



COMMUNITY INVOLVEMENT PLAN

Marine Corps Air Station Miramar
Environmental Restoration Program
Miramar, California

May 4, 2017

Contract Number: N62473-13-D-4801

Document Control Number: RBAE-4801-0014-0012

COMMUNITY INVOLVEMENT PLAN

Marine Corps Air Station Miramar Environmental Restoration Program Miramar, California

May 4, 2017

Prepared for:



Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92132

On behalf of:



Marine Corps Air Station Miramar
Miramar, CA 92145

Prepared by:



Barrett Resource Group
16767 Bernardo Center Drive # 270201
San Diego, CA 92198-2201



ACT Environmental

Contract Number: N62473-13-D-4801

Deliver Order Number: TO 0014

Document Control Number (DCN): RBAE-4801-0014-0012

Executive Summary

This Community Involvement Plan (CIP) was developed for the Environmental Restoration (ER) 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 (BRG) prepared this document on behalf of MCAS Miramar as an update to the August 2012 Community Relations Plan for the installation.

This plan discusses community members' feedback regarding cleanup efforts under the base 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 survey conducted during May and June 2016, as well as offers community relations strategies for the Marine Corps to enhance communications with the surrounding communities.

The community survey responses 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. As with the results of previous CIP community interviews, 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. Community members' concerns included contaminants in the air and groundwater, as well as proper disposal methods of toxic substances and the extent of cleanup at the installation. They expressed interest in receiving periodic overviews of Program status, including background information, program developments, and impact to the community.

The purpose of this CIP is to provide a resource tool for the Marine Corps to use in reaching out to the greater MCAS Miramar community. The goal of this CIP is to enhance opportunities for community participation during the Marine Corps' environmental cleanup at MCAS Miramar. The Marine Corps will achieve this goal by (1) communicating the environmental cleanup process and related activities at MCAS Miramar to members of the public; (2) enhancing communications with the public regarding environmental cleanup activities and the possible effects on natural resources; and (3) engaging the community at critical points in the remediation process.

How to Use this Document

This CIP was prepared in accordance with the Community Involvement requirements of the Department of the Navy (DON), United States Environmental Protection Agency (USEPA), and the California Department of Toxic Substances Control (DTSC).

Chapter 1: Introduction and Background provides and background of the base, an overview of the Marine Corps' environmental cleanup initiatives at MCAS Miramar, and explains the purpose of this CIP, including objectives for community outreach.

Chapter 2: Regulatory Background and Requirements for Community Involvement, outlines the federal and state requirements for hazardous waste cleanup that guide the MCAS Miramar ER Program, including the IR Program and the MRP. In addition, a summary of the IR and MRP Sites that are included in the MCAS Miramar ER Program is included.

Chapter 3: Community Background, Outreach, and Survey Results, presents demographic information for the areas that comprise the greater MCAS Miramar community, recent outreach by the Marine Corps to the surrounding community, and a summary of the 2016 community survey.

Chapter 4: Community Involvement Program presents the goals and objectives of this plan, approaches to implementing the proposed community involvement program, and supporting activities and resources to achieve these goals.

Appendix A: References, is a record of the references used to prepare this plan.

Appendix B: Environmental Cleanup at MCAS Miramar contains a summary of both the closed and active IR Sites and MRP Sites in the MCAS Miramar ER Program.

Appendix C: Community Profile provides a more detailed overview of the communities that neighbor the shipyard.

Appendix D: Administrative Record and Information Repositories presents information on the Administrative Record (AR) file, the location of the community information repositories, and information on how to access cleanup program data on the Internet.

Appendix E: Local Media Contacts and Area Organizations provides contact information for the Marine Corps to publish Public Notices, and reach the general media and local organizations during outreach activities

Appendix F: MCAS Miramar ER Program Contacts provides mailing lists for cleanup program and agency contacts.

Appendix G: 2016 Community Survey Questions

provides the questions from the 2016 Community Survey.

Appendix H: Meeting Locations presents information on possible locations for meetings within the greater MCAS Miramar community.

Appendix I: Acronyms and Technical Terminology

Glossary provides a list of acronyms used in this document. In addition, it 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.



For more information about this document, the MCAS Miramar community involvement program, or the environmental cleanup program at MCAS Miramar, visit one of the Information Repositories provided in Appendix D.

Additionally, the table on the following page provides a list of individuals from the Marine Corps and regulatory agencies who may also be contacted for program information.

For more information about this document, MCAS Miramar’s Community Relations Program, or the ER Program at MCAS Miramar, visit one of the MCAS Miramar ER Program Information Repositories as outlined in Appendix D. For personal attention, the table below provides a list of individuals from the Marine Corps and regulatory agencies who may be contacted.

Marine Corps and Regulatory Agency Contacts

MARINE CORPS AGENCY CONTACTS

Richard Raines Installation Restoration Program Remedial Project Manager	Naval Facilities Engineering Command, Southwest 1220 Pacific Highway San Diego CA 92132-5190 richard.h.raines@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
Kristin Camper Community Plans and Liaison Office Community Land Use Planner	Marine Corps Air Station Miramar PO Box 452001 San Diego, CA 92145-2001 kristin.camper@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	San Diego Regional Water Quality Control Board 9174 Skypark Court, Suite 100 San Diego, CA 92123-4353 bgriffey@waterboards.ca.gov
Sara Michael Remedial Project Manager Environmental Scientist	Dept. of Toxic Substances Control 5796 Corporate Avenue Cypress, CA 90630-4732 sara.michael@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 Division. 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 www.miramar-ems.marines.mil.

MCAS Miramar EMS Divisions and Programs

- **Environmental Engineering**
 - Aboveground / Underground Storage Tank
 - Air Quality
 - Environmental Restoration
 - Munitions Response
 - Range Environmental Vulnerability Assessment
 - Spill Prevention Control and Countermeasures
 - Spill Response
 - Storm Water
- **Natural Resources**
 - Cultural Resources
 - Natural Resources
- **Waste Management**
 - EPCRA/Toxic Release Inventory
 - Hazardous Materials
 - Integrated Solid Waste Management Plan
 - Hazardous Waste
 - Medical Waste
 - Pollution Prevention
 - Polychlorinated Biphenyls
 - Recycling

Table of Contents

Executive Summary.....	i
How to Use this Document	ii
Chapter 1: INTRODUCTION AND BACKGROUND	1-1
Plan Introduction	1-1
MCAS Miramar Overview	1-1
MCAS Miramar History	1-2
MCAS Miramar Today	1-3
Environmental Cleanup at MCAS Miramar	1-4
Installation Restoration (IR) Program	1-4
Munitions Response Program (MRP).....	1-5
MCAS Miramar ER Program Management and Oversight.....	1-5
Purpose of the Community Involvement Plan.....	1-7
Chapter 2: REGULATORY BACKGROUND AND REQUIREMENTS FOR COMMUNITY INVOLVEMENT...2-1	
Regulatory Background.....	2-1
CERCLA	2-1
SARA.....	2-1
Environmental Restoration Process.....	2-2
Remedial Action Process.....	2-3
Requirements for Community Involvement	2-7
ER Program Sites	2-8
Chapter 3: COMMUNITY BACKGROUND, OUTREACH, and SURVEY RESULTS	3-1
Description of the Community.....	3-1
Recent Community Involvement Activities.....	3-4
Recent Media Coverage on Environmental Activities at MCAS Miramar	3-5
Community Survey	3-6
Chapter 4: Community Involvement Program.....	4-1
Federal and State Guidance Documents	4-1
Goals of Community Relations.....	4-2
Objectives of the Community Relations Program.....	4-2

Appendix A: References	A-1
Appendix B: Environmental Cleanup at MCAS Miramar	B-1
Site Descriptions	B-1
Installation Restoration Program Overview.....	B-1
Summary of Closed IR Sites.....	B-2
Summary of Active IR Program Activities	B-5
Munitions Response Program (MRP) Sites	B-9
Summary of Closed MRP Sites	B-10
Summary of Active MRP Activities.....	B-12
Appendix C: Community Profile	C-1
Community Overview	C-1
Miramar	C-1
Mira Mesa	C-2
Scripps Ranch	C-3
Tierrasanta	C-4
Education and Community Services	C-5
Education	C-5
Libraries.....	C-7
Public Affairs Office.....	C-7
Community Plans and Liaison Office.....	C-8
Community-Based Media Outlets.....	C-9
Appendix D: Administrative Record & Information Repositories.....	D-1
Administrative Record	D-1
Community Information Repositories	D-1
Internet Resources.....	D-2
Appendix E: Local Media Contacts	E-1
Public Notices.....	E-1
Appendix F: MCAS Miramar ER Program Distribution Lists	F-1
Appendix G: Survey Questions	G-1
Survey Questions	G-1
Analysis of Survey Answers.....	G-7
Appendix H: Area Organizations.....	H-1

Appendix I: Locations for Community Meetings	I-1
Appendix J: Acronyms and Technical Terminology	J-1
Acronyms	J-1
Glossary	J-4

Figures

Figure 1-1: Air Station Location Map	1-1
Figure 1-2: MCAS Miramar Sensitive Resources Map.....	1-6
Figure 2-1: Environmental Restoration Process - Phases and Milestones	2-2
Figure 2-2: Remedial Action Process	2-5
Figure 2-3: Removal Action Process.....	2-6
Figure 2-4: IR Sites at MCAS Miramar	2-10
Figure 2-5: MRP Sites at MCAS Miramar	2-11
Figure 3-1: MCAS Miramar Community	3-2
Figure 3-2: ZIP Code Map (off-base) - May 2016 Survey Mailer	3-6
Figure 3-3: Historical Participation in MCAS Miramar ER Program Surveys.....	3-8
Figure 3-4: Community Member Program Knowledge.....	3-10

Tables

Table 2-1: ER Program Sites at MCAS Miramar	2-9
Table 3-1: Estimated Population by Race	3-2
Table 3-2: Demographics of MCAS Miramar and Neighboring Communities	3-3

Chapter 1: INTRODUCTION AND BACKGROUND

Plan Introduction

This CIP is an update to the August 2012 Community Relations Plan (CRP) for MCAS Miramar's Environmental Restoration (ER) Program. It was developed to enhance community relations through education and involvement of community members. It explains how the United States Marine Corps (Marine Corps) will engage members of the neighboring communities in the cleanup process at MCAS Miramar.

MCAS Miramar Overview

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.



Figure 1-1: Air Station Location Map

MCAS Miramar History

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 of 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 (blimps). 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 Today

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.

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, 2016) 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.miramar-ems.marines.mil/Divisions/Natural-Resources-Division/Natural-Resources/>. 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 almost 10,000 active duty personnel, more than 6,000 family members, and more than 1,700 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).

Environmental Cleanup at MCAS Miramar

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, Tierrasanta, and Scripps Ranch located north, south, and east of the air station, respectively, are considered the neighbors most likely to be affected by cleanup operations.

Installation Restoration (IR) Program

The DoD developed the 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).

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. Subsequently, five IR Sites were added, bringing the total number of IR Sites on base to 20. To date, 13 IR Sites have been closed or transferred out of the MCAS Miramar IR Program resulting in seven active sites in MCAS Miramar's IR Program. 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.

An overview of the IR Sites at MCAS Miramar may be found in Chapter 3, and a summary of all of the IR Sites may be found in Appendix B.

Munitions Response Program (MRP)

DON provides guidance for cleanup of military munitions in its 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 one was subsequently added, resulting in a total of 12 sites. To date, seven MRP sites have been recommended for No Further Action (NFA). Currently, there are five active MRP sites on installation property. An overview of the MRP Sites at MCAS Miramar may be found in Chapter 3, and a summary of all of the MRP sites may be found in Appendix B.

MCAS Miramar ER Program Management and Oversight

This CIP addresses community relations activities in support of the ER Program, including the IR Program and the MRP, being conducted at MCAS Miramar and does not include any other environmental programs at MCAS Miramar. The 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 MRP.

**MCAS MIRAMAR
SENSITIVE RESOURCES
FEBRUARY 2016**

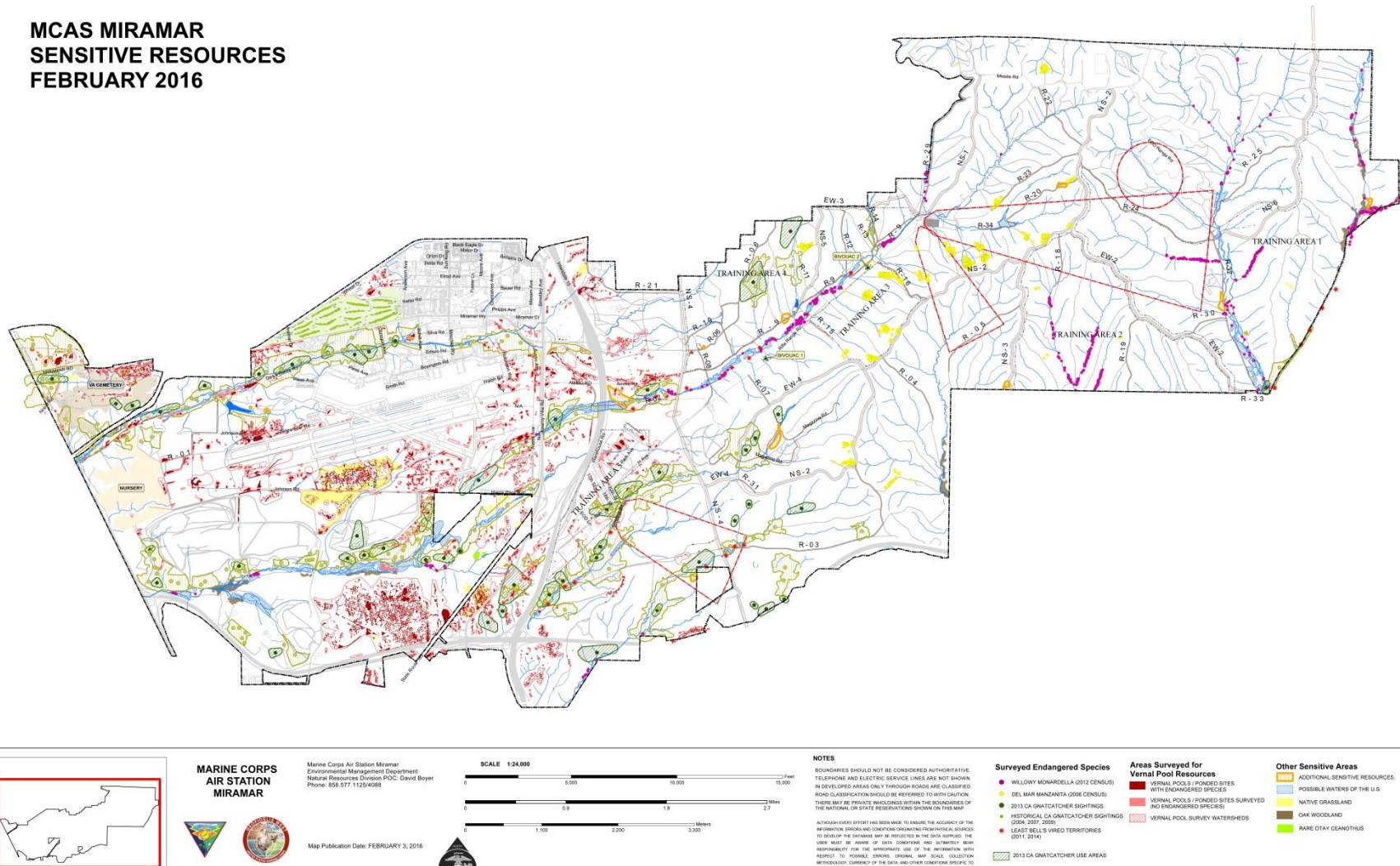


Figure 1-2: MCAS Miramar Sensitive Resources Map

(MCAS Miramar, 2016)

Purpose of the Community Involvement Plan

The purpose of this CIP is to outline methods to ensure that the Miramar community, as defined, has access to information about ER Program activities and input into cleanup plans. This document provides the Marine Corps with an opportunity to incorporate community feedback into the cleanup process at MCAS Miramar and to evaluate the effectiveness of outreach efforts. In addition, this CIP develops objectives and offers supporting activities in order for the Marine Corps to communicate with the MCAS Miramar community. The Marine Corps will re-evaluate the CIP regularly, with updates made to this plan as appropriate.

For purposes specifically related to this CIP, 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 three most populated residential communities in closest proximity to the air station: Mira Mesa to the north, Tierrasanta to the south, and Scripps Ranch to the northeast.

This plan identifies community concerns regarding environmental cleanup activities on MCAS Miramar; describes the ways in which the Marine Corps can 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 and MRP Sites. In addition, it provides an overview of the neighboring communities; reviews recent community relations activities; and summarizes the recently conducted community survey. This document is an update to the CRP for MCAS Miramar issued in August 2012. (BRG, 2012).

Community Outreach at MCAS Miramar

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. Continue to develop and distribute 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 and MRP Sites.

This Page
Left Intentionally
Blank

Chapter 2: REGULATORY BACKGROUND AND REQUIREMENTS FOR COMMUNITY INVOLVEMENT

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 DoD to clean up sites under their jurisdiction to the same safety levels required of privately owned properties.

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 as outlined in CERCLA of 1980, also known as Superfund. CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, established a series of programs for the investigation and 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 require further investigation. MCAS Miramar is not on the NPL.

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.

Environmental Restoration Process

Environmental cleanup requires a process to identify sites where potential contaminants may have been released into the environment and then survey these sites to determine whether the hazardous waste is actually present. The process must assess where the contaminants 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 them.

To accomplish cleanup, the ER Program was established, and generally follows the steps developed for CERCLA response actions. This process is used at most IR and MRP Sites, and provides a comprehensive approach from site identification through cleanup and closeout.

The 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. Figure 2-1 provides a graphical representation of the 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 J.

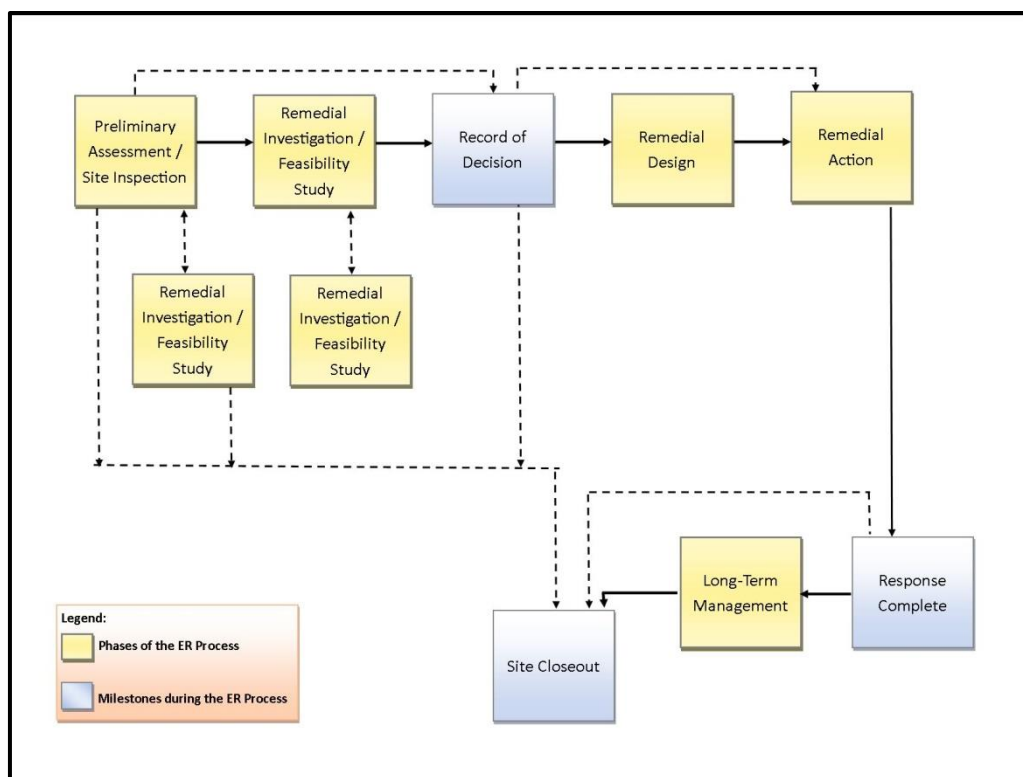


Figure 2-1: Environmental Restoration Process - Phases and Milestones

Remedial Action Process

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. Figures 2-2 and 2-3 provide a graphic representation of the remedial action and the removal action processes, respectively.

There are two important 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 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)

The Environmental Restoration Process

Environmental cleanup at MCAS Miramar follows CERCLA cleanup guidelines and includes the following phases and milestones:

- **Preliminary Assessment/Site Inspection (PA/SI)**
evaluates whether current or past waste management practices have resulted in the release of hazardous substances
- **Remedial Investigation/Feasibility Study (RI/FS)**
determine the nature and extent of contamination and establish a baseline ecological and human health risk assessment (RI), as well as an initial screening and a detailed evaluation of cleanup options (FS)
- **Record of Decision (ROD)** documents the selected cleanup solution, which is available for public review
- **Remedial Design/Remedial Action (RD/RA)** involves preparing a design for the cleanup solution (RD) and the implementation of the cleanup solution (RA)
- **Long-term Management** involves long-term monitoring of the remedy to ensure that the solution remains intact and performs as designed
- **Response Complete** occurs when all necessary remedial action activities are complete and the Marine Corps and regulatory agencies agree that no further action (NFA) is appropriate at the site
- **Site Closeout** involves the formal closure of a cleanup site, once regulatory concurrence has been received

Removal Action Process

In some cases, the Marine Corps 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 Marine Corps 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 is provided below and depicted in Figure 2-3.

Definitions of technical terminology may be found in Appendix J.

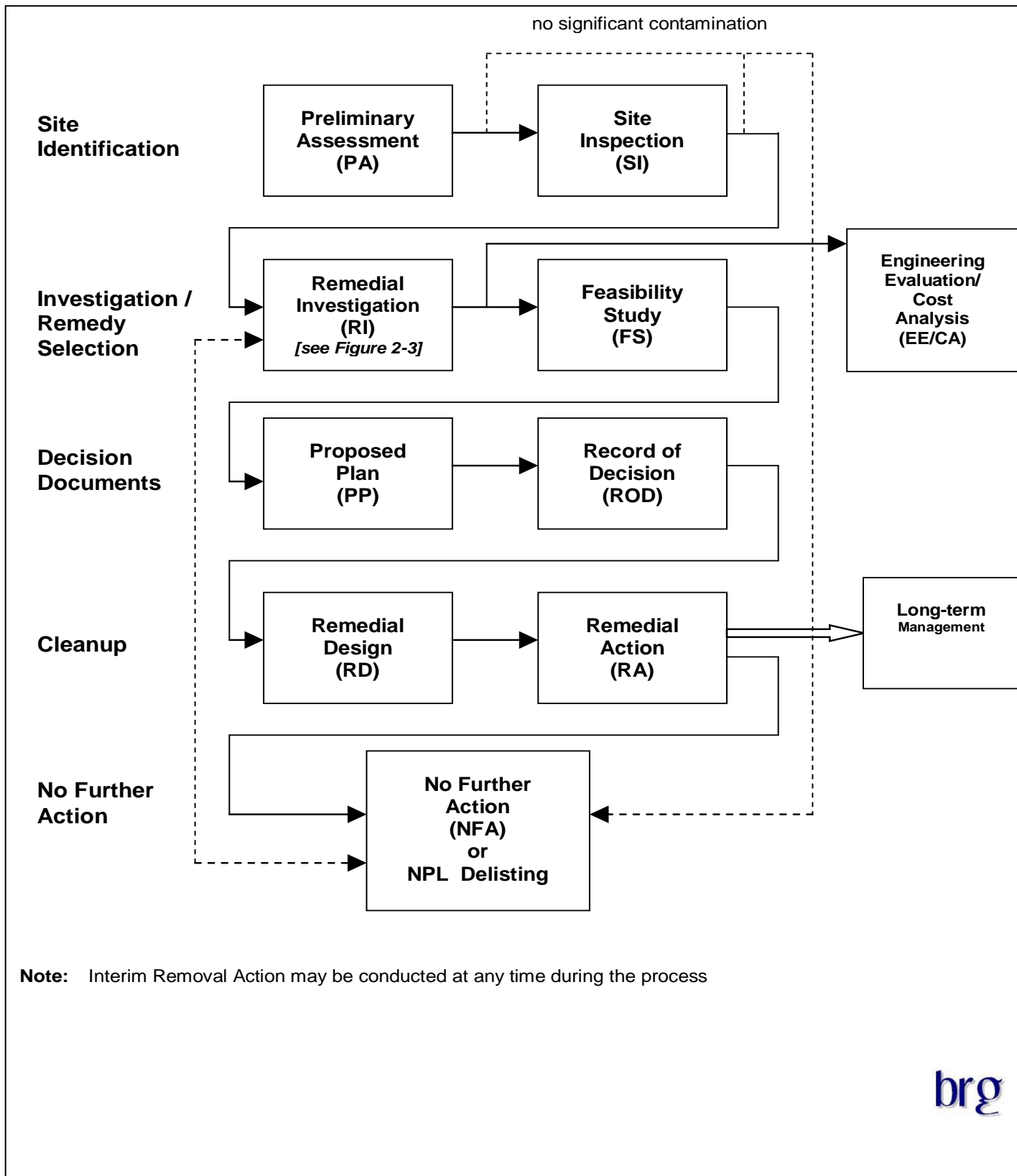


Figure 2-2: Remedial Action Process

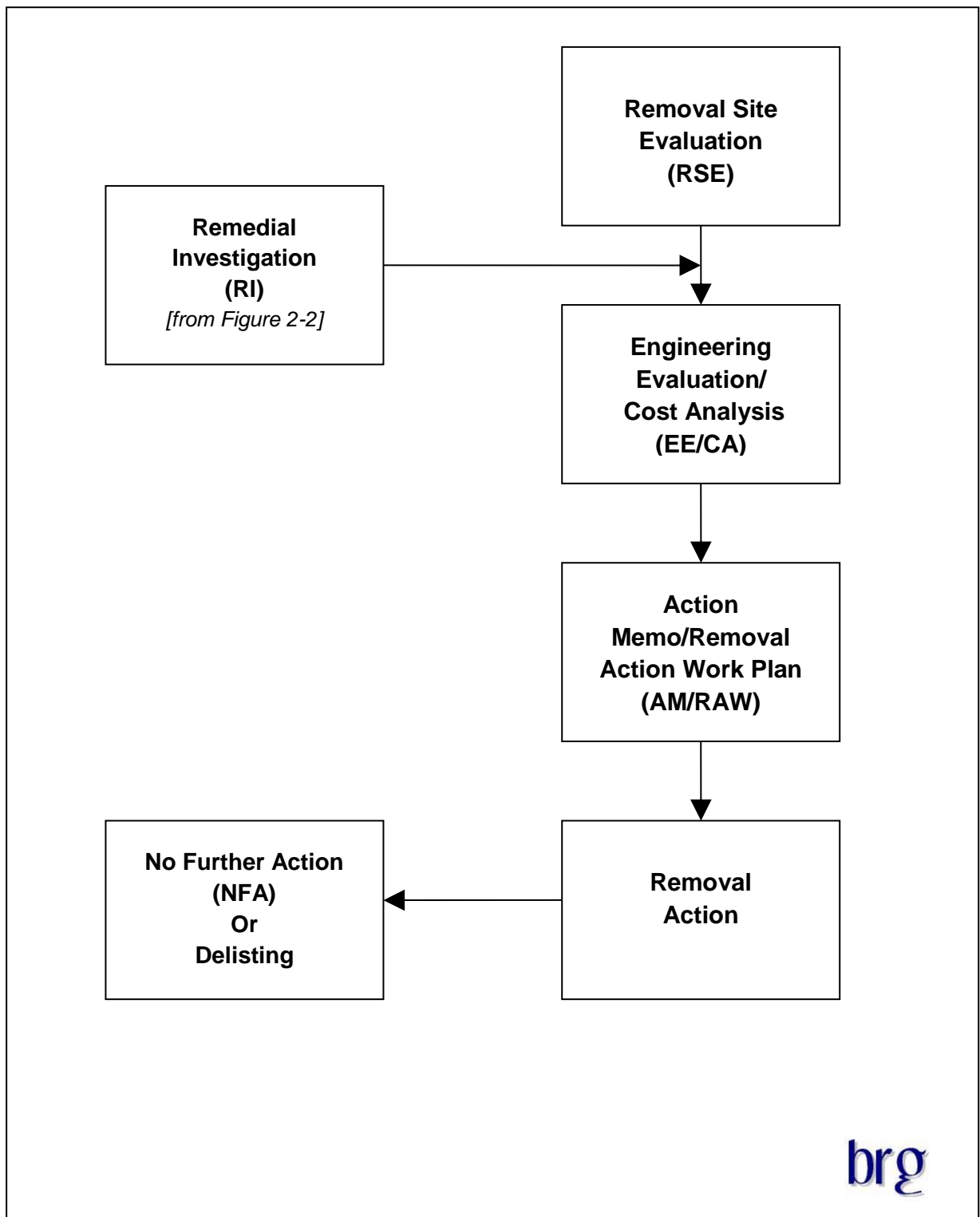


Figure 2-3: Removal Action Process

Requirements for Community Involvement

Federal and state laws and regulations require community involvement during the investigation and cleanup of ER Program 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.

Cleanup program guidance also 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 ER Programs beyond the PA/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 Marine Corps. TRC meetings were held periodically until May 1995, after which the group was disbanded following lack of public participation.

ER Program Sites

The ER Program at MCAS Miramar includes both the IR Program and the MRP. Program representatives evaluate, plan, and implement cleanup activities in accordance with CERCLA, as amended by SARA.

The Marine Corps instituted the IR Program at MCAS Miramar to meet the requirement of CERCLA. Of the 20 IR Sites that have been identified under MCAS Miramar's IR Program, seven hazardous waste sites remain on an active status at MCAS Miramar, with each site in a different stage of the cleanup process. The Marine Corps, along with NAVFAC SW, local and state regulators, monitors all sites to ensure compliance to regulations, laws and to address community concerns.

The MRP was established at MCAS Miramar to manage the environmental, health, and safety issues presented as result of munitions debris

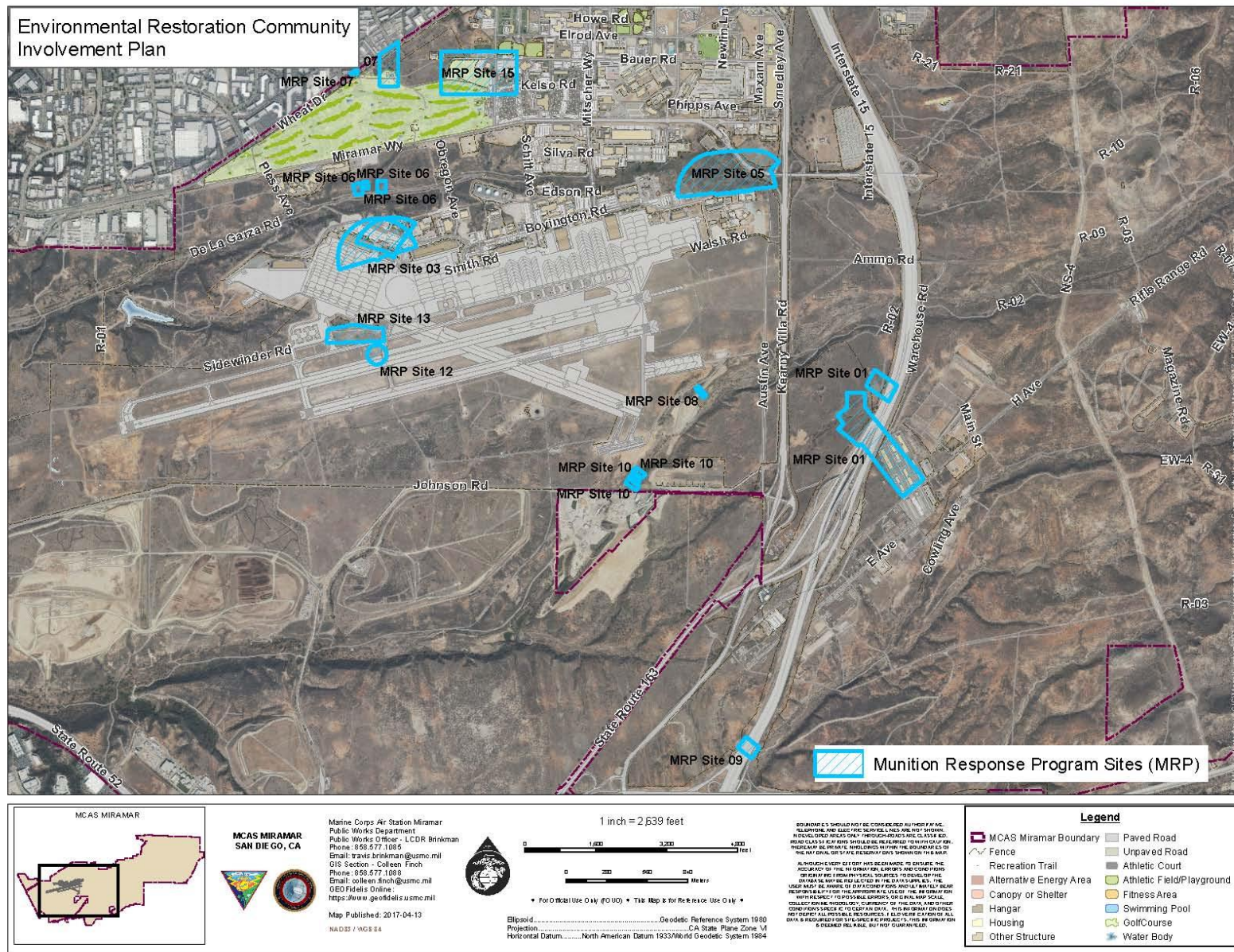
from training exercises by various military entities during their historical tenure on the installation. Of the 12 MRP Sites (also referred to as "MRS") identified on MCAS Miramar seven have been closed and five remain active.

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. Figures 2-4 and 2-5, respectively, show the active IR and MRP Sites at MCAS Miramar.

Appendix B provides a summary of each of the 13 closed and seven active IR Sites on the air station, as well as the seven closed and five active MRP Sites.

Table 2-1: ER Program Sites at MCAS Miramar

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	Closed
IR Site 7	South Miramar Landfill	Closed
IR Site 8	Old Camp Elliott Heating Plant	Closed
IR Site 9	Old Camp Elliott Impact Area	Closed
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	Closed
IR Site 16	K212 Boiler Plant Mercury Spill	Closed
IR Site 17	B380 Photo Imaging Lab	Closed
IR Site 18	NEX Main Gas Station	Active
IR Site 19	Former Gun Club	Active
IR Site 20	San Clemente Disposal Area	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	Closed
MRS 8	Pistol Range 12	Closed
MRS 9	Pistol Range 13	Closed
MRS 10	Pistol Ranges 9-11	Closed
MRS 12	Bomb Target (Kearny Field)	Closed
MRS 13	Bore Sight Range	Active
MRS 15	Rifle Range – 200 Targets	Active



This Page
Left Intentionally
Blank

Chapter 3: COMMUNITY BACKGROUND, OUTREACH, and SURVEY RESULTS

Description of the Community

Specifically for the purposes of this CIP, 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.

This section provides data of the demographics of the community as identified. It should be noted that air station demographics fluctuate based on installation needs and, as such, overall demographics may be altered slightly at any given date. All of the demographic information presented is based on 2016 estimates (Nielsen 2016), unless otherwise noted.

Estimated populations for each of the four ZIP Codes are shown in Table 3-1. Information on area population, income, and employment may be found in Table 3-2. A description and data on each neighborhood in the community is provided in Appendix C.



Table 3-1: Estimated Population by Race

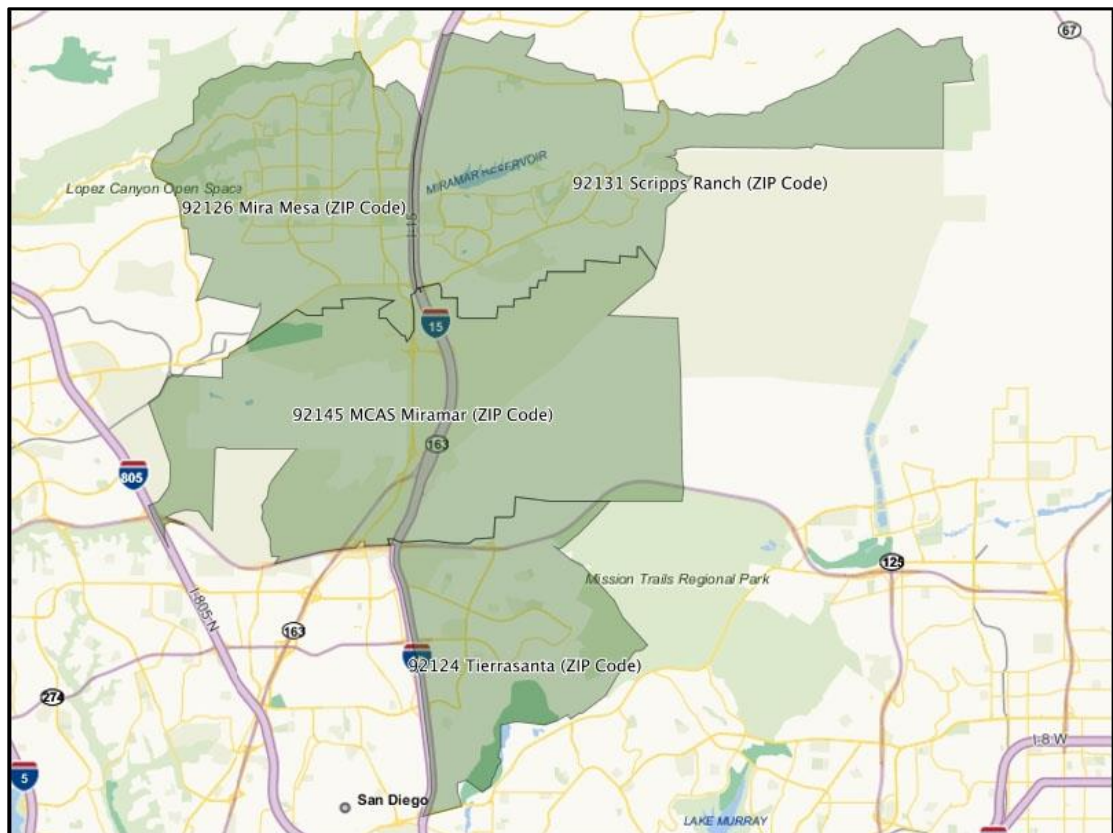
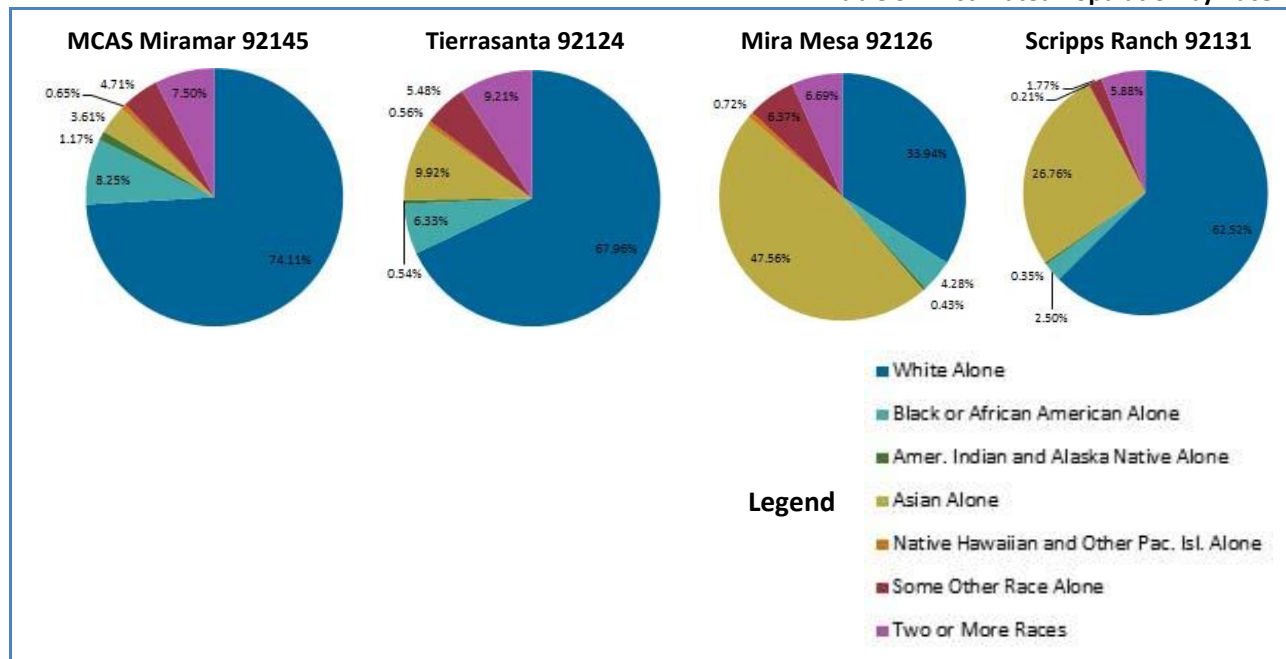


Figure 3-1: MCAS Miramar Community
(Nielsen, 2016)

Table 3-2: Demographics of MCAS Miramar and Neighboring Communities

	MCAS Miramar	Tierrasanta	Mira Mesa	Scripps Ranch
Total Estimated Population (2015)	3,079	31,945	73,272	37,061
Group Quarters Population	1,876	23	1,586	58
Total Housing Units	325	11,629	23,664	12,780
Family Households	316	8,154	17,231	10,274
Nonfamily Households	9	3,475	6,433	2,506
Mobile Home and Other	0	82	384	6
Owner-occupied	1	5,411	13,798	10,377
Renter-occupied	324	6,218	9,866	2,403
Persons per Household	3.7	2.75	3.03	2.9
Median Household Income	\$53,125	\$80,416	\$86,033	\$130,453
Estimated Population by Race & Ethnicity				
White	2,282	21,709	24,872	23,172
Black or African American	254	2,021	3,135	928
American Indian and Alaska Native	36	174	313	131
Asian	111	3,170	34,847	9,917
Native Hawaiian and Other Pacific Islander	20	178	530	76
Some Other Race Alone	145	1,751	4,670	657
Two or More Races	231	2,942	4,905	2,180
Hispanic or Latino	632	5,673	10,797	3,230
Estimated Population by Age & Sex				
Male	2,297	15,679	38,027	18,202
Female	782	16,266	35,245	18,859
Average Age	22.5	34.2	37.5	37.5

(Nielsen, 2016)

Recent Community Involvement Activities

In an effort to communicate program progress and milestones, MCAS Miramar ER Program representatives have provided information on the ER Program to communicate with the surrounding community.

In April 2016, a program update fact sheet was developed for the ER Program at MCAS Miramar. This fact sheet provided a summary of each active IR Site and MRS on MCAS Miramar, including background information, location, contaminants of concern (COCs), summaries of investigations and cleanup activities conducted at the site, and the current status of each site. In addition, it provided information on the laws and agencies involved in environmental cleanup at MCAS Miramar. The 2016 Annual Update of Cleanup Achievements was made available on the ER Program web pages, and 100 copies were distributed to key locations on the installation. In addition, copies were provided to the Mira Mesa Library, the site of one of the installation's information repositories.

A community survey was conducted from May 1, 2016 through May 31, 2016. Postcards inviting members of the public to participate in the survey were mailed to a random sampling of 12,000 United States Postal Service (USPS) business and

residential addresses closest to the base, including all available on-base addresses. The postcard mailer offered several ways for community members to participate in the survey, including a direct Internet link to the survey, a smartphone Quick Response (QR) code, an email address to request a copy of the survey, and an ER Program telephone number to request the survey through another means. In addition, 100 fliers were posted at key public locations across the base, including the Base Library, the Marine and Family Services office, the childcare center near the Main Gate, Pass and Decal, and the ER Program office. In addition, fliers were available at the Mira Mesa Branch Library.

On November 27, 2012, a Public Notice was posted in the SD U-T inviting the public to comment on the non-time critical removal action of chemically contaminated soil at IR Sites 1A, 1B, 1D, and 1F. The Public Comment Period was available to the public through December 26, 2012.

Recent Media Coverage on Environmental Activities at MCAS Miramar

In July 2016, research was conducted to determine the breadth and depth of attention that the media had given to cleanup activities at MCAS Miramar since the 2012 CRP. Electronic research was conducted utilizing the Gale database, an online repository that integrates a variety of sources including newspapers, reference books, magazines and trade publications, providing local and national access to almost 100,000,000 documents from 1980 to date. No articles were discovered during this search.

Additional research was conducted electronically utilizing the SD U-T's online resource, SignOnSanDiego.com, providing access to current and historical articles from the region's leading newspaper. No articles were discovered during this search.

As a supplement to the Gale database and the SD U-T archives, a general Internet search was done, querying MCAS Miramar environmental cleanup issues.

On June 4, 2015, the MCAS Miramar website reported the San Diego County Air Pollution Control District awarded MCAS Miramar the Clean Air Award in San Diego on May 28, 2015. (MCAS Miramar, 2015) Although not directly related to the cleanup of historical wastes at the air station, the article recognized the efforts of the base, and specifically the ER Program, in achieving positive, sustainable outcomes to reduce emissions and toxic air contaminants, which would include ER Program remediation solutions.

No other articles relating to the MRP or IR Programs on the base were discovered during the periodical search.

Community Survey

Previous community outreach surveys were conducted by contacting individuals and groups within the community and soliciting their involvement in surveys, or requesting references for other individuals and groups that might be interested in participating. This method of garnering community involvement resulted in a limited number of contacts, a low participation rate, and a limited scope of community members.

In an effort to expand the breadth and depth of outreach efforts for this CIP, a survey was distributed via USPS mail to 12,000 random business and residential addresses in the seven ZIP Codes in the closest proximity to the base (reference pink areas in Figure 3-2), including all available installation mailing addresses available through USPS purchased mailing lists.

In addition, 100 fliers were posted at key public locations across the base, including the Base Library, the Marine and Family Services office, the childcare center near the Main Gate, MCAS Miramar Pass and Decal, and the ER Program office; and fliers were also made available at the Mira Mesa Branch Library, the location of one of the ER Program's information repositories.

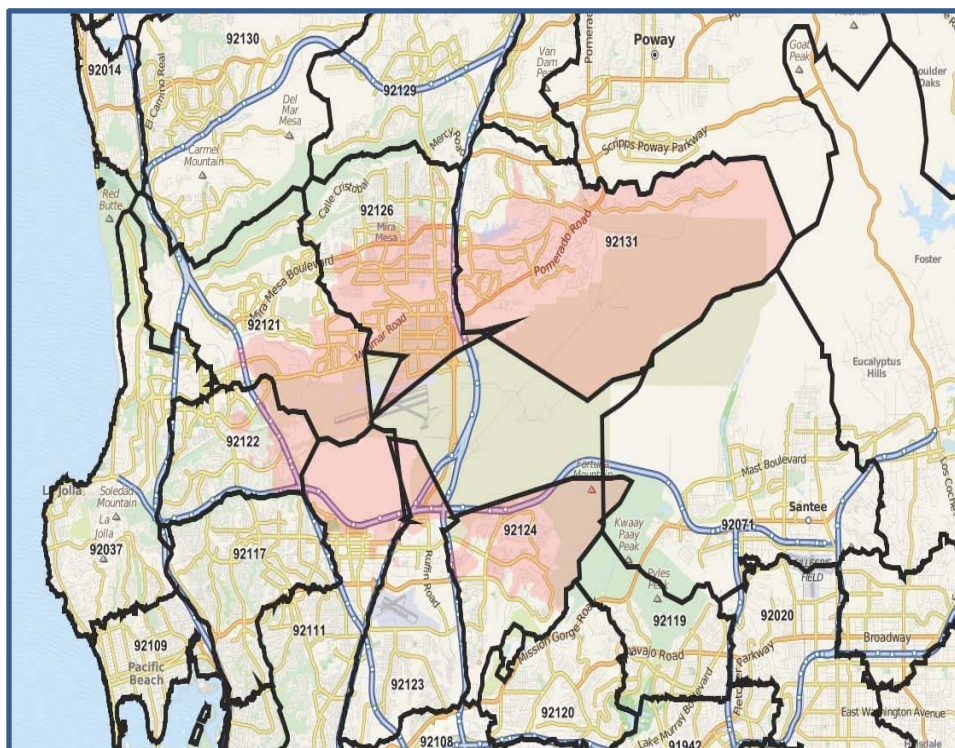


Figure 3-2: ZIP Code Map (off-base) - May 2016 Survey Mailer

The survey was developed in compliance with community relations and public participation guidelines and requirements set forth by federal and state laws and amendments. The purpose of the survey 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.

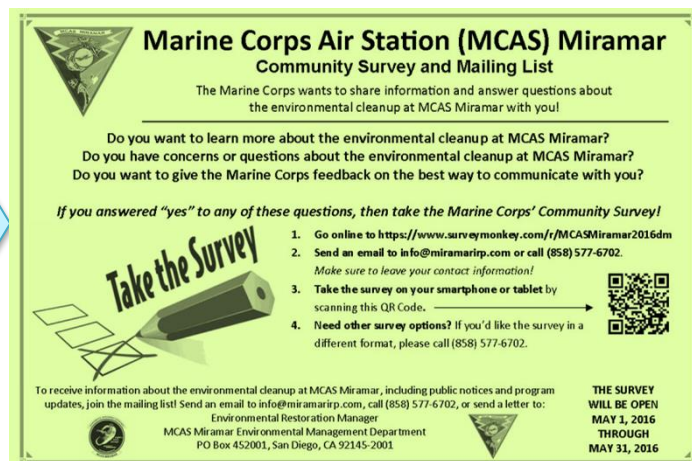
Appendix G contains the interview questions presented in the online survey. A summary of participant responses is available on the MCAS Miramar IR Program web pages; selected responses are included in this section, with editing for clarity or duplication, as necessary.

The survey was open for the entire month of May 2016, and extended to June 15, 2016 to allow individuals who had been referred to the survey to respond. In total, 62 people responded to the survey, representing less than a 1% response rate, yet a 100% increase from the 2010 interview results and a 364% increase from the interviews conducted in October 2007. Results are shown in Figure 4-3.

Of these 62 respondents to the current survey, 60 were notified of the survey by the USPS postcard mailer, and two found the survey link on the ER Program's website. There was no participation as a result of the distribution of fliers or referrals. Fifty-seven people (92%) participated in the electronic (online) survey, and five (8%) requested an electronic copy of the survey be emailed to them.

Survey Outreach

Postcards announcing the ER Program's community survey were mailed to 12,000 random business and residential addresses in seven ZIP Codes with the closest proximity to the base and more than 100 fliers were distributed.



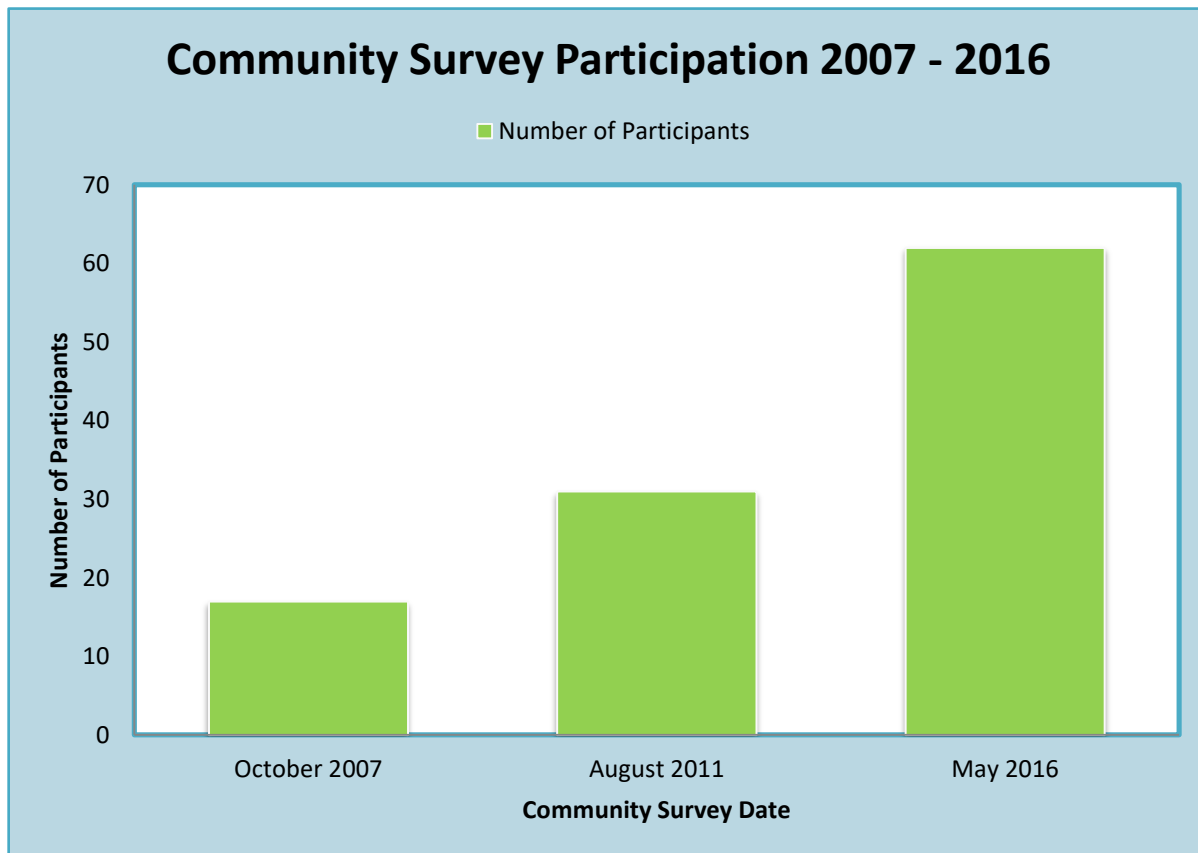


Figure 3-3: Historical Participation in MCAS Miramar ER Program Surveys

Interview Topics and Results

This section provides information from the May 2016 community survey results. Interview questions were developed to gather information about the following:

- Community Background
- Familiarity with the IR Program at MCAS Miramar
- Individual and community concerns
- Interests in receiving information and contact methods
- Knowledge of past community involvement and contact with the Marine Corps
- Familiarity with community-based and online Information Repositories
- Additional comments and concerns

Survey results are summarized on the following pages. It should be noted that some individuals skipped questions; in this case, the percent response rate correlates to the number of answers received to a particular question.

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 ER Program, including both the IR Program and the MRP. They expressed interest in receiving an overview of the installation’s 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 the cleanup operations on the surrounding communities and the effects of the remediation process on natural resources, specifically air and groundwater.

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.

The average number of years living on or near the installation was 22, and the average number of years that participants reported having worked there was 12. Seven of the interviewees (13%) reported involvement in one or more of the nine community and/or environmental groups mentioned, including one community association, one recreational council, and four environmental groups.

Community and/or Environmental groups referenced by survey participants include:

Audubon Society
Marian Bear Natural Park
Recreation Council
Master Gardeners of San Diego
Friends of Rose Canyon
Scripps Ranch Community Association
Sierra Club

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 3-4, knowledge about environmental cleanup activities on the installation appears to be limited, with 43 individuals, or 83%, reporting little or no knowledge. Eight interviewees (15%) advised that they had “a little knowledge” with cleanup initiatives, and one person (2%) advised that they were “somewhat knowledgeable”.

Participants were asked what type of information they had seen about environmental cleanup at MCAS Miramar. Of the 52 people who answered the question, 49 (94%) advised that they had not seen any information on environmental cleanup at MCAS Miramar and 3 people (6%) advised that they had seen program information. All individuals who were familiar with program-related materials advised that the base had supplied the information within the past month.

Q15 How much do you know about the Marine Corps' environmental cleanup program underway at MCAS Miramar?

Answered: 52 Skipped: 10

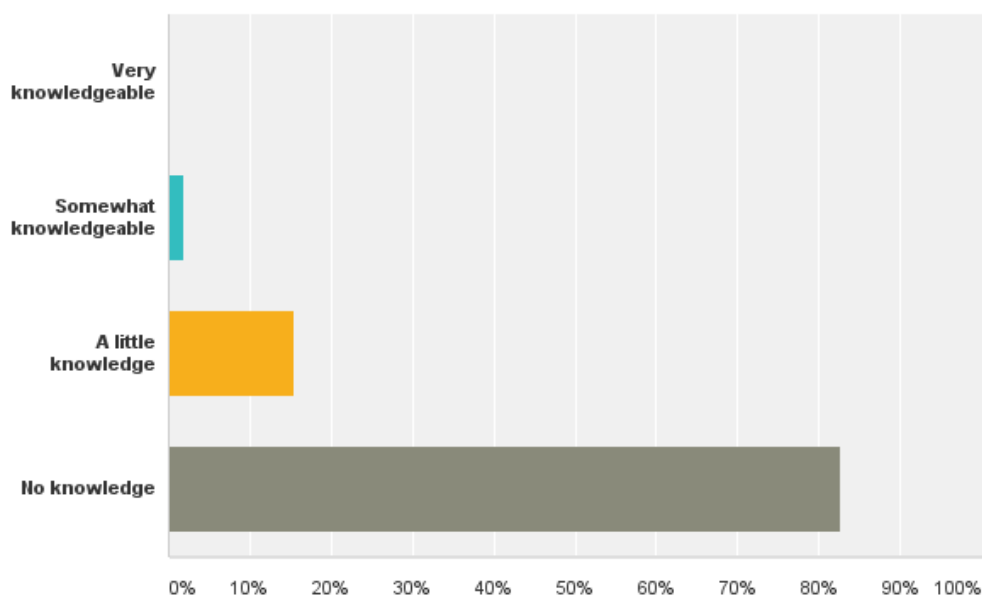


Figure 3-4: Community Member Program Knowledge

Environmental Concerns

Seven people (14%) advised that they had current concerns about the environmental cleanup efforts at MCAS Miramar. Six 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. Two of the respondents requested to be contacted regarding their concerns.

Fourteen (27%) and 31 (57%) people, respectively, reported that they did not have concerns or that they did not know if they had concerns regarding the environmental cleanup program at MCAS Miramar.

Individual concerns about environmental cleanup on MCAS Miramar included:

... odors and whether or not proper cleanup is, in fact, happening.

...toxic waste disposal, groundwater and/or soil contamination.

... the effects cleanup may have on local water supplies and traffic.

... impact on the fuel line that runs in between MCAS Miramar and North Island.

Community Concerns

Survey participants were asked how they would characterize the community's perception of the installation's environmental cleanup program. Only seven people (11%) responded to the question. Of the respondents, 6 people (86%) advised that "the community isn't aware of cleanup efforts on base" and one person answered that the community had a "negative" perception.

When asked if they felt that there were any community concerns regarding environmental cleanup on base, of the seven people that responded to the question, two (29%) advised no knowledge regarding community concerns, and five (71%) reported that community members had concerns. Open-ended responses regarding overall community concerns included: lack of information and transparency (2), air quality and effectiveness of cleanup (1), and information on the removal process (1).

Interests in Information

Survey participants expressed a limited range of interests for future information. Of the 52 people who responded to the question, 30 (58%) advised that they would like more information on the MCAS Miramar ER Program. Of these, 28 people offered specific requests for information; participant requests are summarized in the box to the right.

When asked what the best method of communicating information on the MCAS Miramar ER Program, email was the most frequently requested method by 23 people (82%). Informational fact sheets with program information were the second most-frequently requested method by eight people (29%). Additional responses include MCAS Miramar’s website (18%); Community Meetings (14%); and the MCAS Miramar ER Program web pages or newspaper articles (11% each). Regarding frequency of updates, respondents equally requested information on a quarterly basis or “as appropriate with program developments” (43% each), and 4% suggested semi-annual (twice per year) updates.

Outreach efforts for future cleanup activities are described in Chapter 4, Implementation of the Elements of the Community Involvement Plan.

Community members requested specific information on base cleanup, including:

Cleanup progress and how it may affect the surrounding neighborhoods

Information on possible health effects caused by cleanup

Air quality, groundwater contamination and disposal of hazardous wastes

Scope, schedule, objectives, methodology, and timeline of cleanup

Information Repositories

The MCAS Miramar 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, an Information Repository was

established at the Mira Mesa Branch Library in 2008. Relevant program-related documents may be found in the Reference Section of the library; documents may be reviewed on-site but are not able to be removed from the library. When current interview participants were asked if they had visited either of the program repositories,

100% of respondents advised that they had not visited either location.

In an effort to expand program resources, the ER Program web pages provide information on program developments and resources to contact program personnel for more information. When asked if they would

be interested in receiving updates on the ER Program web pages, 33 people (66%) advised that they would, and 17 people (34%) declined. Participants most frequently reported email as the best way to notify them of web page updates (91%), followed by US Mail (15%), and newspaper or community newsletters (12%).

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 evaluate communication and ER Program outreach efforts, understanding the interest in and effectiveness of social networking as a possible tool for ER Program

outreach were evaluated in a series of questions.

Participants were asked if they currently participate in social networking as a means to keep up-to-date on issues of interest. Of the 50 responses received, 21 (42%) advised that they do use social networking and 27 (54%) stated that they do not use this tool. Two people (4%) reported that they do not know what social networking is. Forty-three percent of respondents advised that they thought social networking would be an effective means of communication to receive updates on MCAS Miramar's ER Program, while 33% did not know if Social Networking would be an effective means of communication for the installation's ER Program and 23% 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 (60%) was Facebook,

followed by LinkedIn (35%) and Twitter (13%). Thirty-eight percent advised that they are currently not registered with a social networking site.

Other Comments and Concerns

At the close of the survey, participants were asked if they had any additional comments, concerns or suggestions. Thirteen people (26%) offered additional input. Four responses addressed concerns regarding the flight path for Miramar jets and three people requested access to the base for hiking and biking. One person responded “I would like to see the land remain as open space and undeveloped...”; one person stated that they had not seen any information in the local newspapers about environmental issues or cleanup at the base; and one person specifically requested “outreach to millennials”. In addition, three expressed thanks to the Marines for defending our country.

Thirty-eight (69%) of respondents requested to be included in the MCAS Miramar IR Program’s mailing list, and four provided referrals for individuals or organizations to participate in this community survey. All referrals were contacted with a survey link and contact information should they have questions about the survey; none of the referrals led to additional survey participation.

Chapter 4: Community Involvement Program

Federal and State Guidance Documents

Federal and state environmental statutes and amendments require community involvement activities for hazardous waste sites. USEPA, DoD, and California 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 CIP, are set forth in the following:

- Superfund Community Involvement Handbook (USEPA, 2016)
- Superfund Community Involvement Toolkit (USEPA, 2016)
- USMC Environmental Compliance and Protection Manual, MCO P5090.1C CH-1 (DON 2011)
- Navy Environmental Restoration Program Manual (DON, 2006)

Goals of Community Relations

As part of the Marine Corps' ongoing effort to communicate with the public, this outreach program was developed based on current information about the community, information collected from previous CRPs, and responses from the current community survey, as summarized in Chapter 4. This document is an update to the CRP for MCAS Miramar issued in August 2012 and specifically meets the outreach requirements for MCAS Miramar's ER Program, comprised of the IR Program and the MRP.

The goals of this Community Relations Program are:

1. Increase interested community members' knowledge in and awareness of ER Program within the MCAS Miramar community;
2. Develop communication strategies with the public regarding environmental issues; and
3. Involve the public at appropriate points in the remediation process

Objectives of the Community Relations Program

Following detailed research on the MCAS Miramar community and upon completion of the May 2016 community surveys, a series of Community Involvement 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 this chapter. It should be noted that all outreach efforts, and level of effort of individual outreach activities, are dependent upon available program funding.

Three objectives and supporting activities have been developed to enhance outreach to the MCAS Miramar Community, as described in the following pages.

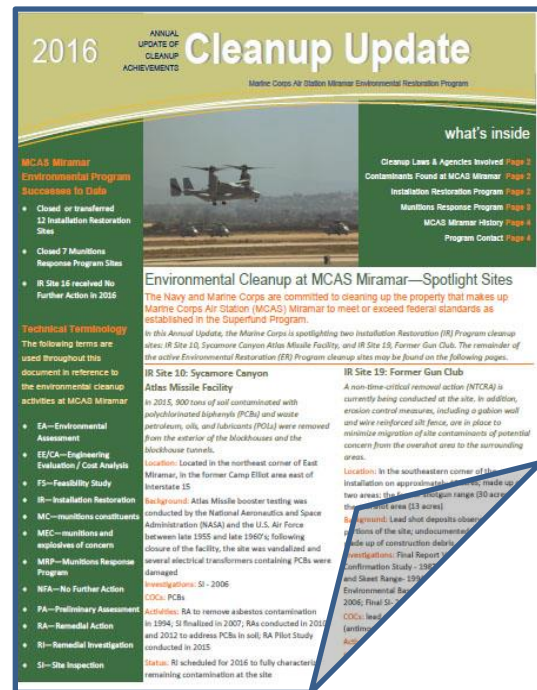
1. Communicate with the Public
2. Provide Information
3. Engage the Community

Objective 1: Communicate with the Public

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, in general, the public is not aware of, or has a limited understanding 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 April 2016, the ER Program prepared and Annual Update of Cleanup Achievements at MCAS Miramar

In order to communicate with community members about both programs, the following activities have been identified*:

- *Prepare and distribute an Annual Update of Cleanup Achievements at MCAS Miramar fact sheet, providing an overview of the program on the base, environmental cleanup goals and objectives, and site status*
- *Update ER Program web pages to include relevant ER Program information*
- *Upon request, provide information to MCAS Miramar's CP&L Office to provide program information to its Community Leaders Forum (CLF) members*

**all outreach efforts are dependent upon available program funding*

Objective 2: Provide Information

The second objective focuses on providing information to the public regarding environmental cleanup activities and possible effects on natural resources on and around the installation.

Community members who participated in the survey for this CIP expressed a general concern about the environment and the effects that ER Program cleanup activities will have on it and members of the surrounding community. They requested periodic updates to open the lines of communication between the installation and the community. The majority of participants

requested to be added to an informational mailing list, and a significant number of people believe that social networking is an effective means to communicate program information with them.



The following activities have been identified as ways to communicate program updates to the public*:

- *Publicize the availability of the Information Repository on the ER Program web pages*
- *Use the MCAS Miramar Environmental Management System (EMS) Facebook page to provide ER Program updates*
- *Upon request, provide information to MCAS Miramar's CP&L Office to provide program information to its CLF members*
- *As appropriate during the cleanup process, distribute fliers to key public locations across the base (which may include the Base Library, the Marine and Family Services office, the childcare center near the Main Gate, MCAS Miramar Pass and Decal, and the ER Program office), as well as the Mira Mesa Branch Library, the location of one of the ER Program's information repositories*

**all outreach efforts are dependent upon available program funding*

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 the cleanup process, cleanup timeline, and effects that cleanup will have on the community, as well as assurance that cleanup was effective to ensure the health and safety of community members.

Implementation of Community Involvement Program

The following activities have been identified as effective means of engaging the community*:

- *Upon request, provide information to MCAS Miramar's CP&L Office to provide program information to its Community Leaders Forum (CLF) members*
- *Utilize media and social networking resources to inform the public of upcoming activities or public comment periods, including the SD U-T and the EMS Facebook page*
- *Hold public meetings when required, as outlined in Appendix I*
- *As appropriate during the cleanup process, distribute fliers to key public locations across the base (which may include the Base Library, the Marine and Family Services office, the childcare center near the Main Gate, MCAS Miramar Pass and Decal, and the ER Program office), as well as the Mira Mesa Branch Library, the location of one of the ER Program's information repositories*

**all outreach efforts are dependent upon available program funding*

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.

Grants for Technical Assistance

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 www.epa.gov/superfund/technical-assistance-grant-tag-program.

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 (www.epa.gov/superfund/technical-assistance-communities) and in the "Superfund Community Involvement Toolkit", which is also available on USEPA's website (USEPA 2016).

EPA's PTAP Program

The Partners in Technical Assistance Program (PTAP) expands opportunities for cooperation between EPA and colleges and universities, with the shared goal of assessing and addressing the unmet technical assistance needs of impacted communities near Superfund sites. Through PTAP, colleges and universities cooperate with EPA and voluntarily commit to assist these communities. At this time, interested NIEHS Superfund Research Program grantees may join PTAP as partners by signing a Memorandum of Understanding. They may

then collaborate with EPA to assist communities impacted by brownfields, Superfund sites, or Resource Conservation and Recovery Act facilities. PTAP partners may also assist communities with technical assistance needs related to activities under various EPA programs and offices, including the Office of Environmental Justice and the Office of Water. Additional information on PTAP may be found on EPA's website at www.epa.gov/superfund/partners-technical-assistance-program-ptap.

USEPA's CARE Program

USEPA offers a competitive grant program providing funds for communities to develop innovative 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 www3.epa.gov/region9/funding/funding-sources/care.html.



Program Data Resources

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. A copy of the AR file

index is available for public review at NAVFAC SW. Office hours and contact information for the AR may be found in Appendix D. As the DoD continues to modernize resources, the AR file is available electronically and, upon request, documents may be made available via electronic copy.

In accordance with federal requirements, prior to a removal action, the Marine Corps shall publish a notice of availability of the AR in the *SD U-T* as described in Appendix E. In addition, a posting shall be made at the Information Repository located at the MCAS Miramar Environmental Management Department. Information on the AR may be found in Appendix D.

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 D.

All current program documents are available at the repository on base in the Environmental Department; the repository

housed at the Mira Mesa Branch Library contains all public documents that are currently under review.

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 (the *SD U-T*).

Annual Update

Based on feedback received during the community interview process, the ER Program will develop and distribute an Annual Update of Cleanup Achievements to provide an overview of the IR Program and the MRP at MCAS Miramar. All outreach activities are dependent upon current availability of program funds.

A link to an electronic version of the Annual Update will be made available on the ER Program web pages and on the Miramar EMS Facebook page.

Hard copies of the Annual Update will be made available to individuals and organizations upon request.

Mailing Lists

Program representatives will communicate program updates to MCAS Miramar CP&L Office as necessary to communicate progress to key community leaders on the CLF, with the ultimate goal of dissemination of

information to their respective community groups and organizations. No formal mailing lists shall be maintained by ER Program personnel.

Internet and Social Networking

Internet access to MCAS Miramar's ER Program can be found on the installation's Environmental Department's web pages at www.miramar-ems.marines.mil/Divisions/Environmental-Engineering-Division/Environmental-Restoration-ER/. 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.

Periodically, the Miramar EMS Facebook page will be updated with ER program-related information and/or links to the ER Program website. The page may be found on the Internet at <https://www.facebook.com/MiramarEMS-405871157952/> or by searching "MiramarEMS" directly from www.facebook.com.



Community Participation Resources

Community Meetings

In accordance with USEPA and DoD requirements, community meetings will be held as appropriate during the remediation process. Notices of any upcoming public meetings will be published approximately two weeks prior to the meeting in the *SD U-T* as described in Appendix E. In addition, notices will be posted at the Information Repository at the MCAS Miramar Environmental Management Department.

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

If a site tour is deemed necessary, the ER Department will coordinate with CP&L or the MCAS Miramar Public Affairs Office (PAO) to clarify the particular needs of that particular tour.

Public Notices and Public Comment Periods

Federal and state laws require publishing public notices to announce the availability of specific documents for public comment such as PPs and EE/CAs.

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 be considered and, as appropriate, incorporated into final documents. The Marine Corps will provide formal written responses to these comments.

To provide the local community with opportunities to review project documents, two Information Repositories have been established for MCAS Miramar's ER Program.

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*

The installation location is housed in the Environmental Management Department office, and the off-site location is at the Mira Mesa Branch Library. Information Repository locations and office hours may be found in Appendix D. Public notices, including information on public comment periods, public meetings, and other topics, may be

published in the *SD U-T* (as described in Appendix E).

Public notices will also be posted at the base Information Repository as outlined in Appendix D and, upon request, may also be sent out by CP&L Office for distribution to their CLF members.

Public Comment Periods

Public Comment Periods will be advertised in the *SD U-T*, and at the base Information Repository. In addition, upon request, public comment period notices may also be sent to the CP&L Office for distribution to their CLF members.

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 considered public comments during the decision-making process, in addition to providing answers to major comments.

Language Interpretation Needs

Analysis of the demographic breakdown of the surrounding communities showed no major changes since the community interview process for the 2012 CRP. Previous and current public participation resulted in no request by participants for translation of documents and

materials into any other languages; should enough requests be made for translation of written or verbal communications, the Marine Corps will investigate translation services for the community in question.



Appendix A: References

Alliant International University (Alliant), 2016. Internet address: www.alliant.edu. Accessed July 2016.

Barrett Resource Group (BRG), 2012. Community Relations Plan. Marine Corps Air Station Miramar. Installation Restoration Program. Miramar, California. DCN: PARP-0004-FZN7-0001. December 17, 2012.

City of San Diego Planning Group (City of San Diego), 2011a. Latitude 33 Planning and Engineering for the City of San Diego Planning and Development Review Department. Mira Mesa Community Plan. Internet address: <http://www.sandiego.gov/planning/community/profiles/miramesa/pdf/mmcpfv.pdf>. July 30, 1992; updated April 26, 2011. Accessed September 13, 2011.

City of San Diego Planning Group (City of San Diego), 2011b. Scripps Miramar Ranch Community Plan. Scripps Miramar Ranch Planning Committee, Rick Engineering Company, and The City of San Diego. Internet address: <http://www.sandiego.gov/planning/community/profiles/scrippsmiramarranch/index.shtml>. June 8, 1979; Revision date: April 26, 2011. Accessed September 13, 2011.

City of San Diego Planning Group (City of San Diego), 2011c. Tierrasanta Community Plan. Internet address: <http://www.sandiego.gov/planning/community/profiles/tierrasanta/pdf/tierrasantafull.pdf>. 1982; Revision date: April 26, 2011. Accessed September 13, 2011.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 1980. Internet address: <http://www.epa.gov/superfund/action/law/cercla.htm>. December 11, 1980. Accessed numerous times November 2010 – September 2011.

Department of Defense Environmental Cleanup and Defense Environmental Restoration Program (DERP). Internet address: <https://www.denix.osd.mil/denix/Public/Library/Cleanup/CleanupOfc/derp/index.html>. January 3, 2011. Accessed numerous times November 2010 - September, 2011.

Department of Justice (DOJ), 1994. Guidance Concerning Environmental Justice. Executive Order No. 12898 (59 Fed. Reg. 7629 [Feb. 16, 1994]). Internet address:
<http://www.usdoj.gov/archive/enrd/ejguide.html>. February 1994.

Department of the Army (DOA), 2005. Memorandum for the Assistant Chief of Staff for Installation Management; Subject: Munitions Response Terminology. April 21, 2005.

Department of the Navy (DON), 2006. Navy Environmental Restoration Program Manual. Internet address:
https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac_ww_pp/navfac_nfesc_pp/environmental/erb/resourceerb/nerp_manual_2006_0.pdf. August 2006. Accessed numerous times September 2011 – January 2012.

Department of the Navy (DON), 2011. Environmental Readiness Program Manual. OPNAVIST 5090.1C CH-1. Internet Address:
<http://doni.daps.dla.mil/Directives/05000%20General%20Management%20Security%20and%20Safety%20Services/05-00%20General%20Admin%20and%20Management%20Support/5090.1C%20CH-1.pdf>. July 18, 2011. Accessed September 13, 2011.

Department of the Navy (DON), Headquarters, United States Marine Corps, July 1998. Marine Corps Environmental Compliance and Protection Manual. Internet address:
<https://www.denix.osd.mil/denix/Public/Policy/Marine/5090.2A/contents.html>. July 10, 1998.

Department of Toxic Substance Control (DTSC), 2001. State of California Environmental Protection Agency Department of Toxic Substances Control Public Participation Manual. Internet address:
<http://www.dtsc.ca.gov/LawsRegsPolicies/Policies/PPP/PublicParticipationManual.cfm>. October 2011.

Hiltz, Starr Roxanne and Murray Turoff. (Hiltz), 1993. The Network Nation: Human Communication via Computer, Revised Edition, MIT Press, Cambridge, Mass. 1993.

Lincoln Military Housing (Lincoln), 2016. Internet address: <http://www.lincolnmilitary.com/lmh/>. Accessed numerous times July 2016.

Marine Corp Air Station Miramar MCAS Miramar), 2015. MCAS Miramar Wins Clean Air Award.
<http://www.3rdmaw.marines.mil/News/News-Article-Display/Article/590629/mcas-miramar-wins-clean-air-award/>. June 4, 2015. Accessed July 25, 2016.

Marine Corps Air Station Miramar (MCAS Miramar), 2016a. *MCAS Miramar Installation Restoration and Munitions Response Sites* [Map]. Environmental Management Division Geographic Information Systems. August 2016.

Marine Corps Air Station Miramar (MCAS Miramar), 2016b. *MCAS Miramar Installation Restoration Sites* [Map]. Environmental Management Division Geographic Information Systems. August 2016.

Marine Corps Air Station Miramar (MCAS Miramar), 2016c. *MCAS Miramar Munitions Response Sites* [Map]. Environmental Management Division Geographic Information Systems. August 2016.

Marine Corps Air Station Miramar Environmental Management System (MCAS Miramar EMS), 2016.
 Environmental Management System Internet address:
http://www.miramarenvironmentalintranet.com/environmental_programs/default.htm.
 Accessed numerous times January – July 2016.

Mira Mesa Town Council (MMTC), 2007. Internet address: <http://www.miramesatowncouncil.org/> .

Naval Air Station Miramar (NAS Miramar), 1995. Community Relations Plan, Revision 2. Staff of Environmental Protection Division, Staff Civil Engineer Department, Naval Air Station Miramar. March 21, 1995.

Naval Engineering and Environmental Support Activity (NEESA), 1984. Initial Assessment Study of Naval Air Station, Miramar, California. NEESA 13-058. Prepared by SCS Engineers, Inc. September 1984.

Naval Facilities Engineering Command (NAVFAC), 2017. Site Management Plan. Marine Corps Air Station Miramar. Environmental Restoration Program. Miramar, California. DCN: RBAE-4801-0014-0011. February, 2017.

Nielsen Segmentation Solutions, 2016. www.claritas.com. Accessed numerous times May – July 2016.

San Diego Miramar College (Miramar), 2016. Internet address:
<http://www.miramarcollege.net/aboutmiramar/index.asp>. September 2016.

- San Diego North County Chamber of Commerce (SDNCC), 2011. Communities: MCAS Miramar.
Internet address: <http://www.sdncc.com/communities/mcas>. Accessed September 29, 2011.
- Scripps Ranch Civic Association (SRCA), 2011. History of Scripps Ranch. Internet Address:
<http://www.scrippsranch.org/community/history.html>. Accessed November 29, 2010 and
September 26, 2011.
- Stout, Gene and Associates; Geomorph Information Systems; and Natural Resources Division,
Environmental Management Department, Marine Corps Air Station Miramar (Stout), 2016.
Integrated Natural Resources Management Plan for Marine Corps Air Station Miramar,
Miramar, CA, 2011 - 2016. Internet address:
[http://www.miramar.usmc.mil/ems/environmental_programs/nat_resources/managementpla
n.htm](http://www.miramar.usmc.mil/ems/environmental_programs/nat_resources/managementplan.htm). August 2011.
- Tierrasanta Community Council (TCC), 2011. Internet address: <http://www.tierrasantacc.org/>.
- U.S. Environmental Protection Agency (USEPA), 2010. Federal Facilities Restoration and Reuse Office:
Military Munitions/Unexploded Ordnance. Internet Address:
<http://www.epa.gov/fedfac/documents/munitions.htm>. Accessed September 29, 2011.
- U.S. Environmental Protection Agency (USEPA), 2016. Community Relations in Superfund: Community
Involvement Handbook. Internet address:
http://www.epa.gov/superfund/community/cag/pdfs/ci_handbook.pdf. October 2001;
updated April 2016. Accessed numerous times June – July 2016.
- U.S. Environmental Protection Agency (USEPA), 2016. Community Relations in Superfund: Community
Involvement Toolkit. Internet address:
<http://www.epa.gov/superfund/community/toolkit.htm>. Updated 2010. Accessed numerous
times June – July 2016.

Appendix B: Environmental Cleanup at MCAS Miramar

Site Descriptions

This section includes an overview of activities for the IR and MRP on MCAS Miramar, including summaries of the IR Sites and the MRP Site (also referred to as Munitions Response Sites [MRS]). Site status is current as of the writing of this CIP. An overview of the IR Program, the MRP, a summary chart, and a map of all of the IR and MRP Sites on MCAS Miramar may be found in Chapter 2 of this CIP. Summaries of all of the closed and active sites in the MCAS ER Program may be found in this appendix. Site status is current as of the February 2017 Site Management Plan for MCAS Miramar (NAVFAC 2017).

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 20 IR Sites have been identified under MCAS Miramar's IR Program, including the original 10 sites from the 1984 IAS and ten additional sites that have since been discovered.

To date, 13 of the IR Sites on MCAS Miramar have been closed or transferred out of the MCAS Miramar IR Program 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 nine additional sites and were then determined to have little to no risk to human health or the environment; with regulatory concurrence, these 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 IR Program.

Seven 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 NAVFAC SW, local and state regulators, monitors all sites to ensure compliance to regulations, laws and to address community concerns.

Summary of Closed IR Sites

A brief summary of each closed IR Site at MCAS Miramar follows.

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.

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.

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 is currently being conducted by the City of San Diego.

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.

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.

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.

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.

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.

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.

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.

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 was completed in 2012. An Extended SI in 2014 resulted in concurrence for NFA at this site by the RWQCB.



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 was completed in 2013. Analysis of soil samples resulted in contaminants at levels that will not pose a threat to human health or the environment. NFA for this site has been accepted by RWQCB and the site is closed.

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.

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.

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. 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. Soils with elevated concentrations of TPH, PCBs, and PAHs were removed during new fuel farm construction; RAs and an NTCRA to remove contaminated soils at Sites 1A, 1B and 1D were completed in 2015, and a No Further Action Status was received for Site 1F. A new project is being planned that will complete activities at Sites 1A, 1B, 1C and 1E so that the sites can be closed with unrestricted reuse in FY2018.

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 extended SI is currently underway at IR Site 2.



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.



The Main Waste Area was fully characterized and a landfill cap and erosion measures were installed in 2015. Portions of IR Site 5 were re-designated as IR Site 20 in 2015. Long-term monitoring and maintenance of IR Site 5 began in 2016.

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 was conducted in 2012 to address PCBs in soil. An RI is schedule for 2016 to fully characterize the remaining contamination at the site.

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. Soil samples taken in 1997 indicated groundwater beneath the site had been impacted with petroleum hydrocarbons. Contaminated soil was excavated and disposed of offsite. Groundwater monitoring has been ongoing since 2001. Site remediation using a Passive Soil Venting System began in 2016 and was shown to be effective at intercepting and reducing the contamination migrating under the building. Following successful results of the soil vapor venting system, the site entered LTM.

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 Interim NTCRA is planned to be completed in 2017, and will determine feasibility of removing surface lead and PAH contamination and to implement erosion control measures. Site MRS 10 is adjacent to site 19 and has evidence of contamination coming off of the Site 19 as overshot. Based on the similarities of the contamination and the evidence of cross contamination from MRS 10, the DON with concurrence from DTSC transferred Site MRS 10 from the MRP program and placed it within the Site 19 boundary, resulting in the closure of MRS 10.

IR Site 20: San Clemente Disposal Area

Located at the end of the main runway for the airfield in an undeveloped area, IR Site 20 is the portion of IR Site 5 that lies outside of the capped landfill. IR Site 20 was originally part of IR Site 5; however in March 2015 the main landfill area (IR Site 5) was prepared to go into long term maintenance and monitoring, yet evaluation of the contamination surrounding the landfill still required additional investigation. The area surrounding outside of the capped landfill was made a new site (IR Site 20). In addition, overshot from a local skeet range (IR Site 19) was observed in the area. A RI/FS was initiated in 2016 to fully characterize the site contamination.

Munitions Response Program (MRP) Sites

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 UXO, DMM, and 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 PA was conducted for the MCAS Miramar's MRP in 2008 resulting in 11 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, increasing the number of total number of MRS on MCAS Miramar to 12. SI Reports were submitted in 2011, as referenced in the subsections to follow, resulting in recommendations for NFA for six of the 12 MRS, and further evaluation for the remaining sites. One additional site has subsequently been closed.

Summary of Closed MRP Sites

MCAS Miramar's MRP has received regulatory concurrence for closure at seven of the original 12 MRP Sites on the air station. A summary of each closed MR) may be found below.

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. A 2007 PA resulted in no observation of MC. MRS 2 was closed with NFA required on September 25, 2007.

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. A 2007 PA resulted in no observation of MEC or MC, allowing the site to be closed on September 25, 2007 with NFA required.

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. The site was closed on February 28, 2011 with NFA required.

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.

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, 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.

MRS 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. It is adjacent to the southern boundary of IR Site 5 and overlapped by the western extent of IR Site 19.

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. An SI was conducted in March 2011, resulting in elevated levels of metals associated with munitions (lead, copper, zinc, and antimony). The site was closed for MEC per the 2011 SI.

IN 2016, MRS 10 was administratively transferred from the MMRP Program and included in the CERCLA Program to be addressed as part of IR Site 19 due to the co-mingling of contamination.

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. MRS 12 was closed with NFA required on February 28, 2011.

Summary of Active MRP Activities

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

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. An Extended SI began in 2016.

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. A limited Removal Action was completed in 2012 and the RI/FS began in 2016.

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. The site was closed for MEC per the results of the 2011 SI. An RI/FS for the remaining COCs (elevated levels of metals associated with munitions: lead, copper, zinc, and antimony) at MRS 6 is pending in 2017.

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. An RI was conducted in 2013, resulting in no metals concentrations reported above the range of both MCAS Miramar background values and human health screening levels. Based on the conclusions of the RI field investigations and risk assessment results, MRS 13 was recommended for NFA at the site. An Explosive Safety Submission is anticipated in 2017, which will result in site closure.

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 completed in 2011, 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. Funding was not received for this site. An RI/FS has been budgeted and planned for 2020.

Appendix C: Community Profile

Community Overview

Specifically for the purposes of this CIP, 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.

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. 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 behavioral health, family care, family readiness, and personal and professional development. In addition to the Marine and Family Programs, MCCS offers recreation, fitness, shopping, services, and dining clubs and lodging for air station residents, off-base personnel, and military retirees. MCCS provides employment for military family members on a full- or part-time basis, and active-duty members on a part-time basis.

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.

More information on MCCS Miramar may be found at on the Internet at www.mccsmiramar.com.

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. The community offers 2- and 3-bedroom townhomes, including a children's play area and a half-court basketball court, and is located approximately three miles north of MCAS Miramar. (Lincoln, 2016) 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.

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 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 approximately 3 miles from MCAS Miramar. (Lincoln, 2016)

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)

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 has been fully built out since the early 1990s; the population has grown from 173 persons in 1971 to its current estimated population of just over 30,000.

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.

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, as well as community-based resources, including community centers, public pools, and play areas. (Lincoln, 2016) 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)

Education and Community Services

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. New construction on campus ensures first-class facilities and state-of-the-art technology for students. (Miramar, 2011)

Alliant International University (formerly Alliant University) is located north of MCAS Miramar on Pomerado Road in Scripps Miramar Ranch. Alliant has a 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. Information on Alliant may be found on the Internet at www.alliant.edu.

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 the table below.

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

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 current MCAS Miramar ER Program documents available for public review. Contact information and hours for the Mira Mesa Branch Library and the Information Repository can be found in Appendix D.

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 pre-arranged 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.

Community Plans and Liaison Office

MCAS Miramar's Community Plans and Liaison (CP&L) Office's mission is 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.

ER Program updates will be provided to the CP&L upon request as an efficient and effective means of communication of program information and achievements to community leaders.

Community-Based Media Outlets

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. The Flight Jacket may be found on the Internet 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.

Upon request, ER Program information and updates will be provided to community-based media outlets.

This Page
Left Intentionally
Blank

Appendix D: Administrative Record & Information Repositories

Administrative Record

The complete AR for MCAS Miramar is maintained at NAVFAC SW in San Diego, California. Appointments must be made to review documents. Documents may not be removed from the facility, although they may be photocopied. As the DoD continues to modernize resources, the AR file is available electronically and, upon request, documents may be made available via electronic copy.

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

Base Information Repository Contact:	Office Hours:	
Ms. Diane Silva Naval Facilities Engineering Command Southwest Division 1220 Pacific Highway Code EV33, NBSD Bldg. 3519 San Diego, CA 92132 (619) 556-1280 diane.silva@navy.mil	Monday	8:00 a.m. – 5:00 p.m.
	Monday	8:00 a.m. – 5:00 p.m.
	Monday	8:00 a.m. – 5:00 p.m.
	Monday	8:00 a.m. – 5:00 p.m.
	Monday	8:00 a.m. – 5:00 p.m.
	Saturday	Closed
	Sunday	Closed

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. The base location is housed in the Environmental Management Department office, and the off-site location is at the Mira Mesa Branch Library. The base location maintains all current documents on the MCAS Miramar ER Program; however the library location only contains ER Program documents that are available for current public review.

Base Information Repository Contact:	Office Hours:	
Marine Corps Air Station Miramar Environmental Management Department Building 6022 San Diego, CA 92145-2001 (858) 577-1102	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

Community Information Repository Contact:	Hours:
Mira Mesa Branch Library Reference Section 8405 New Salem Street San Diego, CA 92126-2398 (858) 538-8165	Please contact the library directly for current operating hours.

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 20 identified IR Sites on the installation; and
- a summary of the installation's MRP, including information on the seven active Munitions Response Sites (MRS).

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 *SD U-T* 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 available on the Internet on dedicated MCAS Miramar ER Program web pages.

This Page
Left Intentionally
Blank

Appendix F: MCAS Miramar ER Program Distribution Lists

Contact information for installation and regulatory personnel has been updated in conjunction with this CIP and is current as of the writing of this document. This list may be updated in conjunction with future CIP Updates.

Upon request by the MCAS Miramar CP&L Office, ER Program information and updates will be provided to share with community leaders at CLF meetings.

Program personnel may use individual lists for current program updates no public mailing lists will be maintained.

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

Kristin Camper
Community Land Use Planner
Community Plans and Liaison Office
Marine Corps Air Station Miramar
 PO Box 452001
 San Diego, CA 92145-2001
 kristin.camper@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 Restoration Program Manager
Marine Corps Air Station Miramar
 Environmental Management Department
 Installation Restoration Program
 PO Box 452001
 San Diego, CA 92145-2001
 keith.Spencer@usmc.mil

Richard Raines
Remedial Project Manager
Installation Restoration Program
Naval Facilities Engineering Command, Southwest
 1220 Pacific Highway
 San Diego CA 92132-5190
 richard.h.raines@navy.mil

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

Sara Michael
Project Manager, Environmental Scientist
Dept. of Toxic Substances Control
 5796 Corporate Avenue
 Cypress, CA 90630-4732
 sara.michael@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: Survey Questions

During the spring of 2016, the MCAS Miramar ER Program solicited public involvement to determine the breadth and depth of knowledge about the ER Program on the installation. In addition, the survey requested community feedback on concerns related to the cleanup on the base, and the effectiveness of outreach efforts. The MCAS Miramar ER Program's community survey was available to the public from May 1, 2016 through June 15, 2016. Questions from the survey are included at the beginning of this appendix, and an analysis of results for questions relevant to program review and improvement are provided at the end of this appendix. The ER Program Manager will retain a copy of the survey responses.

Survey Questions

Introduction

In accordance with federal and state guidelines, MCAS Miramar's Environmental Restoration Program is in the process of updating its Community Involvement Plan (CIP). The Environmental Restoration Program includes both the Installation Restoration (IR) Program and the Military Munitions Response Program (MMRP). The IR Program addresses the cleanup of past hazardous wastes on federal properties, but does not include munitions. The MMRP addresses munitions and related materials used or released during past operations and activities on other than operational ranges. Response actions on MMRP 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 MMRP, 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 MMRP guidelines.

THE SURVEY WILL BE OPEN THE ENTIRE MONTH OF MAY, 2016.

BACKGROUND / PROGRAM CONTACT

1. This is an electronic survey tool. Please advise below if you would prefer to participate in the survey by another means.

- PROCEED WITH ELECTRONIC SURVEY TOOL
- Emailed Survey (Adobe PDF document)
- Faxed Survey
- Via U.S. Mail
- Face-to-Face Interview

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

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

- Yes
- No

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

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.

5. In the past five years, have you had any contact with the Marine Corps, local, state, or other officials regarding environmental cleanup activities on MCAS Miramar?

- Yes
- No
- I don't remember

6. With whom did you make contact?

- Marine Corps
- Regional Water Quality Control Board
- Department of Toxic Substances Control
- Other (please specify)

7. What was the nature of this contact?

8. What kind of response did you receive?

9. How much do you know about the Marine Corps' environmental cleanup program underway at MCAS Miramar?

- Very knowledgeable
- Somewhat knowledgeable
- A little knowledge
- No knowledge
- Other (please specify)

10. What information regarding environmental cleanup on the Base have you seen? (Please describe)

CONCERNS

11. Do you have any current concerns about the environmental cleanup program * on MCAS Miramar?
- Yes
 - No
 - I don't know
12. Please summarize your concerns regarding the environmental cleanup program.
13. Would you like to be contacted regarding your concern(s)?
- Yes
 - No
 - U.S. Mail
 - I am not interested in receiving information on the cleanup program.
14. How would you characterize the COMMUNITY'S perception of the Base's environmental cleanup program?
- Positive
 - Neutral
 - Negative
 - The community isn't aware of cleanup efforts on base.
 - I don't know
 - Other (please specify)
15. Do you feel that there are any COMMUNITY concerns regarding environmental * cleanup on Base?
- Yes
 - No
 - I don't know
 - Please describe the concerns that you feel the COMMUNITY has about this program.

PROGRAM INFORMATION

16. Are you interested in certain aspects of base cleanup or would you like to receive more information on a certain aspect of base cleanup?

- I am not interested in any aspects of base cleanup.
- Yes
- No
- I don't know
 - What aspects of the base cleanup are you most interested in or would you like to receive
 - How often would you like to receive updates?
 - Quarterly (4 times per year)
 - Semi-Annually (2 times per year)
 - Annually (1 time per year)
 - Bi-Annually (every two years)
 - As appropriate with program developments.
 - Other (please specify)
 - What is the best way to communicate information or updates to you?
 - Email
 - MCAS Miramar's Website (<http://www.miramar.usmc.mil>)
 - MCAS Miramar's Environmental Restoration Program Website ([http://www.miramarems.marines.mil/Divisions/EnvironmentalEngineeringDivision/EnvironmentalRestoration\(ER\).aspx](http://www.miramarems.marines.mil/Divisions/EnvironmentalEngineeringDivision/EnvironmentalRestoration(ER).aspx))
 - Fact Sheets
 - Community Meetings
 - Newspaper Articles

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

17. Have you visited either repository?

- Yes
- No
 - 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?

18. Have you visited the MCAS Miramar Environmental Restoration Program web pages at [http://www.miramarems.marines.mil/Divisions/EnvironmentalEngineeringDivision/EnvironmentalRestoration\(ER\).aspx](http://www.miramarems.marines.mil/Divisions/EnvironmentalEngineeringDivision/EnvironmentalRestoration(ER).aspx)?

- Yes
- No
- I don't remember
 - When you visited the program web pages, did you find the information * posted informative?
 - Yes
 - No
 - I have not been to the website.
 - Please advise additional information you would like to see posted.
 - Did you feel that the information provided was sufficient?
 - Yes
 - No
 - Other (please specify)
 - Was the site easy to navigate?
 - Yes
 - No

PROGRAM UPDATES

19. Would you be interested in receiving updates on the web-based information repository?

- Yes
- No
- Other (please specify)

20. Do you participate in Social Networking as a means to keep up-to-date on issues you are interested in?

- Yes
- No
- I don't know what Social Networking is.
- Other (please specify)

21. 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?

- Yes
- No
- I don't know
- Other (please specify)

22. Please advise which Social Networking tool(s) you use. (Please check any that apply.)

- Facebook
- LinkedIn
- Twitter
- MySpace
- I am not currently registered with a Social Networking site.

23. Would you like to be included on a mailing list with updates on the MCAS Miramar Environmental Restoration Program?

- Yes
- No

CLOSING

24. Do you have any other comments, concerns, or suggestions you would like to add?

- Yes
- No

25. Do you know anyone else who may be interested in participating in this community survey for the environmental cleanup program on MCAS Miramar?

- Yes
- No

26. Please confirm the best way to contact you for future communications

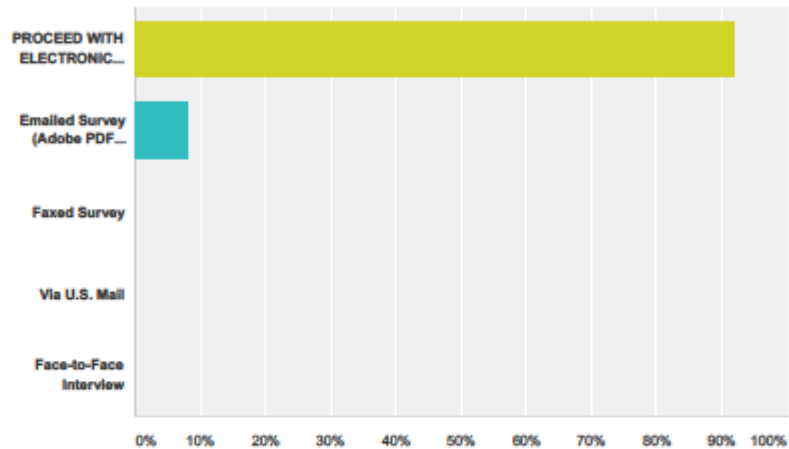
27. May we use your name as an interview participant? (Your name will be kept separate from your answers.)

Analysis of Survey Answers

Answers to all significant questions are provided in a summary format on the following pages. To respect the anonymity of respondents, no verbatim fill-in responses are included in this report, thus those questions were not included. Questions that received no responses are not included in this summary, unless those questions were deemed significant to program review. All responses, including verbatim fill-in responses, will be retained by the Marine Corps as an internal reference for this survey.

Q1 This is an electronic survey tool. Please advise below if you would prefer to participate in the survey by another means.

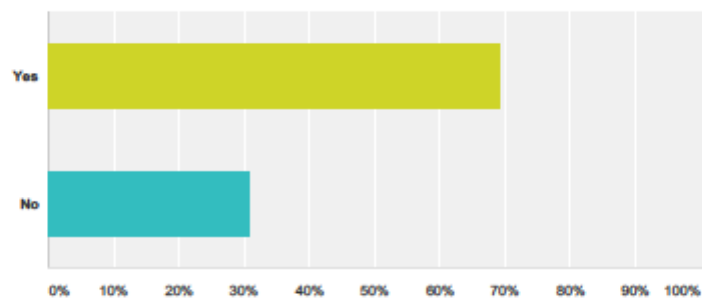
Answered: 62 Skipped: 0



Answer Choices	Responses	
PROCEED WITH ELECTRONIC SURVEY TOOL	91.94%	57
Emailed Survey (Adobe PDF document)	8.06%	5
Faxed Survey	0.00%	0
Via U.S. Mail	0.00%	0
Face-to-Face Interview	0.00%	0
Total		62

Q6 Would you like to be included on a mailing list with updates on the the MCAS Miramar Environmental Restoration Program?

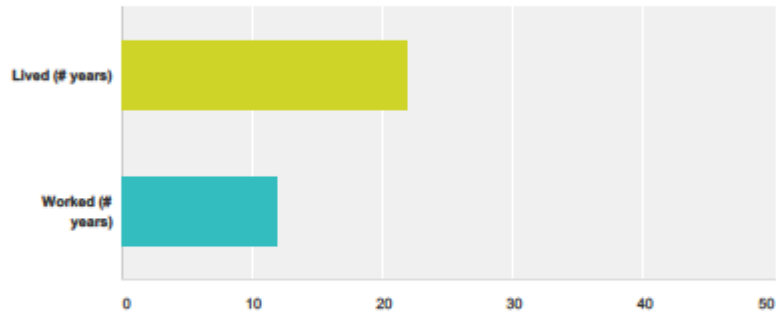
Answered: 55 Skipped: 7



Answer Choices	Responses	
Yes	69.09%	38
No	30.91%	17
Total		55

Q8 How long have you lived and/or worked on or around MCAS Miramar?

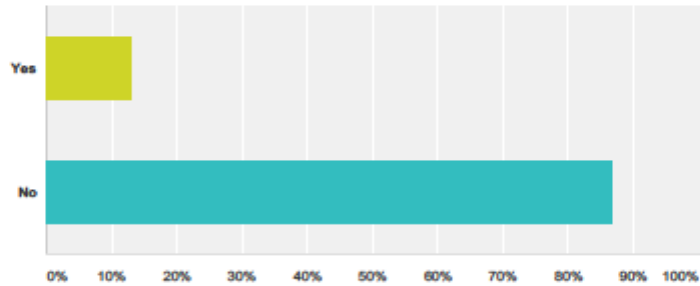
Answered: 53 Skipped: 9



Answer Choices	Average Number	Total Number	Responses
Lived (# years)	22	1,183	52
Worked (# years)	12	406	33
Total Respondents: 53			

Q9 Are you affiliated with any community and/or environmental groups?

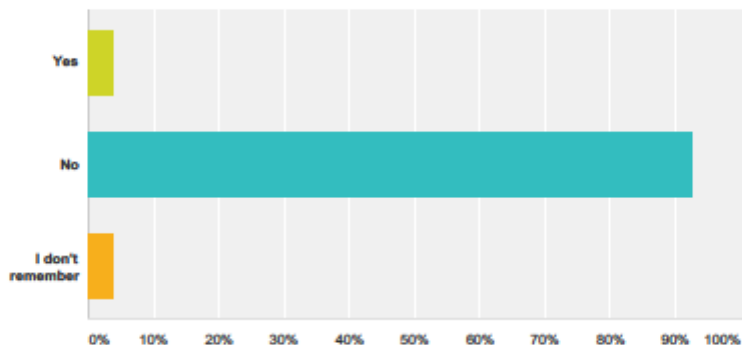
Answered: 53 Skipped: 9



Answer Choices	Responses
Yes	13.21% 7
No	86.79% 46
Total	53

Q11 In the past five years, have you had any contact with the Marine Corps, local, state, or other officials regarding environmental cleanup activities on MCAS Miramar?

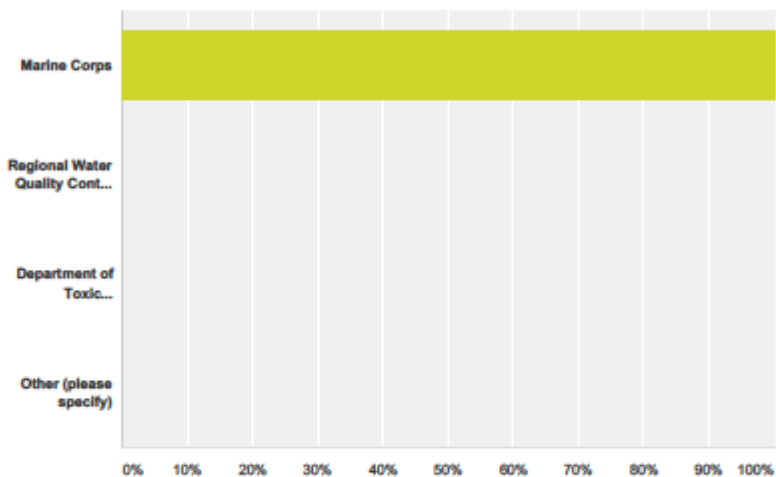
Answered: 53 Skipped: 9



Answer Choices	Responses
Yes	3.77% 2
No	92.45% 49
I don't remember	3.77% 2
Total	53

Q12 With whom did you make contact?

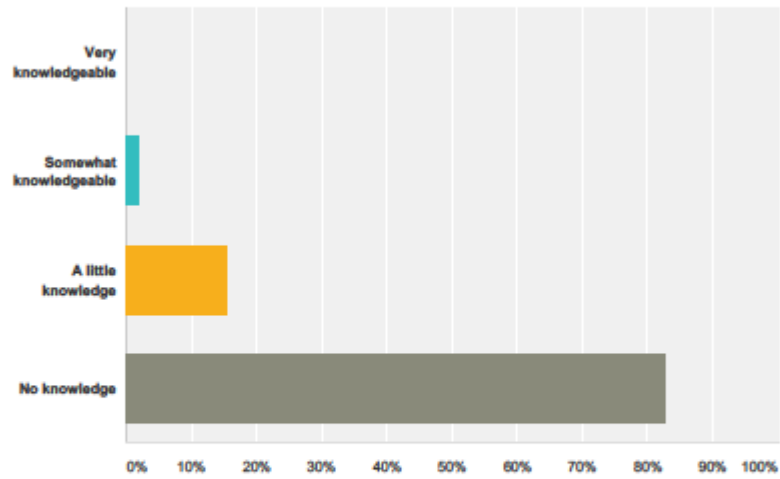
Answered: 1 Skipped: 61



Answer Choices	Responses
Marine Corps	100.00% 1
Regional Water Quality Control Board	0.00% 0
Department of Toxic Substances Control	0.00% 0
Other (please specify)	0.00% 0
Total	1

Q15 How much do you know about the Marine Corps' environmental cleanup program underway at MCAS Miramar?

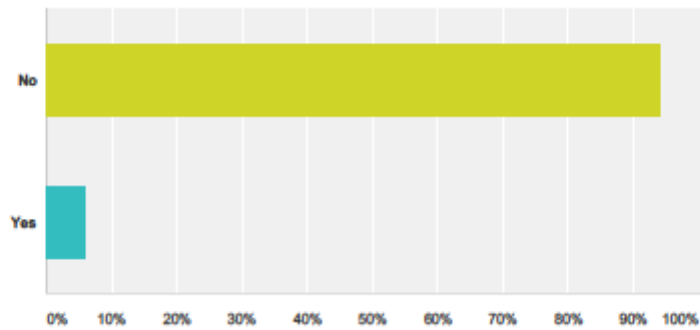
Answered: 52 Skipped: 10



Answer Choices	Responses	
Very knowledgeable	0.00%	0
Somewhat knowledgeable	1.92%	1
A little knowledge	15.38%	8
No knowledge	82.69%	43
Total		52

Q16 Have you seen any information on the environmental cleanup at MCAS Miramar?

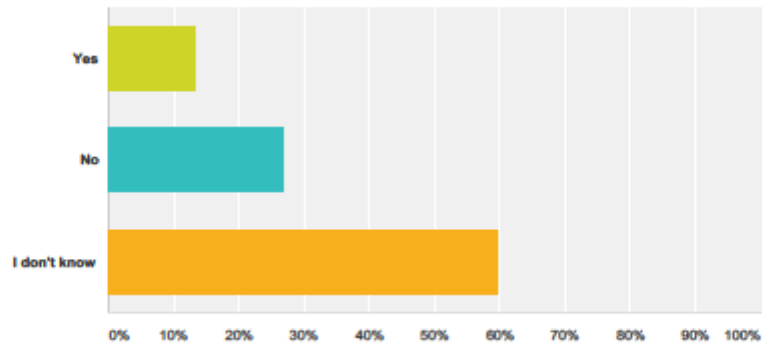
Answered: 52 Skipped: 10



Answer Choices	Responses	
No	94.23%	49
Yes	5.77%	3
Total		52

Q18 Do you have any current concerns about the environmental cleanup program on MCAS Miramar?

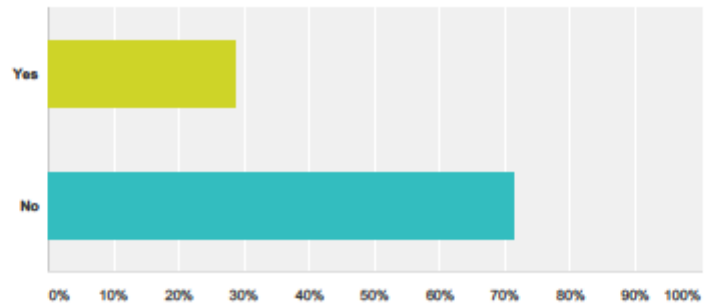
Answered: 52 Skipped: 10



Answer Choices	Responses	
Yes	13.46%	7
No	26.92%	14
I don't know	59.62%	31
Total		52

Q20 Would you like to be contacted regarding your concerns?

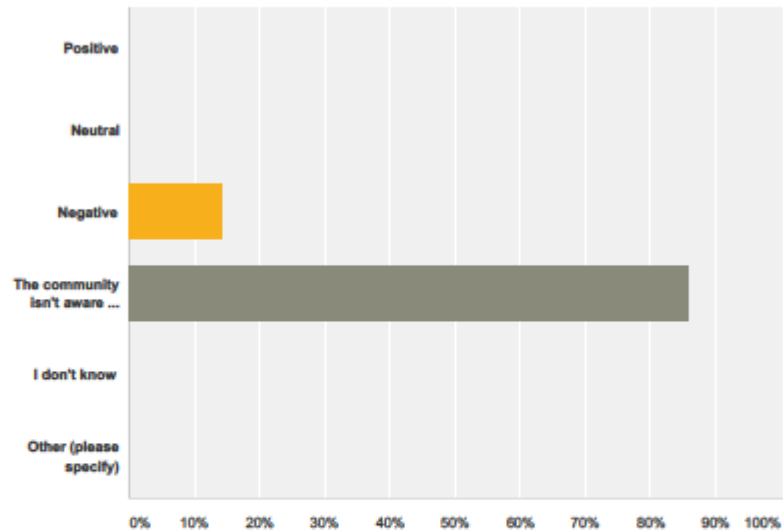
Answered: 7 Skipped: 55



Answer Choices	Responses	
Yes	28.57%	2
No	71.43%	5
Total		7

**Q24 How would you characterize the
COMMUNITY'S perception of the Base's
environmental cleanup program?**

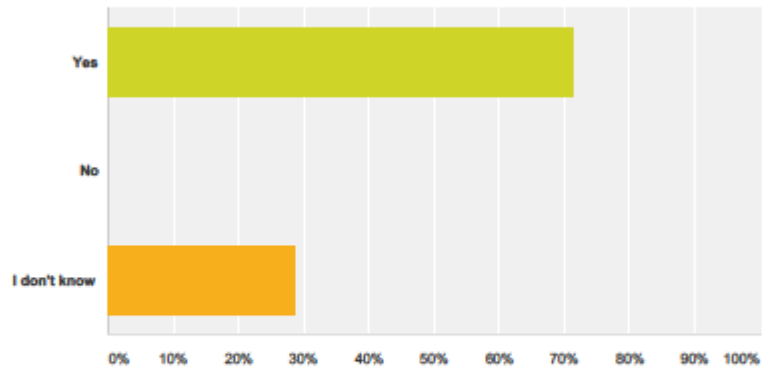
Answered: 7 Skipped: 55



Answer Choices	Responses	
Positive	0.00%	0
Neutral	0.00%	0
Negative	14.29%	1
The community isn't aware of cleanup efforts on base.	85.71%	6
I don't know	0.00%	0
Other (please specify)	0.00%	0
Total		7

**Q25 Do you feel that there are any
COMMUNITY concerns regarding
environmental cleanup on Base?**

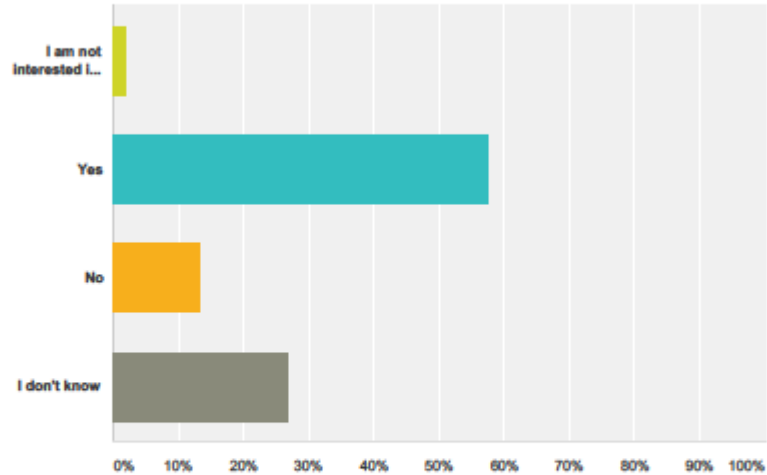
Answered: 7 Skipped: 55



Answer Choices	Responses	
Yes	71.43%	5
No	0.00%	0
I don't know	28.57%	2
Total		7

Q27 Are you interested in certain aspects of base cleanup or would you like to receive more information on a certain aspect of base cleanup?

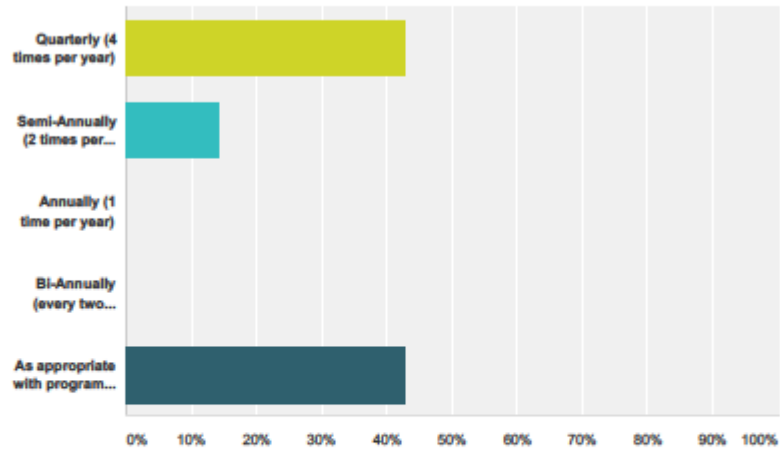
Answered: 52 Skipped: 10



Answer Choices	Responses	
I am not interested in any aspects of base cleanup.	1.92%	1
Yes	57.69%	30
No	13.46%	7
I don't know	26.92%	14
Total		52

Q29 How often would you like to receive updates?

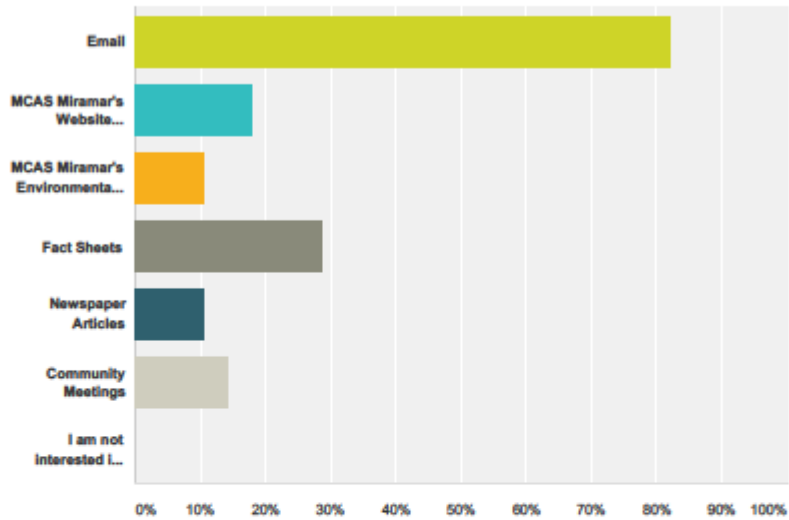
Answered: 28 Skipped: 34



Answer Choices	Responses	
Quarterly (4 times per year)	42.86%	12
Semi-Annually (2 times per year)	14.29%	4
Annually (1 time per year)	0.00%	0
Bi-Annually (every two years)	0.00%	0
As appropriate with program developments.	42.86%	12
Total		28

Q30 What is the best way to communicate information or updates to you?

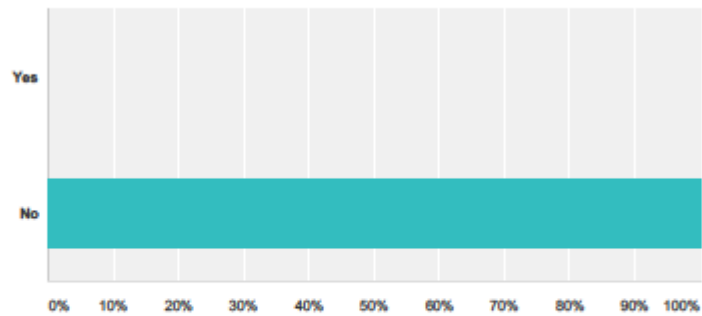
Answered: 28 Skipped: 34



Answer Choices	Responses
Email	82.14% 23
MCAS Miramar's Website (http://www.miramar.usmc.mil)	17.86% 5
MCAS Miramar's Environmental Restoration Program Website (http://www.miramar-ems.marines.mil/Divisions/EnvironmentalEngineeringDivision/EnvironmentalRestoration(ER).aspx)	10.71% 3
Fact Sheets	28.57% 8
Newspaper Articles	10.71% 3
Community Meetings	14.29% 4
I am not interested in receiving information on the cleanup program.	0.00% 0
Total Respondents: 28	

Q31 Have you visited either repository?

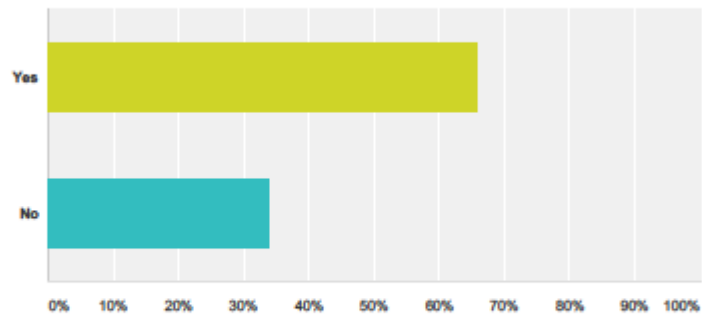
Answered: 50 Skipped: 12



Answer Choices	Responses
Yes	0.00% 0
No	100.00% 50
Total	50

Q37 Would you be interested in receiving updates on the web-based information repository?

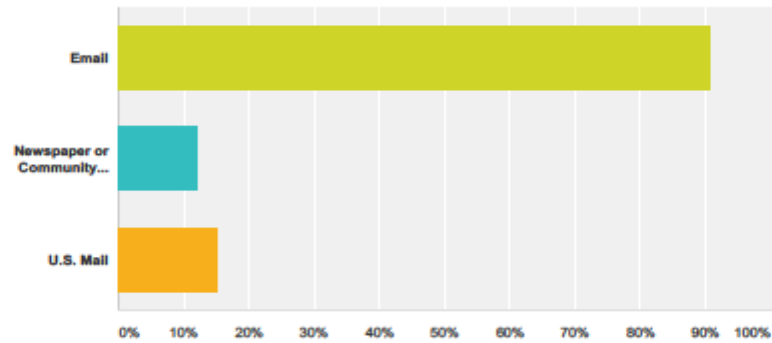
Answered: 50 Skipped: 12



Answer Choices	Responses
Yes	66.00% 33
No	34.00% 17
Total	50

Q38 What is the best way to notify you of website updates? (Please check all that apply.)

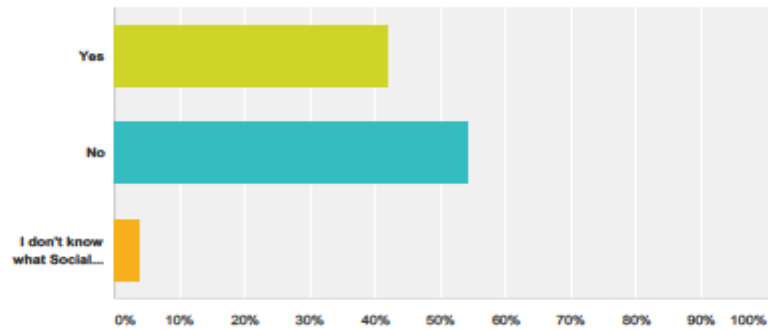
Answered: 33 Skipped: 29



Answer Choices	Responses	
Email	90.91%	30
Newspaper or Community Newsletters	12.12%	4
U.S. Mail	15.15%	5
Total Respondents: 33		

Q40 Do you participate in Social Networking as a means to keep up-to-date on issues you are interested in?

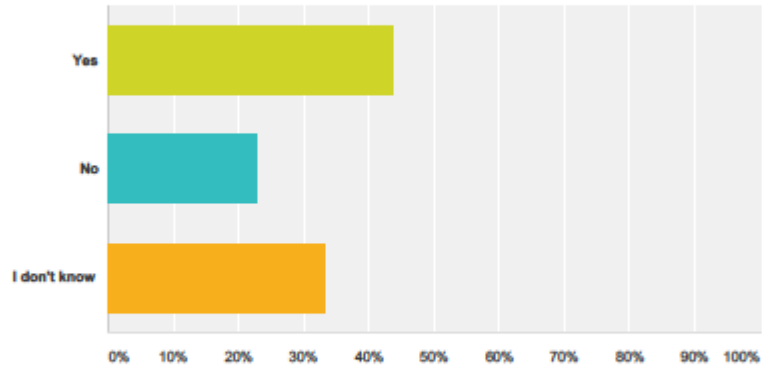
Answered: 50 Skipped: 12



Answer Choices	Responses	
Yes	42.00%	21
No	54.00%	27
I don't know what Social Networking is.	4.00%	2
Total		50

Q41 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?

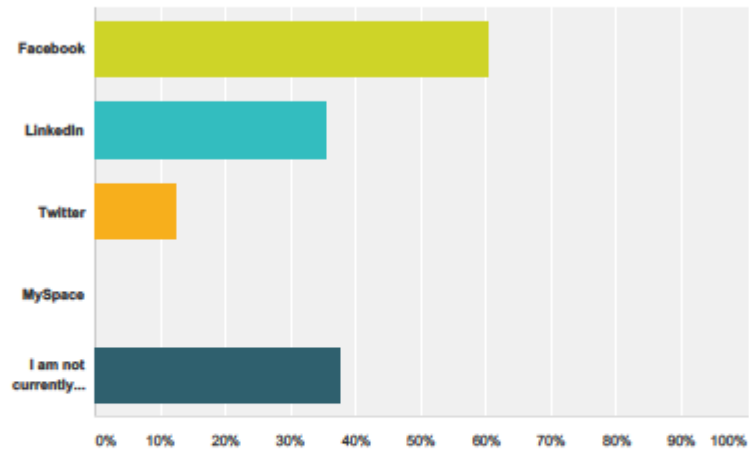
Answered: 48 Skipped: 14



Answer Choices	Responses	
Yes	43.75%	21
No	22.92%	11
I don't know	33.33%	16
Total		48

Q42 Please advise which Social Networking tool(s) you use. (Please check any that apply.)

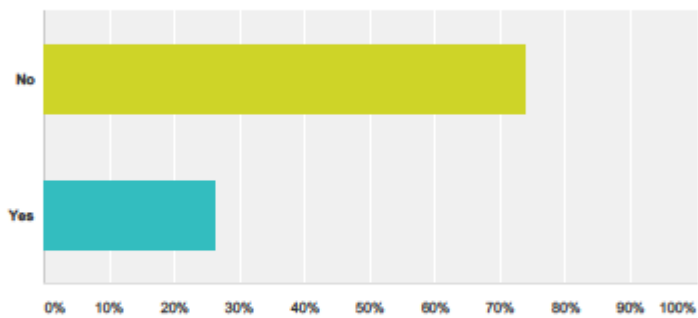
Answered: 48 Skipped: 14



Answer Choices	Responses
Facebook	60.42% 29
LinkedIn	35.42% 17
Twitter	12.50% 6
MySpace	0.00% 0
I am not currently registered with a Social Networking site.	37.50% 18
Total Respondents: 48	

Q43 Do you have any other comments, concerns, or suggestions you would like to add?

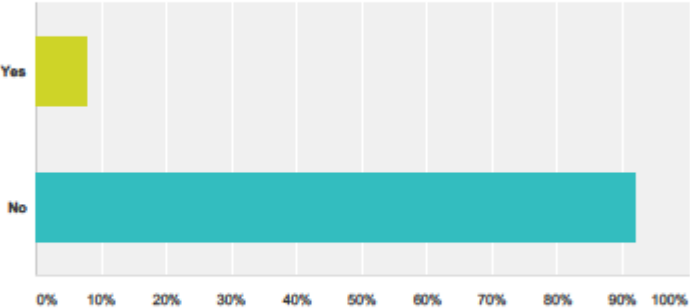
Answered: 50 Skipped: 12



Answer Choices	Responses
No	74.00% 37
Yes	26.00% 13
Total	50

Q44 Do you know anyone else who may be interested in participating in this community survey for the environmental cleanup program on MCAS Miramar?

Answered: 50 Skipped: 12



Answer Choices	Responses	
Yes	8.00%	4
No	92.00%	46
Total		50

This Page
Left Intentionally
Blank

Appendix H: 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 F.

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	Environmental Health Coalition 401 Mile of Cars Way, Suite 310 National City, CA 91950
Endangered Habitats League 560 La Cresta Blvd Crest, CA 92021	Friends of Rose Canyon 6804 Fisk Avenue San Diego, CA 92122
Mission Trails Regional Park One Father Junipero Serra Trail San Diego, CA 92119	Rose Creek Watershed Alliance 4079 Governor Drive, #330 San Diego, CA 92122
San Diego Coastkeeper 2924 Emerson Street, Suite 220 San Diego, CA 92106	Sierra Club San Diego Chapter 3820 Ray Street San Diego, CA 92104
Surfers Tired of Pollution 1161 Cushman Avenue, Suite A San Diego, CA 92110	Surfrider Foundation San Diego Chapter PO Box 1511 Solana Beach, CA 92075
The Ocean Conservancy Pacific Regional Office 116 New Montgomery Street San Francisco, CA 94105	
*Chairpersons and/or primary contacts in this appendix are current as of the date of this document.	

Appendix I: 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 will be held at required and appropriate times in the cleanup process. Participants involved in community interviews for previous interviews suggested that ER Program personnel utilize the MCAS Miramar CP&L Office to disseminate information to community leaders

through CP&L Office CLF meetings. If deemed necessary by 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.

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

This Page
Left Intentionally
Blank

Appendix J: Acronyms and Technical Terminology

Acronyms

A list of acronyms used in this document follows.

3d MAW	Third Marine Air Wing
AR	Administrative Record
ASTC	Aviation Survival Training Center
BRAC	Base Realignment and Closure
BRG	Barrett Resource Group
CARE	Community Action for a Renewed Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Community Involvement Plan
CNO	Chief of Naval Operations
COCs	Contaminants of Concern
CP&L	Community Plans and Liaison
DD	Decision Document
DMM	Discarded military munitions
DoD	Department of Defense
DOJ	Department of Justice
DON	Department of the Navy
DTSC	Department of Toxic Substances Control
EA	Environmental Assessment
EMS	Environmental Management System
EMS	Environmental Management System
ER	Environmental Restoration
FS	Feasibility Study
I-15	Interstate 15
I-805	Interstate 805
IAS	Initial Assessment Study
INRMP	Integrated Natural Resources Management Plan
IR	Installation Restoration

MAG-46	Marine Aircraft Group 46
MC	Munitions constituents
MCAS	Marine Corps Air Station
MEC	Munitions and explosives of concern
MMRP	Military Munitions Response Program
MRP	Munitions Response Program
MRS	Munitions Response Site
NAAS	Naval Auxiliary Air Station
NASA	National Aeronautics and Space Administration
NAVFAC SW	Naval Facilities Engineering Command Southwest
NEX	Navy Exchange
NFA	No Further Action
NPL	National Priorities List
NTCRA	Non-Time-Critical Removal Action
PA	Preliminary Assessment
PCB	polychlorinated biphenyls
PTAP	Partners in Technical Assistance
RA	Remedial Action
RAB	Restoration Advisory Board
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RSU	Reserve Support Unit
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendment and Reauthorization Act
SD U-T	San Diego Union-Tribune
SDSSA	San Diego Shotgun Sport Association
SI	Site Inspection
SR-52	State Route 52
TAG	Technical Assistance Grant
TASC	Technical Assistance Services for Communities
TPH	Total Petroleum Hydrocarbons

TRC	Technical Review Committee
US	United States
USEPA	United States Environmental Protection Agency
USPS	United States Postal Service
UST	Underground storage tank
UXO	Unexploded ordnance
VOC	Volatile organic compounds
WWI	World War I
WWII	World War II

Glossary

The terms listed below are found in various places in this Community Involvement Plan (CIP). 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.

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.

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.

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.

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.

**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.

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.

**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.

**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.
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.
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 <i>listed</i> (named on a list within a regulation) or <i>characteristic</i> (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.
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.
Long-Term Monitoring	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.
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 (NFR)	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.
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.
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 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.
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.
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.
Remediation	Cleanup or other methods used to remove or contain a toxic spill or hazardous materials from a Superfund site.
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	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.
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.

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.

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.

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.

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 its 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 MPPEH 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 and 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.

This Page
Left Intentionally
Blank