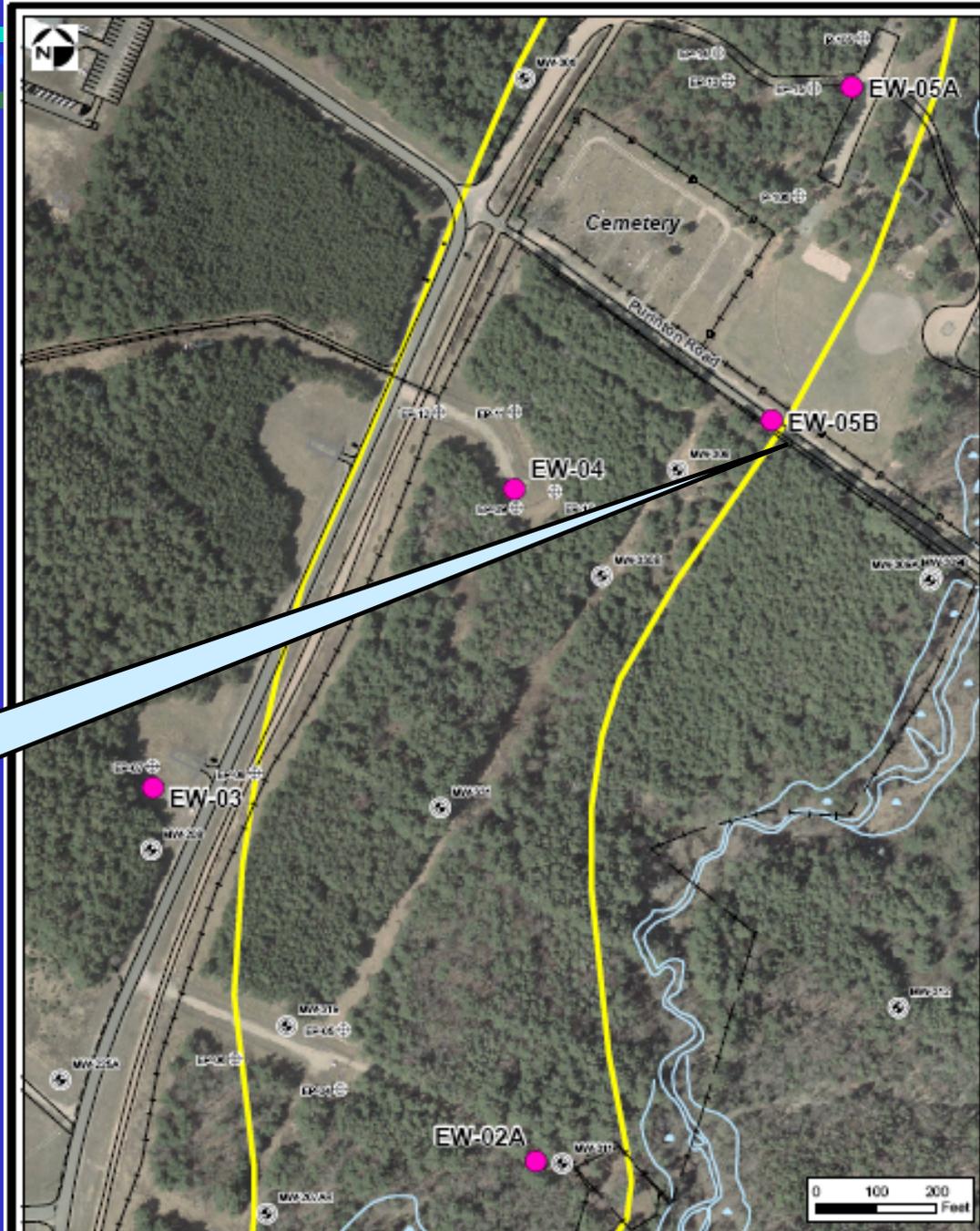
- Install up to 25 new monitoring wells.
- Collect water level measurements and stream gauging measurements in Merriconeag Stream.
- Collect groundwater samples from newly installed and 9 existing monitoring wells.
- Conduct hydraulic conductivity testing in new monitoring wells.
- Survey soil boring and monitoring well locations and elevations.
- Evaluate/validate laboratory data.
- Prepare a draft report summarizing results of activities and provide recommendations for future activities, as necessary.

Extraction (EW-5B) Well Pump Test Status

- Pump Test- Field Work
 - Began 14 November 2008
 - Extraction Well EW-5B was pump tested with piezometers PW-1 through PW-4 and background well MW-209 used as observation wells.
- Step-Test and 72 Hour Pump Test Conducted
 - Step-test used to establish a sustainable pumping rate.
 - Step-test pumping rates were set between 5 to 16 gpm.
 - Pumping rate of 12.5 gpm was used at extraction well for 72 hour pump test beginning on 17th November. Pump test ended on 20th November.

***Location
New Extraction
Well – EW-5B***

***Eastern Plume
Extraction Well
EW-5B***



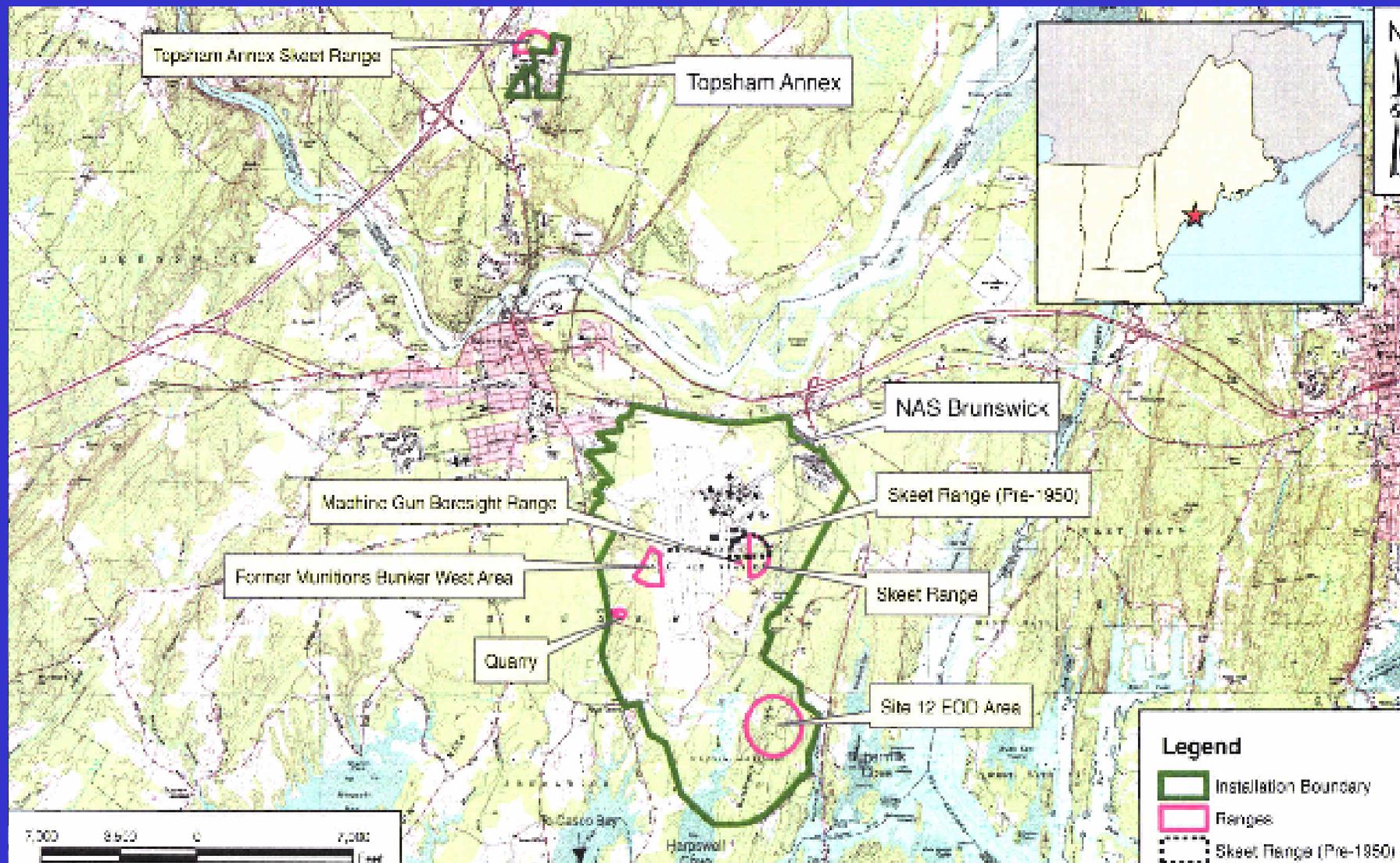
Extraction Well Locations

*Munitions Response Program (MRP)
Site Inspections Status
6 Munitions Areas*

- **Site 12 EOD Area**
- **Former Munitions Bunker West**
- **Quarry**
- **Machine Gun Boresight Range**
- **Skeet Range**
- **Topsham Annex Skeet Range**



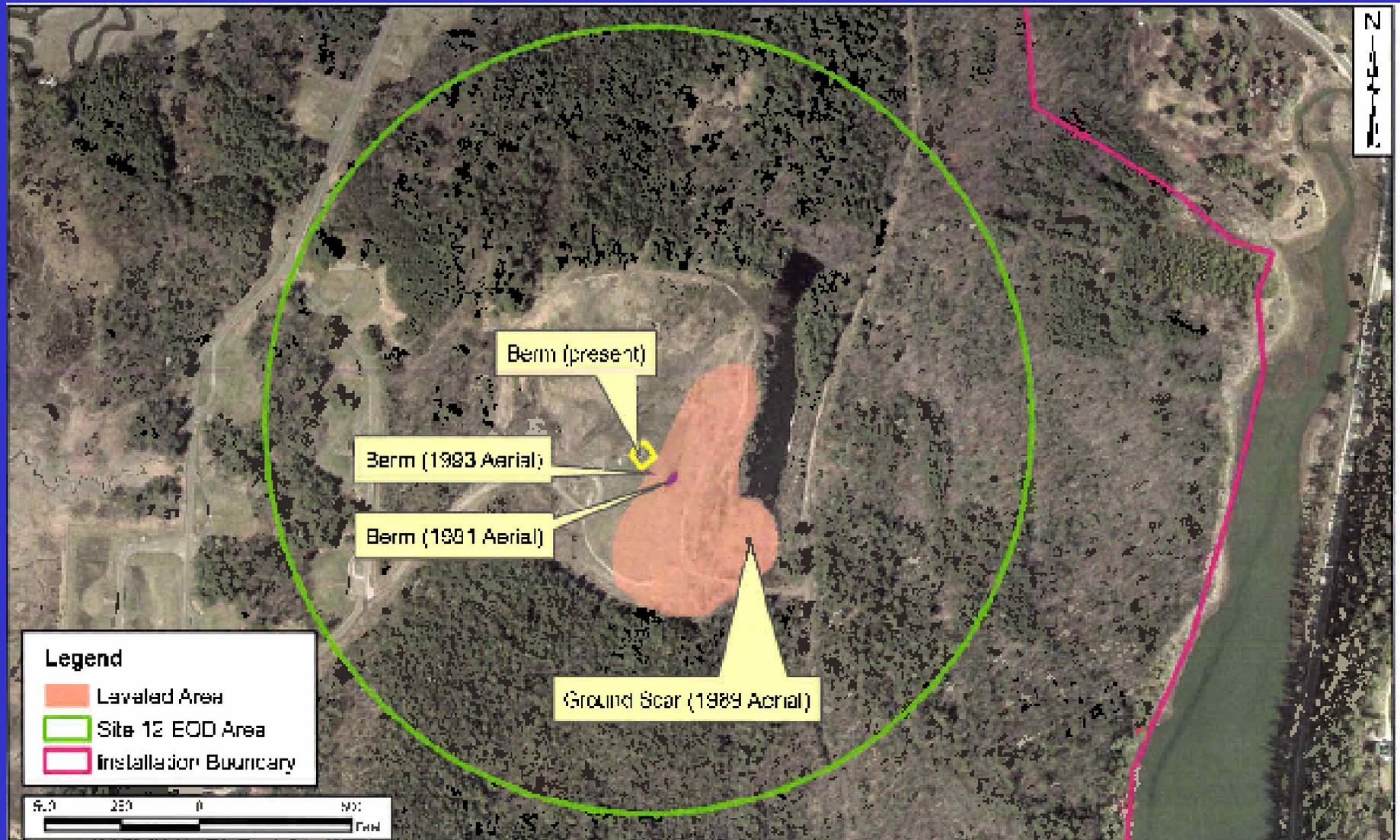
MRP Areas of Concern Site Locations



Status of MEC Work

- **Work Plan**
 - Finalized in June 2008.
- **Field Munitions Surveys**
 - Conducted July through August 2008.
- **Report**
 - Review by Navy in progress.
 - Discuss with Stakeholders during 12/08 technical meeting.
 - Recommend additional MEC investigation at Site 12, Former Munitions Bunker West Area, and Quarry.

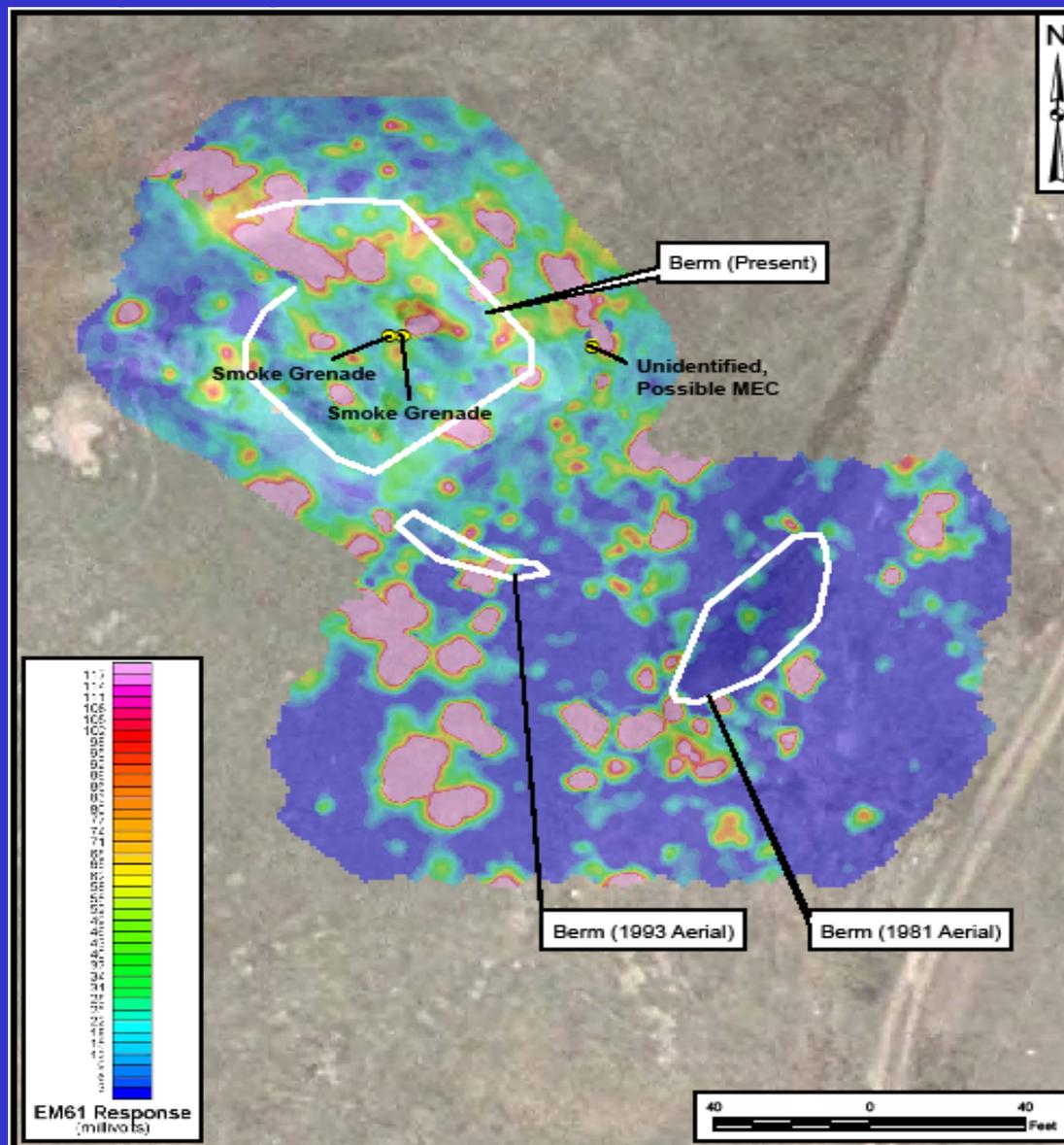
Site 12 EOD Area – Site Layout



Site 12 EOD Area: MEC Results Summary

- **UXO Sweep:**
 - Extensive brush cutting outside of bermed area
 - Several MEC items encountered at the ground surface including smoke grenades and rocket motor.
- **Geophysical Survey:**
 - Numerous subsurface anomalies encountered in and around bermed area that, considering the site history, are suspect MEC.

Site 12 EOD Area: Geophysical Survey Results



Site 12 EOD Area: Gator Mine



Former Munitions Bunker West Area Site Layout



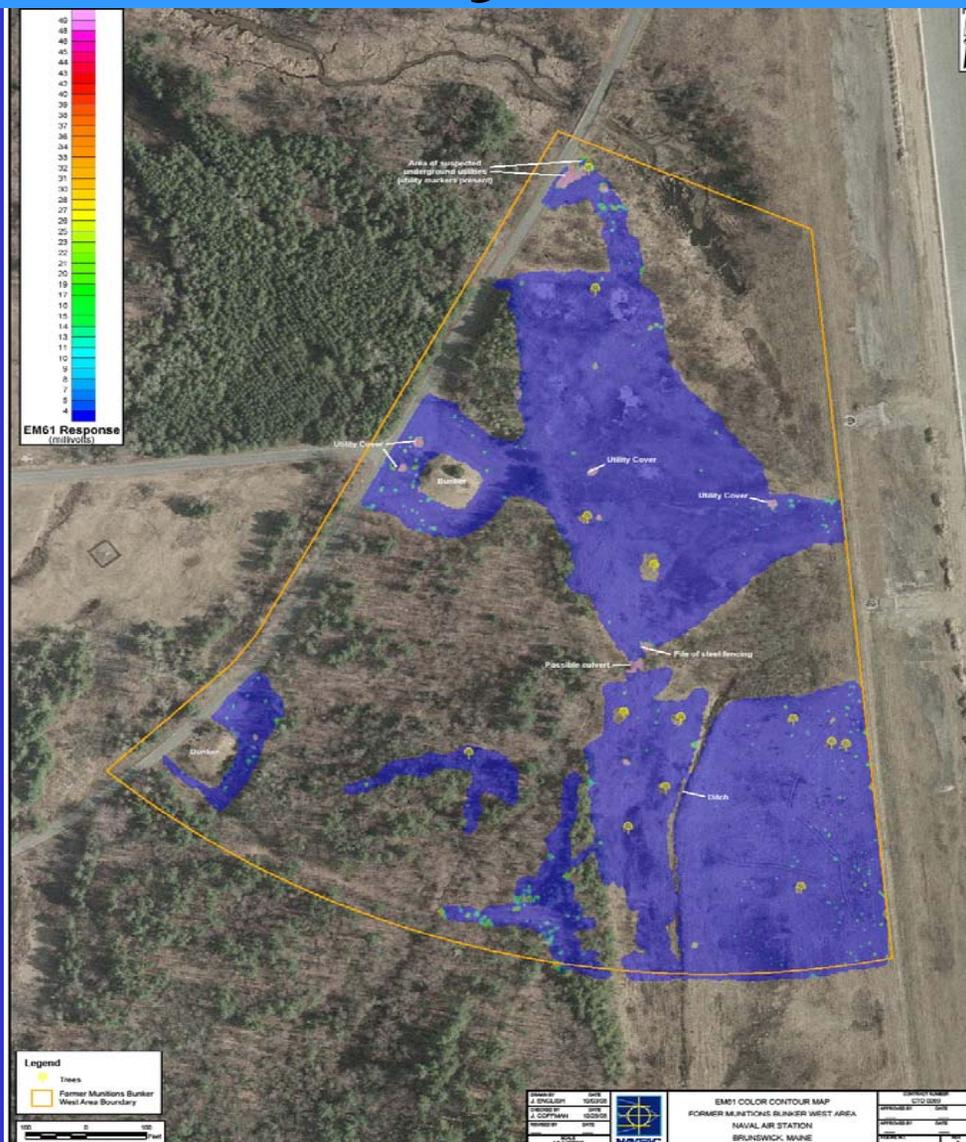
Former Munitions Bunker West Area: MEC Results Summary

- **UXO Sweep:**
 - Extensive brush cutting required.
 - No MEC found at ground surface.
- **Geophysical Survey:**
 - Numerous low-intensity subsurface anomalies (may be natural background but looking for small items so could be MEC).

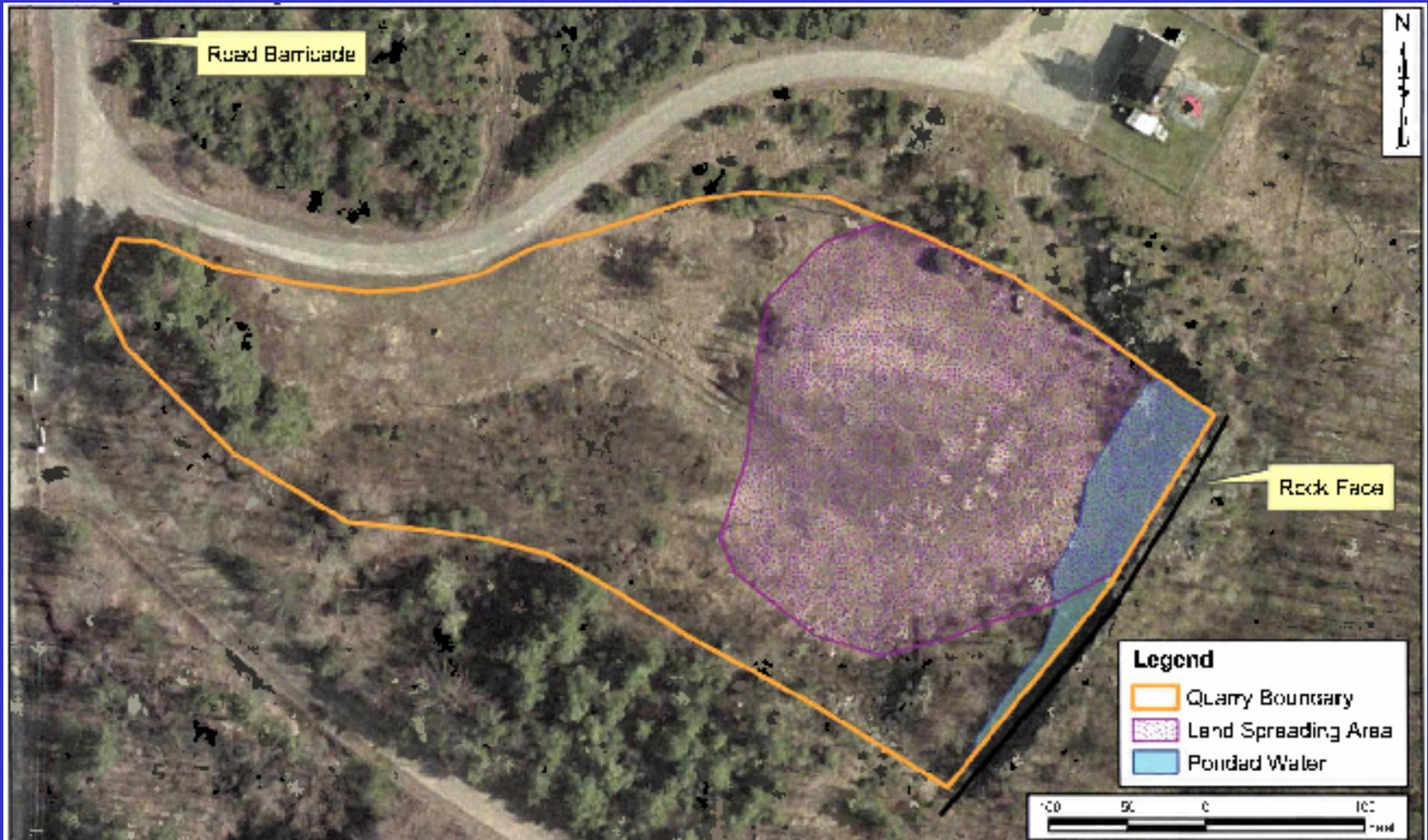
Former Munitions Bunker West – Brush Cutting



Former Munitions Bunker West : Geophysical Survey Results



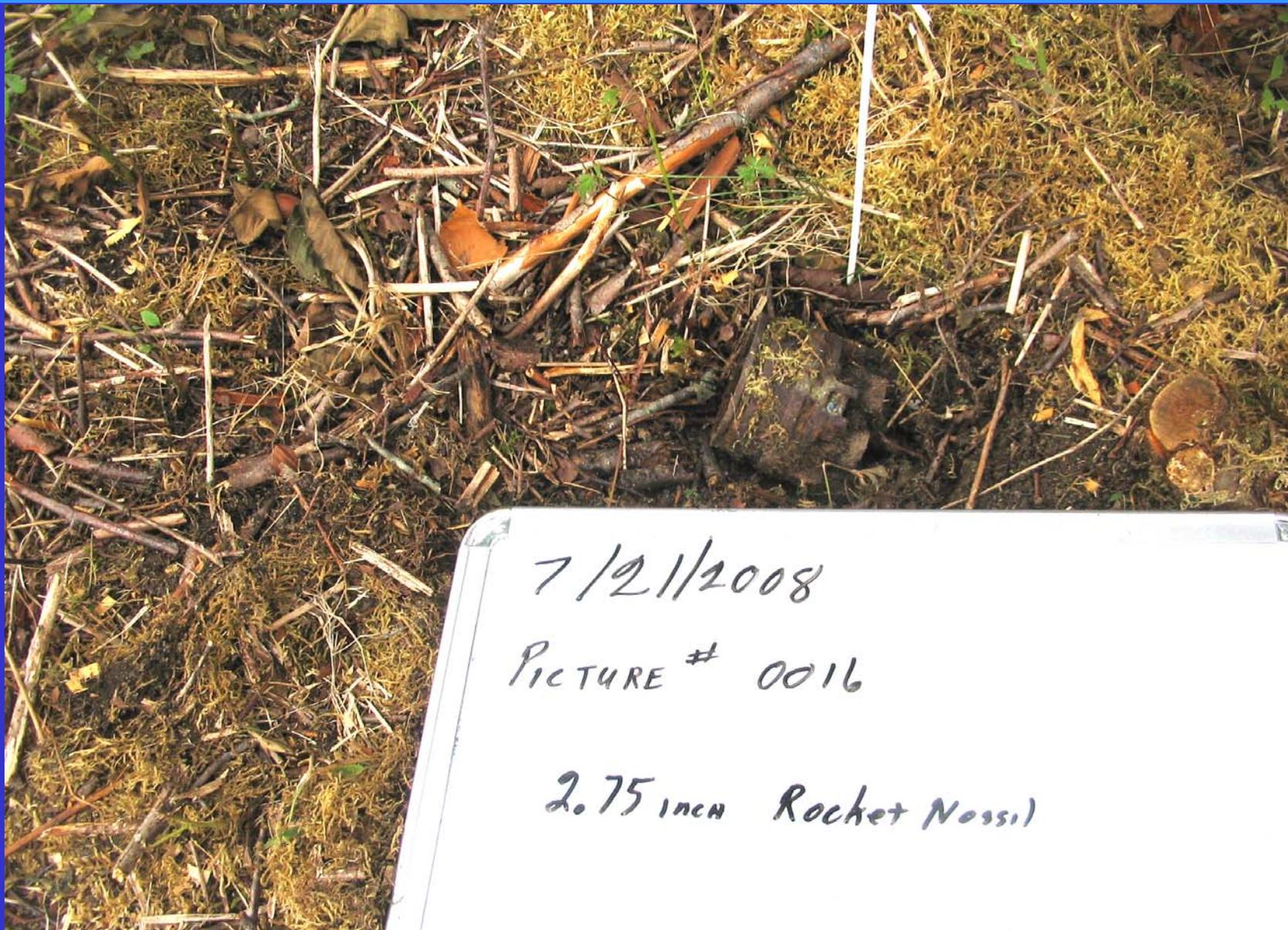
Quarry – Site Layout



Quarry: MEC Results Summary

- **UXO Sweep:**
 - Extensive brush cutting required.
 - One rocket motor unexpectedly found at the ground surface.
- **Geophysical Survey:**
 - Numerous subsurface anomalies encountered that could be indicative of either buried trash/debris or possibly MEC now that rocket motor encountered.

Quarry – Rocket Motor

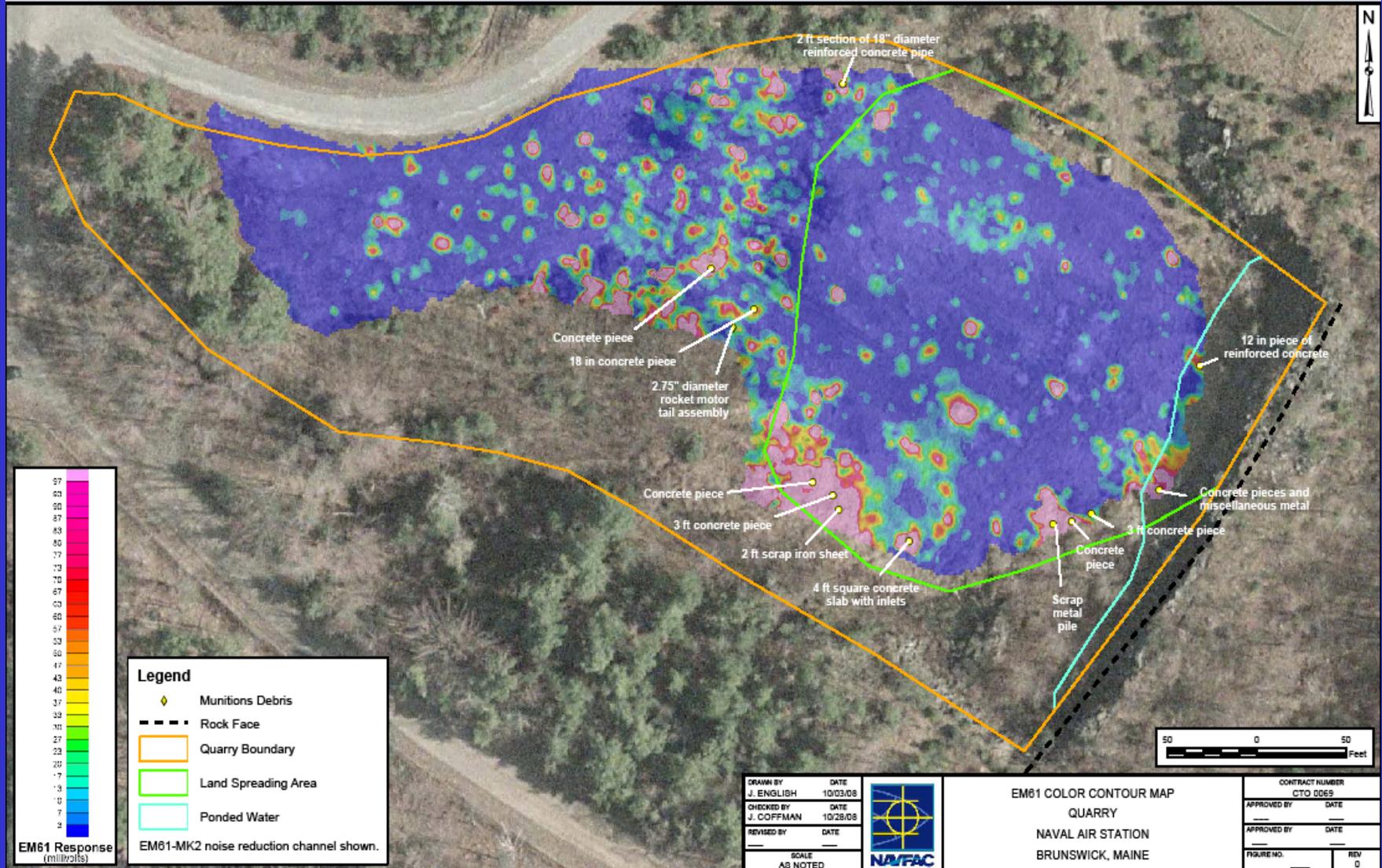


7/21/2008

PICTURE # 0016

2.75 inch Rocket Nozzle

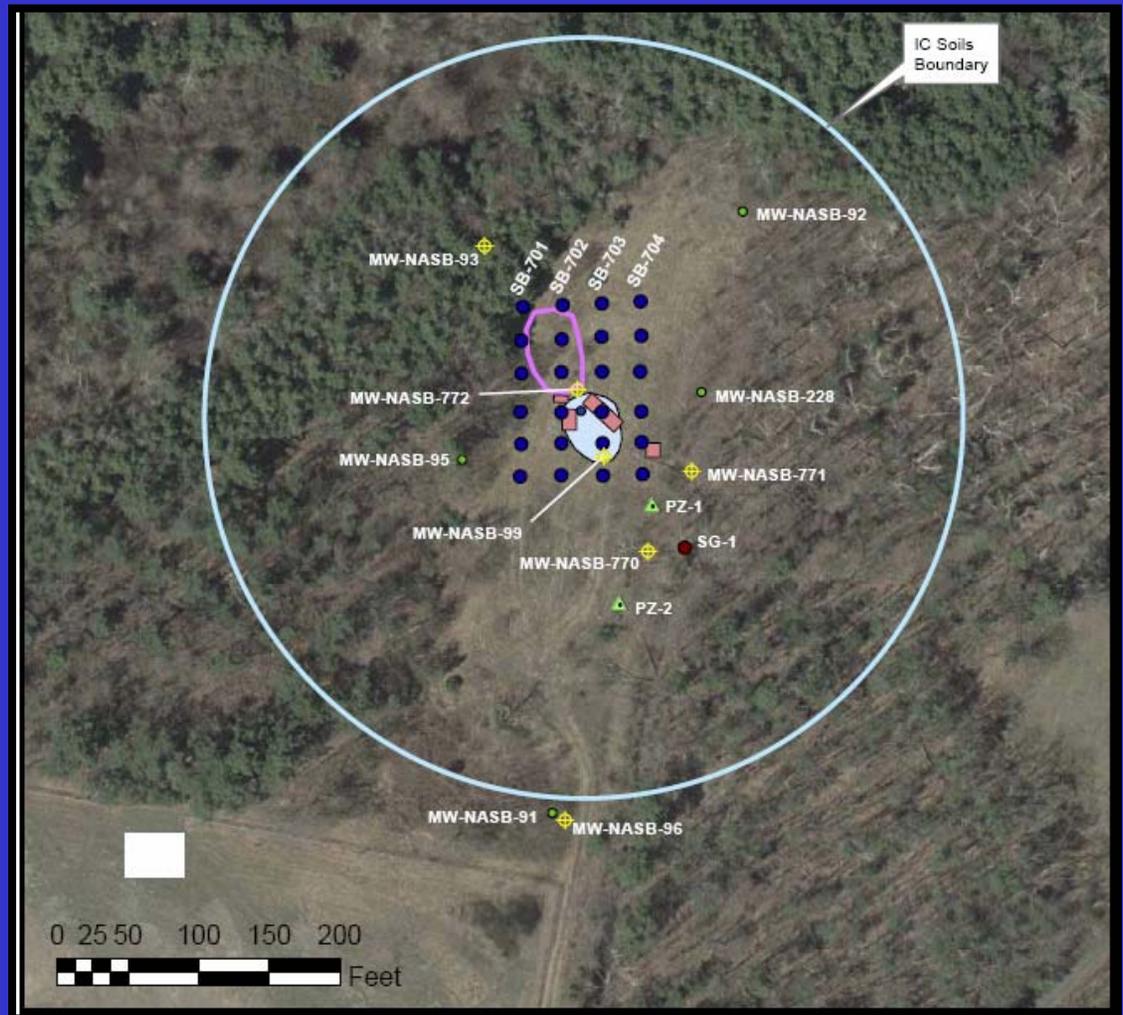
Quarry : Geophysical Survey Results



Site 07 Proposed Sample Locations

Legend

- Soil Borings
- ⊕ Monitoring Wells Selected For Sampling
- Monitoring Well
- ▲ Piezometer
- Stream Gauge
- Excavation Pit
- Approximate Area of Old Caustic Pit
- Area of Cadmium Exceedances



Site 07 Investigation Status

- **Objective of Investigation Activities**
 - Define source of elevated metals (cadmium and manganese) in groundwater.
- **Status Update on Investigation Activities**
 - Final Workplan issued November 2008.
 - Field work schedule: Winter 2008
 - Soil borings/soil sampling
 - Well completion/groundwater sampling
 - Well survey

Site 09 Soil Removal Action, Ash Delineation and Investigations

- ***Soil Removal Action Summary***
- ***Northern Area Ash Delineation Investigation***
- ***Monitoring Well Replacement***



Site 09 Recent Photo- Soil Removal Action



Site 09 Soil Removal Action Update

- ***Work completed in October 2008.***
- ***A site closure report is being drafted by excavation contractor.***

Site 09 Ash Delineation Investigation



**Ash Layer in direct-push soil
sample sleeve**

Site 09 Northern Area Ash Delineation Investigation Scheduled for 8th - 12th December



Site 09 Monitoring Well Replacement

Status Update

- A total of 7 wells will be installed at Site 09.
 - Two well couplets (shallow/Deep)
 - Three single wells
- Scheduled for 8th -12th December 2008.

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Naval Exchange (NEX) Service Station Update

- Navy awarded the remediation contract to AGVIQ/CH2M HILL on 21 Aug 2008.
- Navy and AGVIQ/CH2M HILL met with MEDEP On 03 Sep 2008 to discuss sampling strategies to delineate the NEX to facilitate cleanup.
- AGVIQ/CH2M HILL issued a Sampling and Analysis Plan to MEDEP on 10 Oct 2008 and was approved by MEDEP on 24 Oct 2008.

Naval Exchange (NEX) Service Station Update

Goals of Sampling and Analysis Plan

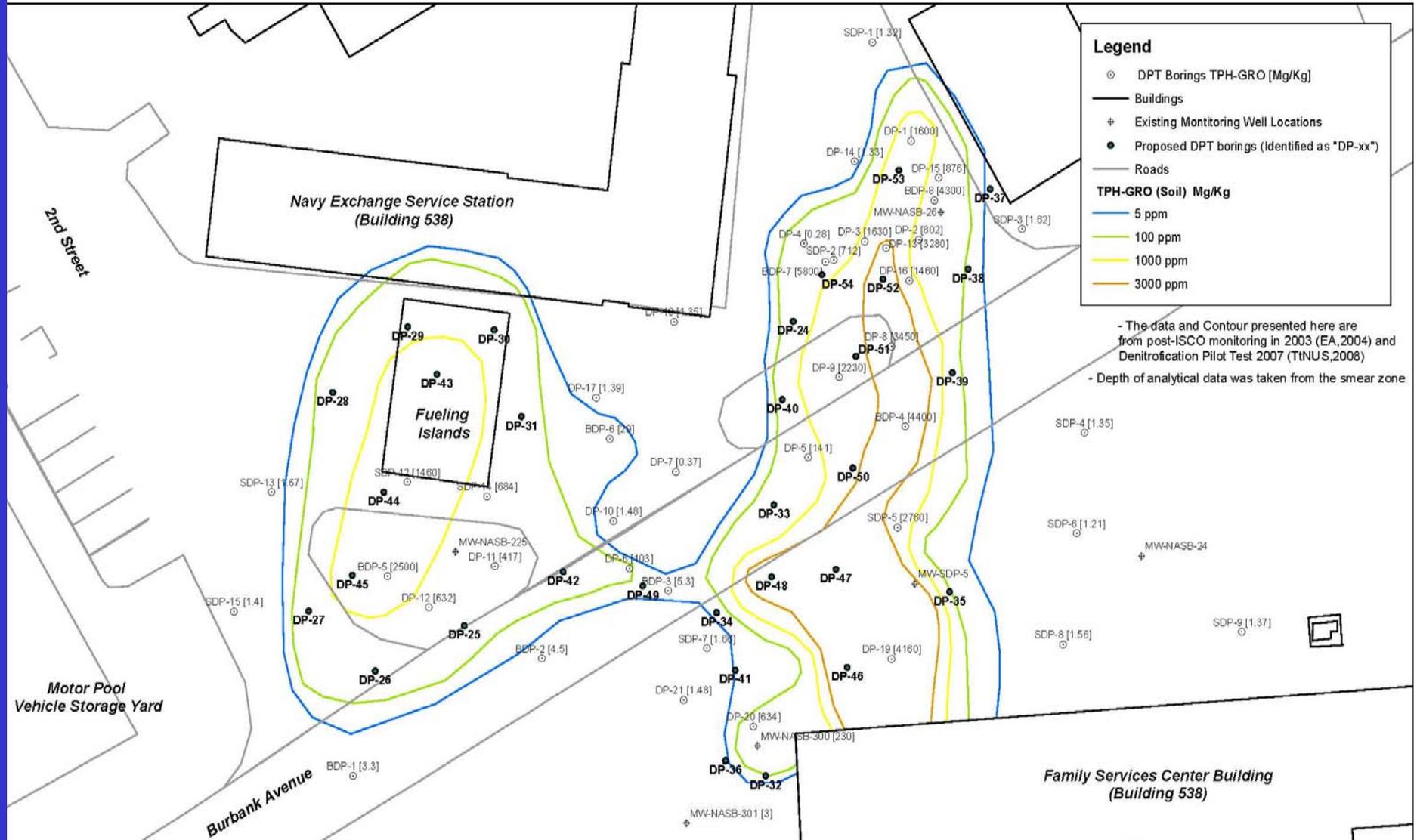
- **To define the horizontal and vertical limits of GRO contamination at the NEX using headspace measurement, onsite laboratory analyses, and off-site laboratory analyses.**
- **To define the baseline concentrations (i.e., prior to soil removal action) of GRO contamination in groundwater in the vicinity of the NEX.**

Naval Exchange (NEX) Service Station Update

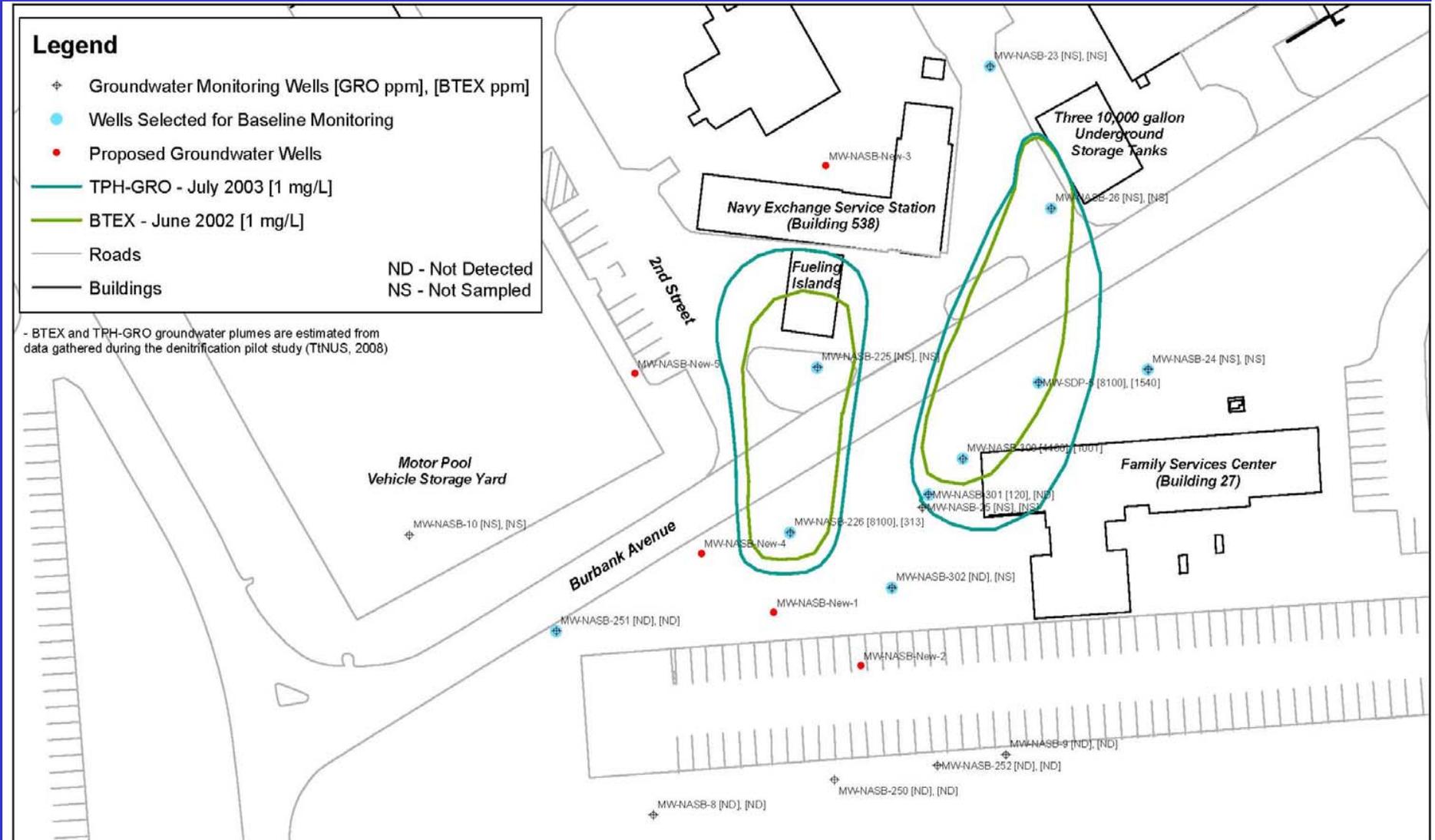
Summary of Sampling and Analysis Plan

- 30 boreholes will be installed within the NEX Site using Direct Push Technology (DPT).
- All borings will be advanced to approximately 20 feet bgs or into the marine clay.
- Up to 40 additional step outs with locations to be field-determined based on headspace measurements, onsite mobile laboratory analyses data, and visual & olfactory evidence of the sample.
- Ten existing monitoring wells and five new monitoring wells will be sampled and analyzed for TPH-GRO, MTBE, BTEX, and natural attenuation parameters.

Naval Exchange (NEX) Service Station Update



Naval Exchange (NEX) Service Station Update

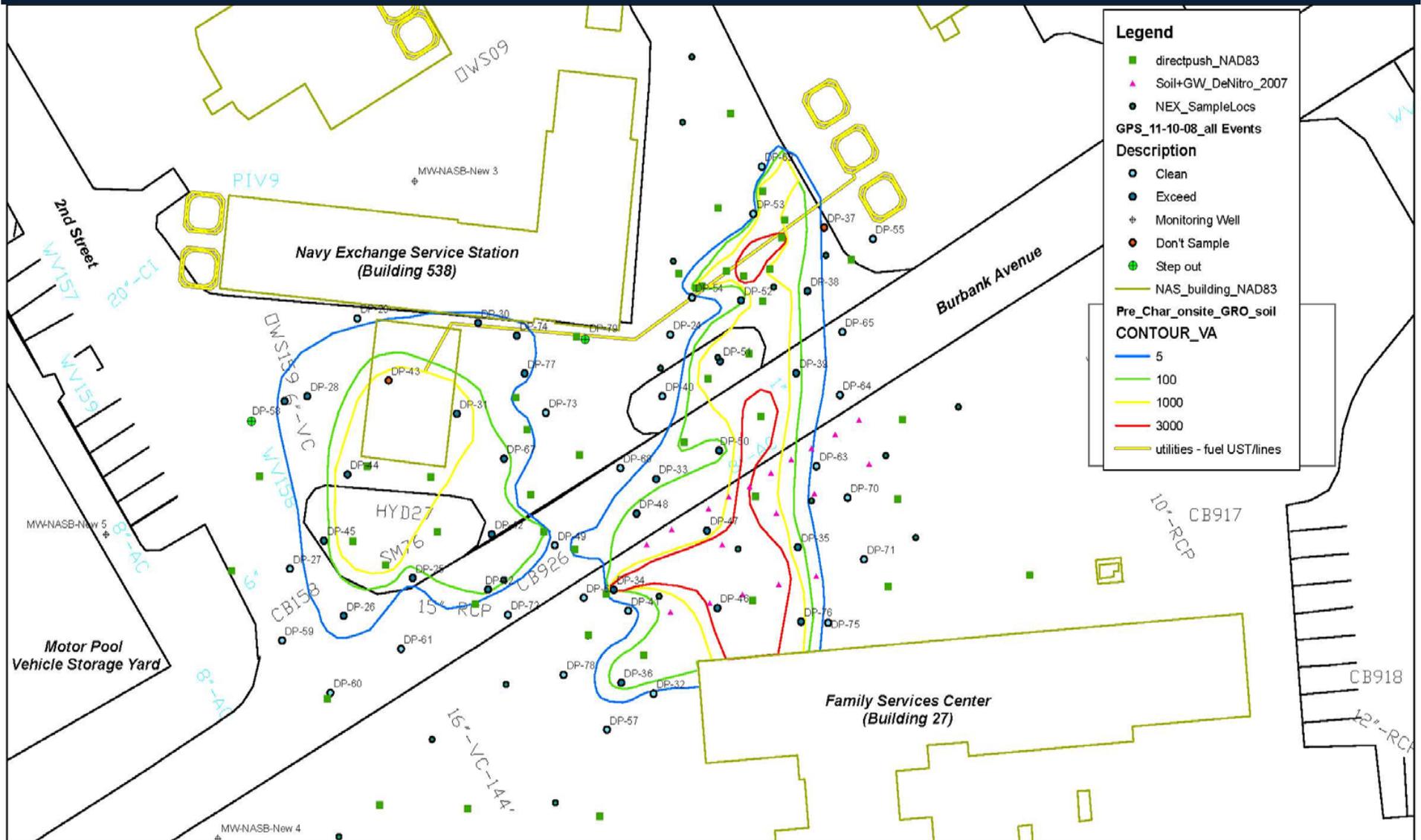


Naval Exchange (NEX) Service Station Update

Field Sampling Update:

- **AGVIQ/CH2M HILL mobilized to the NEX Site on 04 Nov 2008 and completed all sampling on 14 Nov 2008.**
- **A total of 54 soil borings were advanced and headspace measurements were made at every two feet.**
- **A total of 95 samples were analyzed at the onsite laboratory. Additionally, a total of 24 samples were sent to laboratory.**
- **Ten existing monitoring wells and five new wells were sampled as specified in the Sampling Plan.**
- **Preliminary review of the field data indicates that the subsurface at NEX Site has been adequately characterized and delineated.**

Naval Exchange (NEX) Service Station Update



Naval Exchange (NEX) Service Station Update

Path Forward:

- Analytical data from the field sampling event is being reviewed.
- AGVIQ/CH2M HILL will issue a Technical Memorandum (TM) with conclusions of the sampling event and recommendations for cleanup. This TM will be issued by end of January 2009.
- Navy, AGVIQ/CH2M HILL, and MEDEP will discuss the TM for finalizing the cleanup objectives.
- Remediation of NEX will be during 3rd QTR of 2009.

Naval Exchange (NEX) Service Station Update



Photos of NEX Service Station

***Picnic Pond Sampling Event
November 2008***



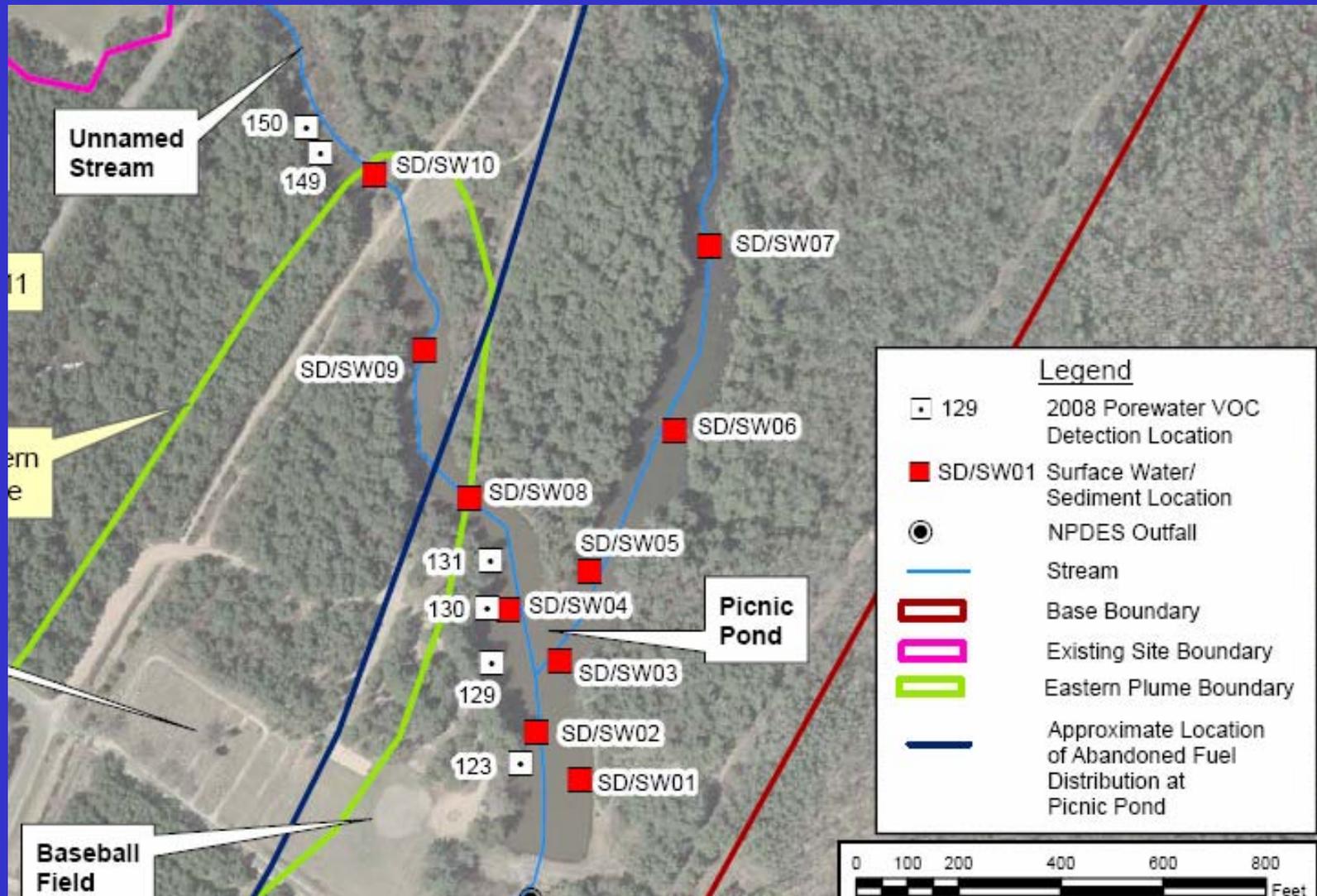
Picnic Pond Sampling Event November 2008

- **Picnic Pond is the “Y” shaped pond in the east central part of the base. It is part of the network of ditches, storm drains, and impoundment ponds used to control stormwater on the Base.**
- **The Navy had concern that sediments may be impacted at Picnic Pond.**
- **The Navy, EPA, and MEDEP representatives met in mid-November to discuss appropriate sampling locations and methodologies at Picnic Pond.**

Picnic Pond Sampling Event November 2008

- **Core samples were collected to a depth of 12 to 18 inches in the pond.**
- **Sediment samples were being analyzed for TAL metals and TCL organics.**
- **Data will be evaluated by project stakeholders to determine next steps for the area.**

Picnic Pond Sampling Event November 2008



***Picnic Pond Sampling Event
November 2008***



Picnic Pond Sampling Event November 2008



Questions?

- **Future Restoration Advisory Board Agenda Topics**
- **2009 NAS Brunswick Restoration Advisory Board Meeting Schedule (TBD)**

See you at the next RAB Meeting!

Thank You!



List of Acronyms

- AR Administration Record
- AOC Area of Concern
- BACSE Brunswick Area Citizens for a Safe Environment
- BEC BRAC Environmental Coordinator
- BRAC Base Realignment and Closure
- CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
- DEP Department of Environmental Protection
- DOD Department of Defense
- DOE Department of Energy
- DON Department of Navy
- DPT Direct-Push Technology
- DRO Diesel Range Organic
- ECC Environmental Chemical Corporation
- ECD Environmental Condition of Property
- EP Eastern Plume
- EIS Environmental Impact Statement
- ER Environmental Restorations
- ESD Explanation of Significant Different
- EOD Explosives Ordnance Disposal
- ESS₇₅ Explosives Safety Submittal
- FOST Finding of Suitability to Transfer

List of Acronyms (con't)

- GIS Geographical Information System
- GWETS Groundwater Extraction Treatment System
- IRP Installation Restoration Program
- HASP Health and Safety Plan
- LTMP Long-Term Monitoring Program
- MEDEP Maine Department of Environmental Protection
- MMRP Military Munitions Response Program
- MC Munitions Constituents
- MEC Munitions and Explosives of Concern
- MRP Munitions Response Program
- MRRA Midcoast Regional Redevelopment Authority
- NASB Naval Air Station Brunswick
- NB Naval Base
- NEX Naval Exchange
- NMRC Naval Medical Research Center
- NOSSA Naval Ordnance Safety and Security Activity
- NFA No Further Action
- NS Naval Station
- NSY Naval Shipyard
- PCBs Polychlorinated Biphenyls

List of Acronyms (con't)

- QAPP Quality Assurance Project Plan
- RAB Restoration Advisory Board
- RAC Remedial Action Contractor
- RCRA Resource Conservation and Recovery Act
- RI Remedial Investigation
- ROD Record of Decision
- SI Site Inspection
- SVOC Semi-volatile Organic Compound
- TAL Target Analyte List
- TBD To be determined
- TtNUS Tetra Tech
- USEPA United States Environmental Protection Agency
- UXO Unexploded ordnance
- VOC Volatile Organic Compound

ATTACHMENT C:
RAB CHARTER

RESTORATION ADVISORY BOARD (RAB) MISSION STATEMENT AND OPERATING PROCEDURES

Adopted December 3, 2008

1.0 PURPOSE and FUNCTION of the RESTORATION ADVISORY BOARD

1.1 The purpose of the Restoration Advisory Board (RAB) is to promote community involvement and provide a public forum for constructive community discussion and input on environmental clean-up and restoration actions of the Installation Restoration (IR) Program underway at the Naval Air Station Brunswick (NASB), as well as investigations and remedial actions of the Military Munitions Response Program (MMRP). The RAB will serve as a key mechanism to disseminate information about the IR Program and MMRP and to ensure that various concerns about environmental restoration from the diverse interests within the community are heard. The RAB acts as a forum to discuss, exchange, and disseminate information regarding cleanup between the Navy, regulatory agencies, and the community, and it acts to foster partnership among the community and government. It provides an opportunity for the public to participate in the NASB cleanup process and to provide input to decision makers.

1.2 All RAB meetings will be open to the public in a manner consistent with the requirements of Maine's Freedom of Access Laws, unless federal law provides conflicting or different standards, in which case the federal rules will apply.

1.3 The Navy has drafted a Community Relations Plan that relies on the RAB as the principal component of the community involvement program. The RAB is therefore a critical part of the community involvement effort. This Mission Statement and Operating Procedures will be included as part of the Community Relations Plan, which shall be available at the public information repository located at the Curtis Memorial Library in Brunswick.

1.4 A representative from the BRAC Project Management Office (BRAC PMO) will oversee issues affecting the execution of clean up to facilitate reuse. Community members may provide advice on restoration issues to the decision makers, ask questions, and share ideas through the RAB. The RAB will provide clean-up alternatives, as viewed by the community, for consideration of the BRAC PMO. The BRAC PMO will coordinate the efforts of the RAB with the BRAC transfer process to insure that public inputs are provided prior to actions affecting transfer, reuse and redevelopment of NASB.

1.5 Definitions of Terms are attached as Appendix A

2.0 MISSION STATEMENT and OPERATING PROCEDURES

2.1 BASIS and AUTHORITY for the MISSION STATEMENT and OPERATING PROCEDURES

The basis and authority for the Restoration Advisory Board Mission Statement and Operating Procedures are contained in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendment and Reauthorization Act (SARA) of 1986, particularly Sections 120(a), 120(f), and 121(f), and 10 U.S.C. 2705, enacted by Section 211 of SARA; the February 9, 1994 Department of the Navy memorandum entitled, "Establishment of Restoration Advisory Boards;" the April 11, 1994 Department of the Navy memorandum entitled "Restoration Advisory Board Workshop;" the October 18, 1994 Department of the Navy memorandum entitled "Establishment of Restoration Advisory Boards (RABs);" the 5 December 1994 Department of the Navy memorandum entitled "Joint DOD/EPA Restoration Advisory Boards (RABS) Implementation Guidelines, September, 1994;" and Restoration

Advisory Boards, 32 CFR Part 202 (Dept. of Defense). Guidance for the BRAC process is provided under the Base Redevelopment and Realignment Manual (March 1, 2006) and the Navy Base Realignment and Closure Implementation Guidance (23 March 2007). Maine's Freedom of Access Laws are found in Title 1, Sections 401 through 410, of the Maine Revised Statutes Annotated.

2.2 RAB DUTIES

2.2.1 The regulatory RAB members and the technical consultant to the community group, Brunswick Area Citizens for a Safe Environment (BACSE), will review and comment on technical documents and plans associated with the ongoing environmental investigations and cleanup activities of the IR Program and MMRP at NASB. The Navy will inform RAB members of the public comment periods pertaining to specific IR Program documents and actions by the Navy. Community RAB members, including representatives of the Midcoast Regional Redevelopment Authority (MRRA), may comment on documents and plans during the regulatory review period or public comment period, as the case may be. Comments from BACSE will be coordinated by the technical consultant or the Community co-chair. The public and RAB community members may submit comments on documents and issues at the RAB meetings.

2.2.2 To facilitate the exchange of information and/or concerns between the community and the RAB, active members are expected to serve as a liaison to local community members and interested groups.

2.2.3 RAB meetings will provide an opportunity for RAB members and public participants to participate in a dialogue with decision makers concerning environmental restoration matters. RAB community members and public participants may provide advice on community involvement, and provide input on the scope of studies, cleanup levels, remedial action alternatives and priorities among projects. The Navy will give careful consideration to recommendations provided by the RAB members and public participants.

2.2.4 Interested persons may file statements with the RAB prior to any RAB meeting by providing copies to the co-chairs.

2.3 RAB MEMBERSHIP

2.3.1 RAB COMMUNITY MEMBERSHIP

Membership of the RAB should be diverse and balanced and reflect a wide variety of concerns and interests in the community. RAB member participation ensures consistent involvement by the community in the cleanup process.

2.3.1.1 The RAB will make every effort to recruit members of the diverse community in terms of personal and/or professional expertise/ experience, as well as residents who are impacted/affected by NASB. Community members selected for RAB membership will reflect the unique mix of interest and concerns with the local community. It is envisioned that the RAB will be comprised of up to 30 members, with diverse representation of individuals from the local community.

2.3.1.2 RAB community members must reside in, work in, own property in, or serve the interests of the communities of Brunswick, Topsham, Harpswell or other towns in the vicinity of NASB. Local governments and the Midcoast Regional Redevelopment Authority (MRRA) may be represented on the RAB. Public participants in RAB meetings need not live or work in Brunswick, Maine or be directly affected by the IR program.

2.3.1.3 Applicants for RAB membership may apply at any time; new applicants will always be considered. A selection panel of active RAB members will review applications. Applicants are approved for membership by a simple majority vote of the RAB members present at any regular meeting.

2.3.1.4 RAB community members will serve without term limitation.

2.3.1.5 RAB community members shall serve without compensation from the Board. All expenses incident to travel and/or attendance at RAB meetings and related events, and for providing review and input on technical documents, shall be borne by the respective members or their organization.

2.3.1.6 RAB members are expected to attend all RAB meetings. If a community member accumulates more than two consecutive absences without notifying either RAB co-chair (Navy co-chair, Community co-chair), the RAB co-chairs may ask the community member to resign.

2.3.1.7 Community members unable to continue to fully participate shall submit their resignation in writing to either of the RAB co-chairs.

2.3.1.8 A technical consultant or other advisor to the community group, BACSE, will also serve on the RAB to assist the community in understanding scientific and engineering issues. The technical consultant or advisor will review and comment on technical documents and plans associated with the ongoing environmental investigations and cleanup activities of the IR Program and MMRP at NASB. The technical consultant, advisor or Community co-chair will coordinate comments from BACSE. Public participants and other RAB community members, outside of BACSE, can submit their comments to the Community co-chair or submit comments on documents and issues at the RAB meetings.

2.3.1.9 There shall be two classes of community membership: **active**, as described above and **inactive**. Inactive community members are those, who by board action or, by their own request and with board approval are placed on inactive status. Only active community members will be allowed to vote on RAB issues.

2.3.2 RAB REGULATORY AGENCY MEMBERSHIP

2.3.2.1 In accordance with Navy policy and guidance, Remedial Project Managers from the Navy, Environmental Protection Agency and the Maine Department of Environmental Protection will serve on the RAB as permanent members. Responsibilities include attending RAB meeting; serving as an information, referral, and resource bank regarding cleanup; ensuring that federal and state environmental standards and regulatory issues are identified and addressed; and assisting in the education and training of RAB members.

2.3.2.2 In accordance with Navy policy, a representative from the BRAC PMO will serve on the RAB. Responsibilities of the BRAC PMO representative include attending RAB meetings; serving as an information, referral, and resource bank regarding cleanup issues; assisting in educating and training RAB members; and providing administrative support as requested by the Navy co-chair.

2.3.3 TECHNICAL MEETINGS

The technical support discussions are the forum for understanding the issues facing the IR Program and MMRP, as well as for recommendations for the RAB meeting agendas. The BACSE officers and advisors to the community group, such as the technical consultant, and RAB

members shall be invited to attend technical meetings among EPA, MEDEP, the Navy and the Navy's consultants so that they will have the opportunity to review and provide input on technical documents and plans. Because this technical review process is the discussion forum by technical experts representing all the stakeholders that results in decisions about how the IR Program and MMRP will be carried out, minutes of the technical meetings should be emailed to the attendees and the RAB members, made available to the general public by being placed in the public information repository located at the Curtis Memorial Library, and included in the administrative record.

2.4 RAB STRUCTURE RAB Leadership is a joint responsibility.

2.4.1 The RAB will be co-chaired by a representative from the Navy (either the Commanding Officer of NASB or a representative designated by the Commanding Officer or Base transition coordinator) and by a community member elected by the community membership of the RAB (Community co-chair). After closure of NASB, a representative from the BRAC Project Management Office will serve as the Navy co-chair. The responsibility for presiding over each meeting will alternate between the co-chairs.

2.4.2 Duties of the Community co-chair include but are not limited to ensuring membership participation in an open and constructive manner; ensuring that community issues and concerns related to cleanup are brought to the table; coordinating, preparing and distributing the meeting agenda with the Navy co-chair; assisting in the dissemination of information; and alternating chairing the meeting with the Navy co-chair.

2.4.3 Duties of the Navy co-chair include but are not limited to the same duties as the community co-chair, as well as ensuring adequate administrative support to the RAB; developing and maintaining attendance records; ensuring adequate creation, distribution to RAB members, and retention of all pertinent documents; ensuring that the Navy considers and responds to comments made at RAB meetings; providing relevant policies and guidance documents to enhance operation of the RAB; referring questions and concerns regarding environmental issues that are not part of the IR program, as well as non-cleanup issues to the appropriate officials; publicizing all RAB meetings to the community; and maintaining the information repositories. RAB mailing lists will be updated on a regular basis.

2.4.4 The Navy co-chair will work with the Community co-chair and the RAB members to establish a process for public review and comment on documents, plans, and other pertinent information. The co-chairs will ensure that a process is in place so that advice and comments from individual RAB members on cleanup issues are forwarded to the proper officials.

2.5 COMMITTEES

2.5.1 Committees, consisting of three or more members, may be formed in the RAB to address specific issues or other items pertinent to the RAB. A committee may be formed and its members selected by a majority vote of the active RAB membership at the meeting the issue of a committee is raised.

2.6 MEETING NOTICES

2.6.1 The RAB will meet four times a year in the evening at a public location within the Town of Brunswick. Meeting places shall be accessible to persons with disabilities. The time, date and place may be shifted or additional meetings may be held if deemed necessary by the RAB or if events and issues dictate a need. The RAB may use a meeting facilitator (professional or volunteer) during public hearings or sessions involving especially complex and/or controversial issues, if the RAB members so decide.

2.6.2 Notification of RAB meetings will be emailed by the Navy to RAB members at least 7 business days prior to the date set for the meeting. The Navy will ensure that a public notice is published in at least one local newspaper of general circulation at least 5 business days before the meeting. The annual schedule of meetings will also be posted on the website created for NASB. The Navy will also notify local newspapers, radio and television stations (including public access cable stations) of the time place and agenda of meetings for inclusion in community calendars.

2.6.3 All meeting minutes, agendas, and other materials pertinent to the RAB will be included in the information repository on a timely basis.

2.6.4 Minutes of the RAB meetings will be recorded by the Navy. At the discretion of the Commanding Officer, meetings may be audio taped or videotaped, or broadcast live by local public access television. The co-chairs will work together to review and distribute minutes from all RAB meetings within 60 days of each meeting. Minutes will be emailed to all RAB members, all public participants who attended the meeting, and to those who have requested copies and asked to be on the email list for minutes, and placed in the public information repository located at the Curtis Memorial Library in Brunswick. On request, minutes will be sent by regular mail to public participants and RAB community members who do not have access to email.

2.7 NOMINATIONS, ELECTIONS, VOTING AND QUORUMS

2.7.1 The first RAB meeting each year is designated the Annual Meeting. At the Annual Meeting, administrative and procedural issues will be addressed. At the annual Meeting on which the community co-chair's term expires, candidates for the community co-chair will be nominated from the floor and elected by a majority vote of the community members of the RAB. The term for co-chair is 2 years. Each chair may serve additional terms, if re-elected by the RAB community members.

2.7.2 Although the RAB is not a decision-making body for the NASB, the RAB will vote on administrative and procedural issues by having a motion made and seconded. A simple majority vote of the active RAB members will carry the issue. For voting purposes, a quorum of RAB members must be present. A quorum is made up of a simple majority of active RAB members, including Navy and regulatory members, in good standing. All positions on issues of concern will be noted along with the majority position and will be presented in the RAB meeting minutes. When a controversy arises regarding procedural motions, the RAB will settle these with a simple majority vote.

2.8 DISCIPLINE

2.8.1 If the majority of community RAB members determine that a community member is not performing his or her duties (has unexcused absences, willfully disturbs the orderly conduct of meetings, or performs functions that could cause a conflict of interest, etc.) that member may be asked to resign.

2.8.2 The Community co-chair may be removed as a co-chair if it is determined that the co-chair is unable to perform required duties, is ineffective, or is detrimental to the RAB. Community co-chair removal is initiated by a majority vote of the RAB community members. The Navy co-chair must be present at such a meeting.

2.9 EFFECTIVE DATE and AMENDMENTS

2.9.1 This Mission Statement and Operating Procedures may be revised or amended by a majority vote of the active RAB members. Revisions and amendments must be consistent with

the statues stated in section 2.1 (Basis and Authority for the Mission Statement and Operating Procedures).

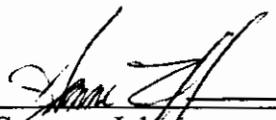
2.9.2 The effective date of this Mission Statement and Operating Procedures and any amendment or revision is the date the last signatory signs.

RAB Co-Chair Signatures:



Capt. William Fitzgerald
Navy Co-Chair
Naval Air Station Brunswick

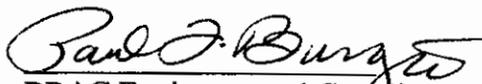
12/2/08
Date



Suzanne Johnson
Community Co-Chair
Town of Brunswick

12/3/08
Date

RAB Membership Signatures:



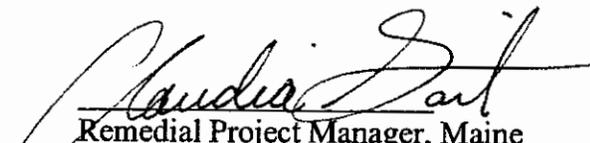
Paul J. Burget
BRAC Environmental Coordinator



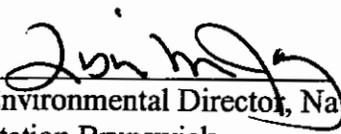
Todd Baker
Remedial Project Manager, U.S. Navy



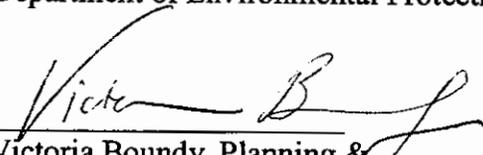
Michael J. ...
Remedial Project Manager, U.S.
Environmental Protection Agency



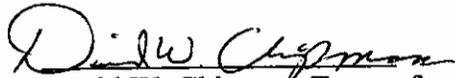
Claudia ...
Remedial Project Manager, Maine
Department of Environmental Protection



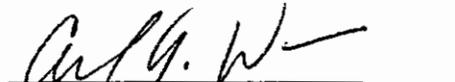
Environmental Director, Naval Air
Station Brunswick



Victoria Boundy, Planning &
Environmental Manager, Midcoast
Regional Redevelopment Authority


David W. Chipman, Town of
Harpwell


Scott Libby, Town of Topsham


Carol G. Warren, Brunswick Area
Citizens for a Safe Environment


Tom Fusco, Brunswick Area Citizens for a
Safe Environment

DEFINITIONS OF TERMS

Active member	RAB member who is attending RAB meetings, who has not submitted a resignation, and who has not requested inactive status
BACSE	The community group, Brunswick Area Citizens for a Safe Environment
BRAC	Base Realignment and Closure
BRAC PMO	BRAC Project Management Office
BTC	BRAC Transition Coordinator
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended
decision makers	Navy personnel who have been delegated the authority to make decisions for the IRP or MMRP
DOD	Dept. of Defense
EPA	U.S. Environmental Protection Agency
IR Program	Installation Restoration (IR) Program
MEDEP	Maine Department of Environmental Protection
MMRP	Military Munitions Response Program
MRRA	Midcoast Regional Redevelopment Authority
Navy	U.S. Navy
NASB	Naval Air Station Brunswick
RAB	Restoration Advisory Board
RCRA	Federal Resource Conservation and Recovery Act , as amended
RPM	Remedial Project Managers
stakeholders	Community, EPA, MEDEP, MRRA and Navy