- Final -

ENVIRONMENTAL CONDITION OF PROPERTY REPORT

for the

NAVAL SUPPORT ACTIVITY (WEST BANK)
NEW ORLEANS, LOUISIANA

Department of the Navy
Base Realignment and Closure
Program Management Office
1455 Frazee Road, Suite 900
San Diego, California 92108-4310

27 APRIL 2007

- Final -

ENVIRONMENTAL CONDITION OF PROPERTY REPORT

for the

NAVAL SUPPORT ACTIVITY (WEST BANK)
NEW ORLEANS, LOUISIANA

Department of the Navy
Base Realignment and Closure
Program Management Office
1455 Frazee Road, Suite 900
San Diego, California 92108-4310

27 APRIL 2007

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

Section **Page**

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

THIS PAGE INTENTIONALLY LEFT BLANK

ABBREVIATIONS, ACRONYMS, AND SYMBOLS

ACM	Asbestos Containing Material
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tank
BFE	Base Flood Elevation
BRAC	Base Realignment and Closure
BTU	British Thermal Unit
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DoD	Department of Defense
EBS	Environmental Baseline Survey
ECP	Environmental Condition of Property
EFH	Essential Fish Habitat
EICAR	Emissions Inventory and Compliance Assessment Report
EQA	Environmental Quality Assessment
FEMA	Federal Emergency Management Agency
FFDCA	Federal Food, Drug, and Cosmetic Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide
FIRM	Flood Insurance Rate Map
FRP	Facility Response Plan
HAP	Hazardous Air Pollutant
ICRMP	Integrated Cultural Resources Management Plan
IRP	Installation Restoration Program
kW	Kilowatt
LA	Louisiana
LAC	Louisiana Administrative Code
LBP	Lead-Based Paint
LDEQ	Louisiana Department of Environmental Quality
MEC	Munitions and Explosives of Concern
MMPA	Marine Mammal Protection Act
NAGPRA	Native American Graves Protection and Repatriation Act
NAVFAC	Southern Division, Naval Facilities Engineering Command
NGVD	National Geodetic Vertical Datum
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOx	Nitrous Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
NRHP	National Register of Historic Places
NSA	Naval Support Activity
OCC	Old Corrugated Containers
OWS	Oil/Water Separator
PACM	Potential Asbestos Containing Material
PCB	Polychlorinated Biphenyls

pCi/L	picoCuries per Liter
PMO	Program Management Office
PMP	Pest Management Plan
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SIC	Standard Industrial Classification
SPCC	Spill Prevention, Control, and Countermeasures
SWBNO	Sewerage and Water Board of New Orleans
SWPPP	Stormwater Pollution Prevention Plan
TSCA	Toxic Substances Control Act
TPY	Tons per year
UND	Undated
U.S.	United States
U.S.C.	United States Code
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish & Wildlife Service
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compounds
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

This Environmental Condition of Property (ECP) report for Naval Support Activity (NSA) New Orleans (West Bank), Louisiana summarizes the historical, cultural, and environmental conditions of the property as part of Base Realignment and Closure (BRAC) documentation associated with closure of NSA New Orleans. Information was reviewed with installation points of contact to ensure all data are current and accurate. Where information was not available, the sources contacted and reference materials sought were documented.

NSA New Orleans consists of two physically distinct properties, one on north side of the Mississippi River (known as the East Bank) and one on the South side of the Mississippi River (known as the West Bank). These two geographically separated properties are combined to form NSA New Orleans in the BRAC 2005 list, but are being covered under separate ECP Reports. This ECP report is specific to the West Bank.

NSA New Orleans (West Bank) consists of approximately 193 acres of land located near river mile 92.8 on the West Bank of the Mississippi River in the City of New Orleans in Orleans Parish, Louisiana. The station is bounded by residential housing on the west and south, residential and commercial development on the east and the Mississippi River on the north. There are 147 structures at the station that have been identified with building numbers by the Navy (Navy 2005) including a 374-ft pier on the west bank of the Mississippi River (Globalsecurity 2006).

The property was purchased by the United States of America on February 14, 1849 and first developed as a Navy yard in November 1901. With the exception of the years between 1911-1915 and 1933-1939 the station was a US Naval facility. The station was known by several names over the years as its mission changed. In July 1966 it was re-established as Headquarters, Naval Support Activity New Orleans (Navy 2007b).

NSA New Orleans is on the 2005 BRAC Closure List. The West Bank property will include a Federal City per the BRAC language. The commands and tenants will be relocated to other federal facilities throughout the nation. Relocating these functions would remove the primary missions from NSA New Orleans and would either eliminate or move the entirety of the NSA New Orleans workforce (Navy 2005b).

A brief summary of ECP findings is provided below by subject area.

- **Classifications of Environmental Conditions.** An EBS for NSA New Orleans Public-Private Venture Housing at NSA New Orleans and Naval Air Station, Joint Reserve Base New Orleans was completed in November 1999 (NAVFAC 1999). An Environmental Quality Assessment (EQA) for NSA New Orleans was completed in March 2000 (NAVFAC 2000). An additional EQA for NSA New Orleans was completed in August 2003 (NAVFAC 2003b). An Environmental Compliance Evaluation Report was completed in August 2006 (NAVFAC 2006a).
- **Installation Restoration Program Sites.** The Navy has not identified any Installation Restoration Program (IRP) sites at NSA New Orleans and the station is not on the National Priorities List (NPL) according to station personnel (Fannaly 2007) and verification of the NPL (USEPA 2007a). Although there have been no

IRP sites identified at NSA New Orleans (West Bank), fifteen potential contamination sources at eight locations were identified and investigated by the Navy between 1985 and 2005 (EnSafe 1992 and LDEQ 2004). All of these potential contamination sources have been resolved by showing that there was no contamination above the regulatory limits or that the type of release was unlikely to lead to adverse environmental impacts with the following exceptions:

- The area of stained soil and stressed vegetation associated with the Building 264 drum storage yard appears to have been fully investigated and 2005 groundwater sampling analytical results indicated that there is no contamination above the regulatory limits except for arsenic which was postulated to be from a natural source. (LDEQ 2005, Aerostar 2005a and 2005b). Building 264 drum storage yard site is still active and has not received No Further Action status.
- The area of concern for pesticide wash water surface discharge incident did not warrant further investigation or inclusion in the IRP program based upon the information presented.
- The Building 105 underground storage tanks (USTs) and contaminated soil has been removed and approved by LDEQ (LDEQ 2002). The associated piping and fuel dispensing stations were not removed and are still in-place.
- The Navy investigated several potential soil and groundwater contamination incidents at NSA New Orleans (West Bank) and upon review the Louisiana Department of Environmental Quality (LDEQ) granted No Further Action Status to these sites in 1996. This No Further Action Status is contingent on a restriction being placed on the deed to the land banning its use as residential property and any use of the groundwater for drinking water purposes (LDEQ 1996). This land use restriction had not been put in place.

- **Aboveground Storage Tanks.** According to station personnel; the station Spill Prevention, Control, and Countermeasures (SPCC) Plan; and observations during the site visit; there are multiple aboveground storage tanks (ASTs) located throughout NSA New Orleans (Fannaly 2007, Enviro-Logical 2003).
- **Underground Storage Tanks.** According to station personnel; the station SPCC Plan; and observations during the site visit; there are three gasoline USTs located at the Navy Exchange Gas Station (Building 80) on NSA New Orleans (West Bank) (Fannaly 2007, Enviro-Logical 2003). All three USTs are registered on the LDEQ UST list. There are no documented releases of fuel from these USTs (Fannaly 2007) and they do not appear on the LDEQ Leaking Underground Storage Tank list (LDEQ 2006). An Underground Storage Tank Closure/ Assessment Form (UST-ENF-02) dated April 2002 from LDEQ states “No Further Action is Required” for two underground storage tanks (tank numbers 40701 and 40702) that were removed on 16 April 2002.
- **Munitions and Explosives of Concern.** Station personnel indicate Navy munitions and explosives of concern (MEC) activities conducted at NSA New Orleans (West Bank), consisted of the storage, handling, and firing of small arms ammunition. Small arms and small arms ammunition are stored at Buildings 22, 267, and 716. Live fire training occurs in a portable firing range that can be moved about the station as necessary (Williams 2007, Fannaly 2007).

According to a preliminary Navy Munitions Response Program report, a map of the U.S. Naval Repair Base (currently NSA New Orleans) dated 30 June 1944, depicted a rifle range in what is now the north-central portion of the current station. The range is no longer present and no additional information was available regarding this potential historic range (Malcolm Pirnie 2007).

Station personnel indicate that there are no known unexploded ordnance (UXO) at NSA New Orleans (Williams 2007, Fannaly 2007).

- **Hazardous Waste.** NSA New Orleans is a Small Quantity Generator of hazardous waste and maintains EPA Hazardous Waste Generator Identification Number LA8170022604 for the West Bank as required (NAVY 2006b).
- **Polychlorinated Biphenyls.** There are no known polychlorinated biphenyls (PCB)-containing transformers or equipment at NSA New Orleans (NAVFAC 2003b).
- **Radiological Materials.** According to station personnel there are no radiological materials on NSA New Orleans (West Bank) (Fannaly 2007).
- **Pesticides.** Activity related to pesticide storage and application is performed by state licensed outside private contractor personnel. No storage of pesticides occurs at NSA New Orleans. Based on the Pesticide Management Plan (NAVFAC 1993), pesticide application typically occurs on a bimonthly, monthly, quarterly, or as needed basis and is focused at pest species of concern at the time of application.

  Historic pesticide mixing practices resulted in pesticide impacted wastewater being discharged to the ground and the storm sewer system at the station. In the mid 1970's the area to the west of Building 704 was used as a landfill for empty and partially full pesticide containers and related residue (EnSafe 1992). These potential pesticide contamination sources have been investigated and are described in the Installation Restoration Program Sites Section of this ECP Report.
- **Asbestos.** A complete asbestos survey has not been completed for the station. Due to the date of construction of many of the station buildings (prior to 1980), the presence of asbestos is generally likely. Many of the buildings at the station have been inspected for asbestos on an as needed basis prior to beginning renovation or repair projects and asbestos has been confirmed to be present (NAVY 2007).
- **Lead-Based Paint.** A complete lead-based paint (LBP) survey has not been completed for the station. Due to the date of construction of many of the station buildings (prior to 1980), the presence of LBP is generally likely. Some of the buildings at the station have been inspected for LBP on an as needed basis prior to beginning renovation or repair projects and LBP has been confirmed to be present (NAVY 2007).
- **Radon.** Station staff stated that radon testing has been completed and that there were no detected concentrations above the level of concern; however, no documentation was available to confirm these results (Williams 2007). The Environmental Compliance Evaluation Report completed in 2006 does state that "NSA New Orleans has been screened for radon. There were no samples greater than 4 picoCuries per Liter, therefore no further action is required." (NAVFAC 2006a).

- **Air Quality.** There are numerous air emissions point sources located at NSA New Orleans. An Emissions Inventory and Compliance Assessment Report completed at NSA New Orleans stated that the potential emissions of criteria pollutant and hazardous air pollutants are well below the major source thresholds (MACTEC 2003). NSA New Orleans is therefore considered a minor source and is not subject to Title V permitting requirements. NSA New Orleans currently maintains an air permit issued by the LDEQ (LDEQ 2005b) and in 2006 the station requested a modification to this permit (MACTEC 2006).
- **Drinking Water.** The potable water supply for NSA New Orleans is provided by Sewerage and Water Board of New Orleans (SWBNO) (EnSafe 1992). The source of the drinking water supplied by the SWBNO is the Mississippi River (EnSafe 1992). According to the facility documentation (NAVFAC 2006a), the station is classified as a Consecutive Public Water System, which means they have no water production or source facility of their own and they obtain all of their water from another water system. A letter from the Louisiana Department of Health and Hospitals states the station is considered connected to the New Orleans- Algiers Waterworks water supply and does not meet the definition of a public water supply and does not have to meet any Federal or State regulations as the Consumer Confidence Reports or Enhanced Surface Water Treatment Rule (LDHH 1999).
- **Groundwater.** The major hydrological units underlying NSA New Orleans are within the Pleistocene era deposits of the Mississippi Alluvial Plain. These units consist of southward dipping sand layers separated by clay bands. There are four significant water bearing units that underlay the station. Due to the poor quality of the water in these aquifers they are not known to be used as a potable water source (EnSafe 1992).
- **Stormwater.** According to the Navy the station's Standard Industrial Classification Code is 9711 and it is therefore exempt from stormwater permitting under federal and state regulations (Navy 1999). The station had a NPDES General Permit for stormwater discharges but has terminated that permit (Navy 2000 and LDEQ 2000). Although not required, a Stormwater Pollution Prevention Plan (SWPPP) has been developed for the station (NAVFAC 2004).

  NSA New Orleans' stormwater collection system discharges to the municipal storm drainage system along General Meyer Avenue. The municipal system drains southeasterly to the Donner Canal which is then pumped to the Intracoastal Waterway (NAVFAC 2004).
- **Surface Water.** There are no surface water features located on the station, with the exception of the wetlands (described below). The Mississippi River bounds the station on the north.
- **Wastewater.** Domestic and industrial wastewater from NSA New Orleans is discharged to sanitary sewer lines that are maintained by SWBNO (Fannaly 2007). SWBNO provides wastewater treatment at the West Bank Sewage Treatment Plant located in the City of New Orleans. The station has two grease traps used for water/grease separation prior to discharging the wastewater into the sanitary sewer system.

Medical and Dental X-ray film processors located on-site include a silver reclaim unit which removes the silver from the wastewater prior to discharge to sanitary sewer system (Fannaly 2007).

- **Floodplains.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), NSA New Orleans is located in Zone A1 and Zone B (FEMA 2007).
- **Wetlands and Aquatic Habitats (Special Aquatic Sites).** According to documentation from the United States Fish and Wildlife Services (USFWS) National Wetland Inventory (USFWS 2007c), the north side property boundary by the Mississippi River is listed as a Palustrine (PFO1A) wetland area.
- **Coastal Zone Areas.** NSA New Orleans is located in the Louisiana coastal zone and part of the Louisiana Coastal Resource Program (LCA 2006 and USACE 2006).
- **Coral Reefs.** No coral reefs are present within or near NSA New Orleans (Fannaly 2007 and NOAA 2007c); therefore, coral reef protection is not applicable to NSA New Orleans.
- **Fisheries.** According to personnel (Fannaly 2007), it is extremely unlikely that any action take at the station could impact the Essential Fish Habitat (EFH) areas located near the station. According to information from USFWS and the National Oceanic and Atmospheric Administration (NOAA), the estuarine and marine habitats found near NSA New Orleans are considered Essential Fish Habitat for certain endangered species of fish (Gulf and Pallid Sturgeon) (USFWS 2007b and NOAA 2007a).
- **Marine Mammals.** According to station personnel there are no marine mammal management plans in place nor have any assessments for marine mammals been conducted at NSA New Orleans (Fannaly 2007). According to the Marine Mammal Protection Act database, there are threatened and endangered marine mammals located in the oceanic waters near NSA New Orleans (NOAA 2007a). However, it is considered unlikely that these mammals will be in the waters of the Mississippi River adjacent to the station.
- **Threatened, Endangered, and Other Sensitive Species.** According to station personnel and environmental resources (Fannaly 2007, USFW 2007a, USFW 2007b, and NOAA 2007a); there are no rare, threatened, or endangered species located on NSA New Orleans. Rare, Threatened, and Endangered Species that are known to be present in Louisiana and that could conceivably be transient visitors to the station or the adjacent waters are the Pallid Sturgeon, Gulf Sturgeon, Least Tern, Red-cockaded Woodpecker, Black-capped Vireo, Piping Plover, and Bald Eagle.
- **Geological Hazards.** NSA New Orleans is located in the Mississippi River Alluvial Plain (NAVFAC 2006b).
- **Architectural Resources.** Quarters “A” was placed on the National Register of Historic Places (NRHP) in 1993 (NRHP 2007). According to the Integrated Cultural Resource Management Plan (ICRMP), Quarters “A” is an 1840 Antebellum Creole plantation home with a guest house (Building 34). It is known as the LeBeuf

Plantation House. Buildings 2, 8, 16, 20, and the flagpoles (Buildings 347 and 348) in front of Building 8 are also significant cultural resources (HHM 2004).

- **Archaeological Resources.** An ICRMP was completed in July 2004 for NSA New Orleans (HHM 2004). The ICRMP lists Quarters A and its grounds as archaeological site 160R137.
- **Native American Graves.** According to station personnel and the ICRMP (Fannaly 2007 and HHM 2004), Native American graves have not been discovered on NSA New Orleans. The Native American Graves Protection and Repatriation Act, Native American Consultation Database (NPS 2007) shows there are no Native American graves or tribal land located on the station.
- **Solid Waste.** Solid waste generated by NSA New Orleans is collected in closed-top dumpsters located throughout the station. The containers are emptied and the waste taken to the River Burch Landfill in Jefferson Parish by a private contractor (NAVFAC 2001).
- **Universal Waste.** Based on information provided by station personnel, universal waste generated at NSA New Orleans includes batteries and occasionally a thermostat. The universal waste is accumulated and transported off-site for recycling by a contractor (Fannaly 2007).
- **Medical Waste.** NSA New Orleans generates and temporarily stores medical waste at the Medical/ Dental Clinic located in Building H-100. The waste is transferred to a contractor for transportation to an off-site treatment/ disposal facility (NAVFAC 2001).
- **Hazardous Materials.** According to the Authorized Use List maintained by the station Safety Department, hazardous materials (e.g., paint, aerosols, lubricants, fuels, cleaners, and various other chemicals) are stored in multiple locations throughout NSA New Orleans (Williams 2007).

1.0 Purpose

The Navy Base Realignment and Closure (BRAC) Program Management Office (PMO) prepared this Environmental Condition of Property (ECP) report for Naval Support Activity (NSA) New Orleans (West Bank) located in New Orleans, Louisiana. NSA New Orleans is also referred to as the station throughout this report.

This report used existing information to summarize the historical, cultural, and environmental conditions of NSA New Orleans property. NSA New Orleans consists of two physically distinct properties, one on north side of the Mississippi River (known as the East Bank) and one on the South side of the Mississippi River (known as the West Bank). These two geographically separated properties are combined to form the NSA New Orleans on the 2005 BRAC list but are being covered under separate ECP Reports. This ECP report is specific to the West Bank. Information was reviewed with installation personnel to ensure all data are current and accurate. Where information was not available, the sources contacted and reference materials sought were documented.

The purposes of the ECP report are to:

- Provide the BRAC PMO with the information it may use to make disposal decisions regarding the property;
- Provide the public with information relative to the environmental condition of the property;
- Assist the local government in planning for the reuse of BRAC property;
- Assist Federal agencies during the Federal property screening process;
- Provide information for prospective buyers;
- Assist new owners in meeting the obligations under the United States (U.S.) Environmental Protection Agency's (USEPA's) "All Appropriate Inquiry" regulations, at such time as they become final; and,
- Assist in determining appropriate responsibilities, asset valuation, liabilities, and liabilities with other parties to a transaction.

THIS PAGE INTENTIONALLY LEFT BLANK

2.0 Background

NSA New Orleans (West Bank) consists of approximately 193 acres of land located near river mile 92.8 on the West Bank of the Mississippi River in the City of New Orleans in Orleans Parish, Louisiana.

The land that underlies NSA New Orleans (West Bank) was purchased by the United States of America on February 14, 1849 for a proposed Navy yard. However, the Navy yard was not developed until November 1901, when the U.S. Naval Station was formally established. The Naval Station remained open until September 1911 when it was deactivated. The station was reopened in 1915 as an industrial Navy yard for repair of vessels. The station operated as such until June 1933 when it was again deactivated and remained closed until December 1939. In September 1944 the station was designated the U.S. Naval Repair Base and in 1947 it was re-designated the U.S. Naval Station, a name it held until January 1962 when it became the Headquarters, Support Activity, New Orleans. In July 1966 the Headquarters, Support Activity was disestablished and re-established as Headquarters, Naval Support Activity, New Orleans (Navy 2007).

NSA New Orleans is on the 2005 BRAC List for closure. The commands and tenants will be relocated to other federal facilities throughout the nation. Relocating these functions would remove the primary missions from NSA New Orleans and would either eliminate or move the entirety of the workforce (Navy 2005b).

THIS PAGE INTENTIONALLY LEFT BLANK

3.0 Property Description

NSA New Orleans (West Bank) consists of approximately 193 acres of land located near river mile 92.8 on the West Bank of the Mississippi River in the City of New Orleans in Orleans Parish, Louisiana. The topography of NSA New Orleans is relatively flat with elevations varying between five and ten feet above mean sea level (see **Figure 3-1**). The station is bounded by residential housing on the west and south, residential and commercial development on the east, and the Mississippi River on the north (see **Figure 3-2**).

There are 133 structures at the station that have been identified with building numbers by the Navy (Navy 2005) (see **Table 3-1**) including a 374-ft pier on the west bank of the Mississippi River (Globalsecurity 2006).

In August 2005, during Hurricane Katrina, the station sustained water/ structural damage to several buildings (NAVY 2007c). There was no surface water flooding at NSA New Orleans; water damage was caused by leaking roofs. These buildings are listed in **Table 3-2**.

THIS PAGE INTENTIONALLY LEFT BLANK

4.0 Environmental Condition Overview – Existing Environmental Information

As part of ECP Report development activities, records were reviewed, a site visit was performed with the BRAC PMO Southeast office personnel at NSA New Orleans, and personnel interviews were conducted to document current and historic conditions at NSA New Orleans. The site visit at NSA New Orleans was conducted on January 16-18, 2007.

The BRAC PMO Southeast office as well as station personnel located at NSA New Orleans provided relevant information for this ECP Report. Additionally, available reports of previous environmental investigations at NSA New Orleans were obtained and reviewed. **Appendix A** presents a list of the documents that were reviewed as part of this effort. The information presented in this report was reviewed with Installation personnel to ensure all data are current and accurate. Where information was not available, the sources contacted and reference materials sought were documented.

Interviews were conducted with NSA New Orleans personnel during the site visit and in subsequent telephone conversations and e-mail communications. **Appendix B** presents a list of the individuals interviewed and/or contacted during preparation of the ECP Report.

4.1 Classification of Environmental Conditions

The Community Environmental Response Facilitation Act of 1992 (CERFA) (amending the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] to add Section 120(h) (4) of CERCLA, 42 United States Code (U.S.C.) Section 9620(h) (4)) requires the identification and documentation of uncontaminated real property controlled by the Department of Defense (DoD) Components where the DoD plans to make excess property available for reuse pursuant to a base closure law. Uncontaminated property is defined as any "real property on which no hazardous substances and no petroleum products or their derivatives were known to have been released, or disposed of." This includes aviation fuel and motor oil. This ECP Report is not intended to identify uncontaminated property in compliance with CERFA and DoD policy. The Navy will comply with its statutory requirement to identify uncontaminated property through additional evaluations and documentation.

An EBS for NSA New Orleans Public-Private Venture Housing at NSA New Orleans, and Naval Air Station, Joint Reserve Base New Orleans was completed in November 1999 (NAVFAC 1999) to evaluate the environmental conditions of property for the proposed public-private venture family housing.

An Environmental Quality Assessment (EQA) for NSA New Orleans was completed in March 2000 (NAVFAC 2000). An additional EQA for NSA New Orleans was completed in August 2003 (NAVFAC 2003b). An Environmental Compliance Evaluation Report was completed in August 2006 (NAVFAC 2006a). All of these assessment activities included a review of appropriate records, reports, and files; evaluation of selected treatment systems, operations and facilities having an impact on the environmental compliance status of the station; and interviews with personnel from various departments on the station.

4.2 Installation Restoration Program Sites

The Installation Restoration Program (IRP) is a DoD program developed in 1975 to investigate and manage environmental impacts on military bases. The IRP adheres to all applicable requirements, including those issued by the USEPA, CERCLA, and the Superfund Amendments and Reauthorization Act (SARA) of 1986.

The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the U.S. and its territories. The NPL is intended primarily to guide the USEPA in determining which sites warrant further investigation.

The Navy has not identified any IRP sites at NSA New Orleans and the station is not on the NPL according to station personnel (Fannaly 2007) and verification of the NPL (USEPA 2007a).

Although there have been no IRP sites identified at NSA New Orleans (West Bank), fifteen potential contamination sources at eight locations were identified and investigated by the Navy between 1985 and 2005 (EnSafe 1992 and LDEQ 2004). A list of these potential contamination sources along with a brief description taken from the referenced documents is presented below:

- Building 80 – Waste oil aboveground storage tank
  - Waste oil, hydraulic fluids, and transmission fluid was stored in a 300-gallon aboveground storage tank (AST). Stressed vegetation was observed around the AST.

- Building 105 – Underground storage tanks (also known as Tanks 105-1 and 105-2)
  - Surface spills were reported around a 10,000-gallon gasoline underground storage tank (UST) and a 2,500-gallon diesel fuel UST. The USTs were removed in 2002 along with all visibly impacted soil.

- Building 105 – Waste battery acid disposal
  - From 1965 until 1985 acid from discarded batteries was diluted with water and discharged to the storm sewer.

- Building 105 – Waste washwater disposal
  - Prior to 1980 washwater generated at a wash rack was discharged into the storm sewer system. No oil/water separator was in place prior to 1980.

- Building 105 – Pesticide mixing wastewater disposal
  - In the early 1960's and again in the early 1970's, pesticide storage and mixing occurred at Building 105. Wastewater from pesticide mixing and cleanup was poured onto the ground outside of Building 105 during these times.

- Building 264 – Special Boat Unit Twenty-Two (SBU-22) drum storage yard
  - A drum storage area associated with a maintenance shop existed from 1974 to 1984. Various 55-gallon drums of waste oil, hydraulic fluid, and solvents were stored on a paved area. Surface staining and stressed vegetation was observed in the area.

- Building 264 – Waste oil AST (also known as Tank T-42)
  - Waste oil was stored in a 1,500-gallon AST. Spills of oil from the tank containment area onto the paved surface were reported. Stressed vegetation was observed around the drainage area.

- Building 264 – Waste battery acid disposal
  - From 1974 until 1985 acid from discarded batteries was diluted with water and discharged to the storm sewer.

- Building 264 – Waste wash water disposal
  - Wash water from maintenance operations was discharged onto the ground surface around Building 264.

- Building 266 – Pesticide mixing waste water disposal
  - In the late 1960's pesticide storage and mixing occurred at Building 266. Wastewater from pesticide mixing and cleanup was poured into the storm sewer system via a floor drain in Building 266.

- Building 273 – Waste oil AST
  - Waste oil was stored in a 560-gallon AST. Stressed vegetation was observed around the tank and was presumed to have been caused by spills of waste oil.

- Building 411 – Diesel fuel AST (also known as Division 1 Boathouse)
  - Spilled fuel had stained the soil underneath a diesel fuel AST located on the shore end of the pier.

- Building 704 – Landfill (also known as Site 9)
  - Landfill used between 1970 and 1978 for disposal of pesticide waste, asbestos, and punctured drums of World War II era chemicals.

- Building 704 – Pesticide mixing wastewater disposal
  - From the mid 1970's until 1983, pesticide storage and mixing occurred at Building 704. Wastewater from pesticide mixing and cleanup was poured onto the ground outside of Building 704.

- Building 770 – Gasoline service station
  - The site of Building 770 was formerly a warehouse (Building 608) which was used for storage of hazardous materials from 1957 until 1988. In 1998 it was demolished and a gasoline service station with two ASTs was built in its place. The Navy considered this building a potential risk based on its history.

The potential contaminant release incidents at Building 80, Building 273, and Building 704, as well as the waste oil tank release and washwater discharge incidents at Building 264 were investigated by the Navy (Ensafe 1995a, Ensafe 1995b, Ensafe 1996) and were granted No Further Action Status by the Louisiana Department of Environmental Quality (LDEQ) in 1996. This No Further Action Status is contingent on a restriction being placed on the deed to the land

banning its use as residential property and any use of the groundwater for drinking water purposes (LDEQ 1996). This land use restriction has not been put in place.

Similarly the potential release incident at Building 770 was investigated by the Navy and was granted No Further Action Status by the LDEQ in 2004 (LDEQ 2004).

Sampling and investigation of the oil stained soil around the diesel fuel tank at Building 411 did not identify any contamination above the regulatory limits in the soil (EnSafe 1992).

The waste battery acid and waste washwater disposal incidents at Building 105, the waste battery acid disposal incident at Building 264, and the pesticide mixing wastewater disposal incident at Building 266 all consisted of the discharge of potentially contaminated water to the municipal storm sewer system that discharges to the Magellan Canal (EnSafe 1992). Although sampling was not conducted during the investigations, the findings concluded that there were negligible impacts based on the small quantities of material disposed and the large volume of dilution that occurred in the storm sewer system.

The Building 264 drum storage yard was investigated by the Navy and the 2005 groundwater sampling analytical results indicated that there were no volatile or semivolatile organic compounds above the detection limits and no metals above the LDEQ Standards for Groundwater with the exception of arsenic. The elevated arsenic levels were postulated to be from a natural source (Aerostar 2005 and 2005b). Building 264 drum storage yard site is still active and has not received No Further Action status.

The USTs at Building 105 were removed in 2002 along with all impacted soil and approved by LDEQ (LDEQ 2002). Confirmation samples showed no impacts above the applicable soil standard (Navy 2002). It was reported that the associated piping with the USTs was left in place (Fannaly 2007).

4.3 Storage Tanks

Most of the regulations concerning USTs are contained in 40 Code of Federal Regulations (CFR) 280 and 40 CFR 281. Codification of individual state and territorial programs is found in 40 CFR 282.50-282.105. LDEQ administers the state's UST compliance program.

ASTs containing fuel and oil products are regulated under USEPA's Spill Prevention, Control, and Countermeasures (SPCC) program. SPCC Plan requirements are described in USEPA's Oil Pollution Prevention regulation at 40 CFR 112.

The United States Coast Guard (USCG) regulates facilities that transfer oil in bulk to or from vessels of 250 barrels or greater under Title 33 CFR 154 and requires those facilities to have a Facility Response Plan (FRP) as required by the Oil Pollution Act of 1990. Since the station does not conduct these types of operations, an FRP is not required by the USCG.

4.3.1 Aboveground Storage Tanks

According to station personnel, the station SPCC Plan, and observations during the site visit; there are multiple ASTs located at NSA New Orleans (West Bank), including ASTs at Buildings H-100, H-101, 64, 251, 267, 273, 416, 701, 709, and 752 (Fannaly 2007, Enviro-Logical 2003).

At the time of the site visit, the ASTs appeared to be in good condition and no current signs of spills or releases of product were observed.

Historical releases from ASTs are discussed above in Section 4.2. The locations of ASTs at NSA New Orleans (West Bank) are presented in **Figure 4-1** and a summary of AST information is tabulated in **Table 4-1**.

4.3.2 Underground Storage Tanks

According to station personnel, the station SPCC Plan, and observations during the site visit; there are three gasoline USTs located at the Navy Exchange Gas Station (Building 80) on NSA New Orleans (West Bank) (Fannaly 2007, Enviro-Logical 2003). All three USTs are double-walled fiberglass tanks equipped with interstitial monitoring and alarm systems. All three USTs are registered on the LDEQ UST list. There are no documented releases of fuel from these USTs (Fannaly 2007) and they do not appear on the LDEQ Leaking Underground Storage Tank list (LDEQ 2006). Locations of USTs are presented in **Figure 4-1** and a summary is tabulated in **Table 4-1**. An Underground Storage Tank Closure/ Assessment Form (UST-ENF-02) dated April 2002 from LDEQ states “No Further Action is Required” for two underground storage tanks (tank numbers 40701 and 40702) at Building 105 that were removed on 16 April 2002.

4.4 Munitions and Explosives of Concern

According to station personnel the only Navy munitions and explosives of concern (MEC) activities conducted at NSA New Orleans (West Bank), consisted of the storage, handling, and firing of small arms ammunition. Small arms and small arms ammunition are stored at Buildings 22, 267, and 716. Live fire training occurs in a portable firing range that can be moved about the station as necessary (Williams 2007, Fannaly 2007).

According to a preliminary Navy Munitions Response Program report, a map of the U.S. Naval Repair Base (currently NSA New Orleans) dated 30 June 1944, depicted a rifle range in what is now the north-central portion of the current station. The range was configured so that firing was directed northward toward the Mississippi River. The range no longer appears on station maps as of 1952 (Malcolm Pirnie 2007). No additional information was available regarding this potential historic range.

These MEC areas are presented in **Table 4-2** and **Figure 4-2.**

Station personnel indicate that there are no known unexploded ordnance (UXO) at NSA New Orleans (Williams 2007, Fannaly 2007).

4.5 Hazardous Waste

Regulations of hazardous substances, from the point of generation through final disposition, have been implemented by USEPA as authorized by the Resource Conservation and Recovery Act (RCRA). Through the State authorization rulemaking process, USEPA delegates the primary responsibility of implementing the RCRA hazardous waste program to individual states in lieu of USEPA.

NSA New Orleans generates less than 1,000 kilograms of hazardous waste per calendar month and is therefore classified as a Small Quantity Generator of hazardous waste per LAC Title 33: Part V. Section 33:V.1101 and 33:V.3903, and Federal Guidelines 40 CFR 260.10 and 262.34. NSA New Orleans maintains USEPA Hazardous Waste Generator Identification Number LA8170022604 for the West Bank as required in 40 CFR 262.12 and LAC 33:V.1105 (NAVY 2006b).

According to station personnel, all hazardous wastes generated at NSA New Orleans are initially collected at satellite accumulation points and when the container at the satellite accumulation point is full, the container is moved to the 90-Day Storage Area in Building 762 (Fannaly 2007). Hazardous waste storage buildings are presented in **Table 4-3**. **Figure 4-3** shows the locations of hazardous waste at NSA New Orleans.

4.6 Polychlorinated Biphenyls

Congress enacted the Toxic Substances Control Act (TSCA, Public Law [Pub. L.] 94-469) in 1976, to become effective January 1, 1977. The act authorizes USEPA to secure information on all new and existing chemical substances and to control any of these substances that could cause an unreasonable risk to public health or the environment. Under earlier laws USEPA had authority to control toxic substances only after damage had occurred. The earlier laws did not require the screening of toxic substances before they entered the marketplace. TSCA closed the gap in the earlier laws by requiring that the health and environmental effects of all new chemicals be reviewed before they are manufactured for commercial purposes. TSCA has four titles; polychlorinated biphenyls (PCBs) are regulated under Title I. Title I, Control of Toxic Substances includes provisions for testing chemical substances and mixtures, manufacturing and processing notices, regulating hazardous chemicals substances and mixtures, managing imminent hazards, and reporting and retaining information.

Electrical transformers manufactured prior to 1979 may have used PCBs as an insulating material. As defined by USEPA a non-PCB transformer contains less than 50 parts per million (ppm) PCBs in its insulating oil, a PCB-contaminated transformer contains between 50 and 500 ppm PCBs, and a PCB transformer contains over 500 ppm PCBs. In addition, USEPA requires that PCB transformers (over 500 ppm) be removed from service or retro filled with non-PCB insulating oil.

According to station personnel all transformers on NSA New Orleans are owned by the station and are PCB-free (Fannaly 2007). There are no known PCB-containing transformers or equipment at NSA New Orleans (NAVFAC 2003b).

Fluorescent light ballasts manufactured prior to the early 1980s also may have contained PCBs. The station is outfitted with fluorescent lights in many buildings. Station personnel stated that PCB ballasts are not present at NSA New Orleans (Fannaly 2007).

4.7 Radiological Materials

According to station personnel there are no radiological materials on NSA New Orleans (West Bank) (Fannaly 2007).

4.8 Pesticides

USEPA regulates the use of pesticides under the authority of two federal statutes: the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA). FIFRA provides the basis for regulation, sale, distribution and use of pesticides in the U.S.; whereas the FFDCA authorizes USEPA to set maximum residue levels, or tolerances, for pesticides used in or on foods or animal feed.

Past and present pesticide uses and impacts at NSA New Orleans (West Bank) are described in the following sub-sections. Details of current pesticide use are described in the Pest Management Plan (PMP) for NSA New Orleans (NAVFAC 1993).

4.8.1 Past Pesticide Impacts

Historic herbicide, pesticide, and rodenticide use prior to 1983 included Silvex, 2,4-D, Roundup, Primatol, Baygon, Diazanon, Pyrethrin, DK-11, Chlordane, Malathion, DDT, Lindane, Ficam and Warfarin anticoagulant. These materials were stored and mixed at NSA New Orleans (West Bank) Buildings 105, 226, and 704. These materials were stored and mixed at Building 105 during the early 1960's and again in the early 1970's and during those times wastewater from mixing and cleanup was discharged to the ground outside Building 105. During the late 1960's these operations were moved to Building 266 where wastewater was discharged to a floor drain that lead to the storm sewer system. In the mid 1970's pesticide and herbicide storage and mixing operations were moved to Building 704 from Building 105 after which time wastewater from mixing and cleanup was discharged to the ground outside Building 704. During this same time the area to the west of Building 704 was used as a landfill for empty and partially full pesticide containers. Until the early 1980's Phostoxin was used at NSA New Orleans (West Bank) and the left over pellets were mixed with soap and water and the remaining material was buried in the Building 704 landfill (EnSafe 1992). These potential pesticide contamination sources have been investigated as described in Section 4.2 of this ECP Report.

4.8.2 Present Pesticide Use

The Pesticide Management Plan for NSA New Orleans (NAVFAC 1993) describes the requirements and recommended best practices for all aspects of pesticide management, in accordance with federal laws, DoD and Navy regulations.

No pesticides are stored or applied at NSA New Orleans (West Bank) by on-site personnel. Since 1983 (EnSafe 1992) chemical pesticides have been applied at the station by contract agents on a scheduled or as-needed basis depending on the nature of the targeted pest.

Typical pesticide and rodenticide applications in the areas used for food service/ preparation; food consumption; and other areas as necessary are serviced on a bimonthly, monthly, or quarterly basis for common household and nuisance pests (i.e. rats, bats, moles, gophers, cockroaches, ants, fleas, spiders, bees, wasps, and silverfish). Family housing units are serviced during change in occupancy or when problems are identified. Occupants are issued pesticide products on an as needed basis for minor concerns. Pesticides and fungicides are used on an as needed basis for structural pests (i.e. termites, powder post beetles, wood borers, and wood destroying fungi). Herbicides are used on an as needed basis around moving obstacles, fence lines, around buildings, sidewalks, in industrial areas, and along ditches.

Insecticides and larvaecide for mosquitoes and filth flies are used on an as needed basis. Areas with fire ants are treated with insecticides twice a year in April and September. Areas are resurveyed within 30-45 days and retreated if necessary.

4.9 Asbestos

A complete asbestos survey has not been completed for the station. Due to the date of construction of many of the station buildings (prior to 1980), the presence of asbestos is generally likely. Many of the buildings at the station have been inspected for asbestos on an as needed basis prior to beginning renovation or repair projects.

Of the 133 numbered structures at NSA New Orleans (West Bank), 51 have been confirmed to contain asbestos containing material (ACM), 2 have suspected ACM based on visual inspections, 20 have been inspected and documented to have no ACM, and no documentation was available for the remaining structures (see **Table 4-4** and **Figure 4-4**) (NAVY 2007a).

4.10 Lead-Based Paint

Lead is regulated under TSCA Title IV, Lead Exposure Reduction which was added on October 28, 1992 (Pub. L. 102-550). The purpose of this legislation is to reduce environmental lead contamination and prevent adverse health effects as a result of lead exposure, particularly in children. Provisions include identifying lead-based paint (LBP) hazards, defining levels of lead allowed in various products, including paint and toys, and establishing state programs for the monitoring and abatement of lead exposure levels, including training and certification for lead abatement workers.

A complete LBP survey has not been completed for the station. Due to the date of construction of many of the station buildings (prior to 1980), the presence of LBP is generally likely. Some of the buildings at the station have been inspected for LBP on an as needed basis prior to beginning renovation or repair projects.

Of the 133 numbered structures at NSA New Orleans (West Bank), 19 have been confirmed to contain LBP, 8 have been inspected and documented to have no LBP, and no documentation was available for the remaining structures (see **Table 4-5** and **Figure 4-5**) (NAVY 2007a).

4.11 Radon

Indoor radon concentrations are regulated under TSCA Title III, Indoor Radon Abatement which was added on October 28, 1988 (Pub. L. 100-551). The purpose of this legislation is to assist States in responding to the threat to human health posed by exposure to radon. USEPA is required to publish an updated citizens' guide to radon health risk and to perform studies of the radon levels in schools and radon contamination in federal buildings.

Station staff stated that radon testing has been completed and that there were no detected concentrations above the level of concern; however, no documentation was available to confirm these results (Williams 2007). The Environmental Compliance Evaluation Report completed in 2006 does state that “NSA New Orleans has been screened for radon. There were no samples greater than 4 picoCuries per Liter [pCi/L], therefore no further action is required.” (NAVFAC 2006a).

With respect to radon, USEPA's website indicates that USEPA has classified Orleans Parish, Louisiana as Zone 3 for Radon, i.e., has mean indoor concentrations of <2 pCi/L, which is less than the USEPA's threshold value of 4.0 pCi/L for conducting long-term assessments and initiating mitigative actions to reduce radon levels (USEPA 2006b).

4.12 Air Quality

Air emissions at NSA New Orleans are regulated under the Clean Air Act (CAA) as enforced by USEPA and LDEQ. All emission source equipment including electrical generation equipment and process equipment (i.e., storage tanks, cleaning operations, blasting operations, and woodworking operations) are summarized in **Table 4-6**. The locations of buildings with air emission equipment are indicated on **Figure 4-6**.

An Emissions Inventory and Compliance Assessment Report (EICAR) was prepared by MACTEC Engineering and Consulting for Naval Facilities Engineering Command, Southern Division in June 2003 (MACTEC 2003). The EICAR stated that NSA New Orleans' potential emissions are well below the major source thresholds (i.e., 100 tons per year [tpy]) for each of the criteria pollutants. The highest potential and actual emission are nitrogen oxides (NO_X) and volatile organic compounds (VOCs) respectively, which are emitted by the external combustion units and storage tank operations. The EICAR also indicates that the potential hazardous air pollutant (HAP) emissions are below major source thresholds (i.e., 10 tpy for any single HAP or 25 tpy for a combination of HAPs). HAP emissions, including toluene, hexane, and 2, 2, 4-trimethylpentane are primarily contributed by storage tanks operations. NSA New Orleans is considered a minor source and is not subject to Title V permitting requirements.

NSA New Orleans currently maintains an air permit issued by LDEQ on 25 July 2005, Permit Number 2140-00067-03 (LDEQ 2005b). The station has recently requested a modification to this permit to group similar emission sources into a single emission source with a group operational cap (MACTEC 2006).

4.13 Water Quality

4.13.1 Drinking Water

The Safe Drinking Water Act (SDWA) of 1974, amended in 1986 and 1996, was passed to protect public health by regulating the nation's pubic drinking water supply and its sources including rivers, lakes, reservoirs, springs, and groundwater drinking wells.

According to the facility documentation (NAVFAC 2006a), the station is classified as a Consecutive Public Water System, which means they have no water production or source facility of their own and they obtain all of their water from another water system. A letter from the Louisiana Department of Health and Hospitals states the station is considered connected to the New Orleans- Algiers Waterworks water supply and does not meet the definition of a public water supply and does not have to meet any Federal or State regulations as the Consumer Confidence Reports or Enhanced Surface Water Treatment Rule (LDHH 1999).

SWBNO serves the station's drinking water supply needs from one of two water treatment facilities. The Algiers facility serves the West Bank and the Carrollton facility serves the East Bank. Both facilities draw water from the Mississippi River, the Algiers facility at river mile 95.5

and the Carrollton facility at river mile 104. No groundwater is used for drinking water within a 4-mile radius of NSA New Orleans (EnSafe 1992).

4.13.2 Groundwater

The following discussion of groundwater conditions is obtained from the various reports included within the NSA New Orleans Hazard Ranking System Final Scoring Books (EnSafe 1992).

The major hydrological units underlying NSA New Orleans are within the Pleistocene era deposits of the Mississippi Alluvial Plain. These units consist of southward dipping sand layers separated by clay bands. The units begin north of Lake Ponchitrain and dip downwards as they cross under the lake, becoming confined by the Late Pleistocene and Recent Fluvial clays of the Mississippi Alluvial Plain to the point that they become artesian in nature.

In the area around NSA New Orleans, there is a shallow aquifer consisting of small isolated sand lenses within the alluvial clays and silts. However this near surface aquifer is not known to contain potable water and is not reported to be extensive or permeable enough to supply large quantities of water of quality.

Underlying the shallow aquifer is the “200-foot sand” which is a poorly defined aquifer unit that tends to vary rapidly from a thickness of some 50 feet to less than a few feet thick. In the area of NSA New Orleans, this unit produces brackish water containing an average of 500-900 ppm chloride. Due to this poor quality the water is not known to be used as a potable water source.

Beneath the 200-foot sand lies the “700-foot sand” which is the primary water bearing unit in the area. This unit is continuous throughout the area and is approximately 200 feet thick. Water quality in this aquifer grades from fresh to saline in a north-south direction. The water quality is generally considered unsatisfactory for potable water supply.

The deepest reported aquifer is the “1,200-foot sand” which occurs at approximately 1,100 feet below mean sea level in the NSA New Orleans area. The water in this unit ranges from slightly saline to salt brine and is therefore not used as a potable water supply.

Based on site specific data collected during previous environmental investigations, the shallow groundwater in the vicinity of the station is reported to lie 2-6 feet below ground surface and to potentiometric surface gradient is generally to the south-southwest but can be impacted significantly by the water level in the Mississippi River, local precipitation, and use of local man made drainage canals.

Potential groundwater contamination incidents are described in Section 4.2 of this ECP Report.

4.13.3 Stormwater

A letter from the Navy to LDEQ dated 28 December 1999 (Navy 1999) states that the Standard Industrial Classification (SIC) Code for the station is 9711 and that there are no industrial activities occurring at the station and therefore NSA New Orleans is exempt from stormwater permitting under federal regulation 40 CFR 122.26 and Louisiana Administrative Code (LAC) 33.IX.2341.B.14. A letter from LDEQ to the Navy dated 13 January 2000 (LDEQ 2000) confirms that termination of the permit is agreeable.

On 10 February 2000 (Navy 2000) NSA New Orleans submitted a Notice of Termination to close out the coverage that had been in place for the station under NPDES General Permit No. LAR 00B983.

Although not required, NSA New Orleans has maintained a Stormwater Pollution Prevention Plan (SWPPP) for the station to ensure compliance with state and federal laws that prohibit discharges of pollutants without a permit (NAVFAC 2004).

NSA New Orleans has a stormwater collection system that consists of a network of in-ground stormwater inlets and storm sewer pipes as well as ground surface ditches and swales located throughout the developed portions of the station that convey runoff to the municipal storm sewer system. Drainage from the West Bank flows to the municipal storm drainage system along General Meyer Avenue. The municipal system drains southeasterly to a 2,500 cubic feet per second pump station on Donner Canal. The runoff is then pumped to the Intracoastal Waterway (NAVFAC 2004). See **Figure 4-7** for details of the stormwater collection system.

4.13.4 Surface Water

There are no surface water features located on the station itself, with the exception of the wetlands (described below in Sub-Section 4.14.2). The Mississippi River borders the station on the north.

4.13.5 Wastewater

Domestic and industrial wastewater generated at NSA New Orleans is discharged to sanitary sewer lines that are maintained by SWBNO (see **Figure 4-8**) (Fannaly 2007). SWBNO provides wastewater treatment at the West Bank Sewage Treatment Plant located in the City of New Orleans.

Domestic waste is directly discharged to the West Bank Sewage Treatment Plant. Industrial wastewater generated at NSA New Orleans consists of some industrial process wastewater, waste from washing of floors and equipment, and X-ray film processor wastewater. The Medical and Dental X-ray film processors located in Building H-100 include a silver reclaim unit which removes the silver from the wastewater prior to discharging it to the sanitary sewer system (Fannaly 2007).

NSA New Orleans (West Bank) has two grease traps, located at Building 700 and 707, that are used for grease separation and storage prior to discharging the wastewater into the sanitary sewer system (Fannaly 2007). These devices are described in **Table 4-7**.

4.14 Natural Resources

According to the EQA and station personnel, the station does not require a natural resource program (NAVFAC 2000 and Howe 2007).

4.14.1 Floodplains

Information on floodplains for the station was obtained from the Federal Emergency Management Agency (FEMA) website (FEMA 2007). FEMA Q3 flood data provides users with

flood risk information that details 100-year or 500-year floodplains at the county level. The FEMA Q3 flood data are derived from FEMA's Flood Insurance Rate Maps (FIRMs), which are the basis for floodplain management, mitigation, and insurance activities of the National Flood Insurance Program (NFIP). FEMA creates a FIRM to display the 100-year and 500-year floodplains based on risk calculations and define zones within the floodplains to describe more specific levels of risk.

According to the FIRM (FEMA 2007), NSA New Orleans is located in Zone A1 and Zone B (FEMA 2007). Zone A1 is the flood insurance rate zone that corresponds to the 100-year floodplains that is determined in the Flood Insurance Study by detailed methods. In most instances, Base Flood Elevations (BFEs) derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply. Zone B is the flood insurance rate zone that corresponds to areas outside the 100-year floodplains, areas of 100-year sheetflow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. No BFEs or depths are shown within this zone.

Flood plains at NSA New Orleans are shown in **Figure 4-9.**

4.14.2 Wetlands and Aquatic Habitats (Special Aquatic Sites)

According to documentation from the United States Fish and Wildlife Services (USFWS) National Wetland Inventory (USFWS 2007c), the north side property boundary along the Mississippi River is listed as a Palustrine (PFO1A) wetland area. The Mississippi River located to the north is listed as Riverine (R2UBH). Wetland areas at NSA New Orleans (West Bank) are listed, defined, and shown in **Table 4-8** and **Figure 4-10**.

4.14.3 Coastal Zone Management Areas

NSA New Orleans is located in the Louisiana coastal zone and part of the Louisiana Coastal Resource Program (LCA 2006 and USACE 2006). The Coastal Zone Management Act (CZMA) requires federal facilities to carry out activities in a manner consistent with the State's coastal zone management program. All drainage canals and ditches at NSA New Orleans eventually flow into the Mississippi River and ultimately the Gulf of Mexico.

4.14.4 Coral Reefs

No coral reefs are present within or near NSA New Orleans (Fannaly 2007 and NOAA 2007c); therefore, coral reef protection is not applicable to NSA New Orleans.

4.14.5 Fisheries

The Magnuson-Stevens Act requires that any federal activity that may have an impact on Essential Fish Habitat (EFH) be coordinated with the National Marine Fisheries Service (NMFS), and that if such activities were to adversely affect any EFH identified under the Magnuson-Stevens Act, the Secretary of Commerce would recommend measures that could be taken to conserve the EFH in question.

According to information from USFWS and the National Oceanic and Atmospheric Administration (NOAA), the estuarine and marine habitats found near NSA New Orleans are considered EFHs for certain species of fish (Gulf and Pallid Sturgeon) (USFWS 2007b and NOAA 2007a). Therefore, in accordance with the consultation requirements of §305(b) of the Magnuson-Stevens Act (16 U.S.C. 1855[b]), NSA New Orleans (as a federal entity) must consult with the Secretary of Commerce on all actions, or proposed actions, authorized, funded, or undertaken that may adversely affect EFH. According to personnel (Fannaly 2007), it is extremely unlikely that any action take at the station could impact the EFH areas located near the station.

4.14.6 Marine Mammals

According to station personnel there are no marine mammal management plans in place nor have any assessments for marine mammals been conducted at NSA New Orleans (Fannaly 2007). Although according to the Marine Mammal Protection Act (MMPA) database, there are threatened and endangered marine mammals located in ocean waters near NSA New Orleans (NOAA 2007a) it is considered unlikely that these mammals will be in the waters of the Mississippi River adjacent to the station.

4.14.7 Threatened, Endangered, and Other Sensitive Species

Threatened and endangered species at NSA New Orleans are regulated under the Federal Endangered Species Act and by the Louisiana Department of Wildlife, Fisheries, and Parks.

According to station personnel and environmental resources (Fannaly 2007, USFW 2007a, USFW 2007b, and NOAA 2007a); there are no rare, threatened, or endangered species located on NSA New Orleans. Rare, Threatened, and Endangered Species that are known to be present in Louisiana and that could conceivably be transient visitors to the station or the adjacent waters are the Pallid Sturgeon, Gulf Sturgeon, Least Tern, Red-cockaded Woodpecker, Black-capped Vireo, Piping Plover, and Bald Eagle.

4.14.8 Geological Hazards

NSA New Orleans is located in the Mississippi River Alluvial Plain (NAVFAC 2006b). The Mississippi River Alluvial Plain is identified by conspicuous bands of alternating Pleistocene and Holocene deposits. The bands were formed over the last two million years by interglacial period streams depositing material during the Pleistocene, followed by a gradual erosion of these materials by post-glacial Holocene river systems. The topography of the modern Mississippi River Embankment is generally broad, and flat. The Mississippi River Alluvial Plain encompasses 12,350 square miles of Louisiana and extends as far as southern Illinois. Alluvial plains are generally floodplains adjacent to rivers where periodic flooding usually deposits soils suspended in the flood waters. These floodplains are comprised of a series of natural levees, erosion meanders, and oxbow lakes.

The two soil associations present are Harahan-Rita-Westwego and Sharkey-Commerce-Mhoon (NAVFAC 2006b). Westwego-Harahan soils occur primarily in areas of drained swamps. This soil association is characterized by a clay surface layer and clay subsoil. The Harahan soils are mineral in composition while the Westwego soils are organic in nature. Other soils also occur in

conjunction with this association. One of these types is Rita muck, a high density, organic soil, with little identifiable plant material due to the advanced stage of material decomposition. These soils are typically level with 0 to 1 percent slopes. The soils within this association are also, in general, poorly drained. Sharkey-Commerce soils occur on natural levees which have been protected from flooding. This soil association is characterized by a clay or loamy surface level and subsoils either clay or loamy in composition. Sharkey silty clay loam and Sharkey Clay is typically level to nearly level with 0 to 1 percent slopes. Commerce silt loam is typically level to nearly level with 0 to 1 percent slopes. This Commerce soil variant has a clay substratum and generally occurs on more elevated land than Sharkey soil types. All soil types within this association are poorly to somewhat poorly drained.

The potential for hurricane activity in the area is high. There have been approximately 18 hurricanes reported in Louisiana since 1851 (NOAA 2007b). The most recent hurricanes being Katrina and Rita in 2005. Damaged sustained at NSA New Orleans from Hurricane Katrina is described in Section 3 of this ECP Report.

The hurricane season for NSA New Orleans is from 1 June through 30 November, with September being the major threat month.

4.15 Cultural Resources

Cultural resources at NSA New Orleans are federally regulated under the National Historic Preservation Act, Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. An Integrated Cultural Resource Management Plan (ICRMP) was completed in July 2004 for NSA New Orleans (HHM 2004). The ICRMP reflects DoD regulations regarding cultural resources management responsibilities and contributes to DoD efforts to implement a more consistent agency-wide approach to cultural resource management.

4.15.1 Architectural Resources

According to station personnel there are several known culturally significant architectural resources on NSA New Orleans (West Bank) (Fannaly 2007) (see **Table 4-9** and **Figure 4-11**). Construction of NSA New Orleans (West Bank) occurred since 1901 (Globalsecurity 2007). The original buildings, some of which still stand, were completed in 1903. Located on the grounds is a plantation home called LeBeuf Plantation House, built in 1840. Today that home is known simply as Quarters "A" and is occupied by the area's senior Naval flag officer. Quarters "A", an Antebellum Creole style country home, was placed on the National Register of Historic Places in 1993 (NRHP 2007 and HHM 2004). The property includes 2.3 acres of land enclosed by a fence and also includes the old kitchen (Building 34), which contributes to the property's historic character, and a modern garage (Building 362), which detracts from the historic character of the site. Building 34, the old kitchen is also listed on the NRHP and is now used as a guest house. Building 2, 8, 16, 20, and the flagpoles (Buildings 347 and 348) in front of Building 8 are also significant cultural resources (HHM 2004). Some of these buildings received minor damage during Hurricane Katrina. Information relating to this damage is presented in **Table 3-2**.

4.15.2 Archeological Resources

The ICRMP lists Quarters "A" and its grounds as archaeological site 160R137 (HHM 2004) (see **Table 4-9** and **Figure 4-11**). Any ground disturbing activities within the site perimeter have the potential to adversely affect significant archaeological resources directly associated with Quarters "A".

All land at NSA New Orleans not covered by structures is considered a high probability of locating archaeological sites (HHM 2004). According to the ICRMP, a review of historic maps and the archaeological context for the City of New Orleans suggests that there was significant settlement of areas along the waterfront over the past 300 years. Figures in the ICRMP show the relationship between the NSA New Orleans facility and a historic plat map indicating the location of eighteenth century plantation houses, slave cabins, formal gardens, and roads. This figure confirms that the waterfront was an area of significant human activity dating back to at least the eighteenth century.

4.15.3 Native American Graves

No surveys for Native American graves have been conducted on NSA New Orleans (Fannaly 2007). According to station personnel and the ICRMP (Fannaly 2007 and HHM 2004), Native American graves have not been discovered on NSA New Orleans. The Native American Graves Protection and Repatriation Act (NAGPRA), Native American Consultation Database (NPS 2007) shows there are no Native American graves or tribal land located on the station.

4.16 Solid Waste

Solid waste generated by NSA New Orleans is collected in closed-top dumpsters located throughout the station that are emptied by a private contractor (Pelican Waste Disposal). Solid waste is hauled off-station by the contractor to the River Burch Landfill in Jefferson Parish (NAVFAC 2001).

4.17 Universal Waste

Based on information provided by station personnel, universal waste generated at NSA New Orleans includes primarily batteries and occasionally a thermostat (Fannaly 2007). Fluorescent light bulbs are crushed and disposed of as hazardous waste (Fannaly 2007). The universal waste is accumulated in Building 762 and transported off-site for recycling by a contractor. Universal waste storage locations are listed in **Table 4-10** and shown in **Figure 4-12.**

4.18 Medical Waste

NSA New Orleans generates medical waste from the Medical/ Dental Clinic located in Building H-100. Medical waste is generated in the medical examination rooms and in the dental treatment room and are placed in receptacles located in each room where waste is generated. Waste collected from each medical and dental clinic room is taken to a refrigerator dedicated to storing medical waste. Target Medical Waste, Inc., a permitted medical waste contractor, collects waste for off-site disposal (NAVFAC 2001). Medical waste locations are listed in **Table 4-11** and shown in **Figure 4-13.**

4.19 Hazardous Materials

According to the Authorized Use List maintained by the station Safety Department hazardous materials (e.g., paint, aerosols, lubricants, fuels, cleaners, and various other chemicals) are stored in multiple locations throughout NSA New Orleans (Williams 2007). Hazardous material storage locations are listed in **Table 4-12** and shown in **Figure 4-14.**

4.20 Summary of Environmental Conditions

This section presents a summary of environmental conditions identified during the site visit, documents reviewed, and interviews conducted. The environmental conditions are presented on **Figure 4-15** and include:

- Installation Restoration Program Sites. Although there have been no formal IRP sites identified at NSA New Orleans (West Bank), several potential contamination sources exist:
  - The area of stained soil and stressed vegetation associated with the Building 264 drum storage yard appears to have been fully investigated and 2005 groundwater sampling analytical results indicated that there is no contamination above the regulatory limits except for arsenic which was postulated to be from a natural source (Aerostar 2005 and 2005b). Building 264 drum storage yard site is still active and has not received No Further Action status.
  - The area of concern for pesticide wash water surface discharge incident did not warrant further investigation or inclusion in the IRP program based upon the information presented.
  - The Building 105 underground storage tanks (USTs) and contaminated soil has been removed and approved by LDEQ (LDEQ 2002). The associated piping and fuel dispensing stations were not removed and are still in-place.
  - The Navy investigated several potential soil and groundwater contamination incidents at NSA New Orleans (West Bank) and upon review, LDEQ granted No Further Action Status to these sites in 1996. This No Further Action Status is contingent on a restriction being placed on the deed to the land banning its use as residential property and any use of the groundwater for drinking water purposes (LDEQ 1996). This land use restriction had not been put in place.
- Aboveground Storage Tanks. There are multiple ASTs located throughout NSA New Orleans. At the time of the site visit, the ASTs appeared to be in good condition and no current signs of spills or releases of product were observed.
- Underground Storage Tanks. There are three gasoline USTs located at the Filling station (Building 80) on NSA New Orleans (West Bank). All three USTs are registered on the LDEQ UST list. There are no documented releases of fuel from these USTs.
- Munitions and Explosives of Concern. Navy MEC activities conducted at NSA New Orleans (West Bank) consist of the storage, handling, and firing of small arms ammunition. Small arms and small arms ammunition are stored at Buildings 22, 267, and 716. According to a preliminary Navy Munitions Response Program report,

a map of the station dated 30 June 1944, depicted a rifle range in what is now the north-central portion of the current station. The range is no longer present and no additional information was available regarding this potential historic range.

- Hazardous Waste and Transfer Facilities. Hazardous waste generated at satellite accumulation points are moved to the 90-Day Storage Area in Building 762 for storage prior to transport off-property.
- Asbestos. The presence of ACM is generally likely in the station buildings. Many of the buildings at the station that have been inspected for asbestos have been confirmed to contain ACM.
- Lead-Based Paint. The presence of LBP in the station buildings is generally likely. Some of the buildings at the station have been inspected for LBP and LBP has been confirmed to be present.
- Air Quality. There are numerous air emissions point sources located at NSA New Orleans. NSA New Orleans currently maintains an air permit issued by LDEQ, and in 2006 the station requested a modification to this permit.
- Wastewater. The station has two grease traps used for water/grease separation prior to discharging the wastewater into the sanitary sewer system.
- Floodplains. NSA New Orleans is located in Zone A1 (100-year floodplain) and Zone B.
- Wetlands. The north side property boundary along the Mississippi River is listed as a Palustrine wetland area.
- Fisheries. There are estuarine and marine habitats found near NSA New Orleans that are considered EFHs for certain endangered species of fish (Gulf and Pallid Sturgeon).
- Threatened and Endangered Species. There are no known rare, threatened, or endangered species located on NSA New Orleans. Rare, Threatened, and Endangered Species that are known to be present in Louisiana and that could conceivably be transient visitors to the station or the adjacent waters are the Pallid Sturgeon, Gulf Sturgeon, Least Tern, Red-cockaded Woodpecker, Black-capped Vireo, Piping Plover, and Bald Eagle.
- Architectural Resources. Quarters “A” and Building 34 were placed on the NRHP in 1993. Buildings 2, 8, 16, 20, and the flagpoles (facilities numbered 347 and 348) in front of Building 8 are listed as significant cultural resources but are not registered on the NRHP.
- Archaeological Resources. Quarters “A” and its grounds are listed as an archaeological site.
- Hazardous Materials. Hazardous materials (e.g., paint, aerosols, lubricants, fuels, cleaners, and various other chemicals) are stored in multiple locations throughout NSA New Orleans.

THIS PAGE INTENTIONALLY LEFT BLANK

5.0 Certification

I certify that ECP Report for NSA New Orleans, dated 27 April 2007, and its enclosures were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information contained within the ECP Report for NSA New Orleans, dated 27 April 2007, and its enclosures is, to the best of my knowledge and belief, true, accurate and complete and accurately reflects the property's condition as of 27 April 2007, based upon my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information.

_____

Name

_____

Signature

_____

Date

THIS PAGE INTENTIONALLY LEFT BLANK

TABLES

THIS PAGE INTENTIONALLY LEFT BLANK

FIGURES

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A

References

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A
References

Aerostar 2005a. Letter with Subject: Confirmation Groundwater Sampling, SBU-22 Storage Yard, Naval Support Activity New Orleans, New Orleans, Orleans Parish, Louisiana. Aerostar Environmental Services, Inc. June 2005.

Aerostar 2005b. Letter with Subject: Confirmation Groundwater Sampling, SBU-22 Storage Yard, Naval Support Activity New Orleans, New Orleans, Orleans Parish, Louisiana. Aerostar Environmental Services, Inc. July 2005.

CAPE 1998. Lead-Based Paint Inspection for NSA New Orleans. Cape Environmental Management, Inc. November 1998.

EnSafe 1992. NSA New Orleans Hazard Ranking System Final Scoring Books I-III. EnSafe/ Allen & Hoshall. August 1992.

EnSafe 1995a. Final Groundwater Monitoring Report for NSA New Orleans. EnSafe/ Allen & Hoshall. January 1995.

EnSafe 1995b. Comprehensive Long-Term Environmental Action Navy, Naval Support Activity New Orleans, Louisiana, Draft Analytical Screening For Site Closure Reports. EnSafe/ Allen & Hoshall. July 1995.

EnSafe 1996. Comprehensive Long-Term Environmental Action United States Navy, Naval Support Activity New Orleans, Louisiana, Draft Final Analytical Screening For Site Closure Report Site 9, Bldg. 80, Bldg. 273, & Tank T-42. EnSafe/ Allen & Hoshall. July 1995.

Enviro-Logical 2003. SPCC Plan Naval Support Activity New Orleans. Enviro-Logical Solutions, Inc. April 2003.

Fannaly 2007. Personal Communications. Mr. Marion Fannaly, Environmental Department Director, NSA New Orleans. January-February 2007.

FEMA 2007. Website for FIRM information concerning NSA New Orleans. Federal Emergency Management Act website. www.fema.gov. January 2007.

Globalsecurity 2007. Information on NSA New Orleans at Globalsecurity website. http://www.globalsecurity.org/military/facility/new-orleans-nsa.htm. January 2007.

HHM 2004. Integrated Cultural Resources Management Plan, Naval Support Activity, New Orleans, Louisiana. HHM, Inc., Austin, TX. July 2004.

Howe 2007. Electronic mail communications. Ms. Barbara Howe. Naval Facilities Engineering Command, Southern Division. April 2007.

LCA 2006. Information on Coastal Zone Management Areas for Louisiana. Louisiana Coastal Area website. http://www.lca.gov/. April 2006.

LDEQ 1996. Letter with Subject: Draft Final Analytical Screening For Site Closure Report Site 9, Bldg. 80, Bldg. 273, & Tank T-42 for Naval Support Activity. Louisiana Department of Environmental Quality. June 1996.

LDEQ 2000. Letter with Subject: LPDES General Permit No. LAROOB983, Stormwater Permit Requirements. Louisiana Department of Environmental Quality. January 2000.

LDEQ 2002. Underground Storage Tank Closure/ Assessment Form (UST-ENF-02) stating "No Further Action is Required" for two underground storage tanks that were removed in April 2002. Louisiana Department of Environmental Quality. July 2002.

LDEQ 2004. Letter with Subject: No Further Action Notification, US Naval Support Activity, Gasoline Service Station, Building 770, 4400 Dauphine Street, New Orleans, Orleans Parish, Louisiana. Louisiana Department of Environmental Quality. June 2004.

LDEQ 2005. Letter with Subject: Conditional Approval of Groundwater Monitoring Well Abandonment Plan – Various Sites, US Naval Support Activity, Site 9, SBU-22 Storage Yard, Building 80, Building 273, and Tank T-42, Algiers Base, New Orleans, Orleans Parish, Louisiana. Louisiana Department of Environmental Quality. January 2005.

LDEQ 2005b. Letter with Subject: Permit Modification, NAVSUPPACT New Orleans, US Naval Support Activity, New Orleans, Orleans Parish, Louisiana. Louisiana Department of Environmental Quality. July 2005.

LDEQ 2006. Leaking Underground Storage Tanks List. Louisiana Department of Environmental Quality, Office of Environmental Assessment, Remediation Services Division. December 2006.

LDHH 1999. Letter to the Navy stating that Naval Activity Support does not meet definition of a public water supply. Louisiana Department of Health and Hospitals. October 1999.

MACTEC 2003. Emissions Inventory and Compliance Assessment Report, Naval Support Activity New Orleans, Louisiana. MACTEC E&C Inc. August 2003.

MACTEC 2006. Louisiana Air Permit Modification Application Package, Naval Support Activity New Orleans, Louisiana. MACTEC E&C Inc. June 2006.

Malcolm Pirnie 2007. Preliminary Assessment, Site Visit / Data Collection Summary Report, Navy Munitions Response Program Installation: Naval Air Station Joint Reserve Base New Orleans, Malcolm Pirnie, January 2007

NAVFAC 1993. Naval Support Activity New Orleans Pest Management Plan. Naval Facilities Engineering Command, Southern Division. May 1993.

NAVFAC 1999. Environmental Baseline Survey Public-Private Venture Housing at for NSA New Orleans, Naval Air Station, and Joint Reserve Base New Orleans. Naval Facilities Engineering Command, Southern Division. November 1999.

NAVFAC 2000. Environmental Quality Assessment, Naval Support Activity New Orleans. Naval Facilities Engineering Command, Southern Division. March 2000.

NAVFAC 2001. Solid Waste Management Plan, Naval Support Activity New Orleans, Louisiana. Naval Facilities Engineering Command, Southern Division. September 2001.

NAVFAC 2003b. Environmental Quality Assessment, Naval Support Activity New Orleans. Naval Facilities Engineering Command, Southern Division. August 2003.

NAVFAC 2004. Draft Stormwater Pollution Prevention Plan, Naval Support Activity New Orleans. Naval Facilities Engineering Command, Southern Division. February 2004.

NAVFAC 2006a. Environmental Compliance Evaluation Report, Naval Support Activity New Orleans, New Orleans, LA. Naval Facilities Engineering Command, Southeast. August 2006.

NAVFAC 2006b. Geological and coastal zone information from Final Environmental Assessment for the Implementation of BRAC 2005 Action at Naval Air Station, Joint Reserve Base, New Orleans, LA. Naval Facilities Engineering Command, Southeast. September 2006.

NAVY 1999. Letter with Subject: NPDES General Permit No. LAR 00B983. Navy, Naval Air Station, Joint Reserve Base, New Orleans. December 1999.

NAVY 2000. Letter with Subject: NPDES General Permit No. LAR 00B983 with an enclosure of a completed Notice of Termination. Navy, Naval Air Station, Joint Reserve Base, New Orleans. December 2000.

NAVY 2002. Letter with Subject: Closure of Tanks, NSA, New Orleans, Louisiana, LDEQ Facility Number 36-017550, Owner ID Number 00207800 (AI# 42614). Navy, Naval Air Station, Joint Reserve Base, New Orleans. June 2002.

NAVY 2005. NSA, NOLA Summary of Current Use. United States Navy. April 2005.

NAVY 2005b. Department of Defense Base Closure and Realignment Report to the Commission. Department of the Navy. May 2005.

NAVY 2006b. Hazardous Waste Management Plan, Naval Support Activity, New Orleans, Louisiana. United States Navy, Naval Support Activity, New Orleans. April 2006.

NAVY 2007a. Building Files Regarding Asbestos Containing Materials and Lead Based Paint. United States Navy, Naval Support Activity, New Orleans. January 2007.

NAVY 2007b. NSA New Orleans website. http://www.nsanola.navy.mil/. February 2007.

NAVY 2007c. Building Files Maintained by Naval Support Activity, New Orleans, Public Works Department. United States Navy, Naval Support Activity, New Orleans. January 2007.

NOAA 2007a. National Oceanic and Atmospheric Administration website. Southeast Region List of Threatened or Endangered Species from the Marine Fisheries List. http://sero.nmfs.noaa.gov/pr/pdf/Louisiana.pdf. February 2007.

NOAA 2007b. National Oceanic and Atmospheric Administration website. List of Hurricanes in Louisiana. http://www.nhc.noaa.gov/paststate.shtml. February 2007.

NOAA 2007c. National Oceanic and Atmospheric Administration website. Coral reef information and locations. http://www.coris.noaa.gov/metadata/map-search/viewer.htm. February 2007.

NPS 2007. National Park Service, Department of the Interior website. Native American Graves Protection and Repatriation Act, Native American Consultation Database. http://search.itc.nps.gov. January 2007.

NRHP 2007. National Register of Historic places for New Orleans, Louisiana. National Register Information System database New Orleans, Louisiana. http://www.crt.state.la.us/hp/nhl/searchlistings.asp?search_type=address. January 2007.

USACE 2006. Information on Coastal Zone Management Areas for Louisiana. United States Army Corps of Engineers Louisiana Coastal Protection and Restoration website. http://lacpr.usace.army.mil/. April 2006.

USFWS 2007a. United States Fish and Wildlife Service website. Threatened and Endangered Species List for Louisiana website. http://ecos.fws.gov/speciesProfile/SpeciesReport.do?spcode=E04W. February 2007.

USFWS 2007b. United States Fish and Wildlife Service website. Threatened and Endangered Fish List website. http://ecos.fws.gov/species_profile/servlet/gov.doi.species_profile.servlets.SpeciesProfile?spcode=E04W. February 2007.

USFWS 2007c. United States Fish and Wildlife Service website. National Wetlands Inventory website Wetlands Online Mapper. http://wetlandsfws.er.usgs.gov/wtlnds/launch.html. February 2007.

USDA 2007. United States Department of Agriculture Forest Service website. Archeology information. http://www.fs.fed.us/r8/kisatchie. February 2007.

USEPA 2007a. Environmental Protection Agency website. National Priorities List. http://www.epa.gov/superfund/sites/npl/la.htm. February 2007.

USEPA 2006b. Environmental Protection Agency website. EPA Map of Radon Zones. http://www.epa.gov/radon/zonemap/louisiana.htm. September 2006.

Williams 2007. Personal Communications. Mr. Lawrence Williams, Occupational Safety and Health Manager, NSA New Orleans. January 2007.

APPENDIX B

List of Contacts

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B
List of Contacts

Navy ECP Contacts				
Contact Name (Last, First)	**Title/Position**	**Location**	**Telephone Number**	**E-mail Address**
Fannaly, Marion	Environmental Department Director	NSA New Orleans	504-678-9589	marion.fannaly@navy.mil
Ferro, James	BRAC Environmental Coordinator	BRAC PMO SE	843-743-2132	jim.ferro@navy.mil
Smith, Stanley	Environmental Department Deputy Director	NSA New Orleans	504-678-3096	stanley.t.smilth@navy.mil
Grantham, Tom	Public Works Department Architect	NSA New Orleans	504-678-9535	thomas.grantham@navy.mil
Williams, Lawrence	Occupational Safety and Health Manager	NSA New Orleans	504-678-2236	lawrence.williams1@navy.mil
Pittman, William	Life Scientist	NSA New Orleans	504-678-3824	william.pittman1@navy.mil
Howe, Barbara	CIV NAVFAC SE	NAVFAC SE	904-542-3355	barbara.howe@navy.mil

AMEC Preparers				
Contact Name (Last, First)	**Title/Position**	**Location**	**Telephone Number**	**E-mail Address**
Chow, Daniel	Program Manager	San Francisco, CA	415-597-7420	daniel.chow@amec.com
O'Connor, Daniel	NSA New Orleans ECP Team Leader	Greensboro, NC	336-691-5398	daniel.oconnor@amec.com
Sussman, Michael	NSA New Orleans ECP Project Team Member	Charlotte, NC	704-875-3570	michael.sussman@amec.com
Garrett, Rob	NSA New Orleans ECP Project Team Member	Greensboro, NC	336-691-5398	robert.garrett@amec.com
Cint, Jamie	NSA New Orleans ECP Project Team Member	Greensboro, NC	336-691-5398	jamie.cint@amec.com

THIS PAGE INTENTIONALLY LEFT BLANK