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Final

# Community Involvement Plan

## Marine Corps Base Camp Lejeune
## Jacksonville, North Carolina

NAVFAC
Naval Facilities Engineering Command

**Prepared for**

## Department of the Navy
### Naval Facilities Engineering Command
### Atlantic

Contract No. N62470-02-D-3052
CTO-0036

**January 2005**

**Prepared by**

**CH2MHILL**

1/12/05-03643

# QC Review Page

Community Involvement Plan

MCB Camp Lejeune

Jacksonville, North Carolina

Contract Task Order Number - 036
Contract Number N62470-02-D-3052
Navy CLEAN III Program

*Prepared by*

CH2M HILL

January 2005

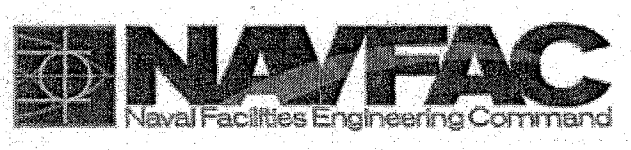
Approved by: Lorraine Jameson Date: January 7, 2005
Lorraine Jameson
Senior Reviewer, CH2M HILL

Approved by: Jessica Skeean Date: January 12, 2005
Jessica Skeean, P.E.
Project Manager, CH2M HILL

Approved by: Matt Louth Date: January 11, 2005
Matt Louth
Activity Manager, CH2M HILL

Final

# Community Involvement Plan
# Marine Corps Base Camp Lejeune
# Jacksonville, North Carolina




Prepared for

**Department of the Navy**

**Naval Facilities Engineering Command**
**Atlantic**

Under the

**Navy CLEAN III Program**
**Contract N62470-02-D-3052**
**CTO - 0036**

**January 2005**

Prepared by

**CH2MHILL**
**Herndon, Virginia**

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**Appendices**



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**Figures (located at the end of each section)**

# Acronyms and Abbreviations

| | |
|---|---|
| AOC | Area of Concern |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CIP | Community Involvement Plan |
| CRP | Community Relations Plan |
| DENR | Department of Environmental and Natural Resources |
| DoD | Department of Defense |
| EE/CA | Engineering Evaluation/Cost Analysis |
| EMD | Environmental Management Division |
| FFA | Federal Facility Agreement |
| FS | Feasibility Study |
| IAS | Initial Assessment Study |
| IRP | Installation Restoration Program |
| MCB | Marine Corps Base |
| NAVFAC | Naval Facilities Engineering Command |
| Navy | U.S. Department of the Navy |
| NC | North Carolina |
| NFRAP | No Further Response Action Planned (decision document) |
| NPL | National Priorities List |
| OU | Operable Unit |
| PA | Preliminary Assessment |
| PA/SI | Preliminary Assessment/Site Inspection |
| PAO | Public Affairs Office/Public Affairs Officer |
| PRAP | Proposed Remedial Action Plan |
| RA | Remedial Action |
| RAB | Restoration Advisory Board |
| RCRA | Resource Conservation and Recovery Act |
| RD | Remedial Design |
| RD/RA | Remedial Design/Remedial Action |
| RFA | RCRA Facility Assessment |
| RI | Remedial Investigation |
| RI/FS | Remedial Investigation and Feasibility Study |
| ROD | Record of Decision |
| SARA | Superfund Amendment and Reauthorization Act |
| SI | Site Inspection |
| SMP | Site Management Plan |
| SWMU | solid waste management unit |

| | |
|---|---|
| TAPP | Technical Assistance for Public Participation |
| TRC | Technical Review Committee |
| U.S. | United States |
| USEPA | U.S. Environmental Protection Agency |

SECTION 1

# Overview of Community Involvement Plan

## 1.1 Introduction

Marine Corps Base (MCB) Camp Lejeune is a military installation located in Onslow County in eastern North Carolina (see Figure 1-1). The facility currently covers approximately 170 square miles and is bisected by the New River. The Atlantic Ocean forms the southeastern boundary of the facility. The western and northwestern boundaries are U.S. 17 and State Road 24, respectively. The City of Jacksonville is located immediately northwest of the facility. Within 15 miles are several large, publicly owned tracts of land including Croatan National Forest and Hoffman Forest. The remaining land use surrounding the facility is agricultural. Estuaries along the coast support commercial fishing. Tourism and residential resort areas have stimulated the regional economy. The facility is located in the Atlantic Coastal Plain on generally flat topography.

MCB Camp Lejeune has been conducting a series of environmental studies under the Department of Defense's (DoD's) Installation Restoration Program (IRP), as part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In 1989, MCB Camp Lejeune was scored and ranked by U.S. Environmental Protection Agency (USEPA) for inclusion on the National Priorities List (NPL). Included in the IR Program is the development of a Community Involvement Plan (CIP).

The purpose of this CIP is to assist MCB Camp Lejeune in meeting the needs of the local community for information about, and participation in, the ongoing investigation and remedial processes at the Base. This document is an update of the previous Community Relations Plan (CRP) prepared for MCB Camp Lejeune in 1994 by Baker Environmental, Inc. The 1994 report updated the original CRP, which was developed in 1990.

## 1.2 Objectives of the Community Involvement Program

As part of the Marine Corp's IRP at MCB Camp Lejeune, a community involvement program has been implemented to address issues of community concern regarding the environmental investigation and restoration activities at MCB Camp Lejeune. The Marine Corps' intent is to present factual and timely information, obtain community feedback, and promote understanding of the ongoing activities.

The specific objectives of the community involvement program at MCB Camp Lejeune are to:

- continue two-way communication between MCB Camp Lejeune and concerned individuals, including local residents and state and local officials;
- keep the general public informed of ongoing actions, major findings, and decisions;
- furnish accurate, timely, and understandable information to affected and interested parties;

- provide a means of monitoring public concerns and information needs throughout the environmental restoration process;
- provide a mechanism for incorporating public comments into the environmental restoration process in a timely and meaningful way;
- gather and update information about MCB Camp Lejeune's neighboring communities; and
- modify the community involvement program as necessary to meet the changing needs of the local community.

## 1.3 Contents of the Community Involvement Plan

This CIP identifies community concerns about the investigation and restoration of potentially contaminated sites at MCB Camp Lejeune and outlines community involvement activities to be conducted during the ongoing and anticipated future restoration activities.

This plan has been prepared in accordance with USEPA's April 2002 publication, *Superfund Community Involvement Handbook* (USEPA 540-K-01-003), which provides guidance for conducting community involvement activities.

The first community relations (involvement) plan for MCB Camp Lejeune was developed in September 1990, and it was updated in February 1994. This document is an update to the February 1994 CRP. Recommendations for future community involvement activities are based on information about community concerns and the effectiveness of public participation activities to date, which were obtained during interviews with members of the local community in 1990, 1993 and 2004.

This plan is divided into the following major sections:

1. Overview of Community Involvement Plan
2. Facility Description and History
3. Community Involvement Program

Appendices are:

A Site-Specific Investigation & Remedial Action
B MCB Camp Lejeune 2005 Restoration Advisory Board Members
C Locations for Information Repositories and Public Meetings
D Media Contacts
E Fact Sheets, News Articles and Public Notices
F Community Involvement Requirements
G Glossary

## 1.4 Implementation of the Plan

The MCB Camp Lejeune Environmental Management Division (EMD) administers the MCB Camp Lejeune IR program. Implementation of the Marine Corps IRP is supported by the Atlantic Division of the Naval Facilities Engineering Command (NAVFAC Atlantic), located

in Norfolk, Virginia. The Navy has procured various contractors to support IRP field investigations.

The Marine Corps is coordinating with the North Carolina Department of Environmental and Natural Resources (DENR) and USEPA Region 4 to ensure compliance with state and federal regulations.

The Commanding General, MCB Camp Lejeune, has the ultimate responsibility for implementing the CIP. The Public Affairs Office (PAO) is the official point of contact for public and media inquiries. The Commanding General and PAO are assisted by sharing specific tasks with the EMD, other MCB Camp Lejeune military and civilian personnel, the Restoration Advisory Board (RAB), NAVFAC Atlantic and Navy contractors, USEPA, and DENR.

Section 3.4.11, "Points of Contact," lists the names, physical addresses, e-mail addresses, and telephone numbers of individuals who can respond to public inquiries or provide relevant information to the public.

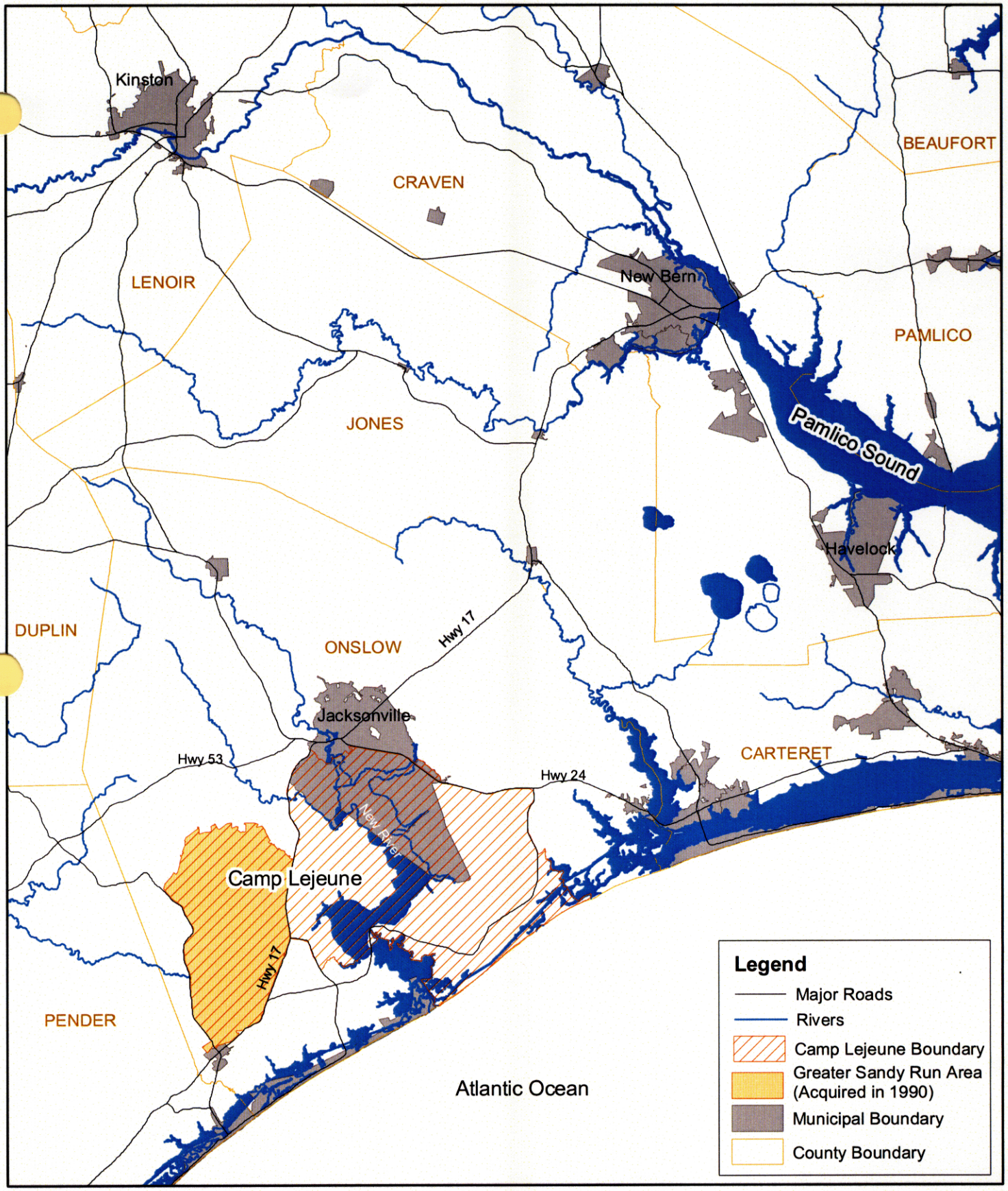


Figure 1-1
Regional Location Map
Marine Corps Base, Camp Lejeune
North Carolina

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SECTION 2

# Facility Description and History

This section focuses on the features of the facility, surrounding area, and the history of MCB Camp Lejeune. It gives a brief summary of the local topography, geography, and other physical characteristics, along with descriptions of MCB Camp Lejeune and designated IRP sites. This section also provides an overview of the IRP process, previous investigations, and remedial actions that have taken place at the Base.

## 2.1 Description

MCB Camp Lejeune is a military installation located in eastern North Carolina, near the City of Jacksonville in Onslow County. MCB Camp Lejeune and Marine Corps Air Station (MCAS) New River are approximately 150 miles south of the Virginia border and 100 miles north of the South Carolina border. These military facilities are bordered by the Atlantic Ocean and the communities of Jacksonville, Sneads Ferry, Piney Green, Hubert and Dixon.

The facility currently covers approximately 153,000 acres, consisting of 26,000 acres of water and 127,000 acres of land, which varies in elevation from sea level to 70 feet above sea level. The 92-mile perimeter of the Base includes 14 miles of Atlantic Ocean frontage, which is composed of a fragile barrier island system and separated from the mainland by salt marshes, small bays, and the Atlantic Intracoastal Waterway.

MCB Camp Lejeune complex consists of six geographical and operational locations under the jurisdiction of the Base Command. These areas include Camp Geiger, Montford Point (which includes Camp Johnson), Courthouse Bay, Mainside, the Rifle Range Area, and the Greater Sandy Run Area.

Approximately 14,000 acres of land have been developed for administration, maintenance, logistics, and personnel support facilities, with the remaining lands used primarily for military training. There are 77 live-fire ranges, 85 maneuver training areas, 34 gun positions, 7 mortar positions, 25 tactical landing zones and a state-of-the-art training facility for Military Operations in Urban Terrain.

MCAS New River, a 2,772-acre area located in the northwestern section of the complex is operationally under the control of MCAS Cherry Point. However, MCB Camp Lejeune is responsible for the facilities and environmental management of MCAS New River. The Air Station and Camp Geiger are considered as a single urban area possessing two separate missions and supported by two unrelated groups of personnel.

## 2.2 History and Current Activities

In the late 1930s, a selection board chose the New River area for a Marine training base, and construction began in 1941. That same year, Lieutenant Colonel W.P.T. Hill became the first Commanding Officer of the installation, which at that time was named "Marine Barracks,

New River." In 1942, the Base was renamed in honor of Lieutenant General John A. Lejeune, 13th Commandant of the Marine Corps.

The Base's first warehouse was a converted tobacco barn and a summer cottage acted as Base headquarters. The facility grew over the years to include six major Marine Corps and two Navy Commands aboard MCB Camp Lejeune.

The Marine Corps Base owns all the real estate, operates entry-level formal training schools, and provides support and training for tenant commands. Headquarters Nucleus, II Marine Expeditionary Force coordinates operational planning for Fleet Marine Commands. The 2nd Marine Division is the ground combat element of the force. The 2nd Force Service Support Group is the service and support element of the Force. The 2nd Surveillance Reconnaissance and Intelligence Group obtains, produces, and releases information and intelligence during the planning and execution of exercises and combat operations. The Naval Hospital and the Naval Dental Clinic provide primary medical and dental care to Marines and sailors stationed at MCB Camp Lejeune and medical care to their families.

MCB Camp Lejeune and the New River Air Station are operated as installations that train and deploy forces, organized into Marine Air-Ground Task Forces (MAGTF), to locations around the world. The main task of both is to provide the necessary facilities for units to maintain their combat readiness. The MCB Camp Lejeune/New River Complex is the largest concentration of Marines and Sailors in the world and is known as the "Home of Expeditionary Forces in Readiness."

## 2.3 Previous Investigations and Remedial Actions

### 2.3.1 Overview of the Installation Restoration Program

The purpose of the IRP is to identify, assess, and clean up contamination resulting from historical handling, storage, and disposal of potentially hazardous wastes. The IRP follows the CERCLA process and is implemented at MCB Camp Lejeune by the MCB Camp Lejeune's Partnering Team, which consists of representatives from the Base, NAVFAC Atlantic (and its IR contractors), USEPA, and DENR. The Partnering Team works cooperatively to plan and carry out the IRP.

In the early 1980s, an initial environmental assessment study was conducted to identify and recommend areas at MCB Camp Lejeune and at outlying fields for further investigation. Many of these areas have since been investigated, which led to the Base being placed on USEPA's NPL.

### 2.3.2 National Priorities List

In October 1989, the USEPA placed MCB Camp Lejeune on the NPL. The NPL is the USEPA's list of the highest-priority hazardous waste sites in the nation. The decision to list a particular site is determined on the basis of calculated risks to human health and the environment. Nationwide, there are more than 1,000 sites listed on the NPL.

MCB Camp Lejeune's inclusion on the NPL was largely based on soil and groundwater contamination as a result of past disposal, storage, and handling of industrial chemicals, wastes and fuels, which resulted in several relatively large contaminated sites and

numerous smaller waste disposal areas. Those sites requiring further investigation or remedial actions are currently being addressed under the Base's IRP. Several sites are currently being investigated, and final remedies have been selected and put in place at a number of previously investigated sites.

CERCLA (as amended by the Superfund Amendment and Reauthorization Act or SARA) is often referred to as "Superfund" because it established a fund for cleaning up abandoned or uncontrolled hazardous waste sites. However, all activities at federal facilities listed on the NPL are funded by the responsible federal agency. To fund these activities at military installations, the DoD set up the Defense Environmental Restoration Account, which is administered by each service branch. In the case of the MCB Camp Lejeune Superfund site, NAVFAC provides the funding for all investigation and remedial activities.

Although the responsibility for funding and carrying out environmental restoration at MCB Camp Lejeune rests with the Navy and Marine Corps, the NPL listing gives USEPA a specific role in the oversight of these actions.

### 2.3.3 CERCLA Process

Since 1986, the Navy and Marine Corps IRP have followed the process prescribed by CERCLA regulations and guidance for investigating and addressing environmental contamination. This multi-step process is followed regardless of whether or not a facility is listed on the NPL, unless directed otherwise by a Resource Conservation and Recovery Act (RCRA) consent order or other legal instrument.

The CERCLA process includes a series of activities, several of which are designed to involve the public in the decision-making process. The typical sequence of activities is:

1. **Preliminary Assessment/Site Inspection (PA/SI):** The PA is the initial process of collecting and reviewing existing information, including historical records; aerial photographs; field inspections; and personnel interviews, to identify specific potentially-contaminated sites. If such sites are identified, limited sampling is conducted under the SI to either confirm or deny the presence of contaminants.

2. **Remedial Investigation/Feasibility Study (RI/FS):** If the PA/SI confirms the presence of contamination, a RI is conducted to further evaluate the nature and extent of contamination and to perform a risk assessment for human health and the environment. This process is also called "characterization." Using the RI data, a FS is then prepared to evaluate a range of options for environmental remediation, analyzing both the available technologies and the estimated costs.

3. **Proposed Remedial Action Plan (PRAP or Proposed Plan):** As a public participation requirement under CERCLA, the preferred environmental restoration strategy, rationale, and the remedial alternatives evaluated in the FS are summarized and a remedial action proposed, either as a fact sheet or as a separate PRAP document. Public review and comment on the Proposed Plan are actively solicited.

4. **Record of Decision (ROD):** The ROD is a public document that explains which restoration alternative was selected for a specific site, on the basis of the technical analysis in the RI/FS and consideration of public comments about the Proposed Plan.

All parties directly involved in the restoration program (Navy, USEPA, EMD, and North Carolina regulators in the case of MCB Camp Lejeune) must agree on the selected alternative.

5. **Remedial Design/Remedial Action (RD/RA):** The RD is the detailed engineering design and the RA is the actual construction or implementation of the remedy that has been selected for a site.

In addition, the following activities may occur at any time during the CERCLA process:

- **Interim Actions** are taken, as needed, to reduce imminent risks to human health and the environment, while long-term field investigations are being conducted or until a final remedial action is determined. Interim actions can range from removal actions to institutional controls, such as putting up a fence or issuing land use restrictions to control activities on or near contaminated sites.
- **Removal Actions** can function as either interim or long-term means of addressing potential releases of contaminants and reducing human and ecological exposure.
- **An Engineering Evaluation/Cost Analysis (EE/CA)** is completed for non-time-critical removal actions and is similar to a fast-track, limited-scope RI/FS. It addresses human health exposure risks, compares removal alternatives, and provides a mechanism for regulatory and public review.
- **A No Further Response Action Planned (NFRAP)** decision document is developed after a field investigation finds that the levels of contaminants at a particular site do not pose a threat to human health and the environment. The NFRAP provides a means for regulatory agencies to review the site investigation and risk assessment and for the public to comment on the no-action decision.

### 2.3.4 Operable Units and CERCLA Sites at MCB Camp Lejeune

The IRP sites at MCB Camp Lejeune are grouped into Operable Units for study purposes during the investigation and remediation process. An Operable Unit (OU) consists of sites or actions that are related geographically, functionally, or by the type of contamination. See Figure 2-1 and Appendix A for locations and descriptions of these sites.

#### Operable Unit 1

- Site 21: Transformer Storage Lot 140
- Site 24: Industrial Area Fly Ash Dump
- Site 78: Hadnot Point Industrial Area

#### Operable Unit 2

- Site 6: Storage Lots 201 and 203
- Site 9: Fire Fighting Training Pit at Piney Green Road
- Site 82: Piney Green Road VOC Area

#### Operable Unit 3

- Site 48: MCAS New River Mercury Dump Site

### Operable Unit 4
- Site 41: Camp Geiger Dump Near Former Trailer Park
- Site 74: Mess Hall Grease Pit Area

### Operable Unit 5
- Site 2: Former Nursery/Day-Care Center

### Operable Unit 6
- Site 36: Camp Geiger Dump Area Near Sewage Treatment Plant
- Site 43: Agan Street Dump
- Site 44: Jones Street Dump
- Site 54: Crash Crew Fire Training Burn Pit

### Operable Unit 7
- Site 1: French Creek Liquids Disposal Area
- Site 28: Hadnot Point Burn Dump
- Site 30: Sneads Ferry Road Fuel Tank Sludge Area

### Operable Unit 8
- Site 16: Former Montford Point Burn Dump (1958 - 1972)

### Operable Unit 9
- Site 65: Engineer Area Dump

### Operable Unit 10
- Site 35: Camp Geiger Area Fuel Farm

### Operable Unit 11
- Site 7: Tarawa Terrace Dump
- Site 80: Paradise Point Golf Course Maintenance Area

### Operable Unit 12
- Site 3: Old Creosote Plant

### Operable Unit 13
- Site 63: Verona Loop Road Dump

### Operable Unit 14
- Site 69: Rifle Range Chemical Dump

### Operable Unit 15
- Site 88: Building 25 (Base Dry Cleaners)

### Operable Unit 16
- Site 89: Building STC-868
- Site 93: Building TC-942

### Operable Unit 17
- Site 90: Building BB-9
- Site 91: Building BB-51
- Site 92: Building BB-46

**Operable Unit 18**
- Site 94: Building 1613 (PCX Service Station)

**Operable Unit 19**
- Site 84: Building 45 Area

**Operable Unit 20**
- Site 86: Tank Area AS419-AS421

**Operable Unit 21**
- Site 73: Courthouse Bay Liquids Disposal Area

**Pre-RI Sites**
- Site 10: Original Base Dump
- Site 12: Explosive Ordnance Disposal (EOD-1 Range, Formerly G-4A)
- Site 68: Rifle Range Dump
- Site 75: MCAS Basketball Court Site
- Site 76: MCAS Curtis Road Site
- Site 85: Camp Johnson Battery Dump
- Site 87: (Formerly Site "A") MCAS Officer's Housing Area

### 2.3.5 Facility-Wide Investigations at MCB Camp Lejeune

The first IRP objective at MCB Camp Lejeune was to collect data and evaluate historical evidence indicating the existence of hazardous constituents that may have contaminated the facility or that posed an imminent health hazard on or off the facility. The Initial Assessment Study (IAS) was performed at MCB Camp Lejeune in 1983 to meet this objective. Based on a review of historical records, field inspections and personal interviews, 76 suspected areas of concern (AOCs) were identified. Twenty-two sites at the Base were recommended for further investigation. During preliminary investigation of the AOCs, an additional AOC (Site 78, Hadnot Point Industrial Area) was identified.

Following the listing of MCB Camp Lejeune on the NPL in 1989, a Federal Facilities Agreement (FFA) between USEPA, the State of North Carolina and the Department of the Navy was signed in February 1991. The FFA identifies the sites and Ous requiring investigation, along with agreed-upon deliverables, schedules and review procedures.

In addition to the IRP and FFA that addresses historical waste areas at MCB Camp Lejeune, the Base also participates in the RCRA corrective action process, which primarily addresses waste management areas that are active or in the process of being closed. The RCRA corrective action process closely resembles the CERCLA process. It consists of the RCRA Facilities Assessment (RFA) (identification of hazardous material releases, similar to a PA/SI under CERCLA), the RCRA Facility Investigation (RFI) (release extent characterization, similar to an RI/FS), the Corrective Measures Study (CMS) and Corrective Measures Implementation (CMI). The RCRA corrective action program also includes an Interim Measures step that may be conducted in cases when short-term actions are needed to respond to immediate threats.

In 1989, the Navy entered into a RCRA Administrative Order of Consent with USEPA to perform an RFI at identified solid waste management units (SWMUs). These SWMUs are

not included among the sites being addressed under CERCLA in accordance with the FFA. In addition, the Administrative Order of Consent designated the USEPA as the lead regulatory agency for MCB Camp Lejeune. USEPA and DENR performed an initial RFA at MCB Camp Lejeune in 1989. The RFA included 76 SWMUs and was later expanded to include additional units. The findings are presented in the RFA report prepared in 1996.

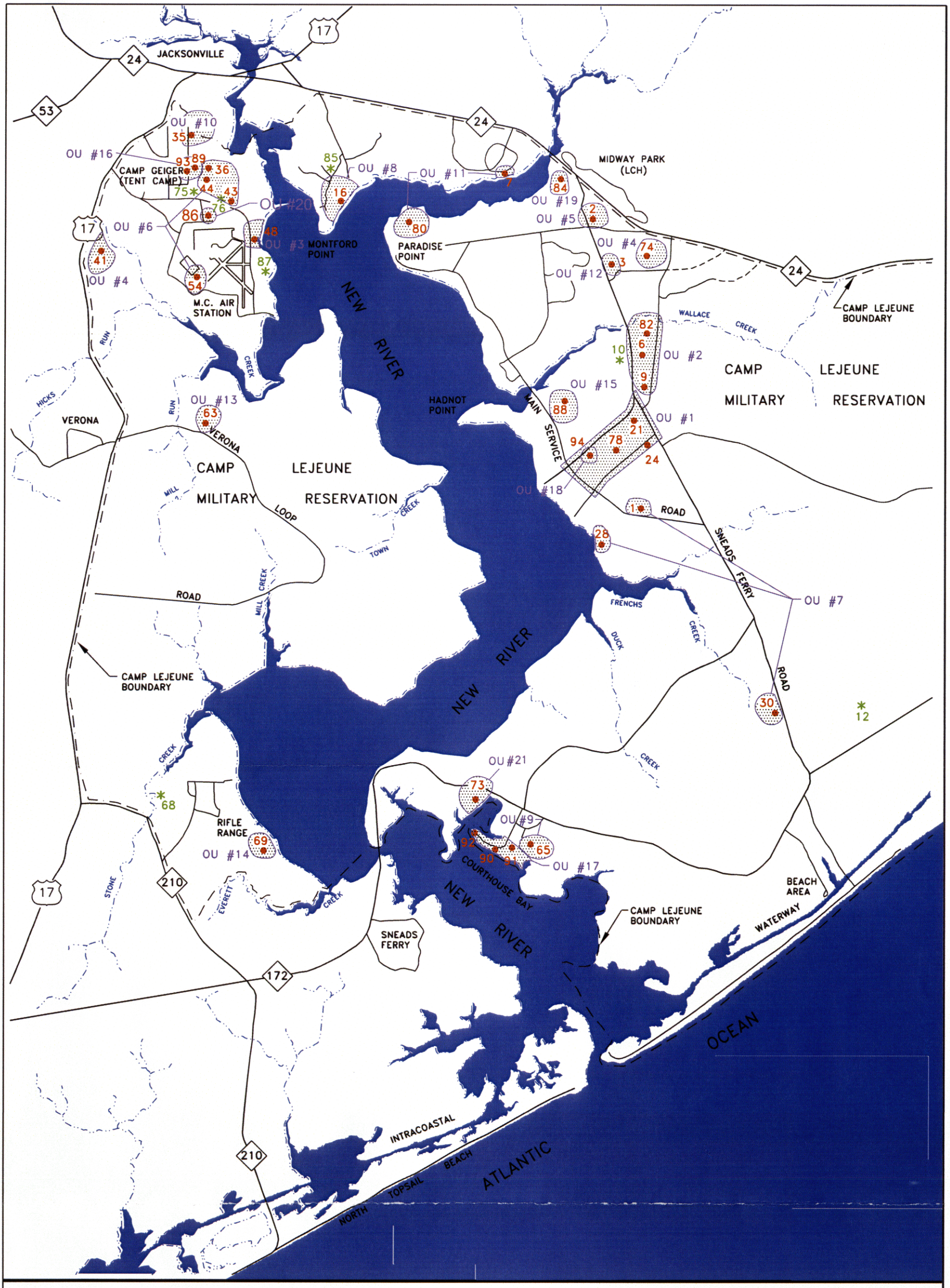
Because of the NPL listing of MCB Camp Lejeune, the ongoing IRP investigations at each site are being conducted to meet the requirements of both RCRA and CERCLA.

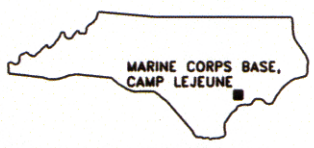
## 2.3.6 Site-Specific Investigations and Anticipated Remedial Actions

The status, findings of the site-specific investigations and the recommended remedial actions are summarized in Appendix A. The location, land use and status of each site is identified.

### 2.3.6.1 Site Management Plan

A Site Management Plan (SMP) for MCB Camp Lejeune was developed in 1992 and is updated annually. The SMP summarizes the background information for each of the operable units and provides a schedule of deliverables. The schedules included in the SMP lay out the regulatory deadlines, near-term milestones, and yearly milestones for the IRP. When the updated SMP is complete, it will be available to the public in the electronic Administrative Record.




VICINITY MAP

LEGEND

94 DENOTES SI SITE 94 (NOT TO SCALE)

OU #18 DENOTES OPERABLE UNIT #18 (NOT TO SCALE)

68 DENOTES PRE-RI SITE (NOT TO SCALE)

.75 0 .375 .75 1.5

1 inch = .75 miles

FIGURE 2-1
SITE MAP
OPERABLE UNIT

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

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SECTION 3

# Community Involvement Program

## 3.1 Community Background

### 3.1.1 Surrounding Area

MCB Camp Lejeune is located adjacent to the City of Jacksonville, NC. Jacksonville is the commercial hub of Onslow County and home to MCB Camp Lejeune and Marine Corps Air Station New River. The former farming community of Jacksonville has grown into a commercial sector.

Onslow is one of North Carolina's oldest counties and was named for the Honorable Arthur Onslow, who served as speaker of the British House of Commons. Early settlements in the area occurred along the waterways of Bear Creek and the White Oak and New Rivers. In addition to the City of Jacksonville, Onslow County contains the communities of Piney Green, Sneads Ferry, Hubert, Dixon, Holly Ridge, Topsail Beach, Richlands, Swansboro, and parts of Surf City.

### 3.1.2 Demographic Profile

The demographic profile of Onslow County in 2000 reflected a high percentage of young couples in childbearing years, typically found residing at and around major military bases. During the period of 1990 to 2000, the City of Jacksonville more than doubled its population size, from 30,013 to 66,715 residents.

The 2000 U.S. Census figures revealed a population of 150,355 residents living in Onslow County, with 66,715 residents in the City of Jacksonville and 11,721 residents in Piney Green. The County's median age is recorded as 25, while Jacksonville's is similar to a college community—median age 22. This reflects the impact that MCB Camp Lejeune has on the area demographics.

The average household size in the County is 2.72 persons and 2.83 persons in Jacksonville, higher than the state average of 2.49 persons. Jacksonville's rate of homeownership (39.2 percent) is lower than that of nearby Piney Green (61 percent) or the County (58.1 percent), reflecting the more transient population typical of a military-focused community.

A summary of demographic statistics for the area surrounding Camp Lejeune are presented in Table 3-1 and Figure 3-1.

#### 3.1.2.1 Environmental Justice

USEPA defines Environmental Justice (EJ) as "fair treatment for people of all races, cultures, and incomes, regarding the development of environmental laws, regulations, and policies."

Executive Order (EO) 12898, *Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs Federal agencies to identify and address any

programs, policies and activities that could have disproportionately adverse health or environmental effects on minority and low-income populations.

**TABLE 3-1**
Demographic Statistics for MCB Camp Lejeune (Census, 2000)
*Surrounding Jurisdictions*

| | | | | Percentage | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Jurisdiction | Total Persons (2000) | Average House-hold Size | % Owner-occupied housing (2000) | White (2000) | Black (2000) | American Indian[1] (2000) | Asian[2] (2000) | Other Race (2000) | Two or More Races (2000) | Hispanic or Latino[3] (2000) | Poverty Rate[4] (1999) |
| Onslow County | 150,355 | 2.72 | 58.1% | 72.1% | 18.5% | 0.7% | 1.7% | 3.6% | 3.2% | 7.2% | 12.9% |
| City of Jacksonville | 66,715 | 2.83 | 39.2% | 63.9% | 24.0% | 0.8% | 2.1% | 5.4% | 3.7% | 10.0% | 12.5% |
| Unincorporated town of Piney Green | 11,721 | 2.77 | 61.0% | 64.7% | 24.6% | 0.7% | 2.6% | 3.1% | 4.0% | 7.6% | 7.3% |

**Source**: U.S. Bureau of the Census, 2000

**Notes:**
1. Includes Alaska Native and Aleutian Islander

2. Includes Pacific Islander

3. Persons in this column are also counted in the preceding columns. Race refers to Census respondents' self-identification of racial background. Hispanic origin refers to ethnicity and language, not race, and may include persons whose heritage is Puerto Rican, Cuban, Mexican, and Central or South American.

4. Census Bureau estimates of the percent of persons with 1999 household incomes below the national poverty threshold.

The 2000 Census established the following population breakdown in Onslow County: 72 percent white; 18.5 percent black/African-American, and 7.2 percent Hispanic. A relatively small number of Asians (1.7 percent of total population) reside in the area (Table 3-1).

Minority population is typically defined as 50 percent or more of total population, or meaningfully greater than the surrounding region. As Figure 3-1 shows, some of the areas[1] along MCB Camp Lejeune's northern boundary (including parts of Jacksonville and Piney Green) fit this definition of minority population. The City of Jacksonville has a somewhat higher percentage of residents who identified themselves on the Census as black/African-American (24 percent), Hispanic/Latino (10 percent), and "Other" race (5.4 percent) than the surrounding area of Onslow County (Table 3-1). The town of Piney Green has similar percentage of black/African-American residents as Jacksonville. The relative state minority threshold is almost 36 percent.

There are many possible definitions of low-income population. The Census Bureau classifies a "poverty area" as one where least 20 percent of the residents were at or below the poverty level. None of the jurisdictions surrounding the Base can be identified as a "poverty area" using this criterion. The poverty rates of Onslow County and the City of Jacksonville are

[1] Census block groups, which are a subset of Census tracts

similar, while Piney Green has a lower poverty rate than the County as a whole does. However, some of the smaller areas adjoining the Base do have higher percentages of "low income" households (defined as up to $20,000 household income in 1999) when compared to the relative state low-income threshold of 28 percent. Thus, there are both low-income and minority areas adjoining MCB Camp Lejeune's northern boundary (Figure 3-1).

Adverse health or environmental effects on any off-site populations from contaminated soil, sediments, and groundwater associated with IR sites on Camp Lejeune are believed to be unlikely. Whenever remedial decisions are made under the IR program, the Camp Lejeune Partnering Team considers all relevant factors, including human health and ecological risk, community input through the RAB and comments from the general public. RAB meetings and other public meetings hosted by Camp Lejeune are open to all. No remedy will be instituted that would result in disproportionately adverse affects on minority or low-income populations.

### 3.1.3 Economic Growth and Development

The population of Onslow County is directly related to the MCB Camp Lejeune military population. Since its construction, MCB Camp Lejeune has been the major factor in the local economy. The base's largest contribution to the local economy is from the wages and salaries paid to the civilian and military personnel. In Fiscal Year 1992, the gross pay for military personnel civilian employees and employees of the Marine Corps Exchange and non-appropriated fund organization totaled over $954 million.

In 2004, MCB Camp Lejeune continues to significantly contribute to the region's economic health. Salaries for Fiscal Year 2004 are expected to surpass $4 billion. Both Onslow County and the City of Jacksonville are home to many whose livelihood depends on the Base. This includes active military, many retired military, civilians who work at the Base and the family members of these individuals.

The City of Jacksonville was described by one respondent as a "typical military town, transient." Residents of Jacksonville and other Camp Lejeune communities were described by one interviewee as "86 percent affiliated with Camp Lejeune and 55 percent under 25 years of age." Several respondents noted that many (75 percent by one estimate) of the married military service members assigned to Camp Lejeune live in the community, rather than on base.

MCB Camp Lejeune was described by 2004 interview respondents as the "economic engine" and "partner" of the community. In addition to employment directly provided by the Base, economic activity in the area is dominated by retail and service businesses focused on the Base, with limited tourism.

Onslow County was described as a low-wage community in comparison to others in North Carolina, because Camp Lejeune is a relatively low-wage base (employing mostly younger service members) and the economy is largely service-based. Civilian government employees and retirees are more likely to be middle-upper income by comparison. The more rural communities in the area were described as economically depressed. Several communities upstream of Camp Lejeune have fishing-based economies.

## 3.2 Community Issues and Concerns

In February/March 1990, MCB Camp Lejeune conducted a total of 41 environmental community relations interviews. Among those interviewed were active military and civilian personnel employed on the Base, local officials, and on-base and off-base residents. The information collected from these interviews was used to compile a Community Relations Plan in 1990.

Three years later, in 1993, additional interviews were conducted. At that time, 19 individuals were interviewed, including local business leaders, civic groups, residents on and off the Base, and military and civilian personnel. That information, along with that of the 1990 responses, was compiled in the Community Relations Plan of 1994.

In March 2004, MCB Camp Lejeune conducted a third set of interviews among 14 base personnel and residents, local officials and community members. Four of these individuals were members of the Base's Restoration Advisory Board (RAB). These interview responses have been considered in the development of this updated 2005 Community Involvement Plan.

### 3.2.1 Awareness of Installation Restoration Program

Many of the 1990 and 1994 interview respondents were aware that the Base was conducting investigations of its previous waste locations. However, they were not aware of any details about the IR program or the actual sites that were being studied. Many confused the IR program with wastewater treatment studies ongoing at that time.

Nine of the 14 interviewees were familiar with the IR program (all of the interviewees who were members of the RAB and some of the local officials), while five people were not aware of the IRP at all, or were unfamiliar with any details. Most interviewees said that the community at large has little awareness of the IR program, but that certain sectors (businesses, local government emergency and environmental personnel, and some long-time residents) are more aware. The high turnover in the community, because of the large proportion of active-duty military, was given as one reason for low awareness.

Some believed that community members are only interested in the IR program if they might be affected by it, or if they are involved with environmental issues, while others believed that the community at large would be interested in the IR program if they knew more about it.

Several interviewees said that they sometimes hear questions from others about the off-base contamination at the ABC Cleaners Superfund site adjacent to the Base (which in the past had affected drinking water wells at MCB Camp Lejeune), but rarely about sites on the Base. They said that community members generally are not aware of the fact that the ABC Cleaners contamination originated from an off-base source and that the remediation was handled by USEPA, not the Marine Corps. However, people who are familiar with the Base's IR program are well aware of the distinction.

### 3.2.2 Effectiveness of Community Involvement Program

Previous 1990–1993 interviews found that most people were unaware of the information repository and that it is difficult to get people involved.

About half of the 2004 interviewees reported receiving some kind of information from the Base, mostly RAB meetings and public notices. Five of them have used MCB Camp Lejeune's IRP website for information, and several have used the USEPA's NPL website and/or the NAVFAC Atlantic website to get information. Other reported sources for IRP information were: occasional communications sent to Base Housing residents about nearby IR sites, brochures that were passed out at libraries several years ago, and city government meetings.

For questions or issues about the program, six people said they would contact the Base Environmental Office, three said they would contact Public Affairs, and three would use other base contacts known to them personally. Only one respondent said she did not know how to contact anyone on the Base and two said they would go first to City of Jacksonville or state environmental officials.

Only four of the 14 interviewees in 2004 were aware of the information repository and only one of those has used it. RAB members mentioned that they have little need to do so because they get reports through the RAB. One RAB member has referred other people to the information repository. Five of the respondents have used the IRP website and found it useful.

Six people reported having seen public notices and a few remembered seeing minimal news coverage about the IR program in local newspapers. The others had only seen coverage of the ABC Cleaners groundwater contamination issue. One interviewee was of the opinion that this was because "good news is never covered" in the media (and the IR program would be good news).

Seven of the 14 people interviewed in 2004 were aware of the RAB (including three non-members) and six had attended RAB meetings (including two non-members). Five had attended IRP site tours.

The 2004 interviewees were evenly split on the question of whether or not the Base's community involvement program has been effective in providing IRP information to the community. Several said that although the Base has clearly "met the letter of the law" about soliciting public comments, more outreach should be done, especially to on-base residents and employees, and that more information should be provided in ways that non-technical people can understand.

Others said that the Base has been very open to questions and regularly volunteers information (comments such as "the Marine Corps is upfront about their actions" and "There's a spirit of openness"), has advertised proposed actions, and maintains an up-to-date website. Several said that both the Base and the RAB have made numerous efforts to involve community members and local organizations in the IRP and RAB/public meetings.

A common opinion was that ample information is available to those who are interested enough to seek it out. None of the 2004 interviewees reported any difficulty in obtaining information about the IR program when (if) they looked for it.

### 3.2.3 Environmental Restoration and Related Concerns

The 1990–1993 interviews revealed a high level of trust in the Base's cleanup efforts and its role as a part of the community. Overall, 2004 interviewees expressed continued confidence in MCB Camp Lejeune's IR program, as long as discoveries continue to be dealt with openly.

Several interviewees said that the IR sites came about because "no one knew any better in the past" and one interviewee with experience in this field stated that "the Base is more proactive now than private companies are; they take responsibility for their problems" but added that it can be hard to explain this to people who don't have a basis for comparison. One environmentally active respondent is rarely critical of the Base and the IRP because "they are trying to address their problems, making a sincere effort and spending lots of money to do it."

Concerns centered on the desire to remediate releases in a timely fashion, so that migration does not occur. As in the earlier 1990–1993 interviews, people interviewed in 2004 were satisfied with the IR program, but some were concerned with the timeframe: "It takes so long to start cleanups. Contamination can spread while the Base is waiting for 'red tape', funding, etc." Most of those who are aware of the IR program understood the funding constraints, technical guidelines and regulatory procedures that must be observed.

The general area of concern was groundwater and surface water contamination. Other specific concerns were vapors from petroleum sites that have affected buildings on the Base.

Only one respondent expressed concern about possible health effects (a number of cancer cases in the nearby neighborhood of Bellfork Homes) and wondered if they could be potentially related to contaminated sites on the Base or perhaps unknown sites on former Base property.

One respondent, who had not been aware of the IR program before being interviewed, had a range of questions and was reassured to learn that these are the issues that the IR program and community involvement programs are designed to address: Where are the sites? When was the last time that something was released? What was spilled, what kind of wastes are there? What are effects on people, children and animals? When will it be cleaned up? How do we know?

### 3.2.4 Environmental Concerns Unrelated to IRP

Farmers and fishing communities especially were noted as being concerned about the environment. As one local government interviewee noted, "Many people live here because of the environment—hunting and fishing, the ocean, and the state forests."

An initiative to clean up the New River and Wilson Bay, which had been polluted by a large hog farm spill in 1995 as well as other point and nonpoint sources, brought together many people in the community, both on and off-base, and increased environmental awareness. MCB Camp Lejeune's upgraded tertiary water treatment program was viewed as an important contribution to restoring the river. Now that the river is coming back to life, people want to be sure it continues to be protected from degradation.

Community members are concerned about sewage spills from MCB Camp Lejeune's system and breakage in aboveground sewer lines near the river, but acknowledge that "sewage spills are made known immediately and containment steps are taken." Other water pollution sources mentioned include off-base sewage/septic spills, stormwater runoff, and waste from hog farms spilling into waterways.

The primary non-IRP issue in most people's minds is the health effects of the drinking water contamination from ABC Cleaners to Tarawa Terrace and nearby Base housing areas in the 1980s, which has received a good deal of media attention recently. Several interviewees stated that people don't understand that the release had resulted from an off-base source (ABC Cleaners) and said that media coverage rarely mentions that fact.

One local official expects that public interest in this issue will increase as Onslow County's proposed agreement to take over MCB Camp Lejeune's water supply system moves forward and stated that, "It will be important to gain public confidence, because there are efforts to taint this agreement by tying it to Tarawa Terrace." (The former drinking water wells that were contaminated in the 1980s are not part of the Base's present-day drinking water system.) Several mentioned that wider water service could spur unwanted growth in rural areas.

Local officials also expressed concerns about a state proposal to issue a permit for a private landfill in Onslow County to accept building demolition debris from the Base that could contain lead-based paint and asbestos-containing materials. They also are concerned about the transportation of low-level radioactive waste from the Base, and suggested that it should be taken by ship to Savannah River Plant instead of using local roads (the state does not allow transporting this type of waste over state roads).

### 3.2.5 Public Information and the Media

Most interviewees said that they get information about the MCB Camp Lejeune IRP from RAB meetings, occasional distribution of fact sheets or brochures, or from briefings given to local officials. Very few reported getting any information from the media, other than newspaper notices of public comment periods.

There was a general consensus among respondents that more could (and perhaps should) be done to get out the word on the status and accomplishments of the IRP, emphasizing that the Base has identified and is taking care of contamination, and including information about the money that is being spent to clean up contamination. However, most agreed that this information is available to people who are interested in it.

Methods that were suggested during interviews to increase public awareness:

- Distribute the RAB minutes more widely.
- Put up big signs, especially at IR remediation sites near roads, advertising what we're doing, what was the contamination issue, what is the cleanup method, the cost, and when will it be completed (similar to signs posted at new base construction sites).
- Invite local groups to the Base, on the weekend, for an "Environmental Restoration Day" brief and tour of the IR sites, like the RAB receives annually. Such an event would be covered in the environmental groups' newsletters, further promoting awareness.

- Public notices should be placed in the Sunday papers, not weekday, because people have more time to read the newspaper then.
- Use Camp Lejeune TV Channel 10 (the Base TV station) and the PAO's daily news feed to local radio stations for occasional updates and to publicize the IRP website as a source of information.
- Use the *Globe* (base newspaper) and Channel 10 to publicize the list of buildings with specific problems and a contact that concerned employees or residents can call if they have questions.
- Place articles or inserts in the *Globe* (base newspaper) at decision points and public comment periods.
- Work with the Local Emergency Planning Council (LEPC) to increase outreach to the community.
- Hold a public meeting on Camp Lejeune TV Channel 10 as a mini-forum for community leaders and invite the media, as an opportunity to educate the community about the cleanup program.
- One local official would like to see a brief about the IRP presented at the Military-Civilian Task Force for Emergency Response (meets the 1st Thursday of the month at 11:30 at Hilda's Restaurant).

### 3.2.6 Providing Information to Employees

Interviewees in 2004 included several current and former base employees and residents. One resident remembered fact sheets or flyers being handed out to families living near an IRP site that was attracting children.

Interviewees recommended increasing the outreach to on-base residents and employees, because they are the most likely to be affected both by contamination and by remediation activities. Also, because many MCB Camp Lejeune personnel (military and civilian) live off-base, keeping them well-informed would enable them to answer questions from others and to counter rumors and misinformation if it arises.

### 3.2.7 Environmental Groups

The most prominent local environmental organization is the New River Foundation, which was formed in 1995 in response to a severe hog farm waste spill into the New River. This group administers the Riverkeeper grant for the New River. The New River Foundation also sponsors stream cleanups (which MCB Camp Lejeune supports by making canoes available), is involved with an effort to bring back sturgeon and clean up oyster beds, fosters public awareness of water quality issues and advocates for protection of the New River.

The Riverkeeper was interviewed as one of the respondents and stated the common community concern of groundwater contamination that can result from faulty wastewater treatment systems (throughout the watershed, not just Camp Lejeune). He also mentioned stormwater runoff as one of his concerns.

The Local Emergency Planning Council (LEPC) is a group of citizens that are appointed, in accordance with the Community Right-to-Know legislation, to work jointly with local, state and federal officials on hazardous materials storage issues and mutual aid for response to emergencies. Although remediation of CERCLA sites is not under its purview, the LEPC was suggested by one of the 2004 interview respondents as a possible means to disseminate IR program information to the community, because its members are already attuned to related issues of environmental health and safety.

Some other community environmental or citizen action groups mentioned by respondents are:

- Sierra Club
- North Carolina Conservation Network
- Georgetown Renaissance Community Association Inc.
- North Carolina Coastal Federation
- White Oak River Advisory Board

# 3.3 Community Involvement Activities to Date

## 3.3.1 Highlights of the Program

### 3.3.1.1 Community Relations and Interagency Cooperation

Community involvement in the IRP is only one part of the community relations program at MCB Camp Lejeune, in keeping with the Base's key role in the economy and character of the surrounding community. The base strives to bring together the civilian and military communities for the common goal of a stronger community. The original foundation of the relationship was the Joint Military Affairs Committee, which consists of local professionals, officials, business persons and service members, and sponsors various community events to enhance relations. Volunteer efforts by units of the Base have included food and holiday gifts for needy families and other programs.

The Military-Civilian Task Force for Emergency Response and the LEPC provide additional operational links between MCB Camp Lejeune and local community leaders. The Commanding General, MCB Camp Lejeune, serves as the Marine Corps' Regional Environmental Coordinator for USEPA Region 4. The State/Military Environmental Issues Working Group, comprised of personnel from North Carolina DENR, MCB Camp Lejeune and other military installations in the state, is a nationwide model for DoD-State cooperation.

### 3.3.1.2 Installation Restoration Program

MCB Camp Lejeune has implemented removal actions and remedial actions at several facility sites and other remedial investigations are ongoing. In doing so, the Navy and the Marine Corps have worked closely with USEPA and DENR, and also with community members who serve on the RAB. Through the RAB, the Base informs and involves the public in the ongoing investigation and remediation process. Public meetings, notices and announcements have made information available to the community and offer the opportunity for the public to comment before remediation decisions are finalized. In

addition, NAVFAC Atlantic maintains a comprehensive electronic Administrative Record for the IRP at MCB Camp Lejeune. The public can access the Administrative Record at the Onslow County Public Library or from any computer with access to the internet.

## 3.3.2 Restoration Advisory Board

### 3.3.2.1 Technical Review Committee

A Technical Review Committee (TRC) was established at MCB Camp Lejeune in 1988. The original TRC members included representatives from USEPA Region 4; U.S. Fish and Wildlife Service; National Oceanic and Atmospheric Administration; DENR; Onslow County Health Department; the City Manager of Jacksonville; Navy and Marine Corps; and two community members. The TRC met quarterly until 1995.

### 3.3.2.2 Transition to Restoration Advisory Board

In April 1994, DoD formally issued a policy for establishing RABs at operating DoD facilities as part of the DoD Environmental Restoration Program Management Guidance. In the summer of 1994, DoD and the USEPA jointly issued guidelines that provided a strategy for establishing RABs. Those guidelines are published in the 1994 DoD/USEPA document titled *U.S. Department of Defense and U.S. EPA, Restoration Advisory Board Implementation Guidelines*[2]. RABs are intended to replace TRCs, enhance communication, and solicit input from the public on the IR process, by including as members more people who represent various community perspectives.

In 1995, the MCB Camp Lejeune TRC was transformed into a RAB. Six additional individuals from the general public were identified to participate in RAB activities. The first RAB meeting was held in April 1996 at the Onslow County Public Library in Jacksonville.

### 3.3.2.3 Restoration Advisory Board Activities

Today, RAB meetings are still held quarterly, generally at the nearby Coastal Carolina Community College, and other efforts such as tours of Camp Lejeune's IR sites, are planned periodically as integral parts of community involvement. In order to achieve greater community involvement and support of the MCB Camp Lejeune cleanup process, RAB members share information about the IRP with local neighborhood groups.

### 3.3.2.4 Feedback About the RAB in 2004 Interviews

Seven of the 14 people interviewed in 2004 were aware of the RAB (including three non-members) and six had attended RAB meetings (including two non-members). Most of those who had attended RAB meetings felt that sufficient and valuable information about the IRP is presented at RAB meetings, but one disagreed, saying that "the presenters concentrate on two or three sites." RAB members who were interviewed indicated that their primary source of information about the IRP came from RAB meetings and documents provided to the RAB for review.

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[2] Additional operational and funding guidance is provided by Chapter 10 "Community Involvement" in the DoD Management Guidance for Defense Environmental Restoration Program (September 2001); Chapter 15 "Installation Restoration" in OPNAVINST 5090.1B (September 1999); and Chapter 10 "Administrative Record, Information Repository and Community Relations" in the *Department of the Navy IR Manual* (June 2001).

One interviewee suggested that RAB meetings should occasionally be held on-post, at a location such as at Marston Pavilion or the Officers Club or Tarawa Terrace Community Club, to encourage MCB Camp Lejeune residents and employees to attend.

### 3.3.3 Public Meetings

RAB meetings are held quarterly and are always open to the public (see Appendix C), to allow community members to obtain information about IRP activities at Camp Lejeune and to voice their concerns about activities at the facility. Opportunities for public comment and public meetings are also held specifically for the general community. These avenues provide forums to discuss proposed remedial action plans as the Base approaches the Record of Decision stage for each site or Operable Unit. Discussion opportunities are also available for each UST site in the corrective action planning stage.

Additional public meetings are held to delineate field work and explain the analytical results of sampling conducted in various areas of the Base.

In addition to public meetings required to garner public views on IR proposed plans and evaluations, quarterly TRC and RAB meetings have been held since 1988.

### 3.3.4 Technical Assistance for Public Participation and Technical Assistance Grants

On February 2, 1998 (*Federal Register* Volume 63, Number 21), DoD published a final rule establishing a new program called Technical Assistance for Public Participation (TAPP). This program provides a mechanism for RABs and TRCs to obtain technical assistance to help them better understand and provide input into environmental restoration programs. Examples of TAPP projects include reviewing restoration documents and proposed remedial technologies, interpreting environmental health effects, participating in relative risk ranking exercises (which are used to prioritize restoration activities at a facility), and certain types of technical training.

Community members, through their RAB or TRC, define a proposed TAPP project and prepare a TAPP request. The Marine Corps (or other DoD service branch) prepares a Statement of Work and procures a technical assistance provider, through an accelerated procedure based on purchase orders. As necessary, the RAB or TRC may be asked to assist by commenting on potential providers. After a provider is hired, the Marine Corps funds the purchase orders, up to $25,000 per year or a total of $100,000 over the life of the program at any one installation.

In addition, the USEPA Technical Assistance Grant (TAG) program provides another means of funding technical assistance to communities at NPL sites. Unlike TAPP, the TAG recipient group is not required to be a RAB or TRC, but it must be incorporated as a non-profit organization. Because only one TAG grant is available per NPL site, USEPA encourages interested community groups to form coalitions for TAG purposes. Also unlike TAPP, the TAG recipient group is fully responsible for procuring technical assistance, managing grant funds and reporting requirements.

Information about TAPP and TAG has been made available to the Camp Lejeune RAB. No procurements have been made to date under the TAPP program at MCB Camp Lejeune.

However, in 1997, as part of the Navy's continued support for community involvement, technical assistance in interpreting and explaining specific chemicals of concern was provided to RAB members.

### 3.3.5 Public Information Repository and Access to the Administrative Record

CERCLA (as amended by SARA) requires that an administrative record for the selection of a response action be established at or near the facility at issue. The administrative record includes all documents that were considered or relied upon in selecting a response action. Electronic copies of the administrative record documents are maintained by NAVFAC and are available for public review.

The administrative record file for MCB Camp Lejeune can be accessed through the base's official IRP website (see section 3.3.8 Website) or at the Onslow County Library. A computer was provided to the Onslow County Library to facilitate public access to this website. The address and hours of the library are listed in Appendix C.

Originally, hardcopy documents were kept in the public information repository at the Onslow County Library. Due to space limitations, these were later removed at the request of the library.

Copies of all documents released for public comments continue to be made available to community members, using the location(s) or methods stated in newspaper notices, fact sheets and public meetings, for the duration of formal public comment periods.

### 3.3.6 Fact Sheets

Fact sheets are concise documents, typically 1 to 4 pages long, that are intended to summarize IRP information or key documents, such as Proposed Plans, and to update the public about the status of the program. Fact sheets are one method of providing local citizens with an understanding of the issues and approaches to remedial investigations and actions.

Several fact sheets have been developed on the MCB Camp Lejeune IR program for distribution to the general public (see examples in Appendix E). Many fact sheets were created to inform the public about the proposed plans for IRP sites. According to one of the interviewees, a fact sheet was provided to base housing residents near MCAS New River to encourage parents to keep children away from a canal associated with an IRP site. Another fact sheet giving a brief overview of the program was prepared as part of the 2004 interviews for the CIP update. This fact sheet was mailed to respondents after the interviews.

### 3.3.7 Media Relations

In 2002, because of a decrease in RAB participation, MCB Camp Lejeune ran a newspaper notice to encourage increased membership. There was an outstanding response to this advertisement. Over the years since the inception of the TRC and the RAB, many such public notices have been posted in the local newspapers. In addition, significant project actions have been placed in various local newspapers (Appendix D). Some examples of newspaper articles and public notices are provided in Appendix E.

Eight of the 14 respondents to the 2004 interviews cited *The Jacksonville Daily News* as the most widely read and the most appropriate medium for disseminating information to the public, and five cited the *Globe* (base newspaper). The most widely watched television news was Channel 12 (NBC) (eight of 14 respondents), followed by Channel 9 (CBS) and Channel 7 (ABC). Three respondents (two base residents and one non-resident) also mentioned Lejeune TV Channel 10 as a source of information. Media contacts are listed in Appendix D.

### 3.3.8 Website

A website for the MCB Camp Lejeune IRP was set up on the Internet in 1998, to enhance the efficient and timely conveyance of information about the environmental restoration and environmental protection programs at the Base to the public.

Currently, the MCB Camp Lejeune IRP website offers:

- An introduction that explains the purpose of the IR program
- RAB member names and contact information
- Partnering Team member names and contact information
- Administrative Record search for all public documents related to the Base's IRP

The current Internet address (URL) of the MCB Camp Lejeune website is:

http://www.bakerenv.com/camplejeune_irp/

In 2004, all of the RAB members interviewed were aware of the website but only one non-RAB member was aware of it. Two of the non-RAB member respondents who did not previously know about the website agreed that they would use this vehicle to acquire information on the IRP in the future. Interviewees suggested that the website address should be publicized more.

## 3.4 Community Involvement Activities Planned

### 3.4.1 Public Information Needs and Methods

Since the inception of the Community Relations (Involvement) Program in the late 1980s, the relationship of MCB Camp Lejeune with the community has been good. However, the community was primarily concerned by past contamination from the Base's sewage treatment facility. A majority of those interviewed in 1990 and 1994, as well as 2004, had little knowledge of the environmental cleanup at the Base. During both interview periods, there was a general sense of confidence in MCB Camp Lejeune and their ability to address environmental problems.

In both interview periods, groundwater quality represented the community's greatest concern.

During both the 1994 and 2004 interviews, both RAB members and non-RAB members expressed the opinion that information is available to those who seek it out, but that more work could be done to increase public awareness of the environmental restoration program at MCB Camp Lejeune, particularly among the Base's residents and employees. (See section

3.2.5 "Public Information and the Media" for specific suggestions made during 2004 interviews.)

### 3.4.2 Community Involvement Plan

This CIP will be made available to the public on the MCB Camp Lejeune website. This plan will be updated again in approximately 5 years or when a major change in the IR program occurs.

### 3.4.3 Restoration Advisory Board

The Community Involvement Program at MCB Camp Lejeune will continue to enlist the support and cooperation of the RAB members by providing regular information to them and actively seeking their input into remedial decisions. These individuals are considered a key resource in efforts to communicate openly and effectively with the community at large.

MCB Camp Lejeune will continue to hold quarterly RAB meetings. Paid newspaper notices and press releases are optional for RAB meetings and are not normally used by MCB Camp Lejeune, but they could be used if wider participation is desired at a particular meeting, or if the active membership of the RAB appears to be declining.

### 3.4.4 Public Meetings

MCB Camp Lejeune will continue to hold public meetings, whenever a formal public comment period is required, for example, upon completion of any proposed remedial action plans or removal actions. The meetings are held to solicit comments from the public. Notices of public meetings are advertised in the local newspapers.

Base representatives, with assistance as needed from NAVFAC Atlantic and its IR contractors, are responsible for planning the meetings, including notification, setup, clean up, recording comments and presenters, and developing informational displays and other materials.

### 3.4.5 Public Information Repository/Administrative Record File

Documents about all phases of the IRP process will continue to be made available electronically to the public via the official IRP website, which can be accessed by personal computers or the computer at the Onslow County Public Library (Appendix C).

Information relied upon in selecting remedial actions is kept and updated in the Administrative Record File maintained by NAVFAC Atlantic. As IRP work progresses at MCB Camp Lejeune, NAVFAC Atlantic and Base representatives will be responsible for ensuring that documents are added to the electronic Administrative Record and indexed.

Each public notice that is published in *The Jacksonville Daily News* and *Globe* to announce public comment periods will include information on where to obtain more information. Documents that request public comment will be made available as indicated in the public notice, fact sheet, or public meeting presentation.

### 3.4.6 Media Relations

MCB Camp Lejeune will continue to place paid public notices announcing public meetings, public review periods for IRP documents, and other key events in the *Globe, Jacksonville*

*Daily News* and the *Wilmington Star-News*. Many 1994 and 2004 interview respondents expressed frustration with media coverage, but indicated that the media is still the best way to reach the general public. Although environmental restoration news has not (to date) been covered much by the *Globe*, as the Base newspaper it is still the best resource for publishing informative coverage about milestones in the IR program.

Depending on the level of interest, both by media and the public, at key points during the IRP process, MCB Camp Lejeune public affairs personnel will assess the need for holding a news conference. At present, public interest and concern about the IRP does not warrant a press briefing. Should such a briefing become necessary, MCB public affairs personnel will coordinate the event with the help of representatives from the Base Environmental Management Division. The public affairs personnel will identify possible speakers and prepare them for media questions, as well as, develop press kits covering the following:

- History of the facility investigation
- Issues and concerns
- Results of the IRP and actions currently being evaluated
- Process for public comment and review
- Who to contact for more information
- How to access the Administrative Record file via the MCB Camp Lejeune IRP website

### 3.4.7 Website

Internet technology allows new information to be made available more quickly, and can allow information to be delivered in a more user-friendly manner. In particular, this technology can make access to detailed information about sampling and remediation easier to access and visualize than printed reports.

The website allows interested members of the public and regulators to monitor progress of the IR program status at each operable unit and site. The website makes the Administrative Record file readily available to the public for searching and downloading documents. Although the MCB Camp Lejeune website is now the primary method for making IRP documents available to the public, it will not replace all other forms of communication with the community, but will be used to supplement and broaden them.

### 3.4.8 Timing of Community Involvement Activities

The general timing of Community Involvement activities associated with potential environmental restoration activities planned at MCB Camp Lejeune are presented in Table 3-2. Appendix F provides a summary of the minimum community involvement activities that are required under Superfund. Activities at Camp Lejeune have and will continue to go beyond those requirements as necessary.

## 3.4.9 Points of Contact

The following personnel will serve as points of contact and information resources for responding to inquiries from the public:

**Primary community liaison for questions and concerns about MCB Camp Lejeune or the IRP:**

Consolidated Public Affairs Office
Marine Corps Base Camp Lejeune, NC
Telephone: 910-451-7440

**Additional contacts for the IRP:**

Mr. Bob Lowder
IR Program Director
Environmental Management Division
Marine Corps Base Camp Lejeune, NC

Telephone: 910-451-9607
LowderRA@lejeune.usmc.mil

Mr. Daniel Hood
Installation Restoration Section, Code EV-23
Atlantic Division, NAVFACENGCOM
6506 Hampton Blvd.
Norfolk, VA 23508-1278

Telephone: 757-322-4630
Fax: 757-322-4805
HoodDR@efdlant.navfac.navy.mil

**TABLE 3-2**
Community Involvement Checklist

| | Restoration Advisory Board | Maintain Administrative Record | Update Website | Fact Sheet | Public Notice | Public Comment Period | Public Meeting | Respon-siveness Summary |
|---|---|---|---|---|---|---|---|---|
| Preliminary Assessment/Site Inspection (PA/SI) | | | | | | | | |
| Remedial Investigation/Feasibility Study (RI/FS) | ▒ | ▒ | ▒ | | | | | |
| Proposed Remedial Action Plan (PRAP or Proposed Plan) [3] | ▒ | ▒ | ▒ | ● | ● | ● | ● | |
| Record of Decision (ROD) | ▒ | ▒ | ▒ | | ● | | | |
| Remedial Design/Remedial Action (RD/RA) | ▒ | ▒ | ▒ | | | | | |
| Interim Actions | ▒ | ▒ | ▒ | | | | | |
| Removal Actions (6 months planning) | ▒ | ▒ | ▒ | | ● | ● | | |
| Engineering Evaluation/Cost Analysis (EE/CA) | ▒ | ▒ | ▒ | | ● | ● | | ● |
| No Further Response Action Planned (NFRAP) | ▒ | ▒ | ▒ | | | | | |
| 5-Year Review | ▒ | ▒ | ▒ | | ● | ● | | |

▒ Ongoing activity

● One-time activity

[3] The proposed plan document (PRAP) can also serve as the fact sheet.

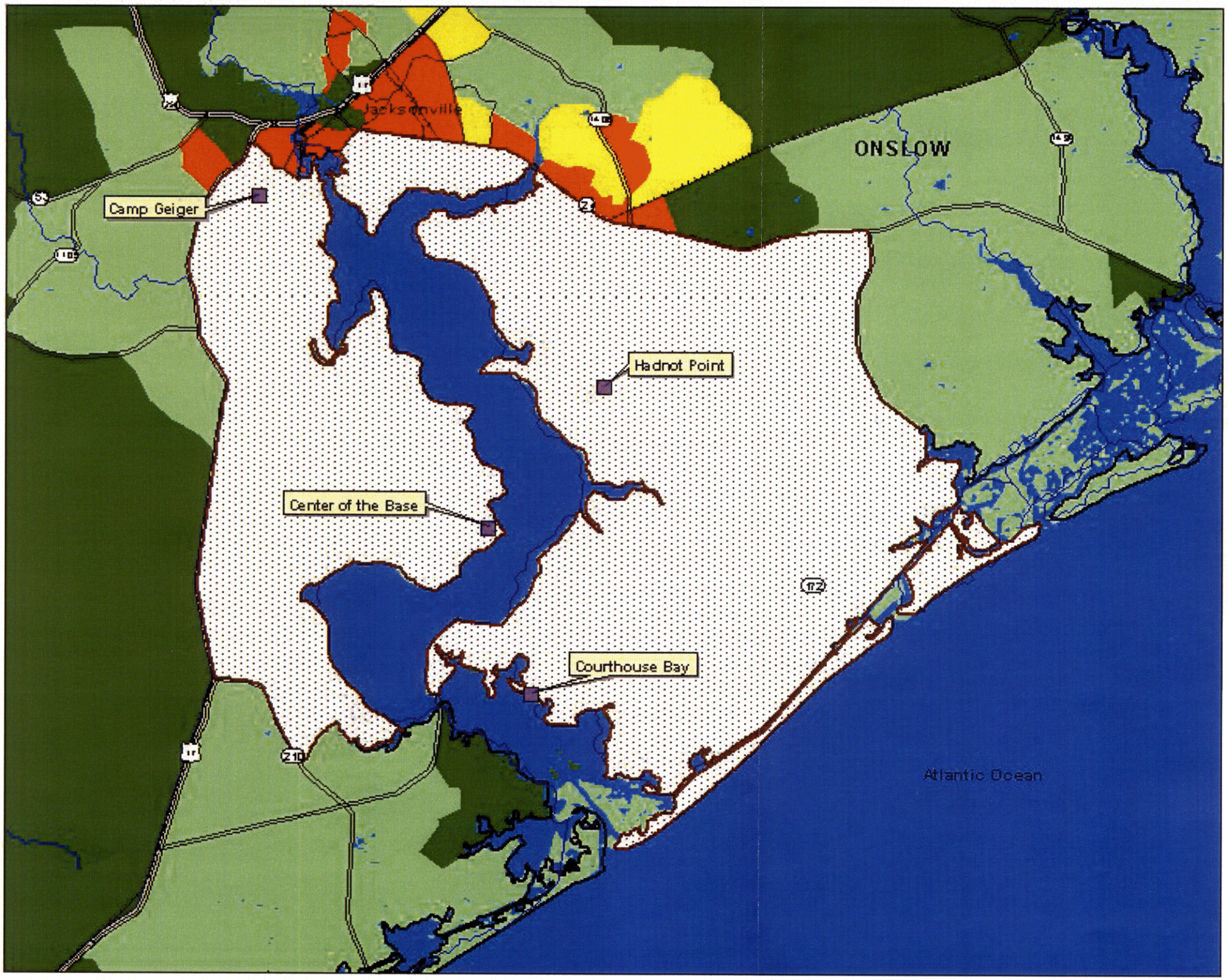


**Figure 3-1**
**Environmental Justice**

Source: 2000 U.S. Census Population and Housing Summary Tape File 3 (STF3) Data.
Aggregated to Block Group Level.

Relative State Minority Threshold: 35.78%
Relative State Low Income Threshold (20K): 28.30%

EPA REGION 4
ENVIRONMENTAL ACCOUNTABILITY DIVISION

# Appendix A
# Site-Specific Investigation & Remedial Action

**Appendix A**

Site Specific Investigation and Remedial Action
*MCB Camp Lejeune, North Carolina*

| OU | Site | Site Location | Historic Land Use | Chemicals of Potential Concern | Site Remedial Action | Site Status | Current Land Use | References |
|---|---|---|---|---|---|---|---|---|
| 1 | 21 – Transformer Storage Lot 140 | Northeast portion of OU1 within the Hadnot Point Industrial Area (HPIA) and Site 78 between Ash St. and Sneads Ferry Rd. on Center Rd. | Oil from electric transformers was drained into a disposal pit in the northern portion of the site between1950-1951. Pesticide mixing and wash down area for equipment used during the application of pesticides from 1958-1977. | Pesticides and Polychlorinated Phenols (PCBs) in soil. | Contaminated soils from 3 AOCs were removed in 1995. No other remedial action is planned. | The RI for Site 21 concluded that impacted soils be removed. Soil removal was conducted in 1995. No additional remedial actions are planned for Site 21. A Land Use Control Implementation Plan (LUCIP) that restricts development to industrial land use and use of groundwater is in place. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |
| | 24 – Industrial Area Fly Ash Dump | Approximately 100 acres in size, located south and east of Birch and Duncan Streets, adjoining Site 78 | Site 24 was used for the disposal of fly ash, cinders, solvents, used paint stripping compounds, sewage sludge, and water treatment sludge from the late 1940s to 1980. | Pesticide (heptachlor epoxide) in groundwater. | A monitoring program was implemented in 1995. The program was discontinued after 4 consecutive quarters without detection of pesticides. | The RI/FS concluded that a monitoring program be initiated. The monitoring program was discontinued in 1996. A LUCIP was implemented in 2001. A final monitoring report was submitted in 2001. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |
| | 78– Hadnot Point Industrial Area | The HPIA is the area bounded by Holcomb Boulevard to the west, Sneads Ferry Road to the North, and the Main Service Road to the south. | The HPIA is comprised of approximately 590 acres and includes maintenance shops, gas stations, administrative offices, printing shops, warehouses, storage yards, and other similar industrial facilities. | Organics detected in groundwater. | Evaluation of remedy effectiveness for both pump & treat systems is on-going. ORC and HRC pilot studies are on-going. A groundwater monitoring program is on-going. | Land and aquifer use controls were implemented through a LUCIP that was updated in FY2002. | The HPIA includes maintenance shops, gas stations, administrative offices, printing shops, warehouses, storage yards, and other similar industrial facilities. | SMP, 2003 |
| 2 | 6 – Storage Lots 201 and 203 | Bounded by Wallace Creek to the north, Site 9 to the south, Piney Green Rd. to the east, and Holcomb Blvd. to the west. | Lot 201 stored pesticides and transformers containing PCBs from the 1940s to late 1980s.<br>Lot 203 served as a waste disposal area for various chemicals including PCBs, cleaning solvents, used batteries, and waste oils. Pesticides were also stored at Lot 203. | Pesticides detected in soil. VOCs detected in groundwater and surface water. | A time-critical removal action (TCRA) was conducted for the removal of 20 drums of DDT and contaminated soil in 1994. Another TCRA was conducted in 1995 and 1996 to remove drums, batteries, and communications wire.<br>A groundwater extraction and treatment system was put into operations in July 1996.<br>A groundwater, surface water, and sediment monitoring program was initiated in FY1997. | Land and aquifer use controls were implemented through a LUCIP that was updated in FY2002. | Lot 201 is used for equipment storage and much of the former wooded areas have been converted to open storage.<br>Most of Lot 203 remains an open field and the front 21 acres is being temporarily used by the Defense Reutilization Marketing Office (DRMO) for metal staging operations. The groundwater extraction and treatment operations building and contractor field offices are located on the northeastern portion of Lot 203. | SMP, 2003 |
| | 82 – Piney Green Road VOC Area | Adjoins Site 6. | Wooded area adjoining Site 6. | Pesticides detected in soil. VOCs detected in groundwater and surface water. | A soil vapor extraction (SVE) unit was operated for 6 months in 1996 to remediate residual soil contamination in the vadose zone. A groundwater extraction and treatment system was put into operation in July 1996. A groundwater, surface water, and sediment monitoring program was initiated in FY1997. | Land and aquifer use controls were implemented through a LUCIP that was updated in FY2002. | Mostly wooded area | SMP, 2003 |

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| | 9 – Fire Fighting Training Pit at Piney Green Road | Located immediately south of Site 6 and west of Piney Green Rd. encompassing approximately 2.6 acres. | The original fire training area consisted of a concrete-lined pit with an oil-water separator. From the 1960s to 1981 training exercises were conducted in an unlined pit (the pit is now asphalt-lined). Flammable liquids including heating oil, solvents, and fuels are used as accelerants during training exercises | Soil and groundwater samples collected during the RI in 1992 did not reveal extensive contamination. Petroleum, oil, lubricant (POL) contaminated soils were removed during installation of new facility in FY 2000. | No remedial actions were required based on RI findings. | No additional remedial actions are planned. | New POL fire training pit facility. | SMP, 2003 |
| 3 | 48 – MCAS Mercury Dump | Approximately 4 acres in size, this site is located within Marine Corps Air Station (MCAS) New River. The site is bounded by Longstaff Rd. to the west and to the east by the New River. An unnamed tributary of the New River borders the site to the north. | During the late 1950's to the mid – 60's, Building AS-804 was used for developing photographs. Mercury was drained from radar units and disposed in small quantities behind the building. | A geophysical investigation was performed, but did not reveal anything associated with mercury disposal. A soil and groundwater investigation was also conducted, but did not identify any mercury. | As part of the 1992 RI/FS, historical aerial photographs were evaluated. The RI concluded the absence of mercury was likely due to washout of the area and periodic flooding during severe storms. No remedial actions were required due to the absence of contamination. | No additional remedial actions are planned. The final ROD was signed in 1993. | Building AS-804 is currently used as a classroom training facility. | SMP, 2003 |
| 4 | 41 – Camp Geiger Dump Near Former Trailer Park | Approximately 30 acres in size, Site 41 is located in within the Camp Geiger area. The site is situated between Highway 17 to the west, Tank Creek to the south, an unnamed tributary to the north, and an unimproved road to the east. | From 1946 to 1970, the area was used as an open burn dump. Construction debris, POL wastes, mirex (pesticide), solvents, batteries, ordnance, and chemical training agents were reportedly disposed of at the site. | PAHs detected in surface soil. Chromium, iron, lead, and manganese detected in groundwater. | Long-term groundwater, surface water, and sediment monitoring and aquifer and land use controls prohibiting development were implemented through a LUCIP that was updated in FY2002. | Groundwater, surface water, and sediment monitoring will continue in FY2003. A final OU Close Out Report may also be completed in FY2003 pending the completion of the monitoring program. | The site remains heavily wooded and six-foot cyclone fence limits vehicle access to the site | SMP, 2003<br>FYR, 2003 |
| | 74 – Mess Hall Grease Disposal Area | Located approximately one-half mile east of Holcomb Blvd. In the northeast section of MCB Camp Lejeune, just north of Henderson Pond. | From the early 1950's to the early 1960's, grease from the mess hall was reportedly taken to the area and disposed in trenches. Drums containing PCB's and "pesticide soaked bags" were taken to the site and buried. Chemical warfare materials (CWM) in the form of test kits were also taken to Site 74. | Some pesticides were detected in soil and one monitoring well exhibited low levels of a pesticide. The RI results did not indicate widespread contamination. | Land use restrictions and groundwater monitoring were implemented through a LUCIP that was updated in FY2002. Monitoring was discontinued in 1998 since detected metal concentrations were indicative of naturally occurring metals. | No additional remedial actions are planned. A final monitoring report was completed in FY2002 to serve as an interim document before a final closeout report is prepared. | Current use of this site has not been identified. | SMP, 2003 |
| 5 | 2 – Former Nursery and Day Care Center | Located at the intersection of Holcomb and Brewster Blvds., just inside the main gate of MCB Camp Lejeune. | From 1945 to 1948, Building 712 was used for the storing, handling, and dispensing of pesticides. The building was later used as a daycare center for children. | Pesticides detected in soil, surface water, and sediment. Pesticides and VOCs detected in groundwater. | A TCRA was conducted for the removal of contaminated soil in 1994. Long-term groundwater monitoring and land use restrictions were implemented in 1995. | Aquifer and land use controls implemented through a LUCIP that was updated in FY2002. | Building 712 is currently being used as a personnel office for non-appropriated funding personnel. | SMP, 2003 |
| 6 | 36 – Camp Geiger Dump Area | Approximately 20 acres in size, Site 36 is located approximately 1,000 feet east of Camp Geiger and 500 feet west of the New River, adjacent to the Camp Geiger Sewage Treatment Plant (STP). | Between the late 1940's to the late 1950's this site was used for the disposal of mixed industrial wastes including trash, waste oils, solvents, and hydraulic fluids. Some materials were burned before burial. | VOCs detected in groundwater. PCBs detected in soil. VOCs and pesticides detected in surface water and sediment. | A non-TCRA was conducted for the removal of contaminated soil. Long-term groundwater and surface water monitoring was initiated in 1998. | Final ROD is pending. It is expected to include MNA for groundwater, removal actions for contaminated soil, and a LUCIP to implement institutional controls. | Current use of this site has not been identified. | SMP, 2003 |
| | 43 – Agan Street Dump | Approximately 11 acres in size, Site 43 is located within the operations area of MCAS New River. The site is bordered to the north by Edwards Creek and to the east and south by Strawhorn Creek. | This dump reportedly received inert material such as construction debris and trash. Sludge from a former sewage disposal facility adjacent to the site was also dumped onto the ground surface. | PAHs and SVOCs detected in soil. Carbon disulfide and inorganics detected in groundwater. Benzoic acid and inorganics detected in surface water. PAHs and pesticides detected in sediment. | A surficial metallic debris removal action was performed during 1995. | Final ROD is pending. It is expected to include removal actions for contaminated soil and a LUCIP to restrict excavation activities. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |

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| | 44 – Jones Street Dump | Approximately 5 acres in size, Site 44 is located at the northern terminus of Baxter Street, behind base housing units on Jones Street within the New River operations area. | This dump was reportedly in operation during the 1950's. Specific quantities of wastes are not known, however, it is reported that debris, cloth, lumber, and paint cans were disposed of at the Site. | SVOCs detected in soil. Pesticides 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT were widely distributed in soil. Inorganics and organics detected in groundwater. VOCs detected in surface water. | The occurrence of VOCs in groundwater and surface water was traced to Site 89, which is located upgradient of the site. No further remedial action or monitoring is expected. | Final ROD is pending. It is expected to include a LUCIP to restrict excavation activities. | Current use of this site has not been identified. | SMP, 2003 |
| | 54 – Crash Crew Fire Training Burn Pit | Approximately 1.5 acres in size, Site 54 is located near the southwest end of runway 5-23 within the operations area of MCAS New River. | The burn pit is approximately 50 feet in diameter and has been in operation since the mid-1950's. The burn pit was lined in 1975. Fire training exercises were conducted within the burn pit using JP-type fuel, which was stored in a nearby underground storage tank (UST). An oil water separator was used for temporary storage and collection of spent fuel. | VOCs and SVOCs detected in soil and groundwater. | Long-term groundwater monitoring began in 1998. POL contaminated soils were removed during installation of new facility in FY 2001. Monitoring was discontinued in FY2002, when it was determined that VOCs and SVOCs no longer posed an impact to groundwater. | Final ROD is pending. It is expected to include groundwater monitoring for lead and a LUCIP to restrict intrusive activities and aquifer use. | Training area that employs clean-burning fuels with operational and engineering controls. | SMP, 2003 |
| 7 | 1 – French Creek Liquids Disposal Area | Located approximately 1 mile east of the New River, situated along both the north and south sides of Main Service Rd. near the western edge of the Gun Park Area and Force Troops Complex. | Reportedly, liquid wastes generated from vehicle maintenance were routinely poured onto the ground surface. At times, holes were reportedly dug for waste acid disposal and then immediately backfilled. | VOCs detected in subsurface soil and groundwater. | Land and aquifer use controls were implemented through a LUCIP that was updated in FY2002. | Monitoring was discontinued in 2001 when site-wide groundwater concentrations fell below the remedial action goals. | Current use of this site has not been identified. | SMP, 2003 |
| | 28 – Hadnot Point Burn Dump | Approximately 23 acres in size, Site 28 is located along the eastern bank of the New River, south of the HPIA. | From 1946 to 1971, Site 28 operated as a burn area for industrial waste, trash, oil-based paint, and construction debris. | VOCs, SVOCs, and inorganics detected in soil. Inorganics detected in groundwater. | A groundwater, surface water, and sediment monitoring program was established in 1998. | The final LTM event was completed in FY2001. Land and aquifer use controls were implemented through a LUCIP that was updated in FY2002. | Current use of this site has not been identified. | SMP, 2003 |
| | 30 – Sneads Ferry Road Fuel Tank Sludge Area | Located along a tank trail that intersects Sneads Ferry Rd. from the west, approximately 1 mile south of the intersection with Marines Road. | Reportedly used by a private contractor as a cleaning area for emptied fuel storage tanks from other locations. Leaded gasoline was the fuel stored in the tanks. | A very limited number of VOCs were detected in soil. | No remedial actions were recommended since there were no significant detections of any other potentially hazardous compounds during the RI. | The final ROD was signed. No further action. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |
| 8 | 16 – Former Montford Point Burn Dump | Approximately 4 acres in size, Site 16 is located southwest of the intersection of Montford Landing Rd. and Wilson Drive in the Montford Point area. | Trash from the surrounding housing area and buildings is suspected to have been burned and then covered with soil. Small amounts of waste oil were also disposed of. | Pesticides detected in soil and sediment. PCBs and SVOCs detected in surface soil. VOCs detected in one groundwater sample in first round. | Contaminant levels were not high enough to warrant further action; however, land and aquifer use controls were implemented through a LUCIP that was updated in FY2002. | No additional remedial actions are planned. | Current use of this site has not been identified. | SMP, 2003 |
| 9 | 65 – Engineer Dump Area | Approximately 5 acres in size, Site 65 is located in the Courthouse Bay area. | Two disposal areas were in operation from 1958 to 1972, a battery acid disposal area and a liquid disposal area. The liquids were comprised of POL. The dump was also used to burn construction debris. | No contaminants have been detected at Site 65. | RI findings indicate that there were no releases of hazardous substances that would result in a risk to human health or the environment. | The final PRAP and ROD were completed in FY2001. No additional remedial actions are planned. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |
| 10 | 35 – Camp Geiger Area Fuel Farm | Located immediately north of the intersection of G and Fourth Streets, approximately 400 feet southwest of Brinson Creek. | A fuel farm consisting of five 15,000 gallon aboveground storage tank (AST's) and associated piping were in use from 1945 until the spring of 1995. Several releases occurred during the life of the fuel farm. | Fuel- and solvent-related groundwater contamination. | Soil removal conducted in 1995. An in-situ air sparging trench is being piloted. Additional pilot studies are planned to begin in late FY2003. Long-term groundwater and surface water monitoring began in 1998. | Groundwater is undergoing remediation. Pilot studies are being conducted. The FS, PRAP, and ROD are expected to be completed in FY2004 and 2005. | Current use of this site has not been identified. | SMP, 2003 |

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| 11 | 7 – Tarawa Terrace Dump | Approximately 5 acres in size, Site 7 is located just south of the Tarawa Terrace community center between Tarawa Blvd. and Northeast Creek. | Historical records indicate that only construction debris, water treatment plant filter material, and household trash were disposed of. The dump was closed in 1972. | Pesticides were most prevalent contaminant detected in soil and sediment. SVOCs detected in north and eastern portions of site. Metals were most prevalent contaminants in groundwater. | None of contaminants detected during RI was considered to pose a threat to human health or the environment. | No additional remedial actions are planned. | Current use of this site has not been identified. | SMP, 2003 |
| | 80 – Paradise Point Golf Course Maintenance Area | Located northwest of Brewster Blvd. within the Paradise Point Golf Course, behind Building 1916. | Past maintenance procedures are unknown. | Pesticides were the predominant contaminants. | A TCRA was conducted in 1996 to remove soil contaminated with pesticides. | No additional remedial actions are planned. | Facility is currently operating. | SMP, 2003 |
| 12 | 3 – Old Creosote Plant | Approximately 5 acres, Site 3 is located approximately one mile north of Wallace Creek along Holcomb Blvd. | The creosote plant reportedly operated from 1951 to 1952 to supply treated lumber. The plant operated in the northern portion of the Site and a sawmill operated in the northern portion of the Site. | VOCs and PAHs detected in groundwater and soil. | PAH-contaminated soil was removed. A groundwater monitoring program was established. | Land and aquifer use controls were implemented through a LUCIP that was updated in FY2002. | Current use of this site has not been identified. | SMP, 2003 |
| 13 | 63 – Verona Loop Dump | Approximately 5 acres, Site 63 is located nearly 2 miles south of the MCAS New River operations area, and is bordered to the south by Verona Loop Rd., to the east by an unnamed tributary to Mill Run, and to the west by a gravel access road. | Reportedly received "bivouac" wastes generated during training exercises. | SVOCs, pesticides, and metals were detected. | Based upon findings presented in RI, there are no threats to human health or the environment. | No additional remedial action or monitoring are planned. A LUCIP for intrusive activities and aquifer use was implemented and updated in FY2002. | Training exercises, maneuvers, and recreational hunting are frequently conducted in the area. | SMP, 2003 |
| 14 | 69 – Rifle Range Chemical Dump | Approximately 14 acres, Site 69 is located one-quarter mile west of the New River in the Rifle Range area of Camp Lejeune. | From 1950 to 1976 the area was used to dispose of chemical wastes including PCBs, solvents, pesticides, calcium hypochlorite, and drums of "gas" that possibly contained CN (tear gas) or other training agents. | Results from the RI indicate that groundwater is contaminated with solvent constituents. | A treatability study was initiated in 1996 to assess in-well aeration. After two years of operation and testing, in-well aeration was determined to be ineffective at reducing the number and concentration of groundwater contaminants. | MNA and institutional controls are the interim remedy. Aquifer and land use controls were implemented through a LUCIP that was updated in FY2002. The Interim ROD will be in effect until it is feasible to remove the CWM from the site. | Current use of this site has not been identified. | SMP, 2003 |
| 15 | 88 – Base Dry Cleaners | Located in Hadnot Point operations area at Building 25 (Base Dry Cleaners). | Operated as Base dry cleaners since the 1940s. USTs stored Varsol from the 1940s to the 1970. PCE replaced Varsol in the 1970s and was stored in an AST. The AST was taken out of service in the mid-1980s and the USTs were removed between November 1995 and January 1996. | Free phase dense non-aqueous phase liquid (DNAPL) exists beneath Building 25. Soil and groundwater are contaminated with chlorinated solvents. | A surfactant enhanced aquifer remediation pilot study was conducted to remove residual phase and some free phase DNAPL in 1999. A Reductive anaerobic bioremediation in-situ treatment technology pilot study was completed in FY2002. Aggressive fluid vapor recovery activities began in FY2002. Monitoring program began in 1999. | A revised RI will be completed in FY2004. Building 25 is expected to be demolished in 2004. | Current use of this site has not been identified. | SMP, 2003 |
| 16 | 89 – STC 868 | Located near the intersection of G and 8th Streets in the Camp Geiger area. | A UST for waste oil was installed in 1983 and removed in 1993. The Defense Reutilization Marketing Office (DRMO) was located on this site. | Total petroleum hydrocarbon, oil and grease, and chlorinated solvents in soil and groundwater. Solvents in the groundwater impacted Edwards Creek. | A TCRA was completed in FY2001 for the removal and treatment of vadose zone contaminants. Low temperature thermal desorption units were used to treat the soil. An aeration system was installed in Edwards Creek. Long-term monitoring of groundwater and surface water began in 1999. | Remaining DNAPL in southern portion of site will be addressed through a follow up EE/CA and non-TCRA. A pilot study of electrical resistance heating is being conducted on the eastern DNAPL source area. A site-wide RI/FS will be completed in FY2005, after concluding the pilot study. | Current use of this site has not been identified. | SMP, 2003 |
| | 93 – TC 942 | Located northwest of the intersection of "E" and 10th Streets at Camp Geiger. | A UST that was used to store waste oil was removed in 1993. | Chlorinated solvents, oil and grease, cadmium, and lead were detected in groundwater. | Groundwater monitoring began in 1999. | A field pilot study is anticipated. | Current use of this site has not been identified. | SMP, 2003 |

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| 17 | 90 – BB 9 | Located in the Courthouse Bay Complex. | Contained three USTs for heating oil which were removed in March 1993. | VOCs detected in soil and groundwater. Toluene detected in soil. Chloroform detected in groundwater. | Three temporary wells were installed around a monitoring well that had detectable TCE concentrations. No TCE was detected. | No further action is planned. | Current use of this site has not been identified. | SMP, 2003 |
| | 91 – BB 51 | Located in the Courthouse Bay Complex. | One UST was removed in August 1992. | TPH contamination detected in soil. PCE detected in groundwater at concentrations below standards. | Groundwater monitoring began in 2000. | No further action is planned. | Current use of this site has not been identified. | SMP, 2003 |
| | 92 – BB 46 | Located in the Courthouse Bay Complex. | One UST was installed in 1980 to store gasoline. The tank was deactivated in 1989 and removed in January 1994. | Chlorinated hydrocarbons were detected in groundwater. | Groundwater monitoring began in 2000. | No further action is planned. | Current use of this site has not been identified. | SMP, 2003 |
| 18 | 94 – PCX Service Station | Located within the HPIA along Holcomb Blvd. | Four gasoline USTs were reportedly installed during the 1950s northeast of Building 1613. All USTs were removed on January 13, 1995. | Free phase hydrocarbons and chlorinated solvent contamination in groundwater. | Investigations and ongoing remedial actions have been performed under the UST program. | A RI is anticipated during FY2004. | PCX Service Station | SMP, 2003 |
| 19 | 84 – Building 45 Area | Located approximately 200 yards south of Highway 24, one mile west of the main gate. | Includes a former electrical powerhouse. Transformers reportedly containing PCBs were used and possibly stored at the powerhouse. Additional transformers (approximately 20) potentially containing PCB dielectric oil were discovered east of the powerhouse. | PCBs detected in soil, surface water, and sediment. Pesticides, PAHs, and metals detected in soil. Benzene, pesticides, and metals detected in groundwater. | Two USTs have been removed under the UST program and have been followed up with SVE/AS treatment. Building 45 was partially demolished. Concrete sampling was conducted. Fencing and engineering controls were implemented to prevent intrusion into the basement. | A non-TCRA is expected to be completed in FY2003 to remove the remaining Building 45 foundation and impacted soils. An interim removal action will also be completed for the remaining contaminated soils and lagoon. A groundwater monitoring program may also be implemented, pending approval of the ROD. | Current use of this site has not been identified. | SMP, 2003 |
| 20 | 86 – Tank Area AS419-AS421 | Located on the southwest corner of the Foster and Campbell Street intersection within the operations area of MCAS New River. | Served as a storage area for petroleum products from 1954 to 1988. In 1954, three 25,000-gallon ASTs were installed within an earthen berm. The three tanks were reportedly used for No. 6 fuel oil storage until 1979. From 1979 to 1988 the tanks were used for temporary storage of waste oil. The three tanks were emptied in 1988 and were removed in 1992. | VOCs and SVOCs were detected in soil and groundwater. | Groundwater monitoring began in 1998. The Amended RI report was completed in FY2002. | A pilot scale treatability study is planned for FY2004. | Current use of this site has not been identified. | SMP, 2003 |
| 21 | 73 – Courthouse Bay Liquids Disposal Area | Located within an active amphibious vehicle maintenance facility located along the northwest shore of Courthouse Bay. | Disposal activities occurred within a 13-acre area from 1946 until 1977. An estimated 400,000 gallons of waste oil were disposed of. The waste oil was generated during routine vehicle maintenance and drained directly onto the ground surface. Approximately 20,000 gallons of waste battery acid was poured into shallow hand-shoveled holes that were back filled after disposal. | VOCs detected in groundwater. | MNA sampling is on-going. Air sparging was used as an interim measure to address an area of concentrated vinyl chloride, but was discontinued when data indicated that the air was not effectively moving through the formation. | A pilot scale treatability study is planned for FY2004. | Amphibious vehicle maintenance facility. | SMP, 2003 |
| Pre-RI Sites | 10 – Original Base Dump | Located to the west of Open Storage Lot 203 along Holcomb Blvd. | It was operated prior to 1950 and was mainly used as a construction debris and burn dump. | Site 10 was added to the IR Program when it was reported that two Marines developed skin rashes after contacting a heavy oil material that may have been at the Site. | Site Investigation results indicated minimal impact to soil, sediment, surface water, and groundwater. Additional investigative activities were completed in FY2001 to further evaluate metals in groundwater. | A No Further Action Decision Document will be completed in FY2003. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |

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| 12 – Explosive Ordnance Disposal (formerly EOD-1, G-4A) | Approximately 8 to 10 acres. | During the early 1960s, ordnance was disposed by burning or detonating when it was found to be inert, unserviceable, or defective. | POL contaminants in soil and groundwater. | Sampling activities in 1996 indicate that neither soil nor groundwater has been significantly impacted by site activities. | The final No Action Decision Document was completed in FY2001. | Active range. | SMP, 2003<br>FYR, 2003 |
| 68 – Rifle Range Dump | Located west of Range Road, approximately 2,000 ft west of the Rifle Range water treatment plant and 800 ft east of Stone Creek. | Used as disposal site for various types of wastes, including garbage, building debris, waste treatment sludge, and solvents from 1942 to 1972. | Organic compounds were suspected since they had been identified in potable supply wells. | Sampling activities in 1996 indicate that neither soil, groundwater, surface water, nor sediment has been significantly impacted by site activities; however excessive levels of iron and manganese detected in groundwater. | A No Further Action Decision Document, which includes a LUCIP to implement aquifer and land use controls, was approved in FY2001. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |
| 75 – MCAS Basketball Court Site | Located along the north side of Curtis Road. | This site was reportedly a drum burial area that was used on at least one occasion on the early 1950s. An estimated 75 to 100 55-gallon drums were buried. Drums reportedly contained a chloroacetophenone tear gas solution. | Potential contaminants are chloroacetophenone, chloroform, carbon tetrachloride, benzene, and chloropicrin. | Soil and groundwater sampling activities and a comprehensive geophysical survey were conducted in 1996. No major anomalies were observed. | The final No Action Decision Document was approved in FY2001. | The area surrounding the site is still maintained as a housing area. A portion of the site is used by subcontractors to position trailers and storage containers. | SMP, 2003<br>FYR, 2003 |
| 76 – MCAS Curtis Road Site | Located in the vicinity of and along the north side of Curtis Road. The precise location is unknown and two possible locations have been identified based on interviews and aerial photography. | Reportedly used as a drum disposal area on two occasions in 1949. The estimated area is ¼ acre and approximately 25 to 75 55-gallon drums were allegedly involved. It is believed that the drums contained a chloroacetophenone tear gas agent. | Potential contaminants are chloroform, carbon tetrachloride, benzene, and chloropicrin. | Soil and groundwater sampling activities and a comprehensive geophysical survey were conducted in 1996. No major anomalies were observed. Additional groundwater sampling data showed some metals above screening criteria but within range of natural background of groundwater at Camp Lejeune. | The final No Action Decision Document was approved in FY2001. | Current use of this site has not been identified. | SMP, 2003 |
| 85 – Camp Johnson Battery Dump | Located off Wilson Drive in the Montford Point area. | Batteries which were used in military communication equipment during the Korean era were unearthed. Discarded charcoal canisters from old air purifying respirators were also found. | Metals detected in soil. | A TCRA was completed in FY2000 for removal of contaminated soil and battery packs. | A No Further Action Decision Document will be completed in FY2002. | Current use of this site has not been identified. | SMP, 2003<br>FYR, 2003 |
| 87 – MCAS Officer's Housing Area (formerly Site A) | Located on the west bank of the New River. | Waste was identified eroding out of a cut bank along the New River. The materials were tentatively identified as hospital wastes. No information was available regarding the volume of the waste or the mode of disposal. | Previous detection of pentachlorophenol (PCP). | Results from soil, groundwater, surface water, sediment, and test pit sampling activities indicate that none of the media has been significantly impacted by site activities. Groundwater was sampled again due to a previous detection of PCP; no PCP was detected. | The final No Action Decision Document was approved in FY2001. | The MCAS Officer's Housing Area is still located on this site. | SMP, 2003<br>FYR, 2003 |

Notes:

| | |
|---|---|
| FYR, 2003 | Five-Year Review, MCB Camp Lejeune, September 2003 |
| SMP, 2003 | Fiscal Year 2003 Site Management Plan, MCB Camp Lejeune, February 2003 |
| OU | operable unit |
| HPIA | Hadnot Point Industrial Area |
| PCBs | polychlorinated biphenyls |
| AOC | area of concern |
| VOCs | volatile organic compounds |
| ORC | oxygen release compound |

| | |
|---|---|
| HRC | hydrogen release compound |
| LUCIP | land use control implementation plan |
| TCRA | time-critical removal action |
| DRMO | Defense Reutilization Marketing Office |
| SVE | soil vapor extraction |
| POL | petroleum, oil, lubricant |
| MCAS | Marine Corps Air Station |
| PAHs | polyaromatic hydrocarbons |
| CWM | chemical warfare materials |
| STP | sewage treatment plant |
| MNA | monitored natural attenuation |
| ROD | Record of Decision |
| SVOCs | semi-volatile organic compounds |
| UST | underground storage tank |
| PRAP | Proposed Remedial Action Plan |
| AST | aboveground storage tank |
| RI | Remedial Investigation |
| PCE | tetrachloroethylene |
| DNAPL | dense non-aqueous phase liquid |
| TPH | total petroleum hydrocarbons |
| EE/CA | engineering evaluation/cost analysis |
| TCE | trichloroethene |
| SVE | soil vapor extraction |
| AS | air sparging |
| PCP | pentachlorophenol |

# Appendix B
# MCB Camp Lejeune
# Restoration Advisory Board Members

APPENDIX B

# MCB Camp Lejeune
# 2005 Restoration Advisory Board Members

Laura Bader, Community Co-Chair
lbader@earthlink.net

Bob Lowder, MCB Camp Lejeune Co-Chair
LowderRA@lejeune.usmc.mil

Gena Townsend, USEPA Region 4
townsend.gena@epa.gov

Daniel Hood, NAVFAC Atlantic
HoodDR@efdlant.navfac.navy.mil

Randy McElveen, NC DENR
randy.mcelveen@ncmail.net

James Banks
jbanks2@ec.rr.com

Charles Kassube
chuckk@ncfreedom.net

Myron D. Cross
mdcross@ncfreedom.net

Carrie Ann Hayward
nestle@nternet.net

Richard D. Mullins
mullins@onslowonline.net

Thomas Mattison
trminspections@ec.rr.com

Russell Rivera, Riverkeeper
Newriver@onslowonline.net

Marvin and Bonnie Powers
vette@onslowonline.net

Betty Sanders-Seavy, New River Foundation
newriverfoundation@earthlink.net

Jerome M. Ensminger
jmensminger@hotmail.com

Changes in RAB membership will be posted on the MCB Camp Lejeune IRP website: http//www.bakerenv.com/camplejeune_irp.

# Appendix C
# Locations for Public Meetings and Accessing the Administrative Record

APPENDIX C

# Locations for Public Meetings and Accessing the Administrative Record

### Public Meeting Location

Public meetings have been held at various locations in Onslow County or on the Base. Currently, RAB meetings are held quarterly, at 6:30 p.m., at the Coastal Carolina Community College, 444 Western Boulevard, Jacksonville, NC 28546.

For further information about upcoming RAB meetings or other public meetings, please contact the MCB Joint Public Affairs Office, Monday through Friday, 8:00 a.m. to 4:00 p.m. at (910) 451-7440.

### Access to the Administrative Record

The detailed Administrative Record and other relevant information can be examined on the Internet. The Administrative Record can be accessed from a personal computer. The MCB Camp Lejeune IRP website address is: http//www.bakerenv.com/camplejeune_irp.

In addition, the following location can facilitate public searches of the Administrative Record on computer:

Onslow Public Library
58 Doris Avenue East
Jacksonville NC 28540
Phone: 910-455-7350
Fax: 910-455-1661

Hours:
Monday – Thursday, 9 am - 9 pm
Friday & Saturday, 9 am - 6 pm
Sunday - Closed

# Appendix D
# Media Contacts

APPENDIX D

# Media Contacts

## NEWSPAPERS

The Daily News
724 Bell Fork Road
PO Box 196
Jacksonville, NC 28546

(910) 353-1171
(910) 577-7323

Frequency: Daily (a.m.)

The Wilmington Star-News
1003 South 17th Street
Wilmington, NC 28402

(910) 343-2383
(910) 343-2209

Frequency: Daily (a.m.)

The Globe
MCB Camp Lejeune
Public Affairs Office
Building 67, Virginia Dare Drive
Marine Corps Base Camp Lejeune

Advertising and Distribution
1122 Henderson Drive
Jacksonville, NC 28540

(910) 347-9624

Frequency: weekly (Thursday)

## TELEVISION STATIONS

WCTI-TV
305 Johnson Blvd.
Jacksonville, N.C. 28540
910-455-8812
Fax: 910-455-3870

Channel 12

Network(s): ABC
Operations: continuous

News room contact:
news@wcti12.com

WITN-TV
P.O. Box 468 / Hwy. 17 S
Washington, NC 27889
Main (252) 946-3131

Channel 7

Network: NBC

Alan Covey
WITN-7 News Senior Reporter
alan.covey@witntv.com

WNCT - (9 on your side)
3221 South Evans Street
Greenville, NC 27834
(252) 355-8500
(252) 355-8568 (Bus. fax)
(252) 355-8548 (News fax)

Channel 9

Network: CBS

Business Manager
William A. Morrisette
P.O. Box 898
Greenville, NC 27835

Public Broadcasting Service

UNC-TV
The University of North Carolina
Center for Public Television
10 T.W. Alexander Drive
P.O. Box 14900
Research Triangle Park, N.C. 27709-4900

(910) 549-7000

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RADIO STATIONS

WKOO
307 Johnson Blvd
Jacksonville NC 28540-5426
Ofc: 910-455-5300
Fax: 910-455-3112

www.kool987.com

FM 98.7 MHz

Oldies

WQZL
500 New Bridge
Jacksonville NC 28540-5431
Ofc: 910-455-2177
Fax: 910-455-0330

www.thebeatnc.com

FM 101.1 Mhz

Rhythmic/CHR

WQSL
500 New Bridge
Jacksonville NC 28540-5431
Ofc: 910-455-2177
Fax: 910-455-0330

www.thebeatnc.com

FM 92.3 MHz

Rhythmic/CHR

WJCV
Radio
P. O. Drawer 1216
Jacksonville, N.C. 28541
910-347-6141
Fax: 910-347-1290

WJNC
Radio
P. O. Box 1691
Jacksonville, N.C. 28541-1691
910-455-2202
Fax: 910-455-7139

WXQR FM 105.5 Classic Rock
500 New Bridge
Jacksonville NC 28540-5431
Ofc: 910-455-2177
Fax: 910-455-0330

www.carolinaspurerock.com

# Appendix E
# Fact Sheets, News Articles and Public Notices

Examples of Fact Sheets, News Articles and Public Notices Published since 1993

| Date | Article/Public Notice | Subject | Newspaper and/or Distribution Method |
|---|---|---|---|
| **2001** | | | |
| 7/28/2001 | Public Notice | Public Meeting Regarding The Proposed Remedial Action Plan (PRAP) For Operable Units 9 (OU 9) Site 65 And Operable Unit 17 (OU 17) Sites 90, 91 And 92 MCB Camp Lejeune NC | The Daily News, Jacksonville, NC |
| **1998** | | | |
| 7/31/1998, 8/1&2/1998 | Public Notice | RAB Meeting on Tuesday, August 4,1998, at the Onslow County Public Library | The Daily News, Jacksonville, NC |
| **1997** | | | |
| 1/1/1997 | Fact Sheet | Installation Restoration Program Expedited Study, Design and Cleanup | |
| 1/1/1997 | Fact Sheet | Operable Unit 11, Sites 7 and 80 Proposed Remedial Action Plan Site 7 Tarawa Terrace Dump and Site 80 Paradise Pint Golf Course Maintenance Area MCB Camp Lejeune, NC | |
| **1996** | | | |
| 4/1/1996 | Fact Sheet | MCB Camp Lejeune RAB | RAB members |
| 3/1/1996 | Fact Sheet | Proposed Remedial Action Plan (PRAP) Operable Unit 8, Site 16, MCB Camp Lejeune | |
| **1995** | | | |
| 10/1/1995 | Fact Sheet | Proposed Remedial Action Plan at Operable Unit 7, Sites 1, 28, and 30. | |
| 9/14/1995 | News Article | Announcing the creation of the RAB and request for members. | The Globe, MCB Camp Lejeune |
| 6/12/1995 | Public Notice | DON Explanation of significant differences for Operable Unit | |

Examples of Fact Sheets, News Articles and Public Notices Published since 1993

| Date | Article/Public Notice | Subject | Newspaper and/or Distribution Method |
|---|---|---|---|
| | | 1, cleanup. | |
| 6/12/1995 | Public Notice | Explanation of the installation restoration (IR) activities at MCB Camp Lejeune | |
| **1994** | | | |
| 8/1/1994 | Fact Sheet | Operable Unit 1, proposed cleanup plan, Site 21, transformer storage lot 140, site 24 industrial fly ash dump and site 78, Hadnot Point Industrial area, MCB Camp Lejeune | |
| 5/1/1994 | Fact Sheet | Operable Unit 10, proposed plan for Site 10, Camp Geiger fuel farm MCB Camp Lejeune | |
| 4/1/1994 | Fact Sheet | Operable Unit 4, proposed plan for Site 41, Camp Geiger Dump near the former trailer park and Site 74, the mess hall grease pit disposal area, MCB Camp Lejeune | |
| **1993** | | | |
| 7/1/1993 | Fact Sheet | Operable Unit 2, proposed plan for Site 6, (storage lots 201 and 203) Site 9, fire fighting training pit at Piney Green Road and Site 82 Piney Green Road VOC area MCB Camp Lejeune | |

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# Marine Corps Base, Camp Lejeune
## Proposed Remedial Action Plan
## Operable Unit No. 7

**October 1995**

*This Fact Sheet provides information regarding the Proposed Remedial Action Plan (PRAP) for Operable Unit (OU) No. 7 at Marine Corps Base (MCB), Camp Lejeune, North Carolina. MCB, Camp Lejeune has been investigating sites at the base through the Department of Defense (DoD) Installation Restoration (IR) Program. The goal of the IR Program is to identify, assess, characterize, and cleanup or control contamination from past hazardous waste disposal operations.*

### Overview

Marine Corps Base (MCB), Camp Lejeune is a training base for the U.S. Marine Corps, located in Onslow County, North Carolina. The facility covers approximately 236 square miles and includes 14 miles of shoreline. Operable Unit (OU) No. 7 is one of 16 OUs within MCB, Camp Lejeune. The goal of this Proposed Remedial Action Plan (PRAP) is to suggest Remedial Action Alternatives (RAAs) for the three separate sites (Sites 1, 28, and 30) within OU No. 7. Separate RAAs have been developed for each site and are presented together in the OU No. 7 PRAP. This fact sheet provides a brief summary of the sites and lists the RAAs considered and proposed. Additional information may be reviewed in the Administrative Record located at the libraries listed on the reverse of this Fact Sheet.

### OU No. 7 Background/History

OU No. 7 consists of three sites: Site 1, the French Creek Liquids Disposal Area; Site 28, the Hadnot Point Burn Dump; and Site 30, the Sneads Ferry Road Fuel Tank Sludge Area. Each site is described below.

#### Site 1

**Site 1 - the French Creek Liquids Disposal Area**
Site 1 is located approximately one mile east of the New River and one mile southeast of the Hadnot Point Industrial Area (HPIA). The site lies on both the north and south sides of the Main Service Road near the western edge of the Gun Park Area and the Force Troops Complex. Since the 1940s, Site 1 had been used by several different mechanized, armored, and artillery units. Reportedly, liquid wastes generated from vehicle maintenance were routinely poured onto the ground surface and acid from dead batteries was disposed on site. The disposal areas at Site 1 are suspected to contain petroleum, oil, and lubricants (POL), and battery acid.

#### Site 28

**Site 28 - the Hadnot Point Burn Dump**
The Hadnot Point Burn Dump is located along the eastern bank of the New River and is approximately one mile south of the HPIA. The site is approximately 23 acres in size and is bordered by wooded and marshy areas to the east and south, the New River to the west, and the Hadnot Point Sewage Treatment Plant to the north. Cogdels Creek forms a natural divide between the eastern and western potions of the site. Site 28 is primarily used for recreation and physical training exercises. The burn area operated from 1946 to 1971, at which time it was graded and seeded with grass. Reportedly, industrial waste, trash, oil-based paint, and construction debris were burned then covered with soil.

#### Site 30

**Site 30 - the Sneads Ferry Road Fuel Tank Sludge Area**
Site 30 is situated along a tank trail which intersects Sneads Ferry Road from the west, approximately one mile south of the intersection with Marines Road, and roughly four and one quarter miles south of the HPIA. The Combat Town Training area is adjacent to the site. The site was reportedly used by a private contractor as a cleaning area for emptied fuel storage tanks from off-site locations. The tanks were used to store leaded gasoline that contained tetraethyl lead and related compounds. The fuel residuals in the emptied tanks were reportedly washed out at the site. Therefore, the disposal area is suspected to contain fuel sludge and wastewater from the washout of the tanks. The suspected disposal area is approximately 7,500 square yards.

## Previous Studies

The following studies were conducted at OU No. 7:

- Initial Assessment Study, 1983
- Confirmation Study, 1990
- Soil Assessment at Site 1, 1991
- Aerial Photographic Investigation, 1992
- Additional Surface Water and Sediment Investigation, 1993
- Additional Groundwater Investigation, 1993
- Remedial Investigation, 1994
- Feasibility Study, 1995 (Sites 28, 30)

Previous investigations have characterized soil, groundwater, surface water (including French Creek, Cogdels Creek, Orde Pond, and the New River) and sediment contamination. The primary contaminants of concern in the surficial aquifer (e.g., an area beneath the ground surface where water collects) are BTEX (benzene, toluene, ethylbenzene, and xylene) and solvents (trichloroethene and dichloroethene). There are no active drinking water supply wells in the area. Base drinking water is obtained from the deeper Castle Hayne aquifer.

## Human Health/Ecological Risk Assessment

As part of the Remedial Investigation, a Baseline Human Health Risk Assessment and Ecological Risk Assessment were conducted. This information, in addition to the Feasibility Study, was considered when proposing and evaluating the RAAs for OU No. 7. The results of the ecological risk assessment and the Baseline Health Risk Assessment indicated that current conditions at Site 30 appear to be protective of human health and the environment. Therefore, no further action is proposed for Site 30. Groundwater was determined to be the only environmental medium of concern at Sites 1 and 28. As a result, RAAs were developed for surficial groundwater at Sites 1 and 28.

## Proposed Remedial Action Plan

The following RAAs were considered for Sites 1 and 28:

| | |
|---|---|
| <u>Site 1:</u> | |
| RAA 1 | No Action |
| **RAA 2** | **Institutional Controls** |
| RAA 3 | Extraction (of groundwater) and On-Site Treatment |
| RAA 4 | In-Well Aeration and Off-Gas Carbon Adsorption |
| RAA 5 | Extraction and Off-Site Treatment |
| <u>Site 28:</u> | |
| RAA 1 | No Action |
| **RAA 2** | **Institutional Controls** |

For both sites, RAA No. 2 (Institutional Controls) is the proposed remedial action plan. Institutional controls involve a long-term groundwater monitoring plan, groundwater use restrictions, and deed restrictions to prevent groundwater from being used as a potable source of water.

## Public Participation

The public is encouraged to review and comment on the PRAP and other documents pertaining to OU No. 7. This information is found in the Administrative Record file available for review at the following locations:

Onslow County Library
58 Doris Avenue East
Jacksonville, NC 28540
Mon.-Thurs. 9:00 a.m. to 9:00 p.m.
Fri.-Sat. 9:00 a.m. to 6:00 p.m.

MCB, Camp Lejeune
Environmental Management Department
Building 67, Room 237
Marine Corps Base
Camp Lejeune, NC 28542
Mon.- Fri. 7:00 a.m. to 3:00 p.m.

MCB, Camp Lejeune will hold a public information meeting on October 5, 1995 at the Onslow County Public Library at 7:00 p.m. The 30-day public comment period for the PRAP will be held from October 5, 1995 to November 4, 1995 to allow for public participation in the final RAA selection process.

## Point of Contact

For additional information, or to provide written comments to the PRAP, please contact:
Mr. Neal Paul, Director, Installation Restoration Program, (910) 451-5068
AC/S EMD (IRD)
Building 67, Room 238
Marine Corps Base, PSC Box 20004
Camp Lejeune, NC 28542-0004

# Lejeune wastewater study released

## Public hearing scheduled July 13

BY ELLIOT FUS
DAILY NEWS STAFF

The Marine Corps has released an environmental impact statement for a proposed wastewater treatment upgrade at Camp Lejeune, according to a letter obtained by The Daily News.

The proposed upgrade would eventually close the base's existing wastewater treatment plants and build a central facility in the Hadnot Point area. It would treat 15 million gallons a day with a high level of nutrient removal, said a letter issued by Camp Lejeune's Robert L. Warren, assistant chief of staff, Environmental Management.

What the impact statement says was not available to The Daily News Monday. A base public affairs official did not respond to an information request. The letter said the statement is available for review at several locations, but two of them — the Onslow County Manager's Office and the Onslow County Public Library — were not able to locate the document when questioned.

State records from February showed that the base has spilled about 236,000 gallons of raw sewage into the New River in the past five years. In addition to the proposed upgrade, the base has also considered an ocean outfall system; a combination of advanced treatment with river discharge and limited land application; and no action, the letter said.

The Marine Corps will hold a public hearing to receive comments on the impact statement at 7 p.m. July 13 at Jacksonville High School, the letter said. Graphics showing the various wastewater alternatives will be available at 6 p.m.

One group concerned about the base's choice is the Southeastern North Carolina Waterman's Association, which is determined to see a wastewater upgrade that will prevent continued river discharge, said president Melvin Shepard Jr. of Sneads Ferry.

"They're ignoring completely the possibility of going to land application," Shepard said. "This is not a dead issue at all."

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...ksonville has to offer.

**Child support**

Eric W. Tucker, 28, of 2411 East Millbrook Road in Raleigh was arrested Wednesday by the Onslow County Sheriff Department and charged with civil contempt child support.

Tucker was taken to the Onslow County Jail and placed under a $29,480 cash bond. The bond amount is determined by the amount owed in back child support payments.





# PUBLIC INVITED

## Marine Corps Base, Camp Lejeune
## Restoration Advisory Board (RAB) Meeting

DATE: Tuesday, August 4, 1998
TIME: 7:00 to 8:45 p.m.
WHERE: Onslow County Public Library (Jacksonville, NC), Meeting/Conference Room
TOPICS: Installation Restoration activities at MCB, Camp Lejeune

The Restoration Advisory Board (RAB) is an advisory board made up of members of the community affected by cleanup activities at Marine Corps Base (MCB), Camp Lejeune. They work with MCB, Camp Lejeune, and state and federal regulatory agencies in discussing key issues, reviewing plans and reports, identifying project requirements, and recommending priorities for cleanup activities aboard MCB, Camp Lejeune. Specifically RAB community members meet with representatives of the Environmental Management Department (EMD) at MCB, Camp Lejeune, US Environmental Protection Agency (EPA), North Carolina Department of Environment and Natural Resources (NC DENR), and Naval Facilities Engineering Command, Atlantic Division (LANTDIV). Comments or questions may be directed to Mr. Neal Paul or Mr. Mick Senus at 451-5068.


2B THE DAILY NEWS FRIDAY, JULY 31, 1998


→ will also run
Sat, Aug 1st
Sun, Aug 2nd

# Appendix F
# Superfund Community Involvement Requirements

APPENDIX F

# Superfund Community Involvement Requirements

The following paragraphs describe the **minimum** community involvement activities that EPA or the responsible Federal agency (Navy and Marine Corps, in this case) must conduct for remedial investigations at a Superfund site. These minimal requirements are set forth in CERCLA (as amended by SARA), the 1990 National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and in EPA policy documents. The legislative citations are provided at the end of each paragraph. Definitions are found in the Glossary.

As designated by the President in Executive Order 12580, the Navy is the lead agency for all CERCLA actions at Navy and Marine Corps facilities. The Navy has incorporated these requirements into its own community involvement program requirements.

- **Community Interviews**: At the beginning of the remedial investigation (RI) stage, the Navy must conduct interviews with local officials, public interest groups, and community members to solicit their concerns and information needs and to learn how and when people would like to be involved in the Superfund process. NCP 40 Code of Federal Regulations (CFR) 300.430(c)(2)(i).

- **Community Involvement Plan**: Before commencing field work for the remedial investigation, the Navy must prepare a CIP, based on the community interviews and other relevant information, specifying the community involvement activities that the Navy expects to undertake during the remedial response. NCP 40 CFR 300.430(c)(2)(ii)(A-C).

- **Information Repository and Administrative Record**: Prior to the remedial investigation, the Navy must establish at least one information repository accessible to the public at or near the site. Each information repository should contain a copy of items developed, received, published, or made available to the public, including information describing the Technical Assistance Grant application process. The Navy must make these items available for public inspection and copying and must inform interested parties of the establishment of the information repository. CERCLA 113(k); NCP 40 CFR 300.820; 40 CFR 300.430(c)(2)(iv).

  Upon commencement of the remedial investigation, the Navy must establish an Administrative Record and make it available for public inspection. The Administrative Record must include documents that the Navy relied on when selecting a response action. The lead agency must comply with the public participation procedures required in 300.430(f)(3) and shall document such compliance in the administrative record. The Navy must publish a notice of availability of the Administrative Record in a local general circulation newspaper. CERCLA 113(k); NCP 40 CFR 300.815 (a-c).

- **Remedial Investigation/Feasibility Study and Proposed Plan Notification**: The Navy must notify the public of the availability of the RI/FS report and the Proposed Plan,

including a brief analysis of the Proposed Plan (the remedy preferred by the Navy and the other alternatives analyzed), in a major local newspaper of general circulation. The notice also must announce a comment period. 300.430(f)(3)(i)(A).

- **Public Comment Period and Public Meeting:** The Navy must provide at least 30 calendar days for the submission of written and oral comments on the Proposed Plan and the supporting information located in the information repository, including the RI/FS. This comment period will be extended by a minimum of 30 additional days upon timely request. CERCLA 117(a)(2); NCP 40 CFR 300.430(f)(3)(c).

  In addition, the Navy must provide the opportunity for a public meeting about the Proposed Plan, to be held at or near the facility the comment period. A transcript of such a meeting must be prepared by a court reporter and made available to the public (in the Information Repository). The Navy should make the transcript a part of the Administrative Record. CERCLA 113 and 117(a)(2); NCP 40 CFR 300.430(f)(3)(i)(D-E).

- **Responsiveness Summary**: At the conclusion of the comment period and before the Record of Decision (ROD) or other decision document, the Navy must prepare a response to significant comments, criticisms, and new data submitted on the Proposed Plan and RI/FS in written or oral form during the comment period. This response document must accompany the ROD or other decision document. CERCLA 113 and 117(b) and NCP Section 300.430(f)(3)(i)(F).

- **Significant Changes before the ROD:** The ROD must include a discussion of significant changes from the Proposed Plan and the reason for such changes, including new information. If the Navy determines that the public could not reasonably have anticipated such changes, the Navy must issue a revised Proposed Plan that includes a discussion of the significant changes and the reasons for them, and must seek additional public comment. NCP 40 CFR 300. 430(f)(3)(ii)(A-B).

- **Public Notice of Decision Document**: After the ROD is signed and before beginning any remedial action, the Navy must make the ROD (or final remedial action plan or other decision document) available for public inspection and copying at or near the facility. The Navy must inform the public through a public notice in a major local newspaper of general circulation when it is adopted and available. The notice must state the basis and purpose of the selected action. NCP 40 CFR 300.430(f)(6).

- **Review and Revision of the Community Involvement Plan**: Prior to remedial design, the Navy should review the CIP, and, if necessary, revise it to reflect changes in community concerns, as discovered during interviews and other activities, that pertain to remedial design and remedial action phase. NCP 40 CFR 300.435(c)(1).

- **Significant Changes after the ROD:** If the remedial action differs significantly from the remedy selected in the ROD with respect to scope, performance, or cost, the Navy must publish a notice that briefly summarizes the explanation of significant differences (ESD) and the reasons for them in a major local newspaper, and make the ESD and supporting information available to the public in the Administrative Record and Information Repository. NCP 40 CFR 300.435(c)(2)(i) (A) and (B).

If the remedial action fundamentally alters the basic features of the remedy selected in the ROD with respect to scope, the Navy must propose an amendment to the ROD and must follow the same procedures for public notification and comments as those required for a Proposed Plan and the adoption of a ROD. NCP 40 CFR 300.435(c)(2)(iI) (A-H)

- **Fact Sheet and Opportunity for a Public Briefing on the Final Engineering Design:** The Navy must issue a fact sheet and provide, as appropriate, a public briefing prior to the start of the remedial action. This fact sheet or briefing should provide the community with information about construction schedules, traffic pattern changes, etc., and the manner in which information will be provided throughout the remedial action. NCP 40 CFR 300.435(c)(3).

Source: *Superfund Community Involvement Handbook*, April 2002. Prepared by the U.S. EPA, Office of Solid Waste and Emergency Response (5204G) (EPA 540-K-01-003, ww.epa.gov/superfund)

# Appendix G
# Glossary

APPENDIX G

# Glossary

**Administrative Record**: A file that is maintained, and contains all information used, by the lead agency to make its decision on the selection of a response action under CERCLA. This file is to be available for public review and a copy established at or near the site, usually at one of the Information Repositories. A duplicate file is held in a central location, such as an EPA Regional Office or State agency.

**Cleanup**: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. The term is often used broadly to describe various response actions or phases of remedial responses, such as the remedial investigation/feasibility study (RI/FS).

**Comment Period**: A time period for the public to review and comment on various documents and EPA actions. For example, a comment period is provided when EPA proposes to add sites to the National Priorities List. A minimum 30-day comment period is held to allow community members to review and comment on a draft RI/FS and proposed plan; it must be extended an additional 30 days upon timely request. A comment period is required to amend the ROD. Similarly, a 30-day comment period is provided when EPA proposes to delete a site from the NPL.

**Community Involvement**: A program to inform and involve the public in the Superfund process and respond to community concerns.

**Community Involvement Plan (CIP)**: Formal plan for community involvement activities at a Superfund site. The CIP is designed to ensure citizen opportunities for public involvement at the site, determine activities that will provide for such involvement, and allow citizens the opportunity to learn more about the site.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**: A Federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act. The Act created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites that are not Federally owned. Under the program, EPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work, or
- Take legal action to force parties responsible for site contamination to clean up the site or pay back the Federal government for the cost of the cleanup.

However, cleanup of NPL sites that are owned or operated by other Federal agencies, such as DoD, is funded directly by annual Congressional appropriations, not by the Superfund.

**Groundwater**: Water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation, and other purposes.

**Hazard Ranking System (HRS)**: A scoring system used to evaluate potential relative risks to public health and the environment from releases or threatened releases of hazardous substances. EPA and states use the HRS to calculate a site score for contamination migration through air, surface water, or groundwater. This score is the primary factory used to decide if a hazardous waste site should be placed on the National Priorities List.

**Hazardous Substance**: Any material that poses a threat to public health and/or the environment. Typical hazardous substances are materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

**Hydrology**: The science dealing with the properties, movement, and effects of water found on the earth's surface, in the soil and rocks below the surface, and in the atmosphere.

**Information Repository**: A file containing current information, technical reports, reference documents, and TAG application information on a Superfund site. The information repository is usually located in a public building that is convenient for local residents, such as a public school, city hall or library.

**Installation Restoration Program (IRP)**: The DoD program to identify, assess, and clean up contamination resulting from historical handling, storage, and disposal of potentially hazardous wastes. The IRP follows the CERCLA process, whether or not a facility is listed on the NPL.

**Monitoring Wells**: Special wells drilled at specific locations on or off a hazardous waste site where groundwater can be sampled at selected depths and studied to determine the direction of groundwater flow and the types and amounts of contaminants present.

**National Oil and Hazardous Substances Pollution Contingency Plan (NCP)**: The Federal regulation that guides the Superfund program. The NCP was revised in February 1990.

**National Priorities List (NPL)**: EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial response using money from the Trust Fund. The list is based, primarily, on the score a site receives on the Hazard Ranking System. EPA is required to update the NPL at least once a year.

**Preliminary Assessment**: The process of collecting and reviewing available information about a known or suspected hazardous waste site or release. EPA or states use this information to determine if the site requires further study. If further study is needed, a site inspection is undertaken.

**Proposed Plan**: A public participation requirement of CERCLA, which summarizes for the public the preferred cleanup strategy, rationale for the preference, alternatives presented in the detailed analysis of the RI/FS, and any proposed waivers to clean up standards. The proposed plan may be prepared as a fact sheet or a separate document. In either case, it must actively solicit public review and comment on all alternatives under consideration.

**Record of Decision (ROD)**: A public document that explains which cleanup alternative will be used at National Priorities List sites. The Record of Decision is based on information and technical analysis generated during the RI/FS and consideration of public comments and community concerns.

**Remedial Action (RA)**: The actual construction or implementation phase that follows the remedial design of the selected clean up alternative at a site on the National Priorities List.

**Remedial Design (RD)**: An engineering phase that follows the record of decision when technical drawings and specifications are developed for subsequent remedial action at a site on the National Priorities List.

**Remedial Investigation/Feasibility Study (RI/FS)**: Investigative and analytical studies usually performed at the same time in an interactive, iterative process, and together referred to as the "RI/FS." An RI/FS is intended to:

- Gather the data necessary to determine the type and extent of contamination at a Superfund site
- Establish criteria for cleaning up the site
- Identify and screen cleanup alternatives for remedial action
- Analyze in detail the remedial technology and costs of the alternatives

**Remedial Project Manager (RPM)**: The USEPA or state official responsible for overseeing remedial response activities.

**Remedial Response**: A long-term action that stops or substantially reduces a release or threatened release of hazardous substances that is serious but does not pose an immediate threat to public health and/or the environment.

**Removal Action**: An immediate action taken over the short term to address a release or threatened release of hazardous substances.

**Resource Conservation and Recovery Act (RCRA)**: A Federal law that established a regulatory system to track hazardous substances from their generation to disposal. The law requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous substances. RCRA is designed to prevent the creation of new, uncontrolled hazardous waste sites.

**Response Action**: A CERCLA-authorized action at a Superfund site involving either a short-term removal action or a long-term response action that may include, but is not limited to, the following activities:

- Removing hazardous materials from a site to an EPA-approved, licensed hazardous waste facility for treatment, containment, or destruction
- Containing the waste safely on site to eliminate further problems
- Destroying or treating the waste on site using incineration or other technologies, and
- Identifying and removing the source of groundwater contamination and halting further movement of the contaminants.

**Responsiveness Summary**: A summary of oral and written public comments received by EPA during a comment period on key EPA documents, and EPA's responses to those comments. The responsiveness summary is a key part of the ROD, highlighting community concerns for EPA decision-makers.

**Restoration Advisory Board:** A group made up of representatives from DoD (Navy and Marine Corps in this case), EPA, state and community members, who meet regularly to

exchange information about the investigation and cleanup of sites on a DoD facility. RABs are co-chaired by an appointed facility representative and an elected community member.

**Selected Alternative**: The cleanup alternative selected for a site on the National Priorities List based on technical feasibility, permanence, reliability, and cost. The selected alternative does not require choosing the least expensive alternative. It requires that if there are several cleanup alternatives available that deal effectively with the problems at a site, EPA (and the responsible Federal agency where applicable) must choose the remedy on the basis of permanence, reliability, and cost.

**Site Investigation (SI)**: A technical phase that follows a preliminary assessment designed to collect more extensive information on a hazardous waste site. The information is used to score the site using the Hazard Ranking System to determine whether response action is needed.

**Superfund**: The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); also referred to as the Trust Fund.

**Superfund Amendments and Reauthorization Act (SARA)**: Modifications to CERCLA enacted on October 17, 1986.

**Surface Water**: Bodies of water that are above ground, such as rivers, lakes, and streams.

**Technical Assistance Grant (TAG) Program**: A grant program that provides funds for qualified citizens' groups to hire independent technical advisors to help them understand and comment on technical decisions relating to Superfund cleanup actions.

**Technical Assistance for Public Participation (TAPP) Program:** A DoD program that uses a streamline procurement process to obtain technical assistance with projects identified by a RAB, where such assistance will contribute to community understanding and input.

Adapted (with additions) from: *Community Relations in Superfund: A Handbook*, Appendix E, Superfund Glossary and Acronyms, pages E-1 through E-6. Prepared by the U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC. EPA/540/R-92/009. January 1992.

Note: The 1992 Handbook has been superseded by the April 2002 *Superfund Community Involvement Handbook*, but remains a valid source for this Glossary.