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FINAL AMENDED SITE MANAGEMENT PLAN 2013 NSY PORTSMOUTH ME
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RESOLUTION CONSULTANTS

SITE MANAGEMENT PLAN
FISCAL YEAR 2013

NAVAL SHIPYARD PORTSMOUTH
KITTERY, MAINE

Final

Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Mid-Atlantic
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Comprehensive Long-Term Environmental Action Navy
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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
bgs	Below ground surface
CDC	Child Development Center
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CHF	Contaminant Hazard Factor
CIA	Controlled Industrial Area
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
CNO	Chief of Naval Operations
COPC	Chemical of Potential Concern
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
EE/CA	Engineering Evaluation/Cost Analysis
EERA	Estuarine Ecological Risk Assessment
ERP	Environmental Restoration Program
ESD	Explanation of Significant Difference
FCS	Final Confirmation Study
FFA	Federal Facilities Agreement
FS	Feasibility Study
FY	Fiscal Year
HHRA	Human Health Risk Assessment
HRS	Hazard Ranking System
HSWA	Hazard and Solid Waste Amendments (of 1984)
IAG	Interagency Agreement
IAS	Initial Assessment Study
IRG	Interim Remediation Goal
JILF	Jamaica Island Landfill
LUCs	Land Use Controls
LUCRD	Land Use Control Remedial Design
MB	Mercury Burial

MEDEP	Maine Department of Environmental Protection
mg/kg	Milligram per kilogram
MIDLANT	Mid-Atlantic
MPF	Migration Pathway Factor
NACIP	Navy Assessment and Control of Installation Pollutants
NAVFAC	Navy Facilities Engineering Command
NFA	No Further Action
NPL	National Priorities List
OM&M	Operation, maintenance, and monitoring
OU	Operable Unit
PA	Preliminary Assessment
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PNS	Portsmouth Naval Shipyard
PP	Proposed Plan
PRAP	Proposed Remedial Action Plan
PRG	Preliminary Remediation Goal
RA	Remedial Action
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RF	Receptor Factor
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
SI	Site Investigation
SMP	Site Management Plan
SSA	Site Screening Area
SSI	Site Screening Investigation
SSP	Site Screening Process

SWMU	Solid Waste Management Unit
SVOC	Semi-volatile organic compound
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

1.0 INTRODUCTION

This document is an Amended Site Management Plan (SMP) for Fiscal Year (FY) 2013 for the Portsmouth Naval Shipyard (PNS) in Kittery, Maine. This report was prepared for the Naval Facilities Engineering Command, Mid-Atlantic (NAVFAC MIDLANT) by Resolution Consultants under Contract Number N62470-11-D-8013 (Contract Task Order CTO WE05). The purpose of the SMP is to provide a management tool to be used by the Navy, United States Environmental Protection Agency (USEPA), Maine Department of Environmental Protection (MEDEP), and their consultants in planning, reviewing, and setting priorities for all environmental investigative and remedial response activities to be conducted at the facility under the Navy Environmental Restoration Program (ERP). The primary components of the SMP include:

- Summary of site location, mission, history, and environmental activities
- Overview of ERP activities since the previous SMP
- Changes in site conditions or risk exposures since the previous SMP
- Estimated schedule of upcoming activities and completion

The SMP is updated annually to revise schedules, deadlines, and milestones for the next FY based on funding, changes in scope of investigation and remediation activities, changes in site conditions, and/or other unanticipated events. This annual amendment to the SMP meets the requirements of Section XI (Subsections 11.4 and 11.5) of the Federal Facilities Agreement (FFA) for Portsmouth Naval Shipyard.

2.0 SETTING AND ENVIRONMENTAL HISTORY

The following section summarizes the location, mission, history, and environmental activities at PNS. Figure 1 illustrates the location of the Installation. Figures 2 and 3 present plan and aerial views of the shipyard delineating the Operable Units (OUs) and active ERP Sites. Figure 4 presents a bird's eye view of PNS.

2.1 Facility Mission and History

PNS is a military facility with restricted access on Seavey Island located in the Piscataqua River at the mouth of Portsmouth Harbor between Kittery, ME and Portsmouth, NH (Figure 1). The primary mission of PNS is the conversion, overhaul, and repair of submarines for the Navy. Shipbuilding in Portsmouth Harbor dates back to 1690, and PNS was established as a government facility in 1800. The first government-built submarine was designed and constructed at PNS during World War I, and a large number of submarines have been designed, constructed, and repaired at this facility since 1917. Present military activities are concentrated in the western portion of the facility in the Controlled Industrial Area (CIA). This area includes dry docks, submarine berths, and numerous buildings that house trade shops related to maintenance activities. Access to the area is tightly controlled and limited to individuals having appropriate clearances. Uses of other portions of PNS include administration offices, officers' residences, equipment storage, parking, and recreational facilities.

Areas within PNS are included on the National Register of Historic Places including the area between the two bridges connecting PNS to Kittery, Maine, the majority of the CIA, and the Portsmouth Naval Hospital and Portsmouth Naval Prison Historic Districts.

Water for operations and drinking at the Shipyard are supplied by the Kittery Water District. Kittery's water supply originates from surface reservoirs located in the vicinity of York, Maine. Groundwater at PNS is not used for drinking, irrigation, industrial processes, fire fighting, or any other purposes.

The Navy ERP Program at the Shipyard has been dedicated to environmental stewardship in performing activities to assess and clean up hazardous substances. In 2012 PNS was honored with both the Secretary of the Navy and Chief of Naval Operations (CNO) awards for the Environmental Restoration, Installation category, the Navy's top environmental award for its environmental restoration efforts during FY 2011 at large installations.

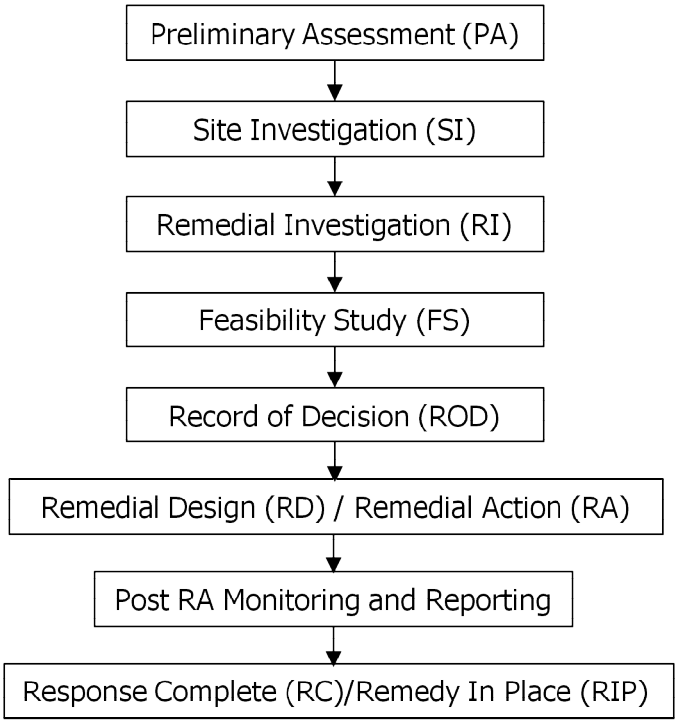
2.2 Understanding of the Environmental Conditions

Shipbuilding and submarine repair work at PNS resulted in hazardous substances being released into the soil, groundwater, surface water, and sediment on and around Seavey Island. Investigation and remediation activities have been performed under the ERP to reduce potential risks to human health and the environment by identifying, assessing, characterizing, and cleaning up or controlling releases of hazardous substances. Investigations of hazardous substance releases at PNS began in 1983 when the Navy completed an Initial Assessment Study (IAS) [Weston, June 1983] that identified and assessed sites posing a potential threat to human health and the environment. The final phase of this study was completed in 1986 with the issuance of a Final Confirmation Study (FCS), [LEA, June 1986], which evaluated the sites identified in the IAS to confirm the presence of contamination. Prior to 1986 investigations of PNS hazardous waste sites were conducted under the Navy Assessment and Control of Installation Pollutants (NACIP) Program, and since 1986, investigations at PNS have been conducted under the ERP.

USEPA became involved with PNS in 1985 when the agency requested information on PNS's hazardous wastes and conducted a visual site inspection under Resource Conservation and Recovery Act (RCRA) authority. MEDEP has also provided oversight of investigation and remediation at PNS since 1988. USEPA issued a Corrective Action Permit in March 1989 under the RCRA Hazardous and Solid Waste Amendments (HSWA) of 1984 [USEPA, March 1989] requiring PNS to investigate 13 Solid Waste Management Units (SWMUs) and take appropriate corrective action. Most environmental activities at PNS were initiated under RCRA in accordance with the HSWA permit, but following inclusion on the NPL in May 1994 environmental activities are now governed by Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as Superfund, as described in the FFA.

In 1993, the PNS sites were evaluated by USEPA under Superfund's Hazard Ranking System (HRS) to determine the relative threats posed to the public health and environment by sites contaminated with hazardous substances [TRC, May 1993]. The HRS scores sites based on the potential for hazardous substances to spread from the site through air, surface water, and groundwater and consider additional ranking factors including population, waste characterization, and potential damage to natural resources. Based on the HRS evaluation, PNS was proposed for inclusion on the USEPA's National Priorities List (NPL) in June 1993, and was included on the NPL on May 31, 1994. After this date, all subsequent environmental investigations and cleanup activities have been conducted under the authority of CERCLA. CERCLA includes a process with sequential phases to evaluate the nature and extent of contamination at a site; determine the need for a remedy; and if necessary identify, develop, and implement appropriate remedial actions in order to protect human

health and the environment. The major phases of the CERCLA process, for which the ERP parallels, are shown in the graphic below and are described in greater detail in Table 1.



Not all phases of the CERCLA process are required for every site. For example, a Treatability Study and/or an Engineering Evaluation/Cost Analysis (EE/CA) with a Removal Action can be implemented at any time in the CERCLA process or may not be completed at all.

The onshore and offshore components of work required by the HSWA Permit was directed to be separated by USEPA in 1994 such that activities within the onshore portion of the facility would not be further delayed by the more complex offshore investigations. However, potential impacts from onshore sites to offshore areas were evaluated as part of the onshore studies, as discussed further in the site- or OU-specific discussions in Section 3.0.

The FFA for PNS was signed by the Navy and USEPA in September 1999, became effective February 2000, and superseded the HSWA Permit. The State of Maine elected not to be a party to the FFA. However, the state is afforded a participatory role in the site remediation process by virtue of CERCLA. The FFA establishes the roles and responsibilities of the Navy, USEPA, and, MEDEP under CERCLA, establishes deadlines/schedules, outlines work to be performed, and provides a dispute resolution process for primary documents. This annual amendment to the SMP meets one of the requirements of the FFA (Section 11.4).

2.3 Community Participation

PNS has established a Restoration Advisory Board (RAB) comprised of members of the community, local environment group members, and federal and state officials, who meet as needed between September and June to keep the community and stakeholders informed on environmental issues at PNS. An index of the documents prepared for the program is maintained in the administrative record for review by the public at repositories at the Portsmouth Public Library in Portsmouth, New Hampshire and the Rice Public Library in Kittery, Maine. The index of Administrative Records is available at the information repository. Documents from the administrative record are available through the Public Affairs Officer for PNS at:

Public Affairs Office, Code 100PAO
Portsmouth Naval Shipyard
Portsmouth, NH 03804-5000
Phone: (207) 438-1140
PORT_PTNH_ASK_PAO@navy.mil

A Community Involvement Plan is being revised for PNS and will be finalized in 2012.

3.0 DESCRIPTION OF ENVIRONMENTAL SITES

There are currently 11 on-shore sites that are undergoing various stages of environmental restoration. The initial investigations of PNS identified 28 potential sites (referred to as SWMUs at that time under RCRA) located onshore and offshore of PNS. After the 28 potential sites were examined in detail, 15 were eliminated from further investigation, leaving 13 sites that required additional investigation and appropriate corrective action [Kearney & Baker/TSA, July 1986]. These 13 sites were listed in the HSWA Permit. Following the HSWA four were identified as No Further Action (NFA) sites, a portion of Site 6 was separated and given a separate number (Site 29), and four sites were newly identified. The 1999 FFA included 14 sites and the offshore area, and since that time three additional sites and the Jamaica Island Landfill (JILF) Impact Area (within Site 8) have been removed from the ERP. The remaining sites (referred to as the ERP sites) are under various stages of investigation/remediation and listed below.

Current PNS ERP Sites	PNS Sites Removed from the ERP
5, 6, 8, 9, 10, 11, 29, 30, 31, 32, 34 Offshore AOCs	1, 2, 3, 4, 7, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, JILF Impact Area

The Navy organized the ERP sites into Operable Units (OUs) based on similar kinds of contamination and geographic proximity as an alternative to addressing all of the PNS sites as one large study area and cleanup action. The sites listed in the FFA were grouped into five OUs (OU1 through OU5). OU6 was identified in 2000 to address management of migration from the JILF; however, OU6 was recombined with OU3 through an Explanation of Significant Difference (ESD) for the OU3 ROD signed in October 2005 with management of migration of groundwater from the JILF addressed as part of the OU3 remedy. Further investigations resulted in designation of OU7, OU8, and OU9. In addition OU5 was removed from the CERCLA list in 2001.

The locations of the OUs and ERP sites under investigation or remedial action are shown on Figures 2 and 3, and a summary of the status of active sites is provided in Table 2. A summary of the sites removed from the ERP is provided in Table 3. Additional information on site- or OU-specific investigations is provided in the discussion related to the specific OU or site screening area.

3.1 Operable Unit 1 (OU1)

Site Description

OU1 consists of

- Site 10 – Former Battery Acid Tank No. 24

Site 10 occupies a small peninsula located in the CIA near the southern shore of PNS (Figure 2), and is located within an area of current and historical industrial activities. Site 10 is located on fill material that was placed prior to the 1920s and includes Building 238 that was built in 1955 and was used for battery recharging operations that previously resulted in releases of contaminated wastewater. Currently, Building 238 is primarily used for office space. The soils within Site 10 are currently covered by Building 238 and asphalt. A crawl space with an earthen floor exists beneath a portion of Building 238 and the loading dock. The ground elevation of the earthen floor is approximately 5 to 6 feet below the ground elevation outside the building and loading dock.

Site 10 is bounded by buildings to the west and north and by the Piscataqua River on the east, south, and southwest. The Site 10 shoreline along the Piscataqua River from the west to the southeast is bounded by a quay wall of granite blocks. Barges are commonly docked at these berths located south and east of Building 238 (Berths 4 and 5).

The offshore area of Site 10 is part of the Dry Dock Area of Concern (AOC) which was investigated separately as part of the Estuarine Ecological Risk Assessment (EERA) [NCCOSC, May 2000; Johnston, et. al., December 1994]. Sampling locations within monitoring station MS-12 in the Interim Offshore Monitoring Program are located adjacent to OU1 and includes a depositional area west of Site 10 and south of Building 178. The offshore area is further discussed as part of OU4 in Section 3.4.

Nature and Extent of Potential Contamination

Large lead-acid storage batteries were drained inside Building 238 as part of the lead-acid recharging operations, and prior to 1974 the waste acids drained directly to the offshore through an industrial waste outfall (Site 5) [TtNUS, June 2006a; Weston, June 1983]. In 1974, they were directed into a lead-acid drain pipeline to an underground storage tank. The drain line exited the building in the crawl space and then dropped vertically into the earthen floor of the crawl space. The acidic discharge flowed through the drain line through the floor of the building to a steel underground storage tank (Battery Acid Tank No. 24) of 9,680-gallon capacity. Use of the piping

and tank was discontinued in 1984 when a leak was discovered in the tank. Tank closure was conducted in 1986, when the tank and surrounding contaminated soil were removed [TtNUS, June 2006a]. Testing of the soil during tank excavation indicated no exceedances of hazardous waste criteria.

Numerous soil and groundwater investigations were completed at Site 10 after the tank removal, between 1991 and 2006 [McLaren/Hart, July 1992; TtNUS, March 2000; TtNUS, March 2003; TtNUS, June 2006a]. The RI Report completed in 2007 indicated that lead was the primary chemical of concern in soil in the area of the tank leak and soil in the crawl space by the drain line [TtNUS, July 2007].

Groundwater sampling results did not indicate that groundwater was a medium of concern for human health exposure or migration of groundwater for offshore impact (site groundwater concentrations were less than action levels).

The investigations showed fill material at the site was rocky and ranged in thickness from 10 feet to 40 feet, and was generally thickest nearer to the shoreline. Gravel, bricks, and other building materials were also found in the fill material. Groundwater at the site is tidally influenced and is saline or brackish. Past release(s) from site operations to the offshore area are being addressed as part of MS-12 within OU4.

A list of important Site 10 historical events and environmental investigations with relevant dates is shown below.

Event	Date
Filling of area was conducted and area apparently used for berthing and/or launching boats	Before 1826 to 1860s and 1900s to 1915
Other industrial uses of area	1910s to 1920s
Building 238 built and lead-acid battery recharging operations began within the building	1955
Lead-battery acid wastes discharged directly to the river (through an industrial waste outfall that is part of Site 5)	1955 to 1974
Lead-battery acid wastes discharged to underground storage tank (Battery Acid Tank No. 24) south of Building 238	1974 to 1984
Leak in underground tank discovered and use of tank discontinued	1984
Tank closure conducted with underground tank and surrounding contaminated soil removed	1986
Sampling of soil and groundwater to determine nature and extent of contamination	1991, 1998, 2001, and 2006

Event	Date
Remedial Action completed	October 2011 to March 2012

CERCLA Remedial Summary

During the development of the RI/FS several human health risks were identified that required remedial action, primarily associated with lead in surface and subsurface soils. In response to these risks, the selected remedy for OU1 in the ROD included excavation and off-yard disposal of contaminated soil with lead concentrations greater than acceptable levels for construction workers, recreational users, and occupational workers from around the drain lines within the crawl space under Building 238. The selected remedy requires the implementation of Land Use Controls (LUCs) to prevent future residential site use of the site. For groundwater, two rounds of monitoring were included to demonstrate the lack of groundwater impacts from soil excavation [Navy, September 2010].

Major reports prepared for OU1 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Final OU1 RI Report	TtNUS, July 2007	N00102.AR.001606
Final OU1 FS Report	TtNUS, June 2010	N00102.AR.001754
Final OU1 PRAP	Navy, June 2010	N00102.AR.001759
OU1 ROD	Navy, September 2010	N00102.AR.002495
Final OU1 Remedial Action Work Plan	Shaw, October 2011	N00102.AR.002627
Final OU1 LUCRD	Tetra Tech, January 2012	N00102.AR.002643
Sampling and Analysis Plan for Post Remediation Groundwater	Tetra Tech, January 2012	N00102.AR.002648

Activities Completed in FY 2012

The Remedial Action at OU1 commenced in October 2011. Excavation of the soil around the drain lines within the crawl space under Building 238 was completed in March 2012 thereby eliminating exposure risks at OU1 to construction workers, recreational users, and occupational workers. The final Land Use Control Remedial Design (LUCRD) was submitted to USEPA and MEDEP in January 2012 and filed with the appropriate municipal land use offices in Kittery, ME and Portsmouth, NH in March 2012. The first round of groundwater monitoring associated with post-excavation

assessment was completed on February 16, 2012, and preliminary laboratory results concluded that all lead concentrations are less than Project Action Levels. The second round of sampling is scheduled for November 2012 to confirm that lead concentrations remain less than Project Action Levels.

CERCLA Path Forward

The CERCLA path forward for OU1 is as follows:

- Near Term Milestones
  - Construction Completion Report (CCR)

- Out Year Milestones
  - Long-term Management (including LUCs)
  - Five-year reviews

The schedule for upcoming activities and milestones for OU1 is included in Attachment B.

3.2 Operable Unit 2 (OU2)

Site Description

OU2 consists of:

- Site 6 – DRMO Storage Yard, including the DRMO Impact Area
- Site 29 – Former Teepee Incinerator Site

OU2 is located in the south-central portion of PNS (Figure 2) along the Piscataqua River. The OU2 shoreline is steeply sloped and has shoreline erosion controls (riprap and a seawall) placed along portions of the shoreline to provide erosion protection. The OU2 shoreline is difficult and dangerous to access because of strong river currents and the steep embankment from the site to the river. Since the area was filled, the area within Sites 6 and 29 have been used as industrial and commercial areas. The DRMO Impact Area includes military residences. Within Site 6 the Defense Reutilization and Marketing Office (DRMO) was responsible for the reuse, transfer, donation, sale, or disposal of excess and surplus Department of Defense (DoD) property in New England. Until operations moved out in 2010, DRMO operations were conducted in the paved portion of the fenced area. There are no permanent buildings located at the DRMO (Site 6). An area that was capped in 1993 is covered with grass and barricaded from use for any activities. At Site 29, Building

298 is used for office space and Building 310 is the hose handling facility. There are no hazardous waste-related activities at OU2, and hazardous chemicals are not used as part of any of the current site operations.

There is a small intertidal sediment area adjacent to OU2 to the east, which is part of the DRMO Storage Yard AOC investigated as part of the EERA. A sampling location within monitoring station MS-11 in the Interim Offshore Monitoring Program is located in a depositional area east of the seawall at Site 29 [TtNUS, November 2010]. The offshore area is discussed as part of OU4 in Section 3.4.

Nature and Extent of Potential Contamination

The area around Site 6 was used for DRMO operations starting in approximately 1920 and has included storage of lead- and nickel-cadmium battery elements, motors, typewriters, paper products, and scrap metal. Historically, DRMO operations primarily occurred in the current fenced area of the DRMO, but operations apparently also occurred in areas directly adjacent to the DRMO. The major hazardous materials of concern were the battery cells and plates that were stockpiled on uncovered pallets. Open storage of batteries and other materials that could cause contaminants to be leached or otherwise released by pathways such as infiltration or runoff were terminated in approximately 1983.

The main activities that occurred in the Site 29 area included open burning, waste disposal, and industrial incineration. A portion of Site 29, referred to as the waste disposal area, was apparently filled with paper, wood, rubbish, and ash reportedly from open burning of trash conducted from approximately 1918 until 1965. A teepee incinerator (former Building 290) operated from 1965 to 1975 for disposal of wood, paper, rubbish, and occasional burning of cans of paint and solvents, and ash from the teepee incinerator was also disposed of in the waste disposal area until 1971. Materials identified in soil borings located in the waste disposal area are generally consistent with the background information and include ash, cinders, wire, glass, wood, and metal pieces. Asbestos was also found during the excavation of the Building 310 foundation, which is located over the waste disposal area. Building 298 was built in 1975 and was used as an industrial waste treatment facility until the 1980s. Spill prevention and control methods were in place during operation of the facility, and there were no reported releases impacting soil or water outside the building.

Initial environmental sampling at OU2 began in 1984. Investigations have shown that Site 6 and much of Site 29 (in the area filled in the early 1900s as part of Henderson's Point excavation)

consists of angular rock fragments overlain by general fill material composed of sand and gravel with minor amounts of wood and metal debris and cinders. Remaining filled areas of OU2 consist of sand, gravel, and silt overlying waste fill that includes cinders, ash, plastic, glass, and wire. Fill thicknesses generally range from approximately 6 feet to 23 feet; however, the maximum fill thickness is approximately 40 feet (along the shoreline in the waste disposal area). The groundwater at OU2 is tidally influenced and is generally brackish or saline.

The Supplemental RI Report finalized in March 2010 concluded that that the main contaminants in soil at Sites 6 and 29 include metals (particularly lead), polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), and the main contaminants in groundwater are metals [TtNUS, March 2010]. Contaminant fate and transport modeling and groundwater sampling conducted for OU2 indicated that migration of groundwater to the offshore was not anticipated to adversely impact the offshore. The additional investigation in 2007 and 2008 showed that DRMO contamination (lead and copper) was present in the backyards of Quarters S and N in the area referred to as the DRMO Impact Area, adjacent to the DRMO Storage Yard.

OU4 sampling activities that included collection of samples of soil eroding along the top of the Site 29 shoreline showed that the erosion was likely the cause of elevated metals (copper, lead, nickel) concentrations detected in offshore sediments [TtNUS, August 2005a; TtNUS, February 2006] (discussed further in Section 3.4). In 2002, a utility trench was excavated to place new utilities to service the Building 298 offices. The excavated soil was disposed of by the Shipyard off yard, the trench was backfilled with clean fill material, and the trench is considered a clean area within the OU2 boundary.

A list of important OU2 historical events and environmental investigations with relevant dates in site chronology is shown below.

Event	Date
OU2 area filled with material excavated from Henderson's Point	1902 to 1905
DRMO activities began (stone crusher and scrap metal yard)	1920
Additional filling and disposal at OU2 (in waste disposal area)	1920 to 1975-1979
Onsite disposal ended with trash being taken off yard for disposal	1975 to present
Seawall constructed	1940s
Coal and coke storage facility located at Site 6 (Building 172)	1942 to 1957
Sandblast grit (unused) storage located at Site 6 (Building 172)	1957 to 1960

Event	Date
Teepee Incinerator (Building 290) operated and was demolished when operation ended	1965 to 1975
Building 298 used as industrial waste treatment facility	1975 to 1980s
Hose handling facility located at Site 29 (Building 310)	1980 to present
Pesticide handling conducted at Building 314	1982 to 1995
Open storage of batteries at DRMO discontinued	1983
Environmental sampling began at OU2 (as part of FCS)	1984
RFI and RFI Data Gap investigation conducted at Site 6 (including what is now Site 29)	1989 to 1992 and 1995
DRMO capped as an interim corrective measure	1993
Clean closure under RCRA of industrial waste treatment facility (Building 298)	1997
Portion of Site 6 separated into a new site (Site 29) and field investigation at Site 29 conducted	1998
Emergency Removal Action (shoreline stabilization) at Site 6	1999
Excavation for utility trench at Building 298 conducted	2002
Draft FS prepared for OU2	2004
Soil washing treatability study conducted	2005
Emergency Removal Action, including placement of shoreline controls, conducted at Site 29. Shoreline repairs completed in 2008.	2005-2006 2008
Surficial debris (including metal pieces and wires) removed from eastern portion of Site 29 with the area covered with gravel	2006
Additional Investigation at OU2 conducted to refine remedial options	2007 to 2008
Removal action conducted	2010
Pre-design investigation to complete delineation of contamination.	2011
OU2 Pre-Design Soil sampling conducted	April 2011

CERCLA Remedial Summary

Based on the results of the Supplemental RI Report, several human health risks were identified that require remedial action. In response to these risks, the Navy performed a removal action for the DRMO Impact Area to remove the potential unacceptable risks from OU2 contamination in the DRMO Impact Area. The removal action conducted in 2010 included excavation of contaminated soil and offsite disposal, and site restoration activities were conducted in spring 2011. As

documented in the September 2011 ROD, no further action is required for the DRMO Impact Area. Major activities and reports prepared for OU2 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Action Memorandum including EE/CA for Removal Action for DRMO Impact Area	Navy, November 2009	N00102.AR.001351
OU2 Supplemental RI Report	TtNUS, March 2010	N00102.AR.001743
Final Removal Action Work Plan for DRMO Impact Area	Shaw, May 2010	N00102.AR.001746
Final OU2 Pre-Design Sampling and Analysis Plan	TtNUS, November 2010	N00102.AR.002513
Final OU2 FS Report	TtNUS, April 2011	N00102.AR.002554
Final OU2 PRAP	Navy, July 2011	N00102.AR.001689
OU2 ROD	Navy, September 2011	N00102.AR.002620
Draft Construction Completion Report (DRMO Impact Area)	Tetra Tech, February 2012	Draft Document
Final OU2 LUCRD	Tetra Tech, March 2012	N00102.AR.002673
Draft Remedial Design (60% Submission)	Tetra Tech, April 2012	Draft Document

Activities Completed in FY 2012

Site restoration following the removal action was completed in spring 2011. The ROD for OU2 was completed and signed in September 2011, and the LUCRD was finalized in March 2012 and filed with the appropriate municipal land use offices in Kittery, ME and Portsmouth, NH in March 2012. The Draft Construction Completion Report for the DRMO Impact Area was prepared and submitted to USEPA and MEDEP in February 2012. The Draft Remedial Design was submitted in April 2012.

CERCLA Path Forward

The CERCLA path forward for OU2 is as follows:

- Near Term Milestones
  - RD/RA
- Out Year Milestones

– Long-term Management (including LUCs)
– Five-year reviews as appropriate

The schedule for upcoming activities and milestones for OU2 is included in Attachment B.

3.3 Operable Unit 3 (OU3)

Site Description

OU3 consists of:

- Site 8 – Jamaica Island Landfill (JILF)
- Site 9 – Former Mercury Burial Sites (MBI and MBII)
- Site 11 - Former Waste Oil Tank Nos. 6 and 7

OU3 is located in the eastern portion of PNS (Figure 2) and consists of 22 acres currently used for parking, occupational uses, and recreational uses. Wetlands are located by Jamaica Cove to the north of OU3. The hazardous waste storage facility (Building 357) is located to the northeast of OU3, and the boundary of OU3 does include a portion of the paved area west of the building. To the east of OU3 is Clark Cove, and the solid waste storage facility (Building 337) is located to the south. The Automotive Hobby Shop (Building 320) and medical clinic (H1) are located to the west. The current features reflect post-remedial construction conditions (remedial construction detailed below).

The offshore area of OU3 is part of the Jamaica Cove and Clark Cove AOCs which was investigated as part of the EERA. Sampling locations in monitoring stations MS-5 through MS-9 in the Interim Offshore Monitoring Program are located within the intertidal and subtidal areas of Jamaica and Clark Coves. The offshore monitoring results are discussed as part of OU4 in Section 3.4.

Nature and Extent of Potential Contamination

Site 8 is the landfill (JILF), and Sites 9 and 11 are focused areas located within the JILF boundary. The Navy used the JILF, which previously consisted of tidal mudflats, as a disposal area from 1945 to 1978 for general refuse, trash, construction rubble, dredged sediment, and various industrial wastes, and the boundary of the landfill defines the boundary of OU3. Mercury burial vaults (MBI and MBII) were placed in two locations within the landfill in the 1970s and then removed (intact) and disposed of off-site in the 1990s/early 2000 (Site 9). There is no evidence that mercury from

the vaults has contaminated surrounding soil or groundwater. The waste oil tanks were used from 1943 to 1989 and were removed intact along with surrounding soil in 1989 (Site 11). Soil contamination remaining in the vicinity of Site 11 appeared to be landfill material (Site 8) mixed with petroleum hydrocarbons that may have originated from spills during filling of the tanks formerly at Site 11. Therefore, the soil contamination remaining in the vicinity of Site 11 is considered Site 8 contamination

Environmental sampling began at OU3 in 1984, and over time has included various investigations of soil, groundwater, seeps, sediment sampling in the intertidal area, geophysical surveying, and test pitting. The OU3 ROD characterized Site 8 as containing a large volume of low-level hazardous materials [Navy, August 2001]. A variety of organic and inorganic constituents were detected in soil and groundwater and include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, pesticides, metals, and petroleum hydrocarbons. Soil and groundwater data for Sites 8, 9, and 11 show similar chemical contamination throughout the area of the landfill. Low levels of dioxins were also detected during test pitting.

A list of important OU3 historical events and environmental investigations with relevant dates is shown below.

Event	Date
Use of underground storage tanks at Site 11 to store waste oil before offsite disposal began	1943
Landfilling of tidal flats east of Seavey Island and west - southwest of Jamaica Island began	1945
Poured concrete blocks and precast concrete pipes containing mercury-contaminated wastes buried in two locations (MBI and MBII) at the JILF	Between 1973 and 1975
Dredged sediment from the Dry Dock area disposed of at the JILF, and landfilling of the area discontinued	1978
IAS identifies the JILF and MBI and MBII as sites	1983
Environmental investigations began at OU3 (as part of the FCS)	1984
Use of tanks at Site 11 discontinued, and tanks and surrounding soil removed	1989
RFI and RFI Data Gap investigations conducted	1989-1992 and 1994
Pipe and blocks (three) removed from MBI and disposed of off site	1994 and 1997
Geophysical survey of OU3 conducted	1998
Blocks (eight) removed from MBII and disposed of off site	2000

Event	Date
Test pitting investigation conducted based on results of geophysical survey; 40 drums containing non-hazardous material located and removed	2000
Significant construction of remedy started	2002
Remedy construction completed	2004
OU3 Rounds 1 and 2 post-remedial OM&M conducted	2006
OU3 Rounds 3 and 4 post-remedial OM&M conducted	2007
OU3 Rounds 5 and 6 post-remedial OM&M conducted	2008
OU3 Rounds 7 and 8 post-remedial OM&M conducted	2009
OU3 Round 9 post-remedial OM&M conducted	April to June 2010
OU3 Round 10 post-remedial OM&M conducted	April 2011
OU3 Round 11 post-remedial OM&M conducted	May 2012

CERCLA Remedial Summary

During the development of the RI/FS several human health risks were identified that required remedial action, primarily from metals and PAHs. In response to these risks, the selected remedy in the ROD for OU3 included installation of a RCRA Class C landfill cover and implementation of institutional controls, erosion controls, and monitoring [Navy, August 2001]. In addition, a 2003 ESD for the ROD described the addition of excavation and consolidation of material within the limits of the JILF before placement of the RCRA Class C landfill cover [Navy, September 2003]. Wetlands were constructed within the excavated area in 2003, and construction of the cap was completed in September 2004. Management of groundwater migration (formerly OU6, see Section 1.4) was combined into the OU3 remedy through a second ESD [Navy, October 2005]. The OM&M program for OU3 was initiated in July 2006, and 11 rounds of sampling and inspection have been completed through spring 2012.

Five-year reviews for OU3 are required since hazardous substances, pollutants, or contaminants remain on site at levels that do not allow for unlimited use and unrestricted exposure. The first Five-Year Review Report for PNS was finalized in June 2007 [TtNUS, June 2007], and the second Five-Year Review Report for PNS was finalized on May 31, 2012. Major activities and reports prepared for OU3 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Revised OU3 Risk Assessment for OU3	TtNUS, 2000	N00102.AR.000922
Final FS for OU3	TtNUS, November 2000	N00102.AR.000922
ROD for OU3	Navy, August 2001	N00102.AR.001018
Phase I remedial design, evaluation of consolidation for MBII area and Jamaica Cove area, and Phase II remedial design	US Army, June and November 2002	N00102.PF.001139, N00102.PF.001143, N00102.PF.001149, and N00102.PF.001195
Changes to OU3 ROD documented in ESDs	Navy, September 2003 and October 2005	N00102.PF.001293 and N00102.PF.001493
Final Remedial Action Construction Report	TtEC, May 2006	N00102.PF.001561
Post-remedial OM&M plan (without Land Use Control Remedial Design)	TtNUS, June 2006	N00102.PF.001566 and N00102.AR.001567
First Five-Year Review Report	TtNUS, June 2007	N00102.PF.001601
OU3 Rounds 1 through 4 evaluation report	TtNUS, July 2009	N00102.PF.000910
Final Rounds 1 through 9 evaluation report	TtNUS, April 2011	N00102.AR.002563
Final LUCRD	Navy, August 2011	N00102.AR.002574
OU3 Post Remedial OM&M Plan (Revision 1, Vol. 1 & 2)	TtNUS, December 2011	N00102.AR.002638 and N00102.AR.002639
Second Five-Year Review Report	Tetra Tech, May 2012	Not Yet Assigned

Activities Completed in FY 2012

Rounds 10 and 11 of the OM&M sampling and inspection were completed in 2011 and 2012 respectively, and included installation of French drains in January 2012 to improve drainage in the northern ends of OU3. The second Five-Year Review Report was finalized in May 2012.

CERCLA Path Forward

The CERCLA path forward for OU3 is as follows:

- Near Term Milestones
  - Post-remedial OM&M field work and reporting (including sampling, landfill inspection, and LUC inspection)
  - Remedial Action Completion Report (RACR)
- Out Year Milestones
  - Long-term Management (including sampling, landfill inspection, and LUC inspection)
  - Five-year reviews

The schedule for upcoming activities and milestones for OU3 is included in Attachment B.

3.4 Operable Unit 4 (OU4)

Site Description

OU4 is the offshore area of the Piscataqua River and the Back Channel around PNS and consists of Site 5 (Former Industrial Waste Outfalls) in addition to areas offshore of PNS that potentially were affected by PNS onshore ERP sites as shown on Figure 2. Site 5 is located within the Dry Docks AOC and consisted of numerous discharge points along the Piscataqua River in the berth area by the dry docks in the western end of PNS. Site 5 had offshore impacts without any onshore impacts. Maintenance dredging is conducted periodically in the berth areas in the Dry Docks AOC. Onshore OUs with sites that have potential offshore impacts are OU1 (Section 3.1), OU2 (Section 3.2), OU3 (Section 3.3), OU7 (Section 3.5), OU8 (Section 3.6), and OU9 (Section 3.7).

Nature and Extent of Potential Contamination

The outfalls associated with Site 5 were used from approximately 1945 to 1975 to discharge liquid industrial wastes (primarily from acidic, alkaline, and metal-plating rinse baths) to the offshore. The wastewaters may have contained heavy metals (mercury, lead, cadmium, chromium, copper, and zinc), oils and grease, and PCBs. Lead sediment from decommissioned batteries (as part of operations at Site 10) was also reportedly included in the discharges to the river before 1975 [Weston, June 1983].

The EERA identified near-shore habitats adjacent to PNS that may have been affected by onshore ERP sites as AOCs, including Clark Cove, Sullivan Point, DRMO Storage Yard, Dry Docks, Back Channel, and Jamaica Cove [NCCOSC, May 2000; Johnston, et. al., December 1994].

An Interim ROD for OU4 was signed in May 1999 that requires the Navy to conduct an interim remedy and offshore monitoring for OU4 until a final remedy is implemented [Navy, May 1999]. The Interim Offshore Monitoring Plan (Revision 0), was finalized in October 1999 and updated (Revision 1) in November 2010. The monitoring plan specifies the sampling locations, analytical program, and frequency of sampling. The Interim Offshore Monitoring Program includes 14 monitoring stations in the PNS offshore AOC areas, as shown on Figure 5. The monitoring program began in 1999 and initially included sediment, mussel, and juvenile lobster sampling and analysis [TtNUS, October 1999]. The data from Rounds 1 and 2 were used to develop PRGs for OU4 that are being used as Interim Remediation Goals (IRGs) for making decisions as part of the Interim Offshore Monitoring Program [TtNUS, November 2001]. Evaluation of the data from Rounds 1 through 4 resulted in changes to the Interim Offshore Monitoring Program [TtNUS, July 2002], including to discontinue select analyses for sediment (acid volatile sulfides and simultaneously extracted metals), discontinue juvenile lobster sampling, and only conduct subsequent sampling (starting with Round 5) during late summer. Additional evaluation based on Rounds 1 through 7 recommended that only sediment be sampled during Rounds 8 and 9 (no mussel sampling) and to discontinue alkylated PAH analysis for sediment samples. The Navy prepared an update (Revision 1) to the Interim Offshore Monitoring Plan [TtNUS, November 2010] for monitoring subsequent to Round 10 which concluded that monitoring is no longer required at several monitoring stations, as discussed below. Round 11 was completed in April 2011. A description and current status of each monitoring station is provided below.

- MS-01: This monitoring station is located in the western portion of the Back Channel AOC, offshore of Site 34 (OU9). In 2007, a non-time-critical removal action was conducted for source material at Site 34, and additional sediment sampling at MS-01 was conducted in August 2009 to determine the extent of PAH contamination. Rounds 8, 9, and 10 sampling were not required for MS-01, but monitoring of sediment for PAHs was conducted at this station during Round 11.

- MS-02 and MS-10: These monitoring stations are located in the Back Channel and Sullivan Point AOCs, respectively, and are not located immediately offshore of any ERP sites. In accordance with the 2010 Interim Offshore Monitoring Plan, interim offshore monitoring was discontinued at these stations and no additional offshore actions are needed for these stations

because chemical concentrations in sediment are less than IRGs, and the data do not indicate any impacts from known ERP sites.

- MS-03 and MS-04: These monitoring stations are located in the eastern portion of the Back Channel AOC, offshore of Site 32 (OU7). Elevated metals concentrations have been detected at these stations, and foundry slag associated with Site 32 has been identified in the intertidal areas and is likely the source of the elevated metals concentrations at these stations. In June 2006, a time-critical removal action was conducted to provide shoreline erosion controls where significant erosion of the shoreline was occurring. Surficial debris (including slag) was removed from the shoreline, and shoreline controls were placed along the entire Site 32 shoreline in the mid- to high-tide area. Additional sampling was conducted in 2008 as part of Phase II RI field work for OU7 to determine the extent of copper and PAH contamination in sediment [TtNUS, July 2011]. Rounds 8, 9, and 10 sampling were not required for these monitoring stations. Monitoring of sediment for PAHs and copper was conducted at this station during Round 11.

- MS-05, MS-06, MS-07, MS-08, and MS-09: MS-05 and MS-06 are located in the Jamaica Cove AOC. MS-07, MS-08, and MS-09 are located in the Clark Cove AOC. MS-05, MS-08, and MS 09 are immediately offshore of OU3, and MS-06 and MS-07 are in the offshore area adjacent to OU3. An increase in chemical concentrations was identified within MS-05 and MS-09 after OU3 remedial action construction, and additional scrutiny investigation was conducted to delineate the area of elevated chemical concentrations in these two stations [TtNUS, February 2010], and additional sampling (during Rounds 8, 9, and 10) was conducted for MS-05, MS-08, and MS-09 to evaluate concentration trends post-remedial action. Chemical concentrations in sediment at MS-05, MS-08, and MS-09 during the recent sampling events were less than IRGs MS-06 and MS-07 have not had exceedances of IRGs, indicating that sediment in the offshore area adjacent to OU3 has not been impacted by OU3. Monitoring of sediment for PAHs and metals at MS-05 and for PAHs, 4,4'-DDT, dioxins/furans, PCBs, and metals at MS-08 and MS-09 was conducted during Round 11. Sediment at MS-07 also was monitored during Round 11 as a reference station for MS-08 and MS-09. In accordance with the 2010 Interim Offshore Monitoring Plan, interim offshore monitoring was discontinued at MS-06.

- MS-11: This monitoring station is located in the DRMO Storage Yard AOC offshore of OU2. Erosion of metals-contaminated soil along a portion of the OU2 shoreline (by Site 6) was

identified in 1999, and a time-critical removal action was conducted to prevent further erosion of contaminants by placing shoreline erosion controls along a portion of the OU2 shoreline. The entire OU2 shoreline currently has some type of shoreline erosion controls following a time-critical removal action conducted in 2005 and 2006, and subsequent repairs in 2008, to provide shoreline erosion controls along the remaining portion of the OU2 shoreline (at the Site 29 shoreline). Sediment is present at only one location at MS-11 (on the eastern side of the monitoring station); the sediment concentrations at the other two locations (for comparison to IRGs) were estimated using mussel data from those locations. Additional scrutiny was conducted to confirm that elevated concentrations of metals (copper, lead, and nickel) in MS-11 sediment on the eastern side of the monitoring station were likely from erosion from OU2 [TtNUS August 2007]. Rounds 8, 9, and 10 sampling were not required for MS-11. Monitoring of sediment for copper, lead, and nickel was conducted at the location on the eastern side of this station during Round 11.

- MS-12: This station is located in the Dry Dock AOC offshore of Site 10 (OU1). One industrial waste outfall (Site 5) historically discharged into the offshore area of Site 10 prior to 1975, likely with wastewater from Site 10 operations. There are no current ERP sources to MS-12. Groundwater data from Site 10 do not indicate that lead in soil is leaching to groundwater at concentrations that would adversely impact the off shore, and PAHs are not chemicals associated with the Site 10 source. The elevated levels of lead and/or PAHs at MS 12 may be caused by a combination of sources that may or may not be related to PNS, including potential migration or transport from ERP sites, discharges from barges/boats, discharges from storm water outfalls located in the vicinity of the shipyard, and dock-side activities. Additional scrutiny was required for MS-12 to determine the extent and potential sources of contamination [TtNUS, February 2010]. Rounds 8, 9, and 10 sampling were not required for MS-12. Monitoring of sediment for PAHs and lead was conducted at this station during Round 11.

- MS-13 and MS-14: These stations are located in the Dry Dock AOC to monitor sediment potentially impacted by Site 31 (OU8). Industrial waste outfalls (Site 5) historically discharged in this area prior to 1975. The area by MS-13 was dredged between January and April 2002 (between Rounds 5 and 6). Potential sources of PAHs detected in sediment at these stations that may or may not be related to PNS include potential migration or transport from ERP sites, discharges from barges/boats, discharges from storm water outfalls located in the vicinity of the shipyard, and dock-side activities. Round 8 sampling was required for these monitoring stations; additional scrutiny was not required. PAH concentrations in most samples were less than IRGs.

No additional monitoring or action are needed at these stations because of infrequent number of exceedances of IRGs over the eight rounds of sampling and because the data do not indicate any impacts from ERP sites. In accordance with the 2010 Interim Offshore Monitoring Plan, interim offshore monitoring was discontinued at these stations.

A list of important OU4 historical events and environmental investigations with relevant dates is shown below.

Event	Date
Outfalls in the Dry Dock area were used to discharge industrial wastes into the Piscataqua River	~1945 to 1975
Sanitary and storm sewer systems separated; industrial discharge through outfalls discontinued	Completed by 1975
Industrial waste outfalls first identified as a site and operations that previously discharged to the outfalls are identified (as part of the IAS)	1983
Environmental sampling began including the offshore (as part of FCS)	1984
Phase I and Phase II offshore sampling for offshore human health and ecological risk assessments conducted	1991 to 1993
Interim offshore monitoring conducted (11 Rounds) and additional scrutiny investigation	1999 to 2011

CERCLA Remedial Summary

Environmental investigations and risk assessment identified several human health and ecological risks. An Interim ROD for OU4 was signed in May 1999 that requires the Navy to conduct an interim remedy for OU4 and interim offshore monitoring until a final remedy is implemented [Navy, May 1999]. The Interim Offshore Monitoring Plan, Revision 0, was finalized in October 1999 and updated (Revision 1) in November 2010, and the monitoring plan specifies the sampling locations, analytical program, and frequency of sampling. OU4 is currently in the FS phase of CERCLA. Major activities and reports prepared for OU4 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Final HHRA Report for Offshore Media	McLaren/Hart, May 1994	N00102.AR.000229
Interim ROD for OU4, interim offshore monitoring plan, and first round of sampling	Navy, May 1999 and TtNUS October 1999	N00102.AR.000676 and N00102.AR.000750
Final EERA document	NCCOSC, May 2000	N00102.AR.000838
PRGs for OU4	TtNUS, November 2001	N00102.AR.001062
Baseline evaluation of first four rounds of interim offshore monitoring data	TtNUS, July 2002	N00102.AR.001150
Evaluation of first seven rounds of interim offshore monitoring data, and stations requiring additional scrutiny and/or additional monitoring (as part of Rounds 8 and 9)	TtNUS, November 2004	N00102.AR.001416/ N00102.AR.001417
Work plan (QAPP) for additional scrutiny investigation and Round 8 and additional scrutiny investigations	TtNUS, August 2005	N00102.AR.001484
Additional scrutiny investigation report and work plan for second phase of additional scrutiny	TtNUS, August and September 2007	N00102.AR.001612 and N00102.AR.001619
Final Evaluation report for first 10 rounds	TtNUS, February 2010	N00102.AR.001716
Draft FS Report	TtNUS, July 2010	Draft Document
Interim Offshore Monitoring Plan updated (Revision 1)	TtNUS, November 2010	N00102.AR.002514

Activities Completed in FY 2012

Round 11 of the Interim Offshore Monitoring was completed in spring 2011, and the Round 11 Data Package was submitted to USEPA and MEDEP in September 2011.

CERCLA Path Forward

The CERCLA path forward for OU4 is as follows:

- Near Term Milestones
  - Interim offshore monitoring until a final remedy is implemented
  - FS

  - PRAP/ROD
  - RD/RA
- Out Year Milestones
  - Five-year reviews (if necessary)

The schedule for upcoming activities and milestones for OU4 is included in Attachment B.

3.5 Operable Unit 7 (OU7)

Site Description

OU7 consists of:

- Site 32 – Topeka Pier Site

Site 32 encompasses approximately 17 acres of filled land on the northern shore of PNS, along the Back Channel of the Piscataqua River, from just west of Building 162 to east of former Building H29 and from the Back Channel south to Building 129 (Figure 2). The land is currently used for office parking (about 35 percent of the site area), equipment storage, vehicle and rail car maintenance, transducer repair, boat launch, temporary housing for Navy personnel (H23), and medical clinic (H1). The pier and offshore areas of OU7 are used for docking of boats.

The offshore area of OU7 is part of the Back Channel AOC which was investigated as part of the EERA. Sampling locations within monitoring stations MS-03 and MS-04 are located in the intertidal and subtidal area along the OU7 shoreline [TtNUS, November 2004, February 2010, November 2010]. The offshore area is discussed as part of OU4 in Section 3.4.

Nature and Extent of Potential Contamination

Topeka Pier was constructed in the Back Channel of the Piscataqua River to dock the prison ship USS Topeka. Storing and milling of lumber in the area began by 1910, and a timber basin was established at the southeastern corner of the site. The area west of the timber basin was used to store coal, wood, and scrap iron. Combustibles including paints and oils were stored in Building 98.

VOCs, SVOCs, pesticides, PCBs, dioxins, furans, and inorganics were detected in surface and subsurface soil samples. The average concentrations of chemicals in the fill area without debris in the vicinity of former Building 237 were determined to be statistically less than the average

concentrations for the rest of OU7 [TtNUS, July 2011]. Inorganics and SVOCs in a small number of samples were detected in groundwater

A list of important OU7 historical events and environmental investigations with relevant dates is shown below.

Event	Date
Filling of area conducted, including connecting Dennett's and Seavey Islands	1900 to 1945
Lumber storage and milling began (in southeastern corner of Site 32)	1910
Various buildings constructed to accommodate the increased demand for lumber during World War I, including a sawmill (Building 129), a lumber storehouse with timber racks (Building 132), and an additional lumber storehouse (Building 149)	Prior to 1920
Many current buildings built (to support World War II)	1941 to 1945
Wastes from buildings discharged to river; discontinued when sanitary sewer system installed	1940s to 1970s
Building 306 constructed as a transducer repair facility	1980
Excavation work along Goodrich Avenue and near Building H23 uncovered debris in area including large dry-cell batteries, graphite electrodes, brick, wood, metal pipe and wire, glass, asbestos cloth, and crucibles used in foundry operations. Site 32 identified as SSA	1994 to 1995
SSI and geophysical survey conducted	1998
SSI recommended RI	2000
Phase I RI field work conducted	2003
Parking area repaved	2003/2004
Emergency removal action (shoreline stabilization) conducted	June 2006
Phase II RI field work conducted	2008

CERCLA Remedial Summary

The RI identified several human health risks, and OU7 is currently in the FS stage of CERCLA. Major activities and reports prepared for OU7 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Final SSI Report	TtNUS, May 2000	N00102.AR.000812
Final RI Report	TtNUS, July 2011	N00102.AR.002634
Draft FS Report	TetraTech, May 2012	Draft Document

Activities Completed in FY 2012

The RI Report for OU7 was finalized in July 2011. The Draft FS Report was submitted in May 2012.

CERCLA Path Forward

The CERCLA path forward for OU7 is as follows:

- Near Term Milestones
  - FS
  - PRAP/ROD
  - RD/RA
- Out Year Milestones
  - Long Term Management with LUCS
  - Five-year reviews

The schedule for upcoming activities and milestones for OU7 is included in Attachment B.

3.6 Operable Unit 8 (OU8)

Site Description

OU8 consists of:

- Site 31 – Former West Timber Basin.

OU8 is a paved area located in the CIA, in the northwestern portion of PNS (Figure 2). OU8 is an industrial area surrounded by buildings or dry docks. The main site features were associated with the former plate yard, which was a fenced area with railroad spurs. Building 92 located east of the former plate yard is the Structural Shop. The former plate yard office (Building 157) was demolished in 2006.

The offshore area near OU8 is part of the Dry Dock AOC which was investigated as part of the EERA. Sampling locations within monitoring stations MS-13 and MS-14 in the Interim Offshore Monitoring Program were located adjacent to Dry Dock No. 1 to the east and east of Dry Dock No. 3, respectively (Figure 5). The offshore area is discussed as part of OU4 in Section 3.4.

Nature and Extent of Potential Contamination

During the early 1900s, wood for shipbuilding was stored and seasoned in the West Timber Basin (Site 31). A metal washing plant (Building 110) for the recovery of metals from the ash and skimmings of the brass foundries on the Shipyard was erected on the northern side of Site 31, and by-products from the plant were reportedly discarded into the timber basin. In addition, by-products from smelting and pigging (the process of pouring melted iron from a form into a mold) operations at the Shipyard were deposited into the timber basin. In 1940 a new plate yard was constructed near the quay wall and was active until 1960 serving as the primary steel storage yard and pickling location at the Shipyard.

Environmental sampling at OU8 was conducted as part of the SSI in 1998 [TtNUS, May 2000] to determine the presence or absence of contamination and to determine whether further investigation under CERCLA was needed for the site. The investigation showed that fill material varies in thickness from 8.5 to 17.5 feet across the site and consists mostly of sand, silt, and rock fragments, with trace amounts of brick and other debris. In addition, a wedge of coal, cinders, and ash (approximately 8 feet thick, starting around 2 to 4 feet below ground surface) exists in the northern part of the site, tapering to the south to less than 1 foot thick. Groundwater at OU8 appears to be tidally influenced and ranges from saline/brackish along the perimeter of the site to fresh/mildly brackish further inland. Chemicals detected in site soils were PAHs and metals.

A list of important OU8 historical events and environmental investigations with relevant dates is shown below.

Event	Date
Wood storage and seasoning for shipbuilding conducted in West Timber Basin	Early 1900s to 1913
Filling of West Timber Basin began	1916
Quay wall installed to enclose the basin	1917
Metal washing plant (Building 110) constructed	1920s
Filling of basin enclosed by quay wall with rock, soil, cinders, and other waste and scrap material.	1920 to 1940
Buildings 110, 51 (acetylene plant and former pitch plant), and 83 (latrine) razed, pickling tanks adjacent to Building 110 removed, and train tracks constructed	1940
Building 92 extended over a portion of timber basin	1940
Plate yard with pickling tanks and washing aprons active	1940 to 1960

Event	Date
Pickling tanks removed after use of plate yard discontinued	Unknown (after 1960)
SSI conducted	1998
Removal of surface features and initial construction activities associated with expansion of Building 174	September to December 2006

CERCLA Remedial Summary

Based on the results of the SSI, the site was recommended for further investigation as part of an RI. The SSI identified several contaminants of concern that exceed residential and/or industrial risk-based screening levels. Major activities and reports prepared for OU8 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Final SSI Report	TtNUS, May 2000	N00102.AR.00812

Activities Completed in FY 2012

Construction of a new building in and around OU8 has been ongoing in 2011 and 2012. RI activities will commence when construction is complete.

CERCLA Path Forward

The CERCLA path forward for OU8 is as follows:

- Near Term Milestones
  - RI Work Plan / RI
  - FS
  - PRAP/ROD
  - RD/RA
- Out Year Milestones
  - Five Year Reviews (if necessary)

The schedule for upcoming activities and milestones for OU8 is included in Attachment B.

3.7 Operable Unit 9 (OU9)

Site Description

OU9 consists of:

- Site 34 – Former Oil Gasification Plant, Building 62

OU9 is located in the central portion of PNS (Figure 2). The buildings at and in the vicinity of OU9 are used for industrial and commercial uses. Paved areas within OU9 are used for parking. Building 62 and its annex currently are used by the NAVFAC Mid-Atlantic Public Works Department as a mini-bulldozer shop and for storage. OU9 is in a historic district at PNS, and buildings at and near the site (Buildings 40, 43, 60, and 62) are considered contributing elements to the National Registry District [Louis Berger Group, April 2003]. There is a small, relatively flat grassy area within OU9. North of Building 62 Annex and northeast of Building 62 generally the area slopes gently north towards the roadway and then slopes steeply (i.e., forms ledges) to the water's edge at the shoreline adjoining the Back Channel of the Piscataqua River. Access to the shoreline from the site is difficult because of the rapid changes in terrain at the ledges.

Nature and Extent of Potential Contamination

Combustion of coal and conversion of kerosene to illuminating gas were performed at the Former Oil Gasification Plant (Building 62) from the 1870s to early 1900s. Ash was generated from the oil gasification process and blacksmith shop which operated from 1915 to 1930. Ash was deposited primarily north of Building 62 and resulted in an ash pile that was removed in 2007. Pesticide storage activities were also conducted in Building 62.

A list of important OU9 historical events and environmental investigations with relevant dates is shown below.

Event	Date
Ash was generated during coal (fuel) combustion as part of oil gasification process	1870s to early 1900s
Ash was generated during coal (fuel) combustion as part of blacksmithing operation	1915 to 1930
Building 62 reportedly gutted by fire	1919
Shipyard Public Works Department uses Building 62 for storage	1930 to Present
Pesticides stored at Building 62	1960s to 1985

Event	Date
Site identified as SSA, and six drums of ash removed from pile (less than 2 cubic yards) removed from pile north of Building 62	1998 and 1999
Soil and sediment sampling	1998 and 2003
SSI conducted and extent of ash investigated	2004
Public comment period held	2005
Removal action conducted	2007
RI sampling conducted	2009 and 2010

High concentrations of PAHs and metals are associated with the presence of ash in site samples. Concentrations of PAHs and metals are typically low in samples without ash. The visual presence of ash was used to define the approximate extent of contamination as part of the 2004 investigation. The depth to the bottom of the deepest ash layer was five feet below grade, and typically significant reductions in concentrations were observed with depth beneath the deepest ash layer. Based on data from temporary wells (installed and subsequently abandoned), no overburden groundwater is present at the site. The depth to bedrock varies from five to 12 feet.

CERCLA Remedial Summary

An RI was recommended for Site 34 to assess the potential risks based on the results of the SSI [TtNUS, August 2004]. Based on the results of the SSI, several human health risks were identified from exposure to ash material at the site. In response to these risks, an EE/CA was completed in 2005 that recommended excavation and offsite disposal of the ash pile and ash exposed at shoreline ledge areas [TtNUS, September 2005], and a non-time-critical removal action to implement these recommendations was completed in 2007. The Navy recommended that a removal action be performed before the RI because PAH and metals concentrations in the ash material were much greater than risk screening levels and would result in potentially unacceptable risks if the ash were uncovered. The 2007 ash removal action addressed nearly all unacceptable risks at the site since the majority of contamination at the site appeared to be associated with ash material. The RI evaluates residual site-related risks after removal of the ash. Major activities and reports prepared for OU9 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Final EE/CA for Site 34	TtNUS, September 2005	N00102.AR.001495
Action memorandum for removal action	Navy, February 2007	N00102.AR.001532
Final Removal action design	June 2007	N00102.AR.001604
Removal action construction report	Shaw, July 2008	N00102.AR.001670
Final RI Work Plan	TtNUS, July 2009	N00102.AR.001744
Final RI Report	Tetra Tech, June 2012	Not Yet Assigned

Activities Completed in FY 2012

The RI Report was finalized in June 2012. The Draft FS report will be submitted in summer 2012.

CERCLA Path Forward

The CERCLA path forward for OU9 is as follows:

- Near Term Milestones
  - FS
  - PRAP/ROD
  - RD/RA
- Out Year Milestones
  - Long-term Management (including LUCs)
  - Five Year Reviews

The schedule for upcoming activities and milestones for OU9 is included in Attachment B.

3.8 Site Screening Area

Site Description

The Site Screening Area (SSA) is a study area at PNS under investigation to determine whether further action as part of an RI/FS is needed. The SSA consists of:

- Site 30 – Galvanizing Plant, Building 184

Site 30 is located in the central portion of PNS (Figure 2). Building 184 was vacated in 2010 and will be remodeled for occupation by Autonomous Underwater Vehicle personnel. Prior to 2010,

Building 184 was used for industrial purposes (welding school) and is a historically significant building [Louis Berger Group, April 2003]. The surrounding buildings are commercial and industrial.

Nature and Extent of Potential Contamination

Building 184 was constructed in 1943 as a galvanizing plant. After World War II, Building 184 was converted from a galvanizing plant to the Shipyard's electrical testing laboratory. The building was used as a welding school from the early 1960s until 2010. Little information is available about the specific types and quantities of chemicals used throughout the history of Building 184. Chemicals associated with galvanizing and other industrial operations similar to those performed in Building 184 include caustic solutions (sodium hydroxide, sodium carbonate, trisodium phosphate, and tetrasodium pyrophosphate), acid solutions (hydrochloric and sulfuric), and flux solutions (sodium silicate). Tanks were used for metal parts assembly and were filled with various chemicals including large amounts of sulfuric acid, trisodium phosphate, alcohol, and acetone [Navy, January 2006]. With the changes in usage of Building 184, the use of the tank vault also changed, and it has been covered and uncovered several times.

Environmental investigations at Site 30 indicated that soil and groundwater sampled outside the building were not impacted by any potential environmental releases from the tank vault inside the building. However, additional investigation activities were recommended at the former tank vault within Building 184. Test pitting activities conducted in 2001 indicated the presence of chemicals that are likely residuals from the cleaning operations. In addition, water was observed in the tank vault. Based on differences in elevations between the vault water and groundwater in monitoring wells outside the building, the water in the tank vault is likely not hydraulically connected to site groundwater. The building does not have gutters or downspouts, so it is likely that ponding of water against the brick outer wall of the building seeps through the masonry.

Based on site conditions, the Navy determined that a non-time-critical removal action was appropriate for the tank vault at Site 30 to mitigate environmental hazards to human and environmental receptors before determining whether an RI/FS is necessary. As described in the 2005 EE/CA a removal action was completed that included regrading the area outside Building 184 to eliminate stormwater ponding along the wall adjacent to the tank vault in addition to periodic scraping and appropriate disposal of a crystalline substance growing along the eastern wall boundary with the tank vault. A follow-up EE/CA in 2010 recommended removal of the tank vault.

A crystalline substance has been observed along eastern edge of the tank vault and in other areas of the building not associated with the tank vault. The crystalline substance was first observed in

1973 and again in 1994 and 1996. The crystals had a low pH (around 1.0 or 2.0) and were composed of predominantly sulfate and metals. The material was not hazardous based on Toxicity Characteristic Leaching Procedure (TCLP) characteristics but may be hazardous based on the RCRA corrosivity criterion because of the caustic nature of the crystals [Navy, January 2006]. It had been assumed that water coming in contact with crystalline materials within the tank vault was the cause of the crystalline growth along the outside edges of the tank vault. However, crystalline materials are still present following the Removal Action. Additional sampling of the crystalline material was performed for crystallography analysis in April 2012.

A list of important Site 30 historical events and environmental investigations with relevant dates is shown below.

Events	Date
Building 184 constructed as galvanizing plant (acid proof vault used)	1943
Building 184 converted to an electrical testing facility (vault covered)	1946
Building 184 converted to clean room facility for cleaning metals parts (vault uncovered and used)	Between 1954 and 1956
Building 184 used as welding school (tank vault covered with concrete floor)	Early 1960s to 2010
Crystalline substance observed along edge of vault	1973
Crystalline substance observed and analyzed	1994 and 1996 to 1997
SSI conducted	1998
Test pitting within tank vault, and samples of fill material and crystalline substance analyzed	2001
Periodic removal of crystalline material by Shipyard	1997 to 2006
Removal of crystalline material and covering of affected area	2006
Regrading and paving conducted to redirect storm water runoff away from Building 184	2007

CERCLA Remedial Summary

Environmental investigation identified the potential for exposure to human and environmental receptors to hazardous substances. In response to these potential risks, a removal action was completed in 2011. Following the removal action, a No Further Action Decision document is being prepared. Major activities and reports prepared for Site 30 under CERCLA are presented below.

Document	Author/Date	Administrative Record Number
Final SSI Report	TtNUS, May 2000	N00102.AR.000812
Final EE/CA for Site 30 (Revision 1)	TtNUS, August 2005	N00102.AR.001485
Action memorandum for non-time-critical removal action	Navy, January 2006	N00102.AR.001522
Final EE/CA (Revision 2) for tank vault removal	TtNUS, October 2010	N00102.AR.002503
Action Memorandum (Revision 2) for tank vault removal	Navy, December 2010	N00102.AR.002518
Final Removal Action Work Plan	Shaw, July 2011	N00102.AR.002518

Activities Completed in FY 2012

A removal action was conducted to remove the fill material in the Site 30 vault. The Final Removal Action Work Plan was submitted in July 2011. Construction activities began in September 2011 and included removal of remaining equipment and the office and bathroom that was on top of the concrete slab covering the vault, removal of the concrete slab, and removal of the vault fill material. After excavation, the acid-proof brick lining of the vault was cleaned with push brooms and low-pressure water streams. Neither the excavated fill material nor the bricks lining the vault had any observable signs of contamination (odors or staining), and no visible penetrations to the underlying concrete vault were noted in the brick lining. Sampling of the excavated fill showed that it met beneficial reuse requirements (suitable for use as daily landfill cover). Concrete and brick samples had concentrations less than removal action levels. Based on the excellent condition of the tank vault lining (i.e., bricks) and the nature of the fill material, it was agreed between the Navy, USEPA, and MEDEP to not remove the acid-proof brick lining and underlying concrete, which was a removal action requirement. Additional sampling of the crystalline material was performed in April 2012.

CERCLA Path Forward

The CERCLA path forward for Site 30 is as follows:

- Near Term Milestones
  - Construction Completion Report
  - No Further Action Decision Document

The schedule for upcoming activities and milestones for Site 30 is included in Attachment B.

4.0 SITE RANKING

A relative risk ranking was conducted from 1995 to 1999 prior to the signing of the FFA to assist in prioritizing site cleanups. Using the DoD developed Relative Risk Site Evaluation framework, sites are categorized into High, Medium, and Low relative risk groups based on an evaluation of contaminants, pathways, and human and ecological receptors Each of these environmental media are evaluated using three factors: the contaminant hazard factor (CHF), the migration pathway factor (MPF), and the receptor factor (RF). Upon determination of the CHF, MPF, and RF a decision matrix was utilized to determine the category of relative risk for each media as High, Medium, or Low. The relative risk category for a site is determined from the highest rating resulting from the evaluation of the three media. A site's rating may change based on new or additional information or as a result of remediation activities. Site that were determined to be NFA prior to the signing of the FFA were not included in the risk ranking.

Table 4 presents a summary of relative risk ranking results determined prior to the FFA and which sites have had remediation activities completed or proposed and where LUCs have been implemented.

5.0 SCHEDULES

In accordance with the FFA (Section 12), as part of the annual SMP update schedules are developed for each site at PNS showing proposed activities for the FY 2013 and FY 2014 (FY+1). In addition, activities completed or scheduled in FY 2012 are also presented. Schedules are developed using the current status of activity anticipated and projected funding availability. Line item durations were developed using durations for specific process activities provided in the FFA. Schedules for OU1, OU2, OU3, OU4, OU7, OU8, OU9, and Site 30 are attached as Attachment B.

All FFA "deliverables" required during the cleanup process are included. Primary documents are prepared by the Navy and include draft and draft final submission and review by USEPA and MEDEP. Responses to comments on the draft document are prepared by the Navy. If comments are not received on the draft final version, it becomes the final document; if comments are received on the draft final document, the Navy will make the necessary modifications will be made and issue the final Primary Document. Secondary documents, as listed in the FFA, also undergo review; however, a draft final version is not provided. The FFA (Section 10.0) defines review, response and revision time frames for Primary and Secondary documents.

6.0 LAND USE PLANNING

As an active Navy facility, PNS is subject to ongoing operations, maintenance, and improvements. Based on anticipated site use and receptors, LUCs have been implemented at some ERP sites to be protective where contamination has been left in place. In order to maintain protectiveness of human health, the environment, and the implemented remedy, it is crucial to identify and communicate which areas at PNS are subject to LUCs. The Sites with LUCs in place are:

- Site 10 – Former Battery Acid Tank No. 24 (OU1)
- Site 6 – DRMO Storage Yard (OU2)
- Site 29 – Former Teepee Incinerator Site (OU2)
- Site 8 – Jamaica Island Land Fill (OU3)

This information is made available on the Naval Installation Restoration Information Solution (NIRIS) address environmental considerations during planning and decision making. Contact information is listed below:

Naval Facilities Engineering Command, Mid Atlantic
9742 Maryland Avenue
ATTN CODE OPTE3-2
Norfolk, VA 23511-3095

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TABLES

Table 1
Major Phases of the CERCLA Process
Portsmouth Naval Shipyard, Kittery, ME

Phase	Description
Preliminary Assessment (PA) / Site Investigation (SI)	The PA is a limited assessment designed to differentiate between sites that may pose a threat to human health or the environment and require further investigation and sites that pose little or no threat. At Federal Facilities, the lead agency (the Navy) collects the data for the PA, and USEPA evaluates the PA data. The PA relies heavily on existing information, and environmental samples are rarely collected. If the PA results in a recommendation for further investigation, an SI is conducted. The SI generally includes collection of environmental and waste samples to determine if activities at the site have impacted environmental media and if a site should be included in the CERCLA RI/FS process. As outlined in the FFA, the Site Screening Process (SSP) is an alternative to the PA/SI process.
Remedial Investigation (RI)	The RI collects environmental samples to determine the nature and extent of contamination, potential migration pathways, toxicity and persistence of contaminants, and potential (risk) for adverse impacts to human health or the environment.
Feasibility Study (FS)	The FS develops remedial objectives, identifies ARARs (Applicable or Relevant and Appropriate Requirements), identifies and screens remedial technologies, develops and analyzes remedial alternatives, and compares the alternatives against the CERCLA criteria (protection of human health and the environment, compliance with ARARs, reduction of toxicity, mobility, or volume through treatment, short-term effectiveness, long-term effectiveness, implementability, cost, state acceptance, community acceptance) in support of selecting a remedy.
Proposed Plan (PP) / Proposed Remedial Action Plan (PRAP)	The PP or PRAP presents the remedial alternatives developed in the FS and describes the preferred remedial alternative recommended for implementation. The public has an opportunity to comment during a formal public comment period.
Treatability Study	Treatability studies are performed to assist in the evaluation of a potentially promising remedial technology. The primary objectives of treatability testing are to provide sufficient data to allow treatment alternatives to be fully developed and evaluated during the FS and support the remedial design of a selected alternative. The need for a treatability study is generally identified during the FS, but treatability studies may be conducted at any time during the CERCLA process. Treatability studies can be bench-scale (laboratory study) and/or pilot-scale (field studies).
Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action	Removal actions are implemented to clean up or remove hazardous substances from the environment to mitigate the spread of contamination. Removal actions may be implemented at any time during the CERCLA process. Actions taken immediately to mitigate an imminent threat to human health or the environment, such as the removal of corroded or leaking drums, are classified as time-critical removal actions. Removal actions that may be delayed for 6 months or more without significant additional harm to human health or the environment are classified as non-time-critical removal actions. The EE/CA identifies the objectives of the removal action and analyzes the effectiveness, implementability, and cost of various alternatives.
Record of Decision (ROD)	The ROD is issued to explain the selected remedial action. Public comments received during the PP are addressed as part of the Responsiveness Summary in the ROD. A notice to the public is issued when the ROD is signed by Navy and USEPA following State concurrence.
Remedial Design (RD) and Remedial Action (RA)	The RD phase develops technical specifications for cleanup remedies and technologies to be designed, and if necessary includes generating the Land Use Control Remedial Design. The RA is the actual construction or implementation phase of the cleanup process.
Five Year Review	Five-year reviews generally are required when hazardous substances remain on site above levels that do not permit unlimited use and unrestricted exposure. Five-year reviews provide an opportunity to evaluate the implementation and performance of a remedy to determine whether it remains protective of human health and the environment.
Response Complete (RC)/Remedy In Place (RIP)	The RIP milestone signifies the completion of the remedial action construction phase and that the remedy has been implemented and has been demonstrated to be functioning as designed. RC is the point at which the remedy has achieved the required reduction in risk to human health and the environment (cleanup goals have been met). RC is followed by site closeout. Once all RCs and RIPs have been documented for every site at the facility and the terms of the FFA have been met, site closeout and NPL deletion is completed.

Table 2
Summary of Environmental Restoration Program Sites
Portsmouth Naval Shipyard, Kittery, Maine

Site	Other ID[1]			Operable Unit[2]	Site Name[2]	Site Description	Current CERCLA Status	Comments/Notes
	IAS (1983)	RFI (1992)	FFA (1999)					
10	Not Identified	SWMU 10	SWMU 10	OU1	Former Battery Acid Tank No. 24	Past release of acidic discharges from piping and former underground storage tank associated with lead-acid battery recharging operations in Building 238 at the site resulted in soil contamination on site and sediment contamination off shore (in a portion of the Dry Dock AOC). Tank and surrounding soil was removed in 1986 as part of tank closure. Soil where unacceptable risks identified excavated and disposed off-site as Remedial Action. LUC will prevent future residential land use.	RA	OU1 RI Report finalized in July 2007 . OU1 FS Report and PRAP were finalized in June 2010. OU1 ROD was signed in September 2010. Remedial Action consisting of excavation and backfill performed October 2011 to March 2012. Final LUCRD was filed with the appropriate municipal land use offices in Kittery, ME and Portsmouth, NH in March 2012 to prevent residential use of the property and there will be no further risk exposure.
6	Not Identified	SWMU 6	SWMU 6	OU2	Defense Reutilization and Marketing Office (DRMO) Storage Yard including DRMO Impact Area (Quarters S, N, and 68)	Storage area for used materials that previously included lead and nickel-cadmium battery elements. In 1983 open storage of batteries was discontinued. In 1993 portions of site were capped or paved as part of interim corrective measures. In 1999, 2005, 2006, and 2008 shoreline stabilization activities were conducted for different portions of the shoreline. A removal action conducted for the DRMO Impact Area in 2010 consisted of soil excavation and off-site disposal.	RD/RA	OU2 Supplement RI Report finalized in March 2010. OU2 FS Report and PRAP finalized in April and August 2011. OU2 ROD signed in September 2011. Final LUCRD filed with the appropriate municipal land use offices in Kittery, ME and Portsmouth, NH in March 2012. Draft Remedial Design submitted in April 2012, to be followed by Remedial Action of the selected remedy described in the ROD.
29	Not Identified	Part of SWMU 6	Teepee Incinerator		Former Teepee Incinerator Site	Area formerly used for open burning, waste disposal, and industrial incineration. Site 29 was separated from Site 6 and made into a new site in 1998. Shoreline stabilization activities at Site 6 in 2005, 2006, and 2008 included a portion of the Site 29 shoreline.		
8	Site 1	SWMU 8	SWMU 8	OU3	Jamaica Island Landfill (JILF)	Historic 25-acre landfill. OU3 RA completed from 2002 to 2004 and included capping 22 acres and removal of 3 acres and replacement with wetlands.	LTM	OU3 ROD signed in 2001 addressed soil and groundwater. OU3 ESDs (2003 and 2005) for excavation, consolidation, and wetlands construction and to include groundwater migration remedy into OU3. Five-year review reports in 2007 and 2012. OU3 post-remedial OM&M has been performed since 2006, and long-term monitoring will continue. An updated OM&M Plan was submitted in December 2011. The final LUCRD was filed with the appropriate municipal land use offices in Kittery, ME and Portsmouth, NH in August 2011.
9	Sites 3 and 4	SWMU 9	SWMU 9		Former Mercury Burial Sites (MBI and MBII)	Concrete blocks and pipes containing mercury-contaminated wastes were buried within the Site 8 boundary. These vaults were removed in 1990s. No residual contamination from Site 9 found. Site 9 addressed by OU3 RA (see Site 8).		
11	Not Identified	SWMU 11	SWMU 11		Former Waste Oil Tanks Nos. 6 & 7	Former waste oil tanks within Site 8 boundary stored waste oils prior to offsite disposal. Tanks and soil removal performed in 1989. Site 11 addressed by OU3 RA (see Site 8).		
5	Site 2	SWMU 5	SWMU 5	OU4	Former Industrial Waste Outfalls	Numerous discharge points in the dry dock area were formerly used to discharge liquid industrial waste. Discharges were to the Dry Doc AOC portion of the offshore (see Offshore AOCs).	RI/FS	The Offshore HHRA in 1994 evaluated human health risks to surface water and sediment. The OU4 Interim ROD signed in 1999 established interim offshore monitoring for sediment. The EERA evaluated ecological risks to surface water and sediment. Interim offshore monitoring for OU4 has been performed since 1999. FS, PRAP, and ROD are the next steps for OU4.
Offshore AOCs	Not Identified	Not Identified	Offshore Areas		Offshore Areas Potentially Impacted by PNS Onshore IRP Sites	Based on the EERA (2000), six AOCs were identified in the offshore area that could have been impacted by onshore IRP releases. These are the Back Channel, Jamaica Cove, Clark Cove, Sullivan Point, DRMO Storage Yard, and Dry Dock AOCs. The interim offshore monitoring plan (1999), as required by the Interim ROD (1999), identified 14 monitoring stations the cover the offshore AOCs.		
32	Not Identified	Not Identified	Topeka Pier Site (SSA)	OU7	Topeka Pier Site	The 17-acre area was formerly used as a timber basin and was filled with soil, debris, and some waste material. Emergency removal action and shoreline stabilization conducted in 2006.	RI/FS	Soil, groundwater, intertidal surface water, and sediment sampling has been conducted. The OU7 RI finalized in November 2011. The Draft FS was submitted in May 2012. After the FS, PRAP and ROD are the next steps for OU7.
31	Not Identified	Not Identified	West Timber Basin (SSA)	OU8	Former West Timber Basin	Site originally for storage and seasoning wood for ship production, and metal washing and pickling activities occurred at the site. Portions of the site were filled in.	RI	Added as site based on 1998 SSI soil and groundwater sampling results. RI anticipated to be performed in FY 2013 after construction in this area of the CIA is completed.
34	Not Identified	Not Identified	Oil Gasification Plant, Building 62 (SSA)	OU9	Former Oil Gasification Plant, Building 62	Site was originally the location of the oil gasification plant. Site also used for blacksmith shop and pesticide storage. Burning of coal as part of operations resulted in contaminated soil around the building. Non-time-critical removal action completed in 2007 included excavation and offsite disposal of the ash pile and ash exposed at shoreline ledge areas. The ash removal action addressed nearly all unacceptable risks at the site.	FS/PRAP/ ROD	Soil sampling conducted in 2009 and 2010 to support RI. OU9 RI Report finalized in June 2012. The Draft FS will be submitted in 2012, and PRAP and ROD will be the next steps for OU9.
30	Not Identified	Not Identified	Galvanizing Plant, Building 184 (SSA)	SSA	Former Galvanizing Plant, Building 184	Originally a galvanizing plant where four-foot deep concrete tank vault within building contained pickling tanks and was later used for metal parts assembly. The tank vault was filled in during the 1960s, and fill material has high acid content (i.e., low pH). 2006 and 2007 removal action to remove crystalline material and redirect storm water away from building.	Removal Action / Decision Document	An EE/CA (Revision 2) was prepared for removal of tank vault contents and tank vault and associated Action Memorandum (Revision 2) was signed in December 2010. Removal action completed September to November 2011 and included removal of remaining equipment and the office that was on top of the floor covering the vault, removal of the concrete floor slab, and removal of the vault fill material. Construction Completion Report and No Further Action Decision Document are the next steps for Site 30.

Notes:

1. Other site identification nomenclature from previous documents.
   IAS = Initial Assessment Study, June 1983, Administrative Record Number N00102.AR.000002
   RFI = RCRA Facility Investigation Report (draft), July 1992, Administrative Record Number N00102.AR.000117
   FFA = Federal Facilities Agreement, September 1999, Administrative Record Number N00102.AR.000726. Site designation in FFA as provided in Appendices B (List of Areas of Concern) and C (List of Site Screening Areas) of the FFA.
2. Operable unit designation and Site Name are based on the Site Management Plan (SMP) provided in Appendix D of the FFA and subsequent annual amendments of the SMP.

Table 3
Sites Removed from Environmental Restoration Program
Portsmouth Naval Shipyard, Kittery, Maine

Site	Other ID[1]			Operable Unit	Site Name	Site Description	Current CERCLA Status	Comments/Notes[2]
	RFA (1986)	RFI (1992)	FFA (1999)					
1	SWMU 1	NA	NA	NA	Hazardous Waste Storage Facility	This unit was an active container storage area with a RCRA Permit. No additional action was required because it was a licensed RCRA facility with frequent inspections and no history of releases.	NFA	Eliminated from further investigation in the RFA.
2	SWMU 2	NA	NA	NA	Freon Recovery Operation	This unit was a still located in Building 174 and holding tank located outside of Building 174 that were used for reclaiming Freon solvent used in various operations. No additional action was required because the unit was certified closed in accordance with a State approved closure plan.	NFA	Eliminated from further investigation in the RFA.
3	SWMU 3	NA	NA	NA	Industrial Waste Treatment Plant	The treatment plant was located in Building 298. No additional action was required because there was no history of releases and the plant was in the process of obtaining a RCRA Permit.	NFA	Eliminated from further investigation in the RFA.
4	SWMU 4	NA	NA	NA	Interim Storage Facilities	This unit consisted of four temporary waste holding areas that were used before transfer of wastes to the Hazardous Waste Storage Facility (SWMU 1). No additional action was required because the unit was certified closed in accordance with a State approved closure plan.	NFA	Eliminated from further investigation in the RFA.
7	SWMU 7	NA	NA	NA	Interim Storage Areas	This unit consisted of four waste storage areas that were used for the storage of drummed facility wastes. No additional action was required because the unit was certified closed in accordance with a State approved closure plan.	NFA	Eliminated from further investigation in the RFA.
12	SWMU 12	SWMU 12	NA	NA	Boiler Blowdown Tank, Bulding 72 (Tank No. 25)	This unit was a 3,800-gallon underground, steel tank for boiler blowdown. The tank was removed as part of the RFI. There were no releases from this unit, and subsequently no further action was required.	NFA	NFA Decision Document signed July 1997 (AR No. N00102.AR.000447).
13	SWMU 13	SWMU 13	NA	NA	Rinse Water Tank, Building 76 (Tank No. 27)	This unit was a 700-gallon underground, steel tank for rinse waters from Building 76. The tank was removed as part of the RFI. There were no releases from this unit, and subsequently no further action was required.	NFA	NFA Decision Document signed July 1997 (AR No. N00102.AR.000447).
14	SWMU 14	NA	NA	NA	Waste Oil Tank No. 31	This unit was a 750-gallon underground, steel tank that was used to hold used oil from Building 72.	NFA	Eliminated from further investigation in the RFA.
15	SWMU 15	NA	NA	NA	Oil/Water Separator No. 32	This unit was a 5,400-gallon fiberglass tank used for oily wastewaters from Building 72.	NFA	Eliminated from further investigation in the RFA.
16	SWMU 16	SWMU 16	NA	NA	Rinse Water Tank, Building 174 (Tank No. 34)	This unit was a 750-gallon underground, steel tank that was used to hold rinse waters from Building 174 . The tank was removed as part of the RFI. There were no releases from this unit, and subsequently no further action was required.	NFA	NFA Decision Document signed July 1997 (AR No. N00102.AR.000447).
17	SWMU 17	NA	NA	NA	Floor Drain Tank No. 26	It was determined that this unit did not exist.	NFA	Eliminated from further investigation in the RFA.
18	SWMU 18	NA	NA	NA	Waste Lube Tank No. 35	This unit was a 4,500-gallon aboveground, steel tank used for used lubrication oil storage. No further action was required because it was a new tank (installed in 1982).	NFA	Eliminated from further investigation in the RFA.
19	SWMU 19	NA	NA	NA	Waste Oil Tank No. 37	This unit was a 500-gallon underground, steel tank that held used oil. No further action was required because it was a new tank (installed in 1985).	NFA	Eliminated from further investigation in the RFA.
20	SWMU 20	NA	NA	NA	Oil/Water Separator No. 38	This unit was a partially buried oil/water separator. No further action was required because it was a new unit (installed in 1985)	NFA	Eliminated from further investigation in the RFA.
21	SWMU 21	SWMU 21	SWMU 21	OU1	Acid/Alkaline Drain Tank No. 28	This unit was a 695-gallon underground tank that was used to store spent acid/alkaline cleaning solutions. The tank was removed as part of the RFI. Soil and groundwater sampling was conducted to confirm that a release from the tank did not result in unacceptable risks, and subsequently no further action was required.	NFA	NFA Decision Document signed February 2008 removed Site 21 from OU1. (AR No. N00102.AR.001647).

Table 3
Sites Removed from Environmental Restoration Program
Portsmouth Naval Shipyard, Kittery, Maine

Site	Other ID[1]			Operable Unit	Site Name	Site Description	Current CERCLA Status	Comments/Notes[2]
	RFA (1986)	RFI (1992)	FFA (1999)					
22	SWMU 22	NA	NA	NA	Chemical Cleaning Facility Tank, Building 155	This unit was a 4,000 gallon aboveground tank for collecting spills and wastes from metal surface cleaning operations. No further action was required because there was low potential for release.	NFA	Eliminated from further investigation in the RFA.
23	SWMU 23	SWMU 23	NA	NA	Chemical Cleaning Facility Tank, Building 174	This unit was a 2,270-gallon underground tank used to hold rinse waters from Building 174. The tank was removed as part of the RFI. There were no releases from this unit, and subsequently no further action was required.	NFA	NFA Decision Document signed July 1997 (AR No. N00102.AR.000447).
24	SWMU 24	NA	NA	NA	Asbestos Collection Dumpster	This unit was a central collection dumpster for asbestos waste that was located adjacent to the Hazardous Waste Storage Facility (SWMU 1). No further action was required because there was low potential for release.	NFA	Eliminated from further investigation in the RFA.
25	SWMU 25	NA	NA	NA	Burnable Dumpsters	This unit consisted of dumpsters to collect burnable wastes consisting mostly of paper. No further action was required because there was no evidence of a release of hazardous wastes or constituents.	NFA	Eliminated from further investigation in the RFA.
26	SWMU 26	SWMU 26	SWMU 26	OU4	Portable Oil Water Dumpsters	This unit consisted of dumpsters at the submarine berths used for oil/water wastes from cleanout of submarine bilges and various tanks. No further action was required for this unit because it consisted of portable tanks that were used for petroleum wastes only.	NFA	NFA Decision Document signed August 2001. NFA under CERCLA removed Site 26 from OU4. (AR No. N00102.AR.001019).
27	SWMU 27	SWMU 27	SWMU 27	OU5	Berth 6 Industrial Area/Fuel Oil Spill Area	A ruptured underground pipeline resulted in release of No. 6 fuel oil near Berth 6. The broken pipeline and surrounding contaminated soil was excavated. Other fuel oil lines that ran through Berth 6 that failed hydrostatic testing in 1981 were capped and abandoned in place. It was determined that petroleum product was the only contaminant of concern; therefore, no further action was required.	NFA	NFA Decision Document signed August 2001. NFA under CERCLA removed site from OU5. (AR No. N00102.AR.001020).
28	SWMU 28	NA	NA	NA	Silver Recovery System	Silver recovery operations for wastes with high silver content were conducted in several areas within buildings. Non-recoverable wastes were drummed and stored at the Hazardous Waste Storage Facility (SWMU 1). No further action was required because there was low potential for release.	NFA	Eliminated from further investigation in the RFA.
JILF Impact Area	NA	Portion of SWMU 8	JILF Impact Area	OU3	JILF Impact Area (Former CDC)	At the time the RFI for PNS was conducted, the Child Development Center (CDC) was located to the west of the JILF. Sampling in this area was conducted as part of the RFI to ensure that the children at the CDC were not being exposed to soil contaminated by wind dispersal of JILF contamination. When the CDC was moved to a different location, the area was referred to as the Former CDC. The building and playground equipment were removed and the area is currently used as an open-green space, with grass and trees covering the area. Sampling in the area indicated that it had not been impacted by the JILF and no further action was required.	NFA	NFA Decision Document signed in February 2008. NFA removed area from OU3. (AR No. N00102.PF.001648).

Notes:

1. Other site identification nomenclature from previous documents.

IAS = Initial Assessment Study, June 1983, Administrative Record Number N00102.AR.000002

RFA = RCRA Facility Assessment (RFA), July 1986, Administrative Record Number N00102.AR.0000014 (including Addendum to RFA)

RFI = RCRA Facility Investigation Report (draft), July 1992, Administrative Record Number N00102.AR.000117

FFA = Federal Facilities Agreement, September 1999, Administrative Record Number N00102.AR.000726. Site designation in FFA as provided in Appendices B (List of Areas of Concern) and C (List of Site Screening Areas) of the FFA.

2. SWMUs removed in the RFA were not included in the 1989 HSWA Permit, Administrative Record Number N00102.AR.000019, and no further action was conducted at these SWMUs.

NA - Not applicable because site was not identified in document or not included in an operable unit.

TABLE 4
Summary of Relative Risk Ranking and Remediation Activities Performed
Portsmouth Naval Shipyard, Kittery, Maine

OU No.	Site	Site Name	Rank[1]	Remediation Performed
1	Site 10	Former Battery Acid Tank No. 24	High	RA (Soil excavation and disposal) and LUCRD completed in FY 2012.
	Site 21	Former Acid/Alkaline Drain Tank (groundwater only)	Low	No Further Action documented.
2	Site 6	DRMO Storage Yard and Impact Area	High	A portion of the DRMO was capped as an Interim Corrective Measure; Removal Action in 2010 and included shoreline stabilization, excavation, and disposal for DRMO Impact Area. LUCRD completed in FY 2012.
	Site 29	Former Teepee Incinerator Site	High	Shoreline stabilization completed. LUCRD completed in FY 2012.
3	Site 8	JILF and Impact Area	High	RA completed: capping 22 acres and removal of 3 acres and replacement with wetlands. LUCRD completed in FY 2011. No Further Action required for JILF and Impact Area.
	Site 9	Former Mercury Burial Sites (MBI and MBII)	Low	Vaults removed. Site 9 covered by Site 8 RA.
	Site 11	Former Waste Oil Tanks Nos. 6 & 7	High	Tanks removed. Site 11 covered by Site 8 RA.
4	Site 5	Former Industrial Waste Outfalls	High	None. In FS Phase. Interim Offshore Monitoring being performed in accordance with Interim ROD.
	Site 26	Portable Oil/Water Tanks	Low	No Further Action documented.
	--	Offshore Areas (Offshore impacts from Sites 5, 6, 8, 9, 10, 26, 27)	High	None. In FS Phase. Interim Offshore Monitoring being performed in accordance with Interim ROD.
5	Site 27	Berth 6 Industrial Area	High	No Further Action documented
NA	Site 30	Former Galvanizing Plant, Building 184	High	Removal action completed in Fall 2011 and included removal of the concrete floor slab and the vault fill material.
8	Site 31	Former West Timber Basin	Low	None. In RI Phase.
7	Site 32	Topeka Pier Site	High	None. In FS Phase.
9	Site 34	Former Oil Gasification Plant, Building 62	High	Removal action performed in 2007 to remove ash to address nearly all unacceptable risks. In FS phase.

Notes:

1. Relative risk ranking was conducted from 1995 to 1999 prior to the signing of the Federal Facilities Agreement.

FIGURES

Map Location

SITE LOCATION MAP

PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

0 500 1,000 2,000 3,000 4,000 5,000 6,000 Feet

0 100 200 400 600 800 1,000 1,200 1,400 1,600 Meters

Scale: 1:24,000

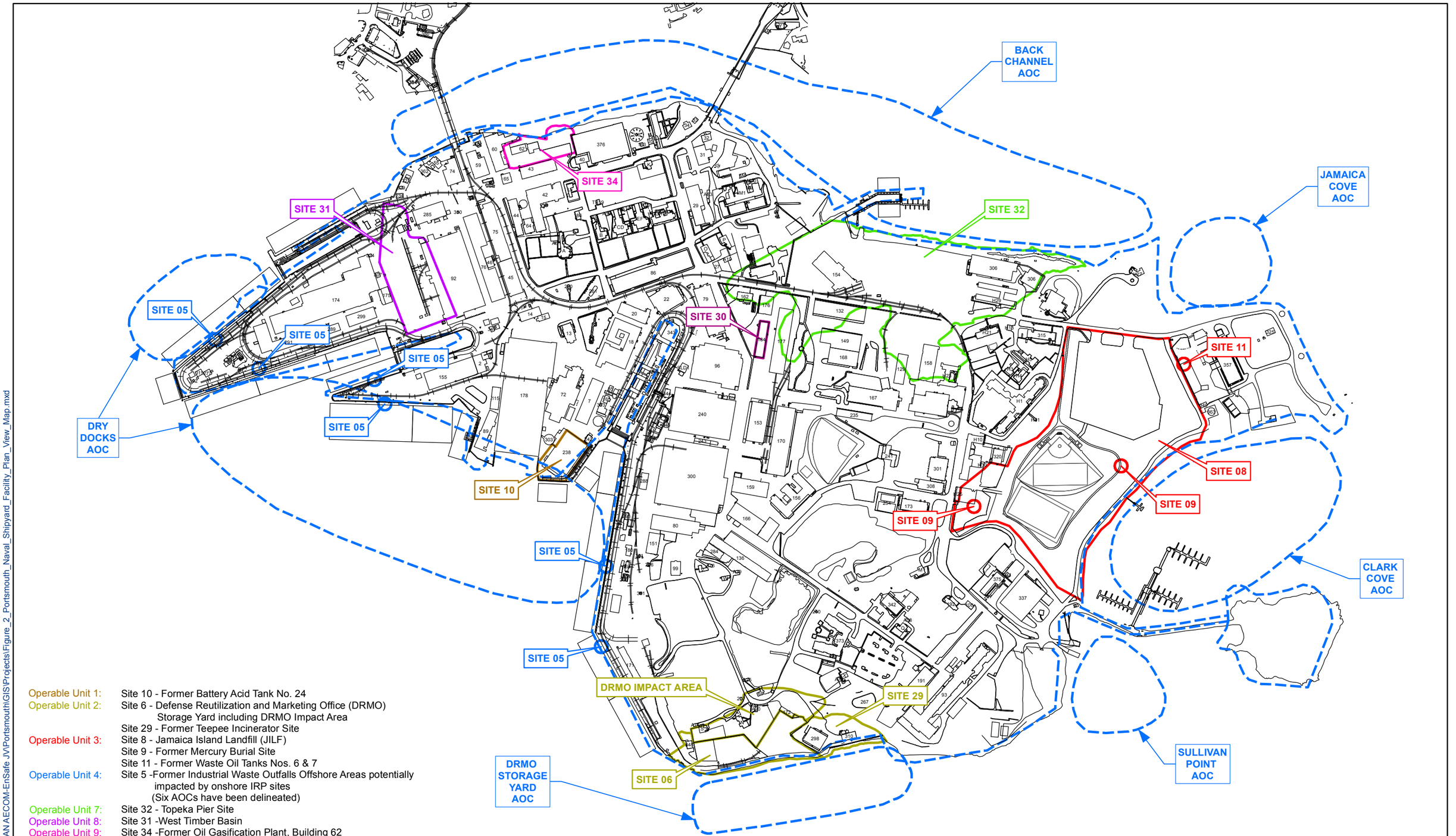
RESOLUTION CONSULTANTS

Figure 1

Date: April 2012

Project #: 60249579

W:\Govt\Projects\Navy CLEAN AECOM-EnSafe JV\Portsmouth\GIS\Projects\Figure_1_Site_Location_Map.mxd



Operable Unit 1: Site 10 - Former Battery Acid Tank No. 24
Operable Unit 2: Site 6 - Defense Reutilization and Marketing Office (DRMO) Storage Yard including DRMO Impact Area
Site 29 - Former Teepee Incinerator Site
Operable Unit 3: Site 8 - Jamaica Island Landfill (JILF)
Site 9 - Former Mercury Burial Site
Site 11 - Former Waste Oil Tanks Nos. 6 & 7
Operable Unit 4: Site 5 -Former Industrial Waste Outfalls Offshore Areas potentially impacted by onshore IRP sites (Six AOCs have been delineated)
Operable Unit 7: Site 32 - Topeka Pier Site
Operable Unit 8: Site 31 -West Timber Basin
Operable Unit 9: Site 34 -Former Oil Gasification Plant, Building 62
Site Screening Area: Site 30 -Galvanizing Plant, Building 184

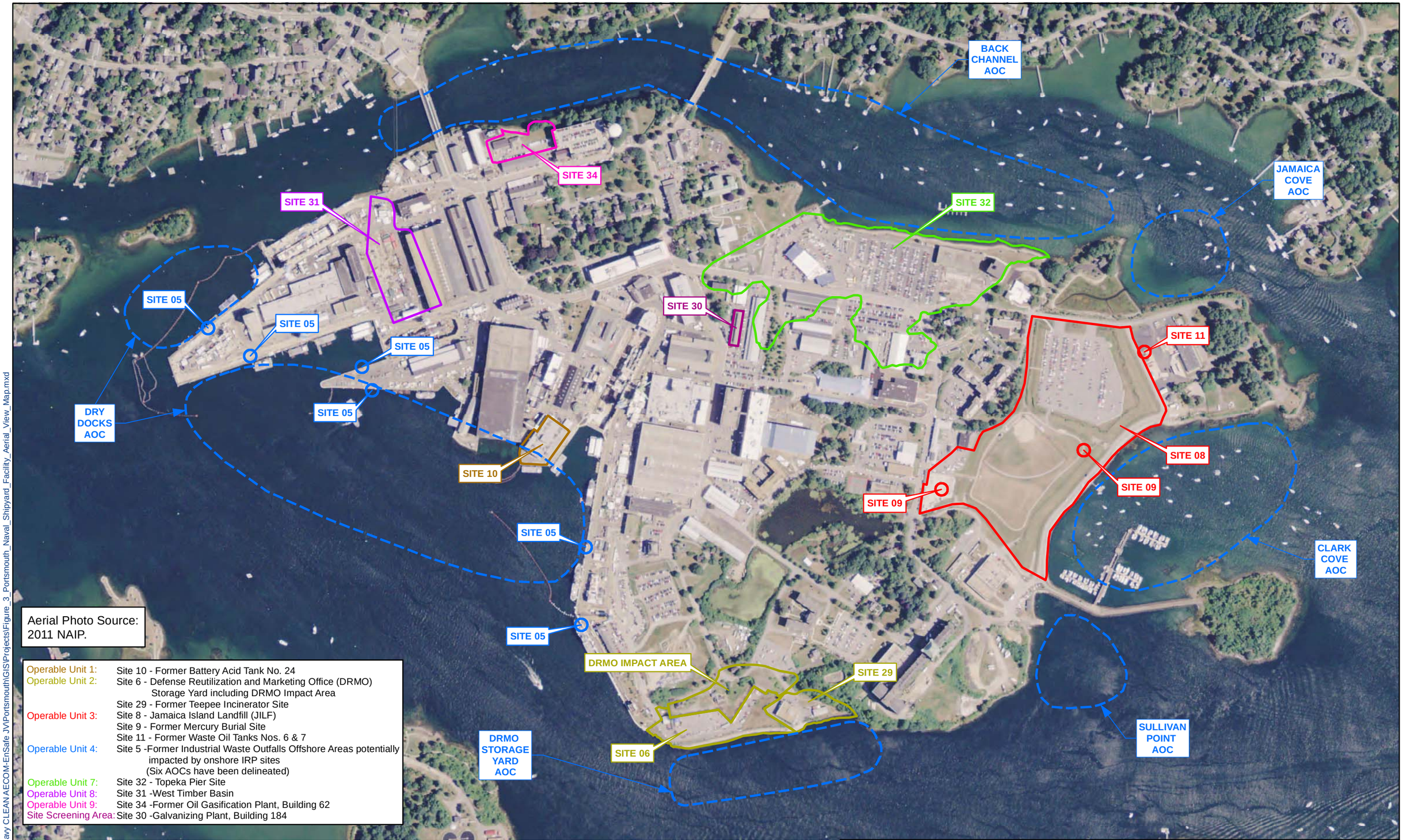
RESOLUTION CONSULTANTS

0 250 500 Feet

N W E S

PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE 60249579			FACILITY PLAN VIEW
DATE: 09/14/12	DRWN: J.E.B.		FIGURE 2

W:\Govt\Projects\Navy CLEAN AECOM-EnSafe JV\Portsmouth\GIS\Projects\Figure_2_Portsmouth_Naval_Shipyard_Facility_Plan_View_Map.mxd



Aerial Photo Source:
2011 NAIP.

Operable Unit 1:	Site 10 - Former Battery Acid Tank No. 24
Operable Unit 2:	Site 6 - Defense Reutilization and Marketing Office (DRMO) Storage Yard including DRMO Impact Area
	Site 29 - Former Teepee Incinerator Site
Operable Unit 3:	Site 8 - Jamaica Island Landfill (JILF)
	Site 9 - Former Mercury Burial Site
	Site 11 - Former Waste Oil Tanks Nos. 6 & 7
Operable Unit 4:	Site 5 -Former Industrial Waste Outfalls Offshore Areas potentially impacted by onshore IRP sites (Six AOCs have been delineated)
Operable Unit 7:	Site 32 - Topeka Pier Site
Operable Unit 8:	Site 31 -West Timber Basin
Operable Unit 9:	Site 34 -Former Oil Gasification Plant, Building 62
Site Screening Area:	Site 30 -Galvanizing Plant, Building 184

RESOLUTION CONSULTANTS

0 250 500 Feet

N W E S

PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE
60249579

FACILITY AERIAL VIEW

DATE: 09/14/12 | DRWN: J.E.B. | | | FIGURE 3

W:\Govt\Projects\Navy CLEAN\AECOM-EnSafe JV\Portsmouth\GIS\Projects\Figure_3_Portsmouth_Naval_Shipyard_Facility_Aerial_View_Map.mxd

W:\Govt\Projects\Navy CLEAN AECOM-EnSafe JV\Portsmouth\GIS\Projects\Figure_4_Portsmouth_Naval_Shipyard_Facility_Birds_Eye_View.mxd

RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE
60249579

PORTSMOUTH NAVAL SHIPYARD
FACILITY BIRD'S EYE VIEW

DATE: 04/10/12	DRWN: J.E.B.			FIGURE 4

RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE
60249579

INTERIM OFFSHORE MONITORING
STATION LOCATIONS

DATE: 04/13/12	DRWN: J.E.B.			FIGURE 5

W:\Govt\Projects\Navy CLEAN AECOM-EnSafe JV\Portsmouth\GIS\Projects\Figure_5_Portsmouth_Naval_Shipyard_Interim_Offshore_Monitoring_Station_Locations.mxd

Attachment A

List of ERP Documents for the Portsmouth Naval Shipyard

ATTACHMENT A

LIST OF ERP DOCUMENTS FOR THE PORTSMOUTH NAVAL SHIPYARD

DOCUMENTS COMPLETED BEFORE SIGNATURE OF FFA

The following documents were completed prior to the FFA being signed in September 1999:

Document	Date	Administrative Record Number
Initial Assessment Study	June 1983	N00102.AR.000002
Final Confirmation Study Report on Hazardous Waste Sites	May 1986	N00102.AR.000012/ N00102.AR.000013
RCRA Facility Assessment	July 1986	N00102.AR.000014
RCRA Facility Investigation (RFI) Proposal	August 1989	N00102.AR.000023
Addendum to RCRA Facility Investigation Proposal	February 1991	N00102.AR.000044
Interim Human Health Risk Assessment for Quarters S, N, and 68	April 1991	N00102.AR.000052
RCRA Facility Investigation Work Plan	August 1991	N00102.AR.000070
Work/Quality Assurance Project Plan for the Case Study for Estuarine Ecological Risk Assessment	September 1991	N00102.AR.000072
Interim Human Health Risk Assessment for the Day Care Center	October 1991	N00102.AR.000076
Revised Ambient Air Quality Monitoring Report (Section 11 of the RFI)	April 1992	N00102.AR.000117
Draft RCRA Facility Investigation Report	July 1992	N00102.AR.000117 to 000122
Onshore Ecological Risk Assessment	August 1992	N00102.AR.000125
Interim Corrective Measures at the Defense Reutilization and Marketing Office	April 1993	N00102.AR.000154
Final Hazard Ranking System Package	May 1993	N00102.SF.000162
Addendum to RCRA Facility Investigation Report	June 1993	N00102.AR.000169
Background Soil Sampling Work Plan	August 1993	N00102.AR.000180
Work/Quality Assurance Plan for Phase II of Estuarine Ecological Risk Assessment Case Study	February 1994	N00102.AR.000206
Public Health and Environmental Risk Evaluation Part A: Human Health Risk Assessment Report	March 1994	N00102.AR.000211
Final Media Protection Standards Proposal for Onshore Media (Chapter 1)	April 1994	N00102.AR.000216

Document	Date	Administrative Record Number
Final Human Health Risk Assessment Report for Offshore Media	May 1994	N00102.AR.000229
Media Protection Standards for Offshore Media: Sediment and Surface Water (Chapter 3)	June 1994	N00102.AR.000237
RFI Data Gap Work Plan	June 1994	N00102.AR.000234
Work Plan for Phase II Ambient Air Quality and Meteorological Monitoring Program	July 1994	N00102.SF.000238
Draft Revised Corrective Measures Study Proposal	July 1994	N00102.AR.000239
Draft Applicable or Relevant and Appropriate Requirements (ARARs) Report	September 1994	N00102.AR.000250
Estuarine Ecological Risk Assessment Phase I: Problem Formulation	December 1994	N00102.AR.000261
Draft Onshore Feasibility Study (FS) Report	March 1995	N00102.AR.000275
Draft Final Estuarine Ecological Risk Assessment (included in FFA, finalized May 2000)	July 1995	N00102.AR.000428
RCRA Facility Investigation (RFI) Data Gap Report	November 1995	N00102.AR.000328
Media Protection Standards for Offshore Media Based on Human Health Risks (Chapter 2)	April 1996	N00102.AR.000344
Phase II Ambient Air Quality and Meteorological Monitoring Report	June 1996	N00102.SF.000356
Community Relations Plan	October 1996	N00102.AR.000384
Consensus Document, No Further Action for Soils, SWMU 21	October 1996	N00102.AR.000383
Technical Memorandum on Seep Sampling	November 1996	N00102.AR.000396
Groundwater Investigation and Monitoring Plan (formerly titled Interim Groundwater Monitoring Plan)	November 1996	N00102.AR.000395
Onshore/Offshore Contaminant Fate and Transport Modeling Phase I Work Plan	December 1996	N00102.AR.000403
Draft Onshore/Offshore Contaminant Fate and Transport Modeling Phase I Report	February 1997	N00102.AR.000419
Technical Memorandum on Risk Evaluation of Surface Soils from Jamaica Island Landfill (JILF) Site	May 1997	N00102.AR.000432
Engineering Evaluation/Cost Analysis (EE/CA) for Mercury Burial Site I	June 1997	N00102.AR.000441
Decision Document, No Further Action, SWMUs 12, 13, 16, and 23	July 1997	N00102.AR.000447
Final Action Memorandum for Mercury Burial Site I	September 1997	N00102.AR.000471
MEDEP Evaluation of Heavy Metal Migration at Portsmouth Naval	December 1997	N00102.AR.000508

Document	Date	Administrative Record Number
Shipyard with Geochemical Modeling		
Onshore/Offshore Contaminant Fate and Transport Modeling Phase I Report Addendum	December 1997	N00102.AR.000497
Work Plan, Teepee Incinerator (Site 29) and Building 238 (Site 10)	March 1998	N00102.AR.000532
Site Screening Process Plan	March 1998	N00102.AR.000531
Site Screening Work Plan, Building 184 (Site 30), West Timber Basin (Site 31), and Topeka Pier (Site 32)	April 1998	N00102.AR.000546
Final Work Plan for MTADS Geophysical Mapping	September 1998	N00102.AR.000598
Onshore/Offshore Contaminant Fate and Transport Modeling Phase II Work Plan	August 1998	N00102.AR.000574
Phase I/Phase II Offshore Data Comparative Analysis Report	October 1998	N00102.AR.000606
Proposed Plan for Interim Action at OU4	October 1998	N00102.AR.000603
Interim Record of Decision for OU4	May 1999	N00102.AR.000676
Technical Memorandum Lead Contamination at DRMO Impact Area (finalized February 2000)	July 1999	N00102.AR.000699
Groundwater Monitoring Summary Report	August 1999	N00102.AR.000714
Proposal for Evaluation of Seep/Sediment Data	September 1999	N00102.AR.000884

DOCUMENTS COMPLETED AFTER SIGNATURE OF FFA

The following documents were completed from October 1999 (after the FFA was signed) to September 30, 2011:

Document	Date	Administrative Record Number
Interim Offshore Monitoring Plan for OU4	October 1999	N00102.AR.000750
Removal Action Work Plan for DRMO Shoreline Stabilization	October 1999	N00102.AR.000749
Onshore/Offshore Contaminant Fate and Transport Phase II Modeling Report	December 1999	N00102.AR.000760
Technical Memorandum for Recommended Human Health Risk Assessment Protocol for OU2	December 1999	N00102.AR.000924
Technical Memorandum, Lead Contamination at DRMO Impact Area	February 2000	N00102.AR.000795

Document	Date	Administrative Record Number
Final Work Plan for Mercury Burial Vault II and Drum Investigation	February 2000	N00102.AR.000797
Field Investigation Report, Site 10 (Building 238) and Site 29 (Teepee Incinerator)	March 2000	N00102.AR.000811
Site Screening Report, Site 30 (Building 184), Site 31 (West Timber Basin), and Site 32 (Topeka Pier)	May 2000	N00102.AR.000812
Facility Background Development	May 2000	N00102.AR.000836
Revised OU3 Risk Assessment	May 2000	N00102.AR.000835
Final Estuarine Ecological Risk Assessment	May 2000	N00102.AR.000838
Seep/Sediment Summary Report for Data Collected Between December 1996 and November 1997	August 2000	N00102.AR.000884
Test Pitting Investigation Report , Jamaica Island Landfill	October 2000	N00102.AR.000909
Revised OU2 Risk Assessment	November 2000	N00102.AR.000923/ N00102.AR.000924
Feasibility Study Report for OU3	November 2000	N00102.AR.000922
Proposed Remedial Action Plan for OU3	January 2001	N00102.AR.000945
Work Plan for Building 184 Subfloor Investigation	February 2001	N00102.AR.000968
Final Action Memorandum for Site 6, Defense reutilization and Marketing Office (DRMO) Shoreline Stabilization	June 2001	N00102.AR.000995
Final Drum Removal Report for Drum Investigation	June 2001	N00102.AR.000999
Final Closeout Report for Mercury Burial Vault Site I	June 2001	N00102.AR.001002
Final Removal Action Report for Mercury Burial Vault Site II	June 2001	N00102.AR.001003
OU3 Pre-design Investigation Quality Assurance Project Plan	August 2001	N00102.AR.001016
Record of Decision for OU3	August 2001	N00102.AR.001018
Decision Document for Site 26	August 2001	N00102.AR.001019
Decision Document for Site 27	August 2001	N00102.AR.001020
Site 10 Additional Investigation Quality Assurance Project Plan	October 2001	N00102.AR.001048
Preliminary Remediation Goals for OU4	November 2001	N00102.PF.001062
Final MTADS Geophysical Survey (of JILF and Topeka Pier)	December 2001	N00102.PF.001074
Test Pitting Investigation Report, Building 184, Site 30	May 2002	N00102.AR.001128
OU3 Phase I Remedial Design (specifications and plans)	June 2002	N00102.PF.001139
Technical Memorandum, OU3, Evaluation of MBII Waste Consolidation and Jamaica Cove Options	June 2002	N00102.PF.001143
Remedial Design Work Plan, Jamaica Island Landfill Phase I Waste Consolidation	June 2002	N00102.PF.001149

Document	Date	Administrative Record Number
Baseline Interim Offshore Monitoring Report for OU4	July 2002	N00102.PF.001150
Phase II, OU3 Remedial Design Analysis Report (including drawings and specifications)	November 2002	N00102.PF.001195
Engineering Evaluation/Cost Analysis (EE/CA), Site 30 (Building 184)	December 2002	N00102.AR.001208
Final Remedial Design Work Plan for Jamaica Island Landfill Phase II Cap Construction	January 2003	N00102.PF.001226
Site 10 Additional Investigation Report	March 2003	N00102.AR.001243
Site 32 Remedial Investigation Quality Assurance Project Plan	March 2003	N00102.AR.001239
Site 34 Site Investigation Quality Assurance Project Plan	March 2003	N00102.AR.001238
Addendum to Site 32 Remedial Investigation Quality Assurance Project Plan	August 2003	N00102.AR.001252
Explanation of Significant Difference for the Record of Decision for OU3	September 2003	N00102.PF.001293
Former CDC Area Investigation Report	April 2004	N00102.AR.001350
Technical Memorandum, Recommendation regarding Phase II of the Remedial Investigation for Site 32	June 2004	N00102.AR.001376
Site Screening Investigation Report for Site 34	August 2004	N00102.AR.001389
OU2 Soil Sampling and Treatability Study Work Plan	November 2004	N00102.AR.001414
Rounds 1 through 7 Interim Offshore Monitoring Report for OU4	November 2004	N00102.AR.001416/ N00102.AR.001417
Additional Scrutiny Quality Assurance Project Plan for OU4	August 2005	N00102.PF.001484
Engineering Evaluation/Cost Analysis (EE/CA) for Site 30 (Building 184) (Revision 1)	August 2005	N00102.AR.001485
Engineering Evaluation/Cost Analysis (EE/CA) for Site 34	September 2005	N00102.AR.001495
Explanation of Significant Difference for the Record of Decision for OU3	October 2005	N00102.PF.001493
Time Critical Removal Action Work Plan for DRMO (Site 29) Shoreline Stabilization	October 2005	N00102.AR.001506
OU2 Screening-Level Soil Washing Treatability Study Report	January 2006	N00102.AR.001524
Action Memorandum for Non-Time-Critical Removal Action for Site 30	January 2006	N00102.AR.001522
Action Memorandum for Non-Time-Critical Removal Action for Site 34	February 2006	N00102.AR.001532
Work Plan for Site 29 Removal of Waste Debris and Site 32 Shoreline Stabilization	April 2006	N00102.AR.001553
OU3 Remedial Action Report (for the Jamaica Island Landfill Phase	May 2006	N00102.PF.001561

Document	Date	Administrative Record Number
I Waste Consolidation and Phase II Cap Construction)		
Site 10 Data Gap Investigation Quality Assurance Project Plan	June 2006	N00102.AR.001564
Post-Remedial Operation, Maintenance and Monitoring Plan for OU3	June 2006	N00102.PF.001566/ N00102.PF.001567
Five-Year Review Report for Portsmouth Naval Shipyard	June 2007	N00102.PF.001601
Remedial Investigation Report for OU1	July 2007	N00102.AR.001606
Additional Scrutiny Report for OU4	August 2007	N00102.PF.001612
Phase II Additional Scrutiny Quality Assurance Project Plan	September 2007	N00102.AR.001619
OU2 Additional Investigation Quality Assurance Project Plan	October 2007	N00102.AR.001626
No Further Action Decision Document for Site 21 – Former Acid/Alkaline Drain Tank	February 2008	N00102.AR.001647
No Further Action Decision Document for the Jamaica Island Landfill Impact Area	February 2008	N00102.PF.001648
Closeout Report for Site 29 Removal of Waste Debris and Site 32 Shoreline Stabilization	June 2008	N00102.AR.001665
Closeout Report for Site 29 Removal Action Stabilization	July 2008	N00102.AR.001670
Contractor Closeout Report and As-built Drawings for Site 34 Shoreline Stabilization and Removal Action	July 2008	N00102.AR.001670
Site 32 Remedial Investigation Quality Assurance Project Plan, Revision 1	November 2008	N00102.AR.001690
Rounds 1 through 4 Data Evaluation Report for OU3 Post-Remedial Operation, Maintenance, and Monitoring Program	July 2009	N00102.PF.000910
Sampling and Analysis Plan for OU9 RI	July 2009	N00102.AR.001744
Action Memorandum for Non-Time-Critical Removal Action for OU2 DRMO Impact Area	November 2009	N00102.AR.001351
Rounds 1 through 10 Interim Offshore Monitoring Report for O4	February 2010	N00102.AR.001716
Supplemental Remedial Investigation Report for OU2	March 2010	N00102.AR.001743
Work Plan for Interim Removal Action for OU2 DRMO Impact Area	May 2010	N00102.AR.001746
Feasibility Study Report for OU1	June 2010	N00102.AR.001754
Proposed Remedial Action Plan for OU1	June 2010	N00102.AR.001759
Record of Decision for OU1	September 2010	N00102.AR.002495
Engineering Evaluation/Cost Analysis for Site 30, Revision 2	October 2010	N00102.AR.002503
Sampling and Analysis Plan for OU2 Pre Design Investigation	November 2010	N00102.AR.002513
Interim Offshore Monitoring Plan for OU4, Revision 1	November 2010	N00102.AR.002514
Action Memorandum for Non-Time Critical Removal Action for Site	December 2010	N00102.AR.002518

Document	Date	Administrative Record Number
30, Revision 2		
Remedial Investigation Supplemental Data Package for Operable Unit 9 (OU 9)	January 2011	N00102.AR.002556
Health and Safety Plan for Operable Unit 3 (OU 3) Post Remedial Operation, Maintenance and Monitoring Program	January 2011	N00102.AR.002605
Final Amended Site Management Plan for Fiscal Year 2011	February 2011	N00102.AR.002555
Marine Safety Plan Offshore Sampling at Operable Unit 4 (OU 4)	April 2011	N00102.AR.002548
Health and Safety Plan for Offshore Sampling at Operable Unit 4 (OU 4)	April 2011	N00102.AR.002547
Final Feasibility Study Report for Operable Unit 2 (OU 2)	April 2011	N00102.AR.002554
Rounds 1 Through 9 Data Evaluation Report for Operable Unit 3 (OU 3) Post Remedial Operation, Maintenance and Monitoring Program	April 2011	N00102.AR.002563
Pre-Design Investigation Data Package for Operable Unit 2 (OU 2)	July 2011	N00102.AR.002557
Final Remedial Investigation Report Operable Unit (OU) 7	July 2011	N00102.AR.002634
Round Ten Data Package for Post Remedial Operations, Maintenance and Monitoring Program Operable Unit (OU) 3	July 2011	N00102.AR.002637
Final Removal Action Work Plan For Interim Removal Action at Site 30 Former Galvanizing Tank Vault	July 2011	N00102.AR.002559
Final Proposed Plan for Operable Unit 2 (OU 2)	July 2011	N00102.AR.001689
Land Use Control Remedial Design for Operable Unit 3 (OU 3)	August 2011	N00102.AR.002574
Record of Decision Operable Unit (OU) 2 Site 6, 29, and DRMO Impact Area	September 2011	N00102.AR.002620
Interim Offshore Monitoring Program Round 11 Data Package for Operable Unit 4 (OU 4)	September 2011	N00102.AR.002576
Final Remedial Action Work Plan for Lead Contaminated Soil Removal Operable Unit (OU) 1 Site 10 Building 238	October 2011	N00102.AR.002627
Land Use Control Remedial Design Operable Unit (OU) 1	November 2011	N00102.AR.002623
Post Remedial Operation, Maintenance, and Monitoring Plan Operable Unit (OU) 3 Volume 1	December 2011	N00102.AR.002638
Post Remedial Operation, Maintenance, and Monitoring Plan Operable Unit (OU) 3 Volume 2	December 2011	N00102.AR.002639

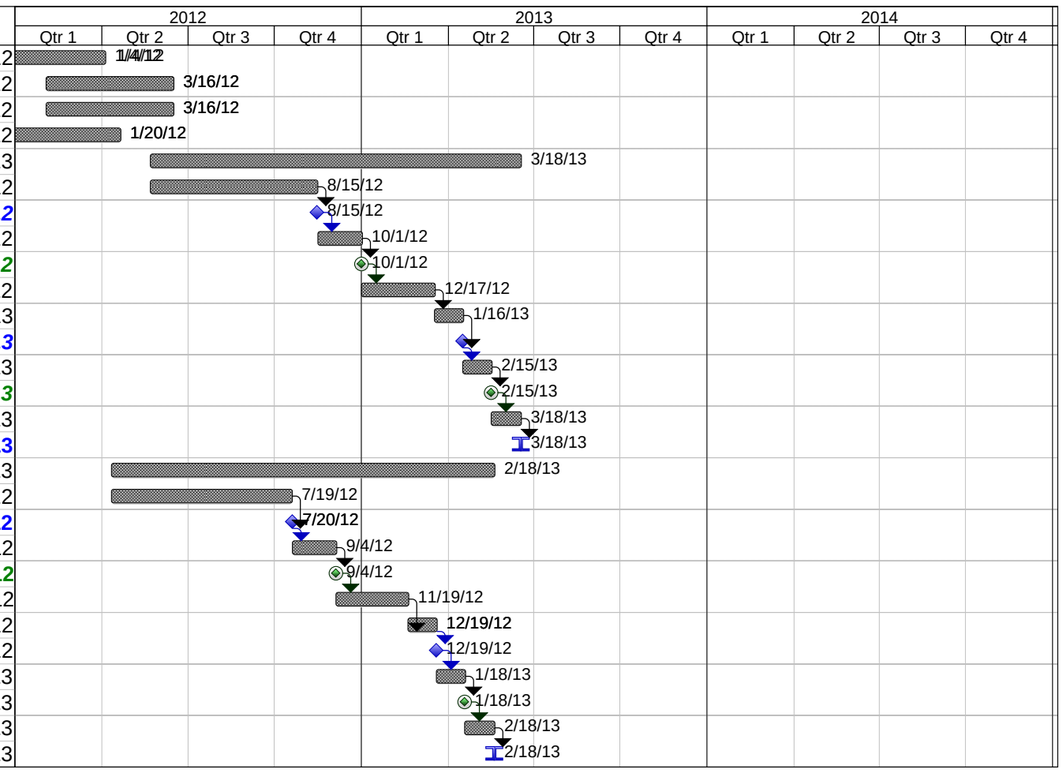
Document	Date	Administrative Record Number
Sampling and Analysis Plan for Post Remediation Groundwater Monitoring Operable Unit 1 (OU1)	January 2012	N00102.AR.002648
Final Remedial Design for Land Use Controls Operable Unit 1 (OU1)	January 2012	N00102.AR.002658
Accident Prevention Plan and Site Safety and Health Plan for Post Remediation Groundwater Monitoring Operable Unit 1 (OU1)	January 2012	N00102.AR.002647
Remedial Action Design (30% Submission) for Operable Unit 2 (OU 2)	January 2012	N00102.AR.002645
Land Use Control Remedial Design for Operable Unit 1 (OU 1)	January 2012	N00102.AR.002643
Final Amended Site Management Plan 2012	February 2012	N00102.AR.002669
Final Land Use Control Remedial Design Operable Unit 2 (OU2)	March 2012	N00102.AR.002673
Remedial Action Design (60% Submission) for Operable Unit 2 (OU2)	April 2012	Draft Document
Draft Feasibility Study Report for Operable Unit 7 (OU 7)	May 2012	Draft Document

Attachment B

Schedules

PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT 1 (OU1)
(SITE 10)

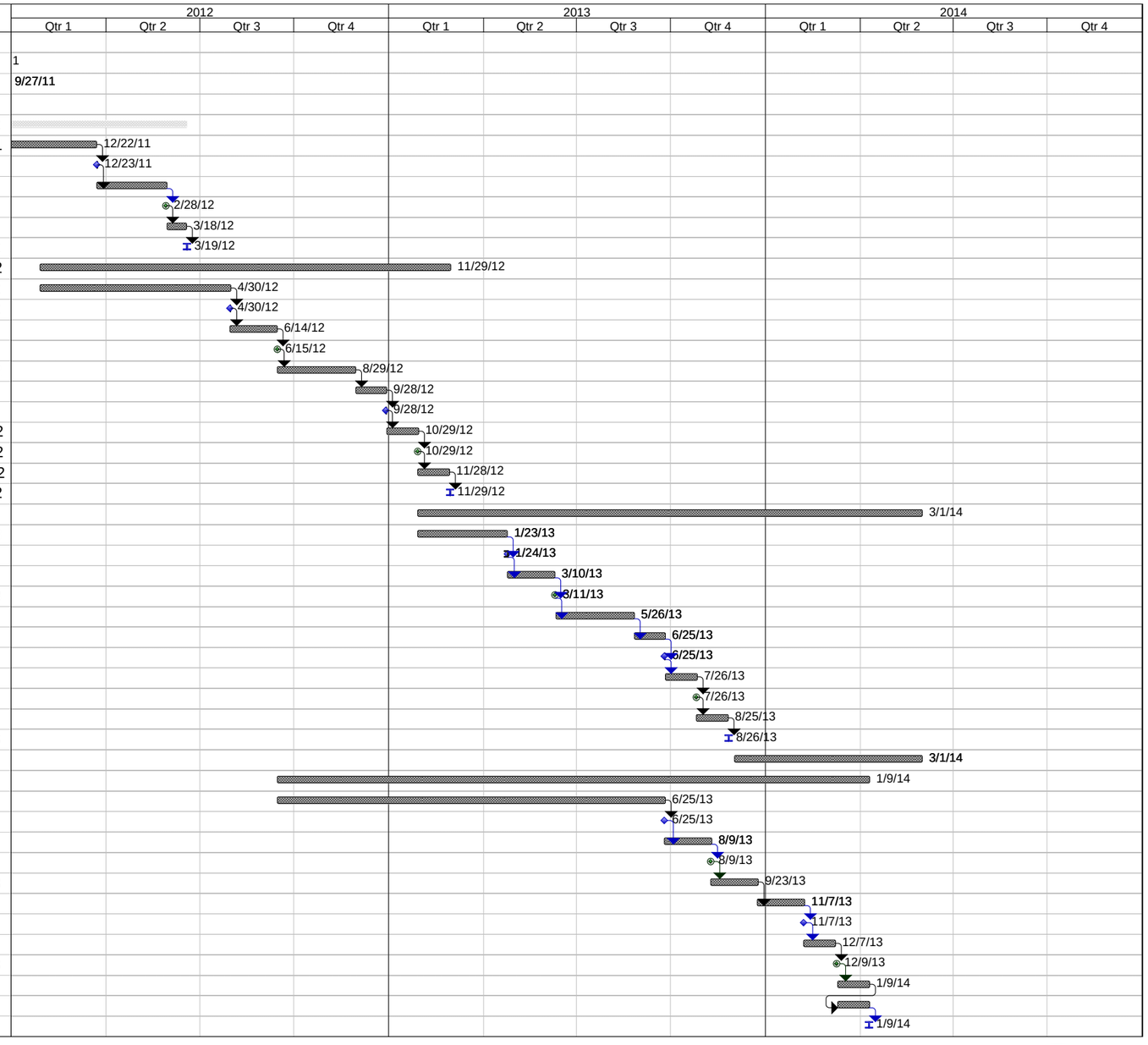
Task Name	Start	Finish
REMEDIAL ACTION WORK PLAN	Tue 9/28/10	Wed 1/4/12
REMEDIAL ACTION	Thu 11/3/11	Fri 3/16/12
Construction, Excavation and Backfill	Thu 11/3/11	Fri 3/16/12
LAND USE CONTROL REMEDIAL DESIGN (LUCRD)	Tue 9/28/10	Fri 1/20/12
CONSTRUCTION COMPLETION REPORT (CCR)	Tue 2/21/12	Mon 3/18/13
Prepare Draft CCR	Tue 2/21/12	Wed 8/15/12
Submit Draft CCR	***Wed 8/15/12***	***Wed 8/15/12***
USEPA & MEDEP Review Draft CCR	Thu 8/16/12	Mon 10/1/12
Receive Regulator Comments on Draft CCR	***Mon 10/1/12***	***Mon 10/1/12***
Comment Resolution	Mon 10/1/12	Mon 12/17/12
Prepare Draft Final CCR	Mon 12/17/12	Wed 1/16/13
Submit Draft Final CCR	***Wed 1/16/13***	***Wed 1/16/13***
USEPA & MEDEP Review Draft Final CCR	Wed 1/16/13	Fri 2/15/13
Receive Regulator Comments on Draft Final CCR	***Fri 2/15/13***	***Fri 2/15/13***
Prepare Final CCR	Fri 2/15/13	Mon 3/18/13
Submit Final CCR	**Mon 3/18/13**	**Mon 3/18/13**
LONG TERM MANAGEMENT PLAN	Wed 1/11/12	Mon 2/18/13
Prepare Draft LTM	Wed 1/11/12	Thu 7/19/12
Submit Draft LTM Plan	**Fri 7/20/12**	**Fri 7/20/12**
USEPA & MEDEP Review Draft LTM Plan	Fri 7/20/12	Tue 9/4/12
Receive Regulator Comments on Draft LTM Plan	**Tue 9/4/12**	**Tue 9/4/12**
Comment Resolution	Tue 9/4/12	Mon 11/19/12
Prepare Draft Final LTM Plan	Mon 11/19/12	Wed 12/19/12
Submit Draft Final LTM Plan	Wed 12/19/12	Wed 12/19/12
USEPA & MEDEP Review Draft Final LTM Plan	Wed 12/19/12	Fri 1/18/13
Receive Regulator Comments on Draft Final LTM Plan	Fri 1/18/13	Fri 1/18/13
Prepare Final LTM Plan	Fri 1/18/13	Mon 2/18/13
Submit Final LTM Plan	Mon 2/18/13	Mon 2/18/13



RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT 2 (OU2)
(SITES 6 AND 29)

Task Name	Start	Finish
FEASIBILITY STUDY	Sat 3/1/03	Tue 4/5/11
PROPOSED REMEDIAL ACTION PLAN (PRAP)	Wed 12/8/10	Tue 8/23/11
RECORD OF DECISION (ROD)	Thu 6/30/11	Tue 9/27/11
OU2 PRE-DESIGN INVESTIGATION	Mon 6/1/09	Mon 8/8/11
LAND USE CONTROL REMEDIAL DESIGN (LUCRD)	Tue 9/27/11	Mon 3/19/12
Prepare Remedial Design	Tue 9/27/11	Thu 12/22/11
Submit Draft LUCRD	Fri 12/23/11	Fri 12/23/11
USEPA & MEDEP Review Draft LUCRD	Fri 12/23/11	Tue 2/28/12
Receive Regulator Comments on Draft LUCRD	Tue 2/28/12	Tue 2/28/12
Prepare Final LUCRD	Wed 2/29/12	Sun 3/18/12
Submit Final LUCRD	Mon 3/19/12	Mon 3/19/12
REMEDIAL DESIGN	Sat 10/29/11	Thu 11/29/12
Prepare Remedial Design	Sat 10/29/11	Mon 4/30/12
Submit Draft RD	Mon 4/30/12	Mon 4/30/12
USEPA & MEDEP Review Draft RD	Mon 4/30/12	Thu 6/14/12
Receive Regulator Comments on Draft RD	Fri 6/15/12	Fri 6/15/12
Comment Resolution	Fri 6/15/12	Wed 8/29/12
Prepare Draft Final RD	Thu 8/30/12	Fri 9/28/12
Submit Draft Final RD	Fri 9/28/12	Fri 9/28/12
USEPA & MEDEP Review Draft Final RD	Sat 9/29/12	Mon 10/29/12
Receive Regulator Comments on Draft Final RD	Mon 10/29/12	Mon 10/29/12
Prepare Final RD	Mon 10/29/12	Wed 11/28/12
Submit Final RD	Thu 11/29/12	Thu 11/29/12
REMEDIAL ACTION	Mon 10/29/12	Sat 3/1/14
Prepare Remedial Action Work Plan	Mon 10/29/12	Wed 1/23/13
Submit Draft RAWP	Thu 1/24/13	Thu 1/24/13
USEPA & MEDEP Review Draft RAWP	Thu 1/24/13	Sun 3/10/13
Receive Regulator Comments on Draft RAWP	Mon 3/11/13	Mon 3/11/13
Comment Resolution	Tue 3/12/13	Sun 5/26/13
Prepare Draft Final RAWP	Mon 5/27/13	Tue 6/25/13
Submit Draft Final RAWP	Tue 6/25/13	Tue 6/25/13
USEPA & MEDEP Review Draft Final RAWP	Wed 6/26/13	Fri 7/26/13
Receive Regulator Comments on Draft Final RAWP	Fri 7/26/13	Fri 7/26/13
Prepare Final RAWP	Fri 7/26/13	Sun 8/25/13
Submit Final RAWP	Mon 8/26/13	Mon 8/26/13
CONSTRUCTION	Sun 9/1/13	Sat 3/1/14
LONG TERM MANAGEMENT PLAN	Fri 6/15/12	Thu 1/9/14
Prepare Draft Long Term Management Plan	Fri 6/15/12	Tue 6/25/13
Submit Draft LTM Plan	Tue 6/25/13	Tue 6/25/13
USEPA & MEDEP Review Draft LTM Plan	Tue 6/25/13	Fri 8/9/13
Receive Regulator Comments on Draft LTM Plan	Fri 8/9/13	Fri 8/9/13
Comment Resolution	Fri 8/9/13	Mon 9/23/13
Prepare Draft Final LTM Plan	Mon 9/23/13	Thu 11/7/13
Submit Draft Final LTM Plan	Thu 11/7/13	Thu 11/7/13
USEPA & MEDEP Review Draft Final LTM Plan	Thu 11/7/13	Sat 12/7/13
Receive Regulator Comments on Draft Final LTM Plan	Mon 12/9/13	Mon 12/9/13
Comment Resolution	Tue 12/10/13	Thu 1/9/14
Prepare Final LTM Plan	Tue 12/10/13	Thu 1/9/14
Submit Final LTM Plan	Thu 1/9/14	Thu 1/9/14



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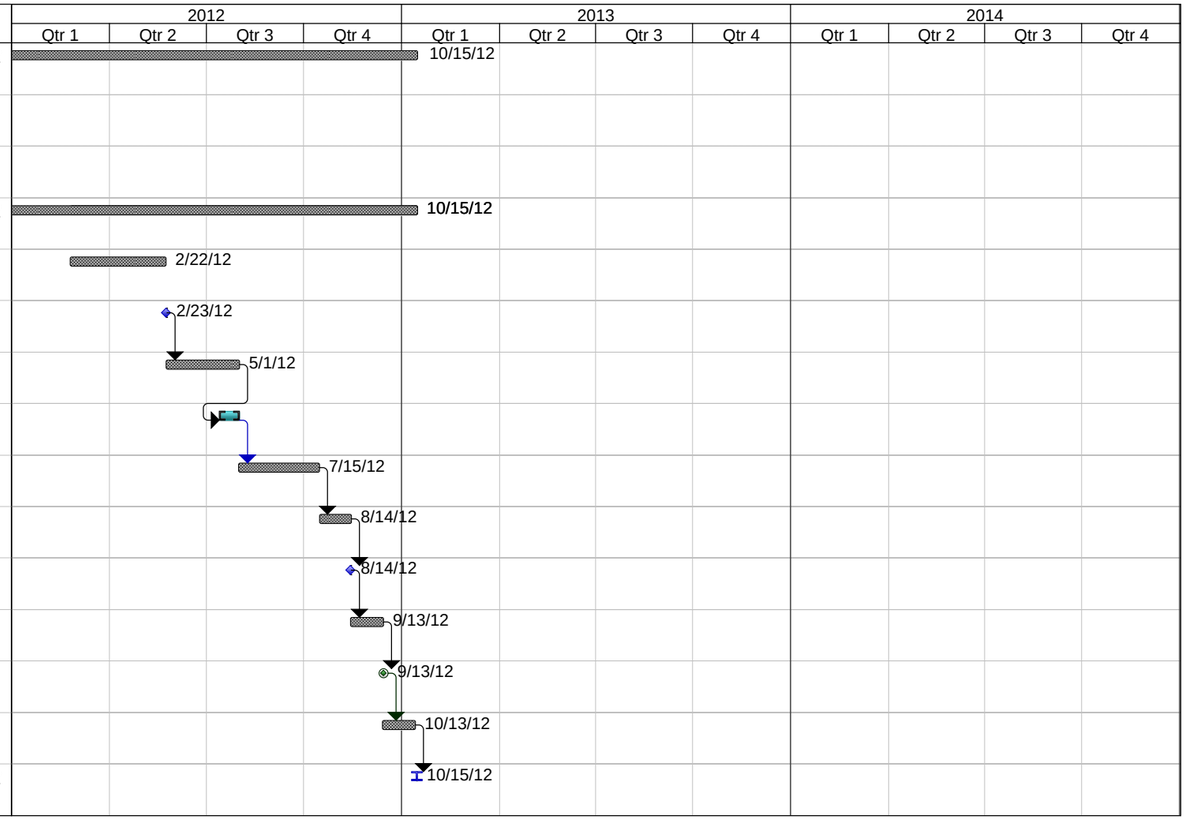
PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT 2 (OU2)
(DRMO IMPACT AREA)

Task Name	Start	Finish
REMOVAL ACTION AND REPORTING	Sat 5/22/10	Mon 10/15/12
Mobilization and Archaeological Survey	Sat 5/22/10	Mon 9/20/10
Excavation, Transportation, Disposal, Backfill, Site Restoration	***Tue 9/21/10***	***Fri 5/20/11***
Construction Completion Report	Tue 5/31/11	Mon 10/15/12
Prepare Draft CCR	Fri 11/25/11	Wed 2/22/12
Submit Draft CCR	Thu 2/23/12	Thu 2/23/12
USEPA & MEDEP Review Draft CCR	Thu 2/23/12	Tue 5/1/12
Receive Regulator Comments on Draft CCR	Fri 4/13/12	Tue 5/1/12
Comment Resolution	Tue 5/1/12	Sun 7/15/12
Prepare Draft Final CCR	Mon 7/16/12	Tue 8/14/12
Submit Draft Final CCR	Tue 8/14/12	Tue 8/14/12
USEPA & MEDEP Review Draft Final CCR	Tue 8/14/12	Thu 9/13/12
Receive Regulator Approval, Comments, or Notice of Dispute	Thu 9/13/12	Thu 9/13/12
Prepare Final CCR	Thu 9/13/12	Sat 10/13/12
Submit Final CCR	Mon 10/15/12	Mon 10/15/12



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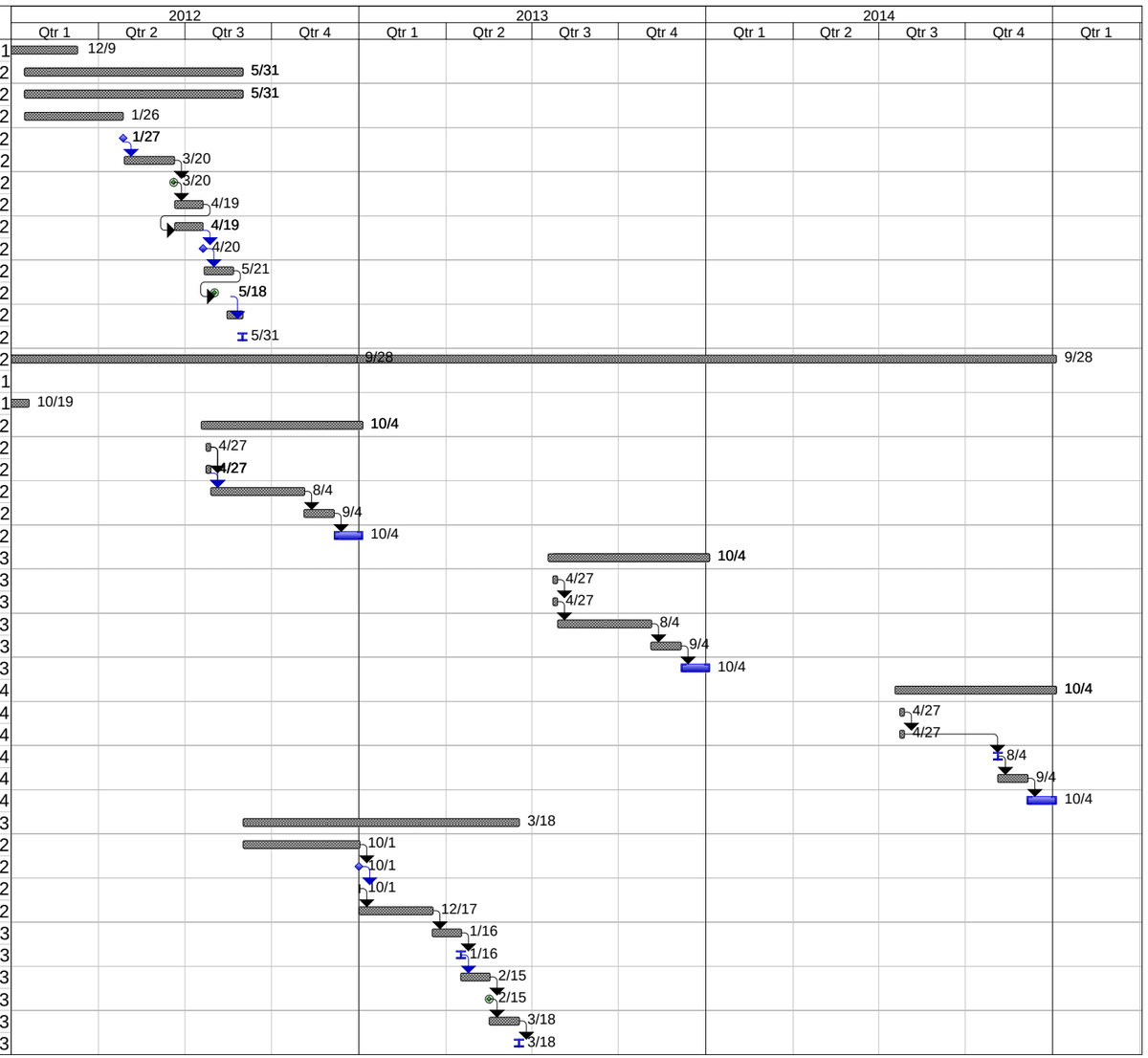
PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT (OU3)
(Sites 8, 9, and 11)

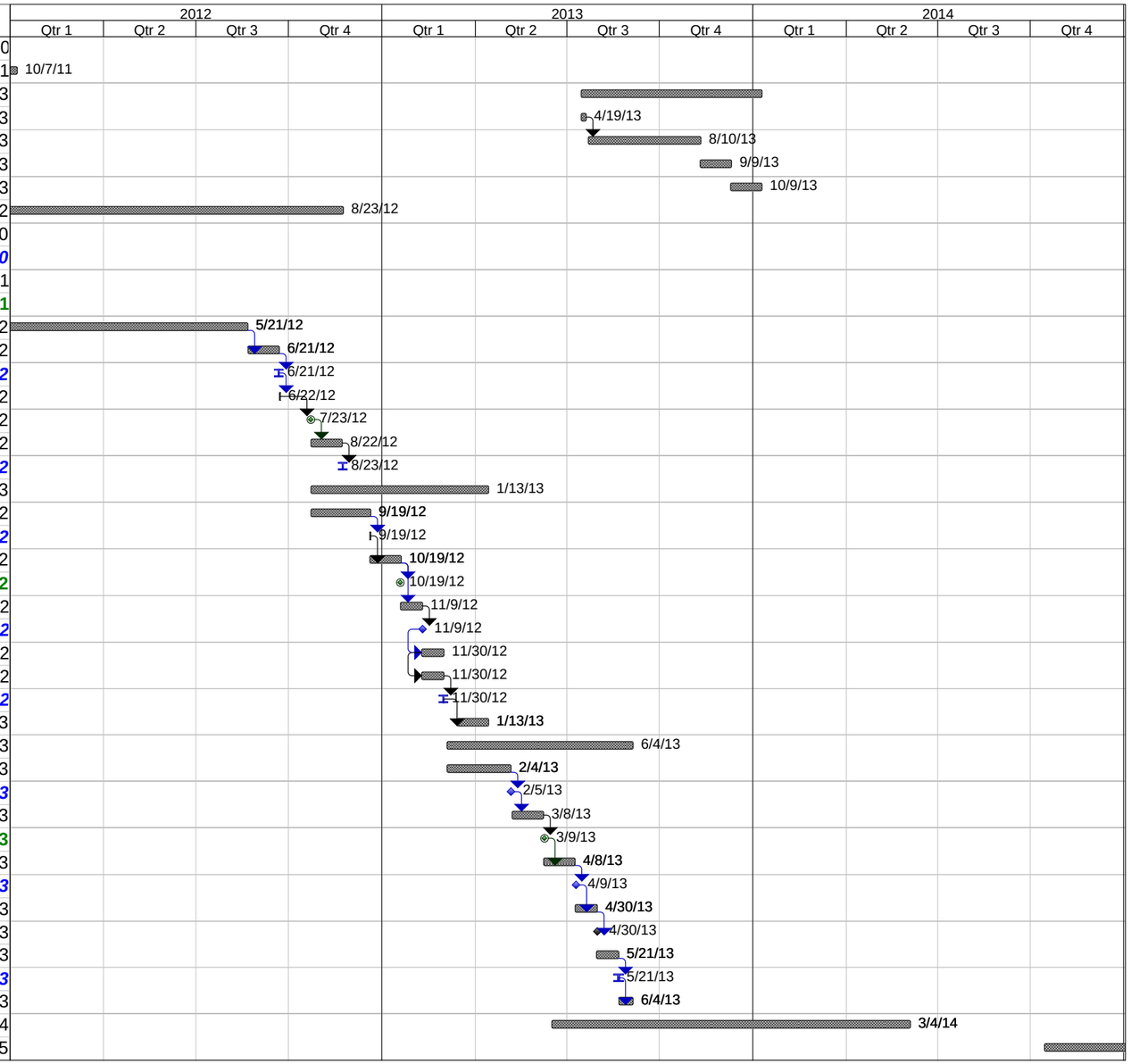
Task Name	Start	Finish
OPERATION, MAINTENANCE AND MONITORING PLAN (OM&M Plan)	Fri 6/5/09	Fri 12/9/11
FIVE-YEAR REVIEWS	Sat 10/15/11	Thu 5/31/12
Second Five-Year Review (due 5 years after First Five-Year Review)	Sat 10/15/11	Thu 5/31/12
Prepare Draf Five Year Review	Sat 10/15/11	Thu 1/26/12
Submit Draft Five Year Review	Fri 1/27/12	Fri 1/27/12
USEPA, MEDEP Review	Sat 1/28/12	Tue 3/20/12
Receive Regulator Comments on Draft Five Year Review	Tue 3/20/12	Tue 3/20/12
Comment Resolution	Wed 3/21/12	Thu 4/19/12
Prepare Draft Final Five Year Review	Wed 3/21/12	Thu 4/19/12
Submit Draft Final Five Year Review	Fri 4/20/12	Fri 4/20/12
USEPA, MEDEP Review	Sat 4/21/12	Mon 5/21/12
Receive Regulator Comments on Draft Draft Five Year Review	Wed 5/2/12	Fri 5/18/12
Prepare Final Five Year Review	Tue 5/15/12	Thu 5/31/12
Submit Final Five Year Review	Thu 5/31/12	Thu 5/31/12
OPERATION, MAINTENANCE AND MONITORING PLAN IMPLEMENTATION	Thu 4/8/10	Fri 9/28/12
Five Year Evaluation - Rounds 1 through 9 Data Evaluation Report (Primary Document)	Thu 6/24/10	Thu 4/28/11
Conduct Tenth Round	Fri 4/29/11	Wed 10/19/11
Conduct Eleventh Round	Wed 4/18/12	Thu 10/4/12
Conduct groundwater and gas sampling	Mon 4/23/12	Fri 4/27/12
Conduct routine inspection, maintenance activities	Mon 4/23/12	Fri 4/27/12
Prepare and Submit Draft Data Package	Sat 4/28/12	Sat 8/4/12
USEPA, MEDEP & RAB Review Draft	Sat 8/4/12	Tue 9/4/12
Prepare and Submit Final Data Package	Wed 9/5/12	Thu 10/4/12
Conduct Twelfth Round	Thu 4/18/13	Fri 10/4/13
Conduct groundwater and gas sampling	Tue 4/23/13	Sat 4/27/13
Conduct routine inspection, maintenance activities	Tue 4/23/13	Sat 4/27/13
Prepare and Submit Draft Data Package	Sun 4/28/13	Sun 8/4/13
USEPA, MEDEP & RAB Review Draft	Sun 8/4/13	Wed 9/4/13
Prepare and Submit Final Data Package	Thu 9/5/13	Fri 10/4/13
Conduct Thirteenth Round	Fri 4/18/14	Sat 10/4/14
Conduct groundwater and gas sampling	Wed 4/23/14	Sun 4/27/14
Conduct routine inspection, maintenance activities	Wed 4/23/14	Sun 4/27/14
Prepare and Submit Draft Data Package	Mon 8/4/14	Mon 8/4/14
USEPA, MEDEP & RAB Review Draft	Mon 8/4/14	Thu 9/4/14
Prepare and Submit Final Data Package	Thu 9/4/14	Sat 10/4/14
REMEDIAL ACTION COMPLETION REPORT	Fri 6/1/12	Mon 3/18/13
Prepare Draft RACR	Fri 6/1/12	Mon 10/1/12
Submit Draft RACR	Mon 10/1/12	Mon 10/1/12
USEPA, MEDEP & RAB Review Draft RACR	Mon 10/1/12	Mon 10/1/12
Comment Resolution	Mon 10/1/12	Mon 12/17/12
Prepare Draft Final RACR	Mon 12/17/12	Wed 1/16/13
Submit Draft Final RACR	Wed 1/16/13	Wed 1/16/13
USEPA, MEDEP Review Draft Final RACR	Wed 1/16/13	Fri 2/15/13
Receive Regulator Comments on Draft Final RACR	Fri 2/15/13	Fri 2/15/13
Prepare Final RACR	Fri 2/15/13	Mon 3/18/13
Submit Final RACR	Mon 3/18/13	Mon 3/18/13



RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT 4 (OU4)
(SITE 5 AND OFFSHORE AOCS)

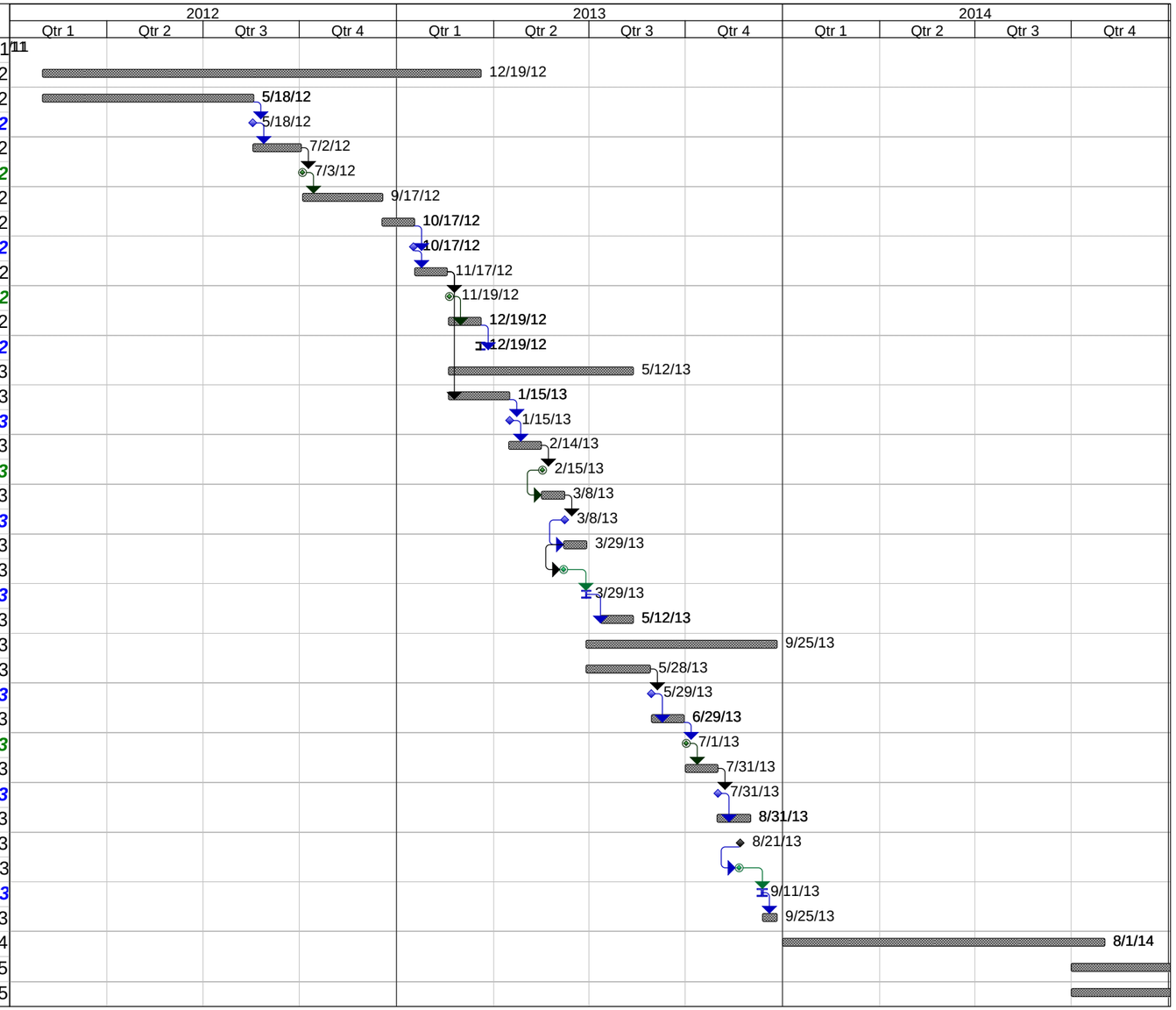
Task Name	Start	Finish
INTERIM OFFSHORE MONITORING PLAN UPDATE _Revision 1	Wed 11/18/09	Tue 11/16/10
ROUND 11 INTERIM OFFSHORE MONITORING SAMPLING EVENT	Mon 4/18/11	Fri 10/7/11
ROUND 12 INTERIM OFFSHORE MONITORING SAMPLING EVENT	Mon 4/15/13	Wed 10/9/13
Conduct Round 12 Sampling	Mon 4/15/13	Fri 4/19/13
Prepare and Submit Draft Round 11 Data Package	Mon 4/22/13	Sat 8/10/13
USEPA & MEDEP Review Draft Data Package	Sat 8/10/13	Mon 9/9/13
Prepare and Submit Final Round 11 Data Package	Mon 9/9/13	Wed 10/9/13
OFFSHORE FEASIBILITY STUDY (FS)	Wed 8/26/09	Thu 8/23/12
Prepare Drat FS Report	Wed 8/26/09	Thu 7/8/10
Submit Draft FS Report	***Fri 7/9/10***	***Fri 7/9/10***
USEPA & MEDEP Review Final Draft FS Report	Wed 1/12/11	Mon 8/1/11
Receive Regulator Comments on Final Draft FS Report	**Mon 8/1/11**	**Mon 8/1/11**
Comment Resolution	Mon 8/1/11	Mon 5/21/12
Prepare Draft Final FS Report	Tue 5/22/12	Thu 6/21/12
Submit Draft Final FS Report	***Thu 6/21/12***	***Thu 6/21/12***
USEPA & MEDEP Review Final FS Report	Fri 6/22/12	Fri 6/22/12
Receive Regulator Comments on Final FS Report	Mon 7/23/12	Mon 7/23/12
Prepare Final FS Report	Mon 7/23/12	Wed 8/22/12
Submit Final FS Report	***Thu 8/23/12***	***Thu 8/23/12***
PROPOSED REMEDIAL ACTION PLAN (PRAP)	Mon 7/23/12	Sun 1/13/13
Prepare Draft PRAP	Mon 7/23/12	Wed 9/19/12
Submit Draft PRAP	***Wed 9/19/12***	***Wed 9/19/12***
USEPA & MEDEP Review Draft PRAP	Wed 9/19/12	Fri 10/19/12
Receive Regulator Comments on Draft PRAP	**Fri 10/19/12**	**Fri 10/19/12**
Prepare RTCs & Draft Final PRAP	Fri 10/19/12	Fri 11/9/12
Submit Draft Final PRAP & RTCs	***Fri 11/9/12***	***Fri 11/9/12***
Navy and Regulator Comment Resolution	Fri 11/9/12	Fri 11/30/12
Prepare Final PRAP	Fri 11/9/12	Fri 11/30/12
Submit Final PRAP	***Fri 11/30/12***	***Fri 11/30/12***
Public Comment Period	Fri 12/14/12	Sun 1/13/13
RECORD OF DECISION (ROD)	Tue 12/4/12	Tue 6/4/13
Prepare Draft ROD	Tue 12/4/12	Mon 2/4/13
Submit Draft ROD	***Tue 2/5/13***	***Tue 2/5/13***
USEPA & MEDEP Review Draft ROD	Wed 2/6/13	Fri 3/8/13
Receive Regulator Comments on Draft ROD	**Sat 3/9/13**	**Sat 3/9/13**
Prepare RTCs & Draft Final ROD	Sat 3/9/13	Mon 4/8/13
Submit RTCs & Draft Final ROD	***Tue 4/9/13***	***Tue 4/9/13***
Comment Resolution	Tue 4/9/13	Tue 4/30/13
MEDEP Submits Letter of Concurrence/Non-Concurrence	Tue 4/30/13	Tue 4/30/13
Prepare Final ROD	Tue 4/30/13	Tue 5/21/13
Submit Final ROD for Signature	***Tue 5/21/13***	***Tue 5/21/13***
USEPA and Navy Sign Final ROD	Wed 5/22/13	Tue 6/4/13
REMEDIAL DESIGN	Sun 3/17/13	Tue 3/4/14
REMEDIAL ACTION	Tue 7/15/14	Sat 1/31/15



RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT (OU) 7
(SITE 32)

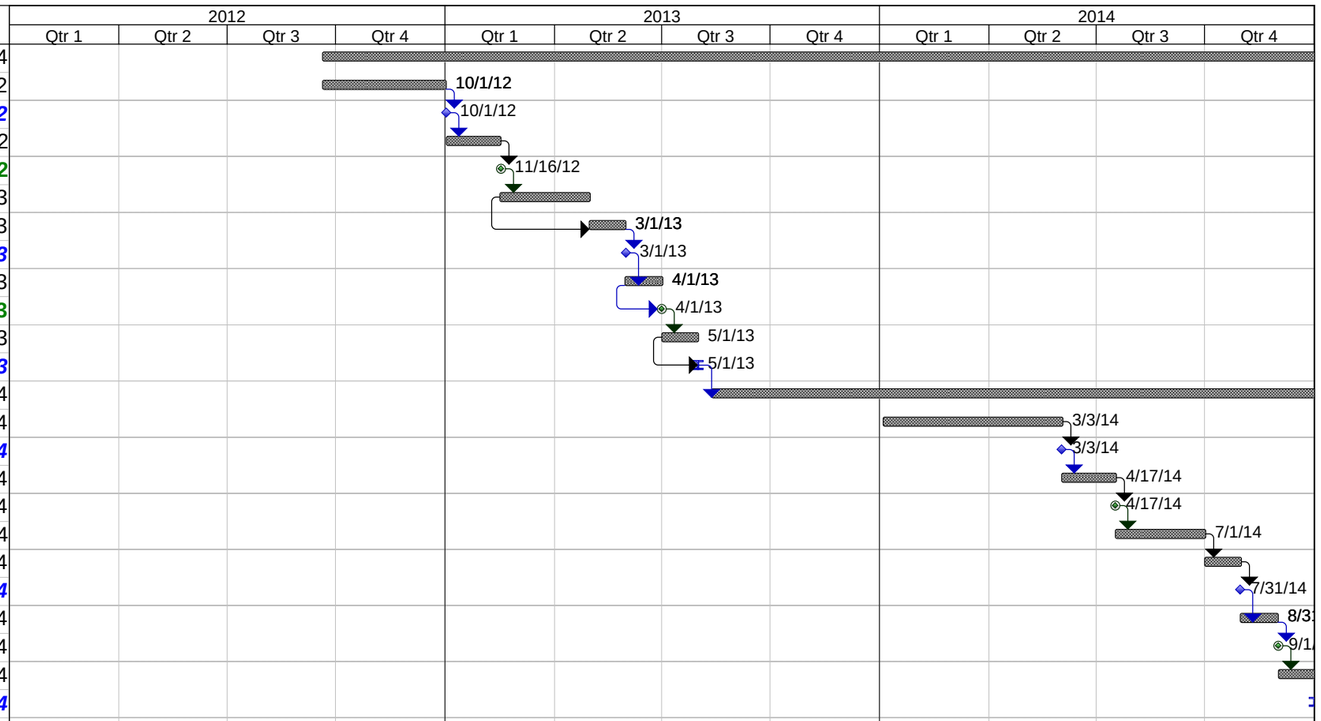
Task Name	Start	Finish
REMEDIAL INVESTIGATION REPORT (RI REPORT)	Sat 8/15/09	Tue 8/23/11
FEASIBILITY STUDY	Tue 11/1/11	Wed 12/19/12
Prepare Draft FS Report	Tue 11/1/11	Fri 5/18/12
Submit Draft FS Report	***Fri 5/18/12***	***Fri 5/18/12***
USEPA & MEDEP Review Draft FS Report	Fri 5/18/12	Mon 7/2/12
Receive Regulator Comments on Draft FS Report	***Tue 7/3/12***	***Tue 7/3/12***
Comment Resolution	Wed 7/4/12	Mon 9/17/12
Prepare Draft Final FS Report	Mon 9/17/12	Wed 10/17/12
Submit Draft Final FS Report	***Wed 10/17/12***	***Wed 10/17/12***
USEPA & MEDEP Review Draft Final FS Report	Thu 10/18/12	Sat 11/17/12
Receive Regulator Approval, Comments, or Notice of Dispute	***Mon 11/19/12***	***Mon 11/19/12***
Prepare Final FS Report	Mon 11/19/12	Wed 12/19/12
Submit Final FS Report	***Wed 12/19/12***	***Wed 12/19/12***
PROPOSED REMEDIAL ACTION PLAN (PRAP)	Mon 11/19/12	Sun 5/12/13
Prepare Draft PRAP	Mon 11/19/12	Tue 1/15/13
Submit Draft PRAP	***Tue 1/15/13***	***Tue 1/15/13***
USEPA & MEDEP Review Draft PRAP	Tue 1/15/13	Thu 2/14/13
Receive Regulator Comments on Draft PRAP	***Fri 2/15/13***	***Fri 2/15/13***
Prepare RTCs & Draft Final PRAP	Fri 2/15/13	Fri 3/8/13
Submit Draft Final PRAP & RTCs	***Fri 3/8/13***	***Fri 3/8/13***
Navy and Regulator Comment Resolution	Fri 3/8/13	Fri 3/29/13
Prepare Final PRAP	Fri 3/8/13	Fri 3/29/13
Submit Final PRAP	***Fri 3/29/13***	***Fri 3/29/13***
Public Comment Period	Fri 4/12/13	Sun 5/12/13
RECORD OF DECISION (ROD)	Fri 3/29/13	Wed 9/25/13
Prepare Draft ROD	Fri 3/29/13	Tue 5/28/13
Submit Draft ROD	***Wed 5/29/13***	***Wed 5/29/13***
USEPA & MEDEP Review Draft ROD	Thu 5/30/13	Sat 6/29/13
Receive Regulator Comments on Draft ROD	***Mon 7/1/13***	***Mon 7/1/13***
Prepare RTCs & Draft Final ROD	Mon 7/1/13	Wed 7/31/13
Submit RTCs & Draft Final ROD	***Wed 7/31/13***	***Wed 7/31/13***
Comment Resolution	Wed 7/31/13	Sat 8/31/13
MEDEP Submits Letter of Concurrence/Non-Concurrence	Wed 8/21/13	Wed 8/21/13
Prepare Final ROD	Wed 8/21/13	Wed 9/11/13
Submit Final ROD	***Wed 9/11/13***	***Wed 9/11/13***
USEPA & NAVY Sign Final ROD	Thu 9/12/13	Wed 9/25/13
REMEDIAL DESIGN	Tue 10/1/13	Fri 8/1/14
REMEDIAL ACTION	Tue 7/1/14	Sun 8/30/15
Remedial Action Work Plan	Tue 7/1/14	Wed 4/1/15



RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT 8 (OU8)
(SITE 31)

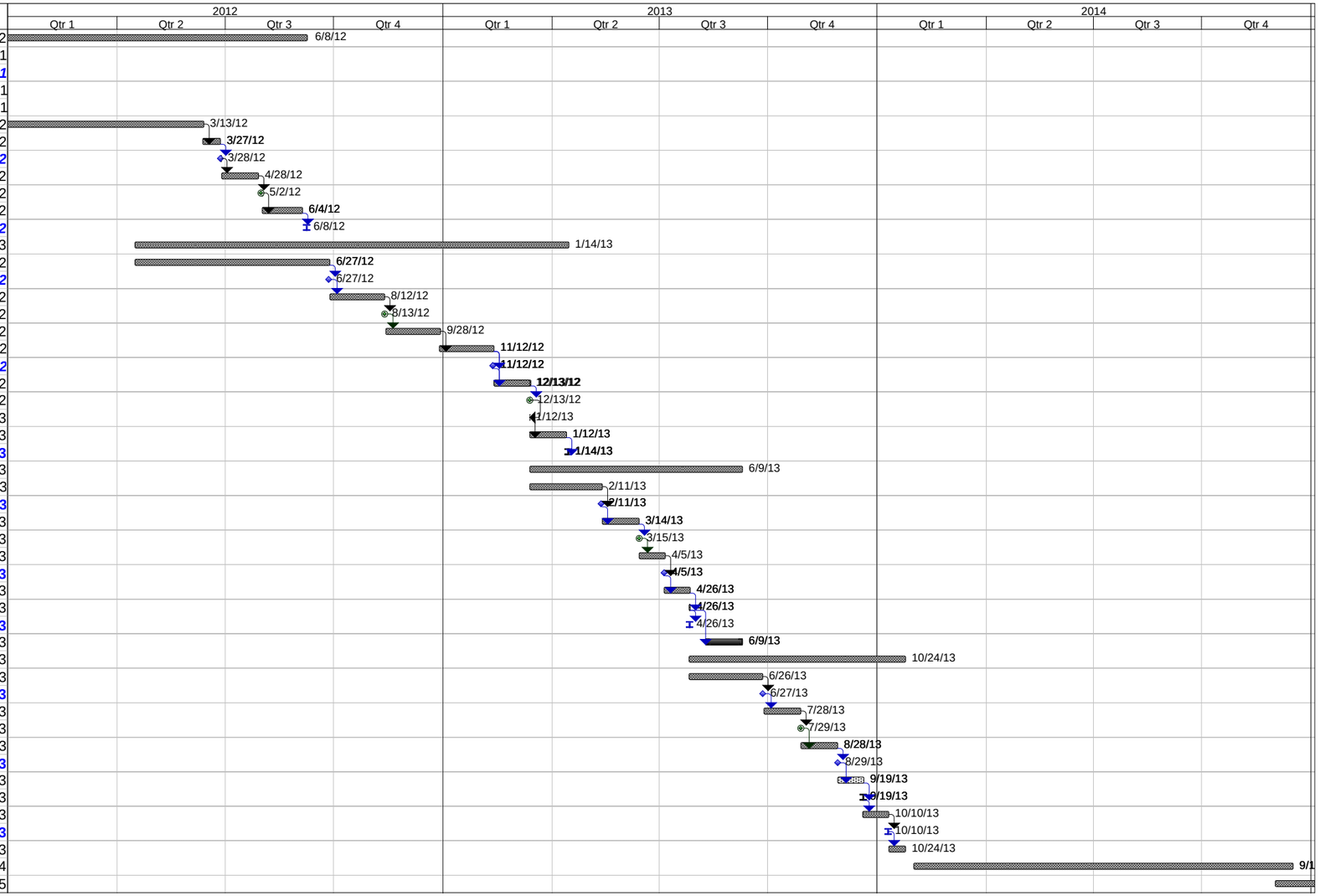
Task Name	Start	Finish
REMEDIAL INVESTIGATION (RI)	Wed 6/20/12	Wed 10/1/14
Prepare Draft RI Workplan (Includes Data Quality Objectives)	Wed 6/20/12	Mon 10/1/12
Submit Draft RI Workplan	***Mon 10/1/12***	***Mon 10/1/12***
USEPA & MEDEP Review Draft RI Workplan	Tue 10/2/12	Fri 11/16/12
Receive Regulator Comments and prepare RI Workplan RTCs	**Fri 11/16/12**	**Fri 11/16/12**
Comment Resolution	Fri 11/16/12	Wed 1/30/13
Prepare Draft Final RI Workplan	Wed 1/30/13	Fri 3/1/13
Submit Draft Final RI Workplan	***Fri 3/1/13***	***Fri 3/1/13***
USEPA & MEDEP Review Draft Final RI Workplan	Fri 3/1/13	Mon 4/1/13
Receive Regulator Approval, Comments, or Notice of Dispute	**Mon 4/1/13**	**Mon 4/1/13**
Prepare Final RI Workplan	Mon 4/1/13	Wed 5/1/13
Submit Final RI Workplan	***Wed 5/1/13***	***Wed 5/1/13***
RI Field Work and Data Management	Mon 5/13/13	Wed 10/1/14
Prepare Draft RI	Fri 10/4/13	Mon 3/3/14
Submit Draft RI	***Mon 3/3/14***	***Mon 3/3/14***
USEPA & MEDEP Review Draft RI	Mon 3/3/14	Thu 4/17/14
Receive Regulator Comments on Draft RI	Thu 4/17/14	Thu 4/17/14
Comment Resolution	Thu 4/17/14	Tue 7/1/14
Prepare Draft Final RI	Tue 7/1/14	Thu 7/31/14
Submit Draft Final RI	***Thu 7/31/14***	***Thu 7/31/14***
USEPA & MEDEP Review Draft Final RI	Thu 7/31/14	Sun 8/31/14
Receive Regulator Comments on Draft Final RI	Mon 9/1/14	Mon 9/1/14
Prepare Final RI	Mon 9/1/14	Wed 10/1/14
Submit Final RI	***Wed 10/1/14***	***Wed 10/1/14***
FEASIBILITY STUDY	Mon 9/15/14	Wed 7/29/15
Prepare Draft FS Report	Mon 9/15/14	Mon 12/29/14
Submit Draft FS Report	***Mon 12/29/14***	***Mon 12/29/14***
USEPA, MEDEP & RAB Review Draft FS Report	Tue 12/30/14	Fri 2/13/15
Receive Regulator Comments on Draft FS Report	**Fri 2/13/15**	**Fri 2/13/15**
Comment Resolution	Fri 2/13/15	Wed 4/29/15
Prepare Draft Final FS Report	Wed 4/29/15	Fri 5/29/15
Submit Draft Final FS Report	***Fri 5/29/15***	***Fri 5/29/15***
USEPA, MEDEP & RAB Review Draft Final FS Report	Fri 5/29/15	Sun 6/28/15
Receive Regulator Approval, Comments, or Notice of Dispute	**Mon 6/29/15**	**Mon 6/29/15**
Prepare Final FS Report	Mon 6/29/15	Wed 7/29/15
Submit Final FS Report	***Wed 7/29/15***	***Wed 7/29/15***
PROPOSED REMEDIAL ACTION PLAN (PRAP)	Sat 5/30/15	Thu 12/10/15
RECORD OF DECISION	Tue 11/10/15	Sun 5/8/16
REMEDIAL DESIGN	Sun 4/3/16	Tue 3/21/17
RESPONSE COMPLETE	Tue 9/1/15	Tue 9/1/15



RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
OPERABLE UNIT (OU) 9
(SITE 34)

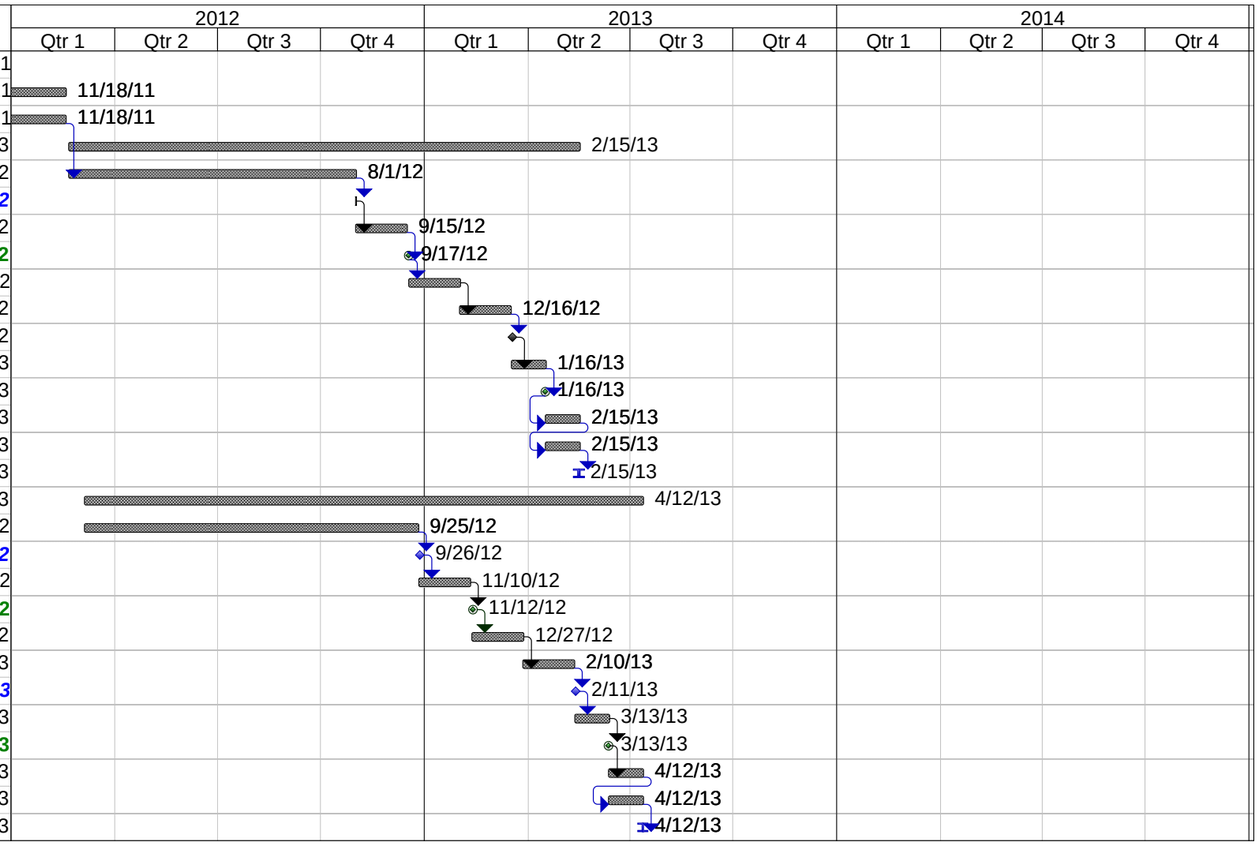
Task Name	Start	Finish
REMEDIAL INVESTIGATION REPORT (RI REPORT)	Wed 9/22/10	Fri 6/8/12
Prepare Draft RI Report	Wed 9/22/10	Mon 2/28/11
Submit Draft RI Report	***Mon 2/28/11***	***Mon 2/28/11***
USEPA & MEDEP Review Draft RI Report	Tue 3/1/11	Tue 6/21/11
Receive Regulator Comments on Revised Draft RI Report	Fri 6/17/11	Tue 6/21/11
Comment Resolution	Wed 6/22/11	Tue 3/13/12
Prepare Draft Final RI Report	Tue 3/13/12	Tue 3/27/12
Submit Draft Final RI Report	***Wed 3/28/12***	***Wed 3/28/12***
USEPA & MEDEP Review Draft Final RI Report	Thu 3/29/12	Sat 4/28/12
Receive Regulator Approval, Comments, or Notice of Dispute	Tue 5/1/12	Wed 5/2/12
Prepare Final RI Report	Wed 5/2/12	Mon 6/4/12
Submit Final RI Report	***Fri 6/8/12***	***Fri 6/8/12***
FEASIBILITY STUDY	Mon 1/16/12	Mon 1/14/13
Prepare Draft FS Report	Mon 1/16/12	Wed 6/27/12
Submit Draft FS Report	***Wed 6/27/12***	***Wed 6/27/12***
USEPA & MEDEP Review Draft FS Report	Thu 6/28/12	Sun 8/12/12
Receive Regulator Comments on Revised Draft FS Report	Mon 8/13/12	Mon 8/13/12
Comment Resolution	Tue 8/14/12	Fri 9/28/12
Prepare Draft Final FS Report	Fri 9/28/12	Mon 11/12/12
Submit Draft Final FS Report	***Mon 11/12/12***	***Mon 11/12/12***
USEPA & MEDEP Review Draft Final FS Report	Tue 11/13/12	Thu 12/13/12
Receive Regulator Approval, Comments, or Notice of Dispute	Thu 12/13/12	Thu 12/13/12
Comment Resolution	Thu 12/13/12	Sat 1/12/13
Prepare Final FS Report	Thu 12/13/12	Sat 1/12/13
Submit Final FS Report	***Mon 1/14/13***	***Mon 1/14/13***
PROPOSED REMEDIAL ACTION PLAN (PRAP)	Thu 12/13/12	Sun 6/9/13
Prepare Draft PRAP	Thu 12/13/12	Mon 2/11/13
Submit Draft PRAP	***Mon 2/11/13***	***Mon 2/11/13***
USEPA & MEDEP Review Draft PRAP	Tue 2/12/13	Thu 3/14/13
Receive Regulator Comments on Draft PRAP	Fri 3/15/13	Fri 3/15/13
Prepare Draft Final PRAP & RTCs	Fri 3/15/13	Fri 4/5/13
Submit Draft Final PRAP & RTCs	***Fri 4/5/13***	***Fri 4/5/13***
Navy and Regulator Comment Resolution	Fri 4/5/13	Fri 4/26/13
Prepare Final PRAP	Fri 4/26/13	Fri 4/26/13
Submit Final PRAP	***Fri 4/26/13***	***Fri 4/26/13***
Public Comment Period	Fri 5/10/13	Sun 6/9/13
RECORD OF DECISION (ROD)	Fri 4/26/13	Thu 10/24/13
Prepare Draft ROD	Fri 4/26/13	Wed 6/26/13
Submit Draft ROD	***Thu 6/27/13***	***Thu 6/27/13***
USEPA & MEDEP Review Draft ROD	Fri 6/28/13	Sun 7/28/13
Receive Regulator Comments on Draft ROD	Mon 7/29/13	Mon 7/29/13
Prepare RTCs & Draft Final ROD	Mon 7/29/13	Wed 8/28/13
Submit RTCs & Draft Final ROD	***Thu 8/29/13***	***Thu 8/29/13***
Comment Resolution	Thu 8/29/13	Thu 9/19/13
MEDEP Submits Letter of Concurrence/Non-Concurrence	Thu 9/19/13	Thu 9/19/13
Prepare Final ROD	Thu 9/19/13	Thu 10/10/13
Submit Final ROD for Signature	***Thu 10/10/13***	***Thu 10/10/13***
USEPA & Navy Sign Final ROD	Fri 10/11/13	Thu 10/24/13
REMEDIAL DESIGN	Fri 11/1/13	Mon 9/15/14
REMEDIAL ACTION	Mon 9/1/14	Sat 8/1/15



RESOLUTION CONSULTANTS

PORTSMOUTH NAVAL SHIPYARD
SITE MANAGEMENT PLAN SCHEDULE
SITE 30, GALVANIZING PLANT (BUILDING 184)

Task Name	Start	Finish
REMOVAL ACTION WORK PLAN	Mon 12/20/10	Tue 7/12/11
REMOVAL ACTION	Thu 8/11/11	Fri 11/18/11
Construction	Thu 8/11/11	Fri 11/18/11
CONSTRUCTION COMPLETION REPORT (CCR)	Mon 11/21/11	Fri 2/15/13
Prepare CCR Document	Mon 11/21/11	Wed 8/1/12
Submit Draft CCR Document	***Wed 8/1/12***	***Wed 8/1/12***
USEPA & MEDEP Review Draft CCR Document	Wed 8/1/12	Sat 9/15/12
Receive Regulator Comments on Draft CCR Document	**Mon 9/17/12**	**Mon 9/17/12**
Comment Resolution	Mon 9/17/12	Thu 11/1/12
Prepare Draft Final CCR Document	Thu 11/1/12	Sun 12/16/12
Submit Draft Final CCR Document	Mon 12/17/12	Mon 12/17/12
USEPA & MEDEP Review Draft Final CCR Document	Mon 12/17/12	Wed 1/16/13
Receive Regulator Comments on Draft Final CCR Document	Wed 1/16/13	Wed 1/16/13
Comment Resolution	Wed 1/16/13	Fri 2/15/13
Prepare Final CCR Document	Wed 1/16/13	Fri 2/15/13
Submit Final CCR Document	Fri 2/15/13	Fri 2/15/13
DECISION DOCUMENT	Mon 12/5/11	Fri 4/12/13
Prepare Decision Document	Mon 12/5/11	Tue 9/25/12
Submit Draft Decision Document	***Wed 9/26/12***	***Wed 9/26/12***
USEPA & MEDEP Review Draft Decision Document	Wed 9/26/12	Sat 11/10/12
Receive Regulator Comments on Draft Decision Document	**Mon 11/12/12**	**Mon 11/12/12**
Comment Resolution	Mon 11/12/12	Thu 12/27/12
Prepare Draft Final Decision Document	Thu 12/27/12	Sun 2/10/13
Submit Draft Final Decision Document	***Mon 2/11/13***	***Mon 2/11/13***
USEPA & MEDEP Review Draft Final Decision Document	Mon 2/11/13	Wed 3/13/13
Receive Regulator Comments on Draft Final Decision Document	**Wed 3/13/13**	**Wed 3/13/13**
Comment Resolution	Wed 3/13/13	Fri 4/12/13
Prepare Final Decision Document	Wed 3/13/13	Fri 4/12/13
Submit Final Decision Document	Fri 4/12/13	Fri 4/12/13



RESOLUTION CONSULTANTS

Attachment C

Schedule Revisions For FY13 Amended Site Management Plan

September 2012
Schedule Revisions For
Draft FY13 Amended Site Management Plan
Environmental Restoration Program
Portsmouth Naval Shipyard, Kittery, Maine

Schedule revisions for each Operable Unit (OU) shown in the Appendix B reflect schedule changes to the Final Fiscal Year 2012 (FY12) Amended Site Management Plan (SMP) based on the status of projects as of June 11, 2012.

OU1 (Site 10)

- No significant changes were made to schedule dates presented in the Final FY12 SMP.
- Remedial Action (RA) dates were updated to reflect activities completed, including Remedial Action Work Plan (RAWP), Land Use Control Remedial Design (LUC RD), and on-site construction.

OU2 (Sites 6 and 29)

- The Record of Decision (ROD) dates were updated to reflect completion on September 27, 2011, approximately four months ahead of the FY 2012 SMP schedule.
- The anticipated Remedial Design (RD) and RA schedules were updated slightly based on the Draft RD being submitted on April 30, 2012.
- The Removal Action for the DRMO Impact Area schedule was updated based on actual completion of site restoration activities in May 2011. The Construction Completion Report schedule was updated based on delays associated with archeological findings.

OU3 (Sites 8, 9, and 11)

- No significant changes were made to schedule dates presented in the Final FY12 SMP.
- The Five Year Review dates were updated to reflect completion of the document ahead of schedule on May 31, 2012.
- The schedule for Operation, Maintenance, and Monitoring Plan Implementation was updated to include future rounds in FY13 and FY14.

OU4 (Site 5 and offshore areas potentially impacted by onshore sites)

- The OU4 Feasibility Study (FS) schedule was updated to reflect the delay in regulatory review and comment resolution of the draft FS Report. The Proposed Response Action Plan (PRAP), ROD, and RD schedules were updated accordingly.

OU7 (Site 32)

- The OU7 FS schedule was updated based on the Draft FS being submitted on May 18, 2012. The PRAP, ROD, and RD Design schedules were updated accordingly.

OU8 (Site 31)

- The OU8 Remedial Investigation (RI) schedule has been updated due to the continued construction activities within this site.
- A Response Complete data for OU8 has been added: September 15, 2015.

OU9 (Site 34)

- The OU9 RI schedule was updated to reflect delays in Comment Resolution. The OU9 RI was finalized in June 2012.

Site 30

- No significant changes were made to schedule dates presented in the Final FY12 SMP.
- The Removal Action schedule was updated to reflect earlier completion of field construction activities in November 2011.