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FINAL FEDERAL FACILITIES AGREEMENT SITE MANAGEMENT PLAN 2013 NAS
PENSACOLA FL
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NAVFAC SOUTHEAST

**FINAL
FEDERAL FACILITIES AGREEMENT
SITE MANAGEMENT PLAN**

CALENDAR YEAR 2013

**NAVAL AIR STATION PENSACOLA
PENSACOLA, FLORIDA**

**Submitted By:
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ACRONYMS AND ABBREVIATIONS

AST	Aboveground Storage Tank
AVGAS	Aviation Gasoline
CTT	Closed, transferred or transferring
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Community Involvement Plan
COPC	Chemical of Potential Concern
CVOC	Chlorinated Volatile Organic Compound
CY	Calendar Year
DERP	Defense Environmental Restoration Program
DDT	Dichlorodiphenyltrichloroethane
DFM	Distillate Diesel Fuel Marine
EP Toxic	Extraction Procedure Toxicity
ESD	Explanation of Significant Differences
ESI	Extended Site Inspection
FDER	Florida Department of Environmental Regulation
FDEP	Florida Department of Environmental Protection
FFA	Federal Facilities Agreement
FOTW	Federally Owned Treatment Works
FS	Feasibility Study
GCTL	Groundwater Cleanup Target Level
HSWA	Hazardous and Solid Waste Amendments
HW	Hazardous Waste
IAS	Initial Assessment Study
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plan
JP	Jet Fuel
LTM	Long Term Monitoring
LUC	Land Use Controls
MC	Munitions Constituents
MCL	Maximum Contaminant Level
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
mR/hr	millirem per hour
MWR	Morale, Welfare, and Recreation

ACRONYMS AND ABBREVIATIONS (CONTINUED)

NACIP	Navy Assessment and Control of Installation Pollutants
NARF	Naval Air Rework Facility
NAS	Naval Air Station
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEESA	Naval Energy and Environmental Support Activity
NEPA	National Environmental Policy Act
NFA	No Further Action
OU	Operable Unit
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
POL	Petroleum, Oil and Lubricant
PSC	Potential Source of Contamination
PSCR	Preliminary Site Characterization Report
PWC	Public Works Center
RA	Remedial Action
RAB	Restoration Advisory Board
RC	Reference Concentration
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SMP	Site Management Plan
SVOC	Semivolatile Organic Compound
SWMU	Solid Waste Management Unit
TCE	Trichloroethene
Tetra Tech	Tetra Tech NUS, Inc.
UFP-SAP	Uniform Federal Policy Sampling and Analysis Plan
µg/L	micrograms per liter
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VS	Verification Study
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

This Site Management Plan (SMP) provides a summary of response actions and associated documentation to be undertaken at the Naval Air Station (NAS) Pensacola according to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, as implemented by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and to the extent practicable the National Environmental Policy Act (NEPA) of 1969.

The requirement for this SMP is identified in the Federal Facilities Agreement (FFA) that was signed by the United States Environmental Protection Agency (USEPA), the state of Florida, Department of Environmental Regulation (FDER), now Florida Department of Environmental Protection (FDEP), and the Department of the Navy. The FFA is based on the requirement for an interagency agreement that is identified in Section 120 (e)(2) of the SARA.

The FFA was signed on October 23, 1990, and has a declared effective date of November 1, 1990. Therefore, the SMP for Calendar Year (CY) 2013 is the 23rd annual update.

1.1 OVERVIEW OF SITE MANAGEMENT PLAN

The intent of the plan is to provide: (1) actions deemed necessary to mitigate any immediate threat to human health or the environment from the release or threatened release of CERCLA hazardous substances, pollutants or contaminants; (2) a list of Operable Units (OUs) subject to the terms of the FFA, (3) a prioritization and rationale for the OUs at NAS Pensacola; (4) activities and schedules for work planned for the current calendar year, including the schedule of submittal of primary documents; and (5) work projections of subsequent calendar years.

1.2 INSTALLATION RESTORATION PROGRAM

Brief descriptions, with a current regulatory status, of the sites and Potential Sources of Contamination (PSCs) identified under the FFA are presented in Section 2 of this document. The status of these sites will be coordinated, updated, and submitted during the NAS Pensacola Partnering Team meetings, which occur quarterly.

1.3 MILITARY MUNITIONS RESPONSE PROGRAM

The Department of Defense has established the Military Munitions Response Program (MMRP) as a sister program to the IRP under the Defense Environmental Restoration Program (DERP) to specifically address munitions and explosives of concern (MEC; including unexploded ordinance and discarded military munitions) and munitions constituents (MC) at other than operational military ranges and other

sites. Closed, transferred or transferring (CTT) military ranges and sites not located on an operational range are considered “other than operational”. As part of the Navy’s nationwide assessment of “other than operational” ranges at active installations, a Preliminary Assessment (PA) was completed at NAS Pensacola in 2007. The PA identified 10 “other than operational” ranges at NAS Pensacola, however three of the ranges including: the Chevalier Field Machine Gun Range, the Chevalier Field Pistol Range, and the National Cemetery Gunnery Range Area North were deemed not to require further action and were not carried forward to the Site Inspection (SI) stage. The individual ranges are listed and described on Table 1 in Section 2. In 2010, the Navy initiated SI at 7 sites and the final SI Reports were submitted in September 2010.

1.4 STATUS OF OPERATIONAL RANGE(S)

Although operational military ranges are not subject to established DERP program requirements stemming from the need for DOD to comply with CERCLA and the NCP, at the request of EPA the following information is provided with regard to the status of the operational range(s) at NAS Pensacola:

The only operational range within the Pensacola Naval Complex is the pistol range at Sherman Field. The range construction was completed in 1953 and the range has been used continuously since then. The range is not certified for rifles with the exception of shotguns, which are used periodically. The range is utilized to certify military personnel in the use of pistols which are fired into targets placed in front of a large berm. The range is operated under “Best Management Procedures” including a “de-leading” operation where the backstop berm soils were removed, screened for lead (for proper disposal) and returned to the berm. There are no plans by the facility to close the range and there is no reason to believe any off-range release of hazardous substances has occurred in connection with the historical operation of this facility.

1.5 PETROELUM PROGRAM

Because petroleum releases are excluded from coverage under CERCLA, the NAS Pensacola FFA does not extend to such releases on the facility. However to assist the NAS Pensacola Partnering Team with taking a holistic approach to tracking cleanup sites at the facility regardless of regulatory program, previous SMPs included a schedule for sites under the facility’s petroleum program as well. Because last year the Navy and FDEP worked cooperatively to restructure a separate SMP for annual reporting of petroleum corrective action activities at the facility under the auspices of a 1990 Florida Petroleum Contamination Agreement, that information will not be provided in this document.

2.0 OVERALL MANAGEMENT APPROACH

As stated in the FFA and for the benefit of the parties involved in the revision and execution of the environmental activities in NAS Pensacola, specific program priorities and a brief history of the development of the sites is presented in this section.

2.1 PRIORITIES

Currently no actions are deemed necessary to mitigate any immediate threat to human health or the environment at NAS Pensacola.

2.2 BACKGROUND

The Navy developed the Navy Assessment and Control of Installation Pollutants (NACIP) Program to identify and control environmental contamination from past use and disposal of hazardous substances at Navy and Marine Corps Installations. The NACIP Program is now part of the Navy's Installation Restoration Program (IRP), and is similar to the USEPA "Superfund" Program authorized by the CERCLA of 1980. The three major investigation activities performed at NAS Pensacola under the IRP or Superfund Programs are the following: (1) Initial Assessment Study (IAS) or PA, (2) Verification Study (VS) or SI, (3) and the Confirmation Study or Extended Site Inspection (ESI). The IAS (1982-1983) was conducted by the Naval Energy and Environmental Support Activity (NEESA) and identified and assessed 29 PSCs at NAS Pensacola which could pose a potential threat to human health or the environment as a result of contamination from past naval operations. The VS (1984) and the CS (1985-1986) were conducted by Geraghty & Miller, Inc. to confirm or deny the presence of contamination at the PSCs identified in the IAS, as well as possibly locate additional PSCs. If contamination was detected, the magnitude and the extent of contamination would have been evaluated to allow for the recommendation of future remedial response action at these PSCs.

In addition to the Navy's IRP/CERCLA program, NAS Pensacola has other active regulatory programs. A Florida Resource Conservation and Recovery Act (RCRA) permit was issued to NAS Pensacola by the FDER (now known as FDEP). Concurrently, a RCRA Hazardous and Solid Waste Amendments (HSWA) permit was issued to the installation by USEPA in July 1988. A RCRA Facility Assessment was included in the USEPA issued permit, and additional PSCs were located. Currently the facility is operating under a Post Closure Permit (permit number 0154498-005-HF) completed on September 12, 2008. The permit will expire on September 20, 2016. An Underground Storage Tank (UST) program is currently investigating multiple tank sites as provided by the Chapter 62-770 Florida Administrative Code.

A total of 46 PSCs have been identified at NAS Pensacola. Of the 46PSCs, 26 PSCs have been classified as requiring Remedial Investigation and Feasibility Study (RI/FS) status and 19 PSCs have been classified as requiring screening status in accordance with the FFA. PSC 30 was combined with PSC 31 and eventually grouped into OU 2. Twenty-two PSCs (all classified as RI/FS status) including PSCs 1, 2, 8, 9, 11, 12, 15, 17, 24, 25, 26, 27, 29, 30, 32, 33, 35, 38, 39, 40, 42, and 43, have had Records of Decisions (RODs) submitted.

Of the 19 screening PSCs, 7 PSCs have been transferred to the UST program including PSCs 3, 19, 20, 21, 22, 23, and 37, and 3 PSCs have been transferred to the RCRA Program including PSCs 32, 33, and 35. Ten PSCs including PSC 4, 5, 7, 10, 13, 14, 16, 18, 28, and 36 received no action status following the Site Characterization phase. Screening PSC 6 was removed from the screening process because it is an active construction debris landfill exempt from solid waste landfill regulations (correspondence dated July 30, 1997). PSC 34 received no action following completion and approval of a decision document in 2010 (Correspondence dated February 9, 2001). PSC 41, Combined Wetlands was elevated to RI/FS status and the NAS Pensacola Tier I Partnering Team elevated PSC 44, 45, and 46 to RI/FS status during the August 2006 meeting because elevated levels of chemicals of potential concern (COPCs) were identified in the Site Characterization Report investigation. USEPA has assigned OU numbers to these sites (OU 19, 20, and 21, respectively). Table 1 provides a brief site description and contaminant source history for each of the PSCs. Table 2 identifies all PSCs and OU groupings and provides the regulatory status and last decision document completed.

For PSCs currently listed as RI sites, if upon review of the RI report, the Navy, USEPA and FDEP agree that no remedial action is needed, then a draft Proposed Plan (PP) will be submitted in place of the FS. The Navy, USEPA and FDEP should make this decision as early in the process as possible and revise the appropriate enforceable schedules. During the investigation, if a removal action is deemed necessary or desirable, the Navy will provide a schedule indicating impacts to the current enforceable schedule for the consideration by the NAS Pensacola Tier I Partnering Team.

Specific changes have been made to facilitate the investigation at OUs 2 and 3. The RI/FS PSCs including 11, 26, 27, and 30 have been combined into OU 2 due to their geographic proximity and common potential remediation. (Note: PSC 27 was originally OU 7 and PSC 30 was originally OU 5.) The Screening PSCs including PSCs 12 and 25 are associated with OU 2. It should be noted that PSC 25 was originally associated with OU 7. The original OU 9 – PSC 31 (Soil North of Building 648) has been combined with PSC 30 (Building 649 and 755) within OU 2 due to the proximity and similar contaminants. PSC 27 (Radium Dial Shop Sewer) and Screening PSC 25 (Radium Spill Site) have been moved and combined so they can be reported together with OU 2. This combination was necessary to allow study of contaminant migration across site boundaries.

Additional changes were agreed upon at the August, 22 1996, NAS Pensacola Tier I Partnering Team meeting. Due to the proximity of PSCs 8, 22, and 24 and the detected levels of contamination at PSCs 8 and 24, these sites were grouped into OU 13. Therefore, Screening PSC 24 (DDT Mixing Area) has been elevated to RI/FS status, and grouped into OU 13 based on geographic location. Screening PSC 8 (Rifle Range Disposal) has been elevated to RI/FS status and grouped into OU 13 based on geographic location. RI/FS PSC 22 has been transferred to the UST Program.

Seven PSCs (including: PSCs 3, 19, 20, 21, 22, 23, and 37) will not proceed in the IRP process. These PSCs were transferred to the Petroleum Program and the proposed schedule of deliverables is included in Florida Petroleum Contamination Agreement Annual Site Management Plan Amendment. The FDEP has a regulated process for the assessment and remediation of petroleum related constituent contaminated sites.

As agreed upon in the March 1999 NAS Pensacola Tier 1 Partnering Meeting in Tallahassee, Florida, the Navy, in a letter dated March 6, 2002, requested groundwater be handled under RCRA Authority at OU 10. The selected remedy for OU 10 was soil excavation, with deferral of groundwater treatment to the RCRA program. Soil excavation has been completed in accordance with the ROD and is documented in a Remedial Action Completion Report.

OU 10 met the criteria established in 62 CFR Part 62523 to defer the site to the RCRA program. The transfer to RCRA, as concurred by FDEP and USEPA, ensured that the remedy remains protective of human health and the environment, complies with federal and state requirements that were identified in the ROD as applicable or relevant and appropriate to this remedial action at the time the original ROD was signed.

The CERCLA RI/FS process is tailored to allow prioritization of PSCs according to potential threat to human health and the environment. The process initially focuses on source identification and delineation of contaminants identified in soil, sediment, groundwater, and surface water. Data is continually assessed and PSCs evaluated to determine if contamination is present, to what extent, and what further action is needed. Should a threat to human health and or the environment exist, the process is responsive to provide time critical removal of contaminants from a PSC. If an initial data evaluation indicates groundwater and/or surface water to be an immediate threat to human health or the environment, interim actions may be performed to mitigate further transport from the PSC. If groundwater or surface water contamination is not judged to be an immediate threat, delineation may be performed on a larger scale by viewing local aquifer and surface water systems as an individual OU(s), which may be impacted by several PSCs simultaneously.

Innovative ways are continually sought to reduce lengthy interim report development and review process. The innovative methods utilized by the NAS Pensacola Tier 1 Partnering Team include such as offering

data presentations and “on-board” document reviews to regulatory agencies allowing continual data assessment and rapid decision-making are good examples. “On board” reviews eliminate formal interim data submittals, thereby reducing the time required to make critical decisions at each PSC. Specifically, the data gaps and the information needed to fill those gaps are identified by evaluating the data itself rather than by evaluating a formal data report. These data presentations to concerned agencies offer effective communication and a reduced schedule to reach a ROD. A formal report is prepared once the nature and extent of contamination has been adequately delineated for the purposes of performing a Baseline Risk Assessment and selecting a Remedial Action. Decisions concerning data assessment and actions to be taken are made during NAS Pensacola Tier I Partnering meetings. These Tier I Partnering meetings provide a forum for discussion of investigative results and proposed actions.

As agreed upon in the FFA, the Navy shall update the SMP yearly. This SMP provides event management planning. Included in this SMP is a description of NAS Pensacola's PSC program arrangement into remedial activity categories and OUs. Updates will reflect changes in project priorities, changes in scheduling, and the addition or deletion of PSCs due to the site condition or program accomplishments with the continued regulatory agency and the Restoration Advisory Board (RAB).

Upcoming deliverables are listed in Appendix A. Additionally, the next five year review is scheduled for August 22, 2013, and the next Community Involvement Plan (CIP) update is planned for 2014.

2.3 RATIONALE FOR OPERABLE UNIT GROUPING

To initially facilitate implementation of the NAS Pensacola RI/FS program, the 25 PSCs requiring RI/FS were clustered into 17 OUs. Additional OUs and sites have been included through the years. The current list of OUs is as follows.

OU 1 = PSC 1	OU 11 = PSC 38	OU 17 = PSC 42
OU 2 = PSC 11, 12, 25, 26, 27 & 30	OU 12 = PSC 39	OU 18 = PSC 43
OU 3 = PSC 2	OU 13 = PSC 8 & 24	OU 19 = PSC 44
OU 4 = PSC 15	OU 14 = PSC 17	OU 20 = PSC 45
OU 6 = PSC 9 & 29	OU 15 = PSC 40	OU 21 = PSC 46
OU 10 = PSC 32, 33 & 35 (RCRA Program)	OU 16 = PSC 41	

The scheduled work at these OUs is being prioritized based on relative potential threat, schedule optimization, and task management. The criterion used to generate the RI/FS OUs was as follows.

- Geographic proximity of PSCs
- Similar contamination types
- Similar aquifer contamination zones
- Similar potential investigation methods
- Potential scope and complexity of the investigation
- Mission impact of remedial activities
- Regulatory concerns
- Similarity of potential remedial actions
- Potential for human exposure/contact
- Suspected mobility of potential contaminants
- Potential for off-site migration and exposure
- Relative threat to groundwater (e.g., suspected date, volume of release)

These OUs may be re-defined as more data is collected and evaluated. Ultimately, an OU will consist of PSCs and matrices which require similar remedial efforts, or potential for human exposure/contact, or for earlier remediation.

A description of the individual OUs, OU concerns, and status is provided in Table 1.

2.4 ACTIVE OPERABLE UNIT STATUS

Currently at NAS Pensacola there are 11 active OUs and one PSC with investigation or remedial efforts ongoing. The active OUs include: OU 1, OU 2, OU 4, OU 10, OU 11, OU 13, OU 16, OU 18, OU 19, OU 20, and OU 21. A description of the activities at each of the active OUs is provided below.

OU 1 (Site 1 Former Sanitary Landfill)

The OU 1 ROD was completed on September 25, 1998. Ongoing activities at the site include biannual sampling of groundwater and surface water. Based on an Optimization Study completed in 2007, operation of the groundwater interceptor trench was decommissioned in May 2010; because historic data had indicated that the system was not effective in reducing iron concentrations in the wetland. A ROD Addendum is currently being prepared to address this change in remedy.

OU 2 (Sites 11, 12, 25, 26, 27 & 30)

The OU 2 ROD was completed on September 29, 2008. Ongoing activities at the site include remedy implementation including excavation or cover of soils with COCs that exceed chemical and radiological cleanup levels, quarterly groundwater sampling for Monitored Natural Attenuation, and completion of a Groundwater to Surface Water Interface investigation. In addition a ROD Addendum is currently in preparation to address the addition of potential COCs to the ROD.

OU 4 (Site 15 Pesticide Rinsate Disposal Area)

The OU 4 ROD was completed on September 27, 2000. Ongoing activities at the site include semi-annual sampling of groundwater. The primary COC for OU 4 is arsenic. Because the regulatory standard for arsenic in groundwater has changed since the ROD was signed, the Navy agrees to examine and discuss with the NAS Pensacola Partnering Team the implications, if any, of that change on continued remedy protectiveness at this site.

OU 10 (Sites 32, 33, and 35)

The OU 10 ROD was completed on September 15, 1997. This site was transferred to the RCRA program. Activities at the site include an ongoing groundwater monitoring program.

OU 11 (Site 38 Facility Hazardous Waste Storage)

The OU 11 ROD was completed on October 5, 2006. The Navy has submitted a Draft Remedial Design and a groundwater monitoring plan for regulatory approval and the activities at the site include semi-annual sampling of groundwater.

OU 13 (Sites 8 and 24)

The OU 13 ROD was completed on October 5, 2008. Ongoing activities at the site include annual sampling of groundwater.

OU 16 (Site 41, Combined Wetlands)

The OU 16, Site 41 draft Feasibility Study was submitted to the regulatory agencies in CY2010. However subsequent analysis by the NAS Pensacola Partnering Team indicated the need for better characterization of the vertical and horizontal spatial extent of contaminants and the refined risks in sediment at nine of the wetlands at the facility. The wetlands requiring the additional work include: wetlands 1B, 4D, 5A, 12, 15, 18A, 18B, 48, and the 64 complex. The Navy agreed to complete a RI addendum specific to these wetlands and initiated a UFP SAP for the investigation. The draft UFP SAP was submitted to the regulatory agencies on September 29, 2012.

OU 18 (Site 43 Demolition Debris Disposal Area)

The OU 18 ROD was completed on April 12, 2010. Remedial activities are ongoing at the site and include excavation of soils with COCs that exceed cleanup levels and quarterly groundwater sampling.

OU 19 (Site 44, Former UST site 3221)

OU 19, Site 44 was formerly in Informal Dispute due to concerns over the Monitored Natural Attenuation (MNA) remedy for groundwater that was selected in the draft final Proposed Plan. The Informal Dispute was resolved on September 14, 2012 with the approval of the OU 19, site 44 Feasibility Study Addendum Work Plan (UFP SAP). Additional groundwater data collection has been initiated and will be included in the Feasibility Study Addendum to be completed in calendar year 2013.

OU 20 (Site 45, Building 603 Lead site)

OU 20, Site 45 is currently in the Proposed Plan stage and the draft Proposed Plan was submitted to the regulatory agencies in calendar year 2010 and resubmitted in calendar year 2011. As requested by USEPA additional groundwater data collection is planned and will be completed to verify a potential groundwater MNA remedy.

OU 21 (Site 46, Former Building 72)

OU 21, Site 46 is currently in the Proposed Plan stage and the draft Proposed Plan was submitted to the regulatory agencies in calendar year 2011. As requested by USEPA additional groundwater data collection is planned and will be completed to verify a potential groundwater MNA remedy.

2.4.1 Additional Significant Items

As indicated above, the promulgated MCL for arsenic in groundwater has been reduced. Based on a request from USEPA, the Navy agreed to work towards developing an acceptable strategy for how the NAS Pensacola Partnering Team will assess, as needed, the continued protectiveness of sites at the facility where arsenic releases to groundwater have been previously identified.

In addition the USEPA has requested that interim Remedial Action Completion Reports (RACR) be completed for groundwater remedial construction activities for sites with ongoing groundwater monitoring activities including OU 1, OU 2, OU 4, OU 11 and OU 13. Given that the remedial construction activities are currently ongoing for OU 2 and OU 11, the interim RACR will be completed when groundwater monitoring construction activities are completed. For OU 1, OU 4 and OU 13 remedial construction activities were previously completed and an Interim RACR for groundwater was not completed. The Navy will initiate the RACR as funding becomes available.

TABLE 1
SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
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PENSACOLA, FLORIDA

PSC	Site Description	Waste Type	Regulatory Status
1	Sanitary Landfill (OU 1)	Solvents, polychlorinated biphenyl (PCB), Plating Solution, oil, paints, mercury, and asbestos	Long-Term Remedial Action (LTRA)
PSC 1, also referred to as Site 1 or OU 1, is an inactive sanitary landfill encompassing approximately 85 acres. The landfill surface varies from 8 to 20 feet above mean sea level and is densely vegetated with 15- to 40-foot tall planted pines and natural scrub vegetation. During the early 1950s and until the official closing October 1, 1976, a variety of domestic and industrial wastes generated from NAS Pensacola and other outlying Navy facilities were disposed at PSC 1.			
2	Waterfront Sediments (OU 3)	Solvents, cyanide, metals	No Action ROD (2005)
PSC 2 is along the southeastern shoreline of NAS Pensacola and Pensacola Bay. The site consists of near-shore sediments along the waterfront. From 1939 to 1973, untreated industrial wastes from Naval Aviation Depot and Naval Air Rework Facilities operations were routinely discharged into Pensacola Bay, near PSC 2. Over 34 years, an estimated 83 million gallons of the following materials were disposed of in the bay: waste-containing paint, paint solvents, thinners, ketones, trichloroethylene, alodine, mercury, and concentrated plating wastes (primarily chromium, cadmium, lead, nickel, and cyanide).			
3	Fire Fighting Training Area	Petroleum constituents	Transferred to Petroleum Program (UST Site 18)
PSC 3 (currently referred to as UST Site 18) occupies approximately 47.5 acres of open land along the southwestern border of Forrest Sherman Field. The site is bordered on the east by aircraft Runway 19, to the north by a paved taxiway, to the west by scattered brush and woods, and to the south by an open field. Between 1955 and 1997, the UST Site 18 area was used to train firefighters for aircraft crash responses, using available fuel as a combustion source. Historically, during training exercises, approximately 30 to 700 gallons of fuel were poured into unlined pits or onto various pieces of equipment and then ignited to simulate aircraft crashes. Firefighter training ceased at the PSC in May 1997.			
4	Army Rubble Disposal	Rubble, timber, pipes, other wastes	PSCR No further Action (NFA) (1997)
PSC 4 (Site 4) is an area of about 150 feet by 800 feet southeast of Forrest Sherman Field, just north of Building 3260. In the early 1950s, rubble from tearing down the old United States Army barracks at Fort Barrancas was disposed of at Site 4. The rubble included timber, pipes, mattresses, and other waste.			
5	Borrow Pit	No disposal is known to have occurred at this site	PSCR NFA (1995)
PSC 5 (Site 5), a long, shallow pit about 1 foot deep, is southeast of Forrest Sherman Field and east of Building 3221. Soil was removed ("borrowed") from the site in 1976 for use elsewhere on the facility.			
6	Fort Redoubt Rubble Disposal Area	Construction debris, yard wastes	NFA Correspondence (dated August 8, 1997)
From 1973 onward, PSC 6 (Site 6) has been used for rubble disposal. The site is adjacent to PSC 5 and has reportedly received rubble and demolition wastes from the removal of several buildings on base. The site is generally rectangular shaped measuring approximately 450 by 1,650 feet. The site visit conducted during the Initial Assessment indicated the presence of concrete, wood, metal and a few plastic items. Evidence of hazardous waste disposal was not found at the site.			
7	Firefighting School	Petroleum, oils and lubricants	PSCR NFA (2000) & Completion Report (1998)
The firefighting training school in Building 1713 has been in operation since 1940. Training that involved gasoline fires (and perhaps other flammable liquids) in open tanks of water reportedly occurred west of Building 1713. The presence of a clearing and firefighting tower east to southeast of Building 1713 suggests there was training conducted in those areas as well. There is no evidence of hazardous waste disposal or threat to human health or the environment. A PSC was conducted in 1996 to determine if contaminants were present in onsite soils and groundwater above the residential PRGs. Soil and groundwater samples were collected and analyzed for TCL and TAL parameters. Aluminum arsenic and iron exceeded soil PRGs and aluminum and iron exceeded secondary standards in groundwater. No organic constituents were detected above the PRGs in either soil or groundwater. The detected metals in groundwater were less than the NAS Pensacola reference concentration. A time critical soil excavation and offsite disposal remedial action was completed by the Navy in 1998 to remove the soil containing arsenic concentrations exceeding PRGs. The regulatory agencies approved NFA.			
8	Rifle Range Disposal Area	Solid waste, paper	Long-Term Remedial Action (LTRA)
PSC 8, also referred to as Site 8 or OU 13, is a rifle range disposal area and is located in the area now occupied by Building 3561, which houses the NAS Pensacola Public Works Center (PWC) Maintenance/Material Department. This building covers an area approximately 550 feet by 163 feet. Surrounding the building is an asphalt parking lot on the eastern, western, and northern sides of the building. Along the southern side of the building lies a small grassy area. This area was reportedly used for the disposal of solid waste (primarily paper) from NAS Pensacola between 1951 and 1955, and disposal was accomplished by burning and burial. PSC 8 is surrounded by chain-link fencing. The site is not part of the			

TABLE 1
SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS PENSACOLA
PENSACOLA, FLORIDA

Navy's MRP program. In 2004 and 2005 the Navy completed an Interim Removal Action for soils contaminated with cadmium and dieldrin. The ROD, completed in 2006, specified that the Site 8 soils did not pose a risk but groundwater concentrations exceeded Remedial goals and MNA and LUCs were the selected remedy.			
9	Navy Yard Disposal (OU 6)	Trash and refuse	NFA ROD (1999)
This area was used for the disposal of trash and refuse during the period between 1917 and the early 1930s. It is reported that the PSC is shown on several old maps as the Navy Yard Dump or the Warrington Village Dump (NEESA, 1983). In the late 1960s, while trenching for the IWTP system, part of PSC 9 was excavated. Glass, scrap metal, and debris were unearthed. No unusual odor was reported associated with the PSC.			
10	Commodores Pond	Underwater storage of oak timbers	PSCR NFA (2000)
During the mid-nineteenth century, screening PSC 10 was the location of a small surface water body used for the underwater storage of shaped oak timbers. This underwater storage method preserved the wood prior to its use for shipbuilding. The original pond's, no longer in existence, exact dimensions are unknown. PSC debris was unearthed in the late 1960s during trenching operations for installations of the IWTP system. Abandoned oak timbers were exhumed and reburied on Magazine Point. It is reported no hazardous materials were encountered during this effort.			
11	North Chevalier Disposal Field (OU 2)	Industrial waste, oils, hazardous waste	ROD (2008)
The North Chevalier Field Disposal Area, PSC 11 (Site 11), is a former landfill where industrial and municipal wastes were disposed and burned from the late 1930s to the mid-1940s. The area occupies approximately 20 acres southwest of an extension of Bayou Grande called the Yacht Basin. Surface elevations on the site are approximately 5 feet above mean sea level and topography slopes gently eastward toward Bayou Grande. Two prefabricated buildings — Buildings 3627 and 3628 — are near the center of the site. Building 3445, at the site's southeastern corner, is used to store outdated office equipment. A fenced area north and south of Buildings 3445 is used for outside storage of boats, trucks, and heavy equipment. This PSC is a former landfill that received industrial waste and oils, including hazardous waste.			
12	Scrap Bins (OU 2)	Wet garbage material	ROD (2008)
Screening PSC 12 is located approximately 800 feet northwest of Chevalier Field and 600 feet west of PSC 11. Most of the site area is enclosed by a fence and covered with a large concrete pad where heavy equipment is currently kept. From the early 1930s to mid-1940s, garbage from NAS Pensacola was placed in scrap bins and stored in this area (industrial waste was sent to the North Chevalier Disposal Area). Approximately 16 cubic yards (2 truckloads) per day of wet garbage was stored before being hauled off and used as livestock feed.			
13	Magazine Point Rubble Disposal	Rubble, metal, concrete	PSCR NFA (1996)
PSC 13 is located East of Building 3644 south of but in the same general area as PSC 32 and 33, and was identified in 1971 during the construction and upgrading of the existing WWTP. Beginning in 1965 the area between the dredge spoils area and Magazine Point was used as a rubble disposal area. A visual inspection conducted during the IAS indicated the presence of brick, concrete, wood scrap metal and other inert building wastes.			
14	Dredge Spoil Fill	Dredge	PSCR NFA (1997)
PSC 14 is located south of Building 3450 and Building 3220 and has been used for placement of dredge materials removed from Pensacola Bay. These materials represent the sand, mud, and debris found at various depths within the Pensacola Bay dredged channels and basins.			
15	Pesticide Rinsate Disposal Area (OU 4)	Organic pesticide	Long-Term remedial Action (LTRA)
PSC 15 (Site 15, OU 4) is located in the northern portion of NAS Pensacola, and includes portions of the golf course, the golf course maintenance facilities, three concrete wash-down pads, two asphalt wash-down pads, a former pesticide/drum storage building, a removed UST, equipment storage buildings, and several in-use buildings. In the past, a sink located outside of Building 3586 and a floor drain in a concrete pad north of the building collected pesticide and herbicide residue waste and discharged them into a UST. The contents were periodically pumped out by a contracted agent before its removal in 1993. Reportedly, the UST was removed in 1993 and the contents of the tank were spread across the ground surface, approximately 200 feet north-northwest of Building 3447.			
16	Brush Disposal Area	Pruning and tree trimming refuse	PSCR NFA (1997)
PSC 16 (Site 16) is northeast of the east end of Forrest Sherman Field. From the late 1960s to 1973 the site was used for the disposal of brush pruned and trimmed at NAS Pensacola. The Army may have used part of the site to burn garbage and dispose of ash.			
17	Transformer Storage Yard (OU 14)	Dielectric oils, PCBs	NFA ROD (1998)
PSC 17 originated when transformers containing PCBs as well as PCB-free transformers were stored in a paved area west of East Avenue and north of Building 604. A black oily residue on			

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the pavement was found to contain high levels of PCBs as well as other chlorinated hydrocarbons.			
18	PCB Spill Area	Transformer oil, PCBs	PSCR NFA (1996) & Completion Report (1998)
In 1966, a transformer at Substation A (located south of North Avenue and west of Center Avenue) reportedly failed, spilling approximately 50 gallons of transformer oil containing an unknown concentration of PCBs on the small gravel-covered area along the northeast side of substation A. It is assumed in the Initial Assessment Study (IAS) that no immediate cleanup effort was conducted. A Preliminary Site Screening Investigation was completed in 1996 and a time critical soil excavation and offsite disposal remedial action was completed by the Navy in 1998 to remove the soil containing PCB concentrations exceeding residential PRGs. The regulatory agencies approved NFA.			
19	Fuel Farm Pipeline Leak	Petroleum products	Transferred to Petroleum Program (UST Site 20)
PSC 19 (Site 19) is located southwest of Forrest Sherman Field, approximately 1,300 ft. west of the southern portion of Aircraft Runway 36. The site consists of an above ground dual pipeline, which runs between the fuel farm and the tank truck loading facility at Forrest Sherman Field (Buildings 1879 and 1880). Parallel to the pipeline is an unimproved dirt road. The site is surrounded on all sides by scattered brush and woods, and the site terrain is generally flat. The only building located in the immediate vicinity of the site is the Naval Base Pistol Range, approximately 1,300 ft. north of the site. The underground/aboveground pipeline supplies fuel for aircraft at Forrest Sherman Field from the fuel farm located to the south. A leak from the aboveground portion of the pipeline was reported to have occurred in 1958, releasing JP-4 fuel to the surrounding environment. The amount of fuel initially discharged was not measured, but it was estimated that more than 360,000 gallons of JP-4 fuel was discharged at the site.			
20	Pier Pipeline Leak	Petroleum products	Transferred to Petroleum Program (UST Site 21)
PSC 20 (Site 20) is situated along the Pensacola Bay shoreline and consists of an approximately 30-foot wide concrete loading area immediately adjacent to the pier seawall, surrounded by a large asphalt parking lot. Previously, there was a 1,300,000-gallon AST (No. 354) with a concrete containment wall adjacent to and west of the pier. This AST was used to contain Navy Special Fuel Oil, Distillate Diesel Fuel Marine (DFM), and JP-5 Jet Fuel from 1926 until the mid-1980. Pipelines extended from the fuel oil AST, presumably north toward Building 2573 to the berthing pier and possibly to other ship fueling areas. AST No. 354 was removed on November 17, 1993, and not replaced. The pipelines were inactive for several years. In 1981, a leak was discovered in the fuel pipeline leading to the berthing pier. According to available information, the lines had broken during the years of usage or were penetrated while a contractor was driving piles. The soil in the area of the leak appeared soaked with fuel oil, reportedly Navy Special Fuel Oil or DFM. An unknown volume of soil was removed and properly disposed of in 1981.			
21	Sludge at Fuel Tanks	Petroleum products	Transferred to Petroleum Program (UST Site 22)
PSC 21 (Site 21) is the former location of an aviation gasoline (AVGAS) tank farm. From approximately 1940 to the late 1960's, nine above ground storage tanks (ASTs) were used to store aviation gasoline at the site. The tanks were routinely cleaned and the sludge from the bottoms of the tanks was disposed of on the ground surface in the immediate vicinity of the tanks. The ASTs have been removed from the site and the majority of the site is currently grass covered. Building 670, which is a fuel system pump house, is located at the eastern edge of the site, south of Radford Boulevard. Two USTs for contaminated fuel were reportedly associated with Building 670.			
22	Refueler Repair Shop	Petroleum products	Transferred to Petroleum Program (UST Site 26)
PSC 22 (Site 22) is the refueler repair shop located southwest of the intersection of John Tower Road and Taylor Road near the approximate center of NAS Pensacola. Crushed oyster shell, hard-packed gravel or soil, and weedy vegetation largely cover this irregularly shaped site, an approximately 300- by 400-foot (ft) open area. The site's southwestern edge is paved and Building 1659 occupies its southwest corner. The site is currently used for equipment and vehicle parking. The site is generally flat with a land surface elevation averaging 29 ft above mean sea level. The site history indicated that petroleum fuel might have been released in the past as refueling trucks underwent repair.			
23	Chevalier Field Pipe Leak	Petroleum products	Transferred to Petroleum Program (UST Site 23)
PSC 23 (Site 23) is located in the southwest part of the former Chevalier Field. The site was the result of two separate fuel leaks: Navy Special Fuel oil was spilled in 1965 and diesel fuel marine was spilled in 1968 or 1969. The leaks were repaired but no immediate attempt was made to recover the released fuel products.			
24	Dichlorodiphenyltrichloroethane (DDT) Mixing Area	DDT with diesel fuel	Long-Term remedial Action (LTRA)
PSC 24, also referred to as Site 24 or OU 13 is immediately north of Building 3561 and PSC 8. The northern portion is encompassed by the northwest corner of the Barrancas			

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National Cemetery and contains many grave sites. The northern and central portions are primarily unpaved and sparsely covered with native grasses and trees. The southern portion contains a fenced storage area with a gravel and crushed shell surface. An unimproved dirt road runs east to west across the southern portion of the site. Site 24 was once used as a pesticide mixing and handling area. The site is currently used as a buffer zone for privacy between John H. Towers Road and the Barrancas National Cemetery.			
25	Radium Spill Site (OU 2)	Radioactive waste	ROD (2008)
PSC 25 (Site 25) is located on the eastern portion of NAS Pensacola just east of Murray Road and north of Farrar Road on the east side of Building 780. NEESA (1983) reported a small spill of low-level radioactive waste containing radium at this site in 1978. The spill occurred on pavement and was properly cleaned up according to NEESA. The spill occurred because drums of waste were being stored outside and allowed to corrode and leak. Building 780 was the location of radium removal operations for radium dials and other equipment. The equipment was decontaminated in the site location before being repainted in the radium dial shop (former Building 780). Contamination resulting from the spill or waste handling was the focus of the spill investigation.			
26	Supply Department Outside Storage (OU 2)	Industrial waste, oils	ROD (2008)
PSC 26 (Site 26) is a 90 square foot outside area, south of Building 684, used to store containers of industrial materials. Containers were stored on steel mats. Leakage is reported to have occurred from these containers. Because PSC 11 is down gradient from the area of PSC 26, investigations were conducted as part of OU 2.			
27	Radium Dial Shop Sewer (OU 2)	Radium, phosphorus	ROD (2008)
From 1940s to 1975, Building 709 was used to rework instrument dials painted with radium containing paint. Spent cleaning solutions and luminous paint were routinely poured into the sanitary sewer system. In 1976, the building was dismantled and the drain pipe found to have a reading of 1.2 millirem per hour (mR/hr). The drain pipe was removed to a depth of 18 inches. The remaining lateral underground portion of the pipe was capped and covered with concrete. In 1975, all activities related to radium painted instruments, including stripping and re-painting, were permanently moved to Building 780. Instrument dials were stripped using paint thinner, then soaked in a lye and nitric acid solution. Contaminated instrument cases were processed by soaking in a "turco" acid solution. Components were cleaned with a wire brush to remove all residues. All operations related to the radium dials are no longer completed at the facility. It is believed that the operations were discontinued in approximately 1995 when Naval Aviation Depot operations were discontinued.			
28	Transformer Accident	Transformer oil	PSCR NFA (1997) & Completion Report (1998)
In 1969, a transformer fell from a truck traveling on Radford Boulevard, just north of Building 632. The transformer broke open and spilled approximately 50 gallons of transformer oil onto the pavement. At that time it was not known whether the oil contained PCBs. The oil was reportedly washed into a nearby storm sewer drain. A Preliminary Site Screening Investigation was completed in 1996 and a time critical soil excavation and offsite disposal remedial action was completed by the Navy in 1998. The regulatory agencies approved NFA.			
29	Soil South of Bldg. 3460 (OU 6)	Slimy black substance (unknown)	NFA ROD (1999)
In 1981, workers excavating soil beneath the concrete apron south of Building 3460 received skin burns from a "black slimy liquid" in the soil. Types of chemicals involved and extent of contamination are unknown. A leak in the nearby industrial sewer line from the Naval Aviation Depot facility was the expected source. A RI was conducted in 1994 that identified manganese, dieldren and PAH contaminated soils. In 1995 an Interim Removal Action was completed to remove and properly dispose of 422 cubic yards of contaminated soil. The ROD was completed in 1999 with the selected remedy of No Action. The ROD indicated: "Because hazardous substances do not remain onsite, the five year review does not apply."			
30	Sewer Line TL 045/A north to IWTP (OU 2)	Metals, acids, caustic, degreasers, chromic solution, cyanide, paint, pesticides, paint thinner and sludge, industrial waste	ROD (FY 2008)
Over a 15 year period north of Building 648, waste paint, thinner, and paint sludge were poured onto the ground in the area of Site PSC 30. A monitoring well located near the site indicated the presence of low concentrations of chlorinated hydrocarbons; however, analysis of additional samples did not detect CVOCs. The exact location of the disposal site in relation to the monitoring well is not reported. On October, 14 1992, the UST Program transferred 647N and 648N, which are at PSC 31, to the Installation Restoration Program. Building 755 operated 50 tanks located inside this building over a 10 year period as a plating facility for nickel, lead, tin, chromium and miscellaneous metals. These tanks, ranging in capacity from 50 to 200 gallons, were drained periodically into the ditch near the site.			
31	Soil North of Building 648	Paint waste and paint thinner	Incorporated into Site 30 and OU 2

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<p>Site 31 is an approximately 175- by 225 foot, unpaved area located adjacent to and north of Building 648 and Murray Road. North of the site is a large, tree covered parking area and immediately west of the site is a paved driveway. Most of the site area is enclosed by an iron and concrete fence. Building 648 was used for painting operations from 1949 until 1973. Typical operations included discarding the paint waste and spent paint thinner to the unpaved area north of the building.</p>			
32	IWTP Sludge Drying Beds (OU 10)	F006 Hazardous Waste (HW)	Transferred to RCRA (2003)
<p>PSC 30 sludge drying beds operated with the IWTP from 1971 to 1984. These units received listed hazardous waste sludge (F006) from the RCRA surface impoundment (IWTP Surge Pond), and, as a result, underwent RCRA closure in 1989. Contents of the drying beds (remaining sludge and leachate drainage system) and an underlying layer of sand were removed to about 6 feet below ground surface. Material removed was disposed of as a hazardous waste</p>			
33	Wastewater Treatment Plan (WWTP) (OU 10)	F006 HW wood, bricks	Transferred to RCRA (2003)
<p>These surface impoundments consist of the domestic polishing pond, phenol/stabilization pond, and industrial surge pond. In 1987, the USEPA RCRA Compliance Branch determined the polishing and stabilization ponds received listed F006 hazardous waste from the surge pond. The ponds were taken out-of-service. In 1988 to 1989, the ponds underwent RCRA permitted "clean closures".</p>			
34	Solvent North of Bldg. 3557	Solvent detergent	NFA (2000)
<p>During May 1984, a leak occurred in a pipeline at the north end of Building 3557. The leak reportedly resulted in the loss of solvent detergent used for cleaning aircraft. The solution contained 1.7 percent chlorinated aromatic hydrocarbons solvent. A field investigation was completed at Site 34 and soil contaminated with naphthalene and lead was identified, excavated and properly disposed of offsite. Naphthalene was detected in an onsite groundwater sample but was not detected in downgradient groundwater samples. Based on the soil removal it was expected that the limited area of elevated naphthalene detected in groundwater would naturally attenuate. The Navy proposed No Further Remedial Action for Site 34 and the regulatory agencies concurred (USEPA letter 9/23/99; FDEP letter 9/8/00).</p>			
35	Miscellaneous IWTP Solid Waste Management Units (SWMUs) (OU 10)	Unknown	Transferred to RCRA (2003)
<p>Site 35 Miscellaneous IWTP SWMU operated with the IWTP from 1971 to 1984. These units received listed hazardous waste sludge (F006) from the RCRA surface impoundment (IWTP Surge Pond), and, as a result, underwent RCRA closure in 1989.</p>			
36	IWTP Sewer Line	Industrial waste	NFA (1997)
<p>The industrial waste sewer line is about 23,000 feet long and is located in an area approximately 1 mile wide by 1.5 miles long in the southeastern portion of NAS Pensacola. Flow within the sewer line is toward the IWTP, which is located at the northeast end of the base.</p>			
37	Sherman Field Fuel Farm	Petroleum products	Transferred to Petroleum Program (UST Site 24)
<p>The Sherman Field fuel Farm site is located on the western perimeter of the base approximately 2,400 feet north of Radford Boulevard. The site is an approximately 3.5-acre fenced area including four cut and cover petroleum storage tanks (Tank Numbers 1884, 1886, 1887, and 1888). The petroleum storage tank system was installed in approximately 1945 and used to store JP-4 jet fuel. The fuel storage tanks were abandoned in place in 1995 when a new fuel facility was constructed adjacent to the south of the original fuel farm. The site history indicates, an equipment malfunction in 1983 resulted in the release of approximately 48,000 gallons of JP-4 jet fuel. NAS Pensacola personnel installed four recovery ditches initially and recovered approximately 600 to 700 gallons of free product.</p>			
38	Bldg. 71 Sewer Line TL 073/C southwest to the end (OU 11)	Paint stripper, ketones, Trichloroethene (TCE), Industrial waste	ROD (2006)
<p>Site 38 consists of the contaminated soil and groundwater identified at Buildings 71 and 604 and associated IWTP sewer line area of NAS Pensacola. Building 71 was used from 1935 to the late 1970s for aircraft paint stripping and painting operations, and consisted of a steel-framed structure with metal siding on a 10- to 14-inch-thick concrete slab. The building was approximately 100 feet wide by 160 feet long and approximately 35 feet high. Waste stored during this period reportedly consisted of solvents, acids, caustics, oxidizers, and liquid and non-liquid toxic materials. The building structure has subsequently been demolished and the area is used by Morale, Welfare, and Recreation (MWR) for parking large trucks.</p> <p>Building 604 was an irregularly shaped, brick/masonry structure built in 1937. Naval Aviation Depot metal plating operations were located in Building 604 until it was closed in May 1996. Initial plating operations were conducted in the western portion of Building 604 from approximately 1960 until the shop was demolished around 1970. Wastes from various operations at Site 38 (including paint stripping) were discharged to Pensacola Bay until the IWTP was built in 1973. Because of Hurricane Ivan damage (2004), the Navy elected to remove the buildings and associated parking lots.</p>			

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39	Oak Grove Campground Site (OU 12)	Debris, petroleum, oil and lubricants (POL), broken clay, coal, cleaning solutions	ROD (1995) NFA ESD (1998)
Oak Grove is a campground area located immediately south of Sherman Field on the south side of Radford Boulevard. An area of stressed vegetation and stained soil approximately 150 feet in diameter was found near Pensacola Bay.			
40	Bayou Grande Area (OU 15)	Unknown	NFA ROD (2005)
Bayou Grande, an estuarine water body connected to Pensacola Bay, lies adjacent to the northern boundary of NAS Pensacola. Bayou Grande has a total surface area of approximately 1.5 square miles and approximately 20 miles of total coastline. Approximately 8.5 miles of Bayou Grande coastline border NAS Pensacola property. Bayou Grande, with a mean depth of approximately 6 feet, is part of a larger surface water system known as the Pensacola Bay System. Site 40 (OU 15), Bayou Grande, was included as a separate site for an RI based on the possible receipt of hazardous substances and that media within Site 40 may individually provide exposure pathways impacting human health and the environment.			
41	NAS Pensacola Wetlands (OU 16)	Unknown	RI/FS
Site 41 encompasses all of the wetlands potentially impacted by site activities, both tidal and non-tidal, within the NAS Pensacola boundary. A USEPA inventory of wetlands identified and enumerated 79 wetland complexes on NAS Pensacola. Two other wetlands were identified during habitat/biota surveys. For the purpose of these studies, freshwater and brackish water ponds, and drainage ditches are included as wetlands. The majority and largest of the wetlands on NAS Pensacola are located in the western portion of the installation, primarily south and west of Sherman Field. About a third of the 81 wetlands are located east of Sherman Field, where most of the IRP sites are located.			
42	Pensacola Bay (OU 17)	Unknown	NA ROD (1998)
NAS Pensacola is bordered on the south by Big Lagoon and Pensacola Bay, on the east by Pensacola Bay, and on the north by Bayou Grande. Only a very small portion of the western end of NAS Pensacola is farther than a mile from one of these bodies of water. Swampy areas exist on or near the western portion of NAS Pensacola. Man-made drainage ways and storm drains feed into the short intermittent streams emptying into Pensacola Bay and Bayou Grande.			
43	Demolition Debris Disposal Area 43 (OU 18)	Metals	ROD (2010)
Site 43 is located in a developed area of the base south of Taylor road and west of Murray road. A paved parking lot covers approximately 31,000 square feet of the site area. The site was identified in 1992 because of the discovery of a partially buried drum.			
44	Former UST 3221SW (OU 19)	Solvents	RI/FS
Site 44 is located at the southwest end of Building 3221, which is a large hangar currently used to refurbish aircraft used for museum display. Building 3221 is adjacent to Forrest Sherman Field. The hangar and adjacent paved areas were part of the Naval Air Rework Facility (NARF), and were probably used for aircraft maintenance before the current National Museum of Naval Aviation location opened in 1975. The paved area adjacent to the southwest corner of Building 3221 is currently used as a wash rack for cleaning aircraft and aircraft parts. Surface drainage in this area flows to a small concrete-lined ditch located on the southeast edge of the pavement. When aircraft parts washing activities are being conducted, a diverter system is used to direct the run off to the sanitary sewer system for treatment at the NAS Pensacola IWTP.			
45	Building 603 Lead Site (OU 20)	Lead	RI/FS
During an investigation to characterize Site 18 (PCB spill at Substation A), lead concentrations in soil were found to exceed screening levels in an area west of Site 18. This area was designated as PSC 45 (Site 45) - Building 603 Lead Site and its initial boundaries were presumed based on the Site 18 investigation. Site 45 lies near the intersection of Mustin Street and Center Avenue at NAS Pensacola.			
46	Former Building 72 (OU 21)	Metals	RI/FS
This PSC was discovered during the investigation of Site 38 – OU 11 (Building 71 Sewer Line). While investigating Site 38 (OU 11), lead concentrations detected appeared to be increasing further from the suspected source for Site 38. Buildings 71 and 72 were used from 1935 up to the late 1970's for aircraft paint stripping and painting. Before 1973, wastes from paint stripping and painting operations were discharged directly to Pensacola Bay. The release of contaminants at Site 46 probably resulted from routine aircraft maintenance activities and storage of materials used in these activities.			

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Munitions Response Program Sites			
--	Chevalier Field Machine Gun Range	Munitions constituents	NFA PA
The Chevalier Field Machine Gun Range is a 0.2-acre site located just north of Chevalier Field. Based on historical maps, the site was used from approximately 1939 to 1943. No other information regarding the range was located. Munitions use was probably limited to small arms ammunition; typical munitions used at a machine gun range included .30-and .50-caliber ammunition. Building 3644 has been constructed over the former range, and no former range features are present on the site.			
--	Chevalier Field Pistol Range	Munitions constituents	NFA PA
The Chevalier Field Pistol Range is a 1.2-acre site located northwest of Chevalier Field. Based on historical maps, the site was used from approximately 1940 to 1942. No other information regarding the range was located. Munitions use was probably limited to small arms ammunition; typical munitions used at a pistol range included .38-and .45-caliber ammunition. Building 781 and the adjacent parking area have been constructed over the former range, and no range features are present on the site. IRP Site 12 within OU 2 overlaps the northeast corner of the site. Sampling of groundwater at IRP Site 12 showed exceedances of some metals above groundwater cleanup target levels (GCTLs); however, lead concentrations were within RC for NAS Pensacola.			
--	Fort Barrancas Rifle Range (3 Ranges)	Munitions constituents	SI
The Fort Barrancas Rifle Range is a complex of three historical ranges: Fort Barrancas Rifle Range 1, Fort Barrancas Rifle Range 2a, and Fort Barrancas Rifle Range 2b. The range and associated butt and firing lines for Fort Barrancas Rifle Range 1 are denoted on a 1910 map that shows the range's orientation with a general direction of fire from northeast to southwest. Based on the map's depiction of the berm located closer to the firing position than the targets, munitions would have been fired over the berm and would have landed in Pensacola Bay and Big Lagoon. Fort Barrancas Rifle Ranges 2a and 2b were identified on an 1893 map that shows a range butt located near the front of Fort San Carlos at sea-level. Three firing points that fired towards a target in front of Fort San Carlos are denoted on the historical map, with the general direction of fire being from east to west or southeast to northwest, depending on the location of the firing point. Two of the firing points are denoted in the PA as Fort Barrancas Rifle Range 2a and Rifle Range 2b. The third firing point was marked as 'proposed', indicating that it may not have been in use.			
--	Fort Redoubt Skeet Range	Munitions constituents	SI
The Fort Redoubt Skeet Range, also denoted as Gunnery Range and Army Range on historical maps, is located approximately 300 feet to the southwest of the walls of Fort Redoubt. The range is denoted on maps dated 1930 through 1954. Based upon information obtained from the 1950 map, the Fort Redoubt Skeet Range appears to have been a single-field range. One structure (Building 1712) is denoted on maps dated 1949 through 1954. Two features that appear to be a berm and a ditch appear on maps dated 1930 through 1954; however, no document was identified that explained the use or affiliation of these features. No berm, ditch, or structures exist at the site or in the immediate vicinity. Approximately 30 percent of the area comprising the surface danger zone for the Skeet Range falls on land that was transferred to the Department of the Interior (managed by the National Park Service) in 1947.			
--	Magazine Point Bombing Target	Munitions constituents and munitions and explosives of concern	SI
The Magazine Point Bombing Target is a 72-acre site located on the Magazine Point peninsula, approximately 800 feet north of the boundary to Chevalier Field. The Magazine Point Bombing Target was first identified on a 1933 historical map, along with one powder magazine and a radio spotting system. The Bombing Target was no longer shown on a 1939 map. No records were located that indicate munitions used, or construction details; however, given the proximity to Chevalier Field, it is likely that the site was used as a practice bombing range. It is assumed in the PA that the Bombing Target utilized a typical 500-foot scoring arc to approximate the distance between the edge of the target and the dropped munitions.			
--	Magazine Point Rifle Range	Munitions constituents	SI
The Magazine Point Rifle Range is an 8.6-acre site located on the Magazine Point peninsula that was used for small arms training during the early 1900's. The Rifle Range was a 1,000-yard range, with firing points at 200, 300, 500, 600, and 1,000 yards. Firing was directed towards the north into a backstop berm. The Rifle Range was partially destroyed by a hurricane in 1906 and no archival evidence exists of the range after 1910. The center of the 500-foot scoring arc for the Magazine Point Bombing Target lies just south of the 300 yard firing point for the Rifle Range, and a majority of the Rifle Range is encompassed within the surface danger zone for the Bombing Target.			
--	National Cemetery Gunnery Range Area North (4 ranges)	Munitions constituents	NFA PA

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<p>The National Cemetery Gunnery Area North is a 12-acre complex of four historical ranges: Gunnery Area North Machine Gun Range, Gunnery Area North Pistol Range, Gunnery Area North Rifle Range, and Gunnery Area North Firing Stand. Each of the ranges is identified on various historical maps dated between 1933 and 1954. The northern portion of the rifle range was reportedly excavated based on a review of 1950s and 1960s aerial photography and maps. No other information regarding the ranges was located. Munitions usage in the gunnery area was likely limited to .22-caliber, .30-caliber, .45-caliber, .50-caliber, and 20-millimeter (mm) small arms ammunition based on the typical munitions usage for each type of range. The National Cemetery Skeet and Trap Ranges site overlaps a portion of the Gunnery Area North. IRP Site 8 (Rifle Range Disposal Area) and IRP Site 24 (DDT Mixing Area) are collectively known as OU 13 and overlap the northern and western portion of the National Cemetery Gunnery Area North, including the area of the former target berm. Soil and groundwater sampling were conducted at OU 13 between 1995 and 2006. The 2006 ROD for OU 13 stipulates no further action for soil at OU 13 and LUCs to prevent use of the surficial aquifer for drinking water along with continued groundwater monitoring to be sufficient to protect human health and the environment (Tetra Tech, 2006b). The entire Gunnery Area North is developed, and no former range features were identified at the site.</p>			
--	National Cemetery Gunnery Range Area South (2 ranges)	Munitions constituents	SI
<p>The National Cemetery Gunnery Area South is a complex containing the Gunnery Area South Pistol Range and Machine Gun Range. The National Cemetery Gunnery Area South is located north of Hovey Road. The Machine Gun Range is identified on historical maps dated 1933 and 1939 through 1943. The Pistol Range is located just west of the Machine Gun Range, illustrated on maps dated 1940 through 1943. Currently the National Cemetery Gunnery Area South is completely developed. Structures include Building 488, Building 461, and the associated asphalt parking lots.</p>			
--	National Cemetery Skeet Range and Trap Range (2 ranges)	Munitions constituents	SI
<p>The National Cemetery Skeet and Trap Ranges site includes the National Cemetery Skeet Range and the National Cemetery Trap Range. The National Cemetery Skeet and Trap Ranges site is adjacent to the Barrancas National Cemetery. The Skeet Range is identified on one 1940 map, and the Trap Range is identified on maps dated 1941 and 1942. Currently the National Cemetery Skeet and Trap Ranges site is completely developed.</p>			
--	Sherman Field Rifle Range	Munitions constituents	SI
<p>The Sherman Field Rifle Range is located southwest of Sherman Field, within the boundaries of NAS Pensacola, and includes the area west of the former and present fuel farms. The Sherman Field Rifle Range was denoted on one historical map dated 1951 and titled "Jet Training Field Land Use Map." Direction of fire is assumed to have been from the north-northeast to the south-southwest, based upon the range orientation and the surrounding development, as depicted on historical maps. Firing lines would have been located on the northern end of the Sherman Field Rifle Range, near the Sherman airfield, and there were probably multiple firing points throughout the length of the range. The location of a berm for the Sherman Field Rifle Range could not be identified and was not denoted on the map</p>			

TABLE 1
SITE DESCRIPTION CHART
INSTALLATION RESTORATION PROGRAM
NAS PENSACOLA
PENSACOLA, FLORIDA

AST – Above Ground Storage Tank
AVGAS- Aviation Gasoline
CVOC – Chlorinated Volatile Organic Compound
DFM – Distillate Diesel Fuel Marine
ESD – Explanation of Significant Differences
FS – Feasibility Study
FT – Feet or Foot
HW – Hazardous Waste
IWTP – Industrial Wastewater Treatment Plant
MWR – Morale, Welfare, and Recreation
NAS – Naval Air Station
NEESA – Naval Energy and Environmental Support Activity
NFA – No Further Action
OU – Operable Unit
PCB -Polychlorinated Biphenyl
POL - Petroleum, Oil and Lubricant
PSCR - Preliminary Site Characterization Report
PSC - Potential Source of Contamination
PWC - Public Works Center
RC – Reference Concentration
RCRA - Resource Conservation and Recovery Act
RI - Remedial Investigation
ROD - Record of Decision
SWMU - Solid Waste Management Unit
TCE - Trichloroethene
UFP-SAP - Uniform Federal Policy Sampling and Analysis Plan
UST - Underground Storage Tank

**Table 2
Potential Source of Contamination and Site Status
Installation Restoration Project
NAS Pensacola
Pensacola, Florida**

PSC No.	OU Group	SITE SWMU UST AOC PSC	Site Name	FFA Screening Site	ROD Date	NFA date	Regulatory Status	Last Decision Document	Comments
1	1	1	Sanitary Landfill	No	09/25/98	NA	Active remedy	Annual Monitoring Report	Groundwater monitoring is to be conducted until concentrations are below standards; An Optimization Study was completed in 2005. An evaluation of the selected remedy is ongoing with a draft ESD was submitted to the regulatory agencies in 2011, however EPA has indicated that a ROD Amendment will be required.
2	3	2	Waterfront Sediments	No	09/30/05	9/30/05	ROD	No Action	
3		UST 18	Crash Crew Training Area	No	NA	NA	Transferred to Florida Petroleum Program		
4		4	Army Rubble Disposal Site	Yes	NA	09/30/97	No Action	Preliminary Site Characterization Report	Site 4 Preliminary Site Characterization Report (7/31/97)
5		5	Borrow Pit	Yes	NA	10/04/95	No Action	Preliminary Site Characterization Report	Site 5 Preliminary Site Characterization Report (7/7/95)
6		6	Fort Redoubt Rubble Disposal Area	Yes	NA	10/22/97	No Action	FDEP approval letter (10/22/97)	
7		7	Fire Fighting Training School	Yes	NA	11/09/00	No Action	Preliminary Site Characterization Report	Site 7 Preliminary Site Characterization Report (01/17/97) Project Completion Report - Remediation Work (11/19/98; Time Critical Removal Action)
8	13	8	Rifle Range Disposal	No	10/05/06	NA	Active remedy	Annual Monitoring Report	
9	6	9	Navy Yard Disposal Site	No	09/07/99	09/23/99	ROD	No Further Action	
10		10	Commodore's Pond	Yes	NA	11/09/00	No Action	Preliminary Site Characterization Report	Site 10 Preliminary Site Characterization Report (11/95); Project Completion Report - Remediation Work (11/19/98; Time Critical Removal Action)
11	2	11	North Chevalier Disposal Area	No	09/29/08	NA	Active remedy	Remedial Design, RA UFP SAP & Groundwater to Surface Water Interface UFP SAP	Hotspot soil excavations for CERCLA contaminants will be conducted in unpaved areas during CY 2012 and LUCs will be implemented. LTM for groundwater contaminants.
12	2	12	Scrap Bins	Yes	09/29/08	NA	Active remedy	Remedial Design, RA UFP SAP & Groundwater to Surface Water Interface UFP SAP	Hotspot soil excavations for CERCLA contaminants will be conducted in unpaved areas during CY 2012 and LUCs will be implemented. LTM for groundwater contaminants.
13		13	Magazine Point Rubble Disposal Area	Yes	NA	08/14/96	No Action	Preliminary Site Characterization Report	Site 13 Preliminary Site Characterization Report (9/95)
14		14	Dredge Spoil Fill area	Yes	NA	07/09/97	No Action	Preliminary Site Characterization Report	Site 14 Preliminary Site Characterization Report (11/17/95)
15	4	15	Pesticide Rinsate Disposal Area	No	09/27/00	NA	Active remedy	Annual Monitoring Report	
16		16	Brush Disposal Area	Yes	NA	07/11/97	No Action	Preliminary Site Characterization Report	Site 16 Preliminary Site Characterization Report (1/17/97)
17	14	17	Transformer Storage Yard	No	08/19/98	09/25/98	ROD	No Action	
18		18	PCB Spill at Substation A	Yes	NA	11/09/00	No Action	Preliminary Site Characterization Report & Removal Action Completion Report	Site 18 Preliminary Site Characterization Report (7/31/96) Project Completion Report - Remediation Work (11/19/98; Time Critical Removal Action)
19		UST 19	Fuel Farm Pipeline Leak	Yes	NA	NA	Transferred to Florida Petroleum Program		
20		UST 21	Pier Pipe Leak	Yes	NA	NA	Transferred to Florida Petroleum Program		
21		UST 22	Sludge at Fuel Tanks	Yes	NA	NA	Transferred to Florida Petroleum Program		
22		UST 26	Refueler Repair Shop	No	NA	NA	Transferred to Florida Petroleum Program		
23		UST 23	Chevalier Field Pipe Leak	Yes	NA	NA	Transferred to Florida Petroleum Program		
24	13	24	DDT Mixing Area	No	10/05/06	NA	Active remedy	Annual Monitoring Report	
25	2	25	Radium Spill Site	No	09/29/08	NA	Active remedy	Remedial Design, RA UFP SAP & Groundwater to Surface Water Interface UFP SAP	
26	2	26	Supply Department Outside Storage	No	09/29/08	NA	Active remedy	Remedial Design, RA UFP SAP & Groundwater to Surface Water Interface UFP SAP	
27	2	27	Radium Dial Shop Sewer	No	09/29/08	NA	Active remedy	Remedial Design, RA UFP SAP & Groundwater to Surface Water Interface UFP SAP	
28		28	Transformer Accident	Yes	NA	06/13/97	No Action	Site Characterization Report	Site 28 Preliminary Site Characterization Report (12/18/96)
29	6	29	Soil South of Building 34	NA	09/23/99	01/31/01	ROD	No Action	
30	2	30	Building 649 & 755	No	09/29/08	NA	Active remedy	Remedial Design, RA UFP SAP & Groundwater to Surface Water Interface UFP SAP	

<p align="center">Table 2 Potential Source of Contamination and Site Status Installation Restoration Project NAS Pensacola Pensacola, Florida</p>									
PSC No.	OU Group	SITE SWMU UST AOC PSC	Site Name	FFA Screening Site	ROD Date	NFA date	Regulatory Status	Last Decision Document	Comments
31		31	Soil North of Building 648	No	NA	NA	No Action	Letter	Site 31 was incorporated into investigation and boundaries of Site 30 and included in OU 2
32	10	32	Industrial Sludge Drying Area	No	09/15/97	08/12/03	Transferred to RCRA Program	RA Completion Report	Remedial Action Completion Report (1/9/98)
33	10	33	Waste Water Treatment Plant	No	09/15/97	08/12/03	Transferred to RCRA Program	RA Completion Report	Remedial Action Completion Report (1/9/98)
34		34	Building 3557	Yes	NA	09/08/00	No Action	Letter (8/18/99)	
35	10	35	Misc. IWTP sites	Yes	09/15/97	08/12/03	Transferred to RCRA Program	RA Completion Report	Remedial Action Completion Report (1/9/98)
36		36	Industrial Waste Sewer Line	Yes	NA	07/16/97	No Action	Site Characterization Report	Site 36 Preliminary Site Characterization Report (4/25/97)
37		UST 24	Sherman Field Fuel Farm	Yes	NA	NA	Transferred to Florida Petroleum Program		
Sites Added Post Federal Facilities Agreement									
	11	38	Facility Hazardous Waste Storage	No	10/05/06	NA		Draft Remedial Design	
	12	39	Oak Grove Campground	No	08/30/95	03/06/98	ROD	No Further Action & ESD	OU 12 Explanation of Significant Differences (9/22/97)
	15	40	Bayou Grande Area	No	09/30/05	9/30/05	ROD	No Further Action	
	16	41	Combined Wetlands	No	NA	NA		Draft Feasibility Study	
	17	42	Pensacola Bay Area	No	09/25/98	09/25/98	ROD	No Further Action	
	18	43	Demolition Debris Disposal Area	No	04/12/10	NA	Remedial Action	Final Remedial Design	Remedy of hotspot excavation, LUC and MNA to be implemented
	19	44	Former UST Site 3221	No	NA	NA	Informal Dispute	Draft Feasibility Study Work Plan (UFP SAP)	
	20	45	Building 603 Lead Site	No	NA	NA	Proposed Plan	Draft Proposed Plan	
	21	46	Former Building 72	No	NA	NA	Proposed Plan	Draft Proposed Plan	
		47	Building 3221	No	NA	NA	Screening Site	None	PA/SI work plan has been initiated.

CERCLA - Comprehensive Environmental Response, compensation and Liability Act
 CY - Calendar Year
 DDT - Dichlorodiphenyltrichloroethane
 ESD - Explanation of Significant Differences
 FDEP - Florida Department of Environmental Protection
 IWTP - Industrial Wastewater Treatment Plant
 LTM - Long Term Monitoring
 LUC - Land Use Control
 MNA - Monitored Natural Attenuation
 NA - No Action
 NFA - No Further Action
 RA - Remedial Action
 RCRA - Resource Conservation and Recovery Act
 ROD - Record of Decision
 UFP-SAP - Uniform Federal Policy Sampling and Analysis Plan
 UST - Underground Storage Tank

2.5 PRIMARY AND SECONDARY DOCUMENTS

The NAS Pensacola FFA specifically designates “primary documents” and “secondary documents” that are part of the RI/FS and Remedial Design/Remedial Action (RD/RA) process. Primary documents are major, discrete portions of RI/FS or RD/RA activities. Primary documents are initially issued by the Navy in draft form subject to review and comment by USEPA and FDEP. Following receipt of comments on a particular draft primary document, the Navy will respond to the comments received and issue a draft-final primary document. The draft final document will become the final document 30 calendar days after issuance if dispute resolution is not initiated.

Secondary documents include those reports, plans, and studies that are discrete portions of the primary documents and are typically input or feeder documents. Secondary documents are initially issued by the Navy in draft form subject to review and comment by USEPA and FDEP. Although the Navy will respond to comments received, the draft secondary documents may be finalized in the context of the corresponding primary documents.

The FFA specifies the following primary documents and unless otherwise specified the documents shall be for a specific OU.

NAS Pensacola Primary Documents

- Site Management Plan
- Site Community Relations Plan
- RI/FS Work Plan
- Baseline Risk Assessment Reports
- Remedial Investigation Reports
- Feasibility Study Reports
- Proposed Remedial Action Plans
- Records of Decision
- Remedial Design Reports
- Remedial Action Work Plans
- Final Remediation Reports
- 5 year Review Reports
- National Priorities List Closeout Reports

NAS Pensacola Secondary Documents

- Preliminary Characterization Summary Reports
- Site Health and Safety Plans
- Preliminary Risk Assessments
- Site Sampling and Analysis Plans
- Site Quarterly Progress Reports
- Treatability Study Reports
- Remedial Action Progress Reports
- Remedial Design Implementation Plans
- Remedial Pre-Design Reports
- Remedial Action Post Construction Reports

3.0 SCHEDULING

OU schedules are based on the issuance of draft primary and secondary submittals. The schedule is in accordance with the FFA and reflects USEPA and FDEP input allowing for review periods based on their resources. The SMP schedule assumes no delays for dispute resolutions. The final comment responses to be submitted with each draft final primary document shall be the product of consensus of all Parties to the maximum extent practicable. In order to achieve this goal, the Navy shall notify the Parties in writing of any difficulties which it foresees in adequately addressing any agency's comments as soon as possible, and no later than 60 days from receipt of all regulatory comments. Submittal dates of Draft Primary documents to the FFA parties for IRP activities are presented in tabular format in Appendix A. Appendix B provides a summary of the FFA specified document review periods.

REFERENCES

- Federal Facilities Agreement Between United States Environmental Protection Agency, Florida Department of Environmental Regulation for the State of Florida and United States Department of the Navy for the United Naval Air Station Pensacola, Pensacola, Florida. 1990.
- Florida Department of Environmental Protection, 2008, RCRA Post Closure Permit Number 0154498-005-HF issued to Naval Air Station Pensacola. September 12, 2008
- G&M (Geraghty and Miller, Inc.), 1984. Verification Study, Assessment of Potential Ground-Water Pollution, NAS, Pensacola., Florida
- Geraghty and Miller, Inc., 1986. *Characterization Study. Assessment of Potential Groundwater Pollution at Naval Air Station*, Pensacola, Florida.
- NEESA (Naval Energy and Environmental Support Activity), 1983. Initial Assessment Study of NAS, Pensacola, Pensacola, Florida.
- Tetra Tech, 2006b. Record of Decision (Revision 3), OU 13, NAS Pensacola, Florida. Prepared for Naval Facilities Engineering Command, Southeast, North Charleston, South Carolina. August.

APPENDIX A

INSTALLATION RESTORATION PROGRAM SCHEDULE

TABLE A - 1
NEAR TERM AND OUT YEAR MILESTONES
SITE MANAGEMENT PLAN CALENDAR YEAR 2013
NAS PENSACOLA
PENSACOLA, FLORIDA
Page 1 of 4

Site	Primary or Secondary Document	CY2013	CY2014	CY2015	CY2016
OU 1 (Site 1)	Primary Documents				
	Draft Feasibility Study Addendum	March 4, 2013			
	Draft Proposed Plan Addendum	September 30, 2013			
	Draft ROD Amendment		April 2014		
	Draft Remedial Design		November 2014		
	Draft Interim Remedial Action Completion Report	May 3, 2013			
	Draft Remedial Action Work Plan		June 2014		
	Draft Interim Remedial Action Completion report			October 2015	
	Secondary Documents				
	Draft 2013 Annual Monitoring Report	August 3, 2013			
	Draft 2014 Annual Monitoring Report		August 2014		
	Draft 2015 Annual Monitoring Report			August 2015	
	Draft 2016 Annual Monitoring Report				August 2016
	OU 2 (Sites 11, 12, 25, 26, 27 & 30)	Primary Documents			
Draft FS Addendum and Proposed Plan		December 28, 2012*			
Draft ROD Amendment		May 15, 2013			
Draft Remedial Action Work Plan Amendment		September 10, 2013			
Draft Interim Remedial Action Completion Report – Groundwater & Soils			August 2014		
Secondary Documents					
Draft Groundwater to Surface Water Interface Report		November 5, 2013			
Annual Groundwater Monitoring Report		September 27, 2013			
Annual Groundwater Monitoring Report			September 2014		
Annual Groundwater Monitoring Report				September 2015	
Annual Groundwater Monitoring Report				September 2016	
OU 4 (Site 15)	Primary Documents				
	Draft Interim Remedial Action Completion Report	May 3, 2013			
	Secondary Documents				
	Draft Annual Monitoring Report	May 31, 2013			
	Draft 2014 Annual Monitoring Report		May 2014		
	Draft 2015 Annual Monitoring Report			May 2015	
Draft 2016 Annual Monitoring Report				May 2016	

TABLE A - 1

**NEAR TERM AND OUT YEAR MILESTONES
SITE MANAGEMENT PLAN CALENDAR YEAR 2013
NAS PENSACOLA
PENSACOLA, FLORIDA
Page 2 of 4**

Site	Primary or Secondary Document	CY2013	CY2014	CY2015	CY2016
OU 11 (Site 38)	Primary Documents				
	Draft Remedial Action Completion Report - Groundwater	May 3, 2013			
	Secondary Documents				
	Draft 2013 Annual Monitoring Report	July 18, 2013			
	Draft 2014 Annual Monitoring Report		July 2014		
	Draft 2015 Annual Monitoring Report			July 2015	
	Draft 2016 Annual Monitoring Report				July 2016
OU 13 (Sites 8 & 24)	Primary Documents				
	Draft Interim Remedial Action Completion Report	May 3, 2013			
	Secondary Documents				
	Draft Annual Groundwater Monitoring Report	February 18, 2013			
	Draft Annual Groundwater Monitoring Report		February 2014		
	Draft Annual Groundwater Monitoring Report			February 2015	
	Draft Annual Groundwater Monitoring Report				February 2016
OU 16 (Site 41)	Primary Documents				
	Draft RI Work Plan Addendum (UFP SAP)	September 27, 2012*			
	Draft RI Addendum Report	December 28, 2013			
	Draft Feasibility Study		July 2014		
	Draft Proposed Plan			February 2015	
	Draft ROD			September 2015	
	Draft Remedial Design				April 2016
	Secondary Documents				
None					
OU 18 (Site 43)	Primary Documents				
	Draft Remedial Action Completion Report	December 31, 2012*			
	Secondary Documents				
	Annual Groundwater Monitoring Report		March 2014		

TABLE A - 1

NEAR TERM AND OUT YEAR MILESTONES
 SITE MANAGEMENT PLAN CALENDAR YEAR 2013
 NAS PENSACOLA
 PENSACOLA, FLORIDA
 Page 3 of 4

Site	Primary or Secondary Document	CY2013	CY2014	CY2015	CY2016
OU 19 (Site 44)	Primary Documents				
	Draft Feasibility Study Addendum	July 31, 2013			
	Draft Proposed Plan	December 28, 2013			
	Draft Record of Decision		May 2014		
	Draft Remedial Design		October 2014		
	Draft LUC Remedial Design		October 2014		
	Draft Interim Remedial Action Completion Report			May 2015	
	Secondary Documents				
	Draft 1 st Qtr Technical Memo	December 1, 2012*			
	Draft 2 nd Qtr Technical Memo	February 22, 2013			
Draft 3 rd Qtr Technical Memo	May 11, 2013				
OU 20 (Site 45)	Primary Documents				
	Draft Record of Decision		May 2014		
	Draft Remedial Design		December 2014		
	Draft Remedial Action Work Plan			January 2015	
	Draft Remedial Action Completion Report			July 2015	
	Secondary Documents				
None					
OU 21 (Site 46)	Primary Documents				
	Draft Record of Decision		May 2014		
	Draft Remedial Design		December 2014		
	Draft Remedial Action Work Plan			January 2015	
	Draft Remedial Action Completion Report			July 2015	
	Secondary Documents				
None					

TABLE A - 1

**NEAR TERM AND OUT YEAR MILESTONES
SITE MANAGEMENT PLAN CALENDAR YEAR 2013
NAS PENSACOLA
PENSACOLA, FLORIDA
Page 4 of 4**

Site	Primary or Secondary Document	CY2013	CY2014	CY2015	CY2016
MMRP Sites UXO-001 Former Gun Ranges and Bombing Targets	Primary Documents				
	None				
	Secondary Documents				
	Extended Site Inspection	August 20, 2013			
MMRP Sites UXO-002 National Cemetery Gunnery Area	Primary Documents				
	Draft RI Report	April 14, 2013			
	Draft Feasibility Study	November 10, 2013			
	Draft Proposed Plan		June 2014		
	Draft Record of Decision			January 2015	
	Draft Remedial Design			August 2015	
	Draft Remedial Action Work Plan				February 2016
	Draft Remedial Action Completion Report				September 2016
	Secondary Documents				
	None				
Base wide	Primary Documents				
	CY 2014 Site Management Plan	September 1, 2013			
	CY 2015 Site Management Plan		September 1, 2014		
	CY 2016 Site Management Plan			September 1, 2015	
	CY 2017 Site Management Plan				September 1, 2016
	Draft 5-Year Review (Final Document due August 22, 2013)	September 30, 2012*			
	Community Involvement Plan		September 2014		
	Secondary Documents				
	Annual LUC Inspection Report	December 15, 2013			
	Annual LUC Inspection Report		December 2014		
	Annual LUC Inspection Report			December 2015	
Annual LUC Inspection Report				December 2016	
<ul style="list-style-type: none"> * = CY2012 Draft document provided for supporting information. 					

APPENDIX B

**FEDERAL FACILITIES AGREEMENT DOCUMENT
REVIEW SCHEDULE SUMMARY**

**NAS PENSACOLA
NAS PENSACOLA FEDERAL FACILITIES AGREEMENT
DOCUMENT REVIEW SCHEDULE**

FFA Section §VIII.G.2-5

- Unless the Parties mutually agree to another time period, all draft documents shall be subject to **ninety (90) calendar day period for review and comment.**
- In cases involving complex or unusually lengthy documents, U.S. EPA or FDEP may extend the ninety (90) calendar comment period for an **additional twenty (20) calendar days** by written notice to the Navy prior to the end of the ninety (90) calendar day period.
- Unless the Parties mutually agree to another time period, within **sixty (60) calendar days** of the close of the comment period on a draft primary document, the Navy will transmit to the U.S. EPA and FDEP its written response to comments received within the comment period.
- Unless the Parties mutually agree to another time period, **within sixty (60) calendar days** of the close of the Navy's Response Period to U.S. EPA and FDEP comments on a draft primary document, the Navy shall transmit to U.S. EPA and FDEP a draft final primary document, which shall include the Navy's response to all written comments received within the comment period.
- The Navy may extend the sixty (60) calendar day periods for either responding to comments on a document or for issuing the draft final primary document for an **additional twenty (20) calendar days** by providing written notice to U.S. EPA and FDEP (in appropriate circumstances, these time periods may be further extended in accordance with Section XXIV (Extensions) for this agreement (FFA)).

FFA Section §VIII.I

- Unless the Parties mutually agree to another time period, the draft final primary document shall become the final primary document if no party invokes dispute resolution **within thirty (30) calendar days** of issuance of the document.