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FINAL SITE MANAGEMENT PLAN 2012 NS NEWPORT RI
4/1/2012
TETRA TECH

Site Management Plan

for

**Naval Station Newport
Newport, Rhode Island**

Fiscal Year 2012



**Naval Facilities Engineering Command
Mid-Atlantic**

**Contract Number N62470-08-D-1001
Contract Task Order WE50**

April 2012

SITE MANAGEMENT PLAN
FOR
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND
FISCAL YEAR 2012
COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION - NAVY (CLEAN) CONTRACT

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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
PRAP	Proposed Remedial Action Plan
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
SSP	Site Screening Process
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

The Site Management Plan (SMP) for the Naval Station (NAVSTA) Newport in Newport, Rhode Island was prepared by the U.S. Navy (Navy), Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic. 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). Ultimately, the SMP serves as the schedule for implementation of the IRP at NAVSTA Newport. The SMP is updated annually to revise priorities and schedules of activities as additional information (including funding) becomes available. This version of the SMP (Fiscal Year 2012 [FY12]) 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, 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. However, this SMP is not an FFA deliverable and will be used by the Navy as a management tool for the IRP. A courtesy copy of this document will be provided to state and federal project managers. Scheduling requirements in accordance with the FFA will be satisfied separately from this document.

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 area has been used by the Navy since the Civil War era. Activities increased during war time, but decreased later as Naval forces reorganized. Between 1900 and the mid 1970s, the facility was used as a refueling depot. The Shore Establishment Realignment Program reorganization in April 1973 resulted in reductions in personnel, and the Navy accessed a large portion of the acreage of the original facility. The Naval Education and Training Center (NETC) was established at NAVSTA Newport in the 1970s. In the mid-1990's, 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 October 1998, NAVSTA Newport was established as the primary host command, taking over base operating support responsibilities from NETC.

NAVSTA Newport (formerly NETC) (the Base) 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). NAVSTA Newport also encompasses the northern third of Gould Island, which is part of the Town of Jamestown, Rhode Island. The site/Base contains multiple areas of contamination, including one former landfill, a former fire fighting training area, a former recreational shooting range, an old shipyard, a water tower, five tank farms, and areas with varying degrees of groundwater contamination. 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 Federal facilities agreement and organized into seven Operable Units (OUs) defined by EPA:

FFA Site No.	Site Name	Operable Unit No.
1	McAllister Point Landfill Source	Source Control – OU1 Management of Migration – OU4
2	Melville North landfill	No designation - RIDEM lead
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	No designation
13	Tank Farm 5	Groundwater at Tanks 53/56 - OU 2*
17	Building 32, Gould Island	OU 6
19	Former Robert E. Derektor Shipyard	OU 5
20	Surface Warfare Officers School (SWOS)	No designation: Part of OU 3
21	Former Melville Water Tower	OU 8
22	Carr Point Storage Area	OU 10

FFA Site No.	Site Name	Operable Unit No.
MRP Site 1	Carr Point Firing Range	OU 9

*The groundwater at Tanks 53 and 56 were addressed as one Operable Unit, the soil at Tank 53 and 56 was addressed through a removal action, and the remainder of the Tank Farm 5 site was investigated separately.

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 01), Melville North Landfill (Site 02), Old Fire Fighting Training Area (OFFTA) (Site 09), Tank Farm 4 (Site 12), and Tank Farm 5 (Site 13) (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 NETC) on the National Priority List (NPL) in 1989. These investigations led to decision documents in the form of Records of Decision (RODs) for the McAllister Point Landfill and a portion of Tank Farm 5 (Tanks 53 and 56). Thirteen additional sites (Tank Farm 1, Tank Farm 2, Tank Farm 3, Coddington Cove Rubble Fill Area (CCRF), NUSC Disposal Area, OFFTA (including Surface Warfare Officer's School (SWOS)), Tank Farms 4 and 5, Derecktor Shipyard, Building 32, Gould Island, Carr Point, and Melville Water Tower have been investigated or are being investigated under the IRP.

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. The Melville North Landfill is not considered a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site; therefore, it is not discussed further in the SMP.

A chronology of the major activities and documents at the NAVSTA Newport IRP sites is tabulated below.

Chronology of Major Events, NAVSTA Newport

EVENT / DOCUMENT	DATE
Base-Wide	

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, 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
Site 1 – McAllister Point Landfill	
CS completed. (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
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 action) issued. (Navy, 1993)	November 4, 1993
RI Report and HHRA completed. (TRC, 1994a)	July 1, 1994
Ecological Risk Assessment (ERA) and FS Report completed. (TRC, 1994b)	October 1, 1994
Explanation of Significant Difference (ESD) issued. (Navy, 1996)	August 1, 1996
Marine ERA Report completed. (SAIC and URI, 1997b)	March 1997

EVENT / DOCUMENT	DATE
Draft Final Phase 2 RI Report, Revision 1 completed. (B&RE, 1997a)	April 1997
Operations and Maintenance (O&M) Manual completed. (Foster Wheeler, 1997)	May 1, 1997
Technical Memorandum – Landfill Gas Monitoring Approach completed. (B&RE, 1997c)	August 1, 1997
Annual Monitoring Report O&M Activities, 1 January to 31 December 1997 completed. (Foster Wheeler, 1998)	September 1, 1998
Final FS completed (management of migration and marine sediment). (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
ROD (marine sediment/management of migration) issued. (Navy, 2000)	March 1, 2000
Annual Monitoring Report O&M Activities, 1 January to 31 December 1999 completed. (Foster Wheeler, 2000)	March 20, 2000
Annual Monitoring Report O&M Activities, 1 January to 31 December 2000 completed. (Foster Wheeler, 2002a)	April 1, 2002
Annual Monitoring Report O&M Activities, 1 January to 31 December 2001 completed. (Foster Wheeler, 2002b)	July 22, 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, 1 January to 31 December 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

EVENT / DOCUMENT	DATE
Final McAllister Point Post Dredging Habitat and Artificial Reef Surveys 2003 completed. (SAIC, 2004)	April 2004
Annual Monitoring Report O&M Activities, 1 January to 31 December 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
Final McAllister Point Post Dredging Eelgrass Monitoring Report 2005 completed. (Eyak Environmental Science, 2005)	March 2005
Annual Monitoring Report O&M Activities 2004 completed. (ECC, 2005)	July 2005
Work Plan for Long Term Monitoring (LTM) Program 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 14, 2006
Round 2: October-November 2005 LTM Report completed (Marine Sediments). (ECC, 2006b)	April 2006
Final Supplemental Eelgrass Mitigation Effort completed, McAllister Point Landfill.	November 2006
ESD completed. (Navy, 2007)	September 2007
Final Annual Monitoring Report O&M Activities 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 2007 completed. (ECC, 2008a)	November 2008

EVENT / DOCUMENT	DATE
Final Marine Sediments Monitoring Report Sampling Round 4: October 2007 completed. (ECC, 2008b)	December 2008
Draft Marine Sediments Monitoring Report Sampling Round 5: October 2008 completed. (ECC, 2009)	March 2009
Final Work Plan Addendum Long-Term Monitoring Program completed (Tetra Tech, 2010i)	August 2010
Final Land Use Control Remedial Design completed (Tetra Tech, 2012a)	February 2012
Site 13 – Tank Farm 5 - Tanks 53 and 56	
Draft Phase 1 RI and HHRA Report completed. (TRC, 1992)	January 1992
ROD (interim groundwater pump and treat remedy) issued. (Navy, 1992)	September 29, 1992
Groundwater Monitoring Completed (Five Rounds)	1- December 1996 2 - March 1997 3 - August 1997 4 - May 2001 5 - May 2004
Basis of Design Report for Demolition and Disposal of Groundwater Operable Unit Treatment System completed. (Tetra Tech, 2008a)	January 3, 2008
Demolition of the groundwater extraction and treatment system. Sovereign Consulting, February 2009	February 13, 2009
Site 4 – CCRF	
Phase 2 Environmental Site Assessment Report completed. (Land America Commercial Services, 2004)	October 15, 2004
Draft Study Area Screening Evaluation (SASE) completed (Tetra Tech, 2011a).	April 25, 2011
Site 8 – NUSC Disposal Area	
Final SASE Report completed. (Tetra Tech, 2005a)	January 1, 2005
Draft Remedial Action Completion Report (RACR) 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

EVENT / DOCUMENT	DATE
Final RI Report completed. (Tetra Tech, 2010a)	January 2010
Revised Draft FS Report completed. (Tetra Tech, 2011h)	July 18, 2011
Final Supplemental Remedial Investigation (SRI) completed. (Tetra Tech, 2011b)	October 17, 2011
Site 9 – OFFTA	
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 (Tetra Tech, 2004b), Soil Management and Removal completed.	June 1, 2004
Sediment and Groundwater Monitoring Work Plan completed. (Tetra Tech, 2004e)	November 1, 2004
Soil Pre-design Investigation (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
Design for Replacement Stone Revetment completed. (Tetra Tech, 2009d)	December 2009
Feasibility Study Technical Memorandum (serves as Final FS) completed (Tetra Tech, 2010g)	July 15, 2010
Record of Decision signed	September 28, 2010
Removal Action for Installation of Replacement Stone Revetment commenced	March 2010
Draft Remedial Design for Land Use Controls completed (Tetra Tech, 2010j).	December 1, 2010
Design for Remedial Action initiated (30% design drafted)	June 6, 2011
Final Land Use Control Remedial Design completed (Tetra Tech, 2012c)	February 2012
Site 7 – Tank Farm One	

EVENT / DOCUMENT	DATE
CS completed. (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
Defense Fuel Support Point (DFSP) begins investigations.	August 1992
Revised Data Gaps Work Plan published (Tetra Tech, 2012b)	February 24, 2012
Site 10 – Tank Farm Two	
Defense Energy Support Center (DESC) begins investigations.	August 1992
Draft Site Investigation (SI) and RA Report completed (Petroleum). (TtEC, 2006b)	July, 2006
Draft Sampling and Analysis Plan for Field Investigations (CERCLA and petroleum) published (Tetra Tech, 2011d)	February 2011
Site 11 – Tank Farm Three	
DESC begins investigations.	August 1992
Work Plan for Site Closure completed. (Foster Wheeler, 2002d)	August 2002
Draft SI and RA Report completed (Petroleum). (TtEC, 2006a)	January 2006
Draft Sampling and Analysis Plan for CERCLA Investigations published (Tetra Tech, 2011e)	April 2011
Site 12 – Tank Farm 4	
CS completed. (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
Draft Phase 1 RI and HHRA completed. (TRC, 1992)	January 1992
Final Closeout Report (sludge disposal trenches) completed. (TtEC, 2007)	June 19, 2007
Draft Data Gaps Investigation Report and Risk Assessment published (Tetra Tech, 2011c)	January 31, 2011
Draft Final RI Report (Tetra Tech, 2011i)	July 15, 2011
Site 13 – Tank Farm 5	
Draft Phase 1 RI and HHRA completed. (TRC, 1992)	January 1992
Final Closeout Report (sludge disposal trenches) completed. (TtEC, 2007)	June 19, 2007

EVENT / DOCUMENT	DATE
Draft Final Data Gaps Investigation Report published (Tetra Tech, 2011c)	July 15, 2011
Draft FS published (Tetra Tech, 2011g).	October 6, 2011
Site 17 – Gould Island, Building 32	
CS completed. (Loureiro Engineering Associates and York Wastewater Consultants, 1986)	May 1986
Draft Final SASE Report completed. (Tetra Tech, 2000b)	December 28, 2000
Final Project Closeout Report for Phase 2 Polychlorinated Biphenyl (PCB)-Contaminated Soils and Concrete Remediation completed. (TtFW, 2004c)	October 29, 2004
Phase 1 RI and HHRA completed. (Tetra Tech, 2006d)	December 29, 2006
Draft Final Phase 2 RI and Baseline ERA Report published (Tetra Tech, 2011k)	June 30, 2011
Draft FS completed (Tetra Tech, 2011l)	September 28, 2011
Site 19 – Derecktor Shipyard	
Preliminary Site Assessment Report completed. (Halliburton NUS, 1993)	May 1, 1993
Marine ERA Report completed. (SAIC and URI, 1997a)	February 1997
Draft Final SASE Report completed. (B&RE, 1997b)	June 1, 1997
Final HHRA completed. (Tetra Tech, 1998)	September 29, 1998
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
Sediment Investigation Report completed. (Tetra Tech, 2005)	September, 2005
Final Closeout Report for Sand Blast Grit Removal completed. (TtEC, 2005)	June 17, 2005
Final Action Memorandum completed. (TtEC, 2006c)	November 10, 2006
FS Revision 1 (Revised Draft Final) completed. (Tetra Tech, 2007a)	March 1, 2007

EVENT / DOCUMENT	DATE
Final RACR for Sandblast Grit Removal at the Firing Point completed. (TtEC, 2008)	March 6, 2008
Final Sampling and Analysis Plan for Marine Sediment Data Gaps Investigation published (Tetra Tech, 2011f)	September 29, 2011
Draft Final SASE Report Addendum for On-Shore published (Tetra Tech, 2012d)	March 26, 2012
Study Area 20 – SWOS	
Occupational Exposure Assessment for Construction Workers completed. (TtFW, 2004a)	March 12, 2004
Draft Final Focused SI completed. (Tetra Tech, 2006a)	March 1, 2006
Study Area 21 – Former Melville Water Tower	
Final RACR (Soil Removal Actions) completed. (Tetra Tech, 2008b)	June 2008
SASE completed. (TtNUS, 2009b)	September 2009
Site Closeout Report completed. (Tetra Tech, 2011j)	January 4, 2011
Site 22 – Carr Point Storage Area	
Water Area Munitions Study (WAMS) conducted. (Malcolm Pirnie, 2005)	October 1, 2005
SI Report completed. (Tetra Tech, 2010b)	May 12, 2010
Munitions Response Program (MRP) Site 1 – Former Carr Point Shooting Range	
Water Area Munitions Study (WAMS) conducted. (Malcolm Pirnie, 2005)	October 1, 2005
SI Report completed. (Tetra Tech, 2010b)	May 12, 2010
Recreational Risk Evaluation completed (Tetra Tech, 2010c)	May 14, 2010
Time critical removal action (TCRA) performed – fence installed (Tetra Tech, 2010e).	August 25, 2010
Submit Final EE/CA Report (Tetra Tech, 2012e).	March 11, 2012

2.0 SITE DESCRIPTIONS

This section presents a brief history and status of each site addressed within this SMP for NAVSTA Newport. IRP sites discussed in the SMP (referred to as SMP Sites) are listed in Section 2.1. A summary of the history and status for each site are provided in Sections 2.2 through 2.14.

2.1 SMP SITES

This section lists the sites that are addressed in this SMP. The following is a list of study areas and areas of contamination (AOCs) that were identified in the FFA.

- AOC 1 – McAllister Point Landfill (OU 1 and 4)
- Study Area 4 – CCRF
- Study Area 7 – Tank Farm No. 1
- Study Area 8 – NUSC Disposal Area (OU 7)
- AOC 9 – OFFTA (OU 3)
- Study Area 10 – Tank Farm No. 2
- Study Area 11 - Tank Farm No. 3
- AOC 12 – Tank Farm No. 4
- AOC 13 – Tank Farm No. 5 (OU 2)
- Study Area 17 – Building 32, Gould Island (OU 6)

Since the FFA, the following study areas have also been identified:

- Study Area 19 – Derecktor Shipyard (OU 5)
- Study Area 20 – SWOS
- Study Area 21 – Former Melville Water Tower Site
- Study Area 22 – Carr Point Storage Area

Study Areas 8, 17, 19, 20, and 22 were found to have contaminants present at concentrations that pose risk and therefore are now considered AOCs. AOCs are commonly referred to as “sites” and are presented in this document as such. Study Areas 4, 7, 10, and 11 are currently being evaluated to determine if there is risk.

One MRP site has also been identified at NAVSTA Newport:

- Site 1 – Former Carr Point Shooting Range

2.2 SITE 01 – MCALLISTER POINT LANDFILL (OU 1 AND OU 4)

The McAllister Point Landfill at NAVSTA Newport was operated as a sanitary landfill over a 20-year period. From 1955 until the mid-1970's the landfill accepted all the wastes generated at the Naval complex, including waste from all operational areas (machine shops, ship repair, etc.), Navy housing areas (domestic refuse), and from the 55 ships 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), PCB-contaminated transformer oil; domestic refuse; and construction debris.

During the period from 1955 through 1964, wastes were trucked to the landfill, spread out with a bulldozer, and covered. In the late 1950's or early 1960's, 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.

In November 1989, NAVSTA Newport (then NETC), including the landfill, was listed on the 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.

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

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
NETC Newport listed on NPL.	November 21, 1989
ROD (source control, landfill cap) issued – OU1.	September 27, 1993
RI and HHRA completed.	July 1, 1994
ERA completed.	October 1, 1994
FS Report completed.	October 1, 1994
RCRA Subtitle C cap design completed.	1994
Landfill cap construction activities.	March 1995 – October 1996
30-year O&M period began.	1997
Marine ERA completed.	March 1997
Draft Final Phase 2 RI Report, Revision 1 completed.	April 1997
Annual Monitoring Report Operations and Maintenance Activities for 1997 completed.	September 1, 1998
Final FS (management of migration and marine sediment) completed.	May 3, 1999
Annual Monitoring Report O&M Activities for 1998 completed.	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).	March 1, 2000
Annual Monitoring Report O&M Activities for 1999 completed.	March 20, 2000
Annual Monitoring Report O&M Activities for 2000 completed.	April 2001
Eel grass restoration performed.	May 2001 – October 2001
Dredging completed.	October 2001
Marine sediment remedial construction work completed.	November 15, 2001
Restoration of onshore areas used during the RA completed.	May 2002
LTM and O&M.	On-going
Annual Monitoring Report O&M Activities for 2001 completed.	July 2002

Event/Document	Date
Annual Monitoring Report O&M Activities for 2002 completed.	May 7, 2003
Post Dredging Habitat and Artificial Reef Surveys	2003
Annual Monitoring Report O&M Activities for 2003 completed.	May 2004
Second Five-Year Review completed.	December 2004
Final McAllister Point Post Dredging Eelgrass Monitoring Report 2005 completed.	March 2005
Annual Monitoring Report Operations and Maintenance Activities for 2004 completed.	July 2005
Work Plan for LTM completed.	October 2005
Round 1: December 2004 LTM Report completed (Marine Sediments).	March 2006
Final Annual Monitoring Report O&M Activities 2005 completed.	February 2006
Final Supplemental Eelgrass Mitigation Work Plan completed	April 2006
Round 2: October-November 2005 LTM Report completed (Marine Sediments).	April 2006
ESD Report completed.	September 2007
Final Annual Monitoring Report O&M Activities for 2006 completed.	December 2007
Final Marine Sediments Monitoring Report Sampling Round 3: October 2006 completed.	December 2007
Final Annual Monitoring Report O&M Activities for 2007 completed.	November 2008
Final Marine Sediments Monitoring Report Sampling Round 4: October 2007 completed.	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.	March 2009
Third Five-Year Review Report completed.	December 2009
Work Plan Addendum, Long Term Monitoring Plan	August 2010
Final Land Use Control Remedial Design	February 2012

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).

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 STUDY AREA 04 – CODDINGTON COVE RUBBLE FILL AREA (CCRF)

CCRF is a small area (less than 8 acres) 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 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.

A draft SASE report was issued in April 2011. The SASE concluded that contaminants detected at CCRF pose minimal concern for risk to human health and the environment. Contaminants in surface water and sediment are likely to be the result of road runoff and storm drainage from the urban surroundings. 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. Based on the current and potential

future land use at the site, the presence of other contaminant inputs, and the limited risk posed by the contaminants found, the SASE report recommends no further action (NFA) at CCRF (Tetra Tech, 2011a). The SASE report is a draft document and discussions with the regulators about the next steps at this site are ongoing.

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

Event/Document	Date
Area used for for the disposal of general fill.	1978 – 1982
Phase 2 Environmental Site Assessment Report completed.	October 15, 2004
Draft SASE report completed.	April 25, 2011

There have been no remedial actions under CERCLA at CCRF. The draft SASE report recommended NFA at this site. Discussions with the regulators about the next steps, if any, at CCRF are ongoing.

2.4 STUDY AREA 07 – TANK FARM NO. 1

Tank Farm No. 1 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 underground storage tanks (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 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 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 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.

The Ethyl blending plant on site (AOC-001) is the only area currently identified as an area to be investigated and closed out under CERCLA. A data gaps assessment for the ethyl blending plant is ongoing.

A list of important Tank Farm No. 1 historical events and documents and relevant dates in site chronology is shown below. The identified events are illustrative, not comprehensive.

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.	May 1986
DFSP begins investigations.	August 1992
Tanks were cleaned and ballasted.	1996 – 1997
Site was administratively closed by DESC.	1998
Revised Data Gaps Work Plan published.	February 24, 2012

There have been no remedial actions under CERCLA at Tank Farm No. 1. The CERCLA path forward for Tank Farm No. 1 is as follows:

- SI
- RI
- FS, PRAP, and ROD
- RD/RA
- Five-year review as appropriate

2.5 SITE 08 – NAVAL UNDERSEA SYSTEMS CENTER (NUSC) DISPOSAL AREA (OU 7)

This 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 site was included in the 1983 IAS with a recommendation for NFA. Further investigations have been performed under a SASE and an RI for the NUSC Disposal Area.

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).

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 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 the 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 – early 2009, and the final RI was submitted in January 2010. The RI found that unacceptable risks were present at the site due to PAHs and arsenic in soil, and due to VOCs and metals present 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 draft final SRI report was submitted in May 2011. A draft FS was submitted in August 2010. A revised draft FS is currently being prepared. In March 2011 additional groundwater sampling was conducted to further evaluate MNA at the site.

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

Event/Document	Date
Area used for storage and fill.	1950s – present
Final SASE Report completed.	January 1, 2005
Draft RA Completion Report completed – removal of drums and paint cans.	April 1, 2006
Background Soil Investigation Report completed.	September 1, 2006
Final Interim RA Report (limited soil removal action) completed.	December 1, 2006
Remedial Investigation Report completed.	January 2010
Revised Draft FS completed.	July 2011
Final SRI completed.	October 17, 2011

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

- Finalize the SRI
- Finalize the existing FS, prepare a PRAP and ROD
- RD/RA
- Five-year review as appropriate

2.6 SITE 09 – OLD FIRE FIGHTING TRAINING AREA (OFFTA) (OU 3)

The 8-acre site, located on Coaster’s Harbor Island, adjacent to Narragansett Bay, 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 feet high was located in the center of the site; the other two, approximately 5 - 6 feet high, were located on the western side 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, referred to as Katy Field, is partially being used for staging construction materials.

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. The Phase 1 RI reported in 1994 that 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 consists of the construction of a replacement stone revetment, which underwent design in 2008 and 2009, and construction was initiated in 2010.

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 a remedial action alternative. 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. Based on the ROD, a land use control remedial design was initiated in late 2010.

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

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.	January 1992
Marine ERA Report completed.	November 1999
Final RI Report completed.	July 1, 2001
FS for Soil, Groundwater, and Marine Sediment (submitted as final).	September 1, 2002
Final Action Memorandum, Soil Management and Removal completed.	June 1, 2004
Sediment and Groundwater Monitoring Work Plan completed.	November 1, 2004

Event/Document	Date
Soil PDI Report completed.	April 2005
Soil PDI Report Addendum completed.	November 1, 2005
Final Project Close-Out Report (removal of soil mounds) completed.	December 1, 2005
Draft Revised FS completed.	December 1, 2007
Soil Removal Action (removal of hot spots, oil water separator) completed.	April 2008
Design for Replacement Stone Revetment completed.	December 2009
Final FS report (technical memorandum)	July 15, 2010
Proposed remedial Action plan	July 2010
Record of Decision	September 2010
Draft Remedial Design for Land Use Controls	December 1, 2010
Final Land Use Control Remedial Design	February 2012

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

- RD/RA
- Monitoring and Five-year reviews as appropriate

2.7 STUDY AREA 10 – TANK FARM NO. 2

This tank farm, located in the Melville area of Portsmouth RI, 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.

The 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). 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 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 RIDEM.

Additional field investigations are scheduled to take place in 2011 and 2012 for areas of the site regulated under CERCLA. Reporting is scheduled to be completed in 2012. A remedy in place for these areas is currently scheduled to be completed in 2014.

A list of important Tank Farm No. 2 historical events and documents and relevant dates in site chronology is shown below. The identified events are illustrative, not comprehensive.

Event/Document	Date
Tank farm constructed.	1940s
Tank farm used by Navy.	1940s – 1970
Tank farm used by DESC.	1974 – 1998
DESC begins investigations.	August 1992
Tanks were cleaned and ballasted.	1996 – 1997
Draft SI and RA Report completed (Petroleum).	July 2006
Draft Sampling and Analysis Plan completed (CERCLA and Petroleum).	February 2011

There have been no remedial actions under CERCLA at Tank Farm No. 2. The CERCLA path forward for Tank Farm No. 2 is as follows:

- Data Gaps Investigation/Risk Assessment
- EE/CA and Non-Time Critical Removal Action (NTCRA)
- FS, PRAP, and ROD
- LUC RD

2.8 STUDY AREA 11 – TANK FARM NO. 3

This tank farm, located in Melville, 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 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.

The 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 the 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 areas of concern (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 RIDEM. Additional field investigations are currently scheduled to take place in 2011 for three areas of the site regulated under CERCLA. Reporting is scheduled to be completed in 2012. A remedy in place is currently scheduled to be completed in 2014.

A list of important Tank Farm No. 3 historical events and documents and relevant dates in site chronology is shown below. The identified events are illustrative, not comprehensive.

Event/Document	Date
Tank farm constructed.	1940s
Tank farm used by Navy.	1940s – 1970
Tank farm used by DESC.	1974 – 1998
DESC begins investigations.	August 1992
Tanks were cleaned and ballasted.	1996 – 1997
Work Plan for Site Closure completed.	August 2002
Draft SI and RA Report completed (Petroleum).	May 2005
Draft Sampling and Analysis Plan completed (CERCLA).	April 2011

There have been no remedial actions under CERCLA at Tank Farm No. 3. The CERCLA path forward for Tank Farm No. 3 is as follows:

- Data Gaps Investigation/Risk Assessment
- EE/CA and Non-Time Critical Removal Action (NTCRA)
- FS, PRAP, and ROD
- LUC RD

2.9 SITE 12 – TANK FARM NO. 4

Tank Farm 4 is approximately 80 acres, located in Portsmouth. The site is bordered by Narragansett Bay to the east, Defense Highway to the west, 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).

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 that were not addressed in the SI were discussed at length in 2009. It was determined that the areas of the tank farm that were impacted by petroleum products would be addressed under RIDEM UST regulations, and identified as Category 2 areas of the site. It was determined that areas of 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 would be addressed under CERCLA and identified as Category 1 areas of the site. Based on this determination, a single CERCLA decision unit 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 2011c). 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.

A list of important Tank Farm No. 4 historical events and documents and relevant dates in site chronology is shown below. The identified events are illustrative, not comprehensive.

Event/Document	Date
Tank farm constructed.	1940s
Tank farm used by Navy.	1940s – 1970
Tanks were cleaned and ballasted.	1994 – 1997
Tanks were demolished.	1997 – 1998
Final Closeout Report (sludge disposal trenches) completed.	June 19, 2007
Draft Final Remedial Investigation report issued.	July 15, 2011

There have been no remedial actions under CERCLA at Tank Farm No. 4. The CERCLA path forward for Tank Farm No. 4 is as follows:

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

2.10 SITE 13 – TANK FARM NO. 5 (OU 2)

Tank Farm 5 occupies approximately 80 acres and is located in the north-central part of NAVSTA Newport, in Middletown. The site is bordered by Narragansett Bay to the east, Defense Highway to the west, 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, located in the mid-portion of NAVSTA Newport, was constructed in the early 1940s and was used between WWII and 1970. 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. Tanks 53 and 56 were used for the storage of waste oils used in an oil recovery program. The other tanks in Tank Farm 5 were used exclusively for storage of virgin fuel oils. Tanks 53 and 56 are discussed in Section 2.10.1 while the other tanks at Tank Farm 5 are discussed in Section 2.10.2.

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 Rhode Island 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).

2.10.1 Tank Farm No. 5, Tanks 53 and 56

Tanks 53 and 56 were constructed in 1942 of reinforced concrete and had a capacity of approximately 2.52 million gallons. Fuel oils were stored in the tanks from approximately WWII through 1974. In 1975, as part of an oil recovery program, the Navy began using the two tanks 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 the tanks. 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. Also 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 site should be considered "Remedy Complete" and recommended that a NFA ROD be prepared.

A list of important Tanks 53 and 56 historical events and documents and relevant dates in site chronology is shown below. The identified events are illustrative, not comprehensive.

Event/Document	Date
Tank Farm 5 constructed.	Early 1940s
Tank Farm 5 used for fuel storage.	1940s to 1974
Began using Tanks 53 and 56 for waste oil storage.	1975
Ceased using Tanks 53 and 56 for waste oil storage.	1984
Tank Closure Plan for Tanks 53 and 56 was completed.	September 1987
NETC Newport listed on NPL.	November 21, 1989
Groundwater investigation conducted as part of Tanks 53 and 56 closure investigation.	June 1991
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).	September 29, 1992
Soils investigation conducted as part of Tanks 53 and 56 closure investigation.	October 1992

Event/Document	Date
Design for a groundwater extraction and treatment/ containment system completed.	1993
Construction of system completed.	December 1994
Operation of the groundwater extraction and treatment system.	December 1994 – December 1996
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
Demolition of the tanks.	1998 -1999
Installation of two bedrock monitoring wells, per RIDEM request.	Late 1999
First Five-Year Review completed.	December 1, 1999
System used for treatment of water drained from McAllister Point dredged sediment.	2001
Fourth post-remedial action groundwater sampling round.	May 2001
Repairs to monitoring well network and redevelopment of all wells.	May 2004
Fifth post-remedial action groundwater sampling round.	May 2004
Second Five-Year Review completed.	December 1, 2004
Basis of Design Report for Demolition and Disposal of Groundwater Operable Unit Treatment System completed.	January 1, 2008
Demolition of the groundwater extraction and treatment system.	October 2008
Third Draft Final Five-Year Review Report completed.	October 9, 2009

The CERCLA path forward for Tank Farm 5, Tanks 53 and 56 is as follows:

- NFA ROD

2.10.2 Tank Farm No. 5, Other Tanks

The other tanks at Tank Farm 5 have been investigated separately because they were used exclusively for the storage of virgin fuel oils while Tanks 53 and 56 stored waste 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 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 that were not addressed in the SI were discussed at length in 2009. It was determined that the areas of the tank farm that were impacted by petroleum products would be addressed under RIDEM UST regulations, and identified as Category 2 areas of the site. It was determined that areas of 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 would be addressed under CERCLA and identified as Category 1 areas of the site. Based on this determination, a single CERCLA decision unit 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, 2011c). 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.

At the 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.

A list of important Tank Farm No. 5 historical events and documents and relevant dates in site chronology is shown below. The identified events are illustrative, and not comprehensive.

Event/Document	Date
Tank farm constructed.	1940s
Tank farm used to store virgin fuel oil.	1940s – 1970
Tanks were cleaned and ballasted.	1994 – 1997
Tanks were demolished.	1998 – 1999
Final Closeout Report (sludge disposal trenches) completed.	June 19, 2007
Draft Final Data Gaps Investigation report and Risk Assessment, DU 5-1	July 15, 2011
Draft FS submitted.	October 6, 2011

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

- Finalize FS
- PRAP, and ROD
- RD/RA
- Five-year review as appropriate

2.11 SITE 17 – BUILDING 32, GOULD ISLAND (OU 6)

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. 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).

Study Area 17 was included in the IAS (1983). The report suggested that rinse water from the operations was disposed directly into the 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 were collected in 1992 from the Electroplating Shop area, revealing 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, 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 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 draft BERA report was published in December 2010. After the Phase 2 RI is finalized (scheduled completion July 2011), the site will move forward to the FS and ROD phases, in accordance with CERCLA, with each scheduled to be completed in 2012 and 2013, respectively.

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

Event/Document	Date
Building 32 used to service and store torpedoes; electroplating and degreasing operations performed.	1940s
CS completed.	May 1986
Draft Final SASE Report completed.	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.	October 29, 2004
Phase 1 RI and HHRA completed.	December 29, 2006
Draft Final Phase 2 RI and BERA Report completed.	June 30, 2011
Draft FS completed.	September 28, 2011

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

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

2.12 SITE 19 – DERECKTOR SHIPYARD (OU 5)

The Navy used the 43 acre site along the easternmost shore of Coddington Cove 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 41-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.

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 (Tetra Tech, 2004d) as a study area. 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 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 on-shore 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 Sampling and Analysis Plan was developed to more thoroughly evaluate vertical extent of contamination, potential for deposition, and propensity for sediment scouring during normal and extreme conditions. The investigation is anticipated to go forward in late 2011.

In the on-shore portions of the site, the SASE in March 2011, additional on-shore sampling was conducted at the request of the USEPA to update the data on the groundwater conditions and to evaluate future indoor air. The Navy agreed to do this since new buildings are planned for construction at the North end of the site. Data was collected in early 2011 and an SASE Addendum report is currently being prepared to address this potential data gap.

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

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.	May 1, 1993
Marine ERA Report completed.	May 1997
Draft Final SASE Report completed.	June 1, 1997
Final HHRA completed.	September 29, 1998
Final FS (marine portions, offshore contamination) completed.	July 29, 1999
Final RA Report for Various Removal Actions completed.	July 25, 2002
Draft Sediment Investigation Work Plan completed.	July 1, 2004
Final Closeout Report for Sand Blast Grit Removal completed.	June 17, 2005
Final Action Memorandum completed.	November 10, 2006
FS Revision 1 (Revised Draft Final) completed.	March 1, 2007
Final Removal Action Completion Report for Sandblast Grit Removal at the Firing Point completed.	March 6, 2008

Event/Document	Date
Final Sampling and Analysis Plan, Data Gaps Investigation for Marine Sediment	September 29, 2011
Draft Final SASE Report Addendum for On-Shore published.	March 26, 2012

There have been no remedial actions under CERCLA at Derecktor Shipyard. The CERCLA path forward for Derecktor Shipyard on-shore and off-shore portions is currently planned as follows:

- Data Gaps Investigations
- EECA and NTRCA to address primary areas of risk.
- FS, PRAP, and ROD to address moderate areas of risk.
- RD/RA
- Five-year review as appropriate

2.13 SITE 20 – SURFACE WARFARE OFFICERS SCHOOL (SWOS)

SWOS is located in Middletown just south of Taylor Drive and 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 testpitting, 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).

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).

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

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.	March 12, 2004
Draft Final Focused SI completed.	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 – FORMER MELVILLE WATER TOWER

The Former Melville Water Tower Site is located in an open field adjacent to the Melville Elementary School on West Main Road in Portsmouth. 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 fire fighting 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).

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.

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

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.	June 2008
SASE completed.	September 2009
Administrative Closeout	October 26, 2009
Site Closeout Report completed.	January 4, 2011

2.15 MRP SITE 01 AND IRP SITE 22 – CARR POINT

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.

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 Carr Point has been used as a recreational vehicle (RV) camping park and gated storage area for Navy and Department of Defense (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 WAMS was conducted for the former Carr Point Shooting Range by Malcolm Pirnie, Inc. in 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 polycyclic aromatic hydrocarbons (PAHs) associated with clay targets (Interstate Technology and Regulatory Council, 2003)” (Malcolm Pirnie, 2005).

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, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), Resource Conservation and Recovery Act (RCRA) metals, and total cyanide. TPH and metals were detected at all locations, and PAHs were found at all locations except the northeast corner. 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. Therefore, the site will be addressed in two parts – the former shooting range will be continued under the MRP program as “MRP Site 1 – Former Carr Point Shooting Range” and the former storage areas will be continued under the IR program as “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.

A recreational risk evaluation for MRP Site 1 was completed in March 2010. Several organic and inorganic chemicals were selected as chemicals of potential concern (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). An EE/CA for MRP Site 1 is currently being written.

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

Event/Document	Date
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
WAMS conducted.	October 1, 2005
Surface soil samples collected.	January 2007
SI Report completed.	May 12, 2010
Recreational Risk Evaluation for MRP Site 1 completed.	May 14, 2010
TCRA performed at MRP Site 1 (fence installed).	May 2010
Final EE/CA report completed.	March 11, 2012

There have been no remedial actions under CERCLA at Carr Point. The CERCLA path forward for Site 22 – Carr Point Storage Area is as follows:

- RI
- FS, Proposed Remedial Action Plan (PRAP), and ROD
- RD/RA
- Five-year review as appropriate

A TCRA, installing a fence, was performed at MRP site 1 in May 2010. The next steps for MRP Site 01 are as follows:

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

3.0 REGULATORY PROCESS ACTIVITIES

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. Since 1984, investigations at NAVSTA have been conducted under the DOD IRP. Funding to pay for such investigations 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. Among other things, an FFA outlines roles and responsibilities, establishes deadlines/schedules, and outlines work to be performed.

The IRP parallels CERCLA, otherwise known as Superfund. Under the IRP, past disposal activities which may have resulted in the release of hazardous constituents to the environment would undergo several phases of environmental investigation that would ultimately determine the need for a remedy, and if necessary, the selection and implementation of the remedy for the site. The phases of investigation under 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 Site Screening Process (SSP) investigation is the initial study under CERCLA in response to a suspected hazardous substance release or threat of release. CERCLA also has provisions for Interim Measures (IM) that can be implemented if a site poses an immediate threat to the environment.

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 are regulated under state UST regulations and where these contaminants are not co-mingled with other contaminants regulated by CERCLA that are addressed through the state pathways (Navy, 2006a).

3.1 CERCLA PROCESS ACTIVITIES

This section provides a description of the CERCLA remedial process.

3.1.1 Preliminary Assessment/Site Investigation (PA/SI) and Site Screening Process (SSP)

The initial study conducted under CERCLA at a site in response to a real or suspected hazardous substance release is the 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.

At federal facilities where the responsible federal agency has entered into a FFA with the EPA, the SSP is an alternative to the PA/SI process. The SSP 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 SSP considers current CERCLA guidance to determine if there have been releases of hazardous substances, pollutants, or contaminants, to the environment from the SSAs. The SSP 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").

3.1.2 Remedial Investigation/Feasibility Study (RI/FS)

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).

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.

3.1.3 Removal Action

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.

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.

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.

3.1.4 Interim Remedial Action

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.

3.1.5 Remedial Design/Remedial Action (RD/RA)

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.

4.0 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.

4.1 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.

4.2 SUMMARY OF SITE RISK RANKING FOR NAVSTA NEWPORT

A summary of relative risk ranking results is shown on Table 4-1. Complete relative risk ranking results are included as Appendix B.

TABLE 4-1

**RELATIVE RISK RANKING RESULTS
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND**

Site	Site Name	Rank
Site 1	McAllister Point Landfill	High
Site 11	Tank Farm No. 3	High
Site 12	Tank Farm No. 4	High
Site 17	Building 32, Gould Island	High

5.0 SCHEDULE

Detailed schedules for pre-remedial sites are attached as Appendix C. These sites include the following:

- Site 4 CCRF
- Site 7 Tank Farm 1
- Site 8 NUSC Disposal Area
- Site 9 OFFTA
- 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
- MRP Site 1 Carr Point Firing Range

5.1 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. 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%).

5.2 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.

6.0 NAVSTA NEWPORT CLEANUP TEAM

The following is a table showing which cleanup team members are currently associated with each site:

NAVY SITE DESIGNATION	SITE NAME		EPA OPERABLE UNIT DESIGNATION	NAVY RPM	NEWPORT NAVY CONTACT	EPA RPM	RHODE ISLAND RPM
Site 1	McAllister Point Landfill	<i>Onshore</i>	OU 1	Maritza Montegross	Darlene Ward	Ginny Lombardo	Pamela Crump
		<i>Offshore</i>	OU 4				
Site 2	Melville North Landfill (former)		--	Maritza Montegross	Darlene Ward	N/A	Pamela Crump
Site 4	Coddington Cove Rubble Fill Area (CCRF)		--	Maritza Montegross	Darlene Ward	Ginny Lombardo	Pamela Crump
Site 7	Tank Farm 1		--	Roberto Pagtalunan	Darlene Ward	Kymerlee Keckler	Pamela Crump
Site 8	NUSC Disposal Area		OU 7	Maritza Montegross	Deb Moore	Ginny Lombardo	Pamela Crump
Site 9	Old Fire Fighting Training Area (OFFTA)		OU 3	Winoma Johnson	Darlene Ward	Kymerlee Keckler	Pamela Crump
Site 10	Tank Farm 2		--	Roberto Pagtalunan	Darlene Ward	Kymerlee Keckler	Pamela Crump
Site 11	Tank Farm 3		--	Roberto Pagtalunan	Deb Moore	Kymerlee Keckler	Pamela Crump
Site 12	Tank Farm 4		--	Roberto Pagtalunan	Deb Moore	Kymerlee Keckler	Pamela Crump
Site 13	Tank Farm 5		OU 2	Roberto Pagtalunan	Deb Moore	Kymerlee Keckler	Pamela Crump
	Tanks 53 and 56						
Site 17	Gould Island		OU 6	Maritza Montegross	Deb Moore	Kymerlee Keckler	Pamela Crump
Site 19	Derecktor Shipyard	<i>Onshore</i>	OU 5	Winoma Johnson	Darlene Ward	Kymerlee Keckler	Pamela Crump
		<i>Offshore</i>					
Site 21	Melville Water Tower (former)		OU 8	NA - Remedy in Place			
Site 22	Carr Point Storage Area		OU 10	Maritza Montegross	Darlene Ward	Ginny Lombardo	Pamela Crump
MRP Site 1	Former Carr Point Shooting Range		OU 9	Maritza Montegross	Darlene Ward	Ginny Lombardo	Paul Kulpa

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Tetra Tech, 2004b. Action Memorandum for Non Time Critical Removal Action: Soil and Debris Mound Removal, Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island. June.

Tetra Tech, 2004c. Work Plan for Remedial Investigation, Site 17, Building 32, Gould Island, Naval Station Newport, Newport, Rhode Island. July.

Tetra Tech, 2004d. Draft Work Plan for Marine Sediment Sampling for Former Derecktor Shipyard, Naval Station Newport, Newport, Rhode Island. July 27.

Tetra Tech, 2004e. Work Plan, Sediment and Groundwater Monitoring for Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island. November.

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Tetra Tech, 2006d. Remedial Investigation for Site 17: Building 32, Gould Island, Naval Station Newport, Newport, Rhode Island. December 29.

Tetra Tech, 2007a. Feasibility Study Revision 1 for Former Robert E. Derecktor Shipyard, Naval Station Newport, Newport, Rhode Island. March 1.

Tetra Tech, 2007b. Draft Basewide Background Study Report for Naval Station Newport, Newport, Rhode Island. October.

Tetra Tech, 2007c. Draft Revised Feasibility Study for Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island. December 1.

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Tetra Tech, 2009c. Five Year Review Report for Naval Station Newport (Formerly NETC Newport), Newport, Rhode Island. December.

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Tetra Tech, 2010b. Site Investigation for MRP Site 1 – Carr Point, NAVSTA, Newport, Rhode Island. May 12.

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Tetra Tech, 2010g. Technical Memorandum Changes to the Draft Final Feasibility Study, Old Firefighting Training Area, NAVSTA Newport, Newport, Rhode Island. July 15.

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Tetra Tech, 2011d. Draft Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), February 2011, Data Gaps Assessment, Tank Farm 2, Naval Station Newport, Newport, Rhode Island. February 23.

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Tetra Tech, 2011f. Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), May 2011, Former Derecktor Shipyard Marine Sediment Data Gaps Investigation, Naval Station Newport, Newport, Rhode Island. September 29.

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Tetra Tech, 2011h. Revised Draft Feasibility Study for Site 8 – Naval Undersea Systems Center (NUSC) Disposal Area, Naval Station Newport, Newport, Rhode Island. July 18.

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Tetra Tech, 2011j. Site Closeout Report for Former Melville North Landfill, NAVSTA, Newport, Rhode Island. January 4.

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Tetra Tech, 2012a. Final Land Use Control Remedial Design for Site 1 – McAllister Point Landfill, Operable Unit 1, Naval Station Newport, Newport, Rhode Island, February 2.

Tetra Tech, 2012b. Revised Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), February 2012, Data Gaps Assessment, Ethyl Blending Plant, Tank Farm 1, Naval Station Newport, Newport, Rhode Island, February 24.

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. Draft Final SASE Report Addendum, Site 19 – Derecktor Onshore, Naval Station Newport, Newport, Rhode Island. March.

Tetra Tech, 2012e. Final EE/CA Report, MRP Site 1, Former Carr Point Shooting Range, Naval Station Newport, Newport, Rhode Island. March 11.

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.

U.S. EPA Region 1, 1992. Federal Facilities Agreement Under CERCLA §120, The U.S. Department of the Navy Naval Education and Training Center, Newport, Rhode Island and Naval Undersea Warfare Center, Newport. Rhode Island. March 23.

APPENDIX A
PHOTO LOG

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 01 – McAllister Point Landfill



Site 1 – Aerial view of McAllister Point Landfill during cap construction 1996. View is to the southeast

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 01 – McAllister Point Landfill



Site 1 – May 2009 Revetment north end of site. View is to the south.



Site 1 – May 2009. Entrance Gate to McAllister Point Landfill. Bollards and chains in the foreground. View is to the west.



Site 1 – May 2009 Revetment on south side of site. View is to the south-east.



Site 1 – Shoreline South Side, drilling at Predesign Step, 2001. View is to the South.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 02 – Former Melville North Landfill



Site 2 – ca 1998 Prior to remediation at Melville North Landfill. View is to the north



Site 2 – September 1999 Remediation at Melville North landfill. View is to the south-east.



Site 2 – Sept 2010, Former Melville North Landfill. View is to the south



Site 2 – Sept 2010, Former Melville North Landfill. View is to the North

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 04 – Coddington Cove Rubble Fill Area



Site 4 – ca 2004 – Side of Coddington Highway and fence at
Coddington Cove Rubble Fill Area

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 07 – Tank Farm 1



Lead blending plant March 2011. view is to the west



Lead blending plant and valve chamber March 2011.
View is to the east

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 08 – NUSC Disposal Area



Site 8 – NUWC pond during high water conditions, May 2004. View is to the southwest.



Site 8 – Paved storage area May 2004. View is to the north. Paint can removal area to the left.



Site 8 - Building 185 complex (north sheds) May 2004. View is to the north.



Site 8 – N end of NUWC pond and dam during high water conditions, May 2004. View is to the south.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 08 – NUSC Disposal Area



Site 8 – Paint can removal area at South Meadow, March 2006. View to the north.



Site 8 – Drum removal area at South Meadow, NUSC disposal area March 2006.



Site 8 – Paint can removal area at South Meadow, March 2006, Deerfield Creek at left. View to the east.



Site 8 – Drum removal area at South Meadow, NUSC disposal area March 2006.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 09 – Old Fire Fighting Training Area (OFFTA)



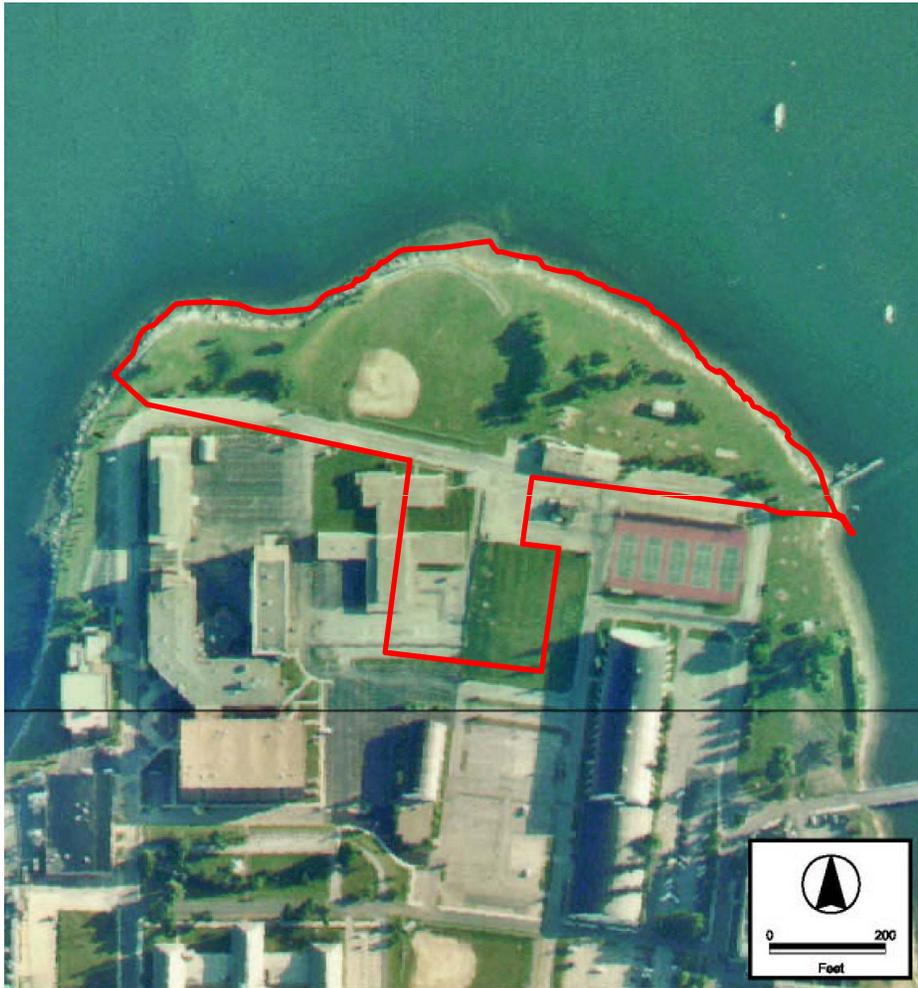
Practice structures

Oil-water separator

Administration buildings

Site 9 – ca 1943. Old Fire Fighting Training area during early operational period. Building 144 not constructed yet.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 09 – Old Fire Fighting Training Area (OFFTA)



Site 9 – 1996 aerial view of N. end of Coasters island. Photo shows Katy field on OFFTA Site, and Brig on south portion later occupied by SWOS. Red site boundary image is approximate.



Site 9 – 1996: Site 9 shoreline. View is to the west.



Site 9 – 2010: Completed portion of new revetment at shoreline and restored “beach”. View is to the northeast.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 10 – Tank Farm 2



Tank 25 “doghouse”



Tank 25 area: sidewall of tank is visible in former excavation



Tank 26 area, showing vent, valve box, & doghouse.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 11 – Tank Farm 3



Oil – Water Separator #3 Area, View is to the East



Building 228, View is to the southwest



AOC 1 Area, View is to the Southwest



AOC 20, View is to the southeast

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 12 – Tank Farm 4



Site 12 – ca 1996 Demolition of Tank
(closure in place) at tank farm 4 and 5



Site 12 – ca 1948 Construction of tanks at
Tank Farm 4, view is to the east.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 13 – Tank Farm 5



Site 13 – May 2009 Former Tank 53 Area and area of former treatment plant. View is to the west.



Site 13 – May 2009 Former Tank 53 Area and entrance. View is to the north-west.



Site 13 – ca 1948
Construction of tanks at Tank Farm 5, view is to the northeast. Tank 53 is in the foreground

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 17 – Gould Island



Site 17– ca 1943. North end of Gould Island under construction View is to the east.



Site 17– ca 1945. North end of Gould Island showing firing pier, breakwater and wharves. Workmans ferry dock is evident on the left side of the island.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 17 – Gould Island



Site 17– June 2005. North end of Gould Island during remedial investigations. View is to the north.



Site 17– ca 2002. North end of Gould Island after demolition of Buildings 33 and 32. <http://www.airfields-freeman.com>

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 19 – Former Derecktor Shipyard



Site 19 September 2010. EX USS Forrestal tied to north side of Pier 1. View is to the west.



Site 19 ca 1998. Building 234 (original structure) during demolition. View is to the south



Site 19 September 2010. Pier 2 underside. View is to the west.



Site 19 September 2010. Waterfront area. View is to the east.

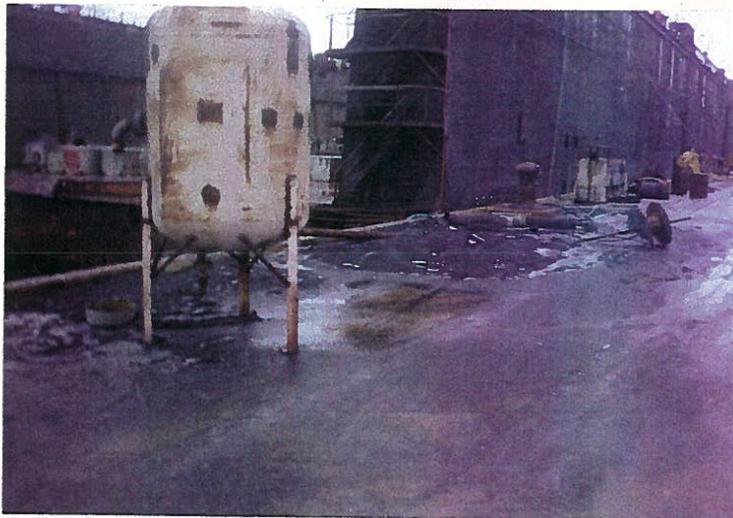
Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 19 – Former Derecktor Shipyard



Pier 1 January 1993 View is to the west. Floating dry docks
Tied up on both sides of pier



Shipyard area January 1993 View is to the south



Pier 1 January 1993. View is to the west. Floating dry docks
Tied up on south side of pier. Note sandblast grit on pier



Building 2354 area January 1993. View is to the east. Pile of
Sandblast at center. Building 7 is in the background

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
Site 21 – Former Melville Water Tower



Site 21 – August 2007. Completion of soil removal action.



Site 21 – May 2006.
Water tower prior to demolition.



Site 21 – July 2007. During soil removal action. Soils have been removed, footings and boiler house foundation are visible prior to removal.



Site 21 – August 2007. Completion of soil removal action.

Photo Log
Site Management Plan, Naval Station Newport, Newport RI
MRP Site 1 and Site 22 Carr Point



MRP Site 1 – ca 2008. View is to the south.
Skeet firing arc in foreground.



MRP Site 1 – ca 2008. Shoreline at mid tide.
View is to the north.



Site 22 (red boundary) and Land portions of MRP Site 1 (yellow boundary)
– ca 2008. Site 22 extends south out of the photo (google).



MRP site 1 September 2010. Fence at
former firing arcs. View is to the west.

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, appearing to read "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 relative 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
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 00011
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):

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

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

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: _____

RECEPTOR FACTOR (RF)

Identified - Receptors identified that have access to surface water

Potential - Potential for receptors to have access to surface water

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

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

**NAVAL STATION NEWPORT
MRP SITE 1
CARR POINT SHOOTING RANGE
PROJECT SCHEDULE (1)**

Task Name	Start	Finish	09		2010				2011				2012				2013				2014				2015				2016				2017				2018	
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
STUDY AREA SCREENING EVALUATION (SASE) REPORT	7/11/09	5/10/10	[Gantt bar from 7/11/09 to 5/10/10]																																			
Prepare Draft SASE Report	7/11/09	10/9/09	[Task bar from 7/11/09 to 10/9/09]																																			
<i>Submit Draft SASE Report</i>	<i>10/9/09</i>	<i>10/9/09</i>	[Milestone diamond at 10/9/09]																																			
Regulatory Review	10/9/09	11/22/09	[Task bar from 10/9/09 to 11/22/09]																																			
<i>Receive Regulator Comments</i>	<i>11/23/09</i>	<i>11/23/09</i>	[Milestone diamond at 11/23/09]																																			
Comment Resolution	11/23/09	1/7/10	[Task bar from 11/23/09 to 1/7/10]																																			
Prepare Draft Final SASE Report	1/7/10	3/11/10	[Task bar from 1/7/10 to 3/11/10]																																			
<i>Submit Draft Final SASE Report</i>	<i>3/11/10</i>	<i>3/11/10</i>	[Milestone diamond at 3/11/10]																																			
Concurrence/Comment Resolution	3/11/10	4/10/10	[Task bar from 3/11/10 to 4/10/10]																																			
Prepare Final SASE Report	4/10/10	5/10/10	[Task bar from 4/10/10 to 5/10/10]																																			
<i>Submit Final SASE Report</i>	<i>5/10/10</i>	<i>5/10/10</i>	[Milestone diamond at 5/10/10]																																			
ENGINEERING ESTIMATE/COST ANALYSIS (EE/CA)	4/18/11	3/11/12	[Gantt bar from 4/18/11 to 3/11/12]																																			
Prepare Draft EE/CA	4/18/11	7/29/11	[Task bar from 4/18/11 to 7/29/11]																																			
<i>Submit Draft EE/CA</i>	<i>7/29/11</i>	<i>7/29/11</i>	[Milestone diamond at 7/29/11]																																			
Regulatory Review	7/29/11	9/11/11	[Task bar from 7/29/11 to 9/11/11]																																			
<i>Receive Regulator Comments</i>	<i>9/12/11</i>	<i>9/12/11</i>	[Milestone diamond at 9/12/11]																																			
Comment Resolution	9/12/11	12/30/11	[Task bar from 9/12/11 to 12/30/11]																																			
RIDEM Formal Dispute	10/5/11	1/12/12	[Task bar from 10/5/11 to 1/12/12]																																			
Prepare Draft Final EE/CA	12/30/11	1/11/12	[Task bar from 12/30/11 to 1/11/12]																																			
<i>Submit Draft Final EE/CA</i>	<i>1/11/12</i>	<i>1/11/12</i>	[Milestone diamond at 1/11/12]																																			
Concurrence/Comment Resolution	1/11/12	2/10/12	[Task bar from 1/11/12 to 2/10/12]																																			

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute impacted progress though site was not named in dispute documents.

**NAVAL STATION NEWPORT
TANK FARM 1
(SITE 7)
PROJECT SCHEDULE (1)**

Task Name	Start	Finish	10		2011				2012				2013				2014				2015		
			Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
DATA GAPS & RISK ASSESSMENT	1/3/11	2/5/13			[Gantt bar from 1/3/11 to 2/5/13]																		
Prepare Draft Data Gaps Work Plan	1/3/11	4/22/11																					
<i>Submit Draft Data Gaps Work Plan - FFA Date</i>	<i>4/22/11</i>	<i>4/22/11</i>																					
Regulatory Review	4/22/11	6/5/11																					
Receive Regulator Comments	6/6/11	6/6/11																					
Comment Resolution	6/6/11	12/30/11																					
RIDEM Formal Dispute (2)	10/5/11	1/12/12																					
Prepare Revised Data Gaps Work Plan	12/30/11	2/24/12																					
<i>Submit Revised Data Gaps Work Plan</i>	<i>2/24/12</i>	<i>2/24/12</i>																					
Concurrence/Comment Resolution	2/24/12	3/26/12																					
Prepare Final Data Gaps Work Plan	3/26/12	4/25/12																					
<i>Submit Final Data Gaps Work Plan</i>	<i>4/25/12</i>	<i>4/25/12</i>																					
Conduct Field Work	4/25/12	5/26/12																					
Analysis	5/26/12	6/10/12																					
Prepare Draft RI Report	6/10/12	8/9/12																					
<i>Submit Draft RI Report - FFA Date</i>	<i>8/9/12</i>	<i>8/9/12</i>																					
Regulatory Review	8/9/12	9/22/12																					
Receive Regulator Comments	9/23/12	9/23/12																					
Comment Resolution	9/23/12	11/7/12																					

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute impacted progress though site was not named in dispute documents.

NAVAL STATION NEWPORT NUSC (SITE 8) PROJECT SCHEDULE (1)

Task Name	Start	Finish	2009				2010				2011				2012				2013				2014							
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4				
REMEDIAL INVESTIGATION (RI)	1/6/09	1/19/10																												
Prepare Draft RI Report	1/6/09	4/6/09																												
<i>Submit Draft RI Report</i>	<i>4/6/09</i>	<i>4/6/09</i>																												
Regulatory Review	4/6/09	9/14/09																												
Receive Regulator Comments	9/15/09	9/15/09																												
Comment Resolution	9/15/09	10/15/09																												
Prepare Draft Final RI Report	10/16/09	11/20/09																												
<i>Submit Draft Final RI Report</i>	<i>11/20/09</i>	<i>11/20/09</i>																												
Concurrence/Comment Resolution	11/20/09	12/20/09																												
Prepare Final RI Report	12/20/09	1/19/10																												
<i>Submit Final RI Report</i>	<i>1/19/10</i>	<i>1/19/10</i>																												
MNA SAMPLING	2/18/11	8/9/11																												
Prepare Letter Work Plan	2/18/11	3/2/11																												
<i>Submit Letter Work Plan</i>	<i>3/2/11</i>	<i>3/2/11</i>																												
Field Work & Analysis	3/2/11	4/13/11																												
Data Validation & Interpretation	4/13/11	5/4/11																												
Prepare Technical Memo	5/4/11	5/25/11																												
<i>Submit Technical Memo</i>	<i>5/25/11</i>	<i>5/25/11</i>																												
Regulatory Review	5/25/11	6/19/11																												
Receive Regulator Comments	6/20/11	6/20/11																												

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute documents identified Site 8.

**NAVAL STATION NEWPORT
NUSC
(SITE 8)
PROJECT SCHEDULE (1)**

Task Name	Start	Finish	2009				2010				2011				2012				2013				2014				
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	
Submit Draft PRAP - FFA Date	4/15/12	4/15/12													4/15/12												
Regulatory Review	4/15/12	5/14/12													5/14/12												
Receive Regulator Comments	5/15/12	5/15/12													5/15/12												
Comment Resolution	5/15/12	6/14/12													6/14/12												
Prepare Draft Final PRAP	5/15/12	6/14/12													6/14/12												
Submit Draft Final PRAP	6/14/12	6/14/12													6/14/12												
Concurrence/Comment Resolution	6/14/12	7/14/12													7/14/12												
Prepare Final PRAP	6/14/12	7/14/12													7/14/12												
Submit Final PRAP	7/14/12	7/14/12													7/14/12												
Public Comment	7/14/12	8/13/12													8/13/12												
RECORD OF DECISION (ROD)	5/15/12	10/3/12													10/3/12												
Prepare Draft ROD	5/15/12	6/14/12													6/14/12												
Submit Draft ROD - FFA Date	6/14/12	6/14/12													6/14/12												
Regulatory Review	6/14/12	7/13/12													7/13/12												
Receive Regulator Comments	7/14/12	7/14/12													7/14/12												
Comment Resolution	7/14/12	8/13/12													8/13/12												
Prepare Draft Final ROD	7/14/12	8/13/12													8/13/12												
Submit Draft Final ROD	8/13/12	8/13/12													8/13/12												
Concurrence/Comment Resolution	8/13/12	9/12/12													9/12/12												
Prepare Final ROD	8/13/12	9/12/12													9/12/12												

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute documents identified Site 8.

NAVAL STATION NEWPORT TANK FARM 2 (SITE 10) PROJECT SCHEDULE (1)

Task Name	Start	Finish	10		2011				2012				2013				2014				2015	
			Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
DATA GAPS & RISK ASSESSMENT	1/3/11	3/22/13																				
Prepare Draft Data Gaps Work Plan	1/3/11	2/25/11																				
<i>Submit Draft Data Gaps Work Plan - FFA Date</i>	<i>2/25/11</i>	<i>2/25/11</i>																				
Regulatory Review	2/25/11	6/10/11																				
Receive Regulator Comments	6/11/11	6/11/11																				
Comment Resolution	6/11/11	2/17/12																				
RIDEM Formal Dispute (2)	10/5/11	1/12/12																				
Prepare Revised Data Gaps Work Plan	2/17/12	4/2/12																				
<i>Submit Revised Data Gaps Work Plan</i>	<i>4/2/12</i>	<i>4/2/12</i>																				
Concurrence/Comment Resolution	4/2/12	5/2/12																				
Prepare Final Data Gaps Work Plan	5/2/12	6/1/12																				
<i>Submit Final Data Gaps Work Plan</i>	<i>6/1/12</i>	<i>6/1/12</i>																				
Conduct Field Work	6/1/12	7/1/12																				
Analysis	7/1/12	7/31/12																				
Prepare Draft RI Report	7/31/12	9/23/12																				
<i>Submit Draft RI Report - FFA Date</i>	<i>9/23/12</i>	<i>9/23/12</i>																				
Regulatory Review	9/23/12	11/6/12																				
Receive Regulator Comments	11/7/12	11/7/12																				
Comment Resolution	11/7/12	12/22/12																				

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute impacted progress though site was not named in dispute documents.

**NAVAL STATION NEWPORT
TANK FARM 3
(SITE 11)
PROJECT SCHEDULE (1)**

Task Name	Start	Finish	2011				2012				2013				2014				2015	
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
DATA GAPS & RISK ASSESSMENT	3/14/11	3/31/13																		
Prepare Draft Data Gaps Work Plan	3/14/11	4/29/11																		
<i>Submit Draft Data Gaps Work Plan</i>	<i>4/29/11</i>	<i>4/29/11</i>																		
Regulatory Review	4/29/11	6/15/11																		
Receive Regulator Comments	6/16/11	6/16/11																		
Comment Resolution	6/16/11	2/17/12																		
RIDEM Formal Dispute (2)	10/5/11	1/12/12																		
Prepare Revised Data Gaps Work Plan	2/17/12	4/2/12																		
<i>Submit Revised Data Gaps Work Plan</i>	<i>4/2/12</i>	<i>4/2/12</i>																		
Concurrence/Comment Resolution	4/2/12	5/18/12																		
Prepare Final Data Gaps Work Plan	5/18/12	6/2/12																		
<i>Submit Final Data Gaps Work Plan</i>	<i>6/2/12</i>	<i>6/2/12</i>																		
Conduct Field Work	6/2/12	7/3/12																		
Analysis	7/3/12	8/2/12																		
Prepare Draft RI Report	8/2/12	10/3/12																		
<i>Submit Draft RI Report - FFA Date</i>	<i>10/3/12</i>	<i>10/3/12</i>																		
Regulatory Review	10/3/12	11/15/12																		
Receive Regulator Comments	11/16/12	11/16/12																		
Comment Resolution	11/16/12	12/31/12																		

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute impacted progress though site was not named in dispute documents.

**NAVAL STATION NEWPORT
TANK FARM 3
(SITE 11)
PROJECT SCHEDULE (1)**

Task Name	Start	Finish	2011				2012				2013				2014				2015			
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2		
Prepare Draft Final RI Report	12/31/12	1/30/13									█	1/30/13										
<i>Submit Draft Final RI Report</i>	<i>1/30/13</i>	<i>1/30/13</i>									◆	1/30/13										
Concurrence/Comment Resolution	1/30/13	3/1/13									█	3/1/13										
Prepare Final RI Report	3/1/13	3/31/13									█	3/31/13										
<i>Submit Final RI Report</i>	<i>3/31/13</i>	<i>3/31/13</i>									◆	3/31/13										
ENGINEERING EVALUATION/COST ANALYSIS (EECA)	3/31/13	11/11/13									█	11/11/13										
Prepare Draft EECA	3/31/13	5/30/13									█	5/30/13										
<i>Submit Draft EECA - FFA Date</i>	<i>5/30/13</i>	<i>5/30/13</i>									◆	5/30/13										
Regulatory Review	5/30/13	7/13/13									█	7/13/13										
<i>Receive Regulator Comments</i>	<i>7/14/13</i>	<i>7/14/13</i>									○	7/14/13										
Comment Resolution	7/14/13	8/13/13									█	8/13/13										
Prepare Draft Final EECA	8/13/13	9/12/13									█	9/12/13										
<i>Submit Draft Final EECA</i>	<i>9/12/13</i>	<i>9/12/13</i>									◆	9/12/13										
Concurrence/Comment Resolution	9/12/13	10/12/13									█	10/12/13										
Prepare Final EECA	10/12/13	11/11/13									█	11/11/13										
<i>Submit Final EECA</i>	<i>11/11/13</i>	<i>11/11/13</i>									◆	11/11/13										
NON-TIME CRITICAL REMOVAL ACTION (NTCRA)	11/11/13	8/8/14									█	8/8/14										
Prepare Draft Action Memo	11/11/13	12/11/13									█	12/11/13										
<i>Submit Draft Action Memo - FFA Date</i>	<i>12/11/13</i>	<i>12/11/13</i>									◆	12/11/13										

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute impacted progress though site was not named in dispute documents.

NAVAL STATION NEWPORT TANK FARM 4 (SITE 12) PROJECT SCHEDULE (1)

Task Name	Start	Finish	09				2010				2011				2012				2013				2014				2015			
			Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
REMEDIAL INVESTIGATION (RI)	9/30/09	4/26/12																												
Prepare Draft Final RI Work Plan	9/30/09	11/30/09																												
<i>Submit Draft Final RI Work Plan</i>	<i>11/30/09</i>	<i>11/30/09</i>																												
Concurrence/Comment Resolution	11/30/09	12/30/09																												
Prepare Final RI Work Plan	12/30/09	1/29/10																												
<i>Submit Final RI Work Plan</i>	<i>1/29/10</i>	<i>1/29/10</i>																												
Field Work & Analysis	1/29/10	9/26/10																												
Prepare Draft RI Report (Data Gap Report)	9/26/10	1/27/11																												
<i>Submit Draft RI Report - FFA Date</i>	<i>1/27/11</i>	<i>1/27/11</i>																												
Regulatory Review	1/27/11	3/14/11																												
Receive Regulator Comments	3/15/11	3/15/11																												
Comment Resolution	3/15/11	6/10/11																												
Prepare Draft Final RI Report	6/10/11	7/15/11																												
<i>Submit Draft Final RI Report</i>	<i>7/15/11</i>	<i>7/15/11</i>																												
Concurrence/Comment Resolution	7/15/11	3/28/12																												
RIDEM Formal Dispute (2)	10/5/11	1/12/12																												
Prepare Final RI Report	3/28/12	4/26/12																												
<i>Submit Final RI Report</i>	<i>4/26/12</i>	<i>4/26/12</i>																												

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute documents identified Site 12.

NAVAL STATION NEWPORT TANK FARM 5 (SITE 13) PROJECT SCHEDULE (1)

Task Name	Start	Finish	09		2010				2011				2012				2013				2014			
			Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2		
<i>Submit Final RI Report</i>	<i>4/26/12</i>	<i>4/26/12</i>												◆ 4/26/12										
FEASIBILITY STUDY (FS)	7/25/11	8/17/12																						
Prepare Draft FS	7/25/11	10/6/11																						
<i>Submit Draft FS - FFA Date</i>	<i>10/6/11</i>	<i>10/6/11</i>																						
Regulatory Review	10/6/11	12/21/11																						
<i>Receive Regulator Comments</i>	<i>12/22/11</i>	<i>12/22/11</i>																						
Comment Resolution	12/22/11	3/5/12																						
Prepare Draft Final FS Report	3/5/12	4/19/12																						
<i>Submit Draft Final FS Report</i>	<i>4/19/12</i>	<i>4/19/12</i>																						
Concurrence/Comment Resolution	4/19/12	5/19/12																						
Prepare Final FS Report	5/19/12	8/17/12																						
<i>Submit Final FS Report</i>	<i>8/17/12</i>	<i>8/17/12</i>																						
PROPOSED REMEDIAL ACTION PLAN (PRAP)	8/17/12	5/13/13																						
Prepare Draft PRAP	8/17/12	10/1/12																						
<i>Submit Draft PRAP - FFA Date</i>	<i>10/1/12</i>	<i>10/1/12</i>																						
Regulatory Review	10/1/12	11/14/12																						
<i>Receive Regulator Comments</i>	<i>11/15/12</i>	<i>11/15/12</i>																						

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute document identified Site 13.

NAVAL STATION NEWPORT GOULD ISLAND (SITE 17) PROJECT SCHEDULE (1)

Task Name	Start	Finish	09				2010				2011				2012				2013				2014				2015			
			Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4		
PHASE 2 REMEDIAL INVESTIGATION (RI)	8/11/09	5/1/12																												
Prepare Draft Final RI Work Plan	8/11/09	9/25/09																												
<i>Submit Draft Final RI Work Plan</i>	<i>9/25/09</i>	<i>9/25/09</i>																												
Concurrence/Comments Resolution	9/25/09	10/25/09																												
Prepare Final RI Work Plan	10/25/09	11/24/09																												
<i>Submit Final RI Work Plan</i>	<i>11/24/09</i>	<i>11/24/09</i>																												
Field Work and Analysis	11/24/09	8/1/10																												
Prepare Draft P2 RI Report	8/1/10	12/28/10																												
<i>Submit Draft P2 RI Report - FFA Date</i>	<i>12/28/10</i>	<i>12/28/10</i>																												
Regulatory Review	12/28/10	2/13/11																												
Receive Regulator Comments	2/14/11	2/14/11																												
Comment Resolution	2/14/11	6/13/11																												
Prepare Draft Final P2 RI Report	6/13/11	6/30/11																												
<i>Submit Draft Final P2 RI Report</i>	<i>6/30/11</i>	<i>6/30/11</i>																												
Concurrence/Comments Resolution	6/30/11	4/1/12																												
RIDEM Formal Dispute (2)	10/5/11	1/12/12																												
Prepare Final P2 RI Report	4/1/12	5/1/12																												

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute impacted progress although site was not identified in dispute document.

**NAVAL STATION NEWPORT
DEREKTOR - OFFSHORE OU5
(SITE 19)
PROJECT SCHEDULE (1)**

Task Name	Start	Finish	2011				2012				2013				2014				2015			
			Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
SUPPLEMENTAL INVESTIGATION	10/28/10	10/1/12																				
DQO Meeting	10/28/10	10/29/10																				
Prepare Streamlined SAP	10/29/10	5/31/11																				
<i>Submit Draft SAP</i>	<i>5/31/11</i>	<i>5/31/11</i>																				
Regulatory Review	5/31/11	7/15/11																				
Receive Regulator Comments	7/16/11	7/16/11																				
Comment Resolution	7/16/11	8/30/11																				
Prepare Final SAP	8/30/11	9/29/11																				
<i>Submit Final SAP</i>	<i>9/29/11</i>	<i>9/29/11</i>																				
Conduct Field Work	9/1/11	10/16/11																				
Analysis	10/16/11	12/4/11																				
Prepare Draft Report	12/4/11	4/18/12																				
<i>Submit Draft Report</i>	<i>4/18/12</i>	<i>4/18/12</i>																				
Regulatory Review	4/18/12	6/1/12																				
Receive Regulator Comments	6/2/12	6/2/12																				
Comment Resolution	6/2/12	7/2/12																				
Prepare Draft Final Report	7/2/12	8/2/12																				
<i>Submit Draft Final Report</i>	<i>8/2/12</i>	<i>8/2/12</i>																				
Concurrence/Comment Resolution	8/2/12	9/1/12																				

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules.

**NAVAL STATION NEWPORT
DEREKTOR - ONSHORE OU5
(SITE 19)
PROJECT SCHEDULE (1)**

Task Name	Start	Finish	2009				2010				2011				2012				2013				2014							
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4				
STUDY AREA SCREENING EVALUATION (SASE) ADDENDUM	3/11/09	5/25/12	[Gantt bar from 3/11/09 to 5/25/12]																											
Prepare Draft and Final SASE Work Plan Addendum	3/11/09	2/7/11	[Gantt bar from 3/11/09 to 2/7/11]																											
<i>Submit Final SASE Work Plan Addendum</i>	<i>2/7/11</i>	<i>2/7/11</i>	[Milestone diamond at 2/7/11]																											
Conduct Field Work/Analysis/DV	2/15/11	5/27/11	[Gantt bar from 2/15/11 to 5/27/11]																											
Prepare Draft SASE Report Addendum	5/27/11	8/31/11	[Gantt bar from 5/27/11 to 8/31/11]																											
<i>Submit Draft SASE Report Addendum</i>	<i>8/31/11</i>	<i>8/31/11</i>	[Milestone diamond at 8/31/11]																											
Regulatory Review	8/31/11	10/17/11	[Gantt bar from 8/31/11 to 10/17/11]																											
<i>Receive Regulator Comments</i>	<i>10/18/11</i>	<i>10/18/11</i>	[Milestone diamond at 10/18/11]																											
Comment Resolution	10/18/11	2/9/12	[Gantt bar from 10/18/11 to 2/9/12]																											
RIDEM Formal Dispute	10/5/11	1/12/12	[Gantt bar from 10/5/11 to 1/12/12]																											
Prepare Draft Final SASE Report Addendum	2/9/12	3/26/12	[Gantt bar from 2/9/12 to 3/26/12]																											
<i>Submit Draft Final SASE Report Addendum</i>	<i>3/26/12</i>	<i>3/26/12</i>	[Milestone diamond at 3/26/12]																											
Concurrence/Comment Resolution	3/26/12	4/25/12	[Gantt bar from 3/26/12 to 4/25/12]																											
Prepare Final SASE Report Addendum	4/25/12	5/25/12	[Gantt bar from 4/25/12 to 5/25/12]																											
<i>Submit Final SASE Report Addendum</i>	<i>5/25/12</i>	<i>5/25/12</i>	[Milestone diamond at 5/25/12]																											
FEASIBILITY STUDY (FS)	5/26/12	3/7/13	[Gantt bar from 5/26/12 to 3/7/13]																											
Prepare Draft FS Report	5/26/12	8/24/12	[Gantt bar from 5/26/12 to 8/24/12]																											
<i>Submit Draft FS Report</i>	<i>8/24/12</i>	<i>8/24/12</i>	[Milestone diamond at 8/24/12]																											

(1) Schedule of activities and deliverables are presented for planning purposes only and are not intended for use as enforceable schedules. (2) Dispute impacted progress though site was not named in dispute documents.

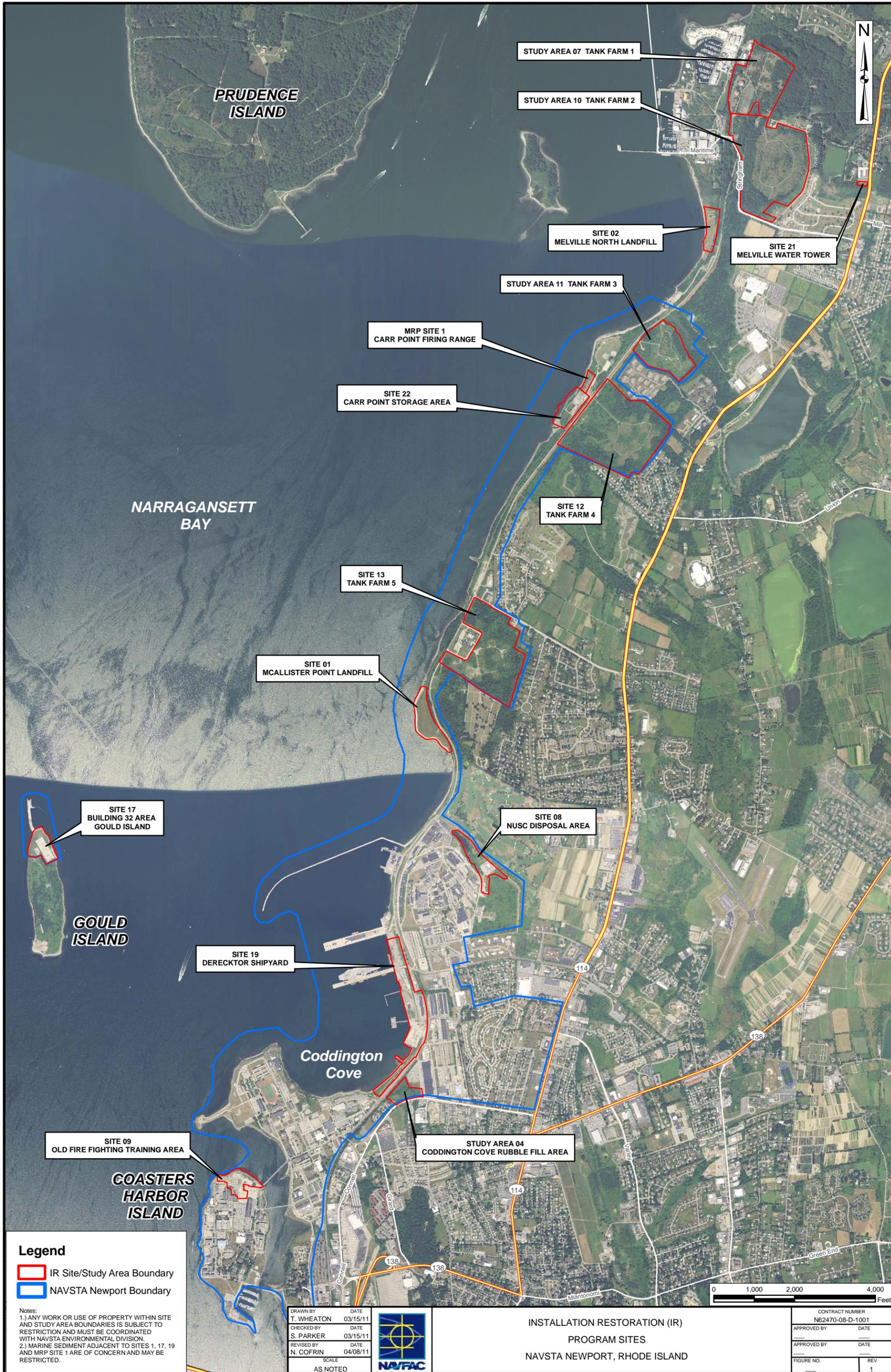
NAVAL STATION NEWPORT CARR POINT STORAGE AREA (SITE 22) PROJECT SCHEDULE (1)

Task Name	Start	Finish	09				2010				2011				2012				2013				2014				2015				2016				2017			
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4				
STUDY AREA SCREENING EVALUATION (SASE) REPORT	7/11/09	5/10/10	[Gantt bar from 7/11/09 to 5/10/10]																																			
Prepare Draft SASE Report	7/11/09	10/9/09	[Task bar from 7/11/09 to 10/9/09]																																			
<i>Submit Draft SASE Report</i>	<i>10/9/09</i>	<i>10/9/09</i>	[Milestone diamond at 10/9/09]																																			
Regulatory Review	10/9/09	11/22/09	[Task bar from 10/9/09 to 11/22/09]																																			
Receive Regulator Comments	11/23/09	11/23/09	[Milestone diamond at 11/23/09]																																			
Comment Resolution	11/23/09	1/7/10	[Task bar from 11/23/09 to 1/7/10]																																			
Prepare Draft Final SASE Report	1/7/10	3/11/10	[Task bar from 1/7/10 to 3/11/10]																																			
<i>Submit Draft Final SASE Report</i>	<i>3/11/10</i>	<i>3/11/10</i>	[Milestone diamond at 3/11/10]																																			
Concurrence/Comment Resolution	3/11/10	4/10/10	[Task bar from 3/11/10 to 4/10/10]																																			
Prepare Final SASE Report	4/10/10	5/10/10	[Task bar from 4/10/10 to 5/10/10]																																			
<i>Submit Final SASE Report</i>	<i>5/10/10</i>	<i>5/10/10</i>	[Milestone diamond at 5/10/10]																																			
REMEDIAL INVESTIGATION (RI) REPORT	3/1/12	1/21/14	[Gantt bar from 3/1/12 to 1/21/14]																																			
Prepare Draft RI Work Plan	3/1/12	6/30/12	[Task bar from 3/1/12 to 6/30/12]																																			
<i>Submit Draft RI Work Plan</i>	<i>6/30/12</i>	<i>6/30/12</i>	[Milestone diamond at 6/30/12]																																			
Regulatory Review	6/30/12	8/13/12	[Task bar from 6/30/12 to 8/13/12]																																			
Receive Regulator Comments	8/14/12	8/14/12	[Milestone diamond at 8/14/12]																																			
Comment Resolution	8/14/12	9/28/12	[Task bar from 8/14/12 to 9/28/12]																																			
Prepare Draft Final RI Work Plan	9/28/12	11/12/12	[Task bar from 9/28/12 to 11/12/12]																																			
<i>Submit Draft Final RI Work Plan</i>	<i>11/12/12</i>	<i>11/12/12</i>	[Milestone diamond at 11/12/12]																																			

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APPENDIX D

MAP OF INSTALLATION RESTORATION (IR) PROGRAM SITES



Legend

- IR Site/Study Area Boundary
- NAVSTA Newport Boundary

Notes:
 1.) ANY WORK OR USE OF PROPERTY WITHIN SITE AND STUDY AREA BOUNDARIES IS SUBJECT TO RESTRICTION AND MUST BE COORDINATED WITH NAVSTA ENVIRONMENTAL DIVISION.
 2.) MARINE SEDIMENT ADJACENT TO SITES 1, 17, 19 AND MRP SITE 1 ARE OF CONCERN AND MAY BE RESTRICTED.

DRAWN BY	DATE
T. WHEATON	03/15/11
CHECKED BY	DATE
S. PARKER	03/15/11
REVISED BY	DATE
N. COFRIN	04/08/11
SCALE	
AS NOTED	



INSTALLATION RESTORATION (IR)
 PROGRAM SITES
 NAVSTA NEWPORT, RHODE ISLAND

CONTRACT NUMBER	
N62470-08-D-1001	
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO.	REV
	1