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FINAL SITE MANAGEMENT PLAN 2014 NS NEWPORT RI
12/1/2013
RESOLUTION CONSULTANTS

FINAL

**SITE MANAGEMENT PLAN
FISCAL YEAR 2014
NAVAL STATION NEWPORT
Newport, Rhode Island**

Prepared for:



**Department of the Navy
Naval Facilities Engineering Command, Mid-Atlantic
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**Comprehensive Long-Term Environmental Action Navy
Contract No. N62470-11-D-8013**

Contract Task Order WE01

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December 2013

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List of Acronyms and Abbreviations

AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirement
B&RE	Brown & Root Environmental
BERA	Baseline ecological risk assessment
CCRF	Coddington Cove Rubble Fill Area
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CHF	Contaminant Hazard Factor
CLEAN	Comprehensive Long-Term Environmental Action Navy
COPC	Chemical of Potential Concern
cPAH	Carcinogenic Polycyclic Aromatic Hydrocarbon
CS	Confirmation Study
CTO	Contract Task Order
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DESC	Defense Energy Support Center
DFSP	Defense Fuel Support Point
DOD	Department of Defense
ECC	Environmental Chemical Corporation
EE/CA	Engineering Evaluation/Cost Analysis
EPA	Environmental Protection Agency
ERA	ecological risk assessment
ESD	Explanation of Significant Difference
FFA	Federal Facility Agreement
FS	Feasibility Study
FY	Fiscal Year
HHRA	Human Health Risk Assessment
IAG	Interagency Agreement
IAS	Initial Assessment Study
ICDEC	Industrial/Commercial Direct Exposure Criteria
IM	Interim Measure
IR	Installation Restoration
IRP	Installation Restoration Program
LTM	Long-Term Monitoring
MC	munitions constituents

MEC	Munitions and Explosives of Concern
MPF	Migration Pathway Factor
MPS	Media Protection Standard
MRP	Munitions Response Program
msl	mean sea level
NACIP	Navy Assessment and Control of Installation Pollutants
NAVFAC	Navy Facilities Engineering Command
NAVSTA	Naval Station
Navy	United States Department of the Navy
NETC	Naval Education and Training Center
NFA	No Further Action
NPL	National Priority List
NTCRA	Non-Time Critical Removal Action
NUSC	Naval Undersea Systems Center
NUWC	Naval Undersea Warfare Center
OFFTA	Old Fire Fighting Training Area
O&M	Operations and Maintenance
OU	Operable Unit
PA	Preliminary Assessment
PA/SI	Preliminary Assessment/Site Investigation
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PCE	tetrachloroethene
PDI	Pre-Design Investigation
PRG	Preliminary Remediation Goal
RA	Remedial Action
RAB	Restoration Advisory Board
RACR	Remedial Action Completion Report
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RDEC	Residential Direct Exposure Criteria
RD/RA	Remedial Design/Remedial Action
RF	Receptor Factor
RI	Remedial Investigation
RIDEM	Rhode Island Department of Environmental Management
RI/FS	Remedial Investigation/Feasibility Study

ROD	Record of Decision
RV	recreational vehicle
SAIC	Science Applications International Corporation
SARA	Superfund Amendments and Reauthorization Act
SASE	Study Area Screening Evaluation
SI	Site Investigation
SIRAR	Site Investigation and Remedial Action Report
SMP	Site Management Plan
SRI	Supplemental Remedial Investigation
SSA	Site Screening Area
SVOC	Semivolatile organic compound
SWOS	Surface Warfare Officers School
TCE	trichloroethene
TCRA	time critical removal action
TPH	total petroleum hydrocarbon
TSCA	Toxic Substances Control Act
TtEC	Tetra Tech EC, Inc.
TtFW	Tetra Tech FW, Inc.
URI	University of Rhode Island
UST	underground storage tank
UU/UE	unrestricted use and unlimited exposure
UXO	unexploded ordnance
VOC	Volatile organic compound
WAMS	Water Area Munitions Study
WW	World War

1.0 INTRODUCTION

This Site Management Plan (SMP) is for the Naval Station (NAVSTA) Newport in Newport, Rhode Island, and was prepared by the U.S. Navy (Navy), Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic and Resolution Consultants. The SMP serves as a management tool for planning, reviewing, and setting priorities for all environmental investigative and remedial response activities to be conducted at the facility under the Navy Installation Restoration Program (IRP). The Navy's IRP parallels the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process.

This SMP provides the site-specific history, status, and schedule for implementation of IRP activities at NAVSTA Newport sites. The SMP is updated annually to revise priorities and schedules of activities as additional information (including funding) becomes available. This version of the SMP for Fiscal Year 2014 (FY14) presents the rationale for the sequence of future investigation and remediation activities and the estimated schedule for completion of these activities. The use of an SMP allows for annual adjustment in scheduled activities for reasons such as federal budgetary constraints, changes in scope of investigation/remediation activities or other unanticipated events. These changes are governed by the Federal Facility Agreement (FFA) for NAVSTA Newport (EPA Region 1, 1992). The FFA establishes the roles and responsibilities of the Navy and the U.S. Environmental Protection Agency (EPA) and serves as an Interagency Agreement (IAG) for the completion of all necessary investigation and remedial actions at NAVSTA Newport. This SMP, itself, is not an FFA deliverable, but is a key element of the FFA as a management tool for both EPA and the Navy in implementing the IRP. A courtesy copy of this document will be provided to state and federal project managers.

The following section summarizes the location, mission, operations history, and environmental activities history at NAVSTA Newport.

1.1 Facility Location and Mission

The NAVSTA Newport facility has been used by the Navy since the Civil War era. Activities increased during war time, but decreased later as Navy forces were reorganized. Between 1900 and the mid-1970s, the facility was used as a refueling depot. The Naval Education and Training Center (NETC) was established at NAVSTA Newport in the 1970s. In the mid-1990s, several new laboratories were constructed at the Naval Undersea Warfare Center (NUWC, formerly Naval Undersea Systems Center or NUSC) to provide research, development, testing, evaluation, engineering, and fleet support for submarines and underwater systems. In 1998, NAVSTA Newport was established as the primary host command, taking over base operating support responsibilities from NETC.

The NAVSTA Newport facility encompasses approximately 1,000 acres on the west shore of Aquidneck Island facing the east passage of Narragansett Bay, and is located in the towns of Portsmouth, Middletown, and Newport, Rhode Island (Figure 1-1). The facility also encompasses the northern third of Gould Island, which is part of the Town of Jamestown, Rhode Island.

The facility contains several IRP sites, which are referred to as Operable Units (OUs), designated by EPA. These sites include one former landfill, a former fire fighting training area, a former recreational shooting range, an old shipyard, a water tower, five tank farms, and other specific areas with known or potential groundwater impacts. Private wells located within 3 miles of the Base provide drinking water to an estimated 4,800 people and irrigation water for approximately 220 acres of land. Approximately 10,000 people live within 3 miles of the NAVSTA Newport. Per the FFA, the Navy is the lead agency for site investigation and cleanup, with formal oversight provided by EPA and the Rhode Island Department of Environmental Management (RIDEM).

1.2 Operable Unit Designation

The sites at NAVSTA Newport are defined in the FFA and subsequent FFA updates and organized into 12 OUs, designated by EPA (see Table 1-1):

**Table 1-1
 FFA Sites and Operable Units
 NAVSTA Newport, RI**

FFA Site No.	Site Name	Operable Unit No.
1	McAllister Point Landfill	Source Control – OU 1 Management of Migration – OU 4
2	Melville North landfill	No designation
4	Coddington Cove Rubble Fill Area (CCRF)	No designation
7	Tank Farm 1	No designation
8	NUSC Disposal Area	OU 7
9	Old Fire Fighting Training Area (OFFTA)	OU 3
10	Tank Farm 2	No designation
11	Tank Farm 3	No designation
12	Tank Farm 4	OU 11
13	Tank Farm 5	OU 2
17	Building 32, Gould Island	OU 6
19	Robert E. Derecktor Shipyard	Offshore – OU 5 Onshore – OU 12
20	Surface Warfare Officers School (SWOS)	No designation: Part of OU 3

FFA Site No.	Site Name	Operable Unit No.
21	Melville Water Tower	OU 8
22	Carr Point Storage Area	OU 10
23	Coddington Point Buried Debris Areas	No designation
MRP Site 1	Carr Point Shooting Range	OU 9

1.3 Regulatory History and Overview of Environmental Investigations

The 1983 Initial Assessment Study (IAS) identified 18 sites where contamination was suspected to pose a threat to human health and/or the environment (Naval Energy and Environmental Support Activity, 1983). Six of the 18 sites were investigated further in a Confirmation Study (CS) completed in 1986 (Loureiro Engineering Associates and York Wastewater Consultants, 1986).

A Phase 1 Remedial Investigation (RI) and Feasibility Study (FS) (RI/FS) was completed in 1992. This RI/FS covered McAllister Point Landfill (Site 1), Melville North Landfill, Old Fire Fighting Training Area (OFFTA), Tank Farm 4, and Tank Farm 5 (Figure 1-1).

Investigations at four of the five sites covered under the Phase 1 RI/FS have continued under the IRP following the listing of NAVSTA Newport (then referred to as NETC) on the National Priority List (NPL) in 1989. Ten additional sites (Tank Farm 1, Tank Farm 2, Tank Farm 3, CCRF, NUSC Disposal Area, Derektor Shipyard, Building 32 at Gould Island, Carr Point, Melville Water Tower, and Coddington Point) have been investigated or are being investigated under the IRP. These investigations led to decision documents in the form of Records of Decision (RODs) for the McAllister Point Landfill, OFFTA, SWOS, Tank Farm 4, a portion of Tank Farm 5 (Tanks 53 and 56), and the NUSC Disposal Area.

The Melville North Landfill has been investigated under RIDEM regulations, rather than under the IRP, because it was not owned by the Navy at the time of the NPL listing.

A chronology of the major base-wide activities and documents at the NAVSTA Newport IRP sites is tabulated below in Table 1-2. Activities and documents specific to each site are tabulated in Section 2.0.

Table 1-2
Chronology of Major Base-Wide Events
NAVSTA Newport, RI

Event/Document	Date
IAS completed. IAS identified 18 potentially contaminated sites. (Naval Energy and Environmental Support Activity, 1983)	March 1983
CS completed for: Site 01, Site 02, Site 07, Site 12, Site 14, and Site 17. (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
NETC Newport listed on the NPL.	November 21, 1989
Draft Phase 1 RI and Human Health Risk Assessment (HHRA) Report completed for Sites 01, 02, 09, 12, and 13. (TRC, 1992)	January 1992
FFA between EPA, RIDEM, and Navy signed. (EPA Region 1, 1992)	March 23, 1992
Restoration Advisory Board (RAB) established.	1996
First Five-Year Review Report completed. Five-Year review triggered by first remedial action at McAllister Point Landfill and Tank Farm 5, Tanks 53 and 56 in 1994. (TtNUS, 1999c)	December 1, 1999
Second Five-Year Review Report completed. (Tetra Tech, 2004f)	December 1, 2004
Draft Base Wide Background Study Report completed. (Tetra Tech, 2007b)	October 1, 2007
Third Five-Year Review Report completed. (Tetra Tech, 2009c)	December 2009

1.4 CERCLA Process

Beginning in 1980, investigations of NAVSTA Newport hazardous waste sites were conducted under the Department of Navy Assessment and Control of Installation Pollutants (NACIP) Program. After 1984, investigations at NAVSTA have been conducted under the Department of Defense (DOD) IRP. Funding for investigation is allocated for DOD sites under the Defense Environmental Restoration Account (DERA).

An FFA for NAVSTA Newport was completed in 1992. This SMP is an attachment to the FFA. The FFA was developed to enable the Navy to meet the provisions of CERCLA and applicable state law, while implementing the Navy's IRP process. Among other requirements, the FFA outlines roles and responsibilities, establishes deadlines/schedules, and outlines the work to be performed.

Under the IRP, past disposal activities that may have resulted in the release of hazardous constituents to the environment require environmental investigation to assess the need for a remedy, and if necessary, the selection and implementation of the remedy. The phases of

investigation under the Navy's IRP and CERCLA include the PA/SI, RI, FS, ROD, and RD/RA. At federal facilities where the responsible federal agency has entered into a FFA with the EPA, the Navy conducts a Study Area Screening Evaluation (SASE), which is the initial study in response to a suspected hazardous substance release or threat of release. The IRP and CERCLA also have provisions for Interim Measures (IM) that can be implemented if a site poses an immediate threat to the environment. A description of the major phases of the CERCLA process is included as Appendix A.

Contaminants present that are not regulated by CERCLA are addressed under other appropriate regulatory programs. For instance, petroleum releases from systems for fueling and heating, which are regulated under state UST regulations, are investigated and remediated under the state underground storage tank (UST) program.

2.0 SITE DESCRIPTIONS

This section presents the brief history and status of each site at NAVSTA Newport that is subject to the FFA and is being managed under this SMP. Some of these sites have been historically referred to as SMP sites, Areas of Concern (AOCs), and/or study areas. For clarity, a listing of sites and alias names is provided in Section 2.1, and a summary of the specific history and status of each site is provided in the subsequent sections.

2.1 SMP Sites

This section lists the sites that are addressed in this SMP. The following is a list of sites that were identified in the FFA.

- Site 1 – AOC 1, McAllister Point Landfill, OU 1 and OU 4
- Site 4 – Study Area 4, CCRF
- Site 7 – Study Area 7, Tank Farm 1
- Site 8 – Study Area 8, NUSC Disposal Area, OU 7
- Site 9 – AOC 9, OFFTA, OU 3
- Site 10 – Study Area 10, Tank Farm 2
- Site 11 – Study Area 11, Tank Farm 3
- Site 12 – AOC 12, Tank Farm 4, OU 11
- Site 13 – AOC 13, Tank Farm 5, OU 2
- Site 17 – Study Area 17, Building 32, Gould Island, OU 6

Since the FFA, the following sites have been identified and are also subject to the FFA:

- Site 19 – Study Area 19, Derecktor Shipyard, OU 5 and OU 12
- Site 20 – Study Area 20, SWOS
- Site 21 – Study Area 21, Melville Water Tower Site, OU 8
- Site 22 – Study Area 22, Carr Point Storage Area, OU 10
- Site 23 – Study Area 23, Coddington Point Buried Debris Areas

One Munitions Response Program (MRP) site has also been identified at NAVSTA Newport and is subject to the FFA:

- MRP Site 1, Former Carr Point Shooting Range, OU 9

For clarification of the Tank Farm sites, the Navy has categorized the individual AOCs within the tank farms as either IRP/CERCLA (Category 1), petroleum-only (Category 2), or not yet defined (Category 3). This SMP focuses on the IRP/CERCLA (Category 1) AOCs that are monitored under the FFA.

2.2 Site 1 – McAllister Point Landfill (OU 1 and OU 4)

Site Description and Historical Site Use

The McAllister Point Landfill at NAVSTA Newport in Middletown, Rhode Island, was operated as a sanitary landfill over a 20-year period. From 1955 until the mid-1970s the landfill accepted all the wastes generated at the Naval complex, including waste from multiple operational areas (machine shops, ship repair, etc.), Navy housing areas (domestic refuse), and from the 55 ships that were home-ported at Newport prior to 1973 (approximately 14 40-cubic yard containers each day). The materials disposed of at the landfill reportedly included spent acids, paints, solvents, waste oils (diesel, lubrication, and fuel), polychlorinated biphenyl (PCB)-contaminated transformer oil; domestic refuse; and construction debris.

During the period from 1955 through 1964, wastes were trucked to the landfill, spread with a bulldozer, and covered. In the late 1950s or early 1960s, an incinerator was built at the landfill. From that time through about 1970, approximately 98 percent of the wastes were burned in the incinerator; the ash and unburned materials were disposed of in the landfill. The incinerator was closed around 1970 due to the resultant air emissions. During the remaining years that the site was operational, all wastes were again disposed of directly into the landfill. Based on a review of aerial photographs of the site covering the period from 1965 through 1975, a change in the shape of the shoreline in the central portion of the site is evident, indicating filling of Narragansett Bay in this area. After disposal activities ceased in 1973, a three-foot thick covering of clay/silt was reportedly placed over the central portion of the landfill, and the site remained inactive.

CERCLA Response Actions

In November 1989, NAVSTA Newport (then NETC), including the landfill, was listed on EPA's NPL of abandoned or uncontrolled hazardous waste sites subject to requirements of CERCLA and the Superfund Amendments and Reauthorization Act of 1986 (SARA). Following completion of the Phase 1 Remedial Investigation, a ROD was signed by EPA and the Navy in September 1993 to address source control (OU 1). The ROD selected a multi-media, low permeability cap as a source control measure for the landfill. Construction of the landfill cap commenced in 1995, and was completed in 1996, when the landfill was formally closed in compliance with a Consent Decree Agreement between the Navy and EPA.

In April 1996, during construction of the source control remedy, landfill debris was discovered in the intertidal zone following a winter construction hiatus. This discovery led to investigations of the extent of landfill debris in Narragansett Bay and completion of a feasibility study for marine sediment/management of migration. A second ROD that addressed marine sediments/management

of migration, referred to as OU 4, included a remedy for marine sediment contamination, and was issued in March 2000.

Site Chronology

A list of important McAllister Point Landfill historical events and documents and relevant dates in site chronology is shown below in Table 2-1. The identified events are illustrative, not comprehensive.

Table 2-1
Chronology of Historical Events and Documents
McAllister Point Landfill, NAVSTA Newport, RI

Event/Document	Date
Landfill operations commenced	1955
Incinerator built	1965
Ceased operation of incinerator due to air emission issues	Approx. 1970
Landfill disposal activities ceased	1973
CS completed. (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
NETC Newport listed on NPL	November 21, 1989
Draft Phase 1 RI and HHRA completed. (TRC, 1992)	January 1992
Remedial Design (RD) Work Plan completed. (TRC, 1993b)	August 1, 1993
ROD (source control, landfill cap) issued – OU1 (Navy, 1993)	September 27, 1993
RI and HHRA completed (TRC, 1994a)	July 1, 1994
Ecological Risk Assessment (ERA) and FS Report completed. (TRC, 1994b)	October 1, 1994
RCRA Subtitle C cap design completed	1994
Landfill cap construction activities	March 1995 – October 1996
Explanation of Significant Difference (ESD) issued. (Navy, 1996)	August 1, 1996
30-year O&M period began	1997
Marine ERA Report completed (SAIC and URI, 1997b)	March 1997
Draft Final Phase 2 RI Report, Revision 1 completed (B&RE, 1997a)	April 1997
Technical Memorandum – Landfill Gas Monitoring Approach completed. (B&RE, 1997c)	August 1, 1997

Event/Document	Date
Annual Monitoring Report Operations and Maintenance Activities for 1997 completed (Foster Wheeler, 1998)	September 1, 1998
Final FS (management of migration and marine sediment) completed (Tetra Tech, 1999a)	May 3, 1999
Annual Monitoring Report O&M Activities, 1 January to 31 December 1998 completed. (Foster Wheeler, 1999b)	July 1, 1999
First Five-Year Review completed (OU 1 only)	December 1, 1999
Phase 1 PDI for Offshore Areas of the McAllister Point Landfill completed	February 2000
ROD (management of migration, contaminated marine sediments) issued (OU 4) (Navy, 2000)	March 1, 2000
Annual Monitoring Report O&M Activities, 1 January to 31 December 1999 completed. (Foster Wheeler, 2000)	March 20, 2000
Eel grass restoration performed	May 2001 – October 2001
Dredging completed	October 2001
Marine sediment remedial construction work completed	November 15, 2001
Annual Monitoring Report O&M Activities, 1 January to 31 December 2000 completed. (Foster Wheeler, 2002a)	April 1, 2002
Restoration of onshore areas used during the RA completed	May 2002
LTM and O&M	Ongoing
Annual Monitoring Report O&M Activities, 1 January to 31 December 2001 completed. (Foster Wheeler, 2002b)	July 2002
Final Spring 2002 Monitoring Report for McAllister Point Eelgrass Monitoring completed. (SAIC and URI, 2002)	September 2002
Work Plan for Ambient Air Worker Exposure Monitoring completed. (Tetra Tech, 2003a)	April 2003
Final Work Plan for McAllister Point Post Dredging Habitat Survey 2003 completed. (SAIC, 2003)	April 2003
Annual Monitoring Report O&M Activities for 2002 completed (Foster Wheeler, 2003)	May 7, 2003
Work Plan for Artificial Reef Evaluation completed. (Menzie-Cura, 2003)	November 18, 2003
Landfill Gas Monitoring Results for Ambient Air Worker Exposure Monitoring completed. (Tetra Tech, 2003b)	December 1, 2003
Final McAllister Point Post Dredging Habitat and Artificial Reef Surveys 2003 completed. (SAIC, 2004)	April 2004

Event/Document	Date
Annual Monitoring Report O&M Activities for 2003 completed (ECC, 2004a)	May 2004
Final Interim Remedial Action (RA) Report completed. (TtFW, 2004b)	September 28, 2004
Semi-annual Landfill Inspection Report July 2004 completed (ECC, 2004b)	September 2004
Second Five-Year Review completed	December 2004
Final McAllister Point Post Dredging Eelgrass Monitoring Report 2005 completed (Eyak Environmental Science, 2005).	March 2005
Annual Monitoring Report Operations and Maintenance Activities for 2004 completed (ECC, 2005)	July 2005
Work Plan for LTM completed (Tetra Tech, 2005c)	October 2005
Round 1: December 2004 LTM Report completed (Marine Sediments) (Tetra Tech, 2006b)	March 2006
Final Annual Monitoring Report O&M Activities 2005 completed (ECC, 2006a)	February 2006
Final Supplemental Eelgrass Mitigation Work Plan completed (Battelle, 2006)	April 2006
Round 2: October-November 2005 LTM Report completed (Marine Sediments) (ECC, 2006b)	April 2006
ESD Report completed (Navy, 2007)	September 2007
Final Annual Monitoring Report O&M Activities for 2006 completed (ECC, 2007b)	December 2007
Final Marine Sediments Monitoring Report Sampling Round 3: October 2006 completed (ECC, 2007a)	December 2007
Final Annual Monitoring Report O&M Activities for 2007 completed (ECC, 2008a)	November 2008
Final Marine Sediments Monitoring Report Sampling Round 4: October 2007 completed (ECC, 2008b)	December 2008
Draft Annual Monitoring Report for O&M Activities for 2008 completed	March 2009
Draft Marine Sediments Monitoring Report, Sampling Round 5: October 2008 completed (ECC, 2009)	March 2009
Third Five-Year Review Report completed	December 2009
Final Marine Sediments Monitoring Report, Sampling Round 6: October 2009 completed (H&S, 2010a)	July 2010
Final Annual Monitoring Report O&M Activities for 2009 completed (H&S, 2010a)	July 2010

Event/Document	Date
Work Plan Addendum, Long Term Monitoring Plan completed (Tetra Tech, 2010i)	August 2010
Final Annual Monitoring Report O&M Activities for 2010 completed (H&S, 2012)	February 2012
Final Land Use Control Remedial Design completed (Tetra Tech, 2012b)	February 2012
Draft Annual Monitoring Reports for 2011 and 2012 completed	May/June 2013

Two separate remedial actions have been implemented at McAllister Point Landfill: a source control remedy (OU 1) and a marine sediment/management of migration remedy (OU 4). Three Five-Year Reviews have been conducted that were completed in 1999, 2004, and 2009. The First Five-Year Review only included the source control remedy (OU 1). Subsequent Five-Year Reviews have included both OU 1 and OU 4. The next Five-Year Review will be completed in December 2014. Five-year reviews of OU 1 and OU 4 are required by statute because hazardous substances, pollutants, or contaminants remain on site that do not allow for unrestricted use and unlimited exposure (UU/UE).

The Third Five-Year Review recommended that monitoring of both OU 1 and OU 4 continue, though at a reduced level. The Long Term Monitoring program was amended through publication of a Work Plan Addendum to the Long Term Monitoring Plan (Tetra Tech, 2010f).

CERCLA Path Forward

The CERCLA path forward for McAllister Point Landfill for both OU 1 and OU 4 is as follows:

- Continue Post-remedial O&M field work and reporting
- Five-year reviews (next 5 year review is 2014)

2.3 Site 4 – Coddington Cove Rubble Fill Area (CCRF)

Site Description and Historical Site Use

CCRF is a small area (less than 8 acres) located in Newport, Rhode Island, that was used from 1978 to 1982 as an area for general fill. Records researched for the IAS indicated that the area was used for the disposal of rubble, concrete, asphalt, slate, wood, brush, and possibly small quantities of ash (Navy, 2002a). The area lies on the shoreward side of Coddington Highway, between the highway and the rail spur, south of the former Derecktor Shipyard area. A secure, fenced storage area is located directly north of the site and the Defense Automated Printing Service/Supply Department (Building 47) is to the east. A Navy housing development abuts the

south and west boundary of the CCRF. The area is fenced, although there are openings in the fence on the southwest side. The site is currently unoccupied.

A record review and field sampling plan was issued in May 2004. The record review, including historical aerial photographs, was used to develop the field sampling plan to gather preliminary information through a focused field investigation (Tetra Tech, 2004a). The field sampling plan included excavation of test pits in areas of suspected fill and collection of soil and groundwater samples to characterize the waste materials in the fill areas. The field work was completed in May and July 2004. Soil boring and groundwater samples were collected in September 2004 as part of a Phase 2 Environmental Site Assessment. The report recommended additional sampling.

CERCLA Response Actions

A draft SASE report was issued in April 2011 and a revised draft SASE report was issued in May 2012. The SASE concluded that contaminants detected at CCRF pose minimal concern for risk to human health and the environment. According to the report, some contaminants found in soil are likely a result of the presence of fill, but contaminants in surface water and sediment are likely to be the result of road runoff and storm drainage from the urban surroundings. Pesticides present at CCRF are likely a result of past spraying operations. The site is a partial wetland and cannot be used for residential purposes, and it is currently protected from development by wetland protection regulations. Access to the site is restricted by physical barriers including fences, wetlands, and a railway. Contaminants found in site media have little potential of migrating offsite to impact other areas or media surrounding the Site. In January 2013, the human health and ecological risk assessment portions of the draft SASE report were revised, and the Navy and regulatory agencies determined that additional groundwater characterization would be necessary prior to rendering a final decision on whether further action is required at CCRF. The focused groundwater sampling field program is anticipated to occur in early 2014. The results of the groundwater sampling program will be documented in a groundwater technical memorandum and incorporated as an appendix into the final SASE report.

Site Chronology

A list of important CCRF historical events and documents and relevant dates in site chronology is shown below in Table 2-2. The identified events are illustrative, not comprehensive.

Table 2-2
Chronology of Historical Events and Documents
CCRF, NAVSTA Newport, RI

Event/Document	Date
Area used for the disposal of general fill	1978 – 1982
Phase 2 Environmental Site Assessment Report completed (Land America Commercial Services, 2004)	October 15, 2004
Revised Draft SASE report completed (Tetra Tech, 2012e)	May 2012
Final Work Plan (SAP) for supplemental groundwater sampling (Resolution, 2013b)	November 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at CCRF. The CERCLA path forward for CCRF is dependent on the final outcome of the SASE in terms of whether No Further Action is appropriate or the site needs to enter the RI/FS process.

2.4 Site 7 – Tank Farm 1

Site Description and Historical Site Use

Tank Farm 1, located in Portsmouth, Rhode Island, was constructed in the early 1940s and was in operation by the Navy between World War (WW) II and 1970. There are six 60,000-barrel USTs that were used for storage of diesel oil, fuel oil, jet fuel, 100-octane gasoline, and aviation fuel. According to previous investigation reports, tank bottom sludges were placed in pits on the site. Approximately 6,000 gallons of these sludges were reportedly disposed of in this manner on the site (Navy, 2002d). The site was included in the 1983 IAS and the 1986 CS. A fence around the tank farm area restricts access to the site.

The Defense Energy Support Center (DESC) was licensed by the Navy to use the tank farm as part of Defense Fuel Support Point (DFSP) Melville for petroleum fuel storage and distribution between 1974 and 1998. The tanks were cleaned and ballasted between 1996 and 1997 and the site was administratively closed by DESC in 1998 (Tetra Tech, 2001b). Further investigations are being planned by DESC to fully characterize and remediate, under the RIDEM UST regulations, any

petroleum contamination that occurred as a result of DESC operations. The UST program is mandated by the federal Resource Conservation and Recovery Act (RCRA). Following DESC's efforts, other investigations and environmental cleanup actions may be undertaken as appropriate for the applicable regulatory programs. Steps toward closeout of the petroleum release areas not addressed by DESC are being discussed with RIDEM.

CERCLA Response Actions

The ethyl blending plant on site (AOC-001) and Transformer Vaults 2 and 3 are currently identified as areas to be investigated and closed out under CERCLA. A data gaps assessment for these areas has been performed and a draft data gaps assessment report has been completed and is expected to be finalized this fall.

Site Chronology

A list of important Tank Farm 1 historical events and documents and relevant dates in site chronology is shown below in Table 2-3. The identified events are illustrative, not comprehensive.

Table 2-3
Chronology of Historical Events and Documents
Tank Farm 1, NAVSTA Newport, RI

Event/Document	Date
Tank Farm constructed	1940s
Tank Farm in operation by the Navy	1940s – 1970
Tank Farm in operation by the DESC	1974 – 1998
CS completed (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
DFSP begins investigations	August 1992
Tanks were cleaned and ballasted	1996 – 1997
Site was administratively closed by the DESC	1998
Final Data Gaps Work Plan completed (Tetra Tech, 2012g)	July 2012
Draft Data Gaps Assessment Report completed	March 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at Tank Farm 1. The site does not yet have an OU designation. The CERCLA path forward for Tank Farm 1 is as follows:

- Finalize RI
- FS, Proposed Plan, and ROD
- RD/RA as appropriate
- Five-year review as appropriate

2.5 Site 8 – Naval Undersea Systems Center (NUSC) Disposal Area (OU 7)

Site Description and Historical Site Use

The NUSC Disposal Area, located in Middletown, Rhode Island was reportedly used for disposal of rubble and inert materials, including scrap lumber, tires, wire, cable, and empty paint cans.

The NUSC Disposal Area consists of approximately 8 acres of land adjacent to two streams, associated wetlands, and a small pond. The upland portions have been used as fill and storage areas since the Navy developed the site in the early 1950s. Currently there is a secured storage area and open storage area (both paved – approximately 2.3 acres) as well as open fields (1.6 acres) and brush covered areas (4.2 acres).

CERCLA Response Actions

The site was included in the 1983 IAS with a recommendation for no further action (NFA). Further investigations have been performed under a SASE and an RI for the NUSC Disposal Area. The SASE was conducted in June through November 2003, and included a passive soil gas investigation, and collection of soil, sediment, surface water, and groundwater samples (Tetra Tech, 2005a). The passive soil gas analysis indicated some areas where elevated volatile organic compounds (VOCs) were present, and these, along with other target areas identified in the work plan were investigated with a series of test pits, soil borings, and groundwater monitoring wells. Chlorinated solvents (trichloroethene [TCE] and tetrachloroethene [PCE]) were found in groundwater at the north (downgradient) end of the site. The SASE concluded that limited removal actions may be necessary and that additional efforts will be required to complete a remedial investigation, including a baseline HHRA and ERA, for the site (Tetra Tech, 2005a).

In response to the conclusions of the SASE, some limited removal actions have occurred at the site. A removal action was conducted in 2005 and 2006 to remove drums in various states of decay containing a tar-like substance from the center of the South Meadow. In addition, an area adjacent

to Deerfield Creek was excavated in 2005 to remove deposited paint cans and metal debris. A final closure report (TN & Associates, 2006a) provides details on this action.

An RI was conducted in late 2008 to early 2009 and the final RI was submitted in January 2010. The RI found that unacceptable risks were present at the site due to polycyclic aromatic hydrocarbons (PAHs) and arsenic in soil, and due to VOCs and metals in groundwater. It also found that ecological risks were present due to organic compounds in the sediment of the pond and from metals in surface soil. Field work for the SRI was conducted in summer 2010 and a final SRI report was submitted in October 2011. Additional groundwater sampling was conducted in 2011 and 2012 to further evaluate monitored natural attenuation (MNA) at the site. The final FS and Proposed Plan were completed in July 2012 and the ROD was issued in September 2012. Remedial design activities are underway.

The selected remedy, as outlined in the July 2012 ROD, includes the following components: excavation and off-site disposal of impacted soil (e.g., soil exceeding RIDEM leachability standards); construction of a soil cover over the remaining area of unpaved soils where chemical of concern concentrations exceed industrial cleanup goals; maintenance of the existing paved area as a Waste Management Area; in-situ treatment of the most contaminated portions of groundwater using either enhanced bioremediation or chemical oxidation, as to be determined through pre-design studies; MNA of the residual groundwater plume; excavation and off-site disposal of sediment in Deerfield Pond and Deerfield Creek; implementation of land use controls (LUCs) to ensure that future use of the property is limited to industrial activities, to ensure that the soil cover and subsurface soils are not disturbed without appropriate safety precautions, and to prohibit groundwater use until cleanup goals area achieved; and long-term monitoring of groundwater and inspection/maintenance of the soil/asphalt cover system (Navy, 2012c). The RD phase is on schedule to start the RA prior to the FFA schedule requirements. Per the FFA, the RA is expected to begin within 450 days of a signed ROD, which would be December 24, 2013.

Site Chronology

A list of important NUSC historical events and documents and relevant dates in site chronology is shown below in Table 2-4. The identified events are illustrative, not comprehensive.

**Table 2-4
 Chronology of Historical Events and Documents
 NUSC Disposal Area, NAVSTA Newport, RI**

Event/Document	Date
Area used for storage and fill	1950s – present
Final SASE Report completed (Tetra Tech, 2005a)	January 1, 2005
Draft RA Completion Report completed – removal of drums and paint cans (TN & Associates, Inc., 2006a)	April 1, 2006
Background Soil Investigation Report completed (Tetra Tech, 2006c)	September 1, 2006
Final Interim RA Report (limited soil removal action) completed (TN & Associates, Inc, 2006b)	December 1, 2006
Final Remedial Investigation Report completed (Tetra Tech, 2010a)	January 2010
Revised Draft FS completed (Tetra Tech, 2011h)	July 2011
Final Supplemental Remedial Investigation (SRI) completed (Tetra Tech, 2011b)	October 17, 2011
Final Feasibility Study completed (Tetra Tech, 2012f)	July 2012
Proposed Plan completed (Navy, 2012a)	July 2012
Final Record of Decision completed (Navy, 2012c)	September 2012
Draft (60%) Remedial Design for soil component of remedy completed	March 2013
Final Land Use Control Remedial Design completed	October 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at NUSC. The CERCLA path forward for NUSC is as follows:

- RD/RA
- Five-year review as appropriate

2.6 Site 9 – Old Fire Fighting Training Area (OFFTA) (OU 3)

Site Description and Historical Site Use

The 8-acre site, located on Coaster’s Harbor Island, adjacent to Narragansett Bay, in Newport, Rhode Island, was constructed in 1944 to train Navy personnel in fighting ship-board fires. Waste oils were used to train personnel in fire fighting operations (TRC, 1992). Several buildings were present to simulate ship compartments; these buildings, with several burning pits and paved areas,

served as the principal areas of activity. The fire fighting training facility was closed in 1972. Upon closure, the training structures were reportedly demolished and buried in three mounds on the site, and then the entire area was covered with topsoil. The three soil mounds were the primary site features before they were removed in 2005. One approximately 20 foot high mound was located in the center of the site; the other two, approximately 5 to 6 feet high, were located on the western portion of the site. Access to the site is restricted on the east, south, and west sides by a chain-link fence and rope barriers.

The site was converted to a recreational area with a playground, a picnic area with an open pavilion and barbecue grills, and a baseball field following the demolition activities in the early 1970s. The area was used for a variety of recreational activities between 1976 and 1998. A child day care center was also in operation at the site until 1994 when it was relocated to a larger facility on base (Tetra Tech, 2001b). The site, now referred to as Katy Field, is partially being used for staging construction materials.

CERCLA Response Actions

An IAS was conducted in 1983 that concluded that the site did not pose any threat. However, oil was found in the subsurface soil in 1987 during work to expand the child day-care center. In 1992, the Navy initiated an RI that included this area. According to the Phase 1 RI, issued in 1994, VOCs, pesticides, and fuel components were present in soils and groundwater. It was determined at that time that the contaminant concentrations did not pose an immediate threat to humans. In 1996, the Navy initiated a study as a follow up to the Phase 1 RI to attempt to define possible continuing sources of oil contamination to the property (Navy, 2003).

In 1998 the EPA requested that Katy Field and the recreational area around it be closed due to concerns about the adequacy of the characterization of site contaminants and exposure scenarios. The Navy immediately performed an HHRA at Katy Field to determine the possible health effects to adults and children from recreational use of the site. This study concluded that risks to site users were negligible. The Navy decided to keep the site closed until all investigations under CERCLA had been completed (Navy, 2003).

An ERA was conducted in the harbor adjacent to the site in 1998. This study found some potential for risk to ecological receptors in the near shore areas from contaminants related to old fuel releases. Follow-up sediment studies have confirmed the presence of some contaminants and also the presence of sensitive species such as eelgrass and shellfish in this area (Navy, 2003).

An RI Report, based on the Phase 1 and 2 investigations conducted in the early 1990s was completed in July 2001 (Tetra Tech, 2001b). This report incorporated the offshore ecological

investigation (1998), a marine ERA (2000), and three supplemental investigations (1997 – 2000). An FS was completed in September 2002 that evaluated remedial action alternatives to restore the site for unlimited use, and a Draft Proposed Plan was prepared to outline a proposed remedial action. In 2004, a series of pre-design steps were conducted to support this Draft Proposed Plan for remedial action at the site.

During investigations conducted in 2004, it was determined that contaminants present at OFFTA are contiguous with, and similar to those found at the newly constructed parking area at SWOS, located south of the site and Taylor Drive (see Section 2.13). With the addition of the SWOS area, the site currently encompasses over 8 acres. The contaminants present at OFFTA and SWOS and in the area of Taylor Drive, which separates the two properties, were addressed together in the Revised FS.

Also in 2004, the Navy deemed it appropriate to conduct a non-time-critical-removal-action. This decision was documented in an Action Memorandum, dated August 13, 2004 (Navy, 2004). The removal action was conducted in three phases. The first phase, conducted September 2004 to March 2005, removed soil and debris in the three mounds (Tetra Tech, 2005b). The second removal action resulted in excavation of hot spot contamination in the subsurface, as well as former drainage piping, a large oil-water separator, and exploratory excavations around remaining building foundations (Tetra Tech, 2008b). The third phase consisted of the construction of a replacement stone revetment, which underwent design in 2008 and 2009, and construction was initiated in January 2010. Due to the discovery of asbestos-containing materials (ACM) in soil, the construction work had a hiatus from September 2010 through July 2011 and then resumed from August 2011 through December 2011 under ACM conditions (AGVIQ-CH2M Hill, 2012).

Based on additional site data developed during the pre-design steps, the 2002 FS was revised in December 2007 (Tetra Tech, 2007c). This revision was prepared to reflect a change in the intended use of the property from residential use to parking, roadways, and open space for limited recreational use as defined by the Navy in discussion with RIDEM (Navy, 2006). A draft final was prepared in 2009 to incorporate site changes from the removal action conducted in 2008. The FS was finalized through a technical memorandum that identified minor revisions to the draft final.

Based on the Final FS, the Proposed Remedial Action Plan and Record of Decision were completed, which selected use of a cover system and land use controls as the remedy. The land use controls are managed through the establishment of a waste management unit which encompasses the entire site. The final ROD was signed in late September 2010. In September 2012, the ROD was modified through issuance of an Explanation of Significant Differences (ESD) (Navy, 2012b). The ESD added asbestos as a contaminant of concern in soil. ACM was discovered during installation of the replacement stone revetment, conducted as part of the non-time critical removal action

described above. Based on the ROD, a land use control remedial design was initiated in late 2010. The remedial design for the P-347 Newport Fitness Facility Phase 1A: Katy Field Parking Lot, which constitutes the soil cover and revetment extension components of the remedy, was finalized in October 2012 (Tetra Tech, 2012I). Remedial construction is underway and a construction completion close-out report is expected to be completed by July 2014.

Site Chronology

A list of important OFFTA historical events and documents and relevant dates in site chronology is shown below in Table 2-5. The identified events are illustrative, and not comprehensive.

Table 2-5
Chronology of Historical Events and Documents
OFFTA, NAVSTA Newport, RI

Event/Document	Date
Fire fighter training facility in operation	1944 – 1972
Area used for recreational activities	1976 – 1998
Child day care center in operation	1983 – 1994
Oil found in subsurface soil	1987
Draft Phase 1 RI and HHRA Report completed (TRC, 1992)	January 1992
Marine ERA Report completed (SAIC and URI, 2000)	April 2000
Final RI Report completed (Tetra Tech, 2001b)	July 1, 2001
FS for Soil, Groundwater, and Marine Sediment (submitted as final) (Tetra Tech, 2002)	September 1, 2002
Final Action Memorandum, Soil Management and Removal completed (Tetra Tech, 2004b)	June 1, 2004
Sediment and Groundwater Monitoring Work Plan completed (Tetra Tech, 2004e)	November 1, 2004
Soil PDI Report completed (Tetra Tech, 2005b)	April 2005
Soil PDI Report Addendum completed (Tetra Tech, 2005d)	November 1, 2005
Final Project Close-Out Report (removal of soil mounds) completed (Universe Technologies, 2005)	December 1, 2005
Draft Revised FS completed (Tetra Tech, 2007c)	December 1, 2007
Soil Removal Action (removal of hot spots, oil water separator) completed	April 2008

Event/Document	Date
Design for Replacement Stone Revetment completed (Tetra Tech, 2009d)	December 2009
Final FS report (technical memorandum) completed (Tetra Tech, 2010g)	July 15, 2010
Proposed Plan issued (Navy, 2010)	July 2010
Record of Decision signed	September 28, 2010
Draft Remedial Design for Land Use Controls completed (Tetra Tech, 2010j)	December 1, 2010
Removal Action for Installation of Replacement Stone Revetment completed (AGVIQ-CH2M-Hill, 2012)	December 2011
Final Land Use Control Remedial Design completed (Tetra Tech, 2012c)	February 2012
Explanation of Significant Differences signed (Navy, 2012c)	September 26, 2012
Final Design Submittal #1 P-347 Newport Fitness Facility, Phase 1A: Katy Field Parking Lot completed (Tetra Tech, 2012i)	October 2012

CERCLA Path Forward

Remedial construction of the soil cover under CERCLA is underway at OFFTA. The CERCLA path forward for OFFTA is as follows:

- Construction Completion Close-out Report for Soil Cover
- Finalize Long-term Monitoring Work Plan for Groundwater and Sediment
- LUC Implementation
- O&M and Monitoring and Five-year reviews

2.7 Site 10 – Tank Farm 2

Site Description and Historical Site Use

Tank Farm 2, located in the Melville area of Portsmouth, Rhode Island, was constructed in the early 1940s and used by the Navy between WWII and 1970. Eleven 60,000-barrel USTs were used for storage of fuel. According to previous investigation reports, approximately 100,000-175,000 gallons of tank bottom sludges were disposed in pits on site (Navy, 2002d). The site was part of the 1983 IAS. A fence around the tank farm area restricts access to the site.

DESC was licensed by the Navy to use the tank farm as part of DFSP Melville for petroleum fuel storage and distribution between 1974 and 1998. The tanks were cleaned and ballasted between 1996 and 1997 and the site was administratively closed by DESC in 1998 (Tetra Tech TtNUS,

2001b). A Tank Closure Assessment Report (GZA, 1998a) and Site Investigation Report (GZA, 1998) were submitted by DESC to RIDEM in 1998 under RIDEM UST regulations. Additional investigations by DESC were undertaken from May 2005 to June 2006 to characterize and remediate, under the RIDEM UST regulations, petroleum contamination that occurred as a result of DESC operations. The UST program is mandated by the federal RCRA. Contamination attributed to DESC operations were determined by research of historical practices, aerial photography analysis, and sampling. The Site Investigation and Remedial Action Report (SIRAR) (TtEC, 2006b) summarizes the data collected and the soil removal actions. Several AOCs were addressed (AOC-28, AOC-37, and Tank 25) by excavation of impacted soil. Soil above RIDEM Industrial/Commercial Direct Exposure Criteria (ICDEC) was successfully excavated with the exception of soil contamination not associated with DESC operations. However, site and tank closure has not been granted by RIDEM. Steps toward closeout of the petroleum release areas not addressed by DESC are being discussed with DESC. Other potential areas of concern identified by RIDEM require evaluation and discussion with RIDEM to determine if any investigation is warranted.

CERCLA Response Actions

Additional RI field investigations are scheduled to be completed in the fall of 2013 for areas of the site regulated under CERCLA. Reporting is scheduled to be completed in 2014.

Site Chronology

A list of important Tank Farm 2 historical events and documents and relevant dates in site chronology is shown below in Table 2-6. The identified events are illustrative, not comprehensive.

Table 2-6
Chronology of Historical Events and Documents
Tank Farm 2, NAVSTA Newport, RI

Event/Document	Date
Tank farm constructed	1940s
Tank farm used by Navy	1940s – 1970
Tank farm used by DESC	1974 – 1998
Tanks were cleaned and ballasted	1996 – 1997
Draft SI and RA Report completed (Petroleum) (TtEC, 2006b)	July 2006
Draft Sampling and Analysis Plan completed (CERCLA and Petroleum) (Tetra Tech, 2011d)	February 2011
Final Sampling and Analysis Plan completed (CERCLA only)	July 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at Tank Farm 2. The site does not yet have an OU designation. The CERCLA path forward for Tank Farm 2 is as follows:

- RI
- FS, Proposed Plan, and ROD
- RD/RA as appropriate
- Five-year review as appropriate

2.8 Site 11 – Tank Farm 3

Site Description and Historical Site Use

Tank Farm 3, located in the Melville area of Portsmouth, Rhode Island, was constructed in the early 1940s and was used by the Navy between WWII and 1970. Seven 60,000-barrel USTs were used for storage of fuel. According to previous investigation reports, tank bottom sludges were disposed of in burning chambers, which were constructed of steel sides and sand bottoms (Navy, 2002d). The site was part of the 1983 IAS. A fence around the tank farm area restricts access to the site.

DESC was licensed by the Navy to use the tank farm as part of DFSP Melville for petroleum fuel storage and distribution between 1974 and 1998. The tanks were cleaned and ballasted between 1996 and 1997 and the site was administratively closed by DESC in 1998 (Tetra Tech, 2001b). Further investigations by DESC commenced in June 2004 to fully characterize and remediate, under RIDEM UST regulations, any petroleum contamination that occurred as a result of DESC operations. The UST program is mandated by the federal RCRA. Contamination attributed to DESC operations were determined by research of historical practices, aerial photography analysis, and sampling programs. These investigations were completed in April 2005 and a summary of the data can be found in the Draft SI and RA Report for Tank Farm 3 (TtEC, 2006a). Several AOCs were addressed, with excavations taking place at AOC-001, -004, -005, -016, -017, and -018 in an effort to remediate soil to levels below RIDEM ICDEC and, if possible, below Residential Direct Exposure Criteria (RDEC). Contaminated soil remaining above ICDEC and RDEC levels was determined to be caused by activities other than DESC operations. To that extent, this effort remediated contamination caused by the DESC activities from 1974 to 1998. However, tank and site closure has not been granted by RIDEM. Steps toward closeout of the petroleum release areas not addressed by DESC are being discussed with DESC. Other potential AOCs identified by RIDEM require evaluation and discussion with RIDEM to determine if any investigation is warranted.

CERCLA Response Actions

A SASE report was finalized in August 2013. An RI Work Plan (SAP) was completed in May 2013 and field investigations are currently scheduled to be completed by early fall 2013 for three areas of the site regulated under CERCLA. Reporting is scheduled to be completed in 2014.

Site Chronology

A list of important Tank Farm 3 historical events and documents and relevant dates in site chronology is shown below in Table 2-7. The identified events are illustrative, not comprehensive.

Table 2-7
Chronology of Historical Events and Documents
Tank Farm 3, NAVSTA Newport, RI

Event/Document	Date
Tank farm constructed	1940s
Tank farm used by Navy	1940s – 1970
Tank farm used by DESC	1974 – 1998
DESC began investigations	August 1992
Tanks were cleaned and ballasted	1996 – 1997
Work Plan for Site Closure completed (Foster Wheeler, 2002d)	August 2002
Draft SI and RA Report completed (Petroleum) (TtEC, 2006a)	January 2006
Final Sampling and Analysis Plan completed (CERCLA)	May 2013
Final SASE completed	August 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at Tank Farm 3. The site does not yet have an OU designation. The CERCLA path forward for Tank Farm 3 is as follows:

- RI
- FS, Proposed Plan, and ROD
- RD/RA as appropriate
- Five-year review as appropriate

2.9 Site 12 – Tank Farm 4 (OU 11)

Site Description and Historical Site Use

Tank Farm 4 is approximately 80 acres and is located in Portsmouth, Rhode Island. The site is bordered by Defense Highway to the west, beyond which lies Narragansett Bay, and wooded, undeveloped areas to the north and south (TRC, 1992). The topography slopes to the west; the ground elevation falls to mean sea level (msl) on the west corner where Normans Brook crosses the site. The brook flows off the site and into Narragansett Bay. The tanks were located in the central portion of the site (TRC, 1992).

The tank farm was constructed in the early 1940s and was used between WWII and 1970. Twelve 60,000-barrel USTs were used for storage of fuel (Navy, 2002c). It was speculated in the IAS that tank bottom sludges may have been disposed of on site. The site was part of the 1983 IAS and the CS in 1986.

All tanks in Tank Farm 4 were cleaned and ballasted between 1994 and 1997 and were demolished between 1997 and 1998 as part of UST closure activities conducted by the Navy under RIDEM UST regulations. Test pits were dug around the perimeter of each tank and a composite soil sample analyzed to ensure no contamination was present. A 15-foot layer of sand was placed into the bottom of each tank and each tank roof was imploded individually. The demolition objective was to collapse and separate the tank roof from the tank walls while maintaining the basic structural integrity of the tank floor and side walls. Following tank demolition, each tank site was backfilled with clean borrow material (Foster Wheeler, 1999a).

CERCLA Response Actions

In October 2004, the Navy began field work on an SI to fully characterize the entire site under the IRP. Review Areas were identified for investigation during the SI. These were selected as areas where residual contaminants may be present based on regulatory review of historical records. The work included investigating for possible former sludge pits, assessing piping not previously assessed, demolishing two structures known as Ruin #1 (a former oil-water separator/burn pit) and Ruin #2 (a former oil-water separator accepting water from the Tank 41 area), and sampling other Review Areas including fence lines and transformer vaults.

No evidence of former sludge pits was found during the SI. The results of the SI are summarized in the Final Closeout Report for Sludge Disposal Trenches and Review Areas at Tank Farms 4 and 5 (TtEC, 2007).

Data gaps were identified that were not addressed in the SI. It was determined that the areas of the tank farm that were impacted by petroleum products would be addressed under RIDEM UST regulations (Category 2, as described in Section 2.1). Other areas within the tank farm that were impacted through burning sludge and disposal of burned sludge through concrete chambers and oil water separators to on site wetlands are being addressed under the IRP/CERCLA (Category 1, as described in Section 2.1). Based on this determination, a single CERCLA decision unit was established for the area around and down gradient of the former burning chamber and disposal area, and that area was investigated and evaluated through a CERCLA-type risk assessment (Tetra Tech, 2012i). The Category 2 areas impacted by petroleum will be closed out through Corrective Action Plans and closure assessment reports as appropriate under RIDEM UST regulations.

Decision Unit 4-1 was created to describe the Category 1 areas of concern that are being addressed under CERCLA and a Data Gaps Assessment was conducted to investigate current conditions at the areas and conduct a human health and ecological risk assessment. The primary contaminants of concern for Decision Unit 4-1 include polycyclic aromatic hydrocarbons (PAHs) and metals (mainly arsenic and chromium). The HHRA concluded that there is no significant risk associated with exposures to surface water and sediment; however, there are potential risks to some receptors from exposure to surface and subsurface soil and groundwater. The screening level ecological risk assessment concluded that there was limited potential for ecological risks and no further ecological risk evaluation was needed (Tetra Tech, 2012i).

The Final Feasibility Study for Decision Unit 4-1 was completed on June 5, 2013 and the Proposed Plan was completed and issued for public comment in June 2013.

Site Chronology

A list of important Tank Farm 4 historical events and documents and relevant dates in site chronology is shown below in Table 2-8. The identified events are illustrative, not comprehensive.

Table 2-8
Chronology of Historical Events and Documents
Tank Farm 4, NAVSTA Newport, RI

Event/Document	Date
Tank farm constructed	1940s
Tank farm used by Navy	1940s – 1970
CS completed (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
Draft Phase 1 RI and HHRA completed (TRC, 1992)	January 1992

Event/Document	Date
Tanks were cleaned and ballasted	1994 – 1997
Tanks were demolished	1997 – 1998
Final Closeout Report (sludge disposal trenches) completed (TtEC, 2007)	June 19, 2007
Draft Final Remedial Investigation report completed (Tetra Tech, 2011i)	July 15, 2011
Final Data Gaps Assessment Report (Including Risk Assessment) completed for Category 1 areas (Tetra Tech, 2012i)	August 2012
Final Feasibility Study Report and Proposed Plan completed	June 2013
Final Record of Decision signed	September 2013

CERCLA Path Forward

The ROD was signed on September 30, 2013. There have been no remedial actions under CERCLA at Tank Farm 4. The CERCLA path forward for Tank Farm 4 is as follows:

- RD/RA
- Five-year review as appropriate

2.10 Site 13 – Tank Farm 5 (OU 2)

Site Description and Historical Site Use

Tank Farm 5 occupies approximately 80 acres and is located in the north-central part of NAVSTA Newport, in Middletown, Rhode Island. The site is bordered by Defense Highway to the west, beyond which lies Narragansett Bay, a wooded area and cemetery to the south, and Green Lane to the northeast. Gome's Brook transects the northern portion of the tank farm. The Brook flows westerly, to Narragansett Bay, and provides surface drainage for the northern portion of the facility and of the residential areas to the east.

This tank farm was constructed in the early 1940s and was used between WWII and 1970 for fuel oil storage. The tanks were constructed in blasted bedrock sockets and were approximately 116 feet in diameter and 33 feet deep. Approximately 4 feet of soil covered the tanks, and they were surrounded by a 4-foot wide, crushed-rock ring drain system. The ring drain system was installed to remove groundwater from around the tank and to prevent tank damage caused by hydraulic stresses and tank flotation.

Tank Farm 5 was composed of eleven 60,000-barrel USTs, numbered 49 through 59, that were used for storage of fuel. Tank bottom sludges were burned on the site. Approximately 10,000-

175,000 gallons of oily sludges were disposed on site. In 1975, as part of an oil recovery program, the Navy began using Tanks 53 and 56 to store used oil for alternate use as a heating fuel oil (TRC, 1993a). The waste oil became regulated by RCRA in 1980. In 1982, RIDEM adopted hazardous waste regulations that were applicable to the waste oils stored in Tanks 53 and 56. Subsequent sampling of the waste oils in 1983 indicated that the oil and sludge layers were considered hazardous due to elevated concentrations of lead. Also, the water phase was found to contain dissolved hydrocarbon compounds.

In 1984, the Navy decided to discontinue use of Tanks 53 and 56. In 1985, results of a groundwater sampling round using monitoring wells located within the Tank 53 ring drain indicated the presence of chlorinated and aromatic hydrocarbon compounds. In September 1985, RIDEM issued NAVSTA Newport a Hazardous Waste Facility Permit for Tanks 53 and 56, which included a stipulation to remove the contents and close the tanks in accordance with federal hazardous waste regulations and RIDEM requirements applicable for USTs used for oil and hazardous substance storage.

Further investigations conducted in 1986 confirmed the presence of VOCs in the Tank 53 ring drain. Lower concentrations of VOCs were detected in groundwater up to 150 feet downgradient of Tank 53. In January 1990, oil was observed overflowing from the tank gauging chamber and onto the ground as a result of surface water entering the tank through cracks in the tank roof. The Navy took immediate action to lower the level in the tank to prevent further overflow. RIDEM issued an Immediate Compliance Order, which required that the Navy remove the contents of the tank, begin remediation of contaminated groundwater and soils surrounding the tank, and initiate an investigation to determine the extent of oil contamination in the vicinity of Tank 53. In 1992, pursuant to the Immediate Compliance Order, the Navy completed the removal of sludge, oil, and water from the tank, and cleaned the interior surfaces of the tank.

All tanks in Tank Farm 5 were cleaned and ballasted between 1994 and 1997 (Tetra Tech, 2001b). In addition, all tanks were demolished from late 1998 through early 1999 as part of UST closure activities conducted by the Navy under RIDEM regulations. The tanks were imploded individually, with the demolition objective being to collapse and separate the tank roof from the tank walls while maintaining the basic structural integrity of the tank floor and side walls. A 15-foot layer of sand was placed into the tank to absorb the shock from the collapsing tank roof and to avoid formation of void spaces between the tank floor and collapsed roof. The ballast water was removed from the tanks and pump rooms prior to sand placement. Following tank demolition, each tank site was backfilled with certified clean fill (Tetra Tech, 2000a).

CERCLA Response Actions

Tanks 53 and 56 stored waste oils and were addressed through an interim remedial action, while the other tanks at Tank Farm 5 have been investigated separately because they were used exclusively for the storage of virgin fuel oils. Although virgin fuel oil is not addressed under the IR Program, Tank Farm 5 was included as a "Site" because records suggested that bottom sludge from fuel oil tanks was disposed of in burning chambers.

In 1992, an Interim Action ROD was signed by EPA and the Navy that selected a management of migration alternative consisting of groundwater extraction, treatment, and discharge as an interim remedial action for the Tanks 53 and 56 site. A groundwater extraction and treatment/containment system was constructed in December 1994 and was in operation for two years. The system was shut down in December 1996 because monitoring well and influent sampling results were below cleanup levels. During this time period (1995 to 1996) the Navy also conducted a source removal action at Tank 53. Although source control was not part of the Interim Action ROD, the Navy removed contaminated soil surrounding Tank 53 and reconstructed the ring drain with clean materials. Five rounds of groundwater sampling conducted after the treatment system was shut down confirmed that the remedial action was successful. As a result the treatment system was dismantled in October 2008.

Three Five-Year Reviews have been conducted that were completed in 1999, 2004, and 2009. The Third Five-Year Review indicated that the interim remedial action for Tanks 53 and 56 should be considered "Remedy Complete". The interim remedial action is expected to be discussed and documented as such in the forthcoming ROD for Tank Farm 5 (OU 2).

In October 2004, the Navy began field work on an SI to build on data collected during the Phase 1 RI for NETC Newport and to better characterize the entire site under the IRP. The work included investigating for possible former sludge pits, assessing piping not previously assessed, demolishing a former oil-water separator/burn pit, and sampling other Review Areas including fence lines and transformer vaults. No evidence of former sludge pits was found. The results of the SI are summarized in the Final Closeout Report for Sludge Disposal Trenches and Review Areas at Tank Farms 4 and 5 (TtEC, 2007).

Data gaps were identified that were not addressed in the SI. It was determined that the areas of the tank farm that were impacted by petroleum products would be addressed as Category 2 (refer to Section 2.1). The other areas within the tank farm that were impacted through burning sludge and disposal of burned sludge through concrete chambers and oil-water separators to on site wetlands are being addressed as Category 1 (refer to Section 2.1). Based on this determination, a single CERCLA decision unit, referred to as Decision Unit 5-1, was established for the area around

and downgradient of the former burning chamber and disposal area, and that area was investigated and evaluated through a CERCLA-type risk assessment (Tetra Tech, 2011g). The Category 2 areas impacted by petroleum will be closed out through Corrective Action Plans and closure assessment reports as appropriate under RIDEM UST regulations.

The primary contaminants of concern for Decision Unit 5-1 include PAHs and metals (mainly arsenic and chromium). The HHRA concluded that there is no significant risk associated with exposures to surface soil, surface water and sediment; however, potential risks do exist to some receptors from exposure to soil and groundwater. The screening level ecological risk assessment concluded that there was limited potential for ecological risks and no further ecological risk evaluation was needed (Tetra Tech, 2012i).

The Feasibility Study and Proposed Plan are currently being finalized.

At the Restoration Advisory Board (RAB) meeting held March 18, 2009, two RAB members expressed concern that the government fence on the east side of Tank Farm 5 had been compromised, and trespass was likely to be taking place. Follow up action is not currently scheduled.

Site Chronology

A list of important Tank Farm 5 historical events and documents and relevant dates in site chronology is shown below in Table 2-9. The identified events are illustrative, and not comprehensive.

Table 2-9
Chronology of Historical Events and Documents
Tank Farm 5, NAVSTA Newport, RI

Event/Document	Date
Tank farm constructed	1940s
Tank farm used to store virgin fuel oil	1940s – 1970
Tanks 53 and 56 used for waste oil storage	1975 – 1984
Groundwater investigation conducted as part of Tanks 53 and 56 closure investigation	June 1991
Draft Phase 1 RI and HHRA completed (TRC, 1992)	January 1992
Contents of Tanks 53 and 56 were removed and the tank interiors were cleaned	Summer 1992
Interim Action ROD (interim groundwater pump and treat remedy) (Navy, 1992)	September 29, 1992

Event/Document	Date
Soils investigation conducted as part of Tanks 53 and 56 closure investigation	October 1992
Design and construction of a groundwater extraction and treatment/containment system completed	1993 – December 1994
Operation of the groundwater extraction and treatment system	December 1994 – December 1996
Tanks were cleaned and ballasted	1994 – 1997
Tank 53 source removal action contaminated soil surrounding the tank removed	1995 - 1996
Final Tank Closure Certification Report, Tanks 53 and 56 completed	September 6, 1996
First post-remedial action groundwater sampling round	December 1996
Second post-remedial action groundwater sampling round	March 1997
Third post-remedial action groundwater sampling round	August 1997
Tanks were demolished	1998 – 1999
First Five-Year Review completed (Tetra Tech, 1999c)	December 1, 1999
Fourth post-remedial action groundwater sampling round	May 2001
Fifth post-remedial action groundwater sampling round	May 2004
Second Five-Year Review completed (Tetra Tech, 2004f)	December 1, 2004
Final Closeout Report (sludge disposal trenches) completed (TtEC, 2007)	June 19, 2007
Demolition of the groundwater extraction and treatment system	October 2008
Third Draft Final Five-Year Review Report completed (Tetra Tech, 2009c)	October 9, 2009
Final Data Gaps Assessment report (including Risk Assessment), DU 5-1 completed (Tetra Tech, 2012i)	August 2012
Draft Final FS completed	September 5, 2012
Draft Final Proposed Plan completed	June 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at Tank Farm 5. The CERCLA path forward for Tank Farm 5 is as follows:

- Finalize FS and Proposed Plan
- ROD
- RD/RA as appropriate
- Five-year review as appropriate

2.11 Site 17 – Building 32, Gould Island (OU 6)

Site Description and Historical Site Use

The FFA initially identified Study Area 17 as Building 32 at the northeast end of Gould Island. Gould Island lies between Aquidneck and Conanicut Islands, about 1.5 miles from the NAVSTA Newport shoreline in the town of Jamestown, Rhode Island. Electroplating and degreasing operations were performed in Building 32 during the mid-1940s, when it was used to service and store torpedoes. Wastes generated from the electroplating and degreasing operations included muriatic acid, chromic acid, copper cyanide, sodium cyanide, sodium hydroxide, nickel sulfate, Anodex cleaner, and degreasing solvents (Tetra Tech, 2004c).

CERCLA Response Actions

Study Area 17 was included in the IAS (1983). The report suggested that rinse water from the operations was disposed directly into the Narragansett Bay and that contaminated sediments might be present off shore. The CS (1986) reported that sediment samples revealed slightly elevated concentrations of cyanide and copper. Mussels collected from the area of the rinse water out-fall contained elevated levels of copper (Navy, 2002b).

A waste inventory and sampling report characterized waste materials present in Building 32. Liquid samples collected in 1992 from the Electroplating Shop area, revealed elevated levels of cadmium and organic chemicals. As a result, in 1992, the Navy initiated a removal action to dispose of liquid and semi-liquid wastes from the plating shop area (Navy, 2002b).

In 1997, the Navy performed UST removal and closure actions near Building 32. In an agreement with the EPA and RIDEM, the Navy conducted the first phase of the SASE on all of Building 32. This study found low concentrations of degreasing and fuel-related contaminants in the soils under the building. Based on the findings of the Phase 1 SASE, the Navy designated the former Building 32 area as Site 17 in April 2000 (Tetra Tech, 2004c). Site 17 encompasses all of former Building 32 and any contamination emanating from it.

Building 32 was demolished in 2001 to the slab elevation, along with other unused buildings at Gould Island due to the deteriorated condition of the structure and the potential safety threat it caused. PCB contamination was found in some of the concrete floors and soils of the transformer vaults and the switch house following the demolition. Remedial activities to remove PCB-contaminated soil and concrete were completed in 2002. Based on sampling results, materials were disposed off-site as Toxic Substances Control Act (TSCA)-regulated waste. Confirmatory samples were collected and the remediation activities were completed in September 2003 (Navy, 2002b).

An RI was conducted between May and September 2005 to determine the nature and extent of contamination associated with the past use and disposal of chemicals and chemical wastes at the site. RI field efforts included the collection of the following samples: soil samples from borings and test pits, groundwater samples from monitoring wells and bedrock fracture zones, sediment samples from intertidal and subtidal areas, biota samples (clams and mussels), aquatic samples from standing water in test pits and underground utilities, soil and sludge samples from underground utilities, and concrete samples. Elevated concentrations of various contaminants, including petroleum, metals, semivolatile organic compounds (SVOCs), PAHs, pesticides, and PCBs, were detected at the site (Tetra Tech, 2006d).

A Baseline HHRA was conducted to evaluate exposure to surface soil, subsurface soil, groundwater, sediment, and shellfish. PAHs, PCBs, and metals are present in the intertidal sediment and subtidal shellfish that are predicted to pose risk to humans from future recreational use of the site, as well as current recreational collection and ingestion of shellfish. A screening ERA was conducted to identify chemicals of potential concern (COPCs) to ecological receptors and to determine the necessity for further risk assessment. SVOCs, PAHs, pesticides, PCBs, and metals were present in the intertidal and subtidal sediments that may pose risks to ecological receptors (Tetra Tech, 2006d).

Based on the findings of the Phase 1 RI, the Navy conducted a Phase 2 RI and Baseline Ecological Risk Assessment (BERA). The Phase 2 RI includes chronic toxicity testing for sediment effects to marine benthic invertebrates and determination of the extent of PCB contamination in sediments of the Stillwater Basin area to the north of the site. Field work began in September 2009, and was completed in October 2010, and the final Phase 2 RI and BERA report was published in May 2012 (Tetra Tech, 2012d). The Feasibility Study and Proposed Plan for the site are currently in various stages of regulatory review and finalization.

Site Chronology

A list of important Gould Island historical events and documents and relevant dates in site chronology is shown below in Table 2-10. The identified events are illustrative, not comprehensive.

**Table 2-10
 Chronology of Historical Events and Documents
 Building 32, Gould Island, NAVSTA Newport, RI**

Event/Document	Date
Building 32 used to service and store torpedoes; electroplating and degreasing operations performed	1940s
CS completed (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
Draft Final SASE Report completed (Tetra Tech, 2000b)	December 28, 2000
Building 32 and other unused buildings demolished	2001
Final Project Closeout Report for Phase 2 PCB Contaminated Soils and Concrete Remediation completed (TtFW, 2004c)	October 29, 2004
Phase 1 RI and HHRA completed (Tetra Tech, 2006d)	December 29, 2006
Final Phase 2 RI and BERA Report completed (Tetra Tech, 2012d)	May 2012
Draft Final FS completed	December 21, 2012
Draft Proposed Plan completed	April 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at Gould Island. The CERCLA path forward for Gould Island is as follows:

- Finalize FS and Proposed Plan
- ROD
- RD/RA as appropriate
- Five-year review as appropriate

2.12 Site 19 – Derecktor Shipyard – Offshore (OU 5) and Onshore (OU 12)

Site Description and Historical Site Use

The Derecktor Shipyard is a 43-acre site located along the easternmost shore of Coddington Cove in Newport, Rhode Island, that was used by the Navy until the military realignment program was implemented in 1973. At that time, the Navy determined that the area was no longer necessary to support military activities. In 1979, the Navy leased the 43-acre site to the Rhode Island Port Authority and Economic Development Corporation, which issued a concurrent sublease to Robert E.

Derecktor of Rhode Island, Inc. From 1979 to 1992, the site was used to repair, maintain, and construct private and military ships. These operations generated sand blast grit, paint, and other ship manufacturing wastes.

CERCLA Response Actions

Based on the findings of a Preliminary Assessment (PA) completed by the Navy in May 1993, the Derecktor Shipyard was added to the FFA list of sites as a study area (Tetra Tech, 2004d). The Navy undertook a series of short-term actions to significantly reduce the potential for contamination to pose a health or environmental risk and migrate beyond its current location. These actions included: removing contaminant-filled drums and containers and sandblast grit; excavating and removing above ground and underground storage tanks; locating storm drain systems; and cleaning interiors of remaining buildings to ensure the safety of personnel conducting additional studies (Navy, 2002e).

An SASE was completed in June 1997. The SASE report concluded that the site contained small pockets of soil contamination but that overall human health and ecological risks were not substantial as long as the property remained industrial. Concurrent with the SASE, NAVSTA Newport conducted a marine ERA and HHRA to quantify how contaminants present in Narragansett Bay sediments might be affecting plants and marine life, as well as fishermen collecting lobster and shellfish from the site (Navy, 2002e). Based on the SASE, the status was changed from a "Study Area" to a "Site". The Navy implemented the recommendations for onshore restorations, including removal of soil hot spots, removal of an underground septic vault, and demolition of some of the deteriorating buildings. It was the recommendation of the SASE to conduct these removal actions so to address risk so that a NFA or a limited remedial action could be implemented.

Supplemental sediment sampling was conducted in August 2004 to better understand the nature and extent of contamination in the offshore marine sediments. Samples were collected to confirm the presence, concentration, and distribution of contaminants previously found in this area, and to identify the source of the hydrocarbon contaminants. The investigation results indicated that concentrations of contaminants in surface sediments had decreased from the values reported in the marine ERA, possibly due to new sedimentation on top of previously sampled substrate. The highest concentrations of contaminants were still primarily located along the shoreline and near the piers, with a decrease in contamination further from shore. An FS was conducted in 1999 for the marine areas near the site and revised in 2007 to incorporate the additional marine sediment data collected in 2004 (Tetra Tech, 2007a).

As the draft final Revised FS was developed for publication in 2010, it became apparent that the data available was inadequate to formulate a remedial decision for the marine sediment at the site. Therefore a data gaps investigation was initiated and a SAP was developed to more thoroughly evaluate horizontal and vertical extent of marine sediment contamination, potential for deposition, and propensity for sediment scouring during normal and extreme conditions. The Supplemental Sediment Investigation was conducted between August and October 2011 and documented in the Final Supplemental Sediment Investigation Report completed in December 2012 (Tetra Tech, 2012n). Utilizing the findings of the Supplemental Sediment Investigation, remedial alternatives were developed for marine sediment at the site and incorporated into a revised FS (Tetra Tech, 2012m). The Revised FS is currently undergoing regulatory review and revision and is expected to be finalized in 2013.

Following the SASE in March 2011, additional onshore sampling was conducted at the request of the EPA to update the data on the groundwater conditions and to evaluate risks to future indoor air. The Navy agreed to conduct additional evaluations because new buildings are planned for construction at the north end of the site. Data was collected in early 2011 and a Final SASE Addendum report was completed in January 2013 to address this potential data gap. The SASE satisfied the RI requirements. A draft FS for the onshore portions of the site was submitted in December 2012 and is undergoing regulatory review and revision.

Site Chronology

A list of important Derecktor Shipyard historical events and documents and relevant dates in site chronology is shown below in Table 2-11. The identified events are illustrative, not comprehensive.

Table 2-11
Chronology of Historical Events and Documents
Derecktor Shipyard, NAVSTA Newport, RI

Event/Document	Date
Navy used the site until the military realignment program was implemented	Prior to 1973
Robert E. Derecktor of Rhode Island, Inc. used site to repair, maintain, and construct private and military ships	1979 – 1992
Preliminary Site Assessment Report completed (Halliburton NUS, 1993)	May 1, 1993
Marine ERA Report completed (SAIC and URI, 1997a)	May 1997
Draft Final SASE Report completed (B&RE, 1997b)	June 1, 1997
Final HHRA completed (Tetra Tech, 1998)	September 29, 1998

Event/Document	Date
Final FS (marine portions, offshore contamination) completed (Tetra Tech, 1999b)	July 29, 1999
Final RA Report for Various Removal Actions completed (Foster Wheeler, 2002c)	July 25, 2002
Draft Sediment Investigation Work Plan completed	July 1, 2004
Final Closeout Report for Sand Blast Grit Removal completed (TtEC, 2005)	June 17, 2005
Sediment Investigation Report completed (Tetra Tech, 2005)	September 2005
Final Action Memorandum completed (TtEC, 2006c)	November 10, 2006
FS Revision 1 (Revised Draft Final) completed (Tetra Tech, 2007a)	March 1, 2007
Final Removal Action Completion Report for Sandblast Grit Removal at the Firing Point completed (TtEC, 2008)	March 6, 2008
Final Sampling and Analysis Plan, Data Gaps Investigation for Marine Sediment (Tetra Tech, 2011f)	September 29, 2011
Final Supplemental Sediment Investigation Report (Tetra Tech, 2012n)	December 2012
Draft FS completed for On-Shore	December 2012
Final SASE Report Addendum for On-Shore completed (Tetra Tech, 2013)	January 2013
Draft Final FS completed for Off-Shore	March 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at Derecktor Shipyard. The CERCLA path forward for Derecktor Shipyard onshore (OU12) and offshore (OU5) portions is currently planned as follows:

- FS, Proposed Plan, and ROD
- RD/RA as appropriate
- Five-year review as appropriate

2.13 Site 20 – Surface Warfare Officers School (SWOS)

Site Description and Historical Site Use

SWOS is located in Middletown, Rhode Island, just south of Taylor Drive and the OFFTA. West of the site is Warfare Road, several buildings that make up the SWOS campus, and Narragansett Bay.

South of the site is an asphalt parking lot and a number of buildings which comprise the Naval War College. Tennis courts and a gymnasium (Building 109) are located east of the site.

The SWOS site is the location of the former Brig facility which served as the Correctional Center from its construction in 1951 until its demolition in 1996. Prior to 1951, the site was undeveloped. The majority of the site is currently covered either by the SWOS Applied Instruction Building (Building 1248) or an asphalt paved parking area. A Phase 1 Environmental Site Assessment for the SWOS Building site was performed prior to the construction of the SWOS Applied Instruction Building (Tetra Tech, 2001a). No releases of oil or hazardous materials were reported to have occurred at the SWOS site nor were disposal areas present at any time.

Oily soils were encountered at the north and east portions of the site during the 2003 construction of the SWOS Applied Instruction Building. Tetra Tech FW, Inc. (TtFW) conducted test pitting, soil sampling, and a risk assessment to determine the risk to site construction workers (TtFW, 2004a). Occupational exposure risks were found to be acceptable for construction workers installing utility lines and constructing parking lots. TtFW summarized their findings in an Occupational Exposure Assessment for Construction Workers at the SWOS Site report in March 2004 (TtFW, 2004a).

CERCLA Response Actions

A Focused SI was performed by Tetra Tech in March 2006 to determine the source of the soil contamination and identify any other contaminants harmful to human health (Tetra Tech, 2006a). COPCs at the site exceeded risk-based criteria in samples collected mostly from the northern portion of the site, which borders Site 09, OFFTA (Section 2.6). The petroleum at the SWOS site is contiguous with that present at the adjacent OFFTA site. Elevated concentrations of PAHs were found in surface soil (believed to be associated with fill and old pavement debris) and in subsurface soil (believed to be associated with either fill or co-located petroleum). Lead is present at the SWOS site above screening criteria in five discrete locations, also associated with fill material (Tetra Tech, 2006a).

Due to the similarities in the types of contaminants at the SWOS and OFFTA sites (petroleum, PAHs, and lead associated with fill); the Focused SI recommended that the two sites be considered as one. As such, Site 20 is no longer considered its own site. Instead, contamination in the SWOS area is considered to be an extension of OFFTA and the FS revision for OFFTA dated 2007 addresses the SWOS portion (Tetra Tech, 2007c).

Site Chronology

A list of important SWOS historical events and documents and relevant dates in site chronology is shown below in Table 2-12. The identified events are illustrative, not comprehensive.

Table 2-12
Chronology of Historical Events and Documents
SWOS, NAVSTA Newport, RI

Event/Document	Date
Brig facility on the site served as a Correctional Center	1951 – 1996
Oily soils encountered during construction of the SWOS Applied Instruction Building	2003
Occupational Exposure Assessment for Construction Workers completed (TtFW, 2004a)	March 12, 2004
Draft Final Focused SI completed (Tetra Tech, 2006a)	March 1, 2006

All future investigations and remedial actions for the SWOS area will be addressed under OFFTA, Site 09 (see Section 2.6).

2.14 Site 21 –Melville Water Tower

Site Description and Historical Site Use

The Former Melville Water Tower site is located in an open field adjacent to the Melville Elementary School on West Main Road in Portsmouth, Rhode Island. The water tower was installed in the late 1930s to service the fueling piers and fuel storage facilities located at the Melville Patrol-Torpedo Squadron Training Station. The tower's 8-inch water line provided a sanitary and potable water supply as well as an emergency firefighting water supply for the permanent station structures.

From the 1940s to the 1990s, lead-based paint was applied and intentionally removed from the structure. In September 2005, paint chips were found on the ground in the vicinity of the water tower. In December 2005, RIDEM conducted a screening study and found high concentrations of lead and other paint constituents in surface soil. A fence was erected around the area to restrict access and eliminate the exposure of students to site contaminants. The water tower was determined to be structurally unsound, so it was demolished in July 2006. After the demolition, the Navy conducted a detailed soil investigation in August 2006 to delineate the vertical and horizontal extent of contamination. Based on the results of this investigation, surface and subsurface soils were excavated during the summer of 2007, when school was not in session. The objective of the removal action was to remove and dispose of subsurface structures and soil contaminated with

lead-based paint. Confirmation soil samples were collected to ensure that cleanup goals had been met. The final RACR was submitted in June 2008 (Tetra Tech, 2008b).

CERCLA Response Actions

A SASE report prepared for the site documented the remaining concentrations of metals in the soil and provided detailed risk calculations using the post-removal conditions. The SASE concluded that there is no anticipated risk to ecological receptors, and no human health risk remaining from lead at the site. Arsenic was present in soil above state standards; however, these concentrations were determined to be within ranges of background concentrations measured in soils on Aquidneck Island. Therefore, NFA was recommended at this site. EPA provided concurrence on the draft final SASE report on August 20, 2009 agreeing with the no further action recommendation, and the SASE report was finalized September 2009. The Navy provided a letter to EPA and RIDEM on October 26, 2009 stating their intent to conduct an administrative closeout as appropriate.

Site Chronology

A list of important Former Melville Water Tower historical events and documents and relevant dates in site chronology is shown below in Table 2-13. The identified events are illustrative, not comprehensive.

Table 2-13
Chronology of Historical Events and Documents
Melville Water Tower, NAVSTA Newport, RI

Event/Document	Date
Water Tower installed	1930s
Lead-based paint applied to and removed from the Water Tower	1940s – 1990s
Water Tower demolished	July 2006
Final RACR (Soil Removal Actions) completed (Tetra Tech, 2008b)	June 2008
SASE completed (TtNUS, 2009b)	September 2009
Administrative Closeout	October 26, 2009
Site Closeout Report completed (Tetra Tech, 2011j)	January 4, 2011

2.15 Carr Point – MRP Site 1 (OU 9) and IR Site 22 (OU 10)

Site Description and Historical Site Use

Carr Point is located in the Melville South portion of Portsmouth, Rhode Island, approximately four miles north of the main portion of the installation. The Site is bounded on the west by the Narragansett Bay, on the north by picnic grounds, on the east by railroad tracks, and on the south by Gomes Brook. To the east of the railroad tracks are Defense Highway and the former Tank Farm 4, which is located upgradient of the Site.

A portion of Carr Point was formerly a recreational skeet-shooting range. From 1967 to 1973 the former Carr Point Shooting Range was used by Navy personnel and from 1975 to 1989 the facility was used by the Aquidneck Island Military Rod and Gun Club (Malcolm Pirnie, 2005). Small arms (i.e., shotguns) were discharged at moving targets (i.e., clay pigeons) over Narragansett Bay (Malcolm Pirnie, 2005). Prior to being used as a shooting range, the southwest area of Carr Point was reportedly used for materials and drum storage (Tetra Tech, 2009a). In addition, two drain pits and an oil-water separator were historically present at the Site (Tetra Tech, 2009a). Portions of the site have also been used as parking areas and fill areas. Since 1995, a portion of Carr Point has been used as a recreational vehicle camping park (RVCP) and gated storage area for Navy and DOD personnel (Malcolm Pirnie, 2005). Buildings that historically existed at the site included Building 187 (Fire House), Building 212 (Storage), Building 213 (Fire Auxiliary Headquarters), and Building 233 (Club House). Only Building 233 remains on the site today and has been converted to office and storage space for the RV park (Malcolm Pirnie, 2005).

A Water Area Munitions Study (WAMS) was conducted for the former Carr Point shooting range area (Malcolm Pirnie, 2005), and included the review of historical records, personal interviews, and a visual site survey. The WAMS concluded that there are no known or suspected areas with Munitions and Explosives of Concern (MEC), although munitions constituents (MC) are likely to be present at the site (Malcolm Pirnie, 2005). While used as a shooting range, lead shot was fired toward the water from three firing points located along the west side of the site – one firing point at the northern end of the range, a second at the southern end, and a third in between. According to the WAMS report, MC associated with skeet shooting could potentially include “lead, lead styphnate/lead azide, antimony, arsenic, copper, tin, zinc, iron, and PAHs associated with clay targets (Interstate Technology and Regulatory Council, 2003)” (Malcolm Pirnie, 2005).

CERCLA Response Actions

In January 2007, five surface soil samples were collected at the site by NAVSTA Newport and were analyzed for total petroleum hydrocarbon (TPH), pesticides, PCBs, VOCs, SVOCs, RCRA metals, and

total cyanide. TPH and metals were detected at all locations, and PAHs were found at all locations except the northeast corner. PCB Aroclor-1260 was detected at the northwest corner and central locations (Tetra Tech, 2009a).

An unexploded ordnance (UXO) SI was conducted in May and June 2009 to identify contaminants that may have been released to the soil, fill, groundwater, and marine sediments. The investigation area included over 5 acres of coastal land and approximately 17 acres of water. The draft SI report, submitted in October 2009, concluded that contaminants present at the site may pose a risk to human health and the environment. PAHs and propellants were found at elevated concentrations in the surface soil at the former firing area (currently the camping area). Lead shotgun pellets remaining from the former shooting range and elevated metals concentrations were found in the sediment offshore of the camping area at concentrations exceeding screening criteria. VOCs were detected in soil and groundwater and PCBs were detected in surface soil at the storage area, and are likely to be present as a result of spills or leaks during the use of the area for drum and transformer storage. Two distinct sets of contaminants were found in two distinct areas of the sites that are likely to be present as the result of two different site activities. These sites are distinguished as MRP Site 1 (Carr Point Shooting Range), and IR Site 22 (Carr Point Storage Area). The SI Report recommended further investigations or remedial actions at both of these locations under the appropriate environmental cleanup programs. An RI Work Plan SAP was originally drafted to include both MRP Site 1 and IR Site 22 investigations; however, the decision was recently made to split the SAP and finalize the plan for each site separately. Regulatory review and discussion is currently occurring.

Interim Removal Action

In addition to preparing for the RI field investigation, a soil removal action was completed for the MRP Site 1 portion of Carr Point. A recreational risk evaluation for MRP Site 1 was completed in March 2010. Several organic and inorganic chemicals were selected as COPCs. The predominant COPCs at the site are carcinogenic polycyclic aromatic hydrocarbons (cPAHs). All of the locations demonstrating elevated cancer risk are situated within approximately 50 to 100 feet of the Narragansett Bay shoreline and are associated with locations where clay target fragments were found. Scientific literature suggests that the cPAHs detected in the surface soil are tightly bound to the clay matrix of the targets and bioavailability to human or ecological receptors is limited. As part of a time critical removal action (TCRA), a fence was installed in May 2010 to limit access to contaminated soil (Tetra Tech, 2010e). In 2012, an EE/CA and Action Memorandum were prepared to evaluate and document the decision to conduct a non-time critical removal action (NTCRA). The NTCRA consisted of excavation and removal of contaminated surface soil from the RVCP area as an interim measure to allow seasonal, restricted recreational use of the RVCP, before a more

permanent solution can be put in place for MRP Site 1. The soil excavation has been completed and a Removal Action Completion Report is currently being prepared.

Site Chronology

A list of important Carr Point historical events and documents and relevant dates in site chronology is shown below in Table 2-14. The identified events are illustrative, not comprehensive.

Table 2-14
Chronology of Historical Events and Documents
Carr Point Shooting Range and Disposal Area, NAVSTA Newport, RI

Event/Document	Date
Area used for materials and drum storage	Before 1967
Area used as a shooting range by Navy personnel	1967 – 1973
Area used as a shooting range by the Aquidneck Island Military Rod and Gun Club	1975 – 1989
Area used as an RV camping park and gated storage area for Navy and DOD personnel	1995 – present
Water Area Munitions Study (WAMS) conducted (Malcolm Pirnie, 2005)	October 1, 2005
Surface soil samples collected	January 2007
SI Report completed (Tetra Tech, 2010b)	May 12, 2010
Recreational Risk Evaluation for MRP Site 1 completed (Tetra Tech, 2010c)	May 14, 2010
TCRA performed at MRP Site 1 (fence installed) (Tetra Tech, 2010e)	May 2010
Final EE/CA report for MRP Site 1 completed (Tetra Tech, 2012h)	August 2012
Final Action Memorandum for MRP Site 1 completed (Tetra Tech, 2012j)	September 20, 2012
NTCRA performed at MRP Site 1 (soil excavation)	2012-2013
Draft SAP/RI Work Plan completed for MRP Site 1 and IR Site 22 (Resolution, 2012)	November 2012
Draft Final SAP/RI Work Plan for MRP Site 1 (Resolution, 2013c)	August 2013
Draft Final SAP/RI Work Plan for IR Site 22 (Resolution, 2013d)	October 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at IR Site 22. The CERCLA path forward for Site 22 is as follows:

- RI
- FS, Proposed Plan, and ROD
- RD/RA as appropriate
- Five-year review as appropriate

A TCRA, installing a fence, was performed at MRP site 1 in May 2010 and a NTCRA, removal of contaminated surface soil, was performed at MRP site 1 in 2012-2013. The CERCLA path forward for MRP Site 1 is as follows:

- RI
- FS, Proposed Plan, and ROD
- RD/RA as appropriate
- Five-year review as appropriate

2.16 Site 23 – Coddington Point Buried Debris Areas

Site Description and Historical Site Use

Coddington Point is a peninsula approximately 153 acres in total size located within a coastal portion of NAVSTA Newport in Newport, Rhode Island. Coddington Cove is located to the north and Coasters Harbor and Coasters Harbor Island are located to the south. The Coddington Point area is currently used for Naval-related education and training, operational and administrative functions, housing, and recreation.

Coddington Point was purchased by the Navy in 1918 and much of the base organization was transferred to Coddington Point. During World War I, military personnel were housed in tents on Coddington Point. In 1923, approximately 200 buildings, which were part of the emergency war camps established on Coddington Point, were stripped and sold for scrap (NEECS, 1983). Between 1942 and 1943, numerous barracks were constructed on the northern portion of Coddington Point. These barracks were subsequently demolished in the mid/late 1960s to early 1970s. According to one report, it was not an uncommon construction practice to utilize solid debris as fill at the time of the building demolition (Tetra Tech, 2012a).

During various recent construction activities starting in the late 2000s on the northern portions of Coddington Point, areas of buried construction and/or demolition (C&D) debris, including ACM have

been encountered in soil. Specifically, buried debris and ACM were identified at the following locations on Coddington Point that were identified as AOCs requiring investigation:

- Naval Supply School (MARDET Building 1112CP)
- Combat Training Pool (Building 1357CP)
- P 451 New OTC Barracks
- Nimitz Field (lighting area)
- Bishop's Rock

A Navy report entitled Sites of Known Buried ACM Rubble (Navy, 2011) was prepared to outline construction projects at which demolition debris and the associated ACM was encountered. This report summarized the nature of ACM and provided the previous and ongoing management practices taken by the Navy to manage and dispose of the ACM encountered during these project constructions at which buried C&D debris with found during excavation activities.

CERCLA Response Actions

In 2011, the Navy completed a site assessment for the five AOCs on Coddington Point, which was documented in the report entitled Draft Evaluation of Urban Fill, Coddington Point (Tetra Tech, 2012a). The report serves as the SASE for these five AOCs. As part of the assessment, a review of historical documents was conducted to identify historical land uses and activities that may have resulted in a release of a hazardous substance. Field investigation, including geophysical survey and a subsurface drilling program, was also conducted at each AOC in order to conduct visual inspection for potential ACM, document depth of overlaying soil cover, and identify the nature and extent of demolition debris. The reported concluded that buried C&D debris, which may contain ACM, is expected to be present within these AOCs, but that there is not current exposure pathway to the buried debris.

The Navy is currently developing a work plan for further field investigation of the five AOCs on Coddington Point to document the depth of overlaying soil cover and to evaluate the presence of asbestos and potential other contaminants of concern that may be associated with C&D debris.

Site Chronology

A list of important Coddington Point historical events and documents and relevant dates in site chronology is shown below in Table 2-15. The identified events are illustrative, not comprehensive.

Table 2-15
Chronology of Historical Events and Documents
Coddington Point Buried Debris Areas, NAVSTA Newport, RI

Event/Document	Date
Numerous barracks were constructed on the northern portion of Coddington Point	1942 – 1943
Many of the barracks constructed in the 1940s were demolished	mid-1960s -early 1970s
Buried debris and ACM discovered during excavation as part of several construction activities on the northern portion of Coddington Point	Late 2000s - 2012
Sites of Known Buried ACM Rubble completed (Navy, 2011)	July 2011
Evaluation of Urban Fill completed (Tetra Tech, 2012a)	January 2012
Draft RI Work Plan (SAP) for site investigation completed (Resolution, 2013a)	January 2013

CERCLA Path Forward

There have been no remedial actions under CERCLA at Coddington Point. The CERCLA path forward for Site 23 is as follows:

- RI
- Focused FS, Proposed Plan, and ROD
- RD/RA as appropriate
- Five-year review as appropriate

3.0 SITE RANKING

This section provides a description of the relative risk ranking procedure and a summary of relative ranking results. Results of the risk ranking procedure are intended to assist in prioritizing site cleanups. Risk ranking of the site is provided in Appendix B, in a letter from the Navy dated September 10, 1998.

3.1 Relative Risk Site Evaluation Framework

The DOD developed a Relative Risk Site Evaluation framework as a means of categorizing sites in the Defense Environmental Restoration Program (DERP) into High, Medium, and Low relative risk groups. The ranking of sites is not a substitute for a baseline risk assessment or health assessment nor a means of placing sites into a NFA category. The categorization of sites into relative risk groups is based on an evaluation of contaminants, pathways, and human and ecological receptors for groundwater, surface water and sediment, and surface soils. Although the air medium is not directly addressed by the Relative Risk Site Evaluation, the soil medium Preliminary Remediation Goals (PRGs) do include consideration for inhalation of airborne contaminants as a soil exposure pathway. The PRGs combine current EPA toxicity values with "standard" exposure factors to estimate concentrations in environmental media (soil, sediment, air, surface water, and groundwater) that are protective of humans, including sensitive groups, over a lifetime. Each of these environmental media are evaluated using three factors:

- The Contaminant Hazard Factor (CHF)
- The Migration Pathway Factor (MPF)
- The Receptor Factor (RF)

The CHF is a combined measure of contaminant concentrations in a given environmental medium. CHF ratings are either "significant", "moderate," or "minimal" for each media. CHF rating is determined based on the ratio of the maximum concentration of a contaminant in each media (groundwater, surface water and sediment, surface soil) to a risk-based concentration standard for that contaminant (Media Protection Standard (MPS) or PRG). For media containing more than one contaminant, the ratios are added.

The MPF is a measure of the movement or potential movement of contamination away from the original source. MPF ratings are either "evident," "potential," or "confined" for each media. A rating of "evident" means that analytical data or observable evidence indicates that contamination in the media is moving away from the source, or contamination is present at, is moving towards, or has moved to a point of exposure. A rating of "potential" indicates the possibility for contamination to be present at or migrate to a point of exposure; or information is not sufficient to make a determination of "evident" or "confined." A rating of "confined" indicates that the potential for

contaminant migration from the source is limited or a low possibility for contamination to be present at or migrate to a point of exposure.

The RF is an indication of the potential for human or ecological contact with site contaminants. RF ratings are either "identified," "potential," or "limited" for each media. A rating of "identified" indicates that receptors have been identified that have access to contaminated media. A rating of "potential" indicates potential for receptors to have access to contaminated media. A rating of "limited" indicates that there is little or no potential for receptors to have access to contaminated media.

Sites lacking reliable concentration data will be designated as "not evaluated" and will then be deferred, programmed for additional data collection, a removal action if warranted, or another appropriate response action before they are evaluated.

Upon determination of the CHF, MPF, and RF a decision matrix is utilized to determine the category of relative risk for each media. Relative risk categories are High, Medium, and Low. The highest rating resulting from the evaluation of the three media becomes the relative risk category of the site. A site's rating may change based on new or additional information or as a result of remediation activities.

The results of the Relative Risk Site Evaluation are used, in conjunction with other risk management concerns, to assist in the sequencing of remedial work. Appendix A contains the Defense Environmental Cleanup Program Fact Sheets from the Relative Risk Site Evaluation Primer. The fact sheets provide an explanation of the evaluation concept and answers to frequently asked questions related to the evaluation.

3.2 Summary of Site Risk Ranking for NAVSTA Newport

A summary of historic relative risk ranking results is shown on Table 3-1, and the full report is provided as Appendix B. These historic results are provided for reference only; environmental progress has been made at these specific sites, and other sites have been identified since that time. Refer to Table 1-1 for a current list of sites at NAVSTA Newport being managed under this SMP.

Table 3-1
Relative Risk Ranking Results
NAVSTA Newport, RI

Site	Site Name	Rank
Site 1	McAllister Point Landfill	High
Site 11	Tank Farm 3	High
Site 12	Tank Farm 4	High
Site 17	Gould Island	High

4.0 SCHEDULE

Detailed schedules for pre-remedial sites are attached as Appendix C. A summary of the site status and path forward for each site is provided in Appendix D. For reference, a figure of the Naval Station with the location of each site is provided in Appendix E. These sites include the following:

- Site 4 CCRF
- Site 7 Tank Farm 1
- Site 8 NUSC Disposal Area
- Site 10 Tank Farm 2
- Site 11 Tank Farm 3
- Site 12 Tank Farm 4
- Site 13 Tank Farm 5
- Site 17 Gould Island
- Site 19 Derecktor Shipyard (Offshore and On Shore)
- Site 22 Carr Point Storage Area
- Site 23 Coddington Point Buried Debris Areas
- MRP Site 1 Carr Point Firing Range

4.1 Schedule Development

The schedules were updated for this Site Management Plan using the current status of activity for each site at NAVSTA Newport, anticipated activities, and projected funding availability. Items shown on the schedules have either been completed since the prior SMP (April 2012) or are planned as future deliverables and milestones. Line item durations were developed using the FFA. The FFA provides durations for specific process activities. The FFA describes "deliverables" required during the cleanup process. These documents are separated into two categories; primary and secondary documents.

Primary documents are developed by the Navy and are initially provided as a draft. The Navy provides responses to comments received on draft documents and following resolution, a draft final document is prepared. The draft and draft final documents are subject to review by the EPA, RIDEM, and RAB. If no comments are received on the draft final version, it becomes the final document. Review of the draft final document is intended to result in either concurrence or dispute. Information comments are sometimes issued, and the parties are obligated to reach a resolution on these informal comments within 30 days. Once this resolution is reached the necessary modifications will be made and the final Primary Document will be issued. Secondary documents, as listed in the FFA, also undergo review; however, a draft final version is not always required.

The following is a list of primary documents, as defined in the FFA: RI/FS Work Plan, Draft RI Report, SASE, RI/FS Work Plan, Phase I RI Report, Phase II RI Work Plan, Phase II RI Report (including Sampling and Data Results, Risk Assessment Addendum, RI/FS Report, Proposed Plan, Remedial Design Work Plan, Sixty Percent Remedial Design, Final Remedial Design, Project Closeout Report, RI/FS Scope of Work, and RD/RA Scope of Work. Secondary Documents include those documents that are discrete portions of the Primary Documents and are typically input or feeder documents. The following is a list of secondary documents, as defined in the FFA: SASE Work Plan, Initial Screening of Alternatives, Detailed Analysis of Alternatives, Treatability and Pilot Study Work Plan (if warranted by the scope of the RI/FS), Treatability and Pilot Study(s) (if warranted by the scope of the RI/FS), Sampling and Data Results, Remedial Action Work Plan, and Pre-Final Remedial Design (85%).

4.2 Schedule Durations

The FFA defines review, response, and revision time frames for Primary and Secondary documents. The schedule for updating the SMP is also defined in the FFA.

5.0 NAVSTA NEWPORT RESTORATION ADVISORY BOARD

A Restoration Advisory Board (RAB) was established for NAVSTA Newport in 1996 to establish community awareness, public participation information exchange, and stakeholder involvement in the Navy's Installation Restoration Program (IRP). Additional information regarding the RAB is available at www.rabnewportri.org.

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Tetra Tech, 2012b. Final Land Use Control Remedial Design for Site 1 – McAllister Point Landfill, Operable Unit 1, Naval Station Newport, Newport, Rhode Island, February.

Tetra Tech, 2012c. Final Draft Land Use Control Remedial Design for Site 9 – Old Fire Fighting Training Area, Operable Unit 3, Naval Station Newport, Newport, Rhode Island. February.

Tetra Tech, 2012d. Final Phase 2 Remedial Investigation and Baseline Ecological Risk Assessment, Site 17: Building 32, Gould Island, Naval Station Newport, Newport, Rhode Island. May.

Tetra Tech, 2012e. Study Area Screening Investigation for Site 04 – Coddington Cove Rubble Fill Area, NAVSTA Newport, Rhode Island. May.

Tetra Tech, 2012f. Final Feasibility Study for Site 8 – Naval Undersea Systems Center (NUSC) Disposal Area, Naval Station Newport, Newport, Rhode Island. July.

Tetra Tech, 2012g. Final Sampling and Analysis Plan, Data Gaps Assessment, Category 1 Areas Ethyl Blending Plant and Transformer Sites, Tank Farm 1, Naval Station Newport, Newport, Rhode Island. July.

Tetra Tech, 2012h. Final EE/CA Report, MRP Site 1, Former Carr Point Shooting Range, Naval Station Newport, Newport, Rhode Island. August.

Tetra Tech, 2012i. Final Data Gaps Assessment Report for Installation Restoration Site 12 (Tank Farm 4) and 13 (Tank Farm 5) Category 1 Areas, Naval Station Newport, Rhode Island. August.

Tetra Tech, 2012j. Final Action Memorandum for Non-time Critical Removal Action, MRP Site 1, Former Carr Point Shooting Range, Naval Station Newport, Rhode Island. September.

Tetra Tech, 2012k. Study Area Screening Evaluation for Tank Farm 3, Naval Station Newport, Rhode Island, October.

Tetra Tech, 2012l. Final Design Submittal #1 10.15.12, P-347 Newport Fitness Facility, Phase 1A: Katy Field Parking Lot, Site 9, Naval Station Newport, Newport, Rhode Island. October.

Tetra Tech, 2012m. Remedial Alternatives Package, Site 19, Former Derecktor Shipyard Marine Sediment, Naval Station Newport, Newport, Rhode Island. October.

Tetra Tech, 2012n. Final Supplemental Sediment Investigation Report for IRP Site 19, Former Derecktor Shipyard, Naval Station Newport, Newport, Rhode Island, December.

Tetra Tech, 2013. Final Study Area Screening Evaluation Addendum, Site 19 – On-Shore Derecktor Shipyard, Naval Station Newport, Newport, Rhode Island. January.

Universe Technologies, 2005. Final Project Close-Out Report: Excavation, Transportation and Disposal Services at Installation Restoration Site 09 – Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island. December.

Appendix A

Major Phases of the CERCLA Process

Appendix A
Major Phases of the CERCLA Process
Site Management Plan, FY 2014
NAVSTA Newport, Rhode Island

Phase	Description
Study Area Screening Evaluation (SASE)	<p>Typically, the initial study conducted under CERCLA at a site in response to a real or suspected hazardous substance release is the Preliminary Assessment and Site Inspection (PA/SI). At Federal Facilities, the lead agency (the Navy in the case of NAVSTA Newport) collects the data for the PA/SI. The EPA evaluates the PA/SI data. The PA/SI relies heavily on existing information, and is limited in scope. If the PA/SI identifies sites or study areas as potentially posing a threat to human health or the environment, an RI/FS is conducted.</p> <p>At federal facilities where the responsible federal agency has entered into a FFA with the EPA, the SASE is an alternative to the PA/SI process. The SASE is the mechanism for evaluating whether identified Site Screening Areas (SSAs) should proceed with an RI/FS. SSAs refer to areas not previously identified that may pose a threat, or potential threat, to public health, welfare, or the environment. The SASE considers current CERCLA guidance to determine if there have been releases of hazardous substances, pollutants, or contaminants, to the environment from the SSAs. The SASE Report provides the basis as to whether a site should become an AOC subject to further study through CERCLA RI/FS process. As a result of SSP investigations, Study Areas 8, 17, 19, 20, and 22 were upgraded to AOC status (referred to as "sites").</p>
Remedial Investigation and Feasibility Study (RI/FS)	<p>The RI/FS is the next phase of the CERCLA remedial process and is required for all AOCs. The RI is intended 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. The FS is intended to develop remedial objectives, identify Applicable or Relevant and Appropriate Requirements (ARARs), develop and screen remedial alternatives, analyze remedial alternatives, and compare 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, and community acceptance).</p> <p>After completion of the RI/FS, a PRAP is completed which outlines the Navy's proposed remedial alternative. The PRAP is released to the public and a formal public comment period is held. Subsequently, a ROD that identifies the preferred remedial alternative(s) is issued. RIDEM has the opportunity to concur on the ROD.</p>

Phase	Description
Removal Action	<p>A removal action may be completed prior to or during the RI/FS to reduce the threat to human health or the environment by removing released hazardous substances or reducing potential exposure pathways. Emergency removal actions are taken when there is an imminent threat to human health or the environment. Time-critical removal actions are taken when a threat to public health or welfare of the environment exists and it is determined that less than six months exist before on-site removal activity must be initiated. Non-time-critical removal actions are those actions where a planning period of at least six months exists before on-site activities to reduce the threat to human health or the environment exists.</p> <p>In order to select the best remedial alternative for non-time-critical removal actions an Engineering Evaluation/Cost Analysis (EE/CA) is prepared. Unlike the FS, the EE/CA focuses only on the material or the risk to be removed and does not use the full CERCLA criteria. Both time-critical and non-time critical removal actions require that a public comment period be held in order that the public be afforded an opportunity to comment on the removal.</p> <p>Subsequent to a removal action, the FS may conclude that no further action is required to reduce the threat to human health and the environment. In this case, an NFA ROD would be issued and the CERCLA remedial process would be concluded.</p>
Interim Remedial Action	<p>An interim remedial action may be completed prior to or during the RI/FS to reduce the threat to human health or the environment by removing released hazardous substances or reducing potential exposure pathways. In order to select the best remedial alternative for an interim remedial action, a focused FS may be prepared. An interim action must be consistent with the anticipated long-term remedial action. An interim ROD is issued and interim remedial design and remedial action activities are initiated.</p>
Remedial Design and Remedial Action (RD/RA)	<p>The ROD establishes the scope of the RA. The RD often proceeds in a stepped process and addresses detailed design issues not addressed during the FS. The RA involves implementation of the RD. The FFA establishes a process for developing an RD/RA schedule.</p>
Five Year Review	<p>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.</p>

Phase	Description
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.

Appendix B

NAVSTA Newport Relative Risk Site Evaluation Ranking Worksheets



DEPARTMENT OF THE NAVY

NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
MAIL STOP, #82
LESTER, PA 19113-2090

IN REPLY REFER TO

Code 1823/JS

10 SEP 1998

Ms. Kymberlee Keckler
U.S. EPA Region I
Federal Facilities Superfund Section
John F. Kennedy Federal Building
Boston, MA 02203-0001

Mr. Paul Kulpa
Rhode Island Department of Environmental Management
Division of Site Remediation
291 Promenade Street
Providence, RI 02908-5767

Dear Ms. Keckler and Mr. Kulpa:

SUBJECT: RELATIVE RISK RANKING NETC NEWPORT IR PROGRAM

The enclosed relative risk evaluation worksheets for Sites 1,2,11,12 and 17 were reviewed during our 11 August 1998 meeting at NETC Newport. Any changes made to the worksheets during the meeting are now incorporated into the main NORM database. As a result of these changes the relative risk rankings for Site 2 (Melville North Landfill), Site 11 (Tank Farm 3) and Site 17 (Gould Island) have changed to a High Site Ranking. The Navy is submitting these revised worksheets in lieu of responding to all comments that were received from the USEPA in December 1997.

Thank you for attending the meeting and the comments that have contributed to updating the enclosed relative risk ranking worksheets. Please contact me at (610) 595-0567 extension 241 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "James Shafer".

James Shafer
Remedial Project Manager
By direction of the
Commanding Officer

Copy to:
NETC/M. Griffin

RELATIVE RISK EVALUATION WORKSHEET

SITE (1) BACKGROUND INFORMATION

Installation/Site Name for FUDS NEWPORT RI NETC Date Entered (Day, Month, Year): 11/17/97
Location (State): RI Media Evaluated (GW, SW, Sediment, Soil): GW SEDEM SOIL
Site (Name/RMIS ID) / Project for FUDS: SITE 00001 Phase of Exec. (SI, RI, FS, Remv, RD/RA, or equiv. RCRA Stage): CERCLA RI/FS
RMIS Site Type: LANDFILL Agr. Status (Y/N, If yes, type of agreement e.g., FFA, Permit, Order) Yes
Point of Contact (Name/Phone): Brad Wheeler National Priority List (Y/N): No Site Rank: High

SITE SUMMARY

(Include only key elements of information used to determine relative risk. Attach map view of site if desired.)

Brief Site Description (Include site type, materials disposed of, dates of operation, and other relevant information):

Site 1 is an 11 acre landfill which was operated from 1955 until the mid 1970's. The landfill received wastes generated at the base which included operational areas (machine shops) to family housing (domestic refuse) to ships homeported materials including spent acids, solvents, waste oil, PCB transform oil, and construction/domestic debris. A waste incinerator operated between 1965 and early 1970's with ash residue disposed of on-site.

Brief Description of Pathways (Groundwater, Surface Water, Sediment, Soil):

Groundwater, soil and sediments are of potential concern. Currently installation of a RCRA subtitle C cap will eliminate direct contact to soils.

Brief Description of Receptors (Human and Ecological):

Receptors include both human and ecological.

(1) Use to record information on Sites and Areas of Concern (AOC) for Relative Risk Site Evaluation. The term Site is defined as a discrete area for which suspected contamination has been verified and req A Site by definition has been, or will be, entered into RMIS. For the FUDS Program, "projects" equates to sites for current installations. An AOC is a discrete area of contamination, or suspected contaminati (or RFA) phase that has not been entered into RMIS

Ground Water

**CONTAMINANT
HAZARD
FACTOR (1)
(CHF)**

Contaminant	Maximum Conc. ug/L	Standard ug/L	Ratio (2)
Arsenic (cancer endpoint)	311 0	4 5	69.110
Manganese and compounds	12,000 0	180 0	66 670
Calcium	162,000 0	11,000 0	14 730
Aluminum	284,000 0	37,000 0	7 680
Lead	19 8	4 0	4.950
Cobalt	737 0	180 0	4 090
Cadmium and compounds	57 1	18 0	3 170
Vanadium	432 0	260 0	1.660
Zinc	12,100 0	11,000 0	1 100
Aroclor-1254	0 76	0 73	1 040
Total:			179.263

(1) Evaluate for human contaminants only
(2) Ratio = Maximum Concentration/Standard
Note. Only top ten contaminants are displayed.

(Place an "X" next to one below)

Significant (If Total > 100): X

Moderate (If Total 2 - 100):

Minimal (If Total < 2):

**MIGRATION
PATHWAY
FACTOR
(MPF)**

Evident - Analytical data or observable evidence indicates that contamination in the media is moving away from the source.

Confined - Information indicates that the potential for contaminant migration from the source is limited (due to geological structures or physical controls)

(Place an "X" next to one below)

Evident:

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Potential: X

Confined:

Brief Rationale for Selection: Contaminants found in the groundwater appear to be filtered by geological conditions, however tidal flushing still appears to be a possible migration route

**RECEPTOR
FACTOR
(RF)**

Identified - There is a threatened or potentially threatened water supply downgradient of the source. The GW (cont or not) is a current drinking water source or is equiv to (Class I or IIA aquifer)

Limited - There is no potentially threatened water supply well downgradient of the source. The groundwater is not considered a potential source of DW or is of limited beneficial use (IIIA, IIIB or perched aquifer)

(Place an "X" next to one below)

Identified:

Potential - There is no potentially threatened water supply well downgradient of the source. The groundwater is potentially usable for DW, irrigation or agriculture, but not presently used (Class IIB aquifer)

Potential:

Limited: X

Brief Rationale for Selection: Classification of groundwater is GA-NA aquifer. It is not considered suitable as drinking water due to proximity to salt water and use as a landfill

Activity Name NEWPORT RI NETC

Site Name: SITE 00001

Groundwater Category: Med
(High, Medium, Low)

Soil

CONTAMINANT HAZARD FACTOR (1) (CHF)

Contaminant	Maximum Conc. mg/Kg	Standard mg/Kg	Ratio (2)
Lead	1,980.0	400.0	4.950
Benzo[a]pyrene	27.0	6.1	4.430
Antimony and compounds	91.4	31.0	2.950
Copper and compounds	6,070.0	2,800.0	2.170
Calcium	45,500.0	23,000.0	1.980
Manganese and compounds	678.0	380.0	1.780
Chrysene	33.0	24.0	1.380
Arsenic (cancer endpoint)	24.1	22.0	1.100
Zinc	19,200.0	23,000.0	0.830
Benz[a]anthracene	43.0	61.0	0.700
Total:			26.732

(1) Evaluate for human contaminants only
 (2) Ratio = Maximum Concentration/Standard
 Note. Only top ten contaminants are displayed

(Place an "X" next to one below)

Significant (If Total > 100): _____

Moderate (If Total 2 - 100): X

Minimal (If Total < 2): _____

MIGRATION PATHWAY FACTOR (MPF)

Evident - Analytical data or observable evidence indicates that contamination is present at, is moving towards, or has moved to a point of exposure

Confined - Low possibility for contamination to be present at or migrate to a point of exposure

(Place an "X" next to one below)

Evident: _____

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Potential: _____

Confined: X

Brief Rationale for Selection Due to the placement of a RCRA subtitle C Cap- there will be a low to none possibility for - exposure

RECEPTOR FACTOR (RF)

Identified - Receptors identified that have access to contaminated soil

Limited - Little or no potential for receptors to have access to contaminated soil

(Place an "X" next to one below)

Identified: _____

Potential - Potential for receptors to have access to contaminated soil

Potential: _____

Limited: X

Brief Rationale for Selection Under future conditions there will be little potential for human contact

Activity Name NEWPORT RI NETC

Site Name: SITE 00001

Soil Category: Low
 (High, Medium, Low)

RELATIVE RISK EVALUATION WORKSHEET

SITE (1) BACKGROUND INFORMATION

Installation/Site Name for FUDS NEWPORT RI NETC Date Entered (Day, Month, Year): 8/12/98
Location (State): RI Media Evaluated (GW, SW, Sediment, Soil): GW SOIL
Site (Name/RMIS ID) / Project for FUDS: SITE 00002 Phase of Exec. (SI, RI, FS, Remv, RD/RA, or equiv. RCRA Stage): RI
RMIS Site Type: LANDFILL Agr. Status (Y/N, If yes, type of agreement e.g., FFA, Permit, Order) Yes
Point of Contact (Name/Phone): Brad Wheeler National Priority List (Y/N): No Site Rank: High

SITE SUMMARY

(Include only key elements of information used to conduct the relative risk site evaluation. Attach map view of site if desired.)

Brief Site Description (Include site type, materials disposed of, dates of operation, and other relevant information):

Site 2 is a 10 acre landfill located adjacent to Narragansett Bay. The landfill was operated following world war II until 1955. Wastes disposed of include spent acids, paints, oils, and PCB's. The site was exccessed by the Navy in 1983.

Brief Description of Pathways (Groundwater, Surface Water, Sediment, Soil):

Suspected pathways include groundwater and soil.

Brief Description of Receptors (Human and Ecological):

Receptors are human.

(1) Use to record information on Sites and Areas of Concern (AOC) for Relative Risk Site Evaluation. The term Site is defined as a discrete area for which suspected contamination has been verified and req A Site by definition has been, or will be, entered into RMIS. For the FUDS Program, "projects" equates to sites for current installations. An AOC is a discrete area of contamination, or suspected contaminati (or RFA) phase that has not been entered into RMIS.

Ground Water

**CONTAMINANT
HAZARD
FACTOR (1)
(CHF)**

Contaminant	Maximum Conc. ug/L	Standard ug/L	Ratio (2)
Manganese and compounds	4,210 0	180 0	23 390
Antimony and compounds	118 0	15 0	7 870
Arsenic (cancer endpoint)	22 4	4 5	4 980
Aluminum	93,200 0	37,000 0	2 520
Beryllium and compounds	3 8	1 6	2 380
Chlorobenzene	79 0	39 0	2 030
Dichlorobenzene, 1,4-	83 0	47 0	1 770
Calcium	18,000 0	11,000 0	1 640
Methylnaphthalene, 2-	210 0	0 0	1.170
Cobalt	192 0	180 0	1 070
Total:			54.265

(1) Evaluate for human contaminants only
 (2) Ratio = Maximum Concentration/Standard
 Note: Only top ten contaminants are displayed

(Place an "X" next to one below)

Significant (If Total > 100): _____
 Moderate (If Total 2 - 100): X
 Minimal (If Total < 2): _____

**MIGRATION
PATHWAY
FACTOR
(MPF)**

Evident - Analytical data or observable evidence indicates that contamination in the media is moving away from the source

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Confined - Information indicates that the potential for contaminant migration from the source is limited (due to geological structures or physical controls)

(Place an "X" next to one below)

Evident: _____
 Potential: X
 Confined: _____

Brief Rationale for Selection: Geologic conditions provide the potential for groundwater migration.

**RECEPTOR
FACTOR
(RF)**

Identified - There is a threatened or potentially threatened water supply downgradient of the source. The GW (cont or not) is a current drinking water source or is equiv. to (Class I or IIA aquifer)

Potential - There is no potentially threatened water supply well downgradient of the source. The groundwater is potentially usable for DW, irrigation or agriculture, but not presently used (Class IIB aquifer)

Limited - There is no potentially threatened water supply well downgradient of the source. The groundwater is not considered a potential source of DW or is of limited beneficial use (IIIA, IIIB or perched aquifer)

(Place an "X" next to one below)

Identified: _____
 Potential: _____
 Limited: X

Brief Rationale for Selection: There is no known water supply well down gradient however classification identifies the aquifer as a non drinking water aquifer (class GB)

Activity Name NEWPORT RI NETC

Site Name: SITE 0002

Groundwater Category: Low
 (High, Medium, Low)

Soil

CONTAMINANT HAZARD FACTOR (1) (CHF)

Contaminant	Maximum Conc. mg/Kg	Standard mg/Kg	Ratio (2)
Aroclor	500.0	6.6	75.760
Lead	1,970.0	400.0	4.930
Arsenic (cancer)	30.1	22.0	1.370
Manganese and compounds	490.0	380.0	1.290
Benzo[a]pyrene	5.9	6.1	0.970
Chrysene	11.0	24.0	0.460
Calcium	8,720.0	23,000.0	0.380
Antimony and compounds	10.3	31.0	0.330
Dibenz[ah]anthracene	1.6	6.1	0.260
Aluminum	12,700.0	77,000.0	0.160
Total:			86.808

(1) Evaluate for human contaminants only
 (2) Ratio = Maximum Concentration/Standard
 Note: Only top ten contaminants are displayed

(Place an "X" next to one below)

Significant (If Total > 100): _____

Moderate (If Total 2 - 100): X

Minimal (If Total < 2): _____

MIGRATION PATHWAY FACTOR (MPF)

Evident - Analytical data or observable evidence indicates that contamination is present at, is moving towards, or has moved to a point of exposure

Confined - Low possibility for contamination to be present at or migrate to a point of exposure

(Place an "X" next to one below)

Evident: X

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Potential: _____

Confined: _____

Brief Rationale for Selection: Samples indicated contamination has moved away from the source

RECEPTOR FACTOR (RF)

Identified - Receptors identified that have access to contaminated soil

Limited - Little or no potential for receptors to have access to contaminated soil

(Place an "X" next to one below)

Identified: X

Potential - Potential for receptors to have access to contaminated soil

Potential: _____

Limited: _____

Brief Rationale for Selection: Under current conditions there receptors have direct access to soils

Activity Name: NEWPORT RI NETC

Site Name: SITE 00002

Soil Category: High
 (High, Medium, Low)

RELATIVE RISK EVALUATION WORKSHEET

SITE (1) BACKGROUND INFORMATION

Installation/Site Name for FUDS NEWPORT RI NETC
Location (State): RI
Site (Name/RMIS ID) / Project for FUDS: SITE 00011
RMIS Site Type: UNDERGROUND TANK FARM
Point of Contact (Name/Phone): Brad Wheeler

Date Entered (Day, Month, Year): 8/12/98
Media Evaluated (GW, SW, Sediment, Soil): GW SOIL
Phase of Exec. (SI, RI, FS, Remv, RD/RA, or equiv. RCRA Stage): _____
Agr. Status (Y/N, If yes, type of agreement e.g., FFA, Permit, Order) Yes
National Priority List (Y/N): No Site Rank: High

SITE SUMMARY

(Include only key elements of information used to conduct the relative risk site evaluation. Attach map view of site if desired.)

Brief Site Description (Include site type, materials disposed of, dates of operation, and other relevant information):

Tank farm #3 is 30 acres in size and consists of 5 concrete underground storage tanks (1.55M gallon capacity) and 2 steel underground storage tanks (2 1M gallon capacity) Tanks were used to store JP-4 and JP-5 jet engine fuel.

Brief Description of Pathways (Groundwater, Surface Water, Sediment, Soil):

Potential pathways include groundwater and soil.

Brief Description of Receptors (Human and Ecological):

Potential receptors include human.

(1) Use to record information on Sites and Areas of Concern (AOC) for Relative Risk Site Evaluation. The term Site is defined as a discrete area for which suspected contamination has been verified and req A Site by definition has been, or will be, entered into RMIS. For the FUDS Program, "projects" equates to sites for current installations. An AOC is a discrete area of contamination, or suspected contaminati (or RFA) phase that has not been entered into RMIS.

RELATIVE RISK EVALUATION WORKSHEET

SITE (1) BACKGROUND INFORMATION

Installation/Site Name for FUDS NEWPORT RI NETC Date Entered (Day, Month, Year): 11/26/97
Location (State): RI Media Evaluated (GW, SW, Sediment, Soil): GW SWH SEDEM SOIL
Site (Name/RMIS ID) / Project for FUDS: SITE 00012 Phase of Exec. (SI, RI, FS, Remv, RD/RA, or equiv. RCRA Stage): _____
RMIS Site Type: UNDERGROUND TANK FARM Agr. Status (Y/N, If yes, type of agreement e.g., FFA, Permit, Order) Yes
Point of Contact (Name/Phone): Brad Wheeler National Priority List (Y/N): No Site Rank: High

SITE SUMMARY

(Include only key elements of information used to conduct the relative risk site evaluation. Attach map view of site if desired)

Brief Site Description (Include site type, materials disposed of, dates of operation, and other relevant information):

Site 12 is an 80 acre tank farm which consists of 12 underground storage tanks each with a 2.5M gallon capacity. Diesel and fuel oil were historically stored at the site. A brook crosses the western portion of the site and discharges to the bay.

Brief Description of Pathways (Groundwater, Surface Water, Sediment, Soil):

Potential pathways consist of groundwater, sediment and soil

Brief Description of Receptors (Human and Ecological):

Potential receptors include both human and ecological

(1) Use to record information on Sites and Areas of Concern (AOC) for Relative Risk Site Evaluation. The term Site is defined as a discrete area for which suspected contamination has been verified and req A Site by definition has been, or will be, entered into RMIS. For the FUDS Program, "projects" equates to sites for current installations. An AOC is a discrete area of contamination, or suspected contaminati (or RFA) phase that has not been entered into RMIS.

Ground Water

CONTAMINANT HAZARD FACTOR (1) (CHF)

Contaminant	Maximum Conc. ug/L	Standard ug/L	Ratio (2)
Arsenic (cancer endpoint)	448 0	4 5	99 560
Manganese and compounds	9,740 0	180 0	54 110
Lead	156 0	4 0	39 000
Calcium	86,600 0	11,000 0	7 870
Aluminum	251,000 0	37,000 0	6 780
Beryllium and compounds	8 5	1 6	5 310
Cobalt	669 0	180 0	3 720
Chromium (total)	391 0	180 0	2 170
Nickel and compounds	749 0	730 0	1 030
Vanadium	168 0	260 0	0 650
Total:			221.534

(1) Evaluate for human contaminants only
 (2) Ratio = Maximum Concentration/Standard
 Note Only top ten contaminants are displayed

(Place an "X" next to one below)

Significant (If Total > 100): X

Moderate (If Total 2 - 100):

Minimal (If Total < 2):

MIGRATION PATHWAY FACTOR (MPF)

Evident - Analytical data or observable evidence indicates that contamination in the media is moving away from the source

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Confined - Information indicates that the potential for contaminant migration from the source is limited (due to geological structures or physical controls)

(Place an "X" next to one below)

Evident:

Potential: X

Confined:

Brief Rationale for Selection: Information is not sufficient to make a determination of evident or confined

RECEPTOR FACTOR (RF)

Identified - There is a threatened or potentially threatened water supply downgradient of the source. The GW (cont. or not) is a current drinking water source or is equiv. to (Class I or IIA aquifer)

Potential - There is no potentially threatened water supply well downgradient of the source. The groundwater is potentially usable for DW, irrigation or agriculture, but not presently used (Class IIB aquifer)

Limited - There is no potentially threatened water supply well downgradient of the source. The groundwater is not considered a potential source of DW or is of limited beneficial use (IIIA, IIIB or perched aquifer)

(Place an "X" next to one below)

Identified:

Potential: X

Limited:

Brief Rationale for Selection: There is no potentially threatened water supply well down gradient however classification of groundwater identifies is as non-attainment area but suitable for drinking water

Activity Name NEWPORT RI NETC

Site Name: SITE 00012

Groundwater Category: High
 (High, Medium, Low)

Surface Water Human

CONTAMINANT HAZARD FACTOR (1) (CHF)

Contaminant	Maximum Conc. ug/L	Standard ug/L	Ratio (2)
Manganese and compounds	1,930 0	180 0	10 720
Calcium	20,300 0	11,000 0	1 850
Carbon disulfide	26 0	21 0	1 240
Lead	3 8	4 0	0 950
Cadmium and compounds	3 3	18 0	0 180
Carbon tetrachloride	3 0	17 0	0 180
Zinc	1,190 0	11,000 0	0 110
Chromium (total)	4 0	180 0	0 020
Vanadium	5 0	260 0	0 020
Selenium	3 1	180 0	0 020
Total:			15.287

(1) Evaluate for human contaminants only
 (2) Ratio = Maximum Concentration/Standard
 Note. Only top ten contaminants are displayed

(Place an "X" next to one below)

Significant (If Total > 100): _____

Moderate (If Total 2 - 100): X

Minimal (If Total < 2): _____

MIGRATION PATHWAY FACTOR (MPF)

Evident - Analytical data or observable evidence indicates that contamination in the media is present at, is moving toward, or has moved to a point of exposure

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Confined - Information indicates a low potential for contamination to a potential point of exposure (could be due to the presence of geological structures or physical controls)

(Place an "X" next to one below)

Evident: _____

Potential: X

Confined: _____

Brief Rationale for Selection: Insufficient data to determine an Evident or Confined pathway

RECEPTOR FACTOR (RF)

Identified - Receptors identified that have access to surface water

Potential - Potential for receptors to have access to surface water

Limited - Little or no potential for receptors to have access to surface water

(Place an "X" next to one below)

Identified: _____

Potential: X

Limited: _____

Brief Rationale for Selection: Potential for receptors to have access to contaminants in the surface water

Activity Name NEWPORT RI NETC

Site Name: SITE 00012

Surface Water Human Category: Med
 (High, Medium, Low)

Sediment Eco Marine

**CONTAMINANT
HAZARD
FACTOR (1)
(CHF)**

Contaminant	Maximum Conc. mg/Kg	Standard mg/Kg	Ratio (2)
Calcium	791.0	120.0	6.590
Chromium (total)	25.9	8.0	3.240
Copper and compounds	17.8	7.0	2.540
Zinc	82.0	120.0	0.680
Arsenic (cancer endpoint)	21.1	33.0	0.640
Lead	12.1	35.0	0.350
Cobalt	25.0	80.0	0.310
Cadmium and compounds	0.78	5.0	0.160
		Total:	14.509

(1) Evaluate for human contaminants only
(2) Ratio = Maximum Concentration/Standard
Note: Only top ten contaminants are displayed

(Place an "X" next to one below)

Significant (If Total > 100): _____

Moderate (If Total 2 - 100): X

Minimal (If Total < 2): _____

**MIGRATION
PATHWAY
FACTOR
(MPF)**

Evident - Analytical data or observable evidence indicates that contamination in the media is present at, is moving toward, or has moved to a point of exposure

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Confined - Information indicates a low potential for contamination to a potential point of exposure (could be due to the presence of geological structures or or physical controls)

(Place an "X" next to one below)

Evident: _____

Potential: X

Confined: _____

Brief Rationale for Selection: Limited analytical data indicates possibility for contamination to be present in sediments and migrating towards the bay

**RECEPTOR
FACTOR
(RF)**

Identified - Receptors identified that have access to sediment

Potential - Potential for receptors to have access to sediment

Limited - Little or no potential for receptors to have access to sediment

(Place an "X" next to one below)

Identified: _____

Potential: X

Limited: _____

Brief Rationale for Selection: Potential receptors present due to proximity to the bay

Activity Name NEWPORT RI NETC

Site Name: SITE 00012

Sediment Marine Category: Med
(High, Medium, Low)

Soil

CONTAMINANT HAZARD FACTOR (1) (CHF)

Contaminant	Maximum Conc. mg/Kg	Standard mg/Kg	Ratio (2)
Manganese and compounds	471 0	380 0	1 240
Arsenic (cancer endpoint)	8 5	22 0	0 390
Lead	67 9	400 0	0 170
Aluminum	9,530 0	77,000 0	0 120
Cobalt	13 9	380 0	0 040
Vanadium	18 1	540 0	0 030
Calcium	741 0	23,000 0	0 030
Benzo[a]pyrene	0 11	6 1	0 020
Nickel and compounds	18 7	1,500 0	0 010
Copper and compounds	25 8	2,800 0	0 010
Total:			2.083

(1) Evaluate for human contaminants only
 (2) Ratio = Maximum Concentration/Standard
 Note Only top ten contaminants are displayed

(Place an "X" next to one below)

Significant (If Total > 100): _____

Moderate (If Total 2 - 100): X

Minimal (If Total < 2): _____

MIGRATION PATHWAY FACTOR (MPF)

Evident - Analytical data or observable evidence indicates that contamination is present at, is moving towards, or has moved to a point of exposure

Potential - Possibility for contamination to be present at or migrate to a point of exposure, or information is not sufficient to make a determination of Evident or Confined

Confined - Low possibility for contamination to be present at or migrate to a point of exposure

(Place an "X" next to one below)

Evident: _____

Potential: X

Confined: _____

Brief Rationale for Selection: Information not sufficient to make a determination

RECEPTOR FACTOR (RF)

Identified - Receptors identified that have access to contaminated soil

Potential - Potential for receptors to have access to contaminated soil

Limited - Little or no potential for receptors to have access to contaminated soil

(Place an "X" next to one below)

Identified: _____

Potential: X

Limited: _____

Brief Rationale for Selection: Potential for human receptors if future use scenario assumes industrial/residential

Activity Name NEWPORT RI NETC

Site Name: SITE 00012

Soil Category: Med
 (High, Medium, Low)

RELATIVE RISK EVALUATION WORKSHEET

SITE (1) BACKGROUND INFORMATION

Installation/Site Name for FUDS NEWPORT RI NETC Date Entered (Day, Month, Year): 8/12/98
Location (State): RI Media Evaluated (GW, SW, Sediment, Soil): GW SEDH SEDEM SOIL
Site (Name/RMIS ID) / Project for FUDS: SITE 00017 Phase of Exec. (SI, RI, FS, Remv, RD/RA, or equiv. RCRA Stage): _____
RMIS Site Type: PLATING SHOP Agr. Status (Y/N, If yes, type of agreement e.g., FFA, Permit, Order) Yes
Point of Contact (Name/Phone): Brad Wheeler National Priority List (Y/N): No Site Rank: High

SITE SUMMARY

(Include only key elements of information used to conduct the relative risk site evaluation. Attach map view of site if desired.)

Brief Site Description (Include site type, materials disposed of, dates of operation, and other relevant information):

Site 17 is a 4,275 SQ. FT. electroplating shop located on Gould Island. The Plating Shop was used during the 1940's for torpedo overhauls. The shop included numerous metal vats, 3 trench drains and discrete floor drains. Disposal location of wastes are unknown. However, wastewater discharges were to either a septic system or off-shore outfall pipes. Sediment data is taken from Loureido Engineering Associates of Avon, Ct. and is dated 5/15/86. Cyanide in the sediment media which is above background levels was not evaluated because there is not a value contained in the Lookup Tables at this time.

Brief Description of Pathways (Groundwater, Surface Water, Sediment, Soil):

Potential pathways are sediments.

Brief Description of Receptors (Human and Ecological):

Potential receptor is ecological.

(1) Use to record information on Sites and Areas of Concern (AOC) for Relative Risk Site Evaluation. The term Site is defined as a discrete area for which suspected contamination has been verified and req A Site by definition has been, or will be, entered into RMIS. For the FUDS Program, "projects" equates to sites for current installations. An AOC is a discrete area of contamination, or suspected contaminati (or RFA) phase that has not been entered into RMIS.

Appendix C

Site Schedules

Deliverable Schedule
Site 4, Coddington Cove
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
SASE		
Internal Draft to Navy	--	--
Receive Navy Comments	14 days after Internal Draft	--
Draft to Agencies	14 days after receipt of comments	5/8/2012
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	9/17/2012
Revised HHRA/ERA portion of Revised Draft SASE	45 days after receipt of comments	1/25/2013
Groundwater Metals SAP Addendum		
Internal Draft to Navy	--	4/22/2013
Receive Navy Comments	14 days after Draft	5/10/2013
Draft to Agencies	30 days after receipt of comments	5/13/2013
Receive Agency Comments	45 days after Draft	6/27/2013
Navy RTC to Agencies	45 days after receipt of comments	8/5/2013
Draft Final to Agencies	45 days after Navy RTC	9/20/2013
Agency Concurrence on Draft Final	30 days after Draft Final	11/1/2013
Final to Agencies	60 days after Draft Final	11/19/2013
Groundwater Metals Field Program, Data Evaluation		
Complete Field Program	30 days after Final RI SAP	1/15/2014
Complete Laboratory Analysis	30-day standard TAT	2/14/2014
Complete Data Validation and Import	30 days for data validation	3/16/2014
Complete Internal Draft Tech Memo	30 days for report preparation	4/15/2014
SASE Appendix (Groundwater Tech Memo)		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	4/15/2014
Receive Navy Comments	21 days after Internal Draft	5/6/2014
Draft to Agencies	14 days after receipt of comments	5/20/2014
Receive Agency Comments	30 days after Draft	6/19/2014
Navy RTC to Agencies	30 days after receipt of comments	7/19/2014
Agency Concurrence	30 days after RTC to Agencies	8/18/2014
Final to Tetra Tech as appendix to SASE	60 days after RTC to Agencies	9/17/2014
Final SASE		
Final to Agencies	14 days after Final Tech Memo	10/1/2014
FS		
Possible Data Collection and/or Evaluation	--	TBD
Internal Draft to Navy	60 days after Final RI Report	TBD
Receive Navy Comments	30 days after Internal Draft	TBD
Draft to Agencies	30 days after receipt of comments	TBD
Receive Agency Comments	45 days after Draft	TBD
Navy RTC to Agencies	45 days after receipt of comments	TBD
Draft Final to Agencies	45 days after Navy RTC	TBD
Agency Concurrence on Draft Final	30 days after Draft Final	TBD
Final to Agencies	60 days after Draft Final	TBD
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	TBD
Receive Navy Comments	30 days after Internal Draft	TBD
Draft to Agencies	30 days after receipt of comments	TBD
Receive Agency Comments	30 days after Draft	TBD
Navy RTC to Agencies	30 days after receipt of comments	TBD
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	TBD
Final to Agencies	45 days after Draft Final	TBD
Publish Public Notice	3 days after Final	TBD
Close of Public Comment Period	30 days	TBD
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	TBD
Receive Navy Comments	30 days after Internal Draft	TBD
Draft to Agencies	30 days after receipt of comments	TBD
Receive Agency Comments	30 days after Draft	TBD
Navy RTC to Agencies	30 days after receipt of comments	TBD
Draft Final to Agencies	30 days after Draft	TBD
Agency Concurrence on Draft Final	30 days after Draft Final	TBD
Final to Agencies	60 days after Draft Final	TBD

Deliverable Schedule
Site 7, Tank Farm 1 Category 1
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
RI Field Program, Data Evaluation		
Complete Field Program	60 days after Final RI SAP	8/30/2012
Complete Laboratory Analysis	30-day standard TAT	9/28/2012
Complete Data Validation and Import	45 days for data validation	10/30/2012
Complete Internal Draft RI Report	45 days for report preparation	2/15/2013
RI Report (Data Gaps Assessment)		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	2/15/2013
Receive Navy Comments	30 days after Internal Draft	3/17/2013
Draft to Agencies	30 days after receipt of comments	3/12/2013
Receive Agency Comments	45 days after Draft	4/26/2013
Navy RTC to Agencies	45 days after receipt of comments	7/11/2013
Draft Final to Agencies	45 days after Navy RTC	1/31/2014
Agency Concurrence on Draft Final	30 days after Draft Final	3/2/2014
Final to Agencies	60 days after Draft Final	4/1/2014
FS		
Internal Draft to Navy	60 days after Final RI Report	3/14/2014
Receive Navy Comments	30 days after Internal Draft	4/13/2014
Draft to Agencies	30 days after receipt of comments	5/13/2014
Receive Agency Comments	45 days after Draft	6/27/2014
Navy RTC to Agencies	45 days after receipt of comments	8/11/2014
Draft Final to Agencies	45 days after Navy RTC	9/25/2014
Agency Concurrence on Draft Final	30 days after Draft Final	10/25/2014
Final to Agencies	60 days after Draft Final	11/24/2014
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	12/24/2014
Receive Navy Comments	30 days after Internal Draft	1/23/2015
Draft to Agencies	30 days after receipt of comments	2/22/2015
Receive Agency Comments	30 days after Draft	3/24/2015
Navy RTC to Agencies	30 days after receipt of comments	4/23/2015
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	6/7/2015
Final to Agencies	45 days after Draft Final	7/22/2015
Publish Public Notice	3 days after Final	7/25/2015
Close of Public Comment Period	30 days	8/24/2015
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	9/23/2015
Receive Navy Comments	30 days after Internal Draft	10/23/2015
Draft to Agencies	30 days after receipt of comments	11/22/2015
Receive Agency Comments	30 days after Draft	12/22/2015
Navy RTC to Agencies	30 days after receipt of comments	1/21/2016
Draft Final to Agencies	30 days after Draft	2/20/2016
Agency Concurrence on Draft Final	30 days after Draft Final	3/21/2016
Final to Agencies	60 days after Draft Final	4/20/2016

Deliverable Schedule
Site 8, NUSC
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	30 days after Draft	--
Navy RTC to Agencies	30 days after receipt of comments	--
Draft Final to Agencies	30 days after Draft	--
Agency Concurrence on Draft Final	30 days after Draft Final	--
Final to Agencies	60 days after Draft Final	9/17/2012
Remedial Design Work Plan (Part of RD)		
Draft to Navy	--	3/1/2013
Draft to Agencies	30 days after Draft to Navy	3/31/2013
Draft Final to Agencies	103 days after Draft to Agencies	8/13/2013
Final to Agencies	75 days after Draft Final to Agencies	10/12/2013
Remedial Design		
Draft to Navy	Submit with Design Work Plan	3/20/2013
Draft (60%) to Agencies	Submit with Design Work Plan	3/31/2013
Draft Final (85%) to Agencies	Submit with Design Work Plan	9/30/2013
Final (100%) to Agencies	Submit with Design Work Plan	12/31/2013
Remedial Action		
Start Construction	No later than 15 months (450 days) after signed ROD	12/14/2013
Complete Construction	2 years after construction start	11/17/2015
Draft RACR to Navy	40 days after construction completion	12/27/2015
Draft RACR to Agencies	30 days after Draft RACR to Navy	1/26/2016
Final RACR to Agencies	105 days after Draft RACR to Agencies	5/10/2016

Deliverable Schedule
Site 10, Tank Farm 2 Category 1
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
RI SAP		
Initial Worksheets (10, 11 & 17) to Navy	--	--
Receive Navy Comments	14 days after initial worksheets	--
Internal Draft to Navy	14 days after receipt of comments	--
Receive Navy Comments	14 days after Draft	--
Draft to Agencies	14 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	11/16/2012
Agency Concurrence on Draft Final	30 days after Draft Final	12/16/2012
Final to Agencies	60 days after Draft Final	7/18/2013
RI Field Program, Data Evaluation		
Complete Field Program	60 days after Final RI SAP	12/15/2013
Complete Laboratory Analysis	30-day standard TAT	1/14/2014
Complete Data Validation and Import	45 days for data validation	2/28/2014
Complete Internal Draft RI Report	45 days for report preparation	4/14/2014
RI Report (Data Gaps Assessment)		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	4/14/2014
Receive Navy Comments	30 days after Internal Draft	5/14/2014
Draft to Agencies	30 days after receipt of comments	6/13/2014
Receive Agency Comments	45 days after Draft	7/28/2014
Navy RTC to Agencies	45 days after receipt of comments	9/11/2014
Draft Final to Agencies	45 days after Navy RTC	10/26/2014
Agency Concurrence on Draft Final	30 days after Draft Final	11/25/2014
Final to Agencies	60 days after Draft Final	12/25/2014
FS		
Internal Draft to Navy	60 days after Final RI Report	2/23/2015
Receive Navy Comments	30 days after Internal Draft	3/25/2015
Draft to Agencies	30 days after receipt of comments	4/24/2015
Receive Agency Comments	45 days after Draft	6/8/2015
Navy RTC to Agencies	45 days after receipt of comments	7/23/2015
Draft Final to Agencies	45 days after Navy RTC	9/6/2015
Agency Concurrence on Draft Final	30 days after Draft Final	10/6/2015
Final to Agencies	60 days after Draft Final	11/5/2015
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	12/5/2015
Receive Navy Comments	30 days after Internal Draft	1/4/2016
Draft to Agencies	30 days after receipt of comments	2/3/2016
Receive Agency Comments	30 days after Draft	3/4/2016
Navy RTC to Agencies	30 days after receipt of comments	4/3/2016
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	5/18/2016
Final to Agencies	45 days after Draft Final	7/2/2016
Publish Public Notice	3 days after Final	7/5/2016
Close of Public Comment Period	30 days	8/4/2016
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	8/1/2016
Receive Navy Comments	30 days after Internal Draft	8/31/2016
Draft to Agencies	30 days after receipt of comments	9/30/2016
Receive Agency Comments	30 days after Draft	10/30/2016
Navy RTC to Agencies	30 days after receipt of comments	11/29/2016
Draft Final to Agencies	30 days after Draft	12/29/2016
Agency Concurrence on Draft Final	30 days after Draft Final	1/28/2017
Final to Agencies	60 days after Draft Final	2/27/2017

Deliverable Schedule
Site 11, Tank Farm 3 Category 1
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
SASE		
Internal Draft to Navy	--	--
Receive Navy Comments	14 days after Internal Draft	--
Draft to Agencies	14 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Redline 2nd Draft Final to Agencies	--	10/9/2012
Agency Concurrence on Draft Final	30 days after Draft Final	11/8/2012
Final to Agencies	60 days after Draft Final	8/5/2013
RI SAP		
Initial Worksheets (10, 11 & 17) to Navy	--	--
Receive Navy Comments	14 days after initial worksheets	--
Internal Draft to Navy	14 days after receipt of comments	--
Receive Navy Comments	14 days after Draft	--
Draft to Agencies	14 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	10/9/2012
Agency Concurrence on Draft Final	30 days after Draft Final	4/23/2013
Final to Agencies	60 days after Draft Final	5/29/2013
RI Field Program, Data Evaluation		
Complete Field Program	60 days after Final RI SAP	12/15/2013
Complete Laboratory Analysis	30-day standard TAT	1/14/2014
Complete Data Validation and Import	45 days for data validation	2/28/2014
Complete Internal Draft RI Report	45 days for report preparation	4/14/2014
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	4/14/2014
Receive Navy Comments	30 days after Internal Draft	5/14/2014
Draft to Agencies	30 days after receipt of comments	6/13/2014
Receive Agency Comments	45 days after Draft	7/28/2014
Navy RTC to Agencies	45 days after receipt of comments	9/11/2014
Draft Final to Agencies	45 days after Navy RTC	10/26/2014
Agency Concurrence on Draft Final	30 days after Draft Final	11/25/2014
Final to Agencies	60 days after Draft Final	12/25/2014
FS		
Internal Draft to Navy	60 days after Final RI Report	2/23/2015
Receive Navy Comments	30 days after Internal Draft	3/25/2015
Draft to Agencies	30 days after receipt of comments	4/24/2015
Receive Agency Comments	45 days after Draft	6/8/2015
Navy RTC to Agencies	45 days after receipt of comments	7/23/2015
Draft Final to Agencies	45 days after Navy RTC	9/6/2015
Agency Concurrence on Draft Final	30 days after Draft Final	10/6/2015
Final to Agencies	60 days after Draft Final	11/5/2015
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	12/5/2015
Receive Navy Comments	30 days after Internal Draft	1/4/2016
Draft to Agencies	30 days after receipt of comments	2/3/2016
Receive Agency Comments	30 days after Draft	3/4/2016
Navy RTC to Agencies	30 days after receipt of comments	4/3/2016
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	5/18/2016
Final to Agencies	45 days after Draft Final	7/2/2016
Publish Public Notice	3 days after Final	7/5/2016
Close of Public Comment Period	30 days	8/4/2016
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	8/1/2016
Receive Navy Comments	30 days after Internal Draft	8/31/2016
Draft to Agencies	30 days after receipt of comments	9/30/2016
Receive Agency Comments	30 days after Draft	10/30/2016
Navy RTC to Agencies	30 days after receipt of comments	11/29/2016
Draft Final to Agencies	30 days after Draft	12/29/2016
Agency Concurrence on Draft Final	30 days after Draft Final	1/28/2017
Final to Agencies	60 days after Draft Final	2/27/2017

Deliverable Schedule
Site 12, Tank Farm 4 Category 1
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	--
Agency Concurrence on Draft Final	30 days after Draft Final	--
Final to Agencies	60 days after Draft Final	8/3/2012
FS		
Internal Draft to Navy	60 days after Final RI Report	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	8/15/2012
Agency Concurrence on Draft Final	30 days after Draft Final	2/8/2013
Final to Agencies	30 days after Agency Concurrence	6/5/2013
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	1/17/2013
Receive Navy Comments	30 days after Internal Draft	1/31/2013
Draft to Agencies	30 days after receipt of comments	2/5/2013
Receive Agency Comments	30 days after Draft	3/22/2013
Navy RTC to Agencies	30 days after receipt of comments	4/15/2013
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	4/15/2013
Final to Agencies	45 days after Draft Final	6/5/2013
Publish Public Notice	3 days after Final	6/10/2013
Close of Public Comment Period	30 days	7/19/2013
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	5/5/2013
Receive Navy Comments	30 days after Internal Draft	5/31/2013
Draft to Agencies	30 days after receipt of comments	6/12/2013
Receive Agency Comments	30 days after Draft	7/12/2013
Navy RTC to Agencies	30 days after receipt of comments	8/12/2013
Draft Final to Agencies	30 days after Draft	8/23/2013
Agency Concurrence on Draft Final	30 days after Draft Final	9/11/2013
Final to Agencies	60 days after Draft Final	9/16/2013
LUC Remedial Design		
Internal Draft to Navy	--	12/2/2013
Receive Navy Comments	14 days after Internal Draft	12/15/2013
Draft (60%) to Agencies	14 days after receipt of comments	12/29/2013
Receive Agency Comments	45 days after Draft	2/12/2014
Navy RTC to Agencies	45 days after receipt of comments	3/29/2014
Draft Final (85%) to Agencies	45 days after Navy RTC	5/13/2014
Agency Concurrence on Draft Final	30 days after Draft Final	6/12/2014
Final (100%) to Agencies	60 days after Draft Final	7/12/2014
Remedial Design Work Plan (Part of RD)		
Internal Draft to Navy	--	12/15/2013
Receive Navy Comments	14 days after Internal Draft	12/29/2013
Draft to Agencies	14 days after receipt of comments	1/12/2014
Agency Concurrence on Draft	30 days after Draft Final	2/11/2014
Final to Agencies	30 days after Draft Final	3/13/2014
Field Program, Data Evaluation		
Complete Field Program	30 days after FinalWork Pan	4/12/2014
Complete Laboratory Analysis	30-day standard TAT	5/12/2014
Complete Data Validation and Import	30 days for data validation	6/11/2014
Pre-design Investigation Report		
Initiate internal draft report	Upon completion of Field Program and Data Evaluation	6/11/2014
Internal Draft to Navy	30 days after Completion of Data Validation	7/11/2014
Receive Navy Comments	14 days after	7/25/2014
Draft to Agencies	14 days after receipt of comments	8/8/2014
Receive Agency Comments	14 days after Draft	8/22/2014
Navy RTC to Agencies	14 days after receipt of comments	9/5/2014
Agency Concurrence on RTC	14 days after RTC	9/19/2014
Final to Agencies	14 days after Concurrence	10/3/2014
60 % Remedial Design for Soil Removal		
Internal Draft to Navy	--	1/25/2014
Receive Navy Comments	30 days after Internal Draft	2/24/2014
Draft (60%) to Agencies	30 days after receipt of comments	3/26/2014
Receive Agency Comments	45 days after Draft	5/10/2014
Navy RTC to Agencies	45 days after receipt of comments	6/24/2014
Draft Final (85%) to Agencies	45 days after Navy RTC	8/8/2014
Agency Concurrence on Draft Final	30 days after Draft Final	9/7/2014
Final (100%) to Agencies	60 days after Draft Final	11/6/2014
MNA O&M Plan (part of RD)		
Internal Draft to Navy	--	1/30/2014
Receive Navy Comments	30 days after Internal Draft	3/1/2014
Draft (60%) to Agencies	30 days after receipt of comments	3/31/2014
Receive Agency Comments	45 days after Draft	5/15/2014
Navy RTC to Agencies	45 days after receipt of comments	6/29/2014
Draft Final (85%) to Agencies	45 days after Navy RTC	8/13/2014
Agency Concurrence on Draft Final	30 days after Draft Final	9/12/2014
Final (100%) to Agencies	60 days after Draft Final	11/11/2014
Remedial Action		
Start Construction	No later than 15 months (450 days) after signed ROD	12/24/2014
Complete Construction	2 years after construction start	11/17/2015
Draft RACR to Navy	40 days after construction completion	12/27/2015
Draft RACR to Agencies	30 days after Draft RACR to Navy	1/26/2016
Final RACR to Agencies	105 days after Draft RACR to Agencies	5/10/2016

Deliverable Schedule
Site 13, Tank Farm 5 Category 1
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	--
Agency Concurrence on Draft Final	30 days after Draft Final	--
Final to Agencies	60 days after Draft Final	8/3/2012
FS		
Internal Draft to Navy	60 days after Final RI Report	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	9/5/2012
Agency Concurrence on Draft Final	30 days after Draft Final	1/6/2013
Final to Agencies	60 days after Draft Final	12/15/2013
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	2/1/2013
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	2/15/2013
Receive Agency Comments	30 days after Draft	4/1/2013
Navy RTC to Agencies	30 days after receipt of comments	6/5/2013
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	6/5/2013
Final to Agencies	45 days after Draft Final	11/8/2013
Publish Public Notice	3 days after Final	11/15/2013
Close of Public Comment Period	30 days	12/20/2013
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	6/11/2013
Receive Navy Comments	30 days after Internal Draft	11/4/2013
Draft to Agencies	30 days after receipt of comments	11/15/2013
Receive Agency Comments	30 days after Draft	12/15/2013
Navy RTC to Agencies	30 days after receipt of comments	1/14/2014
Draft Final to Agencies	30 days after Draft	2/13/2014
Agency Concurrence on Draft Final	30 days after Draft Final	3/15/2014
Final to Agencies	60 days after Draft Final	4/14/2014

Deliverable Schedule
Site 17, Gould Island
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	--
Agency Concurrence on Draft Final	30 days after Draft Final	--
Final to Agencies	60 days after Draft Final	5/24/2012
FS		
Internal Draft to Navy	60 days after Final RI Report	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	7/20/2012
Draft Final to Agencies	45 days after Navy RTC	12/21/2012
Agency Concurrence on Draft Final	30 days after Draft Final	12/15/2013
Final to Agencies	60 days after Draft Final	12/30/2013
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	2/28/2013
Receive Navy Comments	30 days after Internal Draft	3/30/2013
Draft to Agencies	30 days after receipt of comments	4/29/2013
Receive Agency Comments	30 days after Draft	5/29/2013
Navy RTC to Agencies	30 days after receipt of comments	12/15/2013
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	12/30/2013
Final to Agencies	45 days after Draft Final	2/3/2014
Publish Public Notice	3 days after Final	2/6/2014
Close of Public Comment Period	30 days	3/8/2014
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	3/5/2014
Receive Navy Comments	30 days after Internal Draft	4/4/2014
Draft to Agencies	30 days after receipt of comments	5/4/2014
Receive Agency Comments	30 days after Draft	6/3/2014
Navy RTC to Agencies	30 days after receipt of comments	7/3/2014
Draft Final to Agencies	30 days after Draft	8/2/2014
Agency Concurrence on Draft Final	30 days after Draft Final	9/1/2014
Final to Agencies	60 days after Draft Final	10/1/2014
Remedial Design Work Plan (Part of RD)		
Draft to Navy	--	12/15/2013
Draft to Agencies	79 days after Draft to Navy	2/18/2014
Draft Final to Agencies	131 days after Draft to Agencies	6/29/2014
Final to Agencies	98 days after Draft Final to Agencies	10/5/2014
Remedial Design		
Draft to Navy	Submit with Design Work Plan	12/15/2013
Draft (60%) to Agencies	Submit with Design Work Plan	2/18/2014
Draft Final (85%) to Agencies	Submit with Design Work Plan	6/29/2014
Final (100%) to Agencies	Submit with Design Work Plan	10/5/2014
Remedial Action		
Start Construction	--	12/25/2015
Complete Construction	2 years after construction start	12/24/2017
Draft RACR to Navy	40 days after construction completion	2/2/2018
Draft RACR to Agencies	30 days after Draft RACR to Navy	3/4/2018
Final RACR to Agencies	105 days after Draft RACR to Navy	6/17/2018

Deliverable Schedule
Site 19, Derecktor Shipyard Onshore
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
SASE		
Internal Draft to Navy	--	--
Receive Navy Comments	14 days after Internal Draft	--
Draft to Agencies	14 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	10/19/2012
Agency Concurrence on Draft Final	30 days after Draft Final	11/18/2012
Final to Agencies	60 days after Draft Final	12/18/2012
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	--
Agency Concurrence on Draft Final	30 days after Draft Final	--
Final to Agencies	60 days after Draft Final	12/18/2012
FS		
Internal Draft to Navy	60 days after Final RI Report	11/15/2012
Receive Navy Comments	30 days after Internal Draft	12/7/2012
Draft to Agencies	30 days after receipt of comments	12/31/2012
Receive Agency Comments	45 days after Draft	2/14/2013
Navy RTC to Agencies	45 days after receipt of comments	4/15/2013
Draft Final to Agencies	45 days after Navy RTC	6/24/2013
Agency Concurrence on Draft Final	30 days after Draft Final	7/24/2013
Final to Agencies	60 days after Draft Final	12/30/2013
Proposed Plan		
Internal Draft to Navy	Submit with Draft Final FS to Agencies	--
Receive Navy Comments	15 days after Internal Draft	--
Draft to Agencies	15 days after receipt of comments	1/10/2014
Receive Agency Comments	30 days after Draft	2/9/2014
Navy RTC to Agencies	30 days after receipt of comments	3/11/2014
Draft Final to Agencies & Draft Public Notice	30 days after receipt of comments	4/10/2014
Final to Agencies	30 days after Draft Final	5/10/2014
Publish Public Notice	3 days after Final	5/13/2014
Close of Public Comment Period	30 days	6/12/2014
ROD		
Internal Draft to Navy	Submit with Final Proposed Plan	5/10/2014
Receive Navy Comments	30 days after Internal Draft	6/9/2014
Draft to Agencies	30 days after receipt of comments	7/9/2014
Receive Agency Comments	30 days after Draft	8/8/2014
Navy RTC to Agencies	30 days after receipt of comments	9/7/2014
Draft Final to Agencies	30 days after Draft	10/7/2014
Agency Concurrence on Draft Final	30 days after Draft Final	11/6/2014
Final to Agencies	60 days after Draft Final	12/6/2014

Deliverable Schedule
Site 19, Derecktor Shipyard Offshore
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
SASE		
Internal Draft to Navy	--	--
Receive Navy Comments	14 days after Internal Draft	--
Draft to Agencies	14 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	10/19/2012
Agency Concurrence on Draft Final	30 days after Draft Final	11/18/2012
Final to Agencies	60 days after Draft Final	12/18/2012
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	--
Agency Concurrence on Draft Final	30 days after Draft Final	--
Final to Agencies	60 days after Draft Final	12/18/2012
Revised FS		
Internal Draft to Navy	60 days after Final RI Report	2/28/2013
Receive Navy Comments	30 days after Internal Draft	3/15/2013
Draft Final Rev 2 to Agencies	30 days after receipt of comments	3/30/2013
Receive Agency Comments	45 days after Draft	7/1/2013
Navy RTC to Agencies	45 days after receipt of comments	8/15/2013
Redline Draft Final to Agencies	45 days after Navy RTC	9/29/2013
Agency Concurrence on Draft Final	30 days after Draft Final	12/30/2013
Final to Agencies	60 days after Draft Final	1/13/2014
Revised Proposed Plan		
Internal Draft to Navy	Submit with Draft Final FS to Agencies	--
Receive Navy Comments	15 days after Internal Draft	--
Draft Final Rev 2 to Agencies	15 days after receipt of comments	1/10/2014
Receive Agency Comments	30 days after Draft	2/9/2014
Navy RTC to Agencies	30 days after receipt of comments	3/11/2014
Draft Final to Agencies & Draft Public Notice	30 days after receipt of comments	4/10/2014
Final to Agencies	30 days after Draft Final	5/10/2014
Publish Public Notice	3 days after Final	5/13/2014
Close of Public Comment Period	30 days	6/12/2014
ROD		
Internal Draft to Navy	Submit with Final Proposed Plan	5/10/2014
Receive Navy Comments	30 days after Internal Draft	6/9/2014
Draft to Agencies	30 days after receipt of comments	7/9/2014
Receive Agency Comments	30 days after Draft	8/8/2014
Navy RTC to Agencies	30 days after receipt of comments	9/7/2014
Draft Final to Agencies	30 days after Draft	10/7/2014
Agency Concurrence on Draft Final	30 days after Draft Final	11/6/2014
Final to Agencies	60 days after Draft Final	12/6/2014

Deliverable Schedule
Site 22, Carr Point Storage Area
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
RI SAP		
Initial Worksheets (10, 11 & 17) to Navy	--	8/1/2012
Receive Navy Comments	14 days after initial worksheets	8/14/2012
Internal Draft to Navy	14 days after receipt of comments	8/21/2012
Receive Navy Comments	14 days after Draft	9/12/2012
Refinement of SAP Approach	--	9/14/2012
Draft to Agencies	21 days after Draft to Navy	11/5/2012
Receive Agency Comments	45 days after Draft	1/10/2013
Navy RTC to Agencies	45 days after receipt of comments	2/22/2013
Draft Final to Agencies	45 days after Navy RTC	10/19/2013
Agency Concurrence on Draft Final	30 days after Draft Final	12/13/2013
Final to Agencies	60 days after Draft Final	1/14/2014
RI Field Program, Data Evaluation		
Complete Field Program	60 days after Final RI SAP	3/15/2014
Complete Laboratory Analysis	30-day standard TAT	4/14/2014
Complete Data Validation and Import	45 days for data validation	5/29/2014
Complete Internal Draft RI Report	45 days for report preparation	7/13/2014
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	7/13/2014
Receive Navy Comments	30 days after Internal Draft	8/12/2014
Draft to Agencies	30 days after receipt of comments	9/11/2014
Receive Agency Comments	45 days after Draft	10/26/2014
Navy RTC to Agencies	45 days after receipt of comments	12/10/2014
Draft Final to Agencies	45 days after Navy RTC	1/24/2015
Agency Concurrence on Draft Final	30 days after Draft Final	2/23/2015
Final to Agencies	60 days after Draft Final	3/25/2015
FS		
Internal Draft to Navy	60 days after Final RI Report	5/24/2015
Receive Navy Comments	30 days after Internal Draft	6/23/2015
Draft to Agencies	30 days after receipt of comments	7/23/2015
Receive Agency Comments	45 days after Draft	9/6/2015
Navy RTC to Agencies	45 days after receipt of comments	10/21/2015
Draft Final to Agencies	45 days after Navy RTC	12/5/2015
Agency Concurrence on Draft Final	30 days after Draft Final	1/4/2016
Final to Agencies	60 days after Draft Final	2/3/2016
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	3/4/2016
Receive Navy Comments	30 days after Internal Draft	4/3/2016
Draft to Agencies	30 days after receipt of comments	5/3/2016
Receive Agency Comments	30 days after Draft	6/2/2016
Navy RTC to Agencies	30 days after receipt of comments	7/2/2016
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	8/16/2016
Final to Agencies	45 days after Draft Final	9/30/2016
Publish Public Notice	3 days after Final	10/3/2016
Close of Public Comment Period	30 days	11/2/2016
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	10/30/2016
Receive Navy Comments	30 days after Internal Draft	11/29/2016
Draft to Agencies	30 days after receipt of comments	12/29/2016
Receive Agency Comments	30 days after Draft	1/28/2017
Navy RTC to Agencies	30 days after receipt of comments	2/27/2017
Draft Final to Agencies	30 days after Draft	3/29/2017
Agency Concurrence on Draft Final	30 days after Draft Final	4/28/2017
Final to Agencies	60 days after Draft Final	5/28/2017

Deliverable Schedule
Site 23, Coddington Point Debris Sites
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
RI SAP		
Initial Worksheets (10, 11 & 17) to Navy	--	11/30/2012
Receive Navy Comments	14 days after initial worksheets	12/19/2012
Internal Draft to Navy	14 days after receipt of comments	1/9/2013
Receive Navy Comments	14 days after Draft	1/15/2013
Draft to Agencies	14 days after receipt of comments	8/29/2013
Receive Agency Comments	45 days after Draft	11/1/2013
Navy RTC to Agencies	45 days after receipt of comments	11/4/2013
Draft Final to Agencies	45 days after Navy RTC	11/26/2013
Agency Concurrence on Draft Final	30 days after Draft Final	12/26/2013
Final to Agencies	60 days after Draft Final	1/25/2014
RI Field Program, Data Evaluation		
Complete Field Program	60 days after Final RI SAP	4/20/2014
Complete Laboratory Analysis	30-day standard TAT	5/20/2014
Complete Data Validation and Import	45 days for data validation	7/4/2014
Complete Internal Draft RI Report	45 days for report preparation	8/18/2014
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	8/18/2014
Receive Navy Comments	30 days after Internal Draft	9/17/2014
Draft to Agencies	30 days after receipt of comments	10/17/2014
Receive Agency Comments	45 days after Draft	12/1/2014
Navy RTC to Agencies	45 days after receipt of comments	1/15/2015
Draft Final to Agencies	45 days after Navy RTC	3/1/2015
Agency Concurrence on Draft Final	30 days after Draft Final	3/31/2015
Final to Agencies	60 days after Draft Final	4/30/2015
FS		
Internal Draft to Navy	60 days after Final RI Report	6/29/2015
Receive Navy Comments	30 days after Internal Draft	7/29/2015
Draft to Agencies	30 days after receipt of comments	8/28/2015
Receive Agency Comments	45 days after Draft	10/12/2015
Navy RTC to Agencies	45 days after receipt of comments	11/26/2015
Draft Final to Agencies	45 days after Navy RTC	1/10/2016
Agency Concurrence on Draft Final	30 days after Draft Final	2/9/2016
Final to Agencies	60 days after Draft Final	3/10/2016
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	4/9/2016
Receive Navy Comments	30 days after Internal Draft	5/9/2016
Draft to Agencies	30 days after receipt of comments	6/8/2016
Receive Agency Comments	30 days after Draft	7/8/2016
Navy RTC to Agencies	30 days after receipt of comments	8/7/2016
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	9/21/2016
Final to Agencies	45 days after Draft Final	11/5/2016
Publish Public Notice	3 days after Final	11/8/2016
Close of Public Comment Period	30 days	12/8/2016
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	12/5/2016
Receive Navy Comments	30 days after Internal Draft	1/4/2017
Draft to Agencies	30 days after receipt of comments	2/3/2017
Receive Agency Comments	30 days after Draft	3/5/2017
Navy RTC to Agencies	30 days after receipt of comments	4/4/2017
Draft Final to Agencies	30 days after Draft	5/4/2017
Agency Concurrence on Draft Final	30 days after Draft Final	6/3/2017
Final to Agencies	60 days after Draft Final	7/3/2017

Deliverable Schedule
MRP Site 1, Carr Point Shooting Range
Site Management Plan, FY2014
NAVSTA Newport, Rhode Island

Deliverable Description	Timeframe	Date
Action Memo		
Internal Draft to Navy	30 days after Final EE/CA	--
Receive Navy Comments	30 days after Internal Draft	--
Draft to Agencies	30 days after receipt of comments	--
Receive Agency Comments	45 days after Draft	--
Navy RTC to Agencies	45 days after receipt of comments	--
Draft Final to Agencies	45 days after Navy RTC	--
Agency Concurrence on Draft Final	30 days after Draft Final	--
Final to Agencies	60 days after Draft Final	9/17/2012
Removal Action		
Complete Field Program	180 days after Final Action Memo	7/30/2013
RI SAP		
Initial Worksheets (10, 11 & 17) to Navy	--	8/1/2012
Receive Navy Comments	14 days after initial worksheets	8/14/2012
Internal Draft to Navy	14 days after receipt of comments	8/21/2012
Receive Navy Comments	14 days after Draft	9/12/2012
Refinement of SAP Approach	--	9/14/2012
Draft to Agencies (rest of SAP)	21 days after Draft to Navy	11/5/2012
Receive Agency Comments	45 days after Draft	1/10/2013
Navy RTC to Agencies	45 days after receipt of comments	2/22/2013
Draft Final to Agencies	45 days after Navy RTC	8/13/2013
Agency Concurrence on Draft Final	30 days after Draft Final	9/27/2013
Final to Agencies	60 days after Draft Final	10/16/2013
RI Field Program, Data Evaluation		
Complete Field Program	60 days after Final RI SAP	3/15/2014
Complete Laboratory Analysis	30-day standard TAT	4/14/2014
Complete Data Validation and Import	45 days for data validation	5/29/2014
Complete Internal Draft RI Report	45 days for report preparation	7/13/2014
RI Report		
Internal Draft to Navy	Upon completion of Field Program and Data Evaluation	7/13/2014
Receive Navy Comments	30 days after Internal Draft	8/12/2014
Draft to Agencies	30 days after receipt of comments	9/11/2014
Receive Agency Comments	45 days after Draft	10/26/2014
Navy RTC to Agencies	45 days after receipt of comments	12/10/2014
Draft Final to Agencies	45 days after Navy RTC	1/24/2015
Agency Concurrence on Draft Final	30 days after Draft Final	2/23/2015
Final to Agencies	60 days after Draft Final	3/25/2015
RAA		
Internal Draft	30 days prior to Final	3/10/2015
Final	45 days prior to internal draft FS	4/9/2015
FS		
Internal Draft to Navy	60 days after Final RI Report	5/24/2015
Receive Navy Comments	30 days after Internal Draft	6/23/2015
Draft to Agencies	30 days after receipt of comments	7/23/2015
Receive Agency Comments	45 days after Draft	9/6/2015
Navy RTC to Agencies	45 days after receipt of comments	10/21/2015
Draft Final to Agencies	45 days after Navy RTC	12/5/2015
Agency Concurrence on Draft Final	30 days after Draft Final	1/4/2016
Final to Agencies	60 days after Draft Final	2/3/2016
Proposed Plan		
Internal Draft to Navy	30 days after Final FS Report	3/4/2016
Receive Navy Comments	30 days after Internal Draft	4/3/2016
Draft to Agencies	30 days after receipt of comments	5/3/2016
Receive Agency Comments	30 days after Draft	6/2/2016
Navy RTC to Agencies	30 days after receipt of comments	7/2/2016
Draft Final to Agencies & Draft Public Notice	45 days after receipt of comments	8/16/2016
Final to Agencies	45 days after Draft Final	9/30/2016
Publish Public Notice	3 days after Final	10/3/2016
Close of Public Comment Period	30 days	11/2/2016
ROD		
Internal Draft to Navy	30 days after Final Proposed Plan to Agencies	10/30/2016
Receive Navy Comments	30 days after Internal Draft	11/29/2016
Draft to Agencies	30 days after receipt of comments	12/29/2016
Receive Agency Comments	30 days after Draft	1/28/2017
Navy RTC to Agencies	30 days after receipt of comments	2/27/2017
Draft Final to Agencies	30 days after Draft	3/29/2017
Agency Concurrence on Draft Final	30 days after Draft Final	4/28/2017
Final to Agencies	60 days after Draft Final	5/28/2017

Appendix D

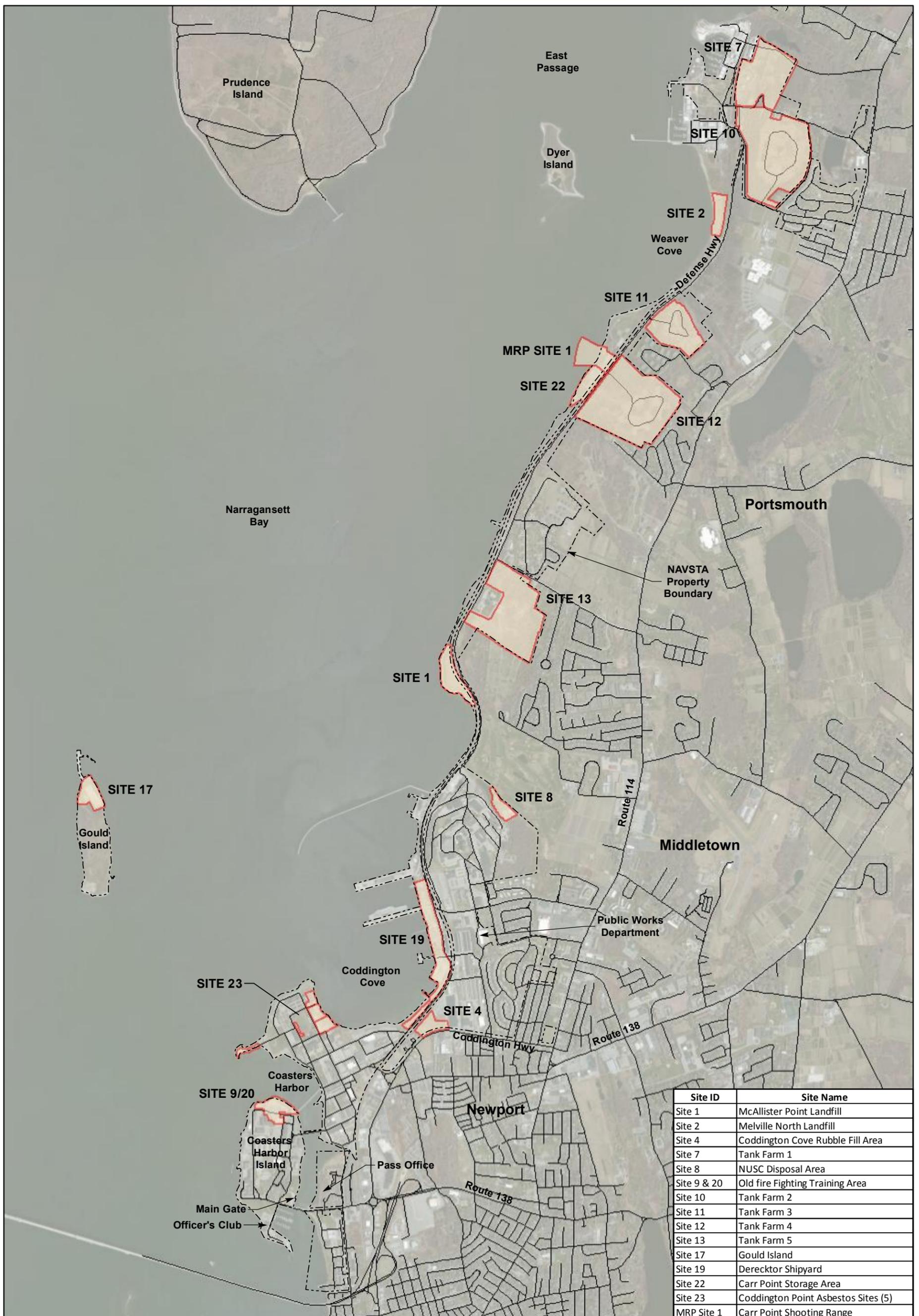
Site Status and Path Forward

Site Status and Path Forward
Site Management Plan, FY14
NAVSTA Newport, Rhode Island

Site	Site Name	Operable Unit	Regulatory Phase	Path Forward
Site 1	McAllister Point Landfill	Source	OU 1	CERCLA Long-term Monitoring (LTM) Implementation 2011 and 2012 LTM reports were submitted in May/June 2013; 2013 LTM sampling is planned; data is to be provided to EPA/RIDEM within 90 days of data collection
		Migration	OU 4	
Site 2	Melville North Landfill	NA	RIDEM Closure	Closed under RIDEM regulations; the Navy was not the owner during the time of site listing; construction was completed in January 2000; Final Closeout Report submitted in October 2010
Site 4	Coddington Cove Rubble Fill Area (CCRF)	NA	Pre-CERCLA Study Area Screening Evaluation (SASE) Appendix Work Plan (SAP)	Final Work Plan for additional groundwater sampling was completed in November 2013 and field work is to occur in early 2014; sampling results will be included in SASE Appendix (Groundwater Tech Memo); final SASE will be used to determine whether further action is warranted.
Site 8	NUSC Disposal Area	OU 7	CERCLA Remedial Design	Draft Final Design documents and pre-design investigation (PDI) Work Plans are were submitted for final review and concurrence by agencies; Final Design documents are expected in December 2013; Remedial Construction planned to start in December 2013 (FFA deadline for construction start is 12/24/13)
Site 9	Old Fire Fighting Training Area (OFTA)	OU 3	CERCLA Remedial Construction Completion	Construction completion close-out report is expected by the end of Sep 2013. Plans for Long Term Monitoring have been drafted, reviewed, and are in revision. Next steps are construction completion, LUC implementation, and O&M and monitoring and 5-year reviews of the remedy.
Site 7	Tank Farm 1	Cat 1	TBD	CERCLA Remedial Investigation (RI) Data Gaps Assessment Report Data Gaps Report submitted to agencies in March 2013; regulatory comments were received and refinements are ongoing; discussion for preparing Draft Final Report in January 2014; next steps are to finalize RI (Data Gaps) Report and complete a focused FS, Proposed Plan, and ROD
		Cat 2	NA	RIDEM Investigation Planning Sites are closed and/or in the process of being closed by DESC
		Cat 3	TBD	TBD Sites not yet defined
Site 10	Tank Farm 2	Cat 1	TBD	CERCLA Remedial Investigation (RI) Final RI Work Plan was submitted in July 2013; field investigation is expected to be completed in December 2013; next steps are RI completion, FS, Proposed Plan, and ROD.
		Cat 2	NA	RIDEM Closure Site information was compiled in April 2013 and a review was completed in June 2013; further information is being requested from DESC; currently all Category 2 AOCs at Tank Farm 2 are expected to be addressed by DESC
		Cat 3	TBD	RIDEM Site Investigation (SI) Work Plan (SAP) Site information was compiled in April 2013 and a review was completed in June 2013; meetings with RIDEM are planned for the September 2013 to review the Category 3 AOCs at Tank Farm 2 that may warrant further review or investigation
Site 11	Tank Farm 3	Cat 1	TBD	CERCLA Remedial Investigation (RI) Final SASE Report completed; Concurrence received from agencies on Final RI Work Plan in April 2013; RI field program is underway; next steps are RI completion, FS, Proposed Plan, and ROD
		Cat 2	NA	RIDEM Site Investigation (SI) Work Plan (SAP) Site information was compiled in April 2013 and a review was completed in June 2013; further information is being requested from DESC; currently all Category 2 AOCs at Tank Farm 3 are expected to be addressed by DESC
		Cat 3	TBD	RIDEM Site Investigation (SI) Work Plan (SAP) Site information was compiled in April 2013 and a review was completed in June 2013; meetings with RIDEM are planned for the September 2013 to review the Category 3 AOCs at Tank Farm 3 that may warrant further review or investigation
Site 12	Tank Farm 4	Cat 1	OU 11	CERCLA Remedial Design (RD) ROD was signed in September 2013. Remedial Design activities have been initiated; Draft LUC RD will be submitted to Agencies in December 2013 and an RD Work Plan including a SAP for Pre-design Investigation is being prepared.
		Cat 2 Other: Tanks 38, 42, 45, 48	NA	RIDEM Closure Corrective action plan was completed in 2002 and implemented; LTM data was collected in 2010; LTM Report was submitted to RIDEM in June 2011; there are no further actions planned for Category 2 sites at Tank Farm 4
Site 13	Tank Farm 5	Cat 1 Tanks 53 & 56	OU 2	Interim ROD Closure Groundwater treatment was conducted for two years; LTM was conducted accordingly; LTM was discontinued in 2006; the treatment plant and wells were decommissioned in 2008
		Cat 1 Other		CERCLA Feasibility Study (FS) Report; Record of Decision Next steps are to finalize the FS and complete the ROD; public meeting for Proposed Plan was conducted in November; next step is to receive community input and develop the ROD
		Cat 2 Tank 50	NA	RIDEM Corrective Action Plan (CAP) A pilot study was conducted in 1997, during which it was determined that there is light non-aqueous phase liquid (LNAPL) that was not possible to recover; no Corrective Action Plan (CAP) was drafted
		Cat 2 Other: Tanks 51, 52, 54, and 57	NA	RIDEM Closure Corrective action plans were completed in 1999 and implemented; LTM was conducted accordingly; Final round of data was collected in 2010; LTM Report was submitted to RIDEM in June 2011; no responses have been received; there are no further actions planned for Category 2 sites at Tank Farm 4
Site 17	Gould Island	OU 6	CERCLA Feasibility Study (FS) Report; Proposed Plan	A revised Draft Final FS is anticipated in July 2013; Draft Proposed Plan was submitted, reviewed, and currently under revision based on RIDEM comments; next steps are to finalize the FS and Proposed Plan and complete the ROD.
Site 19	Derecktor Shipyard	Onshore	OU 12	CERCLA Feasibility Study (FS) Report Draft FS was submitted in December 2012; discussion and revisions are ongoing; Responses to agency comments submitted in April 2013; Details of FS are being discussed and refined with the agencies; next steps are to finalize the FS and complete the Proposed Plan and ROD.
		Offshore	OU 5	CERCLA Feasibility Study (FS) Report Draft Final FS was submitted in March 2013; Revised Draft Final FS refinements are in process based on regulatory comments dated in June 2013; next steps are to finalize the FS and complete the Proposed Plan and ROD.
Site 22	Carr Point Storage Area	OU 10	CERCLA Remedial Investigation (RI) Work Plan (SAP)	RI Work Plan revisions are being incorporated to address RIDEM requests for additional sampling locations; Draft Final Work Plan is being refined; next steps are to complete the RI, FS, Proposed Plan, and ROD.
MRP Site 1	Carr Point Shooting Range	OU 9	CERCLA Interim Removal Action; Remedial Investigation (RI)	Interim Removal Action of soil excavation is completed; Final RI Work Plan was completed in October 2013; next steps are to complete the RI, FS, Proposed Plan, and ROD.
Site 23	Coddington Point Debris Sites (5)	TBD	CERCLA Focused Remedial Investigation (RI) Work Plan (SAP)	Revised Draft RI Work Plan submitted in August 2013; next steps are to finalize the RI Work Plan and complete the RI, FS, Proposed Plan, and ROD.

Appendix E

Map of Installation Restoration Program Sites



Site ID	Site Name
Site 1	McAllister Point Landfill
Site 2	Melville North Landfill
Site 4	Coddington Cove Rubble Fill Area
Site 7	Tank Farm 1
Site 8	NUSC Disposal Area
Site 9 & 20	Old fire Fighting Training Area
Site 10	Tank Farm 2
Site 11	Tank Farm 3
Site 12	Tank Farm 4
Site 13	Tank Farm 5
Site 17	Gould Island
Site 19	Derecktor Shipyard
Site 22	Carr Point Storage Area
Site 23	Coddington Point Asbestos Sites (5)
MRP Site 1	Carr Point Shooting Range



RESOLUTION CONSULTANTS

Drawn: JB 11/04/2013
 Approved: MK 11/04/2013
 Project #: 60268619

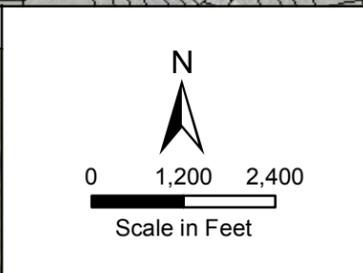


FIGURE 1
SITE MAP

SITES AND STUDY AREAS
NAVSTA NEWPORT, RHODE ISLAND