

Restoration Advisory Board

Meeting 8 June 2011

Parkwood Inn, Brunswick, Maine 7:00 PM (Printed on 100% post-consumer recycled paper)

Introductions

RAB Co-Chairs:

- Ms. Suzanne L. Johnson, Esq., Town of Brunswick Representative
- Mr. Paul Burgio, BRAC Environmental Coordinator, Navy BRAC Program Management Office
- RAB Members:
 - Ms. Lisa Joy, Environmental Director, Naval Air Station Brunswick
 - Mr. Todd Bober, P.E., Remedial Project Manager, Navy
 - Mr. Michael Daly, Remedial Project Manager, United States Environmental Protection Agency (EPA)
 - Ms. Claudia Sait, Remedial Project Manager, Maine Department of Environmental Protection (MEDEP)
 - Ms. Victoria Boundy, Planning and Environmental Manager, Midcoast Regional Redevelopment Authority (MRRA)

Introductions (cont.)

- RAB Members (continued):
 - The honorable Ed Benedikt, Project Manager EPA Grant to Brunswick Area Citizens for a Safe Environment (BACSE) and BACSE President
 - Mr. David Chipman, PhD, Town of Harpswell, Maine
 - Mr. Scott Libby, Town of Topsham, Maine
 - Ms. Carol Warren, Esq., BACSE
 - Ms. Carolyn Lepage, C.G., Lepage Environmental, BACSE
- Other RAB Attendees:
 - Mr. Chris Evans, P.G., Project Geologist, MEDEP
 - Mr. Michael Fagan, Installation Restoration Program, NASB
 - Ms. Stacy Greendlinger, Community Relations Specialist, EPA



Meeting Agenda

Welcome!

- Introductions
- Old Business
- New Business
- FOSTs/FOSLs Status Update
 - Current Status
 - Upcoming Leases/Transfers
- Environmental Update
 - Building 27
 - Buildings 35 and 87 and Hangars 1, 2, and 3
 - Areas of Potential Interest
 - Site 17
- Upcoming Field Work Update
- Munitions Sites Former Munitions Bunker West, Quarry, Site 12, Topsham Skeet Range
- Old Navy Fuel Farm
- Land Use Control Investigations
- Questions and Future RAB Topics

FOSTs/FOSLs Status Update

Findings of Suitability to Transfer (FOSTs) and Findings of Suitability to Lease (FOSLs) completed in 2011

- FOSL Buildings 81, March 29, 2011
- FOSL Building 750, April 12, 2011

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FOSTs/FOSLs Status Update (cont'd)

FOSTs/FOSLs in Progress

- FOST 2011-1 "Pink" Parcel, 463 acres including:
 - Bowdoin College 241 Acres

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- Town of Brunswick 155 Acres
- Southern Maine Community College (SMCC), Buildings 150, 644, 645, 649 – 11 Acres
- Main Base Economic Development Conveyance (EDC), Bldgs. 24, 25, 27, 30, 43, 54, 102, 228, 294, 460, 461, 516, 592, 639, 730 to 749 – 56 Acres
- Draft FOST distributed May 9, 2011 Comment Period ends June 9, 2011

FOSTs/FOSLs Status Update (cont'd)

FOSTs/FOSLs in Progress (continued)

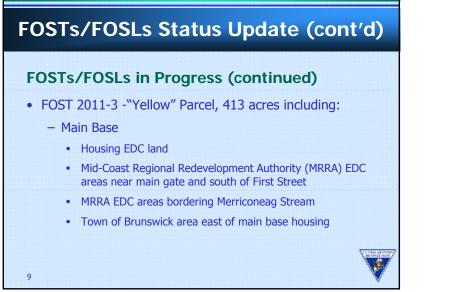
- FOST 2011-2 "Orange" Parcel, 0.6 acre including:
 - Above-ground utility features
 - Main Base, Water, Wastewater and Electrical Utility System Features such as:
 - Water storage tank and pump house
 - Water metering sheds
 - Sewage pumping / lift stations
 - Electrical regulator and recloser substations

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FOSTs/FOSLs Status Update (cont'd)

FOSTs/FOSLs in Progress (continued)

- FOST 2011-2 -"Orange" Parcel (continued):
 - Topsham Annex Water and Wastewater Utility System features:
 - Water storage tank
 - Water pump house
 - McKeen Street Housing Area No above-ground features
 - Draft FOST planned for June 2011



FOSTs/FOSLs Status Update (cont'd)

FOSTs/FOSLs in Progress (continued)

- FOST 2011-3 "Yellow" Parcel (continued):
 - Topsham Annex

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- Housing EDC land
- Maine School Administrative District (MSAD) area (minus skeet range)
- McKeen Street Housing EDC land
- Draft FOST planned for June 2011

FOSTs/FOSLs Status Update (cont'd)

FOSTs/FOSLs in Progress (continued)

- FOST 2011-4 "Green" Airport PBC 2, 248 acres including:
 - Areas West of Runways including Red Label Area
 - Air Installation Compatible Use Zone (AICUZ) Area
 - Former Hangars 1, 2, and 3

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- Old Taxiway and New Fuel Farm Areas
- Buildings 86, 153, 209, 225, 251, 252, 295, and 611
- Draft FOST planned for July 2011

FOSTs/FOSLs Status Update (cont'd)

FOSTs/FOSLs in Progress (continued)

- FOST 2011-5 "Blue" Parcel, 891 acres including:
 - Town of Brunswick
 - Areas east and west of Merriconeag Stream
 - Building 211
 - MRRA EDC
 - Golf course and buildings
 - Seabee Compound
 - Leased Buildings 81, 87, and 750
 - Mixed-use buildings between Burbank and Fitch Avenues

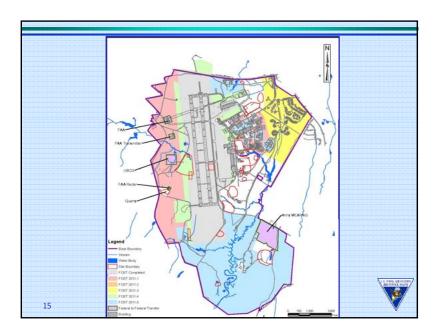


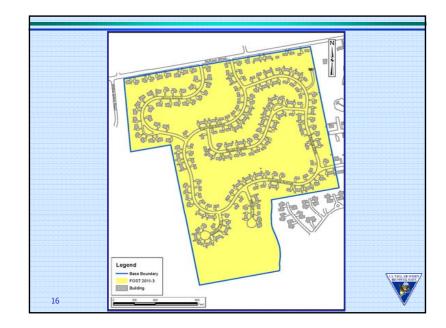
FOSTs/FOSLs Status Update (cont'd)

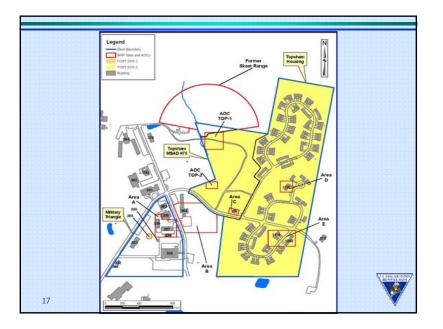
FOSTs/FOSLs Planned for CY 2011

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All parcels may experience cut-outs, changes in acreage or aggregation of parcels, depending upon issues that arise from Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Recovery Act (CERCLA), Petroleum and Munitions Response investigations.







Family Services Center -Building 27 Vapor Intrusion Study Update



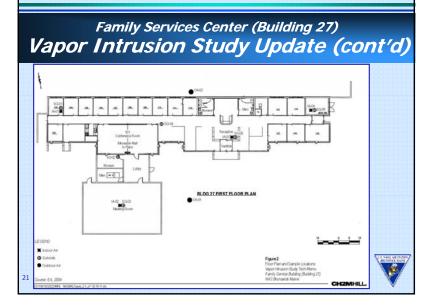
Family Services Center - Building 27 Vapor Intrusion Study Update (cont'd)

- Building 27 is situated at the intersection of Burbank Street and 2nd Street. It is 110 feet south and downgradient of the Navy Exchange (NEX) site.
- Building 27 is an approximately 7,900-square-foot singlestory concrete structure built on a concrete slab. It contains office space, conference rooms, and a heating utility/boiler room.
- Vapor Intrusion (VI) Study objective was to determine if gasoline-contaminated soil from the NEX Site impacted indoor air quality inside Building 27.



Family Services Center (Building 27) Vapor Intrusion Study Update (cont'd)

- Collected four indoor air, six subslab soil gas, and two outdoor air samples in January 2011.
- Subslab soil gas probe locations were selected to obtain representative data from locations throughout the entire building.
- Subslab soil gas samples were collected over an 8-hour period using 6-liter SUMMA canisters.



Family Services Center (Building 27) Vapor Intrusion Study Update (cont'd)



Central Corridor of Building 27



Subsurface Soil Gas Sampling – Central Corridor of the Building (SG-04)





Subsurface Soil Gas Sampling – Open Conference/Meeting Room (SG-03)



Subsurface Soil Gas Sampling – Mid-Section of the Building in the Reception Area (SG-05)

Family Services Center (Building 27) Vapor Intrusion Study Update (cont'd)

- Laboratory analysis was performed using EPA Method TO-15 for volatile organic compounds (VOCs) and hydrocarbon fractions C5-C8 aliphatics, C9-C12 aliphatics, and C9-C10 aromatics.
- EPA and MEDEP Industrial Indoor Air Screening Levels (IASLs) and Soil Gas Screening Levels (SGSLs) were used to evaluate current and/or future industrial/commercial scenario at Building 27.
- In addition, residential SGSLs were used to evaluate the future hypothetical residential use scenario at Building 27

Family Services Center (Building 27) Vapor Intrusion Study Update (cont'd)

- There were no aliphatic hydrocarbons detected in any of the six subslab soil gas or four indoor air samples.
- Concentrations of VOCs in the six subslab soil gas samples were less than EPA industrial and MEDEP commercial SGSLs.
- Concentrations of VOCs in the four indoor air samples were less than EPA industrial and MEDEP commercial IASLs, with the exception of the benzene. However, benzene was either undetected or detected at a lower concentration in the eight subslab soil gas samples and was detected in both outdoor air samples at similar concentrations.

Family Services Center (Building 27) Vapor Intrusion Study Update (cont'd)

- The results from this VI study indicate that a complete and/or significant VI pathway does not exist under current site conditions.
- Additionally, these results indicate that a complete and/or significant VI pathway is unlikely to occur under future industrial and residential scenarios.
- Based on these results, no further vapor intrusion actions are required.

Buildings 35 and 87 and Hangars 1,2, and 3

Background:

- Objective: To assess whether past operations impacted groundwater.
- Investigations targeted the vicinity of potential release areas.



Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Status:

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- Work Plans submitted in January February 2011.
- Field Work completed in February/March 2011.
- Analytical results reviewed in March/April 2011.
- Draft Reports submitted in April/May 2011.

Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Background:

- Former Building 35
 - Potential former use of solvents by the Air Force
 - Possible former septic system
- Former Building 87

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- Potential former use of solvents by the Air Force
- Former Hangars 1, 2 and 3
 - Aviation gasoline fueling pits and pipelines
 - Potential undocumented spills or releases
 - Potential disposal of substances to floor drains



Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Building 35 Investigation Scope Three borings Three wells at top of clay Soil screening Groundwater sampling

Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Building 35 Investigation Results:

- Soil: No photoionization detector (PID) headspace or other evidence of contamination; therefore, no soil samples collected.
- Groundwater: No detections of VOCs, volatile petroleum hydrocarbons (VPH), or extractable petroleum hydrocarbons (EPH) constituents.



Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Building 87 Investigation Scope:

- Seven boring locations
- Seven shallow wells
- Four deep wells

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• Soil screening

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• Groundwater sampling



Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Building 87 Investigation Results:

- Maximum detection of any analyte was trichloroethene (TCE) (2.6 µg/L) at B87-MW01D (21 to 31 feet). No detections in 8 of 11 wells. All results less than EPA vapor intrusion criteria for workers.
- Few minor exceedances of minimum screening criteria. TCE and tetrachloroethene (PCE) concentrations exceeded EPA Regional Screening Levels (RSLs) in two samples but were significantly less than Maximum Contaminant Levels (MCLs). The PCE concentration in one well exceeded the MEG.

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Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Hangars 1, 2, and 3 Investigation Scope:

- 12 boring locations
- Soil screening/sampling
- 15 temporary wells

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Groundwater samples



Buildings 35 and 87 and Hangars 1,2, and 3 (cont'd)

Hangars 1, 2, and 3 Investigation Results:

- Concentrations of seven metals exceeded minimum screening criteria, but only manganese and sodium exceeded Maine Maximum Exposure Guidelines (MEGs).
- Few VOCs were detected in three wells in excess of minimum screening criteria, but only one MCL/MEG exceedance (TCE at 12 μg/L at MW02).
- VPHs exceeded MEG at one well (C5-C8 aliphatics at 2,500 μg/L, C9-C10- aromatics at 210 μg/L at MW03).

Areas of Potential Interest (AOPI) Investigation Helipad Mercury Disposal Area West Fire Training Area Former Buildings 7 and 10

Background:

- Areas identified by the Navy, regulators, and citizens.
- Four areas identified and investigated.
- Objective: To assess whether environmental impacts are present.
- Investigations targeted potential disposal areas (e.g., USTs).



AOPI Investigation (cont'd)

Status:

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- Work Plan submitted in September 2010.
- Field Work completed in October 2010.
- Analytical results used in RCRA reports.
- Draft Report submitted in April 2011.

AOPI Investigation (cont'd)

Helipad Area Background and Investigation Activities:

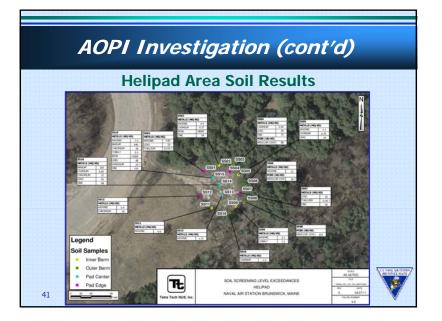
- Former sand blasting area
- Site visit in May 2010
 - Cracked circular concrete pad
 - Perimeter berm
- Target pad surface and perimeter
- 15 surface soil samples
- TAL metals and pesticides analysis

AOPI Investigation (cont'd)

Helipad Area Surface Soil Results:

- Concentrations of 10 metals and Aroclor-1254 exceeded minimum screening criteria.
- With the exception of arsenic, all concentrations less than EPA and Maine residential criteria.
- Arsenic concentrations less than or slightly greater than background (based on draft Background Study Report).

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Mercury Disposal Area Background and Investigation Activities:

- As reported by a local resident, a pool of a shiny metallic substance, presumably mercury, was observed in 1967 in a shallow depression in this area.
- Site visit in May 2010:

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- No evidence of mercury or distressed vegetation.
- Three shallow depressions identified for investigation.
- Soil borings/temporary wells sampled.

AOPI Investigation (cont'd)

Mercury Disposal Area Results:

- Soil samples collected for mercury analysis at four locations based on mercury field screening.
- Mercury detected in one soil sample at 0.74 mg/kg), less than EPA and MEDEP residential soil screening values.
- Groundwater samples collected from three temporary wells; mercury was not detected.





SOIL SAMPLE EXCEEDANCES MERCURY DISPOSAL AREA

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West Fire Training Area Background and Current Conditions:

- According to a former NAS employee, waste liquid was transported to concrete pad and ignited for fire-fighting training
- Alleged former fire training area not verified by current NAS personnel
- May 2010 site visit
 Two potential areas identified for investigation



AOPI Investigation (cont'd)

West Fire Training Area Activities:

- Five soil borings at each potential location
- Direct-push technology (DPT) continuous soil sampling to first confining layer.
- Soil PID headspace screening.
- Two soil samples from each boring analyzed for VOCs, semivolatile organic compounds (SVOCs), and VPH/EPH.
- One temporary well installed, and a groundwater sample analyzed for VOCs, SVOCs, VPH/EPH, and perfluorooctanoic acid (PFOA)/perfluorooctane sulfonate (PFOS).

AOPI Investigation (cont'd)

West Fire Training Area Results:

- Soil: concentrations of 4-nitroaniline, PCE, naphthalene less than EPA/MEDEP residential criteria; slightly greater than EPA's risk-based groundwater protection soil screening levels (SSLs).
- Groundwater: no exceedances of MCLs/MEGs.

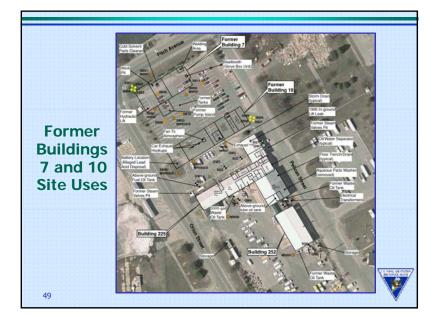


AOPI Investigation (cont'd)

West Fire Training Area Soil Results



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Former Buildings 7 and 10 Investigation Activities:

- 11 borings/two subsurface soil samples per boring.
 - DPT continuous soil sampling to first confining layer.
 - PID jar headspace screening.

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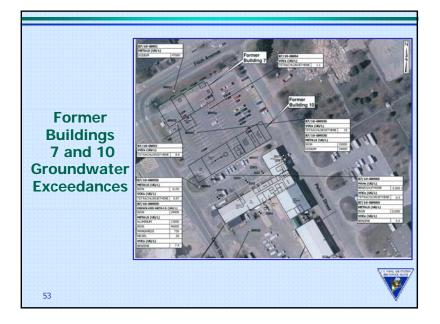
- Eight surface soil samples near former polychlorinated biphenyl (PCB) transformers.
- 10 groundwater samples 7 shallow and 3 deep wells.
- Subsurface soil/groundwater VOCs, SVOCs, EPH/VPH.
- Groundwater samples also collected for metals analysis

AOPI Investigation (cont'd)

Buildings 7 and 10 Results:

- Soil: Concentrations in only one subsurface soil sample exceeded industrial RSLs for PAHs (benzo(a)pyrene). Concentrations in two subsurface soil samples exceeded residential RSLs for PAHs. Exceedances of soil-to-groundwater leachability criteria minor or within background levels.
- Groundwater: Low levels of MEG/MCL exceedances in limited areas.





Site 17 Update

Remedial Investigation Timeline:

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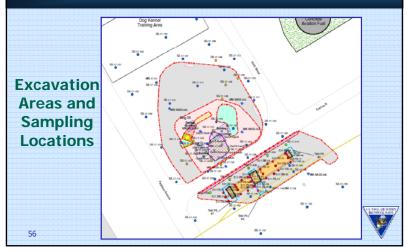
- Soil removal actions (three) performed in 1994.
- Remedial Investigation (RI) field work in 2008.
 - Draft RI submitted in 2009, put on hold pending upcoming soil removal actions.
- Additional soil removals performed in 2009 and most recently in December 2010.
- LTM Groundwater sampling performed in September 2010 and April 2011.

Site 17 Update (cont'd)

Recent Activities:

- Revised RI Report submitted in May 2010.
 - Risk assessment updated to reflect current (postremoval action) soil and groundwater conditions.
 - Confirmation soil samples added to site database, excavated samples removed.
 - Based on Navy Revised Draft RI, soil and groundwater risks were calculated and are within EPA and MEDEP target risk ranges.

Site 17 Update (cont'd)



Site 17 Update (cont'd)

Next Steps:

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- Regulatory review of Revised Draft RI Report.
- Preparation of a Proposed Remedial Action Plan (PRAP): June July 2011.
 - Public comment/Public meeting: July August 2011
- Preparation of a Record of Decision (ROD): June September 2011.
- ROD approval/signature targeted for September 2011.

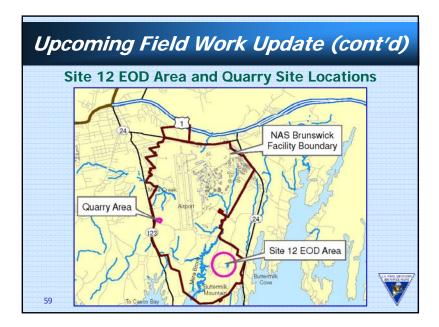


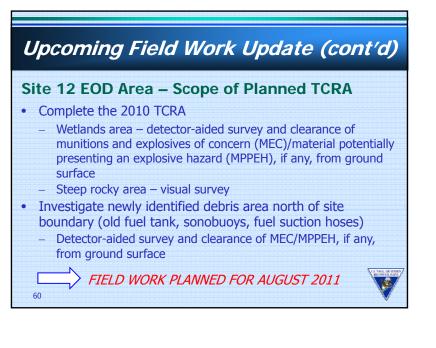
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Upcoming Field Work Update

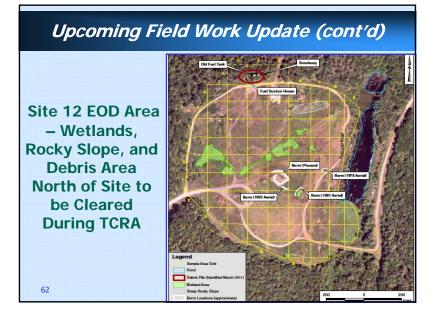
Upcoming Field Work At Munitions Sites

- Site 12 EOD Area and Quarry Area Time-Critical Removal Action (TCRA)
- Former Munitions Bunker West Magazine/Non-Munitions Soil Investigation
- Topsham Annex Skeet Range Remediation









Quarry – Scope of Planned TCRA

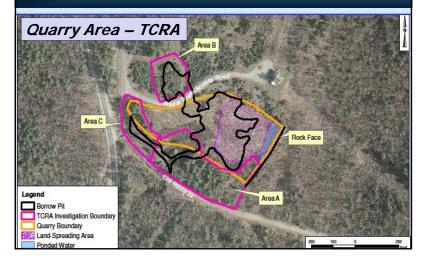
- Areas "A" and "C" extension of investigation area to date to road – detector-aided survey of ground surface and clearance of MEC/MPPEH, if any.
- Area "A" selected hand digs of Area "A" subsurface and clearance of MEC/MPPEH, if any.
- Area "B" newly identified borrow pit from historical aerial photograph - detector-aided survey of ground surface and selected hand digs of subsurface; clearance of MEC/MPPEH, if any.
- Install fence

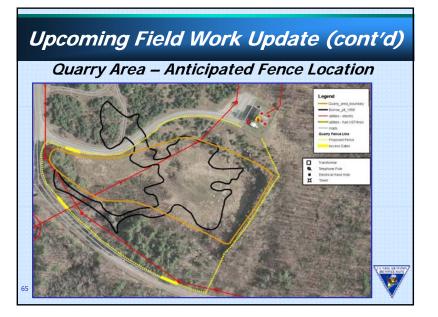
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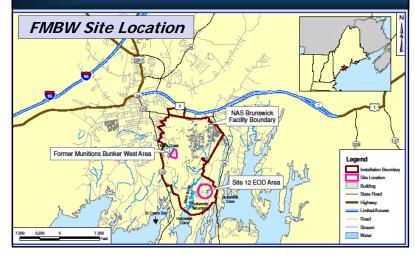
FIELD WORK PLANNED FOR JULY 2011

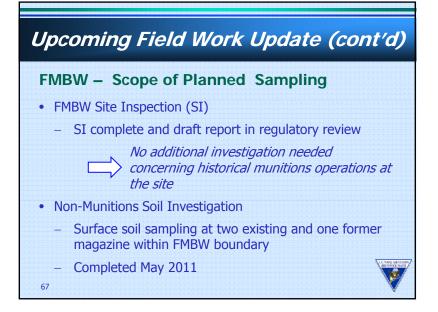


Upcoming Field Work Update (cont'd)

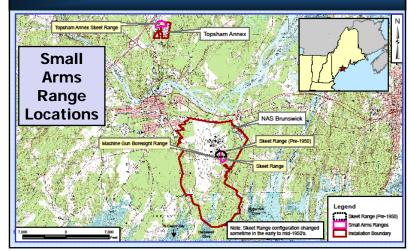


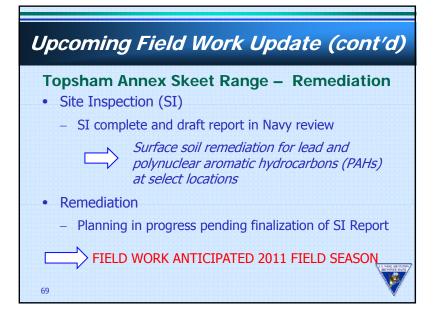




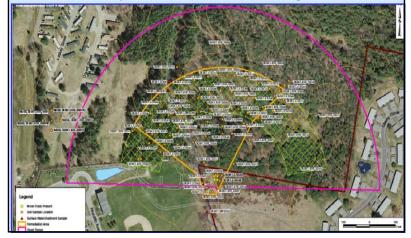


Upcoming Field Work Update (cont'd)





Topsham Annex Skeet Range



Upcoming Field Work Update (cont'd)

Old Navy Fuel Farm (ONFF) - Background:

- The ONFF consisted of two petroleum bulk storage tank farms [nine underground storage tanks (USTs) total].
 - Tanks held JP-5, gasoline, avgas, ethylene glycol.
- The tanks were installed in 1951 and removed in 1993.
- Site investigations indicated soil and groundwater impacts.
 - 1999 removal of 14,677 tons of soil.

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- Groundwater monitoring has shown trends of decreasing petroleum hydrocarbon levels.
- Only one trace detection in most recent perimeter monitoring round.

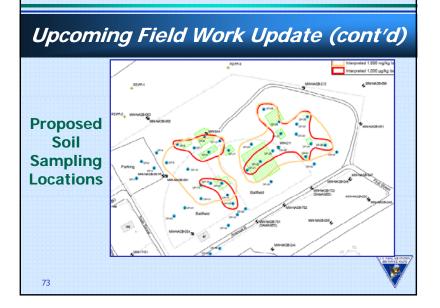
Upcoming Field Work Update (cont'd)

Old Navy Fuel Farm – Upcoming Activities:

- A Site Assessment is planned to characterize current soil and groundwater conditions within the ONFF, including:
 - Soil borings 42 locations.

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- Groundwater screening 10 locations.
- Piezometer installation/sampling three piezometers.
- Well gauging three rounds (beginning, middle, and end of field program).
- Soil and groundwater samples analyzed for VPH/EPH.





Upcoming Field Work Update (cont'd) Land Use Control Investigations: To address issues identified during the recently completed CERCLA Five-Year Review. Investigation results will be used to: Redefine site boundaries/update land use controls (LUCs) for the sites investigated. Determine whether additional remedial activities are warranted.



Land Use Control Investigations:

- Site 4
 - Investigation for the presence of a former acid pit beneath the eastern portion of the floor slab of Building 584.
- Site 7

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Additional soil/groundwater characterization for cadmium.



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Upcoming Field Work Update (cont'd)

Land Use Control Investigations - Schedule:

- Internal draft work plan currently in Navy review.
- Draft Work Plan submittal June 2011.
- Final Work Plan submittal July 2011.
- Field work August/September 2011.
- Data Gap Investigation Report December 2011.

Field Work Completed to Date in 2011

- Building 87 Groundwater Assessment
- Site 17 RI April Groundwater Sampling
- Building 35 Groundwater Assessment
- Hangers 1/2/3 Groundwater Assessment
- Buildings 21/26 Surface Soil Sampling
- FMBW Surface Soil Sampling
- Housing Areas (Topsham, McKeen Street, Main Base) Soil Sampling

Field Work Completed to Date in 2011

- Various Resource Conservation and Recovery Act (RCRA) Sampling/Cleaning Activities
- Building 7/10 UST Investigation
- April 2011 Long-Term Monitoring
- April 2011 Groundwater Extraction and Treatment Pilot
 Study
- Site Restoration for Site 17 Removal Action





List of Acronyms

AICUZ AOPI BACSE BRAC CERCLA EDC EPA EPH FMBW FOSL FOST IASL LUC MEC MEDEP MRRA MSAD 83	Air Installation Compatible Use Zone Area of Potential Interest Brunswick Area Citizens for a Safe Environment Base Realignment and Closure Comprehensive Environmental Response, Compensation, and Liability Act Economic Development Conveyance United States Environmental Protection Agency extractable petroleum hydrocarbons Former Munitions Bunker West Finding of Suitability to Lease Finding of Suitability to Lease Finding of Suitability to Transfer Industrial Indoor Air Screening Level land use control Munitions and Explosives of Concern Maine Department of Environmental Protection Midcoast Regional Redevelopment Authority Maine School Administrative District	
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List of Acronyms (cont'd)

NASB	Naval Air Station Brunswick	
NEX	Navy Exchange	
PCB	polychlorinated biphenyl	
PFOA	perfluorooctanoic acid	
PFOS	perfluorooctane sulfonate	
PMO NE	Project Management Office Northeast	
PRAP	Proposed Remedial Action Plan	
RAB	Restoration Advisory Board	
RCRA	Resource Conservation and Recovery A	Act
RI	Remedial Investigation	
ROD	Record of Decision	
SGSL	Soil Gas Screening Level	
SI	Site Inspection	
SMCC	Southern Maine Community College	
SVOC	semivolatile organic compound	
TCRA	Time-Critical Removal Action	
VPH	volatile petroleum hydrocarbons	A THE REAL PROPERTY AND A THE PR
VI	vapor intrusion	
84		V