

N00102.AR.003013
NSY PORTSMOUTH
5090.3a

RESTORATION ADVISORY BOARD MEETING MINUTES, AGENDA, AND PRESENTATION
SLIDES 10 DECEMBER 2013 NSY PORTSMOUTH ME
12/10/2013
RESTORATION ADVISORY BOARD

Portsmouth Naval Shipyard
Restoration Advisory Board Meeting
Kittery Town Hall, Kittery, Maine
December 10, 2013

Attendees

Restoration Advisory Board (RAB) members at the meeting included the following:

- RAB Community Members:
 - Doug Bogen
- Navy Representatives:
 - Lisa Joy, Portsmouth Naval Shipyard (PNS)
 - Liz Middleton, Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic Remedial Project Manager (RPM)
 - Matt Thyng, NAVFAC, Public Works Department – Maine Environmental Division
- Regulatory Representatives:
 - Matt Audet, United States Environmental Protection Agency (USEPA)
 - Iver McLeod, Maine Department of Environmental Protection (MEDEP)
- Other Participants:
 - Carolyn Lepage, Technical Assistance Grant (TAG) technical advisor to Seacoast Anti-Pollution League (SAPL)
 - Paul Dombrowski, Resolution Consultants
 - Deborah Cohen, Tetra Tech
 - William Deane, C&BI
 - Monica Smeal, CB&I
 - Edward Dullaghan, AGVIO Environmental Services (AGVIO)

The following RAB members were not in attendance:

- RAB Community Members:
 - Peter Britz
 - Mary Marshall
 - Jack McKenna
 - Diana McNabb
 - Roger Wells
- Natural Resource Trustees:
 - Doug Grout, New Hampshire Fish and Game Department;
 - Denis-Marc Nault, Maine Department of Marine Resources
 - Ken Finkelstein, National Oceanic and Atmospheric Administration
 - Ken Munney, United States Fish and Wildlife Service

Opening Statements:

Doug Bogen, Community Co-Chair, opened the meeting by welcoming all attendees and led introductions of all in attendance. Mr. Bogen announced that Carolyn Lepage will be retiring as the technical advisor for the SAPL after being part of environmental cleanup activities at the Shipyard since 1996. Her position was supported through a technical advisory grant from USEPA.

Lisa Joy, Navy RAB Co-Chair, invited community members to raise questions and stated that the Navy looks forward to the open dialogue of previous meetings.

Environmental Restoration Program Status and Updates:

Liz Middleton, Navy RPM, presented the status and updates on the Environmental Restoration (ER) program at PNS. Ms. Middleton noted that this will also be her last RAB meeting, as Linda Cole will be resuming as RPM in January after returning from assignment in Djibouti. Overall the ER program for PNS had a very successful year with many accomplishments despite budgetary constraints. Status updates were presented for the ER Program for each Operable Unit (OU) or Site, with the following update highlights:

- OU1 (Site 10: Former Battery Acid Tank No. 24). The Remedial Action (RA) is complete, and the final Construction Completion Report (CCR) was submitted in September 2013. Two rounds of post-RA groundwater sampling were completed and the finalized Groundwater Summary Report concluded that no additional groundwater monitoring is required. The Land Use Control (LUC) inspection was performed in June 2013 and will continue annually in the future along with Five-Year Reviews.
- OU2 (Site 6: Defense Reutilization and Marketing Office (DRMO) Storage Yard, Site 29: Former Teepee Incinerator Site, and DRMO Impact Area). RA activities are underway at this OU and are being performed by two different contractors. The RA construction will be completed in Spring 2014, which will be followed by groundwater monitoring and monitoring well re-installation. The LUC inspection was conducted in June 2013, and annual LUC inspections and Five-Year Reviews will also be performed for OU2 to confirm land uses are consistent with the Record of Decision (ROD).
- OU3 (Site 8: Jamaica Island Landfill (JILF), Site 9: Former Mercury Burial Sites, and Site 11: Former Waste Oil Tanks Nos. 6 and 7). The remedy is complete for OU3 with only Operations, Maintenance, and Monitoring (OMM) activities remaining. Annual inspections were completed in June 2013, and minor maintenance activities, including re-seeding and clearing culvert outfalls, were conducted in October 2013 by a small business contractor. An inspection report will be submitted for regulatory review in early 2014. The Navy is also planning to removing gas monitoring probes on the outside of the landfill. The draft Gas Monitoring Probe Abandonment Plan was submitted for regulatory review in October 2013. The Navy is currently resolving

comments received from MEDEP; USEPA had no comments on the plan. The revised plan is anticipated to be submitted in January 2014.

- OU4 (Site 5: Former Industrial Waste Outfalls and Off-shore Areas Potentially Impacted by PNS Onshore ER Program Sites). The ROD was completed in August 2013. The selected remedy is sediment removal at four monitoring stations with off-yard disposal. Pre-confirmation sampling is being conducted by Tetra Tech to support the Removal Action Work Plan (RAWP). Most pre-confirmation sampling was completed in October with final samples to be collected during the week of December 9, 2013. AGVIQ will be preparing the draft RAWP in Spring 2014. Sediment removal will start during Fall 2013 before renovations at Building 178 are completed. The dredge window opens in November.
- OU7 (Site 32: Topeka Pier Site): The second ROD completed during Fiscal Year 2013 was for OU7. The selected remedy includes excavation with off-yard disposal and LUCs. The RAWP is under preparation and will be submitted for regulatory review in Spring 2014. The Navy is planning on performing excavation during Fall 2014. The draft LUC Remedial Design will be submitted in December 2013.
- OU9 (Site 34: Former Oil Gasification Plant, Building 62). The third ROD completed during Fiscal Year 2013 was for OU9. The selected remedy is LUCs. The draft LUC Remedial Design will be submitted in December 2013, and the first LUC inspection will be conducted in Summer 2014.
- Site 30: (Former Galvanizing Plant, Building 184). The Removal Action was completed in 2011, and the final CCR was submitted in November 2013. A public comment period will be open in January 2014 for the draft final No Further Action Decision Document.

Ms. Middleton stressed the importance of community involvement and receiving the public's input on ER activities. For the December 2013 RAB meeting the Navy initiated multi-media advertising, including on the Portsmouth Naval Shipyard Facebook page and on the online calendar of events hosted by the publishers of local newspapers (Portsmouth Herald and Foster's Daily Democrat) where legal notices are also published about the RAB meetings. The Navy announced a new public web link for PNS (<http://go.usa.gov/DyRH>), and it was highlighted that the web link is case sensitive.

Regulator Updates:

Matthew Audet of USEPA and Iver McLeod of MEDEP both thanked Carolyn Lepage for her years of service and Liz Middleton for her efforts as RPM with so much progress in the last year. Mr. Audet noted that he will be on-site on December 11 to view the OU2 RA excavation and OU4 sediment sampling. Mr. McLeod stated that MEDEP is working with the Navy and CB&I regarding treating excavated soil from OU2 with Portland cement to immobilize lead in soil such that soil can be disposed of at a landfill that can accept non-hazardous waste. The MEDEP

Resource Conservation and Recovery Act (RCRA) program requires that the stabilized soil pass long-term leachability tests. Mr. McLeod is coordinating between the Navy and the MEDEP RCRA program regarding disposal requirements for stabilized soil.

Remedial Action Status Update for Operable Unit 2 – DRMO Area

Remedial Action (RA) activities are currently underway at OU2 with excavation and off-yard disposal. Excavation work is being performed by two different Navy contractors in the DRMO Area and Waste Disposal Areas (WDA). The Remedial Action Objectives for OU2 include preventing human exposure through ingestion, dust inhalation, and dermal contact with contaminated soil that exceed cleanup levels, protect the offshore environment from erosion of contaminated soil, and to prevent future potential migration of contaminants in unsaturated soil in the capped area to groundwater. The primary contaminants at OU2 include lead, antimony, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), with remedial goals intended for the protection of construction workers, occupational workers, and/or industrial workers.

William Deane of CB&I (formerly Shaw Environmental) presented on the progress of the DRMO Area, which includes Excavation Areas 1 through 7 at OU2. Mobilization began in June, and excavation activities commenced in July 2013 following regulatory approval of the RAWP. All excavation activities are anticipated to be finished in January 2014, and transportation of soil and backfill will be completed in February. Paving will be completed once the weather warms sufficiently for asphalt plants to resume operation, and Construction Completion is anticipated in March 2014. A summary was presented of the progress in Areas 1 through 7, including predominant soil types observed, confirmation samples to determine final excavation extents, and excavation and backfill status (see CB&I presentation slides for more details on each area). These minutes highlight activities discussed in greater detail during the RAB. Portions of excavation have been completed in Areas 2 and 3; however, excavation in the remainder of these areas is on hold to allow roadway closure. In Area 5, excavation was conducted right up against the previous excavation for the DRMO Impact Area, and all side wall samples were below Remedial Goals. In Area 6A, the shoreline revetment was stripped and stored for reuse. Additionally sediment logs were installed to prevent migration of site soil. Excavation and shoreline restoration have been completed in Area 6A. An archeologist was on site during excavation activities in a portion of Area 6B, and no archeologically significant findings were observed in the excavated interval. Area 7 is the interim cap area, shown as the grassy area on the aerial view, and contains waste in place. Metallic debris, fill, and rock were observed in the excavated interval. CB&I's objective is to complete all work in the shoreline revetment area of Area 7 prior to the Christmas demobilization as this area is viewed as the largest liability of a winter storm.

Excavated soils are currently staged in managed soil cells. The cells are constructed similar to those used for the DRMO Impact Area Removal Action using polyethylene sheeting and geotextile fabric. Individual soil cells range from 200 to 1,000 cubic yards (CY). Waste characterization soil sampling has indicated that all soil exhibits TCLP (or Toxicity Characteristic Leaching Procedure) in excess of the RCRA limit hazardous waste characterization for lead (5

mg/L) and that much of the soil contains total lead concentrations in excess of 5,000 milligrams per kilogram (mg/kg or ppm). To date approximately 2,800 tons have been transported to Soilex, which is a soil treatment and disposal facility near Montreal, Canada. The remaining excavated soil is being stockpiled. The project is evaluating alternative stabilization methods to reduce disposal costs. An on-site treatability study was conducted using 50 CY piles, and dosages of four to six percent Portland cement successfully reduced lead TCLP values well below the 5 mg/L TCLP criteria. The Feasibility Study did evaluate soil washing for on-site use of treated soil but did not evaluate soil stabilization for off-yard disposal. Soil disposal as non-hazardous waste following treatment offers both cost and production benefits. Transport and disposal costs for treated soil that is non-hazardous waste would be approximately one third the cost on a per ton basis than soil disposed of as hazardous waste. Additionally, treated soil would be disposed of at a facility in New Hampshire that accepts stabilized waste, and each truck can make two to three trips per day compared with transporting soil to Canada with each truck carry two to three loads per week. Using a disposal facility in New Hampshire also reduces greenhouse gas emissions, energy usage, and accident potential. It was noted that adding Portland cement does nominally increase the soil mass for disposal. Backfill is being conducted using either a stone dust product or a dense aggregate stone product used near asphalt and buildings. Backfill has been completed in Areas 4 and 5 and is ongoing in Areas 2, 3, 6, and 7. A geotextile is being placed prior to backfill to serve as a visible barrier between overlying backfill and underlying rocky subsurface. A CCR will be prepared for regulatory review and consist of analytical data, survey of project area, disposal documentation, and photographs of RA activities.

Remedial Action Status Update for Operable Unit 2 – Waste Disposal Area

Ed Dullaghan of AGVIQ presented on the progress of the WDA, which includes Excavation Areas 8 through 11 at OU2 near the former Teepee Incinerator. Area 8 consists of a large area, and Areas 9, 10, and 11 are smaller areas around elevated lead detections on the slope. The excavation activities for the WDA do not have specific cleanup criteria. In Area 8, excavation of the top two feet is being conducted with construction of a two-foot thick clean soil cover to prevent exposure to underlying waste material. In Areas 9, 10, and 11 excavation extends to bedrock with backfill to existing grades. In Area 9, bedrock was observed approximately at a depth of six feet below ground surface. In Areas 10 and 11 bedrock was observed shallower (six inches to slightly deeper than one foot below ground surface). AGVIQ mobilized for excavation and completed clearing and grubbing of saplings and shrubs in September 2013. Prior to starting excavation, limits of excavation were identified by a surveyor and all subsurface utilities were located. All excavation and backfill were completed during Fall 2013. Transport and disposal of excavated soil as well as placement of top soil are on-going. Nearly all soil has been transported to a Casella landfill in Massachusetts and used as daily cover. At the time of the RAB meeting approximately 1,900 tons of soil had been transported off-yard and 600 tons remain for off-yard disposal as daily cover. Approximately 400 to 500 tons were characterized as hazardous that require alternative disposal, and it was noted that this soil was visually different and segregated. AGVIQ is discussing with the Navy and MEDEP about other disposal options for the hazardous soil including stabilization similar to what is being tested and proposed for the DRMO Area or if this soil should be disposed as hazardous waste. Winter rye

was put down as a winter cover. In Spring 2014 AGVIQ will complete asphalt placement; place the design seed mix with fertilizer and lime; remove of erosion and sediment controls; and perform final demobilization. One additional confirmation sample was collected by CB&I in the WDA prior to Thanksgiving, and it was reported that all concentrations were below the DRMO Remedial Goals. It was noted that the excavation did not encounter visible ash or significant amounts of trash. Area 8 was excavated to install two feet of clean cover to prevent direct exposure, and that most of the actual waste is located at deeper depths.

Site 30 No Further Action Decision Document

Deborah Cohen of Tetra Tech presented a summary of the No Further Action Decision Document (NFA DD) for Site 30. The draft document was submitted for regulatory review in May 2013, and regulatory comments were resolved during the summer. The draft final document will be issued for public comment in January 2014. Site 30 is the Former Galvanizing Plant (Building 184). Contamination existed within an underground tank vault. The tank vault was constructed of concrete and lined with acid-proof bricks set in acid-proof cement. Historically the vault was used to hold chemical tanks used as part of galvanizing operations and cleaning metal parts. Building 184 was used as a welding school from the 1960s to 2010. At the time use of Building 184 was converted to a welding school, the tanks were removed from the vault and the vault was backfilled with soil and covered with a cement floor.

Crystalline material was observed on the inside building wall adjacent to the tank vault. A Site Screening Investigation was conducted in 1998 and concluded no impacts to soil and groundwater outside of the building. Test pit sampling in a portion of the vault in 2001 observed water in the test pit containing elevated metals concentrations. Crystalline material was also observed in the test pit. Sulfate, aluminum, iron, and magnesium were the primary metals detected in vault and wall samples, and it was believed that the tank vault was the source of the crystalline material. A Non-Time-Critical Removal Action was conducted in 2011 and presented to the RAB in December 2011. The objective of the Removal Action was to eliminate potential unacceptable risks to construction workers from dermal contact or incidental ingestion of metal contaminated water in the tank vault and potential migration to underlying soil and groundwater. The Removal Action included excavation and disposal of the tank vault fill material. When the vault was opened during the Removal Action the contents appeared different from the 2001 test pit. Very little water was observed in the tank vault, and fill material had lower metals concentrations than anticipated. Differences between anticipated conditions and actual conditions were presented in a Technical Memorandum for Modification to the Removal Action for Site 30, and it was agreed by Navy, USEPA, and MEDEP to not remove the tank vault concrete and acid-proof brick lining. The Technical Memorandum is included as an appendix to the NFA DD. Additionally, because Building 184 is a historic building, photographic recordation of the acid proof brick was completed in 2011 which required the vault to stay open for a period of time. The bricks were observed to be in very good condition, and the vault remained dry for the entire time it was open.

Crystalline material was observed after the Removal Action along the wall near the vault but also in other areas of the building. This crystalline material was investigated and the source of

the crystals was concluded to be efflorescence and not related to the tank vault. Efflorescence is a crystalline deposit that forms on masonry as water passes through building construction materials like concrete, bricks, or mortar, especially near buildings with poor drainage or high humidity. As water travels metal salts dissolve, and the salts deposit on masonry surface as the water evaporates. Based on current conditions, potential threats to public health and welfare and the environment have been eliminated at Site 30, which allows for unlimited use and unrestricted exposure. Therefore the Navy is pursuing no further action for Site 30 such that Site 30 will no longer be an ER Site. The draft final NFA DD will be available for public comment in January 2014 at the Rice Public Library, the Portsmouth Library and at the public website. At the completion of the public comment period, the NFA DD will be finalized and signed by the Shipyard Commanding Officer. USEPA and MEDEP provide concurrence letters for the final NFA DD.

Future Meetings:

No specific date was proposed for the next RAB meeting in Spring 2014. The RAB co-chairs will investigate the availability of a researcher from the University of New Hampshire to present on climate change and the potential impacts to Portsmouth Harbor. In addition, it was recommended to have an agenda item for the next meeting to discuss proposed changes to the RAB charter.

Portsmouth Naval Shipyard
Restoration Advisory Board Meeting
December 10, 2013

Agenda

- Introductions
- Opening Statements
 - Community Co-Chair (Doug Bogen)
 - Navy Co-Chair (Lisa Joy, NAVFAC)
- Environmental Restoration Program Status and Updates (Liz Middleton, NAVFAC)
- Regulator Updates (USEPA and MEDEP)
- Operable Unit 2 Remedial Action
 - DRMO Area (Bill Deane, CBI)
 - Waste Disposal Area (Ed Dullaghan, Agviq)
- Site 30 No Further Action Decision Document (Deborah Cohen, Tetra Tech)
- Community Remarks
- Open Discussion and Questions



Portsmouth Naval Shipyard Environmental Restoration Program Status and Updates

December 2013

OPERABLE UNIT 1 Site 10 (Former Battery Acid Tank No. 24)



- **Remedial Action (RA)**
 - RA completed
- **Construction Completion Report (CCR)**
 - Draft submitted March 2013
 - Regulatory comments received in May
 - Final CCR submitted September 2013**
- **Groundwater Monitoring Plan Component of Long Term Management Plan**
 - First round of groundwater collected on February 16, 2012
 - Second round of groundwater collected November 6-7, 2012
 - Final Groundwater Summary Report submitted July 2013**
- **Land Use Control inspections completed June 2013**



OPERABLE UNIT 2

Site 6 (DRMO Storage Yard) & Site 29 (Former Teepee Incinerator Site)



• Remedial Action

– Final Remedial Design submitted November 2012

– Draft Remedial Action Work Plan for Waste Disposal Area submitted April 2013

– Regulatory comments received in May

– Final RAWP submitted August 2013

– Draft Remedial Action Work Plan for DRMO Area submitted May 2013

– Regulatory comments received in June

– Final RAWP submitted August 2013

• Land Use Control inspections completed June 2013

• Remedial Action construction started in August 2013 and ongoing



3

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

OPERABLE UNIT 3

Site 8 (Jamaica Island Landfill)



• OM&M Activities

– Landfill and LUCs inspection performed in May 2013

– Round 12 to be completed in 2016 to support Five-Year Review

– Repair of minor issues identified during the annual inspection completed in October 2013

• Removal of landfill gas sampling points

– Draft Gas Monitoring Probe Abandonment Plan submitted October 2013

– Regulatory comments received November 2013

– Resolving regulatory comments



4

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

OPERABLE UNIT 4

Site 5 (Former Industrial Waste Outfalls) and Offshore Areas of Concern



- **Proposed Remedial Action Plan**

- Final submitted February 2013
- Public meeting March 13, 2013
- Public comment period ended March 28, 2013

- **Record of Decision**

- Draft submitted April 2013
- Regulatory comments received May 2013
- Final ROD signed August 15, 2013
- Selected Remedy = Sediment Removal with Off-Yard Disposal



- **Additional sampling to further delineate areas for removal completed November-December 2013**

- Draft Sampling and Analysis Plan submitted June 2013
- Regulatory comments received July 2013
- Final Sampling and Analysis Plan submitted October 2013

- **Remedial Design/Remedial Action**

- Draft Remedial Action Work Plan to be submitted in Spring 2014

5

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

OPERABLE UNIT 7

Site 32 (Topeka Pier Site)



- **FS Report**

- Draft submitted May 2012
- Draft final submitted February 2013
- Final submitted June 2013

- **Proposed Remedial Action Plan**

- Draft submitted May 2013
- Final submitted July 2013
- Public comment period July 16 to August 15
- Public meeting July 23, 2013



- **Record of Decision**

- Draft submitted August 2013
- Final ROD signed September 30, 2013
- Selected Remedy = Excavation with Land Use Controls

- **Remedial Design/Remedial Action**

- Land Use Control RD to be submitted in December 2013
- Draft Remedial Action Work Plan to be submitted in Spring 2014

6

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

OPERABLE UNIT 9
Site 34 (Former Oil Gasification Plant, Building 62)



• **FS Report**

- Draft submitted October 2012
- Draft final submitted March 2013
- Final submitted May 2013

• **Proposed Remedial Action Plan**

- Draft submitted May 2013
- Final submitted July 2013
- Public comment period July 16 to August 15
- Public meeting July 23, 2013

• **Record of Decision**

- Draft submitted July 2013
- Final ROD signed September 30, 2013
- Selected Remedy = Land Use Controls

• **Remedial Design**

- Land Use Control RD to be submitted in December 2013



7

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

SITE 30 (Former Galvanizing Plant, Building 184)



• **Removal Activities completed**

• **Construction Completion Report**

- Draft submitted June 2013
- Regulatory comments received July 2013
- Regulatory comments resolved
- Final submitted November 2013

• **No Further Action Decision Document**

- Draft report submitted May 2013
- Regulatory comments received July 2013
- Draft final to be submitted December 2013
- Public comment period in January 2014



8

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

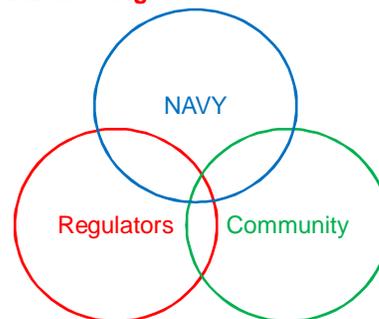


- **Community Involvement Plan**
–Final CIP issued 27 June 2012

- **Updates to RAB Charter issued in September 2012**

- **Multi-media advertising for December 2013 RAB meeting**

- **New public website link**
<http://go.usa.gov/DyRH>





Operable Unit #2 DRMO Storage Area Status Update

Portsmouth Naval Shipyard
Restoration Advisory Board
10 December 2013



A World of Solutions 

 **Presentation Goals**

Provide an overview of the ongoing remedial action at Operable Unit (OU) #2, DRMO Area

- Site Background/Layout
- Remedial Action Objectives
- Remedial Action Status and Schedule
- Remedial Action Activities



A World of Solutions 

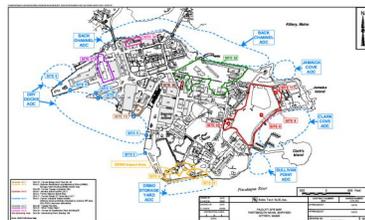
CBI
Site Background

- Remedial Action focuses on OU#2, including the DRMO Storage Yard (Site 6) and the Interim Cap Area.
 - Area 1 thru Area 7
- Previous Remedial Actions completed within the DRMO Impact Area, known as Quarters S&N
- Previous (Historical) Activities at OU#2
 - Storage of excess DoD Property
 - Storage items included lead and nickel-cadmium battery elements, motors, scrap metal and typewriters



A World of Solutions
2

CBI
Site Layout





A World of Solutions
3

CBI Remedial Action Objectives

- Prevent human exposure through ingestion, dust inhalation and dermal contact with contaminated soil with COC concentrations that exceed cleanup levels.
- Protect the offshore environment from erosion of contaminated soil from the OU#2 shoreline.
- Prevent unacceptable risk from future potential migration of copper, lead and nickel from the unsaturated zone in the capped area at Site 6 to groundwater.

A World of Solutions 4

CBI Remedial Action Objectives

Remedial Goal Summary

Contaminant of Concern	Remedial Goal (mg/kg)	Basis
Antimony	516	Construction Work Exposure Scenario
Lead	4000	Site Specific Concentration to satisfy RAO's
PAH's	2	Occupational Worker Exposure Scenario (benzo(a)pyrene equivalents)
Total PCB's	6	Occupational Worker Exposure Scenario

A World of Solutions 5


Remedial Action Activities

- Construction Mobilization/Site Setup – 06/17/13 – 07/16/13
- Excavation of Contaminated Soils – 07/17/13 – 01/22/14
- Confirmatory Sampling – 07/17/13 – 01/22/14
- Transportation and Disposal of Contaminated Soils
09/24/13 – 02/11/14
- Backfill/Site Restoration – 09/12/13 – 02/18/14
Paving March 2014
- Construction Completion – March 2014
- Completion Report
 - Draft Spring 2014
 - Draft Final Summer 2014
 - Final Fall/Winter 2014

A World of Solutions
6


Site Setup



- Removal of fencing/obstructions

- Construction of storage areas/Contaminated soil stockpile area



A World of Solutions
7


Excavation of Contaminated Soils

Area 1 Excavation

- Area consists of soil and rock mixture
- Initial confirmatory samples Lead > 4,000 ppm (all)
- Secondary samples Lead > 4,000 ppm
- Investigative process utilized to determine final excavation size. Rough limits are approximately 25 feet by 45 feet





Area 2 Excavation

- Area consists of soil and rock mixture
- Fill Layer
- Initial confirmatory samples Lead > 4,000 ppm (floor, w. wall)
- Secondary samples Lead > 4,000 ppm (w. wall)
- Final eastern extents determined
- Western extents on hold pending roadway outage

A World of Solutions
8


Excavation of Contaminated Soils



Area 4 Excavation

- Area consists of fill and small rock
- Initial confirmatory samples Lead > 4,000 ppm (s. wall)
- Secondary samples all below RG's
- Area backfilled

Area 3 Excavation

- Area consists of fill and small rock
- Initial confirmatory samples Lead > 4,000 ppm (floor)
- Secondary samples with RG's
- Eastern side completed, western side awaiting road outage



A World of Solutions
9

CBI Excavation of Contaminated Soils

Area 5 Excavation

- Area consists of fill and small rock
- Adjacent to previous excavations from DRMO Impact Area project
- All samples below RG's



approved for public release



Area 6 Excavation (Shoreline)

- Stripped revetment for later reuse
- Installed sediment logs to prevent migration of soils/sediments
- Initial confirmatory samples Lead > 4,000 ppm; PCB's > 6 ppm; PAHs >2 ppm
- Investigative process completed and lateral extents have been determined and excavated

A World of Solutions 10

CBI Excavation of Contaminated Soils

No Area 6 (Storage Area) Photo Available

Area 7 Excavation

- Interim Cap Area
- Area consists of metallic debris, fill and rock
- Depths range from 4 feet to 8 feet b.g.s.
- Vertical extent limited by rock fragment layer
- Approximately 25% complete
- Revetment restoration ongoing

Area 6 Excavation (Storage Area)

- Area consists of fill and small rock
- Lead > 4,000 ppm in two 20 foot areas (w. wall, e. wall)
- Areas delineated pending completion
- Archeological Monitoring Area
- Monitoring complete, sample results pending
- No archeologically significant findings



approved for public release

A World of Solutions 11



Transportation and Disposal of Contaminated Soils

- Excavated soils currently staged on site in managed soil cells. Cells are managed onsite and range from 200 cubic yards to 1000 cubic yards
- Waste characterization sampling is ongoing
 - All soil exhibits TCLP lead in excess of 5.0 mg/l (RCRA limit for hazardous waste classification)
 - Soil exhibits total lead in excess of 5,000 ppm
 - Minimal detection of other contaminants
- Approximately 2,800 Tons have been disposed of at Soilex treatment and disposal facility outside of Montreal, Canada
- Project is evaluating alternative stabilization methods to reduce disposal cost of hazardous waste



Backfill / Site Restoration

- Backfilling completed in Areas 4 & 5
- Backfilling ongoing in Areas 2, 3, 6 and 7
- Backfill is either a stone dust product or a dense graded aggregate stone product, placed in 12 inch lifts and compacted
- Final restoration activities pending the completion of the remedial action include final grading and paving



 Remedial Action Project Closeout

- Prepare Construction Completion Report documenting all field activities
 - Text with tables and figures
 - Analytical reports
 - Site survey of project area
 - Photo documentation
 - Disposal documentation
- Provide to Navy, USEPA and MEDEP for review and comment

A World of Solutions  14





A World of Solutions  15

***Operable Unit (OU) #2
Waste Disposal Area (WDA)
Status Update
Portsmouth Naval Shipyard
Restoration Advisory Board
December 10, 2013***

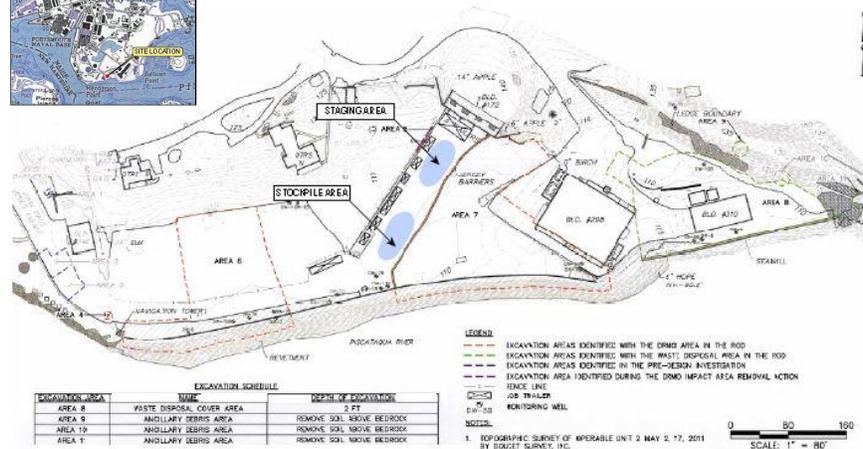


Outline



- **Site Location and Overview**
- **Remedial Action Objectives**
 - **Selected Remedy**
 - **Scope of Work**
 - **Remedial Action Activities**
 - **Remedial Action Status**
 - **Transportation and Disposal of Contaminated Soil**
 - **Outstanding Items**
- **Questions and Comments**

Site Location & Setup Plan



3

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

WDA Remedial Action Objectives



- Prevent human exposure through ingestion, dust inhalation, and dermal contact with contaminated soil with COC concentrations that exceed cleanup levels
- Protect the offshore environment from erosion of contaminated soil from the OU2 shoreline.

4

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

WDA Selected Remedy

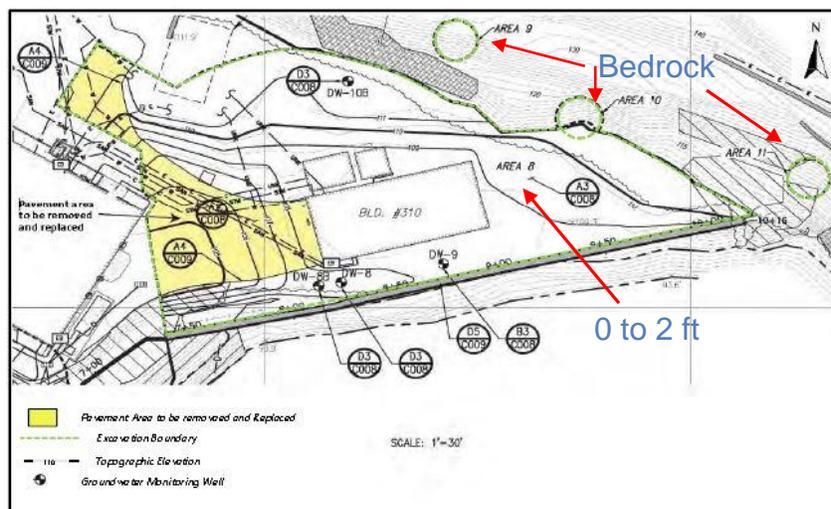


- Excavation of soil and waste material from 0 to 2 feet bgs from WDA Area 8.
- Excavation of Areas 9, 10 and 11 to bedrock.
- Off-yard disposal to approved landfill.
- Construction of a 2-foot-thick soil cover over WDA Area 8, Replacement to Grade of cover for Areas 9, 10, and 11.
- Implementation of land use controls (LUCs).
- Groundwater monitoring.
- Sediment accumulation monitoring.
- Five-year site reviews.

5

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

WDA Scope of Work – Excavation Plan



6

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

Remedial Action Status

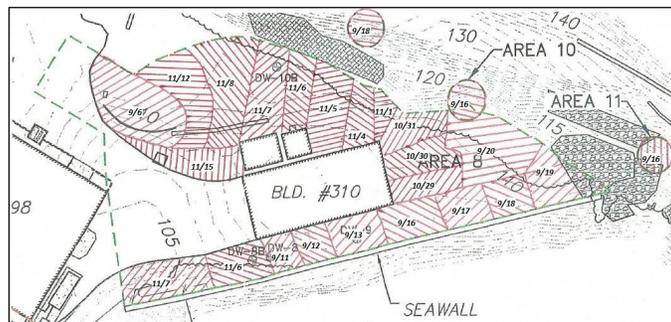


- **Site Mobilization & Setup** (Completed September 3, 2013)
- **Clearing and Grubbing** (Completed September 13, 2013)
- **Removal of Concrete Structures** (Completed December 13, 2013)
- **Site Surveying** (Completed August 27, 2013)
- **Utility Location** (Completed August 27, 2013)
- **Remove and Replace Fencing along Seawall** (Completed December 6, 2013)
- **Excavate and Backfill Areas 9, 10, and 11** (Completed September 21, 2013)
- **Excavate and Backfill Area 8** (Completed November 22, 2013)
- **Pavement Removal** (Completed November 26, 2013)
- **Pavement Subgrade Excavation and Backfill** (Completed December 5, 2013)
- **Waste Characterization Sampling** (Completed December 5, 2013)
- **T&D of Contaminated Soil** (Ongoing)
- **Placement of Topsoil** (Ongoing)

7

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013

Excavation Activities



- **1,900 tons Contaminated Soil Disposed of as Daily Cover at Casella Landfill (December 6, 2013)**
- **600 tons estimated remaining of Daily Cover to Casella**
- **400 tons estimated remaining of Hazardous Waste Soil**



8

Portsmouth Naval Shipyard Environmental Restoration Program, December 2013



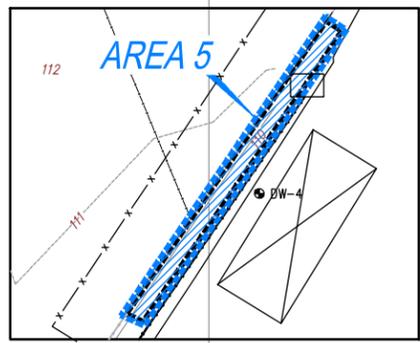
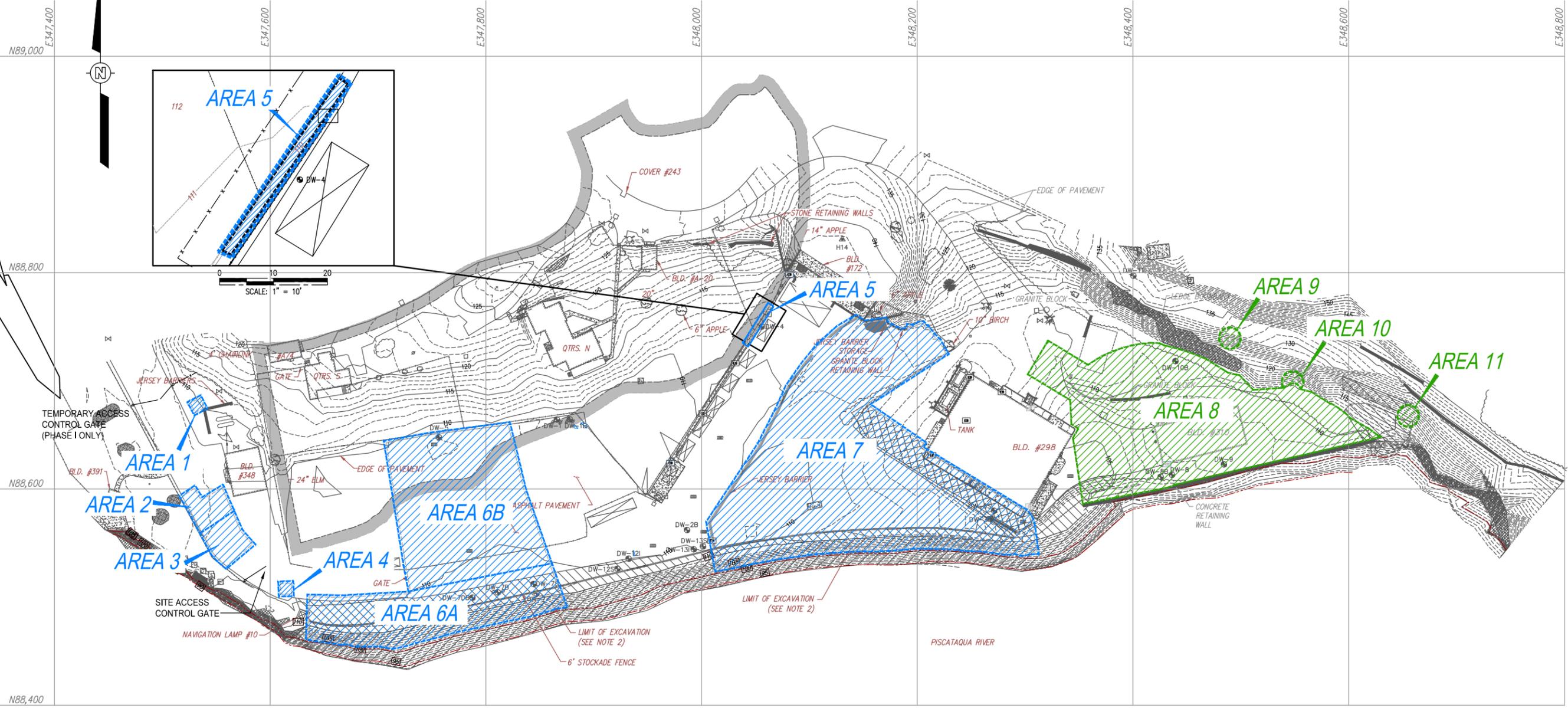
- **Asphalt Placement in the Spring**
- **Final Placement of Design Mix Seeding, Fertilizer, Lime**
- **Removal of Erosion and Sediment Control Measures**
- **Site Housekeeping as Needed**
- **Final Demobilization**



Questions?

Xref: X-C-XS
X-C-XG
Image: NavFAC_Logo.jpg
NAVAFAC Logo.jpg

File: C:\Project\LANTDVA Portsmouth Naval Shipyard\141967\141967-D1.dwg
Plot Date/Time: Dec 09 2013 1:27pm
Plotted By: bermadette.oconnor



LEGEND:

- EXCAVATION LIMIT
- ▬ ARCHEOLOGICAL POTENTIAL AREA BOUNDARY
- ▨ CB&I AREAS
- ▩ AQVIG AREAS

REFERENCE:
THIS DRAWING CREATED UTILIZING DRAWING BY TETRA
TECH, SHEET C004, TITLED: FINAL GRADING PLAN



Shaw Environmental & Infrastructure, Inc. (A CB&I Company) 500 East Main Street, Suite 1630 Norfolk, Virginia 23510		DESIGNED BY T. Howe DATE 12/5/13	CHECKED BY DATE APPROVED BY DATE 12/5/13		
DEPARTMENT OF THE NAVY NAVAFAC Naval Facilities Engineering Command		KITTERY, MAINE REMEDIATION ACTION CONSTRUCTION - OPERABLE UNIT 2, DRMO AREA	DRAWN BY B. Faison DATE 12/5/13		
SCALE: AS SHOWN		SIZE: D			
DELIVERY ORDER NO. DO-CTO WE 29		CONSTR. CONTRACT NO. N62470-08-D-1007			
NAVFAC DRAWING NO. --		REVISIONS			
REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE



**Draft No Further Action
Decision Document for Site 30**

**Portsmouth Naval Shipyard
Restoration Advisory Board**

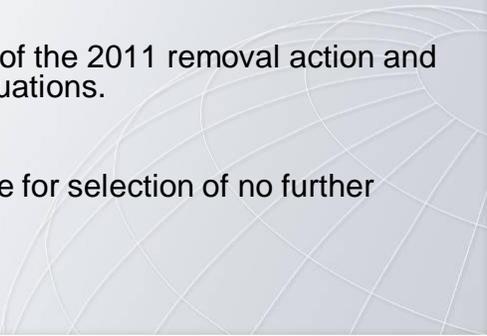
Date: December 10, 2013
Presenter:
Deborah Cohen, Tetra Tech



Presentation Objectives

Provide information on the Draft No Further Action Decision Document for Site 30.

- Present site information.
- Discuss conclusions of the 2011 removal action and associated data evaluations.
- Describe the rationale for selection of no further action.



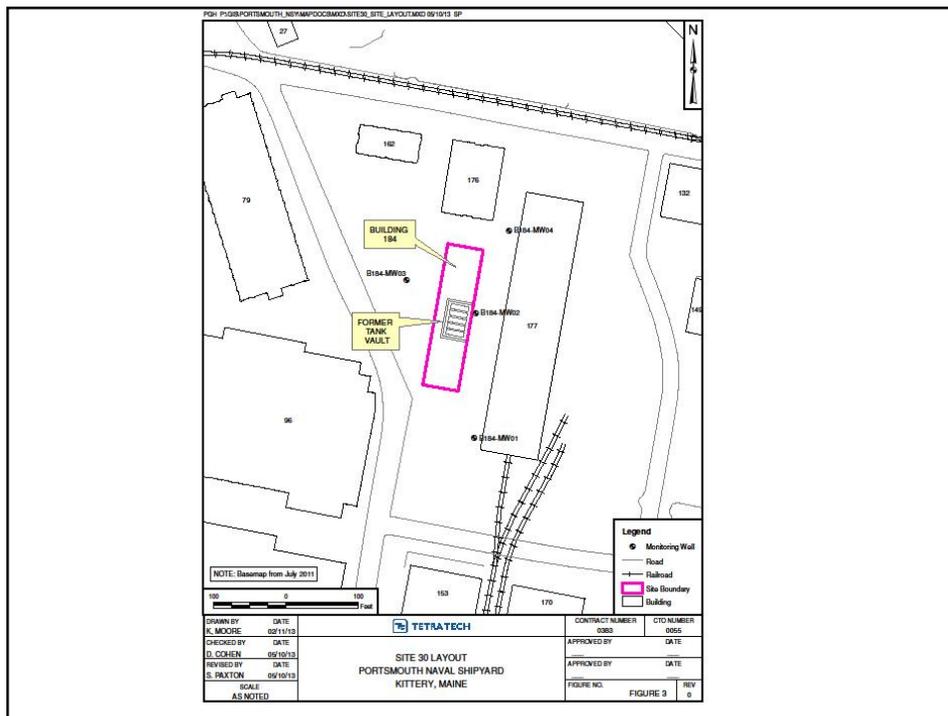


2

Site History and Enforcement

- Site 30 is the Former Galvanizing Plant, Building 184, which consisted of contamination within an underground tank vault. The tank vault was:
 - Constructed of concrete, lined with acid-proof bricks set in acid-proof cement.
 - Used from 1943 to 1946 as part of the galvanizing operations.
 - Used from the mid 1950s to early 1960s for cleaning metal parts.
 - Used to hold pickling tanks including flux, water, acid, and caustic tanks.
- From the early 1960s to 2010 the building was used as a welding school.
- Building 184 is a historically significant building.

3



Site History and Enforcement (Continued)

- Crystalline material, observed on the building wall above the tank vault, was removed several times since the 1970s.
- SSI in 1998 and vault test pit sampling in 2001 showed soil and groundwater were not impacted; however, vault material contained elevated metals concentrations.
- Vault material was removed in August and September 2011 as part of a non-time critical removal action.
- After the removal action, crystalline material was identified along the building wall above the former tank vault and in other areas of the building and evaluation as part of the removal action determined the material is caused by efflorescence.

5



Site Characteristics

- Pre-removal data for soil and groundwater outside the building, soil, crystals, and water inside the tank vault, and crystals on the building wall adjacent to the tank vault showed:
 - Soil outside building and in the tank had metals concentrations generally less than risk screening levels and/or facility background soil concentrations.
 - Groundwater had metals concentrations less than risk-based screening levels.
 - Water inside tank vault had metals concentrations greater than risk-based screening levels.
 - Crystal in vault had metals concentrations generally less than risk screening levels and/or facility background soil concentrations
 - Crystal on the wall by tank vault had metal concentrations similar to or greater than those detection in vault samples.
- Sulfate, aluminum, iron, and magnesium were the predominant chemicals detected in vault and wall samples.

6



2011 Non-Time-Critical Removal Action

- Removal action was conducted because metals-contaminated water in the tank vault was a potential unacceptable risk for construction worker exposure (based on exceedances of site-specific screening levels) and potential migration to underlying soil and groundwater.
- In addition, the material in the tank vault was thought to be the source of the crystalline material.
- Included excavation and disposal of the tank vault fill material.
 - Very little water was found in the tank vault compared to estimated 75 percent containing water.
 - Fill material in the tank vault had lower metals concentrations than anticipated.
- The differences between actual site conditions and anticipated site conditions was discussed in the Technical Memorandum for Modification to the Removal Action for Site 30.
- Based on site conditions, Navy, EPA, and MEDEP agreed not to remove the tank vault concrete and acid-proof brick lining.

7



2011 Removal Action (Continued)

- Origin of crystalline material, identified along the wall above the former tank vault after the removal action, was investigated.
 - Crystalline material was found in other areas of building.
 - Caused by efflorescence – common crystalline deposit that forms on masonry when water passes through building construction materials such as concrete, mortar, grout, or brick.
 - Accumulation of crystalline material is common on concrete walls in buildings with poor drainage, frequent contact of masonry walls with water (e.g., rain water or groundwater), or with high internal humidity.

8



Summary of Basis of No Further Action

- Contamination associated with Site 30 was removed.
- Brick lining of vault in excellent condition – no cracks or gaps along the floor.
- Crystalline material is efflorescence on the building wall and is not related to Site 30.
- Potential threats to public health and welfare and the environment have been eliminated at Site 30, allowing for unlimited use and unrestricted exposure.

9



What's Next

- The Navy is preparing the draft final NFA document.
- A 30-day public comment period will be held on the draft final document and is anticipated to begin in January 2014.
- The final document will be prepared after the public comment period.
- The draft final NFA document and supporting documents will be available at the Rice Public Library, Portsmouth Library and at the public website (<http://go.usa.gov/DyRH>).
- With the signature of the NFA document, Site 30 will no longer be an Installation Restoration Program site.

10

