COMMUNITY RELATIONS PLAN

Marine Corps Air Station Miramar
Environmental Restoration Program
Miramar, California

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Miramar, California

August 31, 2012

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Executive Summary

This Community Relations Plan (CRP) was developed for the Installation Restoration Program at Marine Corps Air Station (MCAS) Miramar in San Diego County, California. It is in compliance with federal and state guidelines and requirements, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, amended by the Superfund Amendment and Reauthorization Act (SARA) of 1986. Barrett Resource Group prepared this document on behalf of MCAS Miramar as an update to the December 2007 Community Relations Plan for the installation.

Included in this update is the addition of the Munitions Response Program (MRP), the United States Navy/Marine Corps' guidance document which addresses munitions and related materials used or released on sites from past operations and activities. This plan discusses community members' feedback regarding cleanup efforts under the base Environmental Restoration (ER) Program, which includes Installation Restoration (IR) Program and Munitions Response Program (MRP) activities on MCAS Miramar; describes the ways in which the Marine Corps will provide information to residents and interested groups; and outlines methods for the public to raise issues and concerns to the Marine Corps. This plan also provides background data on the air station itself, environmental cleanup activities, and the regulatory requirements for those activities. It presents an overview of the greater MCAS Miramar community and a summary of the community interviews conducted in July 2011, as well as offers community relations strategies for the Marine Corps to improve communications with the surrounding communities.

The community interview process provided the Marine Corps with current information on community perspectives, outreach efforts, and the breadth and depth of knowledge that air station neighbors have about environmental cleanup activities on MCAS Miramar. Overall, community members reported limited knowledge regarding MCAS Miramar's environmental cleanup efforts under the ER Program,

previous outreach efforts by the Marine Corps, and media coverage specifically related to the ER Program. They expressed interest in receiving an overview of Program status and more information on the cleanup of unexploded ordnance (UXO). The primary concerns that interview participants expressed included the effects of the remediation process on natural resources and the potential hazards posed by UXO and munitions-related components and materials.

In accordance with feedback received during the community interview process, the Marine Corps will initiate enhanced community outreach through the implementation of the Community Relations Program as outlined in this Community Relations Plan. Three primary objectives and suggested related sustaining activities will support the goals of the program.

Goal #1: **Impart Knowledge**

Objective #1: Enhance community members' knowledge of environmental cleanup initiatives on base

Activities:

- Develop an informational fact sheet of the MRP on MCAS Miramar
- Update Program web pages to include MRP Site status and relevant cleanup information
- Partner with MCAS Miramar's Community Plans and Liaison (CP&L) Office to communicate information to community leaders

Goal #2: **Enhance Communications**

Objective #2: Enhance communications with the public regarding environmental cleanup activities and possible effects on natural resources

Activities:

- Update program distribution lists and provide web site update alerts
- Publicize the availability of the Community Information Repositories
- Partner with Natural Resource personnel to communicate the effects of cleanup activities on natural resources on and around the installation

Goal #3: **Engage the Community**

Objective #3: Involve the community at critical points in the remediation process

Activities:

- Develop and distribute informational fact sheets on IR Program and MRP cleanup activities
- Partner with MCAS Miramar's CP&L Office to alert community leaders to Program-related documents available for review
- Utilize media resources to inform the public of upcoming activities or public comment periods
- Hold community meetings at appropriate points in the remediation process in the communities most directly affected by cleanup activities

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Table of Contents

Appendices

Figures & Tables

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Acronyms

3d MAW	Third Marine Aircraft Wing
ACOE	Army Corps of Engineers
AIMD	Aviation Intermediate Maintenance Department
AM	Action Memorandum
AR	Administrative Record
ASTC	(Naval) Aviation Survival Training Center
BRAC	Base Realignment and Closure
CARE	Community Action for a Renewed Environment
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLC-11	Combat Logistics Company 11
CLF	Community Leaders Forum
CNO	Chief of Naval Operations
CP&L	Community Plans and Liaison [Office]
CRP	Community Relations Plan
DCN	Document Control Number
DD	Decision Document
DDESB	DoD Explosives Safety Board
DERP	Defense Environmental Restoration Program
DMM	Discarded Military Munitions
DoD	Department of Defense
DOJ	Department of Justice
DON	Department of the Navy
DTSC	(California) Department of Toxic Substances Control
EA	Environmental Assessment
EE/CA	Engineering Evaluation/Cost Analysis
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ER	Environmental Restoration
FAA	Federal Aviation Administration
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
FY	Fiscal Year
I-15	[U.S.] Interstate 15
I-805	[U.S.] Interstate 805
IAS	Initial Assessment Study

INRMP	Integrated Natural Resources Management Plan
IR	Installation Restoration
K-12	Kindergarten through 12th Grade
LTM	Long-Term Monitoring
LTMgt	Long-term Management
MAG-46	Marine Aircraft Group 46
MC	Munitions Constituents
MCAS	Marine Corps Air Station
MCCS	Marine Corps Community Services
MEC	munitions and explosives of concern
MMRP	Military Munitions Response Program
MMTC	Mira Mesa Town Council
MRP	Munitions Response Program
MRS	Munitions Response Site
NAAS	Naval Auxiliary Air Station
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
NAVFAC SW	Naval Facilities Engineering Command Southwest
NCO	Non-Commissioned Officer
NEESA	Naval Energy and Environmental Support Activity
NEX	Navy Exchange
NFA	No Further Action
NPL	National Priorities Listing
NSTI	Naval Survival Training Institute
PA	Preliminary Assessment
PAO	Public Affairs Office (Officer)
PCB	polychlorinated biphenyls
POL	petroleum, oils, lubricants
PP	Proposed Plan
PPV	Public Private Venture
PRP	Potentially Responsible Party
RA	Remedial Action
RAB	Restoration Advisory Board
RA-C	Remedial Action-Construction
RA-O	Remedial Action-Operation
RAW	Remedial Action Work Plan

RC	Response Complete
RCRA	Resource Conservation Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy in Place
RSE	Remedial Site Evaluation
ROD	Record of Decision
RSU	Reserve Support Unit
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SC	Site Closeout
SDMAC	San Diego Military Advisory Council
SD U-T	San Diego Union-Tribune
SDSSA	San Diego Shotgun Sports Association
SDUSD	San Diego Unified School District
SI	Site Inspection
SMP	Site Mitigation Plan
SR 52	[California] State Route 52
TAG	Technical Assistance Grant
TAP	Technical Assistance for Plan
TAPP	Technical Assistance for Public Participation
TASC	Technical Assistance Services for Communities
TPH	Total Petroleum Hydrocarbons
TRC	Technical Review Committee
TWC	Time Warner Cable
U.S.	United States
U.S.S.	United States Ship
USEPA	United States Environmental Protection Agency
USIU	United States International University
USMC	United States Marine Corps
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOCs	Volatile Organic Compounds
WWI	World War I
WWII	World War II

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1.0 INTRODUCTION AND BACKGROUND

This Community Relations Plan (CRP) is an update to the December 2007 CRP for Marine Corps Air Station (MCAS) Miramar's Installation Restoration (IR) Program. It was developed to enhance community relations through education and involvement of community members. It explains how the United States Marine Corps (USMC) will engage the community surrounding MCAS Miramar in the cleanup process at MCAS Miramar in San Diego, California.

Located approximately 15 miles northeast of downtown San Diego, MCAS Miramar occupies approximately 23,000 acres, bisected by U.S. Interstate 15 (I-15). The western border of the air station is defined by U.S. Interstate 805 (I-805); the City of San Diego landfill and a nursery, both leased tenant properties. Sycamore Canyon, approximately 12 miles east of I-805, forms the eastern boundary. Miramar and Pomerado Roads roughly define the northern boundary, and California State Route 52 (SR 52) provides a border to the south of the air station. The main operations area, commonly referred to as Main Station, encompasses approximately 7,600 acres located west of I-15. East Miramar is made up of approximately 15,300 acres east of I-15; this portion of the air station was formerly known as Camp Elliot and remains primarily undeveloped today. The air station and the area immediately outside of the North Gate, referred to as Miramar, as well as the residential communities of Mira Mesa and Tierrasanta, located north and south of the air station, respectively, are considered neighbors most likely to be affected by cleanup operations.

The property currently known as MCAS Miramar has a history rooted in military service. Through a lease agreement between the City of San Diego and the U.S. Army, Camp Kearny was established on January 18, 1917, providing an Army Infantry Training Center for World War I (WWI) troops on approximately 8,000 acres of land along with an additional 5,000 acres of land adjacent to Camp Kearny that was used for practice and drill maneuvers. At the close WWI,

the camp was utilized as a demobilization center for troops and was formally closed on October 20, 1920. The associated buildings were demolished in 1922.

Between WWI and World War II (WWII), the site was used for a variety of functions. Charles Lindberg used the abandoned parade field at Camp Kearny to practice landings and take-offs before making his historic solo flight across the Atlantic Ocean in his airplane, the *Spirit of St. Louis*. In addition, the Navy briefly used the air station during the 1930s for helium dirigibles. In 1932 a mooring mast and hangar were built at the camp for the dirigibles, and in May 1932 the first steerable lighter-than-air craft, *U.S.S. Akron*, arrived at Camp Kearny. The program was eventually abandoned and the base was quiet again.

Miramar began a precautionary renovation prior to the outbreak of WWII in the 1930s. Camp Holcomb, later renamed Camp Elliott, was built on a portion of old Camp Kearny, providing areas for Marine artillery and machine gun training. During the 1940s, both the Navy and the Marine Corps occupied Miramar. East Miramar (Camp Elliott) was used to train Marine artillery and armored personnel, while Navy and Marine Corps pilots trained on the western side. Fleet Marine Force Training Center, West Coast and the 2nd Marine Division, charged with defending the California coast, made their home at Camp Elliott. Runways were constructed in 1940, and by 1941, the air station expanded to contain more than 26,000 acres. The Navy commissioned Naval Auxiliary Air Station (NAAS) Camp Kearny in February 1943 and in March of the same year, the Marines established Marine Corps Air Depot Camp Kearny, later renamed Marine Corps Air Depot Miramar. The air stations were combined and designated Marine Corps Air Station (MCAS) Miramar in 1945.

In 1947, the Marines moved approximately 75 miles north to El Toro in Orange County, California, and the air station was ordered into a reduced operational status by the Chief of Naval Operations (CNO), re-designating the installation as NAAS Miramar. In July 1949, funds were appropriated to develop NAAS

Miramar as a Master Jet Air Station. Over the next several years, a major construction and rehabilitation program was undertaken at the facility. In 1969, the elite Top Gun school was established for the training of fighter pilots in dog-fighting and fleet air defense.

In 1994, the Third Marine Air Wing (3d MAW) began moving F/A-18 squadrons to Miramar following the completion of an Environmental Assessment (EA) in July of that year. Following the Base Realignment and Closure (BRAC) Committee's recommendation to close MCAS El Toro and MCAS Tustin, 3d MAW officially began to fly its flag at Miramar between February 1996 and October 1997, when the installation officially was re-designated as MCAS Miramar.

MCAS Miramar is currently home to the 3d MAW, Marine Aircraft Group 46 (MAG-46), Reserve Support Unit (RSU), Combat Logistics Company 11 (CLC-11), 4th MAW Site Support, 4th Tank Battalion, and the Naval Aviation Survival Training Center Miramar (ASTC). The primary mission of MCAS Miramar is to maintain and operate facilities, and provide services and material to support the operations of the 3d MAW and the other tenant organizations. (MCAS Miramar, 2011) The air station welcomes the public to the Flying Leatherneck Aviation Museum, a Command Museum whose primary mission is to educate Marines and to preserve USMC history as a part of the Command historical program. In addition, the annual Miramar Airshow, a major stop on the airshow circuit featuring civilian and military aircraft, is a Command public affairs open house and an integral part of the installation's community relations mission welcoming as many as 500,000 visitors to the installation each year.

In January 2010, officials dedicated a cemetery comprising 300 acres of MCAS Miramar land on the west side of the station. Miramar National Cemetery hosted its first burial on November 22, 2010. The grounds are large enough to host approximately 235,000 veterans, with room for 11,500 conventional grave sites. (Tourtelet, 2010)

Figure 1-1: Air Station Location Map
(MCAS Miramar Airshow, 2011)

Much of the land that comprises the installation had remained in a natural state due to the concentration of land-based operations in west Miramar. The area is home to numerous habitats and species, with large portions of East Miramar, as well as undeveloped areas of the main air station, designated as sensitive natural resources. In addition, threatened or endangered species inhabit several areas on MCAS Miramar property. (Stout, 2011) Detailed information on habitats and species specific to the air station may be found in the 2011-15 Integrated Natural Resources Management Plan (INRMP). The current INRMP

may be found on MCAS Miramar's Environmental web pages at http://www.marines.mil/unit/mcasmiramar/ems/Pages/NaturalResources.aspx. Figure 1-2 represents MCAS Miramar's conservation and management of Special Status Species, wetlands, and other areas identified as warranting special attention.

The base, with approximately 9,471 active duty personnel, 6,500 family members, and more than 1,721 civilian employees, is one of the region's major employers, offering federal contract work, a Federal Aviation Administration (FAA) air traffic control facility, and various occupations in support of services and shopping on base. According to an independent Economic Impact Study conducted in 2009 by the San Diego Military Advisory Council (SDMAC), Department of Defense (DoD) spending in the San Diego region has directly accounted for $16.1 billion worth of economic activity and directly employed close to 137,000 people. (MCAS Miramar, 2011)

The DoD developed the Installation Restoration (IR) Program to identify, assess, characterize, and clean up or control contamination from past hazardous waste-disposal operations and hazardous materials spills at U.S. Navy and Marine Corps installations. In addition, the IR Program is charged with making every effort to reduce the risk to human health and the environment. The program was established to comply with federal requirements regarding cleanup of hazardous waste sites, outlined in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA).

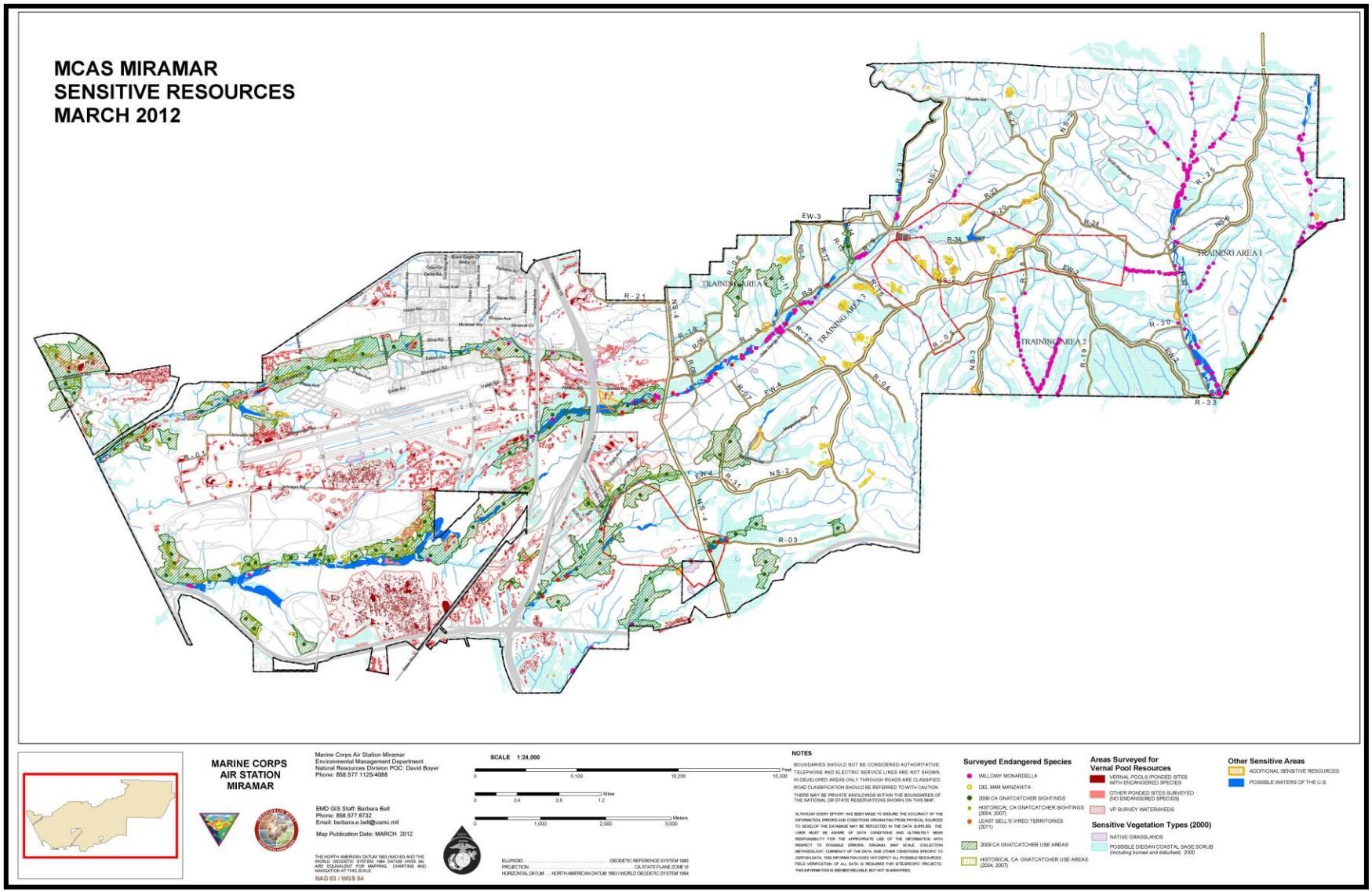


Figure 1-2: MCAS Miramar Sensitive Resources Map
(MCAS Miramar, 2012a)

Since the inception of the IR Program, efforts have been made to identify, assess, and clean up contaminated sites on MCAS Miramar. As a part of the IR Program, an Initial Assessment Study (IAS) Report was prepared for the air station (then known as Naval Air Station [NAS] Miramar) in September 1984, resulting in the identification of ten potentially contaminated sites. In February 1994, Naval Facilities Engineering Command Southwest (NAVFAC SW) [formerly SW DIV] conducted a Site Investigation (SI) of the air station, identifying an additional five IR Sites. Four IR Sites were subsequently added, resulting in a total of 19 IR Sites. Currently, eight sites remain active in MCAS Miramar's IR Program. An overview of the active IR Sites may be found in Section 3.0.

The Department of the Navy (DON) provides guidance for cleanup of military munitions in its Munitions Response Program (MRP). The purpose of the DON MRP (hereafter referred to as MRP) is to address munitions and explosives of concern (MEC) and munitions constituents (MC) used or released on sites from past operations and activities. MEC includes Unexploded Ordnance (UXO), discarded military munitions (DMM), and MC in high enough concentrations as to present an explosive hazard. The DON continues to establish policy and guidance for munitions response actions under the MRP, with reference to the overall DoD munitions program, the Military Munitions Response Program (MMRP). (EPA, 2005; DoN, 2007; DoN, 2009)

As a result of the 2008 PA for MCAS Miramar's MRP, 11 sites were recommended for further study, and two have subsequently been added. To date, six sites have been recommended for No Further Action (NFA). Currently, there are seven active Munitions Response Sites (MRS) on installation property. An overview of the active MRS may be found in Section 3.0.

MCAS Miramar's environmental cleanup programs, including the IR Program and the MRP, are collectively referred to as the Environmental Restoration (ER) Program at MCAS Miramar. This CRP addresses community relations activities

in support of the ER Program being conducted at MCAS Miramar and does not include any other environmental programs at MCAS Miramar. The Department of the Navy (DON) is the lead federal agency for the ER Program at MCAS Miramar. NAVFAC SW manages the cleanup program on the installation in conjunction with MCAS Miramar's Environmental Management Department. MCAS Miramar's IR Program is in compliance with the U.S. Department of Justice's (DOJ) 1994 Executive Order Number 12898 concerning Environmental Justice. (DOJ, 1994)

The California Regional Water Quality Control Board (RWQCB) acts as the lead regulatory agency for the IR Program, providing oversight for the environmental program at MCAS Miramar, as well as responsibility for overseeing cleanup of groundwater-related issues. The California Department of Toxic Substances Control (DTSC) is the regulatory agency responsible for overseeing the Munitions Response Program (MRP).

1.1 Purpose of the Community Relations Plan

For purposes specifically related to this CRP, the Miramar community is defined as Miramar, which includes individuals living and working on the air station and the area immediately outside of the North Gate, as well as the two most populated residential communities in closest proximity to the air station, Mira Mesa to the north and Tierrasanta to the south. Based on feedback received from participants in the 2007 CRP process, the community of Scripps Ranch, which borders the base to the northeast, has been included in this plan as a community neighbor. The purpose of this CRP is to outline methods to ensure that the Miramar community, as defined, has access to technical information about Environmental Restoration Program activities, and have early and significant input into cleanup plans. This plan identifies community concerns regarding environmental cleanup activities on MCAS Miramar; describes the ways in which the Marine Corps will provide information to residents and interested groups; and outlines methods for the public to raise issues and concerns to the Marine Corps. It also summarizes regulatory requirements; provides background information on the air station; and presents summaries of the program's IR Sites. In addition, it provides an overview of the neighboring communities; reviews previous community relations activities; and summarizes the recently conducted community interviews. This document is an update to the CRP for MCAS Miramar issued in December 2007. (BRG, 2007)

The Marine Corps will take the following specific steps to engage the Miramar community:

1. Provide information to the public about the Environmental Restoration Program on MCAS Miramar, including the IR Program and the MRP;

2. Expand and promote community-based, Internet, and electronic resources for improved public access;

3. Inform the public of the nature of environmental issues and technologies as related to the MCAS Miramar IR Program and the MRP;

4. Partner with other installation programs, specifically the Community Plans and Liaison (CP&L) Office and the installation's Natural Resources Division, to effectively communicate programmatic updates, as well as non-program related information of interest to community members; and

5. Involve the public in decision-making processes that will affect them; inform them of the responses under consideration to remedy environmental issues; and of the progress being made in the cleanup of IR Sites.

The Marine Corps will re-evaluate the CRP every three years, with updates as appropriate.

1.2 How to Use This Document

This CRP was prepared in accordance with the Community Involvement requirements of the DON, United States Environmental Protection Agency (USEPA), and the California Department of Toxic Substances Control (DTSC). It is organized as follows:

- **Section 1.0, Introduction and Background**, provides an overview of the CRP and explains its purpose and organization.
- **Section 2.0, Regulatory Background and Requirements**, outlines the federal and state requirements for hazardous waste cleanup that guide the MCAS Miramar Environmental Restoration Program, including the IR Program and MRP.
- **Section 3.0, IR Site Descriptions and Investigations**, contains an overview of the air station and a summary of the active IR Sites and MRP Sites at MCAS Miramar.
- **Section 4.0, Community Background and Interviews**, presents demographic information for the areas that comprise the greater MCAS Miramar community, community interests and concerns, and the results of community interviews.
- **Section 5.0, Community Relations Program**, presents the goals and objectives of this CRP, approaches to implementing the proposed Community Relations Program, and supporting activities based upon the information collected.
- **Section 6.0, References**, is a record of the references used to prepare this CRP.

- **Appendix A** presents information on the Administrative Record (AR) file location, hours of operation, access information, and contact information. In addition, this Appendix contains the location of the Community Information Repositories, and information on how to access Environmental Restoration Program data on the Internet.

- **Appendix B** provides a glossary of technical terminology in reference to the IR Program. In addition to the terms used throughout this document, several additional definitions have been provided to clarify cleanup processes, initiatives, and munitions-specific terminology related to the MRP.

- **Appendix C** contains the interview questions and the responses gathered during the July 2011 Community Relations Interviews.

- **Appendix D** presents the July 2011 interviewee list and a list of organizations that were either unavailable or declined to be interviewed.

- **Appendix E** provides contact information for local media, including newspapers and network and public access television stations.

- **Appendix F** provides distribution lists for dissemination of information on the MCAS Miramar Environmental Restoration Program.

- **Appendix G** presents information on area organizations, including environmental groups, community organizations, and groups that may have an interest in the environmental cleanup activities at MCAS Miramar.

- **Appendix H** provides suggested locations for public and community meetings.

For more information about this document, MCAS Miramar's Community Relations Program, or the Environmental Restoration (ER) Program at MCAS Miramar, visit one of the MCAS Miramar ER Program Information Repositories as outlined in Appendix A. For personal attention, Table 1-1 provides a list of individuals from the Marine Corps and regulatory agencies who may be contacted.

Table 1-1: Marine Corps and Regulatory Agency Contacts

Marine Corps Contacts	
Susan Van Winkle Installation Restoration Program Remedial Project Manager	**Naval Facilities Engineering Command, Southwest** 1220 Pacific Highway San Diego CA 92132-5190 susan.vanwinkle@navy.mil
Keith Spencer Installation Restoration Program IR Program Manager	**Marine Corps Air Station Miramar** PO Box 452001 San Diego, CA 92145-2001 keith.spencer@usmc.mil
External Information Officer Public Affairs Office	**Marine Corps Air Station Miramar** Commanding Officer Attn: PAO P.O. Box 452013 San Diego, CA 92145-2013 miramarcomrel@usmc.mil
Juan Lias Community Plans and Liaison Office Community Land Use Planner	**Marine Corps Air Station Miramar** PO Box 452001 San Diego, CA 92145-2001 juan.lias@usmc.mil
Regulatory Agency Contacts	
Beatrice Griffey Project Manager Water Resource Control Engineer	**Regional Water Quality Control Board** 9174 Skypark Court, Suite 100 San Diego, CA 92123-4353 bgriffey@waterboards.ca.gov
Sara Michael Project Manager	**Dept. of Toxic Substances Control** 5796 Corporate Avenue Cypress, CA 90630-4732 smichael@dtsc.ca.gov

The MCAS Miramar Environmental Management Department supports all of the environmental programs on the installation. The MCAS Miramar ER Program is included in the Environmental Engineering Program. A list of other, non-ER programs at MCAS Miramar is provided below.

Additional information on environmental programs on the installation may be found on the Environmental Management web pages at http://www.marines.mil/unit/mcasmiramar/ems/Pages/default.aspx.

Environmental Programs at MCAS Miramar

- **Environmental Engineering**
  - Aboveground / Underground Storage Tank
  - Range Environmental Vulnerability Assessment
  - Air Quality
  - Spill Prevention Control and Countermeasures
  - Installation Restoration
  - Storm Water
  - Munitions Response
  - Unauthorized Release
  - Noise
- **Natural Resources**
  - Cultural Resources
  - Natural Resources
- **Program Support**
  - Administration
  - Budget Planning
  - National Environmental Policy Act
- **Waste Management**
  - EPCRA/Toxic Release Inventory
  - Lead-Based Paint
  - Hazardous Materials
  - Medical Waste
  - Hazardous Waste
  - Pollution Prevention
  - Integrated Solid Waste Management Plan
  - Polychlorinated Biphenyls
  - Recycling
- **Other Environmental Programs**
  - Asbestos Management
  - Pesticides Management
  - Environmental Compliance Evaluation
  - Training
  - Environmental Management System

2.0 REGULATORY BACKGROUND AND REQUIREMENTS

2.1 Regulatory Background

The United States Congress established a program to inspect and clean up hazardous waste sites across the country in 1980. This program was described in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), which became known as the Superfund. In 1986 the legislation was amended to include the IR Program, requiring the Department of Defense (DoD) to clean up sites under their jurisdiction to the same safety levels required of privately owned properties.

The federal regulations and programs that guide MCAS Miramar's cleanup efforts are summarized in Table 2-1.

Table 2-1: Federal Regulations and Program Summaries
Environmental Programs

Environmental Program	Summary
CERCLA	Enacted by Congress on December 11, 1980 to provide broad federal authority to respond directly to [threatened] releases of hazardous substances that may endanger public health or the environment. CERCLA established the National Priorities List (NPL).
SARA	Amended CERCLA on October 17, 1986, making several important changes and additions to the program.
Installation Restoration (IR) Program	Primarily addresses sites impacted by past disposal of hazardous wastes. This program is the Marine Corps' equivalent to CERCLA.
Munitions Response Program (MRP)	Meets the same requirements for cleanup as the IR Program, but with special handling considerations required for munitions. This is the Navy/Marine Corps' equivalent to the DoD's Military Munitions Response Program (MMRP).

2.1.1 CERCLA

In response to environmental problems posed by past hazardous waste disposal practices, Congress directed the USEPA to develop a program to manage and control past disposal sites. This program was outlined in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980 and was amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. CERCLA and SARA established a series of programs for the cleanup of hazardous waste disposal and spill sites nationwide. CERCLA also established the National Priorities List (NPL), which guides the USEPA in determining which sites warrant further investigation. (USEPA, 1980)

2.1.2 SARA

SARA amended CERCLA on October 17, 1986, after the USEPA had administered the Superfund program for six years. SARA made several important changes and additions to the program. It stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites and required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations. In addition, it provided new enforcement authorities and settlement tools, and increased state involvement in every phase of the Superfund program. SARA also increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased available funding for these purposes.

2.2 Environmental Cleanup Programs

Environmental cleanup requires a process to identify sites where chemicals or MEC may have been released into the environment and then survey these sites to determine whether the contaminants or MEC are actually present. The process must assess where the contaminants or MEC are located and at what concentrations or densities; whether they cause unacceptable risk to human health or the environment; and, finally, how best to remove or treat the contaminants or MEC. To accomplish cleanup, the DON Environmental Restoration (ER) Program generally follows the steps developed for CERCLA response actions. This process is used at most Installation Restoration (IR) and Munitions Response Program (MRP) Sites and provides a comprehensive approach from site identification through cleanup and closeout.

Some DON sites impacted by past treatment, storage, and disposal practices for hazardous substances follow the Resource Conservation and Recovery Act (RCRA) regulatory framework for corrective actions. Also, cleanup at most petroleum-contaminated sites is guided by state underground storage tank

(UST) programs. (DoN, 2011) MCAS Miramar's ER Program does not include sites requiring RCRA or UST guidance.

2.2.1 Installation Restoration Program

The DoD developed the Installation Restoration (IR) Program to identify, assess, characterize, and clean up or control contamination from past hazardous waste-disposal operations and hazardous materials spills. The program was established to comply with federal requirements regarding cleanup of hazardous waste sites outlined in CERCLA, as amended by SARA. The IR Program is the DoD equivalent to the USEPA Superfund program. It is the DON's policy that IR response actions reasonably interpret and apply USEPA policy and guidance when making cleanup decisions.

Naval Energy and Environmental Support Activity (NEESA) conducted an Initial Assessment Study (IAS) of NAS Miramar in September 1984, resulting in the identification of ten potentially contaminated sites. In February 1994, Naval Facilities Engineering Command Southwest (NAVFAC SW) conducted a Site Investigation (SI) of the air station, identifying five additional IR Sites. Four IR Sites were subsequently added, resulting in a total of 19 IR Sites.

Based on historical activities on the air station, several potential contaminants are being addressed under the IR Program, including heavy metals, volatile organic compounds (VOC), polychlorinated biphenyls (PCB), petroleum hydrocarbons, and explosives.

The MCAS Miramar IR Program is managed by NAVFAC SW in San Diego, California in conjunction with MCAS Miramar's Environmental Management Department.

2.2.2 Munitions Response Program

The DON provides guidance for cleanup of military munitions in its Munitions Response Program (MRP). The purpose of the DON MRP (hereafter referred to

as MRP) is to address munitions and explosives of concern (MEC) and munitions constituents (MCs) used or released on sites from past operations and activities. MEC includes unexploded ordnance (UXO), discarded military munitions (DMM), and MC in high enough concentrations as to present an explosive hazard. The DON continues to establish policy and guidance for munitions response actions under the MRP, with reference to the overall DoD munitions program, the Military Munitions Response Program (MMRP).

Current IR Program policies and procedures apply to sites under the MRP, as well as provisions for unique explosives safety hazards associated with these sites in accordance with the DoD Explosives Safety Board (DDESB). (DON, 2006; USEPA, 2010; DoN, 2011; DoD, 2010)

Preliminary Assessments (PA) were completed for 11 of the installation's MRP sites in 2008. Three of the sites were closed at this phase and eight were recommended for further study. Site Inspections (SI) were completed in 2011 on these eight MRP sites and one site that was subsequently added to the program. Of these nine remaining sites, three more were closed with No Further Action (NFA) at the completion of the SIs. There are currently six open MRP Sites, referred to as Munitions Response Sites (MRS). An overview of the active MRS may be found in Section 3.0. Table 3-1 contains an inclusive table of all active MRS on the installation, including site number, site name, and status.

The MCAS Miramar MRP is managed by NAVFAC SW in San Diego, California in conjunction with MCAS Miramar's Environmental Management Department.

2.2.3 Environmental Restoration Process

As depicted in Figure 2-1, the DoN Environmental Restoration (ER) process starts with identification and investigation of contaminated sites, followed by selection, design, and implementation of remedial actions to achieve remediation goals. This process is designed in accordance with CERCLA requirements.

There are two types of DoN ER responses. **Remedial actions** are taken to permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. The remedial action process specifies the steps to thoroughly evaluate the nature and extent of contamination, and provides a structure to identify and evaluate cleanup alternatives. **Removal actions** are taken to address releases or threatened releases requiring prompt action. The remedial action process is discussed in Section 2.2.4 and the removal action process is outlined in Section 2.2.5.

There are two important DoN ER milestones in the cleanup portion of the process. The **Remedy-in-Place (RIP)** milestone is obtained when DoN has finished construction of the remedy, and the remedy is functional and operational as designed to achieve the cleanup objectives. The **Response Complete (RC)** milestone is achieved when all cleanup objectives specified in the site's Record of Decision (ROD) or Decision Document (DD) have been met.

After reaching the RC milestone, a site may require Long-term Management (LTMgt) to ensure the effectiveness of the implemented remedy. This may include environmental monitoring, review of site conditions, and maintenance of a remedial action. (DoN, 2006; DoD, 2009)

Figure 2-1 provides a graphical representation of the DoN ER process. For additional clarification of cleanup terminology specifically associated with the MCAS Miramar Installation Restoration and Munitions Response Programs, a glossary of technical terms is provided in Appendix B.

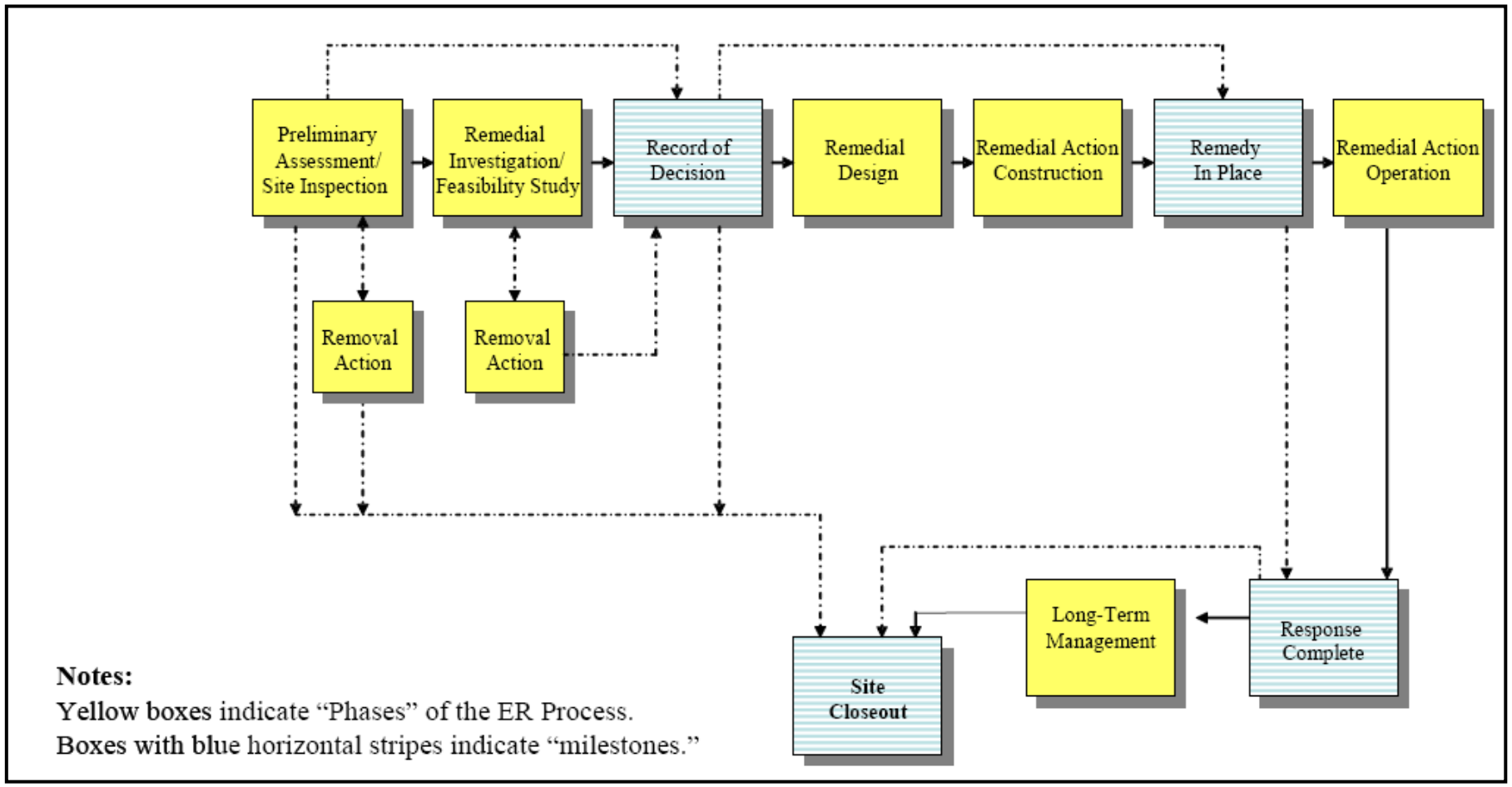


Figure 2-1: DON Environmental Restoration Process - Phases and Milestones
(DON, 2006)

2.2.4 Remedial Action Process

A brief outline of each process step follows.

- **Preliminary Assessment/Site Inspection (PA/SI)** evaluates whether current or past waste management practices have resulted in the release of hazardous substances. The PA is completed through record searches and visual inspections of the area. The SI usually requires sampling and analysis of soil, surface water, or groundwater, or any combination of the three. Based on the results of data gathered, the site will be scheduled for No Further Action (NFA), recommended for a removal action, or investigated further in the next stage. If the site is scheduled for NFA, it will be included in a Record of Decision (ROD) or proceed immediately to Site Closeout (SC).

- **National Priorities Site Listing** includes determining which sites warrant further investigation to assess the nature and extent of the human health and environmental risks associated with a site; identifying what CERCLA-financed remedial actions may be appropriate; notifying the public of sites EPA believes warrant further investigation; and advising potentially responsible parties that EPA may initiate CERCLA-financed remedial action. The NPL (National Priorities Listing) serves primarily informational purposes, identifying for the states and the public those sites or other releases that appear to require cleanup actions. MCAS Miramar is not an NPL site.

- **Remedial Investigation/Feasibility Study (RI/FS)** are typically performed together. The RI includes a sampling and analysis program to determine the nature and extent of contamination, as well as a baseline ecological and health and human risk assessment. If it is determined that remedial action is necessary, the FS is conducted, which includes the initial screening and a detailed evaluation of cleanup options. When the decision is made that an RI/FS is needed, an Administrative Record (AR) and Information Repository are established, as described in Appendix A. The RI or FS also may

recommend NFA at a site. A preferred cleanup option is identified in the FS and distributed to the public in the form of a Proposed Plan.

- **Proposed Plan (PP)** is a fact sheet that is developed to describe cleanup choices and explain why the preferred option was chosen. The public and regulatory agencies have an opportunity to provide written and oral comments on the PP. The Navy considers all comments received on the PP before making a final decision and provides a reply to all significant comments in a Responsiveness Summary.

- **Record of Decision (ROD)** documents the selected cleanup solution, which is available for public review. The availability of the ROD is made known through an advertisement in a local newspaper or by the distribution of an informational document.

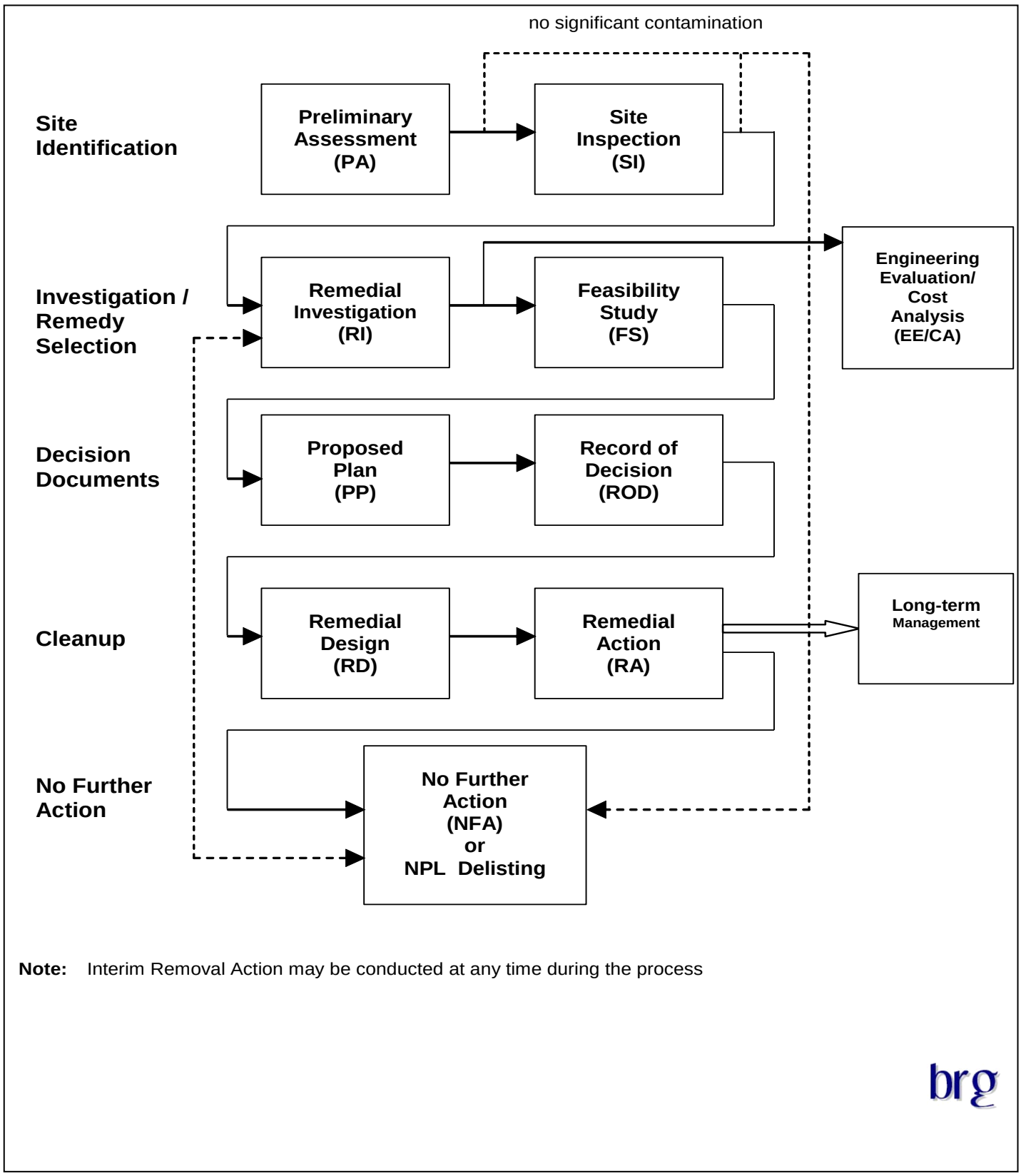
- **Remedial Design/Remedial Action (RD/RA)** involves preparing a design for the cleanup solution (Remedial Design [RD]), along with the development of an informational fact sheet, which is distributed before the Navy begins a cleanup (Remedial Action [RA]). An RA ensues, including the implementation of the cleanup solution, while keeping the public informed.

- **Long-term Management (LTMgt)** may include long-term monitoring (LTM), which occurs at sites where hazardous substances, pollutants or contaminants remain after the RA has been completed. The Navy and regulatory agencies review the LTM records every five years to ensure that human health and the environment are protected.

- **No Further Action (NFA)** occurs when all necessary remedial action activities are complete and the Navy and regulatory agencies agree that NFA is appropriate at the site.

Under the Environmental Restoration process, sites reaching an NFA determination are considered to be Response Complete (RC). If it is determined that further action is required, construction to implement the chosen remedy (Remedial Action Construction [RA-C]) is started, which may include operation, maintenance, and monitoring actions of the solution (Remedial Action Operation [RA-O]). If necessary, the solution may continue to be used until the cleanup objectives required by the ROD (Record of Decision) for that site have been met. (DON, 2006)

Figure 2-2 provides a visual reference to the Remedial Action Process.



Note: Interim Removal Action may be conducted at any time during the process

Figure 2-2: Remedial Action Process
(DON, 2006)

2.2.5 Removal Action Process

In some cases, the Navy and regulatory agencies may conduct a removal action of hazardous substances from a site. These removal actions are carried out in agreement with federal and state requirements. The Navy can perform a removal action if any one or more of the following criteria are present:

- A pending threat to human health or the environment exists
- The source of the contamination can be removed quickly and effectively
- Access to contamination can be limited
- A removal action is the fastest way of remediating the site

The USEPA has defined three types of removal actions: emergency, time-critical, and non-time critical removals. These removal actions and supporting documentation are summarized below.

- **Emergency Removal Actions** occur when cleanup must begin within two weeks after the lead agency determines that a removal action is necessary.

- **Time-Critical Removal Actions** occur when cleanup can be completed within six months after the lead agency determines that a removal action is necessary.

- **Non-Time Critical Removal Actions** occur when cleanup may begin six months after the lead agency determines that a removal action is necessary.

The removal action process can be started at any time during the remedial action process. A brief outline of the Removal Action Process follows.

- **Remove Site Evaluation (RSE)** is an optional site evaluation step to collect additional data for the purpose of removal action planning.

- **Action Memo / Removal Action Work Plan (AM/RAW)** details the selected removal action alternative, explains the rationale for the selection, and

documents responses to public comments and concerns raised during the public comment period.

- **Engineering Evaluation/Cost Analysis (EE/CA)** develops and evaluates potential cleanup alternatives and compares costs associated with each alternative. The EE/CA usually also recommends the most favorable alternative.

- **Site Closeout (SC)** is reached when no further response actions under the IR Program are appropriate or anticipated and the regulatory agencies concur.

Figure 2-3 provides a graphical representation of the Removal Action Process.

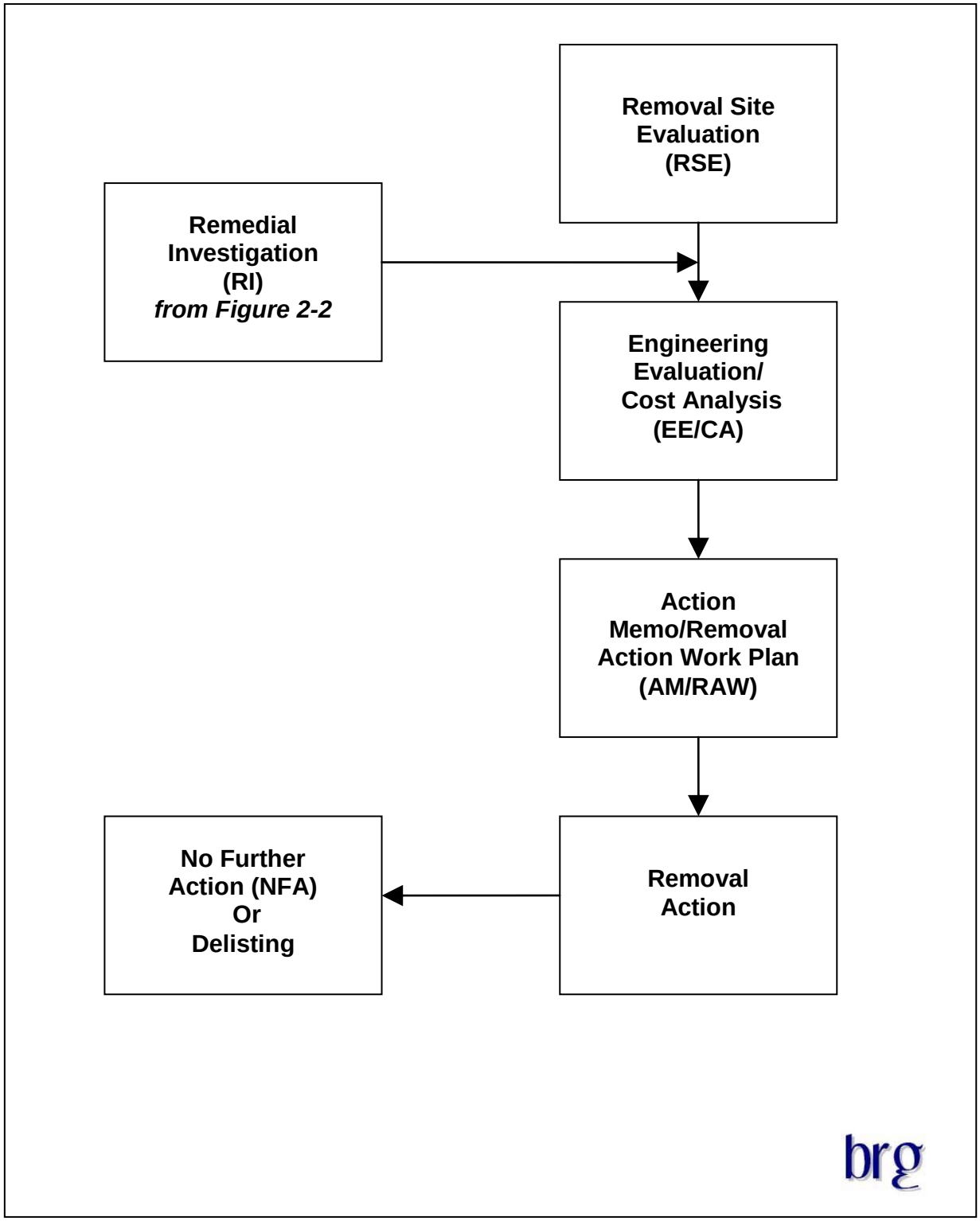


Figure 2-3: Removal Action Process (non-time critical)
(DON 2006)

2.3 Requirements for Community Involvement

Federal and state laws and regulations require community involvement during investigation and cleanup of IR Sites. The purpose is to ensure that the public is informed and involved early; that public concerns are heard; and that public comments are considered in making final decisions on hazardous waste management cleanup.

In addition, cleanup program guidance provides for the opportunity to establish a Technical Review Committee (TRC), also referred to as a Restoration Advisory Board (RAB), at all DON and Marine Corps facilities involved in Environmental Restoration (ER) Programs beyond the Preliminary Assessment (PA) / Site Inspection (SI) phase. The TRC facilitates input from all parties affected by environmental investigation and cleanup, yet TRCs do not replace the need for formal community involvement opportunities required under federal and state laws.

NAS Miramar established a TRC in June 1991. The TRC's purpose was two-fold: to allow individuals within the community the opportunity to give advice to NAS Miramar on their IR Program; and to act as a focal point for the exchange of information between NAS Miramar and the surrounding communities. The TRC's charter was to bring together community members who reflect the diverse interests within the local community, enabling early and continued two-way flow of information, concerns, values, and needs between the community and the air station. TRC membership included members of the surrounding business community, private residents, regulatory officials, and representatives from local Community Planning Groups, the DON IR Program, and the US Marine Corps. TRC meetings were held periodically until May 1995, after which the group was disbanded following lack of public participation.

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3.0 SITE DESCRIPTIONS AND INVESTIGATIONS

This section includes an overview of activities for the Installation Restoration (IR) and Munitions Response Programs (MRP) on MCAS Miramar, including summaries of the IR Sites and the MRP Sites, referred to as Munitions Response Sites (MRS). Site status is current as of the writing of this CRP. In May 2009, a comprehensive Site Management Plan (SMP) for MCAS Miramar's IR Program was developed, which provides more detailed information on each IR Site. An SMP for MCAS Miramar's MRP is pending.

Table 3-1 provides a list of the environmental cleanup sites on the installation, including site name and site status as of the writing of this report. Figure 3-1 presents the location of all 19 IR Sites and all 12 MRS on MCAS Miramar.

An overview of the IR Program and summaries of the IR Sites may be found in Section 3.1. Information on the MRS on MCAS Miramar may be found in Section 3.2.

Table 3-1: Environmental Restoration Program Cleanup Sites

Site Number	Site Name	Status
INSTALLATION RESTORATION PROGRAM		
IR Site 1	Fuel Farm Operations Area	Active
IR Site 2	Rose Canyon	Active
IR Site 3	Fish Pond	Closed
IR Site 4	Fire Fighter Drill Fields	Closed
IR Site 5	San Clemente Canyon Disposal Area	Active
IR Site 6	North Miramar Landfill	Transferred to City of San Diego
IR Site 7	South Miramar Landfill	Transferred to City of San Diego
IR Site 8	Old Camp Elliott Heating Plant	Closed
IR Site 9	Old Camp Elliott Impact Area	Removed from IR Program
IR Site 10	Sycamore Canyon Atlas Missile Facility	Active
IR Site 11	Red Barn Drainage Ditch	Closed
IR Site 12	NEX/Gas/Service Station Drainage Ditch	Closed
IR Site 13	AIMD Jet Engine Test Cells Ditch	Closed
IR Site 14	Hangar 6 Drainage Ditch	Closed
IR Site 15	Supply Drum Storage Area	Active
IR Site 15	K212 Boiler Plant Mercury Spill	Active
IR Site 17	B380 Photo Imaging Lab	Closed
IR Site 18	NEX Main Gas Station	Active
IR Site 19	Former Gun Club	Active
MUNITIONS RESPONSE PROGRAM		
MRS1	Grenade Course	Active
MRS 2	Shot Gun Range	Closed
MRS 3	Former Skeet Range	Closed
MRS 5	Skeet Range 1980	Active
MRS 6	Pistol Ranges 5-7	Active
MRS 7	Rifle Ranges 2 & 3	Active
MRS 8	Pistol Range 12	Closed
MRS 9	Pistol Range 13	Closed
MRS 10	Pistol Ranges 9-11	Active
MRS 12	Bomb Target (Kearny Field)	Closed
MRS 13	Bore Sight Range	Active
MRS 15	Rifle Range – 200 Targets	Active

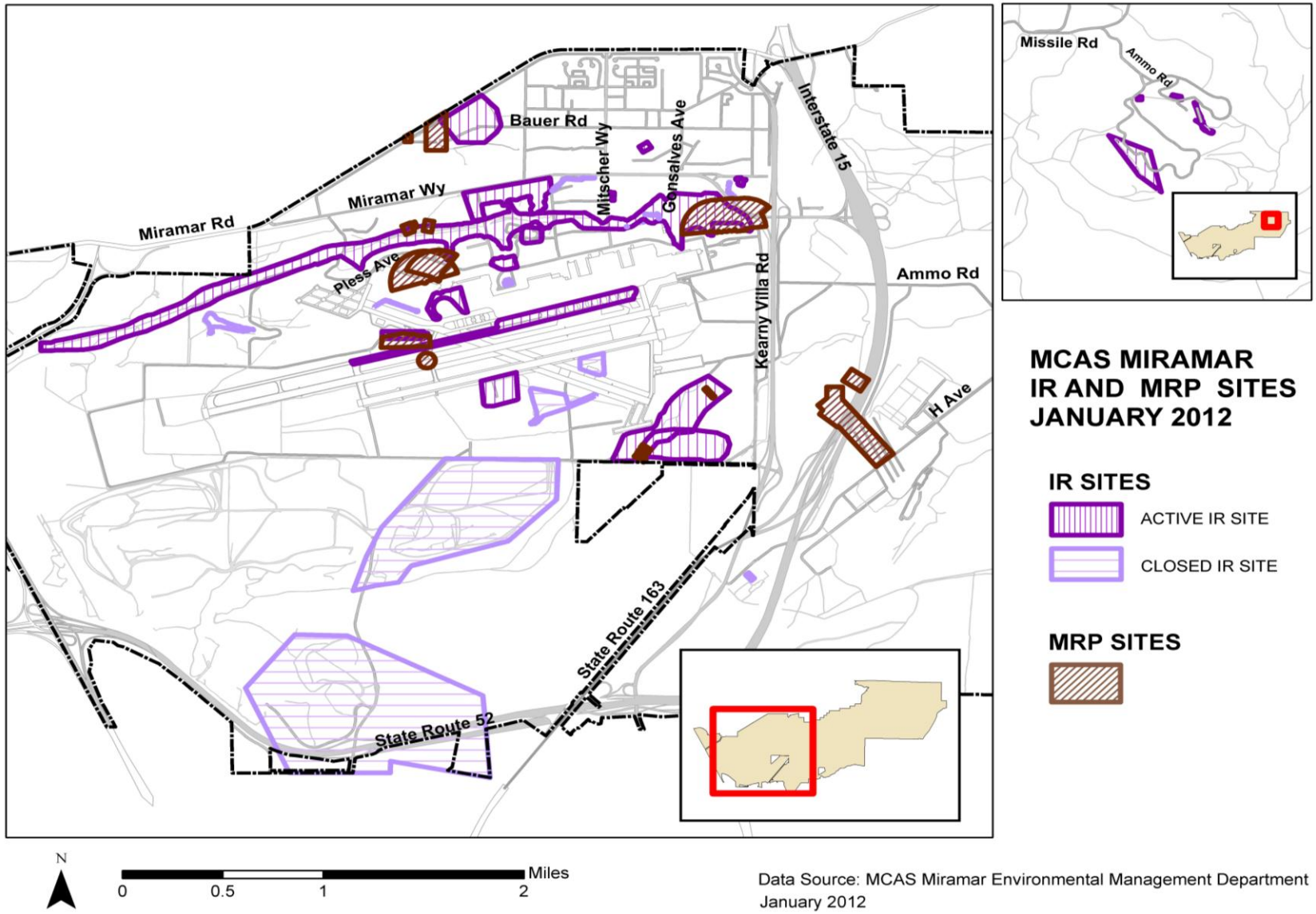

Figure 3-1: MCAS Miramar Installation Restoration & Munitions Response Program Sites Map
(MCAS Miramar, 2012b)

3.1 Installation Restoration Program Overview

The Marine Corps instituted the IR Program at MCAS Miramar to meet the requirement of CERCLA. To date, a total of 19 IR Sites have been identified under MCAS Miramar's IR Program, including the original 10 sites from the 1984 IAS and eight additional sites that have since been discovered.

To date, ten of the IR Sites on MCAS Miramar have been closed following regulatory review and approval. Two of these sites were found to be little to no risk to human health or the environment. Waste was removed and disposed of properly at six additional sites and were then determined to have little to no risk to human health or the environment; with regulatory concurrence, these six sites were closed. In addition, two landfill sites were transferred to the City of San Diego for maintenance, and one site was removed from the Munitions Response Program (MRP). Section 3.1.1 provides a summary of each IR Site that has received closure by MCAS Miramar's IR Program.

Eight hazardous waste sites remain on an active status on MCAS Miramar, with each site in a different stage of the cleanup process. The Marine Corps, along with local and state regulators, monitors all sites to ensure compliance to regulations, laws and to address community concerns. Section 3.1.2 provides a summary of each of the eight active IR Sites on the air station.

Figure 3-2 provides a map of all of the closed and active IR Sites on the installation.

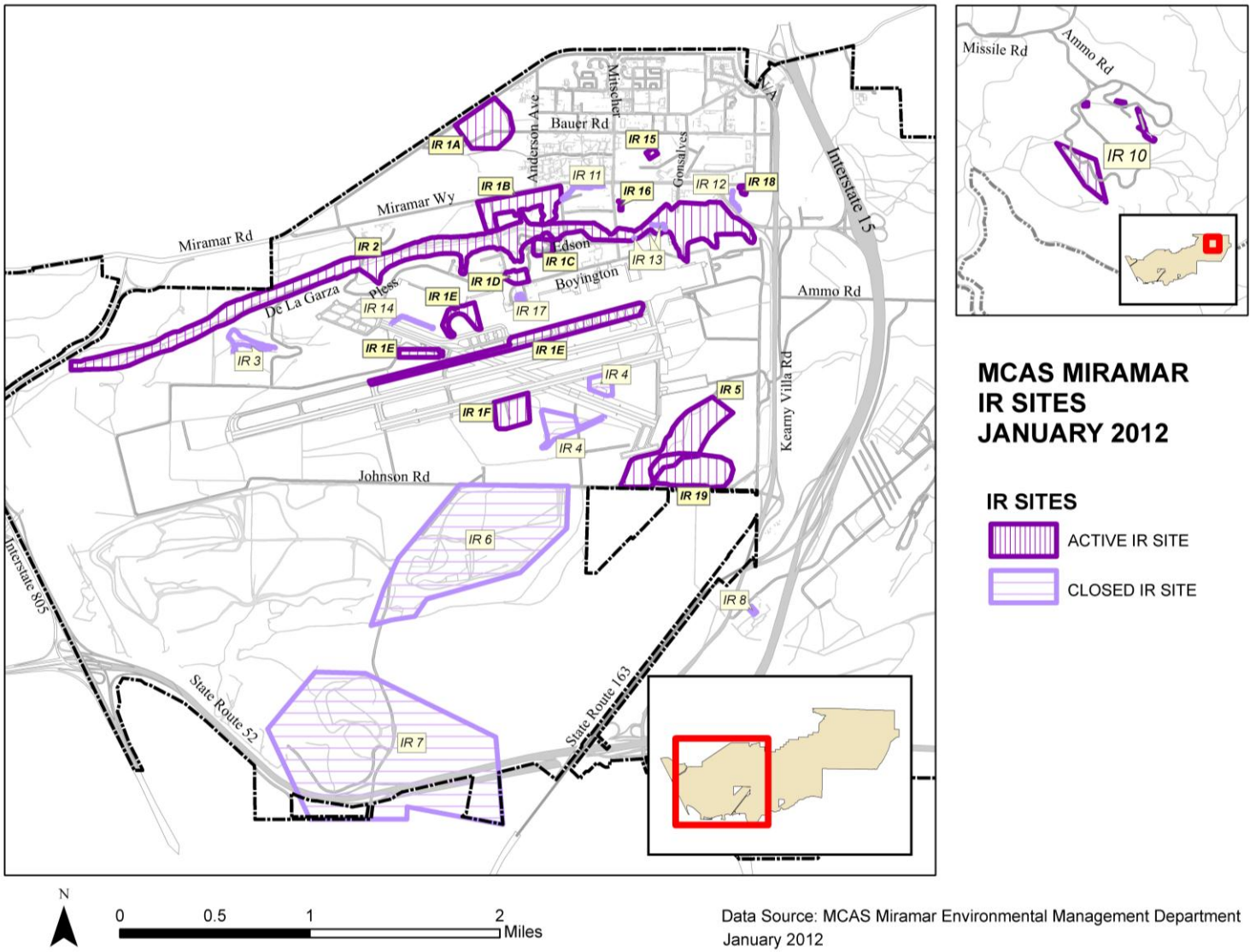

Figure 3-2: MCAS Miramar Installation Restoration Sites Map
(MCAS Miramar, 2012c)

3.1.1 Summary of Closed IR Sites

A brief summary of each closed IR Site follows.

3.1.1.1 IR Site 3: Fish Pond

The Fish Pond received untreated runoff between 1952 and 1976 from air station runways, aircraft parking aprons, and aircraft fueling stations. The untreated runoff contained jet fuels, leaded aviation gasoline, and waste water from aircraft washing operations. IR Site 3 was closed with No Further Action (NFA) required following the completion of the Site Inspection (SI) in 1998.

3.1.1.2 IR Site 4: Fire Fighter Drill Fields

The Drill Fields were used for training fire fighters in the suppression of fuel and oil fires. Between 1958 and 1981, waste material, primarily fuel, was poured directly onto the ground then ignited. Following the removal of heavy metals and fuel-contaminated soils at this site in June and July 2005, this site was closed with NFA required.

3.1.1.3 IR Site 6: North Miramar Landfill

North Miramar Landfill was operated by the City of San Diego between 1959 and 1983 for refuse disposal. The site received drummed liquid waste from NAS Miramar Corrosion Control Center between 1972 and 1983, including paint, paint thinner, paint stripper, non-chlorinated solvents, and corrosive waste. In May 1997, IR Site 6 was closed with NFA required by DTSC. Post-closure long-term monitoring (LTM) is currently being conducted by the City of San Diego.

3.1.1.4 IR Site 7: South Miramar Landfill

South Miramar Landfill was operated by the City of San Diego between 1959 and 1972 and may have received industrial wastes during this time, including paints, oils, and strong acids. In May 1997, DTSC closed IR Site 7 with NFA required. Post-closure LTM is currently being conducted by the City of San Diego.

3.1.1.5 IR Site 8: Old Camp Elliott Heating Plant

The Old Camp Elliott Heating Plant was built in the 1940's and operated until 1960. Asbestos insulation that coated the plant's eight boiler tanks and ancillary piping had deteriorated and fallen to the floor creating an asbestos dust hazard. The deteriorated materials and affected soils were removed and properly disposed of during site cleanup in 1985 in conjunction with the demolition of the plant. Upon final SI, regulatory officials closed IR Site 8 with NFA required in April 1997.

3.1.1.6 IR Site 9: Old Camp Elliott Impact Area

IR Site 9 consisted of former munitions ranges and impact areas east of I-15. These areas were originally included in the IR Program, but were removed from the program because, although no longer used as munitions impact areas, they remain operational ranges.

3.1.1.7 IR Site 11: Red Barn Drainage Ditch

Soil along a natural drainage ditch at the intersection of Miramar Way and Nomad Road received contamination when an oil/water separator malfunctioned and clogged. The oil/water separator was associated with the Auto Maintenance Facility, the Truck Maintenance Facility, and Pesticide Mixing and Storage Facility. Following cleanup of the site in 1995, IR Site 11 was closed with NFA required in December 1996.

3.1.1.8 IR Site 12: NEX/Gas/Service Station Drainage Ditch

A natural drainage ditch southwest of the Navy Exchange (NEX) Main Gas Station received contamination from the runoff of a clogged oil/water separator located at the Auto Hobby Shop. Site cleanup was conducted in 1995 and IR Site 12 was closed in December 1996 with NFA required.

3.1.1.9 IR Site 13: AIMD Jet Engine Test Cells Ditch

Soils comprising a natural drainage ditch were contaminated following a clog in an oil/water separator at the Aviation Intermediate Maintenance Department (AIMD). Wastes were a result of aircraft engine testing, solvent cleaning of engine components, and engine repair and maintenance operations. Site cleanup was conducted in 1995. Site closure was achieved in December 1996 with NFA required.

3.1.1.10 IR Site 14: Hangar 6 Drainage Ditch

IR Site 14 is comprised of a drainage ditch in close proximity to Hangar 6 on MCAS Miramar's flight line. In August 1996, contaminated soils were removed from the site and it was determined that any residual contamination did not pose a significant threat to groundwater and surface water. This IR Site was closed with NFA required on December 6, 1996.

3.1.1.11 IR Site 17: B380 Photo Imaging Lab

Building 8380 was constructed in 1959 and was used as a photo imaging laboratory. Leaking sumps beneath the building contaminated soil in the immediate area with photo processing chemicals. The site was added to the IR Program in 1996. Following analysis of soil samples, the IR Site was closed in November 1998 upon concurrence by the RWQCB with the findings in the SI, which reported low risk to human health.

3.1.2 Summary of Active IR Program Activities

MCAS Miramar's IR Program currently has seven active IR Sites on the air station. A summary of each active IR Site may be found below. Figure 3-1 depicts the location of the IR Sites on MCAS Miramar.

3.1.2.1 IR Site 1: Fuel Farm Operations Area

IR Site 1 is made up of seven non-contiguous areas, including the existing fuel farm. Waste petroleum, oils, lubricants (POL) and tank bottom sludges were sprayed on vegetated areas and bare soil for weed and dust control from the early 1940s through 1975. Polychlorinated Biphenyls (PCB) and Total Petroleum Hydrocarbons (TPH) have been detected in samples collected at IR Site 1C on Edson Road. In addition, spills at the fuel farm occurred. In preparation for construction of a new fuel farm in 2006, soils with elevated concentrations of TPH and PCBs were removed in order to reduce the risk to workers during the construction of the new fuel farm and to reduce the need for special handling of soil excavated during the construction process. Investigation and removal action of IR Site 1 began in 2009; completion is scheduled in 2012.

3.1.2.2 IR Site 2: Rose Canyon

During the 1940's through the 1960's industrial materials were commonly discharged into Rose Canyon via storm drains. Concentrated wastes, including oils, greases, hydraulic fluid, fuels, solvent, paint thinners, plating waste water, corrosive wastes, and beryllium dust were reportedly disposed of on this site. An SI is will be conducted in 2012 for IR Site 2.

3.1.2.3 IR Site 5: San Clemente Canyon Disposal Area

Between 1940 and 1974 solid refuse and liquid wastes were staged, disposed of, and burned at IR Site 5, which is located at the end of the main runway for the air field. Waste materials included waste paints, pesticides, solvents, and spent lead batteries. A Site Inspection (SI) was completed in 2006, which resulted in the conclusion that there are large fill areas along the canyon at the end of the runway, including a horseshoe shape around the burn area. In addition, overshot from a local skeet range was observed in the area. A Removal Action for IR Site 5 is planned for 2012.

3.1.2.4 IR Site 10: Sycamore Canyon Atlas Missile Facility

Between late 1955 and late 1960's Atlas Missile booster testing was conducted by the National Aeronautics and Space Administration (NASA) and the U.S. Air Force. Following closure of the facility, the site was vandalized and several electrical transformers containing PCBs were damaged. In addition, asbestos contamination was addressed by a removal action in 1994. An SI was finalized in 2006 resulting in the discovery that, in addition to PCB contamination of soil at the site, PCBs were found on a nearby access road to an Explosive Ordnance Disposal (EOD) site. A limited removal action was conducted in 2010 to remove PCB impacted soil from adjacent structures and along the EOD road. An additional removal action is scheduled for 2012 to remove PCB sediment and debris from inside the structures.

3.1.2.5 IR Site 15 Supply Drum Storage Area

IR Site 15 is located adjacent to Building 238. Prior to 1992, this site was used as a hazardous waste storage area. Soil contamination resulted from spills associated with storage of waste fuels, solvent rags, and waste oils. An SI to assess the contamination will be completed in 2012.

3.1.2.6 IR Site 16: K212 Boiler Plant Mercury Spill

IR Site 16 is located adjacent to the K212 Boiler Plant. During a tank excavation, evidence was found of a mercury release. Soil contamination on the site most likely resulted from broken mercury manometers and leaking fuel tanks. An SI to assess the contamination will be completed in 2012.

3.1.2.7 IR Site 18 (UST Site 1): NEX Main Gas Station

The NEX Main Gas Station is the primary service station on air station for non-military vehicles. It is located near the intersection of Miramar Court and Maxam Way, near the western entrance to MCAS Miramar. Leaking gasoline and Underground Storage Tanks (UST) contaminated soil and groundwater in the immediate area. Following a 1997 directive, subsequent sampling indicated groundwater beneath the site had been impacted with petroleum hydrocarbons; contaminated soil was excavated and disposed of offsite. Groundwater sampling conducted in early 2007 indicated that additional investigation is required to assess the extent of groundwater contamination. Installation of additional wells was completed in December 2011, followed by a new series of monitoring for UST 1.

3.1.2.8 IR Site 19: Former Gun Club

IR Site 19 is approximately 43 acres up to, and including, portions of San Clemente Canyon. The site includes two areas: the former San Diego Shotgun Sport Association (SDSSA) lease area (approximately 30 acres), and the Overshot Area (approximately 13 acres). Lead shot deposits have been observed in both portions of the site; additionally undocumented fill material resulting from the demolition of power plants was used during construction of the western portion of the site.

MCAS Miramar initiated the preparation of a PA/SI for the site in 2010 and subsequent analytical results indicated high concentrations of metals present in the soils at the site. Based on these findings, the site was added to the IR Program in 2011 for further evaluation. An Engineering Evaluation / Cost Analysis (EE/CA) and an Action Memorandum (AM) are scheduled for IR Site 19 in 2012.

3.2 Munitions Response Program (MRP) Overview

The DON Munitions Response Program, typically abbreviated as MRP, was established to manage the environmental, health, and safety issues presented by munitions and explosives of concern (MEC), including unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC) on closed ranges. MEC at MCAS Miramar was the result of munitions debris from training exercises by various military entities during their historical tenure on the installation.

A Preliminary Assessment (PA) was conducted for the MCAS Miramar's MRP in 2008 resulting in 11 Munitions Response Sites (MRS) requiring further study. Individual PAs were conducted at each of these eleven sites. One additional site was added to the program in August 2010 (Trevet, 2010), increasing the number of total number of MRS on MCAS Miramar to 12. Site Inspection (SI) Reports were submitted in 2011, as referenced in the subsections to follow, resulting in recommendations for No Further Action (NFA) for six of the 12 MRS, and further evaluation for the remaining sites.

Figure 3-3 provides a map of all of the closed and active MRS on the installation.

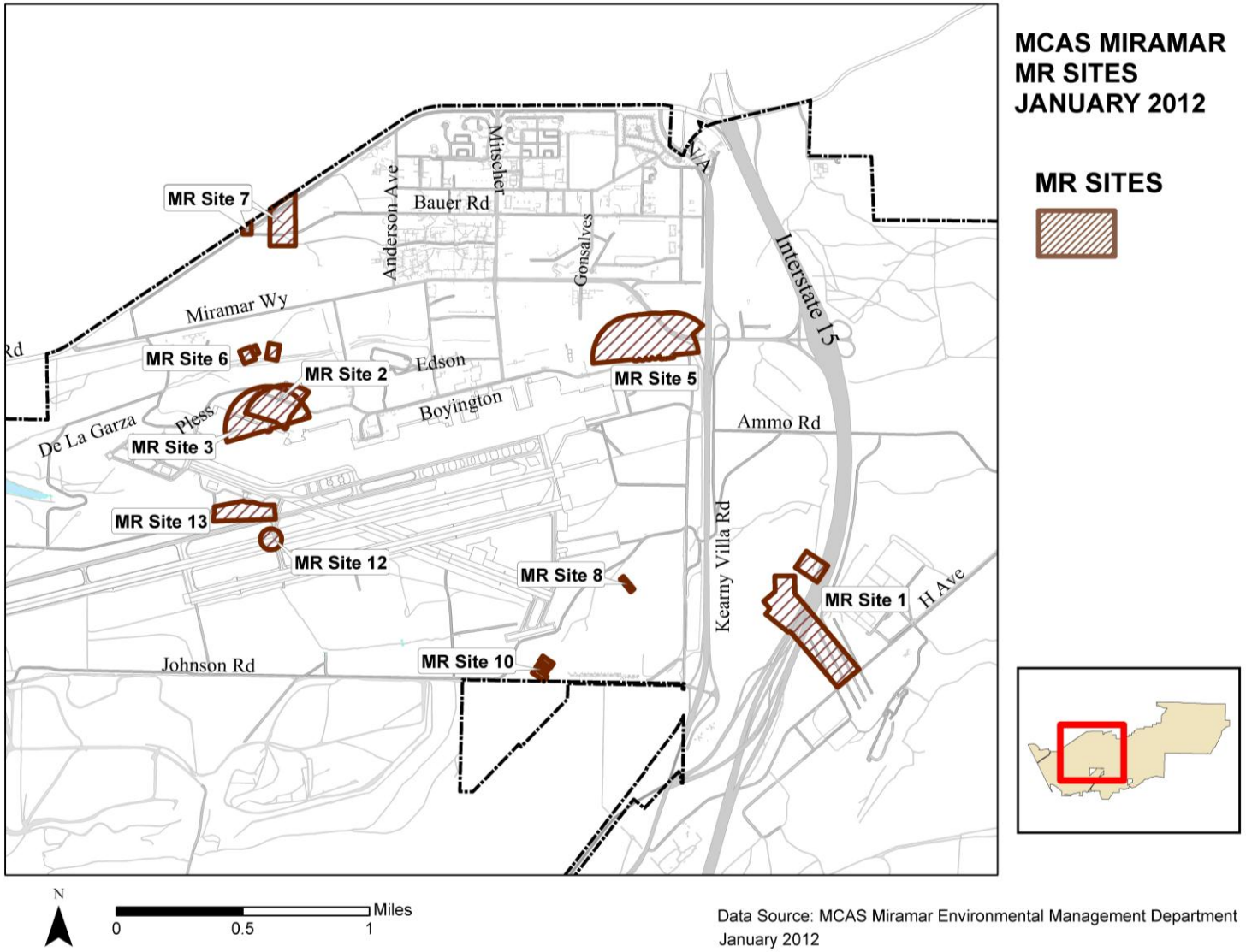

Figure 3-3: Munitions Response Sites on MCAS Miramar
(MCAS Miramar, 2012d)

3.2.1 Summary of Closed MRP Sites

MCAS Miramar's MRP has received regulatory concurrence for closure at six of the original 12 MRP Sites on the air station. A summary of each closed Munitions Response Site (MRS) may be found below.

3.2.1.1 MRS 2: Shot Gun Range

Servicemen used an outdoor shotgun sighting range at the former NAAS Camp Kearny during the mid-1940s into the early 1950s. The Shot Gun Range (MRS 2) overlapped the Former Skeet Range (MRS 3). The majority of the area comprising MRS 2 has been developed, providing the base with a flight operations and support area including Hangars 5 and 6, and asphalt parking areas to the north of the hangars. The 2007 Preliminary Assessment (PA) (MARRS, 2008a) resulted in no observation of MC. MRS 2 was closed with NFA required on September 25, 2007.

3.2.1.2 MRS 3: Former Skeet Range

The outdoor skeet range (MRS 3) that overlapped the shotgun sighting range (MRS 2) at the former NAAS Camp Kearny was used throughout the 1940s and early 1950s. The site has been developed as a flight operations and support area within the fenced-in airfield portion of the installation, including Hangars 5 and 6, a concrete ramp leading to the hangars, and asphalt parking areas to the north of the hangars which provide a staging area for helicopters. The 2007 PA (MARRS, 2008b) resulted in no observation of MEC or MC, allowing the site to be closed on September 25, 2007 with NFA required.

3.2.1.3 MRS 7: Rifle Ranges 2 and 3

The ranges that made up MRS 7 were used for small arms training (.30 caliber) from 1917 – 1920, located on approximately 12.4 acres in the northwestern portion of the installation within the footprint of the current MCAS Miramar Golf

Course. Results from the 2007 PA reported no observance of MEC or MC, and soils sample results were within acceptable ranges for human health and ecological screening levels. (MPI, 2011a) The site was closed on February 28, 2011 with NFA required.

A portion of the former range is located off base, and will be addressed by the Army Corps of Engineers (ACOE) under the Formerly Used Defense Sites (FUDS) program, which is responsible for the evaluation and cleanup of former military ranges that are no longer located on active military bases. This program is independent of the Navy/Marine Corps' MRP and will not be associated with installation environmental cleanup efforts.

3.2.1.4 MRS 8: Pistol Range 12

MRS Site 8 is located on approximately .69 acres in the central portion of the installation, just south of Johnson Road in San Clemente Canyon. The range was used for small arms (.45 caliber) training from 1917 - 1920. The MRS is in the canyon drainage way and has become overgrown with vegetation. No MC was observed during the 2007 PA, and soils sample results determined that soils were not a health concern to humans or the environment. The 2010 SI resulted in a recommendation for NFA at MRS 8, and the site was closed on February 28, 2011. (MPI, 2011b)

3.2.1.5 MRS 9: Pistol Range 13

MRS 9 was used between 1917 and 1920 for small arms (.45 caliber) training in on the eastern side of former Camp Kearny. During the 2008 PA (MARRS, 2008c), it was determined MRS 9 is located beneath the northbound and southbound lanes of I-52 at the SR-52 West / Clairemont Mesa Boulevard off-ramp. The site is contained within the interstate, consisting of concrete and asphalt, along with a contoured embankment covered with erosion control landscaping and rocks. With the extensive construction of the freeways in that

area, it was determined that any residual MEC or MC would have been removed during site preparation for the roadways and the interchange. In accordance with the results from the PA, the site was closed on November 15, 2007.

3.2.1.6 MRS 12: Bomb Target (Kearny Field)

In the early 1940s, the Navy extended the runway at the former US Naval Air Station San Diego (now MCAS Miramar) and acquired additional land north of the field for the relocation of the Dive Bombing Target at the base. Practice bombs weighing three-pounds each were used in this target area prior to 1940 through approximately 1942. MRS 12 is located in the middle of the operational runways at MCAS Miramar and the majority of the site is currently covered by paved or concrete surfaces associated with the airfield. The 2007 PA found no evidence of MEC or munitions debris, and determined that soils were not a health concern to humans or the environment. (MPI, 2011c) MRS 12 was closed with NFA required on February 28, 2011.

3.2.2 Summary of Active MRP Activities

MCAS Miramar's MRP Program currently has six active Munitions Response Sites (MRS) on the air station. A summary of each active MRS may be found below.

3.2.2.1 MRS 1: Grenade Course

The Grenade Course comprises 30.4 acres and is in approximate center of the base, bisected by I-15. The western third of the site was used as practice range for grenades, including MKII, M21 practice grenades, and MKI1 training grenades, between 1941 and 1943. In October 2003, the Cedars Wildfire burned through the area east of I-15 where the Grenade Course is located. During the 2007 PA, there was no evidence of MEC, resulting in a recommendation for NFA for MEC at the site; however, during SI fieldwork in

2010, munitions debris was present, including one grenade handle and one cap from a can. Although these items represent a relatively low risk, the SI recommended an RI/FS for MC to ensure the site is clear of any potential hazards. (MPI, 2011d)

3.2.2.2 MRS 5: Skeet Range 1980

The Skeet Range was used between 1964 and 1980, providing up to eight firing positions for shot gun skeet (20 gauge) shooting. By 1996, natural vegetation covered the range completely. Following the 2007 PA, SI fieldwork in 2010 resulted in observations of munitions debris, including empty shotgun shells, shotgun shell pieces, and areas of accumulated lead pellets from expended shotgun ammunition. In addition, accumulated skeet fragments were also observed at the former range. Surface soil sampling resulted in detection of MC, including results above human health project screening levels for metals associated with shotgun shell debris. The SI resulted in the recommendation for an RI/FS with a focus on MC for MRS 5. (MPI, 2011e) A limited Removal Action is planned for 2012.

3.2.2.3 MRS 6: Pistol Ranges 5-7

MRS 6, approximately 3.68 acres in size with three ranges, is north of the airfield, south of Miramar Road, and on the northern side of Rose Canyon (IR Site 2), approximately 2,000 feet north of the former Camp Kearny boundary. It is estimated that the ranges were in use for two to three years for small arms (.45 caliber) training, between 1917 and 1920; since that time, the site has remained undeveloped.

No MEC was observed during SI fieldwork in 2010. Soil samples taken during the SI confirmed that metals associated with munitions had concentrations detected above the range of installation background metals values for soil and ecological project screening levels. In addition, concentrations of total lead

were detected above human health project screening levels. Based on these results, an RI/FS has been recommended for MRS 6. (MPI, 2011f)

3.2.2.4 MRS Site 10: Pistol Ranges 9-11

Pistol Ranges 9-11 are located in the southernmost portion of the installation, just north of the southern boundary, south of the airfield on the northern side of San Clemente Canyon, and north of the J. Harris Quarry site, which is privately-owned land used for sand and gravel extraction. The ranges were in use between 1917 and 1920 for small arms training with .45 caliber pistols. The site currently consists of approximately 1.98 acres of undeveloped land, much of which is located within the area where lead shot from a recreational range would be anticipated to occur. Soils sampling conducted during the 2010 SI resulted in metals values above Human Health Project Screening Levels, possibly due to overshot from the recreational range, based on the location of the surface danger zone of the recreational skeet and trap range. An RI/FS with a focus on MC has been recommended for MRS 10. (MPI, 2011g)

3.2.2.5 MRS 13: Bore Sight Range

The Bore Site Range was an outdoor range that was in use between 1946 and 1968. The range was used to calibrate wing-mounted guns on aircraft, and was located adjacent to the taxiway at the installation's airfield. In 1969, the outdoor range was replaced by a tunneled Bore Sight Range, which was used until 2000. Munitions used in this area included .30 caliber, .50 caliber cartridge, and 20 millimeter ammunition. The MRS is approximately 19 acres and is located adjacent to the active MCAS Miramar airfield. Currently, the area is covered by a tarmac associated with a flight line fueling station, former firing pads, and undeveloped land covered with sparse vegetation.

An SI was completed in 2010, which reported elevated levels for metals associated with munitions, yet all analytical results were below the risk

screening levels for human health. Munitions debris was observed during the SI, including projectiles from used target practice rounds. MRS 13 was recommended for an RI/FS with a focus on metals. (MPI, 2011h) An RI is scheduled in 2012.

3.2.2.6 MRS 15: Rifle Range – 200 Targets

MRS 15 is made up of 28 acres in the northwestern portion of the installation. The site was a former rifle range limited to .30 caliber rifle ammunition used between 1917 – 1920, consisting of a target berm and three firing lines. The site is currently located beneath the installation golf course and its parking areas, associated buildings on the east side of Anderson Avenue, as well as beneath the recreational field on the northeast corner of Anderson Avenue and Bauer Road.

A PA/SI for MRS 15 was conducted in 2010, at which time it was added to the installation's MRP. No evidence of MEC, munitions debris, or historical range features (berms) were observed during PA/SI fieldwork; however elevated metals values resulted in a recommendation for an RI/FS for MRS 15. (Trevet, 2011)

4.0 COMMUNITY BACKGROUND AND INTERVIEWS

4.1 Description of the Community

Specifically for the purposes of this CRP, four communities are considered the primary areas that may be potentially affected by the environmental cleanup activities on MCAS Miramar. These include the air station and the commercial area immediately outside the air station main gate on Miramar Road; Mira Mesa to the north; Scripps Ranch to the northeast; and Tierrasanta to the south. Figure 4-1 depicts the relative location of MCAS Miramar to its community neighbors.

4.2 Area Population and Profile

Table 4-1 provides a breakdown of the population of the communities on and around MCAS Miramar.

Figure 4-1: MCAS Miramar Community Neighbors Map

(City Line, 2007)

Table 4-1: Demographics of MCAS Miramar and Neighboring Communities

	MCAS Miramar	Mira Mesa	Scripps Ranch	Tierrasanta
Total Estimated Population (2010)	**5,029**	**78,394**	**34,906**	**31,989**
Household Population	1,675	74,827	34,693	31,969
Group Quarters Population	3,354	3,567	213	20
Total Housing Units	**527**	**23,819**	**12,207**	**11,436**
Single Family	72	15,858	9,601	8,509
Multiple Family	455	7,675	2,606	2,927
Mobile Home and Other	0	286	0	0
Vacancy Rate	2.3%	5.3%	4.8%	4.2%
Persons per Household	3.9	3.32	2.99	2.92
Median Household Income (adjusted for inflation: 1999 $)	**$35,166**	**$62,459**	**$63,658**	**$60,437**
Estimated Population by Race & Ethnicity				
White	N/A	26,371	24,129	19,914
Hispanic	N/A	9,575	2,960	3,674
Asian & Pacific Islander	N/A	34,189	5,664	4,228
Black	N/A	3,827	812	2,162
American Indian	N/A	251	82	319
Other	N/A	4,181	1,259	1,692
Estimated Population by Age & Sex				
Male	N/A	40,941	16,933	15,670
Female	N/A	37,453	17,973	16,319
Median Age	22.3	36.9	40.5	33.9

*(*SANDAG, 2011; Lincoln, 2011a*)*

4.2.1 Miramar

Before becoming a military air station, Miramar was a small, isolated community centered on a railroad station. Miramar was originally part of Scripps Ranch, founded by Edward W. Scripps in the 1890s; the name “Miramar’, loosely translated as “view of the sea”, was eventually applied to the surrounding mesa. No buildings from the original community survive. The area immediately to the north of MCAS Miramar is the suburb of Mira Mesa.

Today, Miramar is primarily a commercial and light industrial area, with residential areas inside the installation gates. The air station is subdivided into operations and support functions. Support functions include group quarters (barracks and dormitories), single family homes, and mobile homes. The San Diego Association of Governments (SANDAG), a clearinghouse for regional demographics information, reports that the residential population on base in 2010 was estimated at 5,029 people; of this population, approximately 3,300 reside in group quarters, and 2,000 in household units. There are a total of 527 housing units, with 72 single family homes and 455 multiple family units. (Lincoln, 2011a) The average number of persons per household is 3.9. The median household income (adjusted for inflation) in 2010 was $35,166, and the median age 22.3 years. (SANDAG, 2011) It should be noted that demographics information for the installation can vary significantly depending on current base operations and deployment status.

MCAS Miramar’s Marine Corps Community Services (MCCS) section provide resources for base residents and personnel, including retail, services, recreation, special events, food and hospitality, Semper Fit, and Marine & Family Services. MCCS provides employment for over more than 800 individuals, including military family members on a full- or part-time basis, and active-duty members on a part-time basis. (MCCS Miramar, 2011)

Recreation facilities on the air station include playing fields, a recreation center, a theater, a swimming pool, an auto hobby shop, and an eighteen-hole golf

course. In addition, multiple community service resources and retail shops are provided for families on the installation, including cleaners, markets, car rental, restaurants, a credit union, specialty stores, and the commissary and exchange, which serves air station residents, off-base personnel, and military retirees.

MCAS Miramar offers a Youth Center for children and teens under 18 years old. The installation completed construction of a new 16,000 square foot building in February 2010, offering programs to base youth, including a Part Day Preschool Program serving 3 to 5-year-olds, the School Age Care Program for 5 to 12 year olds, and a Teen Center for children 12 to 17 years old. In addition the Youth Program offers before- and after-school activates, summer programs, a teen center, homework labs, recreational spaces, a game room, a teen patio, and an outdoor playground for children of all ages. (MCAS Miramar, 2011) The MCAS Miramar School Liaisons program supports military children to ensure that they successfully navigate the many transitions unique to a military lifestyle. Children who live on the base typically attend San Diego Unified School District's elementary, middle, and high schools in the neighboring community of Mira Mesa.

Installation officials are continually striving to improve the quality of life on the base for service members, families, and visitors to MCAS Miramar. In support of this, numerous facilities construction and remodeling projects have been planned, initiated and completed. (MCAS Miramar, 2011) Recent projects include:

- Golf Course Clubhouse and Staff Non-Commissioned Officers (NCO) Club;
- Human Resource Service Center;
- Consolidated Brig Expansion;
- Hangar 6 on the Flight Line;
- New Marine Combat Water Survival Training Facility;

- Recycled Water Irrigation System;
- Aviation Fuel Storage Facility;
- Military Working Dog Complex;
- Youth Center; and
- Fuel Pits and Airfield Apron Modification.

Additional services on the installation include healthcare, safety, postal, and fire services. The Branch Medical Clinic provides Family Practice, Acute Care, Occupational Health, Optometry, Pharmacy, and Midwife services to active duty personnel, dependents, and retirees.

4.2.2 Mira Mesa

Established in the 1950s as a residential area to support the former NAS Miramar, Mira Mesa has grown into one of the largest communities in San Diego. In the late 1960s, an area comprising approximately 10,500 acres was rapidly developed, extending from the I-15 freeway on the east to the I-805 in the west, and from Los Peñasquitos Canyon in the north to Miramar Road to the south. The area boasts a diverse community, including large Filipino and Vietnamese populations, and a balanced ratio of business and residentially zoned areas, providing abundant shopping and recreational opportunities, as well as business buildings with cutting edge technology facilities and office space. A variety of ethnic cuisines and restaurants are available throughout the community. Along with its eight community parks, the area boasts community resources ranging from teen and senior centers to an ice arena, an aquatic complex, and a junior college. Mira Mesa Ridge provides military housing to the community through the DON's Public Private Venture (PPV) housing program. Sixty-five 2- and 3-bedroom townhomes, including a children's play area and a half-court basketball court, are located approximately three miles north of MCAS Miramar. (Lincoln, 2011) The Mira Mesa Town Council is a volunteer organization that works toward the improvement of the Mira Mesa Community.

The MMTC holds monthly meetings that provide information to the community and act as a forum for identifying and solving community problems. (MMTC, 2011) The Mira Mesa Community Planning Group is a citizen organization that meets monthly to advise the City on land use-based community goals and development proposals.

Mira Mesa is now home to approximately 78,000 residents, including students, high-tech employees, families, and single people, alike. There are more than 23,000 homes in the community, averaging 3.32 persons per household. The median age is 36.9 years old and the community boasts a median income of approximately $62,000 per year. (SANDAG, 2011) At build out, which is estimated to occur after the year 2010, Mira Mesa is expected to house 82,600 people in 28,300 dwelling units, a 5% and 16% increase from the 2010 estimates, respectively. (City of San Diego, 2011a)

4.2.3 Scripps Ranch

Scripps Ranch was a 400 acre ranch purchased in 1980 by newspaper publisher E.W. Scripps and his half-sister, Ellen Browning Scripps. Eventually E.W. Scripps acquired 2,100 acres of land with a climate and foliage that reminded him of Algeria. He built his home on the land and named it Miramar, after the Archduke Maximilian's castle in Trieste, Italy.

Scripps Miramar Ranch is one of two communities that make up the Scripps Ranch Community. It is located east of Mira Mesa and Interstate 15, North of MCAS Miramar, and South of Poway. The Scripps Miramar Community Plan was adopted by the San Diego City Council in 1978, setting forth a plan to maintain the area's motto, *Scripps Ranch - Country Living*, by offering scenic parks, community facilities, landscaped neighborhoods, and inviting business parks. The Scripps Ranch Community Planning Group serves as an advisory voice to the Scripps Miramar Ranch Planning Committee on land use matters within the community boundaries.

The Scripps Ranch Civic Association serves the primary role of coordination and promotion of news and events in the community. In addition, they are a primary source of information for the area, offering an informative monthly newsletter for residents. Additional organizations in the area include an information center, a community theater, a senior center, sports facilities, and a San Diego County branch library. (City of San Diego, 2011b; SRCA, 2011)

The military community is served by Lincoln Military Housing's PPV property, Pomerado Terrace, which serves enlisted personnel and their families in two and three bedroom homes with tot lots, playgrounds, tennis courts, and a community center. Pomerado Terrace is less than 5 miles from MCAS Miramar. (Lincoln, 2011)

Scripps Ranch is home to more than 78,000 people, with an average of 3.32 persons per household. There are almost 16,000 single family units and more than 7,600 multi-family units in the community. The median household income (adjusted for inflation) is $62,459 and the median age of the community members is 36.9 years. (SANDAG, 2011)

4.2.4 Tierrasanta

Tierrasanta was originally part of the Mission San Diego de Alcalá mission ranch, which was active during the late 1700s and 1800s. The U.S. military purchased the land in 1941 as Camp Elliot, a Marine Corps training facility. In 1961 the area that is now Tierrasanta, along with a portion of neighboring Mission Trails Regional Park, were declared surplus and sold. In 1962 the Elliott Community Plan was issued to serve as a roadmap for future development; Tierrasanta was subsequently founded in 1971 as one of the first master planned communities in San Diego.

Tierrasanta is situated like an island, not directly bordered by any community. It is comprised of approximately 6,700 acres, bounded on the north by freeway 52

and the southern fields of MCAS Miramar, on the east by the 5,800 acre Mission Trails Regional Park, on the west by I-15, and on the south by steep canyons overlooking the San Diego River and Mission Valley. Community activities typically are held at the Tierrasanta Recreation Center, which offers lighted ball fields, a large swimming pool, tennis courts, a gymnasium, and meeting rooms. The elected Tierrasanta Community Council has responsibility for community planning and for advising the City of San Diego and other State and Federal government agencies. There are three primary commercial areas in Tierrasanta serving the needs of the community with more than 70 businesses, banks, retail, service, and office spaces. In addition, there is a Navy Exchange "mini-mart" in the Murphy Canyon area of the community.

Tierrasanta has been fully built out since the early 1990s; the population has grown from 173 persons in 1971 to an estimated population of 31,989 in January 2010. There are currently 11,436 housing units in the area, with 8,509 single family and 2,927 multiple family units. The average number of persons per household is 2.92 and the median household income is $60,437. (SANDAG, 2011)

Murphy Canyon, encompassing the southwest sector of Tierrasanta, accommodates a DON PPV housing program development, providing moderate cost rentals to Navy enlisted personnel, including MCAS Miramar families. Two developments offer three- and four-bedroom single-family homes, constructed between 1972 and 1975, recently renovated under the PPV. Other recent improvements to the housing area include enhanced community-based resources, with community centers, public pools, and play areas. (Lincoln, 2011) The remainder of residential Tierrasanta is a combination of traditional subdivisions and planned residential developments. The mixing of these two types of housing, in conjunction with the undeveloped canyons which penetrate the area, gives Tierrasanta the appearance of several separate neighborhoods joined together to form a larger community. (City of San Diego, 2011c)

4.3 Education and Community Services

4.3.1 Education

The Education Center at MCAS Miramar offers adult education on the air station, including classrooms in which local colleges teach a wide range of courses. The Center currently offers programs at the certificate, associates, bachelors and masters levels. In addition, they provide proctor services for exams, such as Military Classification Tests, the CLEP, SAT and ACT. The staff has developed programs to meet the special needs of active duty personnel, including courses via the Internet, SMART transcripts, and the Military Apprenticeship Program. The Education Center is located in The Hub (Building 535), along with the air station Library and the Career Resource Center, serving active duty, retired, and military family members.

San Diego Miramar College is located on Hourglass Field, property that originally served as an auxiliary landing area for NAS Miramar. The community college, originally established as a training facility for San Diego's law enforcement personnel and firefighters in 1969, has grown to include a high-tech computer business center, library, police academy, child development center, digital media lab, online "bullpen," science/technology center, advanced transportation center, and an expansive athletic complex, including the largest aquatic complex in San Diego County. Approximately 13,000 diverse students attend Miramar College classes each semester. Recent public bond measures have provided funding for the new construction on campus to assure students first-class facilities and state-of-the-art technology. (Miramar, 2011)

Alliant University (formerly United States International University [USIU]) is located north of MCAS Miramar on Pomerado Road in Scripps Miramar Ranch. Alliant serves approximately 1,600 students on the 60-acre campus with on-site housing, a dining hall, the Alliant SportCenter, and a renowned library. Undergraduate and graduate degrees are available, with a primary focus on

preparing students for professional careers in the applied social sciences. (Alliant, 2011)

San Diego Unified School District (SDUSD) serves the Kindergarten through 12th grade (K-12) public education needs of MCAS Miramar's families and neighboring community members. Mira Mesa meets the needs of students in the Miramar and Mira Mesa communities with one senior high school, two middle schools, and six elementary schools. In addition, there are several private schools in and around Mira Mesa. Tierrasanta provides public education primarily to residents of Tierrasanta and Murphy Canyon, with one senior high school, two middle schools, and five elementary schools, of which two are on Murphy Canyon Navy Housing property. Scripps Ranch offers K-12 public education to the community with one high school, one middle school, and four elementary schools. Public education options for Miramar and the neighboring communities are summarized in Table 4-2.

Table 4-2: K-12 Public Education Resources

Community	School Classification	School Name
Mira Mesa	Elementary School	Ericson Elementary
Mira Mesa	Elementary School	Hage Elementary
Mira Mesa	Elementary School	Hickman Elementary
Mira Mesa	Elementary School	Mason Elementary
Mira Mesa	Elementary School	Sandburg Elementary
Mira Mesa	Elementary School	Walker Elementary
Mira Mesa	Middle School	Challenger Middle
Mira Mesa	Middle School	Wagenheim Middle
Mira Mesa	High School	Mira Mesa High
Scripps Ranch	High School	Scripps Ranch High
Scripps Ranch	Middle School	Marshall Middle
Scripps Ranch	Elementary School	Dingeman Elementary
Scripps Ranch	Elementary School	E.B. Scripps Elementary
Scripps Ranch	Elementary School	Jerabek Elementary
Scripps Ranch	Elementary School	Miramar Ranch Elementary
Tierrasanta	Elementary School	Hancock Elementary
Tierrasanta	Elementary School	Kumeyaay Elementary
Tierrasanta	Elementary School	Miller Elementary
Tierrasanta	Elementary School	Tierrasanta Elementary
Tierrasanta	Elementary School	Vista Grande Elementary
Tierrasanta	Middle School	DePortola Middle
Tierrasanta	Middle School	Farb Middle School
Tierrasanta	High School	Serra High

4.3.2 Libraries

Installation personnel, family members, air station employees, and interested community members living in the neighboring communities of Mira Mesa, Scripps Ranch, and Tierrasanta have access to the City of San Diego's Public Library system. Individuals with access to the installation may also visit the MCAS Miramar Library. The Mira Mesa Branch Library is located at 8405 New Salem Street, approximately two miles from the air station's north gate, less than two miles from Scripps Miramar Ranch, and 8.5 miles from Tierrasanta in the most densely populated area adjacent to the installation. The library has an established area in the Reference Section for documents pertaining to MCAS Miramar. With the existing installation resources already on site, as well as its proximity to the base and the neighboring communities, the Mira Mesa Branch Library was established as the location for MCAS Miramar's ER Program Community Information Repository in conjunction with the December 2007 CRP, serving individuals without access to the installation. This location provides a copy of the complete AR index and pertinent documents available for public review. The Information Repository is located in the Reference Section of the library, grouped with other documents pertaining to MCAS Miramar. Contact information and hours for the Mira Mesa Branch Library and the Information Repository can be found in Appendix A.

4.3.3 Public Affairs Office

The primary mission of the MCAS Miramar's Public Affairs Office (PAO) is to tell the stories of Team Miramar's Marines, Sailors and civilians, boosting the public's awareness of the unique elements and contributions of the Marine Corps through direct and effective communication with active and retired military, base personnel, members of the surrounding communities, and people across the nation and around the world. Programs offered include MCAS Miramar's *Flight Jacket*, the authorized installation publication for Miramar,

Media Relations, Community Relations, and bi-weekly tours of the installation. In addition, the PAO coordinates Educators' Workshops several times each year to familiarize educators from west of the Mississippi River about opportunities the Marine Corps provides. The base also promotes community development through active participation in San Diego City School's Partnerships in Education program, designed to promote student achievement through shared time and resources.

4.3.4 Community Plans and Liaison Office

MCAS Miramar's Community Plans and Liaison (CP&L) Office's mission is chartered to promote educational outreach within surrounding communities of MCAS Miramar. This task is achieved by implementing sustainability strategies through expansive community outreach and educational forums to ensure compatible land use planning within surrounding communities.

The CP&L Office consists of two functional areas with one common goal; Land Use and Community Relations. The common goal of these functions is to ensure the continued role of MCAS Miramar as a facility capable of supporting USMC mission essential training requirements to meet national security objectives by integrating within the planning process. The CP&L Officer is responsible to the Commanding Officer for ensuring that potential encroachments and sustainability objectives are met, and problem areas are identified in a timely manner.

MCAS Miramar's CP&L Office facilitates liaison between the installation and surrounding communities affected by MCAS Miramar operations. The CP&L Community Leaders Forum (CLF) provides an opportunity for leaders in the neighboring areas to communicate directly with base representatives regarding current issues, proposed plans, and any interests or concerns, promoting open, two-way communication. Numerous interview participants suggested utilizing

MCAS Miramar's CP&L as an efficient and effective means of communication for ER Program information and updates.

4.3.5 Community-Based Media Outlets

Local community news sources include:

The MCAS Miramar Flight Jacket

The Mira Mesa Scripps Ranch Sentinel

The Tierra Times

The Navy Dispatch

There are four community newspapers that provide information to MCAS Miramar and its neighbors.

The *Flight Jacket* is MCAS Miramar's online publication serving the installation and the surrounding community. It is electronically distributed bimonthly. The *Flight Jacket* communicates the outstanding accomplishments of MCAS Miramar's personnel and its tenant organizations and other important community information. The publication reaches active duty, reserve, and retired military, their families, employees on the air station, and members of the surrounding communities. It is available at http://www.3maw.usmc.mil/flightJacket/fj/fj.asp.

Each Thursday, the *Mira Mesa Scripps Ranch Sentinel* is published, providing community news and events to members of the Mira Mesa and Scripps Ranch communities. It is available at a number of locations in the area, including the Mira Mesa Branch Library.

The *Tierra Times* is the community service newspaper serving Tierrasanta and Murphy Canyon. Information pertinent to local community members is available, as well as a comprehensive listing of community resources. It is published 16 times per year, approximately every third Thursday. The newspaper has a circulation of 10,000 copies, including direct mailing to all residents in the community and additional copies distributed to the Tierrasanta Branch Library, as well as other high traffic locations around Tierrasanta.

The *Navy Dispatch* is the largest and oldest weekly military paper in San Diego County. Weekly Thursday direct mail and doorstep deliveries to all the military bases in the county, ships in port, military housing units, and military households in the civilian community provide circulation of the paper to both military personnel and civilians.

4.4 Community Involvement Activities

During July 2011, community interviews were conducted in support of an update to the 2007 Community Relations Plan (CRP) for the IR Program on the installation. Interviewees included community members in the vicinity of the installation, businesses, and community planning groups. Overall, community members reported limited knowledge regarding MCAS Miramar's environmental cleanup programs, previous outreach efforts by the Marine Corps, and media coverage specifically related to the Environmental Restoration (ER) Program, including both the Installation Restoration and Munitions Response Programs. They expressed interest in receiving an overview of the ER Program and more detailed information in a timely manner in anticipation of cleanup activities. The primary concerns that interview participants expressed included the impact of cleanup operations on the surrounding communities and the effects of the remediation process on natural resources.

In May 2009, NAVFAC SW issued a Site Management Plan (SMP) for MCAS Miramar's IR Program. This document serves as a planning and coordination tool for managing the wide variety and numerous environmental restoration activities being implemented at IR Sites identified at MCAS Miramar. In addition, it serves as a valuable reference tool for state and federal regulators, as well as the public, providing summary information on the IR Sites on the installation. (BRG, 2009)

On December 21, 2009, a Public Notice was published in the San Diego Union-Tribune to notify the public of the installation's Munitions Response Site

Prioritization Protocol, specifically in relation to the eleven former training areas under evaluation with MRP. The Public Comment Period was available to the public through January 20, 2010.

On May 18, 2012, a Public Notice was published in the San Diego Union-Tribune to notify the public of the availability to review the *Action Memorandum* (AM) *for Addressing Contamination at IR Site 5*. The notice was also posted at the Information Repositories and on MCAS Miramar's dedicated ER Program web pages. The AM was available at the Information Repositories throughout the Public Comment Period, which ended June 17, 2012.

A Public Notice announcing the availability for the public to review the AM for a Time-Critical Removal Action at MRS 5 was published in the San Diego Union-Tribune on August 1, 2012, with an open public comment period through August 30, 2012. The AM document and the public notice were both available at the Information Repositories and on MCAS Miramar's dedicated ER Program web pages throughout the Public Comment Period.

4.5 Media Coverage on Environmental Activities at MCAS Miramar

Research was conducted to determine the breadth and depth of attention that the media had given to cleanup activities at MCAS Miramar since the 2007 CRP. Electronic research was conducted utilizing the Gale database, which integrates a variety of sources including newspapers, reference books, magazines and trade publications, providing local and national access to 66,856,352 documents from 1980 to date. No articles were discovered during this search.

Additional research was conducted electronically utilizing the San Diego Union Tribune's (SD U-T) online resource, SignOnSanDiego.com, providing access to current and historical articles from the region's leading newspaper. An article dated October 15, 2010 entitled *Shotguns Silenced At Miramar Civilian Skeet Range* discussed the effect of the closure of the San Diego Shotgun Sports

Association's (SDSSA) trap and skeet range, located on MCAS Miramar property at IR Site 19. The article cited the confirmation that the base had opted not to renew the lease with SDSSA due to the impact that past and future activities have on the environment, and that cleanup would proceed. This *SD U-T* article was picked up by *Free Republic*, an online News/Activism source. Numerous blog posts to both the original *SD U-T* article and the reprint on *Free Republic's* site were made by individuals, both in favor and against the range closure. An earlier online article on SignOnSanDiego.com, dated June 3, 2009, provided information from the SDSSA president regarding his organization's wishes to keep the range open.

As a supplement to the Gale database and the *SD U-T* archives, a general Internet search was done, querying MCAS Miramar environment cleanup issues. Only one relevant link was returned, which was on Congressman Duncan Hunter's official website. The link was to a press release dated June 16, 2009 in which the Congressman announced that he would offer an amendment to the FY 2010 Defense Authorization Act to restart recreational shooting activities at MCAS Miramar.

Other than the articles on the skeet range referenced above, only one other article was found that pertained to the MRP or IR Program on base. The December 14, 2008 article titled Crash Renews Calls for Base to be Vacated discussed renewed sentiment by some nearby residents in the wake of an F/A-18D Hornet crash in University City. The reference to environmental cleanup on MCAS Miramar was not specific, but was implied that the military must maintain good stewardship, citing environmental issues on other military facilities in the San Diego area.

4.6 Community Interviews

Community interviews were conducted in compliance with community relations and public participation guidelines and requirements set forth by federal and state laws and amendments. The purpose of these interviews was to evaluate the level of knowledge about, and interest in, environmental cleanup activities at MCAS Miramar; to assess citizen concerns about site cleanup; and to identify appropriate community relations measures to address the concerns and engage the public.

The original scope of community interviews for the previous CRP included people living and/or working on base and in the surrounding communities of Miramar, Mira Mesa, and Tierrasanta. During the previous community interview process, it became evident that additional base neighbors should be included as stakeholders in the community relations process. In accordance with participants' feedback, members of the community of Scripps Ranch (northeast of the installation) were included in the current interview process, expanding the target number of communities to the four directly adjacent to installation property.

A questionnaire was developed in conjunction with DTSC and RWQCB in accordance with EPA and Navy guidelines. Appendix C contains the interview questions presented in the online survey. A summary of participant responses is available on the MCAS Miramar IR Program web pages; selected responses are included in this section, with editing for clarity or duplication as necessary.

Members of the Miramar, Mira Mesa, Scripps Ranch, and Tierrasanta communities participated in interviews for this CRP.

A cross-section of members of the community participated, including residents, businesspeople, community and environmental group members, community and educational services, and elected officials. One hundred and nineteen

individuals and groups were contacted to participate in community interviews, resulting in 31 respondents (26%), a six percent increase from the 2007 survey response results. Of these 31 respondents, 26 elected to complete the survey, and four declined. (One person skipped the question confirming their interest in participating in the survey.) Participation results are depicted in Figure 4-2.

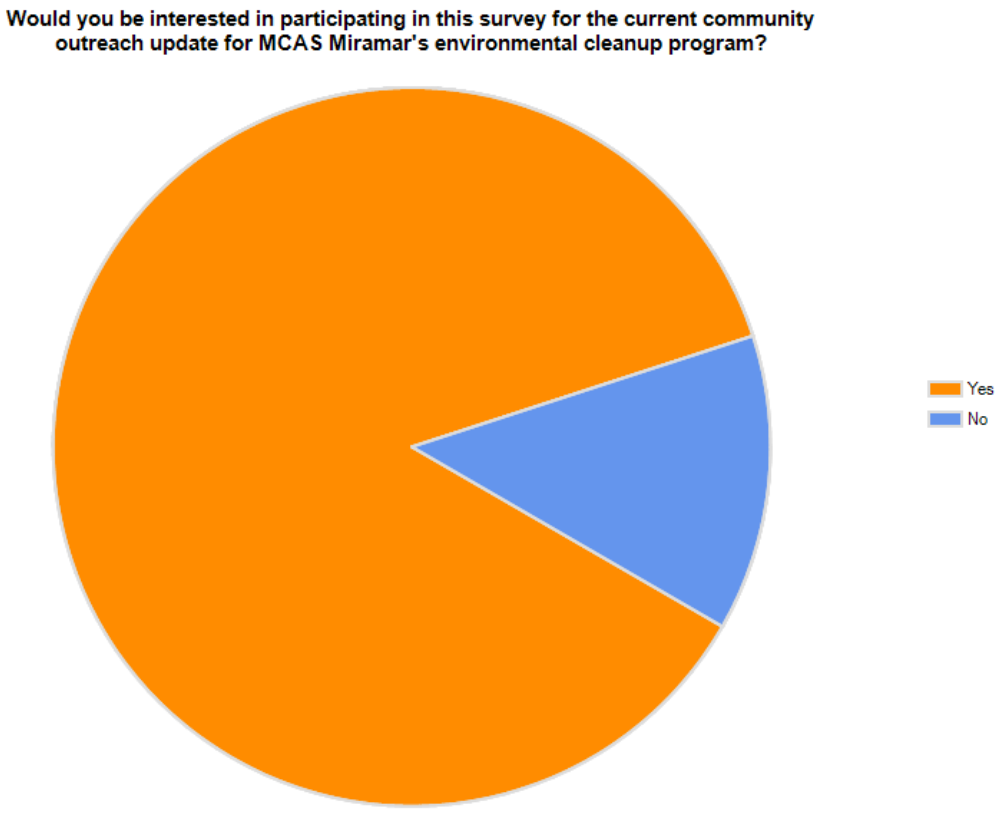

Figure 4-2: Survey Participation Response Rate

Three interviewees were located on base; the community of Tierrasanta was represented by 17 interviewees; five individuals participated from Scripps Ranch; and one respondent was from Kearny Mesa. The balance 5 interviews included interested individuals and groups physically located outside of the expanded community boundaries for this CRP.

During June 2011, members of Barrett Resource Group (BRG) contacted prospective interviewees via telephone and/or email. All prospects were offered the opportunity to participate in face-to-face or telephone interviews with Navy, Marine Corps, and contractor representatives; alternatively, the ability to participate electronically via email, fax, or Internet (online) electronic survey was offered. One hundred percent of participants elected to participate in the Internet survey during July 2007. A matrix of the interviewees by interest group is presented in Figure 4-3. A full list of interviewees is provided in Appendix D.

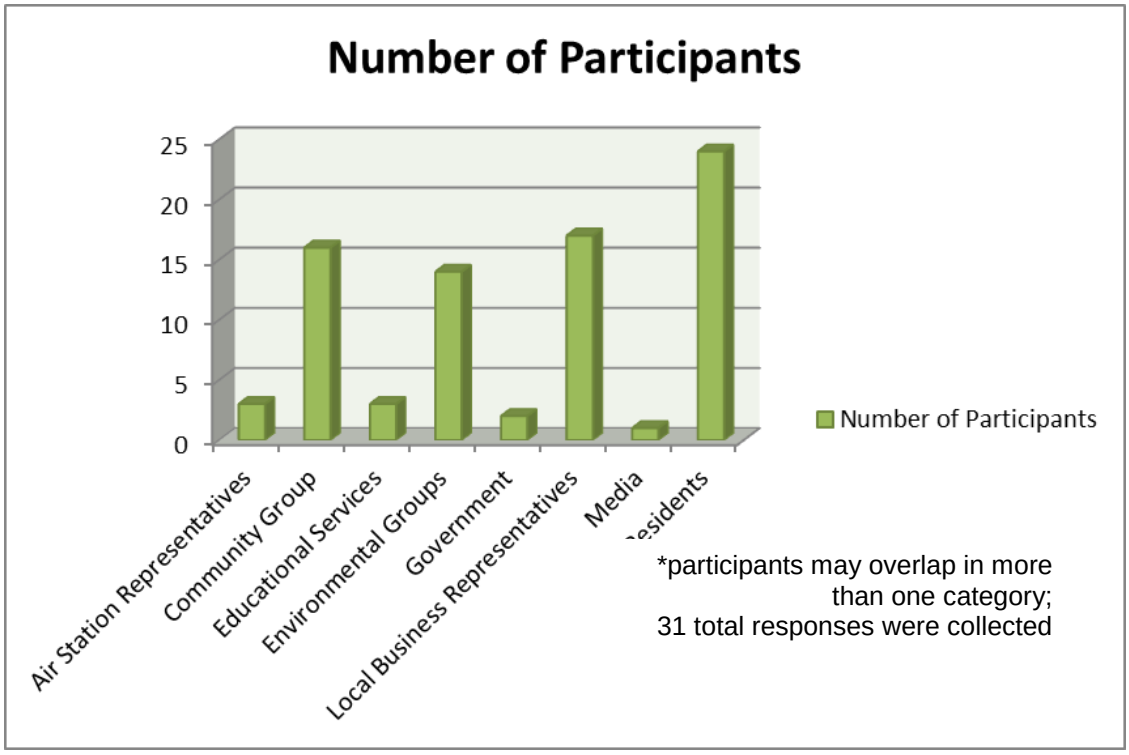

Figure 4-3: Community Interview Matrix

4.7 Interview Topics and Results

This section provides information from the July 2011 interviews.

Interview questions were developed to gather information about the following:

- Community Background
- Familiarity with the IR Program at MCAS Miramar
- Environmental and community concerns
- Interests in receiving information
- Knowledge of past community involvement and contact with the Marine Corps
- Confidence in the Marine Corps to cleanup MCAS Miramar and of the regulatory agencies to provide effective oversight
- Suggestions for community involvement outreach and recommended media resources
- Locations for Information Repositories and community meetings
- Additional comments and concerns

4.7.1 Community Background

In order to determine the stability and diversity of the cross-section of the community interviewed, interviewees were asked several questions, including length of time that they had lived and/or worked on or around MCAS Miramar, as well as any affiliation that they may have with community organizations and/or environmental groups. In accordance with respondents' feedback, the scope of the interviews was expanded to include the communities of Scripps Ranch, University City, and Kearny Mesa.

Of the 26 responses received to the question, 88% reported living in the communities surrounding the installation. The average number of years reported for residents was 20.83 years. Fifty-eight percent of the interview participants advised that they work on or around MCAS Miramar, averaging 13.13 years. Nine interviewees both live and work in the area on or surrounding the base, and 69% of respondents were members of more than one category, as outlined in Figure 4-3.

Fourteen of the 26 interviewees (54%) reported involvement in one or more of the 15 community and/or environmental groups mentioned, including citizen advisory boards, civic organizations, community councils, youth organizations, environmental groups, planning committees, and housing committees. A comprehensive list of community groups referenced during the community interview process is provided in Appendix G.

4.7.2 Familiarity with the MCAS Miramar ER Program

In order to gauge the success of past community outreach, interviewees were asked several questions regarding communications with the community. As depicted in Figure 4-4, overall, knowledge about environmental cleanup activities on the installation appears to be limited, with 22 individuals, or 85%, reporting little or no knowledge. Four interviewees (15%) advised that they were "somewhat knowledgeable" with cleanup initiatives. One individual advised that they have "some knowledge" regarding munitions in the Tierrasanta area.

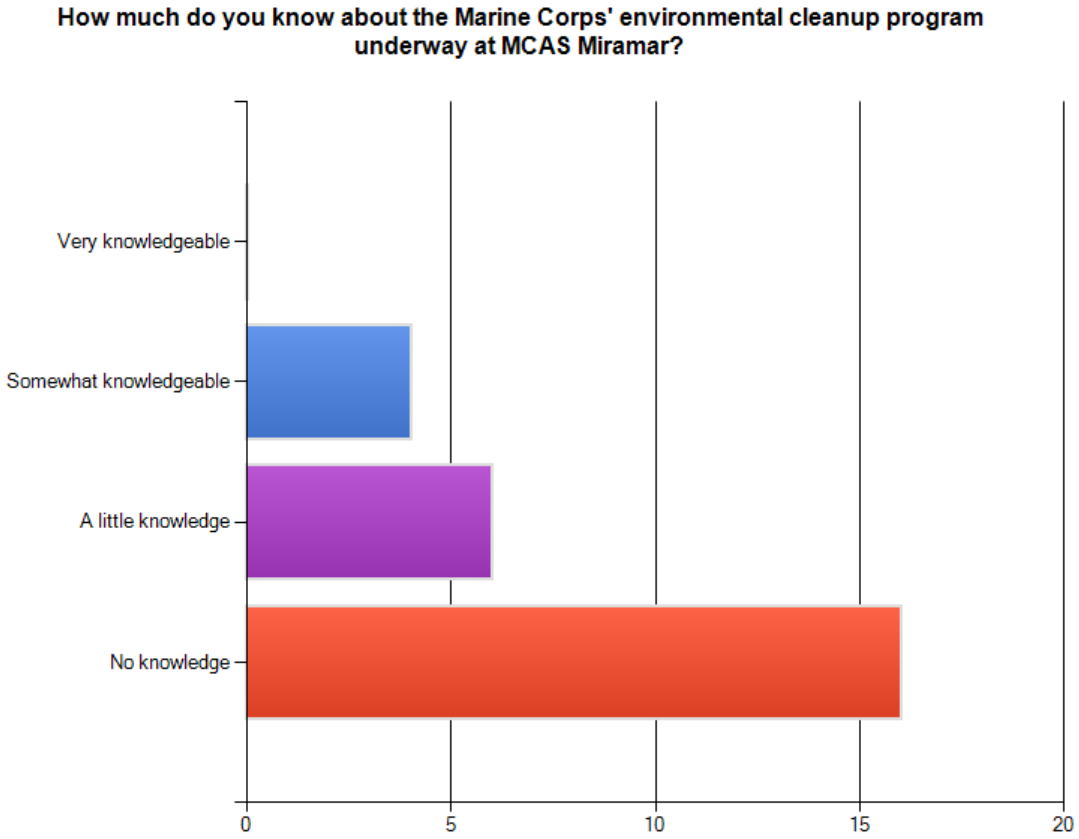

Figure 4-4: Community Member Program Knowledge

Participants were asked what type of information they had received on base cleanup initiatives, including fact sheets, flyers, posters, news articles, or via the Internet. Participants were able to answer in more than one category, resulting in fourteen responses advising access to information via fact sheets (4), flyers

(3), news articles (5), and the Internet (2). Respondents advised that various outlets provided the information, including Tierrasanta's local newspaper (*Tierra Times*), local news stations, and MCAS Miramar representatives. In contrast, 69% (18 responses) advised that they had not seen any information.

In addition, participants were asked questions about the 2007 Community Interviews and the subsequent CRP (BRG, 2007). Seven percent of respondents (2 people) advised that they had participated and, similarly, nine percent (2 people) advised that they were aware of the CRP document. Of these respondents, both people advised that they had reviewed the CRP document.

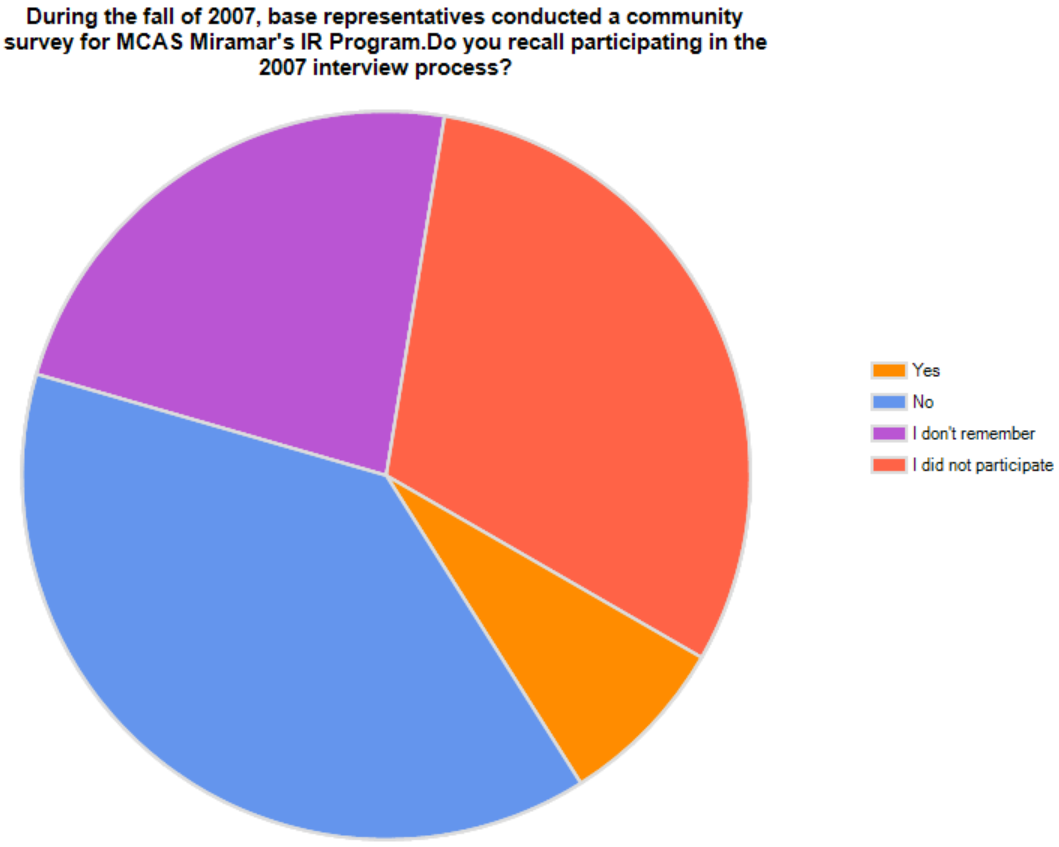

Figure 4-5: Participation in 2007 CRP Interviews

4.7.3 Environmental Concerns

An average of twenty-two percent of respondents expressed interest or concern about the installation and its environmental cleanup efforts. Seven specific comments were made regarding concerns, including the extent of cleanup to ensure the safety of community members; program scope and public involvement; the impact of base activities on Rose Creek and San Clemente canyon; past munitions and hazardous wastes cleanup (3); and the base-related traffic impacts to Tierrasanta. Three of the respondents requested not to be contacted regarding their concerns.

An average of 28% advised that they do not have any current concerns and 41% advised that they did not know if they had any concerns.

Individual concerns about environmental cleanup on MCAS Miramar include:

… the safety of the people who will be living there- that they will be at high risk.

… the scope, guidelines & standards, impact on neighborhoods, etc.

... the impact of base activities on Rose Creek and San Clemente Canyons

… old dumping practices, fuel in soil, and the impact on the environment from old Camp Elliott munitions.

… the gun range and… fallen parts from planes.

The military is responsible for using any and all technology and man power to make sure no other land in Miramar property area is contaminated with old ordnance.

[With regard to new military housing,] MCAS access road to Santo Road will overload traffic.

4.7.4 Community Concerns

When asked how interviewees would characterize the concerns of the community with regard to environmental cleanup activities on the installation, it became evident that the surrounding communities were not especially concerned about cleanup activities on base. Overall, participants advised that the community either isn't aware of cleanup efforts on base (27%), or have a positive or neutral perception of the program (18% each). Thirty-one percent advised that they did not know what the community's perception of the base environmental program is.

When asked if they felt that there were any community concerns regarding environmental cleanup on base, of the 22 people that responded to the question, 11 (50%) advised no knowledge regarding community concerns, and four (18%) reported that community members had little to no concern. Seven (32%) advised that members of the surrounding community were very concerned or interested. Open-ended responses regarding overall community concerns included the impact of cleanup on the community (3), soil and water concerns (2), general program awareness (1), and past munitions sweeps in the Tierrasanta area (1).

4.7.5 Prior Program-Related Contact

Interviewees were also asked if they had had previous contact with the Marine Corps, local, state, or other officials regarding environmental activities at MCAS Miramar. Three participants (11.5%) advised that they had contacted at least one of these program-related groups, with one citing Marine Corps contact, one reported participation in community-based group meetings, and one advising communication with all of these groups. With regard to the specific nature of contact made regarding the cleanup program on the installation, program information and community updates were cited by two individuals, and one person advised that they periodically attend the base CP&L Office Community Leader's Forums. When asked what kind of response they received, all three reported a positive response to questions and/or receipt of information.

Responses from the three participants who responded to the questions on Prior Program-related Contact were positive:

** [I received] tentative [program] plans during presentations.*

** [The Marine Corps was] very responsive to my questions.*

** [The Marine Corps response was] prompt, complete, and accurate.*

4.7.6 Interests in Information

Community members requested specific information on base cleanup, including:

How will this cleanup be the same or different than the cleanup performed in Tierrasanta?

[I am interested in information on] fire-related and wildlife-related [topics].

[I would like information on] cleanup activities that impact natural resources, including vernal pools.

[I would like information on] the certification of areas that have been cleaned and will be used for housing or land development.

[I would like information on] soil contaminants and water.

Interviewees expressed a limited range of interests for future information. One individual requested information on the effect to natural resources on and around the base, particularly vernal pools. One person requested information on certification of areas under the program footprint that will be used for housing or land development, and one referenced a need for information as it relates to fire and the impact on local wildlife. Four people requested a general overview of the program, with two specifically interested in program timelines, process, and expenses. Five other individuals were interested in any information available to share with the community.

Of the 13 participants who advised that they would like to receive future updates, 100% advised that email would be the best mode of communication. Additional responses include MCAS Miramar's website (23%); MCAS Miramar's Environmental Program website, Fact Sheets, Community Meetings, Site Tours or Open Houses (15% each); and newspaper articles or U.S. Mail (8% each). Regarding frequency of updates, the majority of respondents (39%) advised that they would like to receive information as is appropriate with program developments; 23% each suggested once or twice per year; and 8% each suggested quarterly or every two years.

Proactive outreach efforts for future activities are described in Section 5.4, Implementation of the Elements of the Community Relations Plan.

4.7.7 Information Repositories

The MCAS Miramar Environmental Restoration (ER) Program complies with CERCLA requirements for an Information Repository by maintaining a storehouse on the installation in the Environmental Management Department. In order to provide access to documentation to community members who do not live or work on base, in accordance with feedback from the 2007 CRP Interviews, an Information Repository was established at the Mira Mesa Branch Library in 2008. Relevant program-related documents may be found in the Reference Section; documents may be reviewed on-site but are not able to be removed from the library. Current interview participants were asked if they had visited either of the program repositories; one hundred percent of respondents advised that they had not visited either location.

In an effort to expand program resources, an Internet repository was established in conjunction with the development of a community outreach website for the ER Program at MCAS Miramar in 2009. This website provides program information, technical terminology, relevant links, contact information for program personnel, and available documents for download and review. Interviewees were asked if they had visited the Internet repository. Of the 21 people who responded, two (10%) advised that they had visited the site; both advised that they found the information posted on the site informative and easy to navigate. A suggestion was made to provide updated program SIs when they become available. Fifty-nine percent of respondents advised that they would like to receive updates on the web-based Information Repository.

4.7.8 Recommended Media Resources

Federal and state laws require publishing public notices to announce the availability of specific documents for public comment, such as PPs and EE/CAs, as well as the location of the Information Repositories prior to a cleanup action. Results for the most effective media for program communications is provided in Figure 4-6. The most popular methods of mass communication, representing 8 responses each, were via the Internet and newspapers, including community-based newspapers (1). The least effective modes of communication include radio and television. Seventy-seven percent of interviewees reported most frequently reading the *San Diego Union-Tribune* (SD U-T). Additional news outlets were mentioned, including the *New York Times* (3), *Tierra Times* (2), *Wall Street Journal* (2), *Los Angeles Daily Journal* (2), *Los Angeles Times* (2), *Voice of San Diego* (2), and *Washington Post* (1). Interviewees listed a variety of radio stations as media sources, although there was no consistent pattern. The radio station most frequently cited was Jack (FM 100.7), representing 4 of the 37 (11%) stations listed followed by KPBS (FM 89.5), representing 3 responses (8%). Other frequently mentioned stations included 101.5 KGB, 103.7 Sophie, and KFMB 760, each with two responses. Twenty-two other stations were each offered once. Overall, it is apparent that radio is not an effective means of communication to reach the greater MCAS Miramar community. Time Warner Cable (TWC) is the primary cable provider to the communities surrounding MCAS Miramar, serving Miramar, Mira Mesa, Scripps Ranch, and Tierrasanta. Cox Cable also provides service to portions of Scripps Ranch, as well as University City. For the purposes of this CRP, TWC is considered the primary provider for the area being studied.

Interview participants reported viewing several television stations, of which the most popular being the local CBS affiliate (TWC Channel 8) at 26%, followed by the NBC affiliate (TWC 7) at 20%. Other frequently watched stations included the ABC affiliate (TWC Channel 10), and the FOX affiliate (TWC Channel 5), both with a 9% response rate. The four median answers, with 2 responses each (6%), included "no television", "cable", ESPN, and KUSI (TWC 9).

There are two cable community access and/or county channels available to subscribers. None of the respondents advised that they watched either of the community access or county channels.

Local media resources are listed in Appendix E.

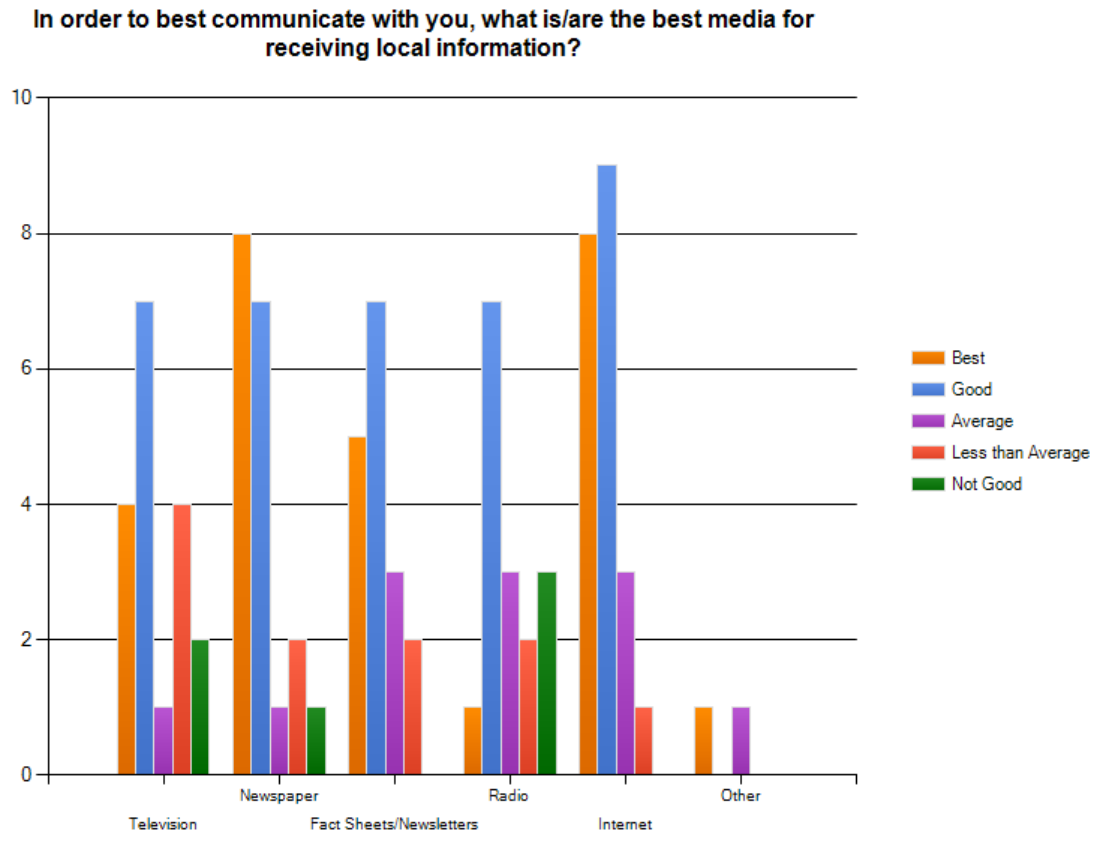

Figure 4-6: Preferred Media for Program Communications

4.7.9 Social Media

Social networking entails the interaction among a group of people who share common interests. Social network sites have been developed on the theory that individual computers can be linked electronically, forming a backbone for computer-aided social interaction and networking. (Hiltz, 1993) Social networks' increase in popularity and usability make them powerful tools for communications among individuals, as well as between businesses, educators, researchers, and other entities interested in sharing and receiving information. The method of communications are broad, including interaction through chat, messaging, email, video, file-sharing, blogging, forums, discussion groups, and applications.

In an effort to improve communication and IR Program outreach efforts, initial steps at understanding the interest in and effectiveness of social networking as a possible tool for Environmental Restoration (ER) Program outreach were taken. New and returning interviewees were asked if they currently participate in social networking as a means to keep up-to-date on issues of interest. Of the 22 responses received, four (18%) advised that they do use social networking and 17 (77%) stated that they do not use this tool. One person (5%) reported that they do not know what social networking is. Forty-eight percent of respondents advised that they did not know if Social Networking would be an effective means of communication for the installation's ER Program, while 29% believed it would, and 24% thought that it would not.

In order to determine the most popular social networking sites for the greater MCAS Miramar community, interviewees were asked which sites they currently use. The most popular response (100%) was Facebook, followed by LinkedIn (50%). It should be noted that only six of the 31 participants answered this question, representing 19% of respondents.

4.7.10 Other Comments and Concerns

At the close of each interview, participants were asked if they had any additional comments, concerns or suggestions. Five people (23%) offered additional input. Two responses addressed concerns regarding the development of the proposed military housing in East Miramar, which is not addressed in this CRP, and one made a general statement that "…this project is getting hot again" (it should be noted that there was no clarification which project they were referring to). One person stated "email communications", and one provided correction to a typographical error on the survey.

Eleven (50%) of respondents requested to be included in the MCAS Miramar IR Program's mailing list, and two provided referrals for individuals or organizations to participate in this community interview process. All referrals were investigated during the interview process, and several referrals led to additional interviews or names for the ER Program distribution lists.

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5.0 COMMUNITY RELATIONS PROGRAM

This section provides information based on the 2011 interviews.

5.1 Goals of Community Relations

As part of the Marine Corps' ongoing effort to continue and improve communication with the public, current information about the community, information collected from the 2007 CRP, and responses from the current community interviews, as summarized in Section 4.0, were used to develop this program. This document is an update to the updated CRP for MCAS Miramar issued in December 2007 (BRG, 2007) and specifically meets the outreach requirements for MCAS Miramar's Environmental Restoration (ER) Program, comprised of the Installation Restoration (IR) Program and the DON Munitions Response Program (MRP).

The goals of this Community Relations Program are:

1. Increase interested community members' awareness of Environmental Restoration (ER) Program within the MCAS Miramar community;

2. Develop effective communication strategies with the public regarding environmental issues; and

3. Involve the public at critical points in the remediation process.

5.2 Federal and State Guidance Documents

Federal and state environmental statutes and amendments require community involvement activities for hazardous waste sites. USEPA, DoD, and California Department of Toxic Substances Control (DTSC) have prepared guidance documents to address these requirements and to suggest additional relevant activities.

The following state and federal environmental statutes and amendments require community involvement for hazardous waste sites:

- CERCLA, 1980 (42 United States Code 9601, and following sections), also known as Superfund
- Superfund Amendments and Reauthorization Act of 1986 (SARA), which amended CERCLA
- Community Environmental Response Facilitation Act of 1992 (CERFA), which also amended CERCLA
- California Health and Safety Code, Division 20
- Title 22, California Code of Regulations, Division 4.5
- California Public Resources Code, Section 21000 and following sections

The guidelines for conducting community involvement activities, including preparing a CRP, are set forth in the following:

- Superfund Community Involvement Handbook (USEPA, 2005)
- Superfund Community Involvement Toolkit (USEPA, 2010)
- USMC Environmental Compliance and Protection Manual, MCO P5090.1C CH-1 (DON 2011)
- Navy Environmental Restoration Program Manual (DON, 2006)

5.3 Objectives of the Community Relations Program

Following detailed research on the MCAS Miramar community and upon completion of the community interview process, a series of Community Relations Objectives were developed. This plan will explain the issues behind each objective, followed by a list of recommended community outreach activities. The specific plan for these activities including frequency, schedule, and method of implementation are discussed in Section 5.4.

This CRP is specifically focused on enhancing community outreach for the Environmental Restoration Program, including the IR Program and MRP Sites, referred to as Munitions Response Sites (MRS).

5.3.1 Objective 1: Impart Knowledge

The first objective of this CRP focuses on enhancing community members' knowledge of environmental cleanup initiatives on base.

Feedback received during the community interview process confirmed that, overall, the public is not aware of the scope or progress of environmental cleanup activities on MCAS Miramar. Participants advised that they would be interested in periodic updates on progress and achievements for the ER Program.

In order to educate community members about both programs, the following activities are recommended:

- Prepare and distribute an informational fact sheet on the MRP at MCAS Miramar, providing an overview of the program on the base, environmental cleanup goals and objectives, and site status
- Update IR Program web pages to include installation MRS history and updates, as well as facts and references to learn more about UXO and munitions-related components and materials
- Partner with MCAS Miramar's CP&L Office to provide information to CLF members on the ER Program via fact sheets, program updates, schedules, and presentations by Program personnel

5.3.2 Objective 2: Enhance Communications

The second objective focuses on enhancing communications with the public regarding environmental cleanup activities and possible effects on natural resources on and around the installation.

Community members who participated in the interviews for this CRP expressed a general concern about the environment and the effects that ER Program cleanup activities will have on it. Overall, they advised that periodic updates would open the lines of communication between the installation and the community. In addition, concerns were expressed regarding the effects of cleanup activities on natural resources on or near the base and the local watershed, and the potential dangers posed by UXO.

The following activities have been identified as effective ways to enhance communication with the public:

- Update the program distribution list and provide web site update alerts, with a brief summary of changes and a web site link, via postings in community newspapers and the Email Distribution List, as described in Appendix E and Appendix F, respectively

- Publicize the availability of the Information Repositories in fact sheets, public notices, and on the Internet on MCAS Miramar IR Program web pages

- Partner with installation Natural Resources personnel to provide relevant data on the effects that cleanup activities may have on natural resources in fact sheets, reports, and/or web site updates

5.3.3 Objective 3: Engage the Community

The third primary objective of this plan involves engaging the community in the cleanup process.

In addition to periodic summary updates on the ER Program, community members requested more detailed background information on cleanup process, timeline, and effects that cleanup will have on the community, as well as assurance that cleanup was effective in response to the safety of community members.

In order to enable educated, meaningful involvement by the public in the cleanup process, the following activities have been identified as effective means of engaging the public:

- Develop and distribute informational fact sheets on cleanup activities for both the IR Program and MRP via the Email Distribution List as presented in Appendix F and on the IR Program web pages
- Partner with MCAS Miramar's CP&L Office to alert CLF members to Program documents available for review, accompanied by a summary presentation by Program personnel, as appropriate
- Utilize media resources to inform the public of upcoming activities or public comment periods, including community newspapers, community association newsletters, or in the *San Diego Union-Tribune*, as outlined in Appendix E
- Hold public meetings at appropriate points in the remediation process in the communities most directly affected by the cleanup operation as outlined in Appendix H

5.4 Implementation of the Elements of the Community Relations Program

Community Involvement Programs are implemented through community involvement activities, such as those described below. In many cases these activities are already part of the existing community relations program for MCAS Miramar, but certain enhancements or specifics are being added. In all cases the frequency or schedule of these activities is explained.

5.4.1 Grants for Technical Assistance

5.4.1.1 USEPA TAG Program

The Technical Assistance Grant (TAG) program awards grants of up to $50,000 for qualified citizens' groups to hire independent technical advisors to assist them in understanding and commenting on technical factors in cleanup decisions. The money may also be used to communicate technical comments to other members of the community. More information on the TAG Program may be found on the USEPA's Superfund Community Involvement web page at http://www.epa.gov/superfund/community/tag/index.htm.

5.4.1.2 USEPA TASC Program

The community may also be interested in obtaining assistance through the USEPA Technical Assistance Services for Communities (TASC) program, which is an educational outreach program that provides technical assistance to communities affected by hazardous substances. The site must be approved by USEPA to be considered for TASC assistance. Certain factors about the site, the community, and the request are then evaluated to determine if assistance will be given.

Detailed information on applying under this program can be found on USEPA's website (http://www.epa.gov/superfund/community/tasc/) and in the "Superfund

Community Involvement Toolkit", which is also available on USEPA's website (USEPA 2002b).

5.4.1.3 EPA/PRP's TAP

The Technical Assistance Plan (TAP) is a program that provides funds for community groups to receive independent technical assistance. Unlike other community technical assistance programs, TAPs are funded by potentially responsible parties (PRPs) through requirements set forth in negotiated settlement agreements. Typically, TAPs are implemented under the guidance of the PRP, with EPA retaining a strong oversight role. Additional information on EPA/PRP's TAPs may be found on EPA's website in the Community Involvement Toolkit, Technical Assistance for Communities section at http://www.epa.gov/superfund/community/pdfs/toolkit/techassist-tap.pdf.

5.4.1.4 DoD TAPP Grant

The Technical Assistance for Public Participation (TAPP) Grant is a DoD program that provides funds for community members involved in the TRC (Technical Review Committee) to obtain independent technical analyses of cleanup documents. This program provides funding up to $25,000 per year, with a maximum limit of $100,000, to any single TRC. At MCAS Miramar, the Marine Corps administers the TAPP grant acquisition process.

The TRC members identify documents that will help them participate more effectively in the Marine Corps ER Program. Once an application is approved, the TRC members suggest some preferred providers, the Marine Corps prepares a statement of work, and procures a technical assistance provider.

5.4.1.5 USEPA's CARE Program

USEPA offers a competitive grant program providing funds for communities to develop innovate ways to address the risks from multiple sources of pollution in their environment. The Community Action for a Renewed Environment (CARE)

program allows local government agencies, grassroots organizations, business, universities, and residents to work together to gain a better understanding of their local environment and take proactive measures at a local level. Eligible groups and details on grant applications are provided on EPA's website at www.epa.gov.care.

5.4.2 Program Data Resources

5.4.2.1 Administrative Record

An Administrative Record (AR) file has been established for MCAS Miramar's Environmental Restoration (ER) Program. It includes technical reports, project documents, and other supporting documentation that form the basis for selection of remedial actions under the ER Program. The AR file is maintained at NAVFAC SW in San Diego, California, and is available for public review. It will continue to be maintained for at least 50 years after environmental restoration activities are completed at MCAS Miramar and will serve as a legal and public information resource. Documents may not be removed from NAVFAC SW offices, although they may be photocopied. A copy of the AR file index is available for public review at NAVFAC SW.

To obtain access to the AR files or receive a copy of the index, contact the Administrative Records Coordinator for NAVFAC SW, Ms. Diane Silva, at the following address and telephone number:

Ms. Diane Silva
Naval Facilities Engineering Command Southwest Division
1220 Pacific Highway
San Diego, CA 92132-5187
(619) 556-1280

In accordance with federal requirements, prior to a removal action, the Marine Corps shall publish a notice of availability of the AR in the *San Diego Union-Tribune* or community newspapers as described in Appendix E. In addition, a posting shall be made at the Information Repositories located at the MCAS Miramar Environmental Management Department and the Mira Mesa Branch Library in the Reference Section. Information on the AR may be found in Appendix A, in program fact sheets and on the Internet on MCAS Miramar's IR Program web pages.

5.4.2.2 Information Repository

Information Repositories have been established at the MCAS Miramar Environmental Management Department and the Mira Mesa Branch Library. The address, telephone number, and hours for both locations are provided in Appendix A.

The Information Repositories may contain program-related documents, including site assessments, Preliminary Assessments (PAs), work plans, Site Investigations (SIs), Remedial Investigations (RIs), Remedial Action Plans, sampling studies, background site information, fact sheets, and community involvement materials, including the current CRP. New information will be added to both Information Repositories as it becomes available, and out-of-date reports will be removed.

In accordance with federal requirements, prior to a removal action, the Marine Corps shall publish a notice of availability of the Information Repositories with the most popular news media reported during community interviews, including the *San Diego Union-Tribune*, MCAS Miramar's *Flight Jacket*, the *Mira Mesa/Scripps Ranch News Sentinel*, or the *Tierra Times* newspapers. In addition, this information may be provided in Program fact sheets, on the Internet on MCAS Miramar ER Program web pages, and to ER Program distribution list members as per Appendix F.

5.4.2.3 Fact Sheets

The Marine Corps will continue to create specific fact sheets as required during the various stages of the Environmental Restoration (ER) Program: update sheets provide general information about the environmental cleanup program, while removal action sheets provide information regarding removal actions. Fact sheets are also generated to provide information on Proposed Plans (PPs). These informational documents will be developed and issued to inform interested parties of the progress of the program and of site-specific actions. All project information distributed to the public will be written in language that can be understood without technical training. Each fact sheet will include the name of a Marine Corps point of contact and a telephone number so that individual names or organizations can be added to or removed from the distribution list(s).

Based on feedback received during the community interview process, it is suggested that an informational fact sheet be developed to provide an overview of MCAS Miramar's Munitions Response Program (MRP). Interviewees advised that the best method for communication is via email; accordingly, an email distribution list will be developed and utilized to distribute this, and any additional fact sheets or newsletters, as milestones are achieved or the program requires. In addition, to ensure all concerned community members have access to updated information, it is recommended that web site updates will be posted, along with a brief summary of the fact sheet and specific point of contact information, in the neighboring community newspapers as described in Appendix E.

Hard copies of fact sheets may be available at the Community Information Repositories, as outlined in Appendix A. The Marine Corps will also provide additional copies of published fact sheets to individuals and organizations upon request. Participants in the community interview process did not indicate the need for translation of documents and materials into any other languages at this time.

5.4.2.4 Distribution Lists

In conjunction with the development of this CRP, distribution lists have been generated to ensure that information on MCAS Miramar's ER Program is available to the community in an appropriate and timely manner. Program personnel will reference an Email List, which is comprised of interested individuals or groups who had participated in the community interview process. In addition, a list of key installation and program-related personnel is available in the MCAS Miramar Installation and Regulatory Personnel Distribution List, which includes mailing addresses in addition to email contact information. The names, addresses and telephone numbers of all officials and group representatives contacted during the community interviews who requested to receive information about IR Program and MRP Site developments are included in these distribution lists. The names, addresses and telephone numbers of private citizens are not included as a part of this CRP, although they will be included in the distribution lists maintained by MCAS Miramar's Environmental Program representatives for cleanup updates. The distribution lists will be updated per the request of individuals and/or groups via telephone, Internet, email, U.S. Mail, or meeting sign-up sheets. In response to community members' feedback, program representatives will work closely with MCAS Miramar CP&L Office to communicate progress to key community leaders on the CP&L Community Leaders Forum (CLF), with the ultimate goal of dissemination of information to their respective community groups and organizations. The distribution lists, including key contacts at the Marine Corps, regulatory officials, and interested representatives of each respective community, are included in Appendix F.

5.4.2.5 Internet

Internet access to MCAS Miramar's ER Program can be found on the installation's Environmental Department's web pages at http://www.miramarems.com/. The Marine Corps updates this site periodically with recent information on the status of the MCAS Miramar ER Program, public

review documents, and other relevant information related to cleanup activities on the installation.

In addition, dedicated web pages have been developed for MCAS Miramar's Environmental Restoration Program to provide ease of navigation to current information on the cleanup program. The site provides background and summary information on program status and achievements; the effects that activities will have on the community and natural resources; notices for public meetings and public comment periods; and links to other sources with more detailed information. The location and hours of the Community Information Repositories are included on the site, as well as a link to this CRP. Dedicated installation environmental cleanup pages may be found on the Internet at http://www.miramarirp.com.

5.4.3 Community Participation Resources

5.4.3.1 Community Meetings

In accordance with EPA and DoD requirements, community meetings will be held at critical times in the remediation process. Notices of any upcoming public meetings will be published approximately two weeks prior to the meeting in the San Diego Union-Tribune and may be made available to the surrounding community newspapers as described in Appendix E. In addition, notices will be posted at the Information Repositories at the MCAS Miramar Environmental Management Department and the Mira Mesa Branch Library.

When cleanup activities are in close proximity to residents in neighboring communities, the Marine Corps will investigate holding meetings in those communities at critical times. Responses from the 2007 CRP community interviews offered community-specific locations. (BRG, 2007) Mira Mesa and Scripps Ranch residents suggested holding community meetings at their local branch public libraries; Tierrasanta residents most frequently requested community meetings in the Tierrasanta Recreation Center; and residents in the

University City area offered the Forum Hall at University Town Center Mall as a good location for public meetings.

A notice of the meeting will be published in the *San Diego Union-Tribune* and may be posted in the community newspapers referenced in Appendix E. In addition, notices will be posted on program web pages and at the Community Information Repositories as described in Appendix A.

A detailed list of locations for Community Meetings, including address and hours of operation, is provided in Appendix H.

5.4.3.2 Public Notices

Federal and state laws require publishing public notices to announce the availability of specific documents for public comment such as Proposed Plans and EE/CAs. Public notices will include the following information:

- The name of the document that is available for public comment
- The location of the Information Repository where members of the public can review the document
- The time and location of the public meeting, if one is being held
- The name(s) and contact information of the contact person(s)
- Any other information that would be helpful

To provide the local community with opportunities to review project documents, two Information Repositories have been established for MCAS Miramar's ER Program. The installation location is housed in the Environmental Management Department office, and the off-site location is at the Mira Mesa Branch Library.

Marine Corps Air Station Miramar

Environmental Management Department

Building 6022

San Diego, CA 92145-2001

(858) 577-1102

Office Hours:

Monday	7:00 a.m. – 4:00 p.m.
Tuesday	7:00 a.m. – 4:00 p.m.
Wednesday	7:00 a.m. – 4:00 p.m.
Thursday	7:00 a.m. – 4:00 p.m.
Friday	7:00 a.m. – 4:00 p.m.
Saturday	Closed
Sunday	Closed

Mira Mesa Branch Library

Reference Section

8405 New Salem Street

San Diego, CA 92126-2398

(858) 538-8165

Library Hours*:

Monday	12:30 p.m. – 8:00 p.m.
Tuesday	9:30 a.m. – 5:30 p.m.
Wednesday	12:30 p.m. – 8:00 p.m.
Thursday	9:30 a.m. – 5:30 p.m.
Friday	12:30 p.m. – 5:30 p.m.
Saturday	9:30 a.m. – 2:30 p.m.
Sunday	Closed

*Library schedule effective as of the date of this document

Based on community feedback received during the interview process, public notices, including information on public comment periods, public meetings, and other topics, may be published in the *San Diego Union-Tribune*, community newspapers described in Appendix E, and on the Internet on the MCAS Miramar environmental cleanup program web pages. Public notices will also be posted at the Information Repositories as outlined in Appendix A and may also be sent out by CP&L Office to CLF and MTAC distribution lists to alert local community residents.

5.4.3.3 Public Comment Periods

In an effort to ensure effective two-way communication with local community members, public comment periods are a federal requirement of the Remedial Action Process and are established at critical times in the cleanup process. All public comments received by the Marine Corps will continue to be considered and, as appropriate, incorporated into final documents. The Marine Corps will provide formal written responses to these comments. Public Comment Periods will be advertised in the *San Diego Union-Tribune*, on the program web site, at both established Information Repositories. In addition, they may be posted in neighboring community newspapers.

If significant comments or criticisms are received, a response will be provided to the individuals and/or groups requesting it. These responses document how the Marine Corps has considered public comments during the decision-making process, in addition to providing answers to major comments.

5.4.3.4 Site Tours

Feedback received during the community interview process resulted in a limited interest in Site Tours to active cleanup sites and, as such, no formal program will be established at this time. If a request is made by a significant number of community members, the Marine Corps will investigate offering a tour of a specific cleanup activity at one or more of the active cleanup sites for those

individuals as deemed appropriate with respect to cleanup objectives, and the health and safety of any participants.

5.4.4 Language Interpretation Needs

Analysis of the demographic breakdown of the surrounding communities showed no major changes since the community interview process for the 2007 CRP. Previous and current interviews resulted in no request by participants for translation of documents and materials into any other languages; however should enough requests be made for translation of written or verbal communications, the Marine Corps will investigate translation services for the community in question.

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Appendix A: Administrative Record & Information Repositories

Administrative Record

The complete Administrative Record (AR) for Marine Corps Air Station (MCAS) Miramar is maintained at Naval Facilities Engineering Command Southwest (NAVFAC SW) in San Diego, California.

Copies of documents located at NAVFAC SW's AR are available by contacting:

Ms. Diane Silva
Naval Facilities Engineering Command Southwest Division
1220 Pacific Highway
San Diego, CA 92132-5187
(619) 556-1280

Administrative hours are Monday through Friday from 8:00 a.m. to 5:00 p.m. Appointments must be made to review documents. Documents may not be removed from the facility, although they may be photocopied.

Community Information Repositories

To provide the local community with opportunities to review project documents, two Information Repositories have been established for MCAS Miramar's ER Program. A copy of the complete AR index and pertinent documents are available for public review at these established resources. The installation location is housed in the Environmental Management Department office, and the off-site location is at the Mira Mesa Branch Library.

Marine Corps Air Station Miramar
Environmental Management Department
Building 6022
San Diego, CA 92145-2001
(858) 577-1102

Office Hours:

Monday	7:00 a.m. – 4:00 p.m.
Tuesday	7:00 a.m. – 4:00 p.m.
Wednesday	7:00 a.m. – 4:00 p.m.
Thursday	7:00 a.m. – 4:00 p.m.
Friday	7:00 a.m. – 4:00 p.m.
Saturday	Closed
Sunday	Closed

Mira Mesa Branch Library

Reference Section

8405 New Salem Street

San Diego, CA 92126-2398

(858) 538-8165

Library Hours*:

Monday	12:30 p.m. – 8:00 p.m.
Tuesday	9:30 a.m. – 5:30 p.m.
Wednesday	12:30 p.m. – 8:00 p.m.
Thursday	9:30 a.m. – 5:30 p.m.
Friday	12:30 p.m. – 5:30 p.m.
Saturday	9:30 a.m. – 2:30 p.m.
Sunday	Closed

*Library schedule effective as of the date of this document.

Internet Resources

The MCAS Miramar Environmental Department's web pages may be found on the internet at http://www.miramarems.com. This resource currently provides an overview of key program areas, including the following information pertaining to the Environmental Restoration (ER) Program on the air station:

- an overview of the installation's ER Program;
- Federal and State Laws and applicable regulations;
- a summary of the installation's IR Program, including information on the 18 identified IR Sites on the installation;
- a summary of the installation's MRP, including information on the 12 active Munitions Response Sites (MRS); and
- a graphic representation of the IR Sites located on MCAS Miramar.

In response to community feedback during the 2007 interview process, dedicated IR Program web pages were launched in 2008 at http://www.miramarirp.com. The goal of this site is to enhance availability to Program documents and up-to-date information on environmental cleanup activities on MCAS Miramar, including:

- an overview of the Environmental Restoration Program;
- current and future fact sheets, including program updates, achievements, and status;
- notice of public meetings and public comment periods;
- links to related resources for additional information on environmental initiatives and cleanup technologies;
- a link to an electronic version of this CRP and other relevant program documents, reports, or data sheets;
- contact information for the Administrative Record and Information Repository locations as outlined in this CRP; and
- a link to DTSC's repository for public documents on the EnviroStor website at http://www.envirostor.dtsc.ca.gov.

Appendix B: Technical Terminology

The terms listed below are found in various places in this Community Relations Plan (CRP). Some terms that are not present in this document have been included for clarification of environmental cleanup processes, regulations, and informational purposes. Terminology specific to the MRP may be found toward the end of this Appendix.

Absorption	1) The process by which one substance is taken into the body of another substance. 2) The penetration of molecules or ions of one or more substances (gas, liquid or solid) into the interior of another substance. For example, in hydrated bentonite (a type of clay), the water that is held between the mica-like layers (held within the clay) is the result of absorption.
Action Memo/Removal Action Work Plan (AM/RAW)	Details the selected removal action alternative and explains the rationale for the selection. Also documents responses to public comments and concerns raised during the public comment period. (30 day public comment period)
Administrative Record (AR)	A compilation of information established for all CERCLA sites made available to the public at the start of the Remedial Investigation (RI) for remedial actions, or at the time of Engineering Evaluation/Cost Analysis (EE/CA) for removal actions. Information in the Administrative Record supports the selected remedy for remedial actions and removal actions.
Applicable or Relevant and Appropriate Requirement (ARAR)	A federal or state law that must be considered in choosing a remedial action. Remedial actions must be designed, constructed, and operated to comply with all ARARs.
Baseline Risk Assessment	An analysis of the potential adverse health effects (current or future) caused by contaminant releases from a site in the absence of any actions to control or mitigate these releases. According to EPA, the baseline risk assessment can be used to determine whether: 1) A release or threatened release poses an unacceptable risk to human health or the environment that warrants remedial action, and 2) A site presents an imminent and substantial endangerment. The primary purpose is to provide risk managers with an understanding of the actual and potential risks to human health and the environment posed by the site and the uncertainties associated with the assessment.

Bioremediation

1) Use of living organisms to clean up oil spills or to remove other pollutants from soil, groundwater, or wastewater. 2) Use of organisms, such as non-harmful insects, to remove agricultural pests or counteract diseases of trees, plants, and garden soil.

Bioslurping

A technology application that teams vacuum-assisted free-product recovery with bioventing to simultaneously recover free product and remediate the vadose zone.

Bioventing

The process of aerating vadose zone soils by means of installed vents to stimulate in situ biological activity and optimize biodegradation of organic compounds with some volatilization occurring.

Characterization

Facility or site sampling, monitoring and analysis activities to determine the extent and nature of a release. Characterization provides the basis for acquiring the necessary technical information to develop, screen, analyze, and select appropriate cleanup techniques.

Clean Air Act (CAA)

The CAA was passed in 1970 as amendments to 42 USC 7401, and was amended in 1990. Its purpose is to "protect and enhance the quality of the Nation's air resources." Its primary application is through Prevention of Significant Deterioration permits to regulate new potentially polluting facilities. Of increasing importance are the National Emissions Standards for Hazardous Air Pollutants (NESHAPs).

Clean Water Act of 1977 (CWA)

The CWA amended the Federal Water Pollution Control Act first passed in 1956. Its objective is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters." The Act's major enforcement tool is the National Pollutant Discharge Elimination System (NPDES) permit.

Cleanup

Actions taken to deal with a release or threat of release of a hazardous substance that could affect humans and/or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action.

Cleanup Level

The residual concentration of a hazardous substance in a medium that is determined to be protective of human health and the environment under specified exposure conditions.

Cleanup Technology

A technology that is the whole or part of a treatment train to clean up hazardous waste sites.

Closeout

Conducted when DON considers no further response actions under the IR Program to be appropriate for the site and when site cleanup confirms that no significant threat to public health or the environment exists. The Navy forwards closeout documentation to the regulators for concurrence.

Closure

The regulatory process of deactivating, stabilizing and or decontaminating waste management units or facilities under RCRA.

Closure Plan

Documentation prepared to guide the deactivation, stabilization and surveillance of a waste management unit or facility under RCRA.

Coastal Zone

As defined by the NCP, all US waters subject to the tide, US waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Community Environmental Response Facilitation Act of 1992 (CERFA)

This law amends CERCLA and requires that the federal government identify real property which is not contaminated, and that offers the greatest opportunity for expedited reuse and redevelopment by the community on each facility. The identified parcels of real property must be either free from hazardous substances and petroleum products, including aviation fuel and motor oil, and their derivatives, or the remediation of contamination by those substances should be expedited to facilitate transfer to the public.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

The Federal statute enacted in 1980 and amended in 1986 by the Superfund Amendment and Reauthorization Act (SARA) that establishes a comprehensive, statutory framework for identifying, investigating, and cleaning up releases of hazardous substances to the environment. CERCLA authorizes the President to take response actions when a release or the threat of a release is discovered. Through Executive Order 12580, signed in January 1987, the President directs the Secretary of Defense to implement investigation and cleanup measures in consultation with EPA for releases of hazardous substances from facilities under the jurisdiction of the Secretary.

Contaminant	1) Any physical, chemical, biological, or radiological substance or matter that has an adverse effect on air, water, or soil. 2) As defined by section 101(33) of CERCLA, shall include but not be limited to, any element, substance, compound or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. Shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance and shall not include natural gas, liquefied natural gas or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas). 3) For purposes of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare.
Contamination	Introduction into water, air and/or soil of microorganisms, chemicals, toxic substances, wastes, or wastewater in a concentration that makes the medium unfit for its next intended use. Also applies to surfaces of objects and buildings, and various household and agricultural use products.
Decontamination	Removal of harmful substances from exposed individuals, rooms and furnishings in buildings, or the exterior environment.
Defense Environmental Restoration Program (DERP)	Formally established by Congress in 10 USC 2701-2707 and 2810; provides centralized management for the cleanup of DOD hazardous waste sites consistent with the provisions of CERCLA as amended by SARA, the NCP, and E.O. 12580.
Disposal	Final placement or destruction of toxic, radioactive, or other wastes; surplus or banned pesticides or other chemicals; polluted soils; and drums containing hazardous materials from removal actions or accidental releases. Disposal may be accomplished through use of approved secure landfills, surface impoundments, land farming, deep-well injection, ocean dumping, or incineration.
Ecological Risk	A qualitative or quantitative estimate of the potential impact on local plants and animals of exposure to chemicals detected in the environment.

Endangerment Assessment

A study to determine the nature and extent of contamination at a site on the National Priorities List and the risks posed to public health or the environment. EPA or the state conducts the study when a legal action is to be taken to direct potentially responsible parties to clean up a site or pay for it. An endangerment assessment supplements a remedial investigation.

Engineering Evaluation/Cost Analysis (EE/CA)

Develops and evaluates potential cleanup alternatives and compares costs associated with each alternative. The EE/CA usually also recommends the most favorable alternative. (30 day public comment period)

Environment

1) As defined by section 101(8) of CERCLA, includes the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the U.S., and any other surface water, groundwater, drinking water supply, land surface or subsurface strata, ambient air, or fish, wildlife or biota within the U.S. or under jurisdiction of the U.S. 2) The sum of all external conditions affecting the life, development and survival of an organism.

Environmental Assessment (EA)

An environmental analysis prepared pursuant to the National Environmental Policy Act to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement.

Environmental Contamination

The release of hazardous substances, or the potential release of a discarded hazardous substance, in a quantity which is, or may become, injurious to the environment, or the public health, safety or welfare.

Environmental Impact Statement (EIS)

A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and cites alternative actions.

Environmental Protection Agency (EPA)

Established in 1970 by Presidential Executive Order, bringing together parts of various government agencies involved with control of pollution.

Environmental Restoration (ER)

Cleanup and restoration of sites contaminated with hazardous substances during past production or disposal activities.

Environmental Restoration, Navy (ER,N)

The Navy established support funds for oversight of the IR Program. These support funds are intended to assist Installations in meeting oversight requirements. Replaced DERA Funding.

Environmental Risk

The potential or likelihood of injury, disease, or death resulting from human exposure to a potential environmental threat.

Ex Situ

Refers to a technology or process for which contaminated material must be removed from the site of contamination for treatment. For example, soil must be excavated or groundwater must be pumped to an above ground treatment system. Antonym - In Situ.

Facility

As defined by CERCLA, any building, structure, installation, pipe or pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft; or any site or area where hazardous substances have been deposited, stored, disposed of, placed, or otherwise come to be located.

Feasibility Study (FS)

Develops and evaluates potential cleanup alternatives for a particular site. The FS also usually recommends the selection of the most favorable alternative.

Final Action (FA)

Those removal actions that achieve the final cleanup objectives, considering long-term effectiveness and permanence, for the particular site, media, or operable unit. Except for O & M and possibly a five-year review, final actions require no additional study or action after the final actions are complete.

Ground Monitoring Well

Wells designed to monitor and assess natural and man-made impacts to ground water resources.

Groundwater (GW)

The supply of fresh water found beneath the Earth's surface in the interstices between soil grains, in fractures, or in porous formations. Because groundwater is a major source of drinking water, there is growing concern over contamination from leaching agricultural or industrial pollutants or leaking underground storage tanks.

Groundwater Remediation

Treatment of groundwater to remove pollutants.

Hazardous Waste (HW)

1) A solid waste or combination of solid wastes which because of its quantity, concentration, or physical, chemical, or infectious characteristics may: A) Cause or contribute to an increase in mortality or to a serious, irreversible, or incapacitating reversible illness; or B) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed. Hazardous wastes may be *listed* (named on a list within a regulation) or *characteristic* (exhibits one of the four characteristics: corrosive, toxic, ignitable or reactive). 2) By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed.

Health Assessment

An evaluation of available data on existing or potential risks to human health posed by a Superfund site. The Agency for Toxic Substances and Disease Registry (ATSDR) of the Department of Health and Human Services (DHHS) is required to perform such an assessment at every site on the National Priorities List.

Health Hazard

A chemical, mixture of chemicals or a pathogen for which there is statistically significant evidence, Based on at least one study conducted in accordance with established scientific principles, that acute or chronic effects may occur in exposed personnel.

Human Health Risk

A qualitative or quantitative estimate of the potential impact on the human population of exposure to chemicals detected in the environment.

In Situ Remediation

A treatment process that can be operated within the site of contamination without bulk excavation. *Antonym - Ex Situ*.

Indigenous

1) Living or occurring naturally in a specific area or environment, native. 2) For bioremediation, microorganisms already living at a site.

Initial Site Characterization (ISC)

Completed after discovery of a release from an Underground Storage Tank (UST) and after any initial abatement measures and the site check have been completed. The ISC should assemble information into a report on the site such as the nature and estimated quantity of release; surrounding populations; water quality, use and well locations; storm water/wastewater systems; climatology; land use; results of the site check and initial abatement measures; and results of any free product removals. Equivalent to a CERCLA Preliminary Assessment (PA).

Innovative Treatment Technologies

Newly invented processes that have been tested and used as treatments for hazardous waste or other contaminated materials, but still lack enough information about their cost and how well they work to predict their performance under a variety of operating conditions. They are often used because they can offer cost-effective, long-term solutions to cleanup problems, they may provide an alternative to land disposal or incineration, and are often more acceptable to surrounding communities than some established treatment technologies.

Installation

The real property owned, formerly owned, or leased by the Navy, including a main air station and any associated contiguous real properties identified by the same real property number.

Installation Restoration Program (IR, IRP)

Established in 1984 to help identify, investigate, and cleanup contamination on DOD properties; conducted under the auspices of CERCLA of 1980 and SARA of 1986; the DOD equivalent to the EPA Superfund program.

Land Use Controls

A physical barrier or legal restriction that is imposed on a property to eliminate or limit the exposure of people and plants and animals to contaminated soil.

Leachate

Water that collects contaminants as it trickles through wastes, pesticides or fertilizers. Leaching may occur in farming areas, feedlots, and landfills, and may result in hazardous substances entering surface water, groundwater, or soil.

Long-Term Monitoring (LTM)

Sometimes needed (especially in the case of groundwater contamination) to ensure that a site no longer poses a long-term hazard to human health or the environment. Monitoring may be done quarterly to annually and may last for years or even decades.

National Priority List (NPL)

CERCLA established the National Priorities List (NPL) to guide the USEPA in determining which sites warrant further investigation.

Natural Resource

As defined by CERCLA, land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the U.S., including the resources of the fishery conservation/zone established by the Magnuson Fishery Conservation and Management Act of 1976, any State or local government, any foreign government, any Indian Tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian Tribe.

No Further Response Action Planned (NFRAP)

A site that does not pose (or no longer poses) a significant threat to public health or the environment; the decision must be documented and may be reversible if future information reveals additional remedial action is warranted.

On-Site

According to the NCP, the aerial extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

On-Site Facility

A hazardous waste treatment, storage or disposal area that is located on the generating site.

Operable Unit (OU)

A group of one or more cleanup sites. Often the sites within the operable unit have similar characteristics, such as contaminants, industrial processes, or location.

Preliminary Assessment (PA)

This step of the IR process determines what areas of an installation have the potential for environmental contamination. Existing historical records, past procedures and aerial photographs are reviewed, and current and former air station personnel are interviewed. A list is prepared with individual sites and recommendations for either more detailed inspections or no further action.

Preliminary Remediation Goals (PRGs)

Concentration levels set for individual chemicals that, for carcinogens corresponds to a specific cancer risk level of 1 in 1 million and for noncarcinogens corresponds to a Hazard Quotient of 1. PRGs are generally selected when ARARs are not available.

Prevention

Measures taken to minimize the release of wastes to the environment.

Proposed Plan (PP)

The plan for a site cleanup, normally based on recommendations from the feasibility study, and available to the public for comment (30 day public comment period).

Public

As defined by the NCP includes citizens directly affected by a site, other interested citizens or parties, organized groups, elected officials, and potentially responsible parties.

Public Hearing

A formal meeting wherein officials hear the public's views and concerns about an action or proposal. The Navy is required to consider such comments when evaluating its actions. Public hearings must be held upon request during the public comment period.

Public Notice	1) Notification by EPA informing the public of Agency actions such as the issuance of a draft permit or scheduling of a hearing. EPA is required to ensure proper public notice, including publication in newspapers and broadcast over radio stations. 2) In the safe drinking water program, water suppliers are required to publish and broadcast notices when pollution problems are discovered.
Quality Assurance Project Plan (QAPP)	A written document associated with all remedial site sampling activities, which presents in specific terms the organization (where applicable), objectives, functional activities, and specific Quality Assurance (QA) and Quality Control (QC) activities designed to achieve the Data Quality Objectives (DQO) of a specific project(s) or continuing operation(s). The QAPP is prepared for each specific project or continuing operation (or group of similar projects or continuing operations). The QAPP will be prepared by the responsible program office, regional office, laboratory, contractor, recipient of an assistance agreement, or other organization. For an enforcement action, potentially responsible parties may prepare a QAPP subject to lead agency approval. There are 16 essential elements which EPA has mandated to be addressed in a project plan.
Quality Assurance/Quality Control (QA/QC)	A system of procedures, checks, audits, and corrective actions to ensure that all research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality.
RCRA Facility Assessment (RFA)	The initial process to determine whether corrective action at a site is warranted or to define what additional data must be gathered to make this determination. Equivalent to a CERCLA Preliminary Assessment (PA). RFAs are performed as part of the RCRA permitting process.
Record of Decision (ROD)	The documentation of the final remedial response action decision for site cleanup. The ROD is based on information and technical analysis generated during the remedial investigation/feasibility study and consideration of public comments and community concerns.
Record of Decision (ROD)	A public document that explains which cleanup alternatives will be used at NPL sites. The ROD is based on information and technical analysis generated during the remedial investigation/feasibility study and consideration of public comments and community concerns.
Remedial Action (RA)	Involves the construction, operation, and implementation of the final cleanup remedy until confirmatory sampling and analysis indicate that cleanup goals have been reached.

Remedial Action Objectives (RAO)	Describes what the site cleanup is expected to accomplish.
Remedial Action Process	Used as the standard method of environmental remediation at CERCLA sites.
Remedial Design (RD)	Involves the development of the actual design of the selected cleanup remedy including preparation of all technical drawings, plans and specifications needed to implement the cleanup action.
Remedial Investigation (RI)	Characterizes the nature and extent of contamination at a hazardous waste site and estimates risks to human health and the environment posed by contaminants at the site. Depending on the nature of contamination, the RI will recommend either a Remedial Action or a Removal Action.
Remedial Project Manager (RPM)	Primary point of contact involved in the cleanup of IR sites. RPMs are responsible for taking all response actions to address the release of contaminants. The RPM is the prime contact for remedial actions being taken at sites on the NPL, and for sites not on the NPL but under the jurisdiction of a Federal agency. The RPM coordinates, directs, and reviews the work of other agencies, responsible parties, and contractors to ensure compliance with appropriate regulatory requirements.
Remedial Response	Long-term action that stops or substantially reduces a release or threat of a release of hazardous substances that is serious but not an immediate threat to public health.
Remediation	Cleanup or other methods used to remove or contain a toxic spill or hazardous materials from a Superfund site.
Remediation Goal (RG)	The acceptable level of a chemical to protect human health and ecological receptors.
Remedy in Place (RIP)	Indicates that a final remedial action has been constructed, implemented and is operating according to the Remedial Design (RD). An example of this would be a pump and treat system that is installed, operating as designed, and will continue to operate until cleanup levels have been attained. Since operation is on-going, the site cannot be considered as Response Complete (RC).
Removal Action (RVL)	Involves the construction, operation, and implementation of the final cleanup remedy until confirmatory sampling and analysis indicate that cleanup goals have been reached.

Removal Action Process (non-time critical)

Used when an expedited cleanup is determined to be in the best interests of the government and surrounding community.

Removal Site Evaluation (RSE)

An optional site evaluation step to collect additional data for the purpose of removal action planning.

Resident, Officer in Charge of Construction (ROICC)

Manages implementation of IR contracts involving construction including removal and remedial actions. Ensures that the contractor meets all specifications and activities are completed in a manner that protects human health, welfare, and the environment.

Resource Conservation and Recovery Act (RCRA)

RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), requires the establishment of a management system for hazardous waste (Subtitle C), non-hazardous solid waste (Subtitle D), and underground storage tanks (Subtitle I). RCRA also provides corrective action authority for cleanup of pre-RCRA hazardous waste management units and non-hazardous solid waste management units.

Restoration Advisory Board (RAB)

An advisory group for the restoration process with members from the public, the Navy, and the regulatory agencies. The purpose of the RAB is to gain effective input from stakeholders on cleanup activities and increase installation responsiveness to the community's environmental restoration concerns.

Risk Assessment

1) Qualitative and quantitative evaluation of the risk posed to human health and/or the environment by the actual or potential presence and/or use of specific pollutants. 2) The process used to determine the threats posed by hazardous substances. Elements include: identification of the hazardous substances present in the environmental media; assessment of exposure and exposure pathways; assessment of the toxicity of the site's hazardous substances; characterization of human health risks; and characterization of the impacts and/or risks to the environment.

Risk Management

The process of evaluating and selecting alternative regulatory and non-regulatory responses to risk. The selection process necessarily requires the consideration of site-specific scientific, legal, economic, social, political, and behavioral factors.

Site

1) A single unit where hazardous substances have been deposited, stored, disposed of, or placed. An NPL site is also defined as consisting of all contaminated areas within the area used to define the site, and any other location to or from which contamination from that area has come to be located. The NPL site would include all releases evaluated as part of the HRS analysis. 2) As defined by the Relative Risk Site Evaluation Primer, a site is a discrete area where suspected contamination has been verified, requiring further response action. A site by definition has been, or will be, entered into the Navy Restoration Management Information System (RMIS).

Site Closeout (SC)

The final step for IR sites. SC is reached when no further response actions under the IRP are appropriate or anticipated and the regulatory agencies concur. For NPL sites, this step will include following the proper procedure for deletion from the NPL according to the NCP (40 CFR 300.425). Actual SC is the date that the deletion appears in the Federal Register. It is only under unusual circumstances that a site that has been closed out will be reopened.

Site Inspection (SI)

The initial physical inspection of a site that may include limited soil and water sampling. The SI is used to determine whether a site actually contains contamination. If no significant contamination is found, the site is recommended for No Further Response Action Planned. Otherwise, the site is recommended for a Remedial Investigation. Occasionally, contamination found during an SI may warrant a removal action without the next step of Remedial Investigation (RI).

Soil

A mixture of organic and inorganic solids, air, water, and biota which exists on the earth surface above bedrock, including materials of anthropogenic sources, such as slag, sludge, etc.

Solid Waste Management Unit (SWMU)

Any discernible unit in which wastes have been placed at any time, regardless of whether the unit was designed to accept solid waste or hazardous waste and from which contaminants may migrate; units to include but not be limited to old landfills, wastewater treatment tanks, container storage areas, surface impoundments, waste piles, land treatment units, incinerators, injection wells, recycling operations, leaking process or waste collection sewers, and transfer stations. SWMUs include any area at a facility at which solid wastes have been routinely and systematically released. Only past releases from SWMUs that also meet the definition of a CERCLA release are eligible for remediation through the IR Program.

Superfund

The program operated under the legislative authority of CERCLA and SARA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising the cleanup and other remedial actions.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

In addition to certain free-standing provisions of law, it includes amendments to CERCLA, the Solid Waste Disposal Act, and the Internal Revenue Code. Among the free-standing provisions of law is Title III of SARA, also known as the "Emergency Planning and Community Right-to-Know Act of 1986," and Title IV of SARA, also known as the "Radon Gas Indoor Air Quality Research Act of 1986." Title V of SARA amending the Internal Revenue Code is also known as the "Superfund Revenue Act of 1986."

Technical Review Committee (TRC)

A group of technically cognizant individuals responsible for reviewing technical reports and data for a site. This assemblage should be established after a release or threat of a release has been confirmed at an installation, normally at the end of a Preliminary Assessment or Site Investigation. A TRC shall be established at all installations, whether NPL or non-NPL for the purpose of reviewing and commenting on actions and proposed actions concerning releases or threatened releases at the installation. The TRC shall consist of (but not be limited to) at least one representative from the installation and cognizant Engineering Field Division (EFD), EPA, appropriate state and local authorities, and a public representative of the community involved. It should be noted that the TRC is neither an advisory group nor a decision-making body. DON policy is to convert all TRCs to Restoration Advisory Boards (RABs).

Underground Storage Tank (UST)

All tanks and attached piping containing regulated substances in which 10% or more of the tank volume (including piping) is beneath the surface of the ground.

Vadose (Unsaturated) Zone

The zone of geologic material that occurs above the water table and capillary fringe, in which the pores are only partially filled with water (soil moisture is less than porosity), and the fluid pressure is less than atmospheric.

The following terms specifically refer to the Munitions Response Program (MRP). (DOA, 2005)

Chemical Agent (CA)	A chemical compound (to include experimental compounds(that, through its chemical properties produces lethal or other damaging effects on human beings, is intended for use in military operations to kill, seriously injure, or incapacitate persons through it physiological effects. Excluded are research, development, testing and evaluation (RDTE) solutions, riot control agents, chemical defoliants and herbicides; smoke and other obscuration materials; flame and incendiary materials; and industrial chemicals.
Chemical Warfare Material (CWM)	Items generally configured as a munitions containing a chemical compound that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. CWM does not include riot control devices; chemical defoliants and herbicides; industrial chemicals not configured as a munition; smoke and other obscuration producing items; flame and incendiary producing items; or soil, water, debris or other media contaminated with low concentrations of CAs where no CA hazards exist.
Demilitarization	The act of: (1) disassembling chemical or conventional military munitions for the purpose of recycling, reclamation, or reuse of components; or (2) rendering chemical or conventional military munitions innocuous or ineffectual for military use (i.e., removing the military offensive or defensive characteristics), which may include disposal of the unusable components of the munition. The term encompasses various approved demilitarization methods such as mutilation, alteration, or destruction to prevent further use for its originally intended military purpose.
Discarded Military Munitions (DMM)	Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations.

Explosive Ordnance Disposal (EOD)

The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded ordnance and of other munitions that have become an imposing danger, for example, by damage or deterioration.

Impact Area

The portion of the base used for high impact military munitions training.

Inert

The state of some types of ordnance, which have functioned as designed, leaving a harmless carrier, or ordnance manufactured without explosive, propellant or pyrotechnic content to serve a specific training purpose. Inert ordnance poses no explosive hazard to personnel or material.

Material Potentially Presenting an Explosive Hazard (MPPEH)

Material potentially containing explosives or munitions (e.g. munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris); or material potentially containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g. equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization or disposal operations). Excluded from HPPEH are munitions within DoD's established munitions management system and other hazardous items that may present explosion hazards (e.g. gasoline cans, compressed gas cylinders) that are not munitions and are not intended for use as munitions.

Military Munitions

All ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges; and devices and components thereof.

The term does not include wholly inert items; improvised explosive devices; and nuclear weapons, nuclear devices, and nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954.

Military Munitions Burial Site

A site, regardless of location, where military munitions or chemical agents (CA), regardless of configuration, were intentionally buried, with the intent to abandon or discard. This term includes burial sites used to dispose of military munitions or CA, regardless of configuration, in a manner consistent with applicable environmental laws an d regulations or the national practice at the time of burial. It does not include sites where munitions were intentionally covered with earth during authorized destruction by detonation, or where in0situ capping is implemented as an engineered remedy under an authorized response action.

Military Munitions Response Program

Program established by the Department of Defense to manage environmental, health and safety issues presented by MEC.

Munitions and Explosives of Concern (MEC)

This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks, includes unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents, present in high enough concentrations to pose an explosive hazard.

Munitions Constituents (MC)

Any materials originating from UXO, DMM, or other military munitions, including explosive and non-explosive materials, and emissions, degradation, or breakdown elements of such ordnance or munitions.

Munitions Debris	Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization or disposal.
Munitions Response	Response actions, including investigation, removal actions and remedial actions to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC), or to support a determination that no removal or remedial action is required.
Munitions Response Area (MRA)	Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. Examples include former ranges and munitions burial areas. A munitions response area is made up of one or more munitions response sites.
Munitions Response Site (MRS)	A discrete location within an MRA that is known to require a munitions response.
Operational Range	A range that is under the jurisdiction, custody, or control of the Secretary of Defense and that is used for range activities; or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities. Also includes “military range”, “active range,” and “inactive range”.
Ordnance and Explosives (OE)	See Munitions and Explosives of Concern.
Primary Explosives	Highly sensitive compounds that are typically used in detonators and primers. A reaction is easily triggered by heat, spark, impact or friction. Examples of primary explosives are lead azide and mercury fulminate.
Range	A designated land or water area that is set aside, managed, and used for range activities of the DoD. The term includes firing lines and position, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use in accordance the regulations and procedures prescribed by the Administrator of the Federal Aviation Administration (FAA).

Range Activities

Research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and the training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapons systems.

Range Clearance

The destruction, or removal and proper disposition of used military munitions (e.g. UXO and munitions debris) and other range-related debris (e.g. target debris, military munitions packaging and crating material) to maintain or enhance operational range safety or prevent the accumulation of such material from impairing or preventing operational range use. The term does not include removal, treatment, or remediation of chemical residues or MCs from environmental media, nor actions to address discarded military munitions (e.g. burial pits) on operational ranges.

Range-Related Debris

Debris, other than munitions debris, collected from operational ranges or from former ranges (e.g., targets). Range-related debris is considered inert after inspection by technically-qualified personnel.

Render Safe Procedures (RSP)

The portion of EOD procedures that involves the application of special disposal methods or tools to interrupt the functioning or otherwise defeat the firing train of UXO from triggering an unacceptable detonation.

Secondary Explosives

Secondary explosives are generally less sensitive to initiation than primary explosives and are typically used in booster and main charge applications. A severe shock is usually required to trigger a reaction. Examples include TNT, cyclo-1,3,5-trimethylene-2,4,6-trinitramine (RDX or cyclonite) HMX, and tetryl.

Small Arms Ammunition

Ammunition without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller, or for shotguns.

Technology-aided Surface Removal

A removal of UXO, DMM or CWM on the surface (e.g. the top of the soil layer) only, in which the detection process is primarily performed visually, but is augmented by technology aids (e.g. hand-held magnetometers or metal detectors (because vegetation, the weather of UXO, DMM or CWM, or other factors make visual detection difficult.

Unexploded Ordnance (UXO)

Military munitions that have been primed, fused, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and remain unexploded whether by malfunction, design, or any other cause.

Venting

Exposing any internal cavities of MPPEH, to include training or practice munitions (e.g. concrete bombs), using DDESB- or DoD Component-approved procedures to confirm that an explosive hazard is not present.

Appendix C: Interview Questions and Responses

In August 2011, community interviews were conducted in compliance with community relations and public participation guidelines and requirements set forth by federal and state laws and amendments. The purpose of these interviews was to evaluate the level of knowledge about, and interest in, environmental cleanup activities at MCAS Miramar; to assess citizen concerns about site cleanup; and to identify appropriate community relations measures to address the concerns and engage the public.

A questionnaire was developed in conjunction with the DTSC in accordance with USEPA and Navy/Marine Corps guidelines, in compliance with federal and state requirements. A full list of interviewees is provided in Appendix D. The following groups were represented in interviews:

- Base Representatives
- Community Groups
- Educational Services
- Elected Officials
- Environmental Groups
- Local Business Representatives
- Media
- Residents from Neighboring Communities

One-hundred and nineteen individuals and organizations were contacted to participate in the interview process. A total of 31 interviews were conducted. Of these interviews, data was gathered via results of an online survey tool.

Survey responses are available on the MCAS Miramar ER Program web pages at http://www.miramarirp.com. In order to protect the privacy of private citizens, verbatim responses will be made available to program and regulatory personnel, but will not be printed for public viewing, although several edited responses were included in this CRP. A summary of responses may be found in this document in Section 4.6, Community Interviews.

It should be noted that the responses were recorded via electronic survey; however, every effort was made to provide the intent of the interviewee's comments by offering optional "fill-in" response boxes to many questions, as well as a closing opportunity to offer additional comments. In some cases, an interviewee did not answer all questions or gave multiple answers; therefore, numbers associated with comments do not always correlate with the total number of respondents interviewed.

A copy of the online survey in Microsoft Word format is provided on the following pages.

MCAS Miramar

Installation Restoration Program Community Relations Plan

Community Survey – Summer 2011

In accordance with federal and state guidelines, MCAS Miramar's Environmental Restoration Program is in the process of updating its Community Relations Plan (CRP). The Environmental Restoration Program includes both the Installation Restoration (IR) Program and the Department of the Navy Munitions Response Program (MRP). The IR Program addresses the cleanup of past hazardous wastes on federal properties, but does not include munitions. The MRP addresses munitions and related materials used or released during past operations and activities on other than operational ranges. Response actions on MRP sites are conducted using the same regulatory process as the IR Program, with the addition of special safety considerations for managing munitions.

This survey was established to determine the level of understanding and interest of community members in the IR Program and the MRP, both which support environmental cleanup efforts on base.

For the purposes of this interview, IR Program and MMRP activities will be referred to as “environmental cleanup”, and do not refer to any other environmental initiatives on base (e.g. recycling, Natural Resources, trash collection, watershed issues, etc.), unless they specifically pertain to the cleanup of hazardous wastes as defined by IR Program and MRP guidelines.

(Note: an asterisk (*) denotes survey logic [e.g. depending on the answer, the question will skip from/to another question and/or over unrelated question(s) within the survey].

1. For validation and tracking purposes ONLY, please advise your name and affiliation.

2. *Would you be interested in participating in this survey for the current community outreach update for MCAS Miramar's environmental cleanup program?
   a. Yes ☐
   b. No ☐

2007 SURVEY PARTICIPATION

During the fall of 2007, base representatives conducted a community survey for MCAS Miramar's IR Program.

3. *Do you recall participating in the 2007 interview process?
   a. Yes ☐
   b. No ☐
   c. I don't remember ☐
   d. I did not participate ☐

Survey Options

4. *This is an electronic survey tool. Please advise below if you would prefer to participate in the survey by another means.
   a. PROCEED WITH ELECTRONIC SURVEY TOOL ☐
   b. Emailed Survey ☐
   c. Faxed Survey ☐
   d. Via U.S. Mail ☐
   e. Face-to-Face Interview ☐
5. *Emailed Survey (contact info)
6. *Faxed Survey (contact info)
7. *US Mail Survey (contact info)
8. *Face-to-Face interview (contact info)

BACKGROUND

9. How long have you lived and/or worked on or around MCAS Miramar?

   Lived (# years):

   Worked (# years):

10. Are you affiliated with any community and/or environmental groups?

    a. Yes ☐

    b. No ☐

11. *Please list the community and/or environmental groups with which you are involved.

COMMUNITY CONCERNS

In order for Environmental Restoration Program personnel to learn about any concerns that community members may have about the environmental cleanup program on MCAS Miramar, reflect on your knowledge of the environmental cleanup program on the Base.

12. *Since your participation in the 2007 interview process, have you had any contact with the Marine Corps, local, state, or other officials regarding environmental activities on MCAS Miramar?

    a. Yes ☐

    b. No ☐

    c. I don't remember ☐

    d. I did not participate in the 2007 interviews

13. *We understand that you did not participate in the 2007 community interviews. Have you ever had any contact with the Marine Corps, local, state, or other officials regarding environmental cleanup activities on MCAS Miramar?

    a. Yes ☐

    b. No ☐

    c. I don't remember ☐

REGULATORY CONTACT

You advised that you have made contact with officials regarding MCAS Miramar's environmental cleanup.

14. *With whom did you make contact?

    a. Marine corps ☐
    b. Regional Water Quality Control Board ☐
    c. Department of Toxic Substances Control ☐
    d. Other (please specify) ☐

15. What was the nature of this contact?

16. What kind of response did you receive?

PROGRAM AWARENESS

17. *How much do you know about the Marine Corp's environmental cleanup program underway at MCAS Miramar?

    a. Very knowledgeable ☐
    b. Somewhat knowledgeable ☐
    c. A little knowledge ☐
    d. No knowledge ☐
    e. Other (please specify) ☐

18. What information regarding environmental cleanup on the Base have you seen? (Please check all that apply.)

    a. Fact Sheets ☐
    b. Flyers ☐
    c. Posters ☐
    d. News articles ☐
    e. Internet ☐
    f. I haven't seen any information on the cleanup program ☐
    g. Other (please specify) ☐

19. *You have advised that you have seen information regarding environmental cleanup efforts on MCAS Miramar.
    a. What organization(s) provided that information?
    b. When did you see the information?
    c. Where did you see it?

CONCERNS

20. *Since your participation in the 2007 interview process, do **you** have any current concerns about the environmental cleanup program on MCAS Miramar?
    a. Yes ☐
    b. No ☐
    c. I did not participate in the 2007 interviews ☐

21. *We understand that you did not participate in the 2007 community interviews. Do you have any concerns about the environmental cleanup program on MCAS Miramar?
    a. Yes ☐
    b. No ☐
    c. I don't know ☐
    d. Other (please specify)

22. *You advised that you have current concerns about the environmental cleanup program at MCAS Miramar.
    Please summarize your concerns regarding the environmental cleanup program.

23. *Would you like to be contacted regarding your concern(s)?
    a. Yes ☐
    b. No ☐

24. *Please provide the best way for a program representative to contact you regarding your concerns.
    a. Phone ☐
    b. Email ☐
    c. US Mail ☐
    d. Other (please specify)
25. *Please provide current contact information.

COMMUNITY CONCERNS

26. *How would you characterize the community's perception of the base's environmental cleanup program?
    a. Positive ☐
    b. Neutral ☐
    c. Negative ☐
    d. The community isn't aware of the cleanup efforts on base ☐
    e. I don't know ☐
    f. Other (please specify)

27. *Do you feel that there are any **community** concerns regarding environmental cleanup on base?
    a. Yes ☐
    b. No ☐
    c. I don't know ☐

You have reported that you believe that the community may have concerns regarding environmental cleanup on MCAS Miramar.

28. *Please describe the concerns that you feel the community has about this program.

COMMUNICATION

29. *Are you interested in certain aspects of base cleanup or would you like to receive more information on a certain aspect of base cleanup?
    a. I am not interested in any aspects of base cleanup ☐
    b. Yes ☐
    c. No ☐
    d. I don't know ☐
    e. Other (please specify)

You have expressed an interest in the environmental cleanup program on MCAS Miramar.

30. *What aspects of the base cleanup are you most interested in or would you like to receive information about?

31. *How often would you like to receive updates?
    a. Quarterly (4 times per year) ☐
    b. Semi-Annually (2 times per year) ☐
    c. Annually (1 time per year) ☐
    d. Bi-Annually (every two years) ☐
    e. As appropriate with program developments ☐
    f. Other (please specify) ☐

32. *What is the best way to communicate information or updates to you?

a. Email ☐
b. MCAS Miramar's Website (http://www.miramar.usmc.mil) ☐
c. MCAS Miramar's Environmental Restoration Program Website (http://www.miramarirp.com) ☐
d. Fact Sheets ☐
e. Community Meetings ☐
f. Newspaper Articles ☐
g. Site Tours/Open Houses ☐
h. U.S. Mail ☐
i. I am not interested in receiving information on the cleanup program ☐
j. Other (please specify) ☐

2007 CRP

In December 2007, a comprehensive Community Relations Plan (CRP) was written for MCAS Miramar's environmental cleanup program. The community interviews that were conducted in the fall of 2007 provided the basis for the development of the 2007 CRP.

33. Were you aware of the December 2007 Community Relations Plan?

a. Yes ☐
b. No ☐
c. I don't know ☐

34. *How did you hear about the plan?

35. *Have you reviewed the document?

36. *When and where did you review it?

37. *What led to your interest in reviewing the document?

2007 CRP – UNAWARE

You have advised that you were unaware of the December 2007 CRP report.

38. *Was there an opportunity that you would have found the plan helpful?

    a. Yes ☐
    b. No ☐
    c. I don't know ☐

You have reported that at some time the 2007 CRP may have been helpful to you.

39. *Please explain when and/or why it would have been helpful.

40. *Was your issue or question resolved?

41. *How and by who was it resolved? If the issue was not resolved, please explain.

INFORMATION REPOSITORY

Two information repositories for the environmental cleanup program have been established for the program – one on MCAS Miramar in the Environmental Department Office (Bldg. 6022) and the other at the Mira Mesa Public Library (8405 New Salem Street).

42. *Have you visited either repository?

    a. Yes ☐
    b. No ☐

43. *You have advised that you have visited one of the MCAS Miramar Environmental Restoration Program's Information Repositories.

- Which location did you visit?
- What led you to visit this repository?
- Did you feel that the materials provided adequate information to answer your questions?

ONLINE REPOSITORY

A program overview and repository for the cleanup program on MCAS Miramar has been established on the Internet at http://www.miramarirp.com.

44. Have you visited the online repository for the Environmental Restoration Program on the installation?
    a. Yes ☐
    b. No ☐
45. *When you visited the program web pages, did you find the information posted informative?
    a. Yes ☐
    b. No ☐
    c. I have not been to the website ☐
46. *Did you feel that the information provided was sufficient?
    a. Yes ☐
    b. No ☐
    c. Please advise additional information you would like to see posted
47. *Was the site easy to navigate?
    a. Yes ☐
    b. No ☐
48. *Would you be interested in receiving updates on the web-based information repository?
    a. Yes ☐
    b. No ☐
49. *You have expressed interest in receiving updates on the online repository. What is the best way to notify you of website updates? (Please check all that apply.)
    a. Email ☐
    b. Newspaper or Community Newsletters ☐
    c. U.S. Mail ☐
    d. Other (please specify) ☐

50. *Please provide your contact information in order to be included in future Environmental Restoration Program web page updates.

MEDIA

51. *Which radio stations do you most often listen to?

52. *Which television stations do you most often watch?

53. *Do you watch the local cable community access channel?

    a. Yes ☐
    b. No ☐

    - If yes, which one(s)?

54. *Which newspapers do you read regularly?

55. *In order to best communicate with you, what is/are the best media for receiving local information?

	Best	Good	Average	Less than Average	Not Good
Television					
Newspaper					
Fact Sheets/ Newsletters					
Radio					
Internet					
Other					

Please specify “other”.

SOCIAL NETWORKING

56. *Do you participate in Social Networking as a means to keep up-to-date on issues you are interested in?
    a. Yes ☐
    b. No ☐
    c. I don't know what Social Networking is ☐
57. *Do you think that Social Networking would be an effective means of communication to receive updates on MCAS Miramar's environmental cleanup activities and achievements?
    a. Yes ☐
    b. No ☐
    c. I don't Know ☐
    d. Other (please specify)
58. *Please advise which Social Networking tool(s) you use. (Please check any that apply.)

    a. Facebook ☐
    b. LinkedIn ☐
    c. Twitter ☐
    d. MySpace ☐
    e. I am not currently registered with a Social Networking site ☐
    f. Other (please specify)

MAILING LIST

59. Would you like to be included in a mailing list for MCAS Miramar's environmental cleanup program?
    a. Yes ☐
    b. No ☐

60. *You have expressed an interest in being included in MCAS Miramar's environmental cleanup program mailing list. Please provide contact information for the MCAS Miramar Environmental Restoration Program Mailing List.

OTHER COMMENTS OR CONCERNS

61. *Do you have any other comments, concerns, or suggestions you would like to add?
    a. Yes ☐
    b. No ☐
    c. If yes, please explain

62. *Do you know anyone else who may be interested in participating in this community survey for the environmental cleanup program at MCAS Miramar?
    a. Yes ☐
    b. No ☐

63. *You have indicated that you know other people who may be interested in participating in this survey. Please advise their name(s) and the best way to contact them.

64. May we use your name as an interview participant? *Your name will be kept separate from your answers.*
    a. Yes ☐
    b. No ☐

65. Please confirm your name for reporting purposes.

CLOSING

Thank you for taking the time to participate in MCAS Miramar's Environmental Restoration Program Community Relations Plan update! The information that you and your fellow respondents provide will help guide the program's outreach efforts and ensure that the lines of communication between the public and the program remain open.

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Appendix D: Interviewee List

The table below represents a compilation of the individuals and groups who gave their approval to be included in the tally of participants in the Community Relations Interview process. Several individuals belong to more than one group or category; their primary affiliation is noted, below. Multiple affiliations are noted by an asterisk (*). To respect participant privacy, individual's complete names are not included in this document.

Name	Affiliation	Community
Deanna S.*	Tierra Times Newspaper	Tierrasanta
Ed S.	E-Monitoring Networks	Other
Elizabeth G.	San Diego Unified School District	Tierrasanta
Jeff C.	Resident	Tierrasanta
Jennifer M.	Resident	Tierrasanta
John B.*	Tierrasanta Recreation Council	Tierrasanta
Linda J.*	Tierrasanta Recreation Council	Tierrasanta
Lisa L.	Resident	Scripps Ranch
Loren V.*	Tierrasanta Community Council	Tierrasanta
Michael B.*	Endangered Habitats League	Other
Mike G.*	Tierrasanta Recreation Council	Tierrasanta
Norman R.*	Tierrasanta Recreation Council	Tierrasanta
Sandra S.	San Diego Miramar College	Mira Mesa

Name	Affiliation	Community
Stephanie W.	Resident	Scripps Ranch
Susan B.	Resident	Scripps Ranch
Ted B.*	Mira Mesa Town Council	Mira Mesa
Name Withheld	Lincoln Military Housing	Miramar
Name Withheld	MCAS Miramar	Miramar
Name Withheld	MCAS Miramar	Miramar
Name Withheld	City of San Diego	Scripps Ranch
Name Withheld	Resident	Scripps Ranch
Name Withheld	City of San Diego	Tierrasanta
Name Withheld	City of San Diego	Tierrasanta
Name Withheld	Resident	Tierrasanta
Name Withheld	Resident	Tierrasanta
Name Withheld*	Resident	Tierrasanta
Name Withheld*	Tierrasanta Community Council	Tierrasanta
Name Withheld	Tierrasanta Community Council	Tierrasanta
Name Withheld	Newbreak Church	Tierrasanta and Scripps Ranch
Name Withheld*	Friends of Rose Canyon	University City
Name Withheld	Friends of Rose Canyon	University City

In addition to the interview participants, the list of additional individuals, groups, and organizations below were unable to be reached, unavailable for an interview, unresponsive, or declined to participate in the Community Relations Interview process.

- CA Fish & Game
- CA Fish & Wildlife
- CA State Assembly
- CA State Senate
- Kearny Mesa Planning Group
- Kumeyaay Elementary School
- Mason Elementary School
- Mira Mesa / Scripps Ranch News Sentinel
- Mira Mesa Branch Library
- Mira Mesa High School
- Miramar Ranch North Planning Committee
- Mission Trails Regional Park Foundation
- Navy Dispatch Newspaper
- Rose Creek Watershed Alliance
- San Diego Coastkeeper
- San Diego County Board of Supervisors
- San Diego Environment Now
- San Diego Military Advisory Council (SDMAC)
- San Diego Sea to Sea Trail Foundation
- San Diego Union-Tribune
- Scripps Ranch Civic Association
- Scripps Ranch Planning Group
- Scripps Ranch Planning Group
- Serra High School
- Sierra Club
- Southwest Center for Biological Diversity
- U.S. House of Representatives
- University City High School
- University City Planning Group
- Wagenheim Middle School
- Walker Elementary School

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Appendix E: Local Media Contacts

Public Notices

Federal and state laws require publishing public notices to announce the availability of specific documents for public comment such as Proposed Plans and EE/CAs. Public notices will include the following information:

- The name of the document that is available for public comment
- The location of the Information Repository where members of the public can review the document
- The time and location of the public meeting, if one is being held
- The name(s) and contact information of the contact person(s)
- Any other information that would be helpful

Public notices, including information on public comment periods, public meetings, and other topics, will be published in the *San Diego Union-Tribune* in the Legal Advertising section. Pricing for notices is $3.20 per line per day, and $4.20 per line on Sundays. Provide 48 hours lead time for postings.

Contact Information for *San Diego Union-Tribune* Legal Advertising (Public Notices)	
Fax Number:	(619) 260-5035
Email:	legalnotices@uniontrib.com
Mailing Address:	San Diego Union-Tribune Attn: Legal Notices PO Box 120191 San Diego, CA 92112
Telephone:	(619) 293-1425

In addition, public notices may be submitted to community newspapers as described in this Appendix and on the Internet on dedicated MCAS Miramar ER Program web pages.

Local Media Contacts

In order to enhance the visibility of the Environmental Restoration (ER) Program at MCAS Miramar, the Marine Corps may reach out to community newspapers to introduce and educate community members about the Installation Restoration and Munitions Response Programs, including Program achievements and future plans. In an effort to reach interested community members, the ER Program may provide updated information on the cleanup of MCAS Miramar to neighboring community newspapers and newsletters.

Contact information for the community resources referenced may be found below, as well as major newspapers and periodicals in the region that were offered by interviewees as an effective means of communication for issues affecting the greater MCAS Miramar community.

Newspapers

The table below summarizes contact information for local and regional newspapers. Community news sources, including newspapers and newsletters, are included.

MCAS Miramar	
The *Flight Jacket* Consolidated Public Affairs office Marine Corps Air Station PO Box 452013 San Diego, CA 92145-2013 http://www.miramar.usmc.mil/WebPages/PAO/PAOHome.htm	Editor Phone: (858) 577-6000 miramarflightjacket@usmc.mil
***Navy Dispatch* Newspaper** 6312 Riverdale Street San Diego, CA 92120 http://www.navydispatch.com/	Sara Haggerty, Editor Phone: (619) 280-2986 Fax: (619) 280-2989 editor@navydispatch.com
Mira Mesa	
Mira Mesa / Scripps Ranch News Sentinel 6312 Riverdale Street San Diego, CA 92120	Sara Haggerty, Editor Phone: (619) 280-2986 Fax: (619) 280-2989 editor@navydispatch.com
***Navy Dispatch* Newspaper** 6312 Riverdale Street San Diego, CA 92120 http://www.navydispatch.com/	Sara Haggerty, Editor Phone: (619) 280-2986 Fax: (619) 280-2989 editor@navydispatch.com
Scripps Ranch	
Mira Mesa / Scripps Ranch News Sentinel 6312 Riverdale Street San Diego, CA 92120	Sara Haggerty, Editor Phone: (619) 280-2986 Fax: (619) 280-2989 editor@navydispatch.com
Scripps Ranch Civic Association Newsletter 10755-F Scripps Poway Parkway PMB # 613 San Diego, CA 92131 http://www.scrippsranch.org/newsletter/newsletter.asp	Editor Phone: (858) 578-0430 newsletter@scrippsranch.org

Tierrasanta

The Tierra Times
PO Box 420727
San Diego, CA 92142

Deanna Spehn, Editor
Phone: (619) 280-2986
Fax: (619) 280-2989

Greater San Diego

San Diego Union-Tribune
P.O. Box 120191
San Diego, CA 92112-0191
http://www.signonsandiego.com

News Department
Phone: (619) 293-1211
Fax: (619) 293-1896
jeff.rose@uniontrib.com

Appendix F: MCAS Miramar ER Program Distribution Lists

The following lists were developed as a result of the July 2011 community interview process, and included interviewees, individuals and groups that were on the master contact list for interviews but whom did not participate, and referrals gathered from interviewees, themselves. Methods used to update the distribution lists include requests made through Base representatives, via U.S. Mail or email, at MCAS Miramar Community Plans and Liaison (CP&L) Office Community Leaders Forum (CLF) meetings or other community events; documentation of phone inquiries; and public meeting sign-in sheets. These lists will continue to be updated to ensure that the Marine Corps is reaching all interested and concerned parties. Individuals and groups on the list may receive fact sheets and other information pertinent to cleanup efforts on MCAS Miramar.

Feedback received during the community interviews resulted in an overwhelming request for electronic distribution of information and documents. In addition, the ER Program has had success in reaching community leaders by reaching out to MCAS Miramar's CP&L Office CLF meetings. Program representatives may use an email distribution list, made of community interview participants who expressed an interest in receiving more information. In addition, a more detailed Installation and Regulatory Personnel List follows, which includes contact information for CP&L Office representatives, for distribution as appropriate to CLF members (many of whom are already included in the email distribution list). To respect the privacy of personal email addresses, the email distribution list is not printed in this document; it will be maintained and updated by program personnel.

To be included or removed from distribution lists, contact Keith Spencer or Susan Van Winkle from the Installation and Regulatory Personnel list, below.

MCAS Miramar Installation and Regulatory Personnel

External Information Officer
Consolidated Public Affairs Office
Marine Corps Air Station Miramar
PO Box 452013
San Diego, CA 92145-2013
miramarcomrel@usmc.mil

MCAS Miramar *Flight Jacket,* Editor
Consolidated Public Affairs Office
Marine Corps Air Station Miramar
PO Box 452013
San Diego, CA 92145-2013
miramarflightjacket@usmc.mil

Laura Thornton,
Community Plans & Liaison Officer
Community Plans and Liaison Office
Marine Corps Air Station Miramar
PO Box 452001
San Diego, CA 92145-2001
laura.thornton@usmc.mil

Juan Lias,
Community Land Use Planner
Community Plans and Liaison Office
Marine Corps Air Station Miramar
PO Box 452001
San Diego, CA 92145-2001
juan.lias@usmc.mil

Keith Spencer, Environmental Engineer
Marine Corps Air Station Miramar
Environmental Management Department
Installation Restoration Program
PO Box 452001
San Diego, CA 92145-2001
keith.Spencer@usmc.mil

Susan Van Winkle,
Remedial Project Manager
Installation Restoration Program
Naval Facilities Engineering Command, Southwest
1220 Pacific Highway
San Diego CA 92132-5190
susan.vanwinkle@navy.mil

Beatrice Griffey, Project Manager
Regional Water Quality Control Board
9174 Skypark Court, Suite 100
San Diego, CA 92123-4353
bgriffey@waterboards.ca.gov

Sara Michael, Project Manager
Dept. of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630-4732
smichael@dtsc.ca.gov

Jerry Dunaway
Public Private Venture Housing
Naval Facilities Engineering Command, Southwest
1220 Pacific Highway
San Diego CA 92132-5190
jerry.dunaway@navy.mil

Diana Zini, Regional Property Manager
Lincoln Military Housing
Murphy Canyon Family Housing
3360 Murray Ridge Road
San Diego, CA 92123
dzini@lpsi.com

Appendix G: Area Organizations

In order to enhance communication with individuals and groups concerned with natural resource and environmental issues, the following list of community groups and councils, business organizations, environmental, and civic clubs has been compiled. This list was developed using information gathered during the July 2011 Community Involvement Interviews, and supplemented with information provided by the neighboring community organizations, regional media resources, and Internet research. This list will be updated periodically to include additional groups as the Marine Corps becomes aware of them, or as they express an interest in the MCAS Miramar IR Program.

These lists may be used in conjunction with the distribution lists referenced in Appendix E.

Community Groups and Civic Organizations*

Kearny Mesa Planning Group
c/o Buzz Gibbs, Chair
8906 Aero Drive
San Diego, CA 92123
kearnymesaplanninggroup@yahoo.com

Miramar North Planning Committee
c/o Dustin Steiner, Chair
10755 F Scripps Poway Parkway #247
San Diego, CA 92131
dustinsteiner@hotmail.com

Mira Mesa Town Council
Ted Brengel, Chair
10606-8 Camino Ruiz, PMB 230
San Diego, CA 92126
issues@MiraMesaTownCouncil.org

Mira Mesa Community Planning Group
c/o Bari Vaz, Chair
11975 Thomas Hayes Lane
San Diego, CA 92126
BariVaz@sbcglobal.net

Scripps Ranch Civic Association
Gordon Boerner, Chair
10755-F Scripps Poway Parkway
PMB # 613
San Diego, CA 92131
gboerner@san.rr.com

Scripps Miramar Ranch Community Planning Group
c/o D. Todd Philips, Chair
11017 Scripps Ranch Blvd.
San Diego, CA 92131
dtoddphilips@hotmail.com

Tierrasanta Community Council
Scott Hasson, Chair
c/o Tierrasanta Branch Library
4985 La Cuenta Drive
San Diego, CA 92124
ScottHasson007@yahoo.com

University Community Planning Group
c/o Janay Kruger, Chair
4660 La Jolla Village Drive, Suite 1080
San Diego, CA 92122
janay_kruger@msn.com

Regional Environmental Groups*

Audubon Society
4891 Pacific Highway, Suite 112
San Diego, CA 92110

Endangered Habitats League
560 La Cresta Blvd
Crest, CA 92021

Mission Trails Regional Park
One Father Junipero Serra Trail
San Diego, CA 92119

San Diego Coastkeeper
2924 Emerson Street, Suite 220
San Diego, CA 92106

Surfers Tired of Pollution
1161 Cushman Avenue, Suite A
San Diego, CA 92110

The Ocean Conservancy
Pacific Regional Office
116 New Montgomery Street
San Francisco, CA 94105

Environmental Health Coalition
401 Mile of Cars Way, Suite 310
National City, CA 91950

Friends of Rose Canyon
6804 Fisk Avenue
San Diego, CA 92122

Rose Creek Watershed Alliance
4079 Governor Drive, #330
San Diego, CA 92122

Sierra Club
San Diego Chapter
3820 Ray Street
San Diego, CA 92104

Surfrider Foundation
San Diego Chapter
PO Box 1511
Solana Beach, CA 92075

*Chairpersons and/or primary contacts in this Appendix are current as of the date of this document.

Appendix H: Locations for Community Meetings

State and federal guidelines require public participation at certain times in the cleanup process. In accordance with these requirements, community meetings may be held at required and appropriate times in the cleanup process. Participants involved in community interviews for this CRP suggested that ER Program personnel utilize the MCAS Miramar Community Plans and Liaison (CP&L) Office to disseminate information to community leaders through CP&L Office Community Leaders Forum (CLF) meetings. If deemed necessary by Environmental Restoration (ER) Program personnel or if requested by community members, additional meetings may be held off of the installation in the community in closest proximity to current remediation activities.

Locations in Neighboring Communities

Members of communities neighboring MCAS Miramar have suggested the following facilities for meetings in their respective areas:

Facility Name and Address	Facility Information	
Mira Mesa Branch Library 8405 New Salem Street San Diego, CA 92126 (858) 538-8165	Room Capacity: Fees: Equipment:	100 people No fees Projection screen
Scripps Ranch Branch Library 10301 Scripps Lake Drive San Diego, CA 92131 (858) 538-8158	Room Capacity: Fees: Equipment:	180 people $50/hour Stage, podium, screen, microphone
Tierrasanta Recreation Center 11220 Clairemont Mesa Blvd. San Diego, CA 92124 (858) 573-1393	Room Capacity: Fees: Equipment:	70 people $40/hour during operating hours $61.25/hour during non-operating hours Tables, chairs, projection screen, microphone
UTC Forum Hall 4545 La Jolla Village Drive La Jolla, CA 92137 (858) 546-8858	Room Capacity: Fees: Equipment:	140 people $250 for 6 hours Tables, chairs, projection screen, microphone

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