



Department of the Navy Announces the Proposed Plan for No Further Action at IR Site 1111 within the 26 Area at Marine Corps Base Camp Pendleton

July 2011

Introduction

The Department of the Navy (DON), including both the Navy and the Marine Corps, invites you to comment on this Proposed Plan (Plan) for No Further Action (NFA). This Plan addresses Installation Restoration (IR) Site 1111 in *Operable Unit* (OU) 5 on Marine Corp Base (MCB) Camp Pendleton (words in *italics* are found in the glossary on page 11). MCB Camp Pendleton (the Base) is located in northern San Diego County, California. The Base is bordered on the west by the Pacific Ocean and occupies approximately 125,000 acres of land (see Figure 1).

Nearly 60,000 personnel train at Camp Pendleton every year, with over 35,000 service members assigned to the Base. The Base contains wetlands, streams, and rivers that contribute to groundwater aquifers and feed into the Pacific Ocean. In past decades releases of hazardous substances have occurred from Base activities. The DON continues to be actively engaged in protecting human health and the environment through its IR and other environmental programs.

IR Site 1111 Overview

IR Site 1111 (Site 1111) is a 0.12-acre area located in the 26 Area of the Base (Figures 1 and 2). The site is 8 miles northeast of the main gate, and 200 feet northwest of Vandegriff Boulevard, adjacent to former IR Site 3 (Figure 5). Former IR Site 3 (Site 3) was a wash rack area, where equipment used to apply pesticides and herbicides was rinsed from the 1950s to the 1980s. Currently, Site 1111 is not used, but vehicle maintenance and material storage operations occur to the east and southeast. The closest troop housing areas are about 1 mile east/southeast in the 12-13 Area and 0.7 miles south in the 24 Area. The closest family housing, the De Luz Area, is about 1.5 miles northeast. Two base water supply wells are 1,850 feet southeast and 1,300 feet north, respectively.

In 1996 and 1997, during soil removal activities at former Site 3, a layer of ash and burn material was encountered in the northwestern portion of the site. Due to the proximity of an ecologically sensitive area, only a portion of this ash and burn material was removed. The remaining burn ash layer and underlying groundwater was designated as Site 1111. Based on the Site 3 investigation results, it was determined that Site 1111 should undergo a *Remedial Investigation*, and later a Removal Action. After all of the investigation and cleanup activities were completed, the site has been recommended for No Further Action (NFA) because sampling activities have determined that any remaining contaminants no longer pose a threat to human health or the environment.

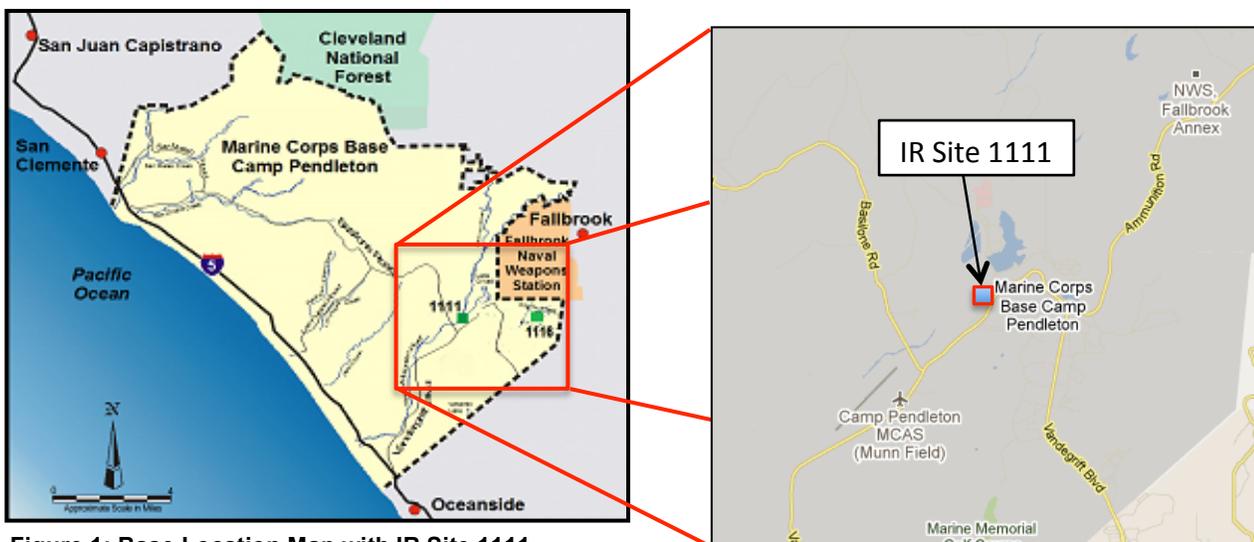


Figure 1: Base Location Map with IR Site 1111

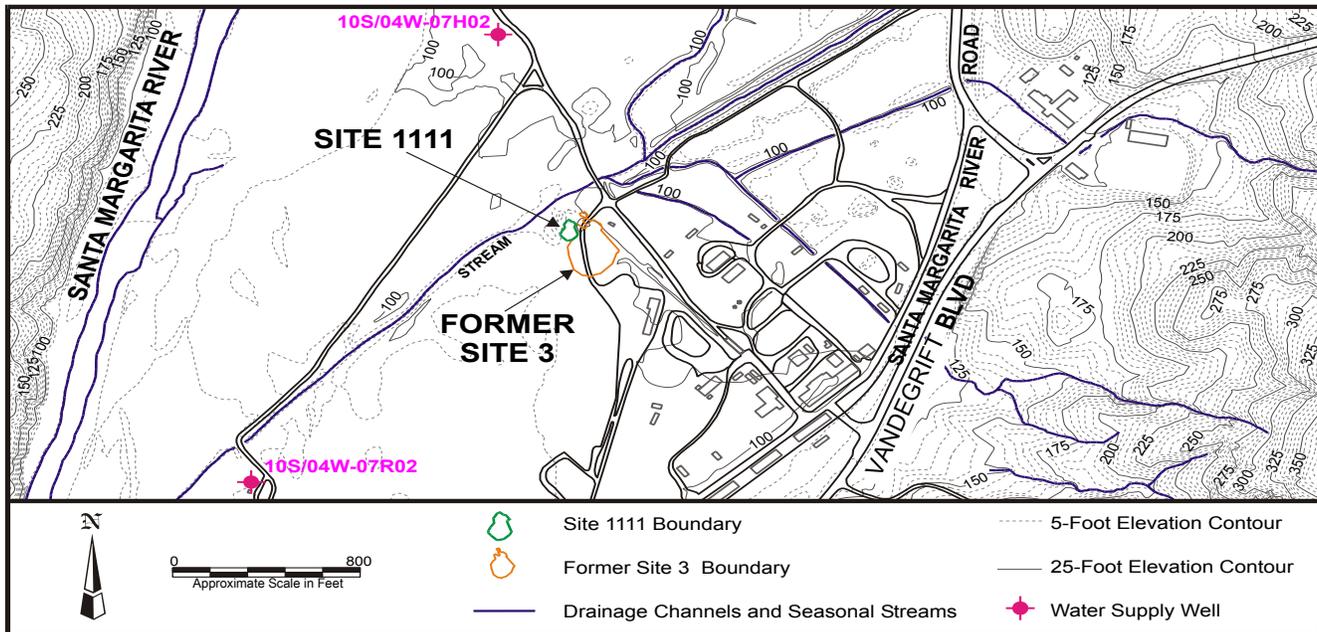


Figure 2: Location of Site 1111

Proposed Plan

This Proposed Plan (Plan) presents the No Further Action (NFA) remedy for Site 1111 to the general public and stakeholders for review. The NFA remedy is based on field investigation results from the reports on previous sampling and cleanup activities. The Plan provides an opportunity for the public to participate in the review process through a public comment period. Upon completion of the public comment period, the DON will review all public input and prepare a *Responsiveness Summary* of significant comments, including any new relevant information. The DON will respond to each issue in the summary, and will then prepare a *Record of Decision* (ROD). It will document the rationale for NFA at the site and include the DON's responses to comments received during the public comment period.

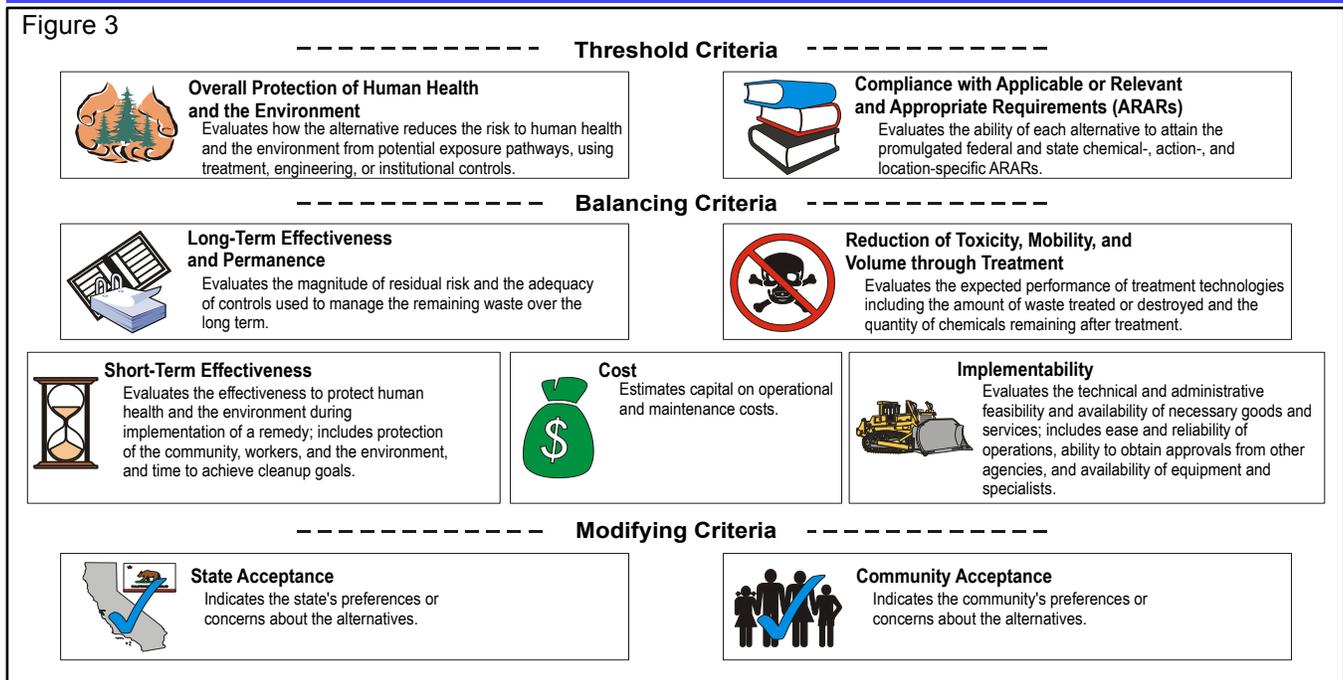
This Plan summarizes information that can be found in greater detail in the Action Memorandum for Non-Time Critical Removal Action (NTCRA) for Interim Removal Action at IR Site 1111, the Site Closeout Report for IR Site 1111, and other documents contained in the *Administrative Record* for MCB Camp Pendleton. The public is encouraged to review these documents to better understand the site and other IR program activities at MCB Camp Pendleton.

Public Meeting & Comment Period

Public input is important in the decision-making process. The DON encourages the public to comment on this Plan and provide input into the decision-making process for controlling contamination and risks at Camp Pendleton. There are two ways for the public to do this:

1. Send written comments to a DON or other agency representative. The public comment period lasts for 30 days beginning on July 26, 2011 and ending on August 26, 2011. See information on p. 6 for the contact names and mailing address.
2. Comment in person at the public meeting held at the Pacific View South Mesa Club, Compass Room, scheduled from 6:00 p.m. to 7:00 p.m. on Monday, August 8, 2011. A map and directions to the public meeting location are provided on p. 5.

To learn more and ask questions about the proposed No Further Action (NFA) plan for the site nearby residents and interested parties are encouraged to attend the meeting. The DON, the United States Environmental Protection Agency – Region 9 (EPA), and the State of California, represented by the Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Control Board (RWQCB), are sponsoring this comment period and public meeting.



Assessment of No Further Action

Proposed alternatives for environmental cleanup are typically evaluated against nine criteria. These criteria are divided into two threshold criteria, five balancing criteria, and two modifying criteria (Figure 3). The preferred alternative must meet the two threshold criteria. The five balancing criteria help to evaluate the technical effectiveness, cost, and ease of implementation. State and community acceptance are factored into a final determination of the preferred alternative. This Plan serves as the invitation for community input for the ninth criterion.

Because a Removal Action has been completed at Site 1111 and soil and groundwater have since passed regulatory screening levels from the more stringent of the EPA or California modified Preliminary Remediation Goals, the only alternative outlined in this Plan is *the No Further Action* alternative. In order to justify the NFA decision it must be compared to the nine criteria. Each of the nine criteria are discussed below as they apply to Site 1111.

Overall Protection of Human Health & the Environment – Contaminant levels are below screening levels for human health and ecological risk so there is no remaining contamination that poses any threat to human health or the environment.

Compliance with ARARs – The screening levels are in agreement with all *Applicable or Relevant and Appropriate Requirements* (ARARs). ARARs are determined by reviewing all of the environmental regulations that could apply and determining which ones do apply that are relevant to the site conditions. With contaminants below screening levels, the site is in compliance with ARARs.

Long-Term Effectiveness & Permanence – The site has no remaining contamination that poses a threat to human health or the environment. In addition, there are no known or suspected sources that could introduce new contaminants to the site.

Reduction of Toxicity, Mobility, and Volume Through Treatment – Since there are no contaminants that pose a threat, NFA meets this criterion for Site 1111.

Short-Term Effectiveness – As with long-term effectiveness, the site has no remaining contamination that poses a threat. This means that the NFA alternative is already effectively protecting human health and the environment.

Cost – Although some costs are incurred to move the NFA decision through the decision process, these costs are minimal compared to any active or passive means of environmental cleanup.

Implementability – By definition, NFA requires no action at the site. The only action to implement is moving the NFA decision through the process.

State Acceptance – The State of California, represented by DTSC and the RWQCB, are in agreement with the NFA decision.

Community Acceptance – The intention of this Plan and the public comment period is to encourage input from the community and stakeholders. After the comment period ends, the DON will review all comments and respond appropriately. Community Acceptance will be assessed at that time.

Investigations and Cleanup Actions at IR Site 1111

Site 1111 was included in two *Remedial Investigations* following the removal activities at former Site 3. In 1998, the site was assessed during the OU-4 *Remedial Investigation* (RI). Following review of the OU-4 RI data, it was concluded that further assessment was needed to determine the extent of contamination. Consequently, Site 1111 was transferred from OU-4 to OU-5 to facilitate further investigation. In 2003, further assessment of the site was conducted during the OU-5 RI.

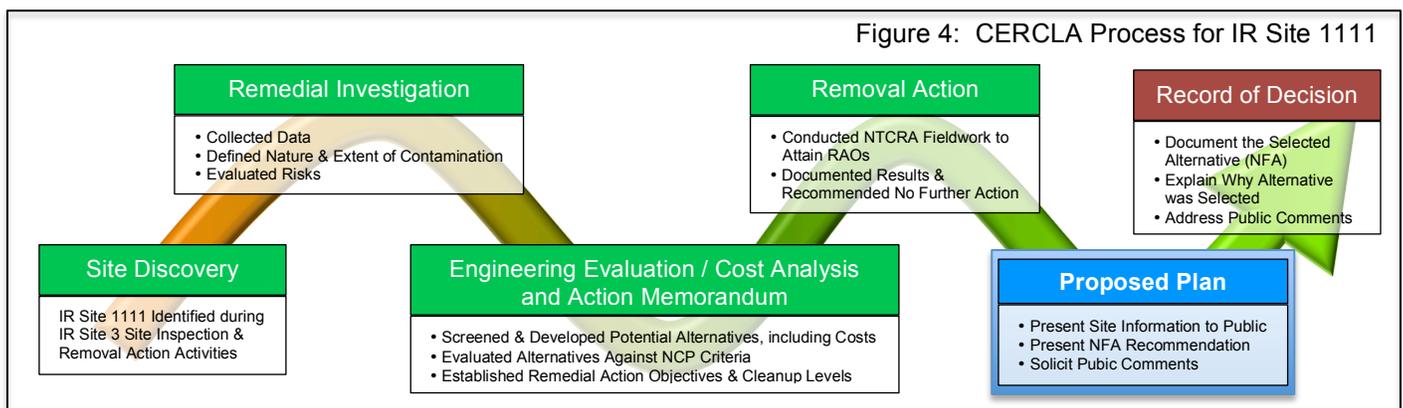
COCs found in soil during the Remedial Investigations included volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), dioxins and furans, pesticides, and the metals antimony, arsenic and mercury. The estimated volume of contaminated soil was 1,100 cubic yards, which covered an approximate area of 5,000 square feet to a depth of about 5 feet below the ground surface.

A Risk Assessment was conducted as part of the OU-5 RI. Risk Assessments are conducted to find out if the contaminants could potentially pose a risk to human health or the environment. There are two types of risk assessments: one for human health and one for the environment (ecological). The results of the *human health risk assessment* (HHRA) and the *ecological risk assessment* (ERA) are used to make site-specific risk management decisions regarding the need for a remedial action. The HHRA and the ERA for Site 1111 found that chemicals in soil presented a risk to human health and ecological receptors that was greater than the generally accepted human health risk threshold of concern of 1 in a million as determined by the US EPA in their 1991 document titled “Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions”.

Groundwater beneath the site was impacted by VOCs and metals. Site 1111 is located in the main aquifer for the Base’s South water system, and water supply wells are located near it. The risk assessment indicated that there was a potential cancer risk (greater than 1 in a million) to a hypothetical resident from consumption of site groundwater.

In 2004, Site 1111 was included in a *Feasibility Study* for OU-5. A Feasibility Study examines a number of proposed remedies to evaluate each one’s cost and ability to clean up the site contaminants. Based upon the RI and FS results, site risks, and other considerations the DON proposed a *Non-Time Critical Removal Action* (NTCRA) for Site 1111. A NTCRA is proposed when a removal is not urgent or time-critical, but can be accomplished in a relatively short period of time to reduce the threat to human health and/or the environment.

Before conducting the NTCRA an *Engineering Evaluation/Cost Analysis* (EE/CA) was conducted in 2005 to evaluate several alternatives for this site based on implementability, effectiveness and cost. The preferred alternative was determined to be excavation of contaminated soil and burn ash, transporting the excavated



material to an appropriate off-site disposal facility, backfilling of the excavation with clean fill, and restoring the site surface conditions. The DON prepared an Action Memorandum and, following public review, selected the preferred remedial alternative in compliance with the nine criteria, and established cleanup criteria for the NTCRA.

Between November 2006 and July 2008 the NTCRA was conducted to remove the contaminated soil, ash, and burn debris. During the NTCRA activities, the DON removed and disposed of approximately 2,000 cubic yards of soil and burn material. In addition, 38 drums containing various solid wastes, four drums containing various liquid wastes, and approximately 20 feet of asbestos-wrapped piping were found and removed. Approximately 20,000 gallons of impacted groundwater were also removed from the excavation and disposed at an off-site facility.

In 2009 NTCRA results were documented in a Site Closure Report, which received agreement from regulatory agencies. The NTCRA results indicated that there was no longer any soil with contaminant concentrations above screening levels. Quarterly groundwater monitoring was conducted for four quarters following the NTCRA. Based on the results (included in the Site Closeout Report), the NTCRA achieved all of the criteria established for soil and protection of groundwater at Site 1111. The concentrations of chemicals of concern in soil and burn ash were no longer a potential risk to human health and the environment, and the potential for a continuing source of groundwater contamination was eliminated. In addition, native vegetation was planted to return the site to a condition that is consistent with the natural ecosystem. Figure 4 illustrates the sequence of events for Site 1111.

Summary

The contaminated soil and burn ash wastes were removed, cleanup criteria were achieved for soil and the protection of groundwater, and land use controls were not required for this site. Consequently, no further action (NFA) is warranted for Site 1111, and additional remedial alternatives were not evaluated or identified in this Plan.

The USEPA and the State of California, represented by DTSC and the RWQCB, concur with the No Further Action decision. The public is encouraged to participate and provide comments. Details on the public comment period and the public meeting are provided below and on the back page.

Directions to the Public Meeting

The public meeting will be held in the Compass Room of the Pacific View South Mesa Club. It is located at Building 202850. To attend the public meeting, take Exit 54c from I-5 and enter the main gate, then turn right at the first stoplight, which is Wire Mountain Road. Drive up the hill to the first stop sign, and make a left turn onto San Jacinto Road. The Club is located at the end of the street on the left side.





CONTACTS FOR MAILING COMMENTS OR GETTING MORE INFORMATION

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Federal Facilities Branch
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Tayseer Mahmoud

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5796 Corporate Avenue
Cypress, CA 90630
(714) 484-5419

Kelly Dorsey

California Regional Water Quality
Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4353
(858) 467-2980

Please send any comments you may have about this Proposed Plan to the first contact, Theresa Morely.

You may also contact any of the above agency representatives with any questions about the content or issues discussed in this Proposed Plan, or about the IR program.

WHERE YOU CAN FIND DOCUMENTS

Documents relating to the IR program and this Proposed Plan can be found for public review and comment at the following locations:

Administrative Record Naval Facilities Engineering Command, Southwest

ATTN: Diane Silva, Command Records
Manager, Code EV33
1220 Pacific Highway (NBSD Bldg. 3519)
San Diego, CA 92132

Contact Diane Silva for an appointment at:
(619) 556-1280

diane.silva@navy.mil

Mon-Fri 8:00 AM to 4:30 PM

Last available appointment time is 4:00 PM.

MCB Camp Pendleton AC/S Environmental Security Office Attn: IR Manager

Building 22165
Box 555008
MCB Camp Pendleton, CA 92055-5008
(760) 725-9744
Mon-Thu 9:00 AM to 4:00 PM

Oceanside Public Library

330 N Coast Highway, Oceanside, CA 92054
(760) 435-5600
Mon-Tue 9:00 AM to 8:00 PM
Wed-Sat 9:00 AM to 5:30 PM

A copy of the Administrative Record, which contains all of the materials the Base relies on for selecting a cleanup alternative, is also available.



Glossary

Action Memorandum – A document that confirms and authorizes a removal action with an explanation of its rationale.

Administrative Record – All documents that have a legal bearing and were used to make decisions on cleanup actions.

Applicable or Relevant and Appropriate Requirement (ARAR) – This is a federal or state law that must be considered in choosing a remedial action. Remedial actions must be designed, constructed, and operated to comply with all ARARs.

Dioxins/Furans - Dioxins and furans are the short names for a family of toxic substances that share a similar chemical structure. Tests on laboratory animals indicate that they are highly toxic.

Ecological Risk Assessment – A qualitative or quantitative estimate of the potential impact on local plants and animals of exposure to chemicals detected in the environment.

Engineering Evaluation/Cost Assessment (EE/CA) Identifies and evaluates proposed removal action alternatives for remediating environmental media.

Feasibility Study (FS) – A cost and engineering study that looks at all of the possible cleanup options that are available and evaluates their ability to clean up contamination at a site.

Human Health Risk Assessment – A qualitative or quantitative estimate of the potential impact on the human population of exposure to chemicals detected in the environment.

Installation Restoration (IR) – The IR program provides guidance and funding for the investigation and remediation of hazardous waste sites caused by disposal activities at military installations.

Land Use Controls – These are measures designed to prevent or limit exposure to hazardous substances left in place at a site, or to assure the effectiveness of a chosen remedy. Land Use Controls can be physical barriers such as fences or signs or legally binding requirements to prevent ground disturbance at a site.

Non-Time Critical Removal Action (NTCRA) - An action taken to remove contamination quickly without first requiring a full CERCLA process.

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

Record of Decision (ROD) – A public document that explains which cleanup alternatives will be used at NPL sites. The ROD is based on information and technical analysis generated during the remedial investigation/feasibility study and on consideration of public comments and community concerns.

Remedial Investigation (RI) – An environmental study that identifies the nature and extent of contamination at a site.

Responsiveness Summary – A summary of oral and/or written public comments received during a comment period and a DON response to those comments.

Semi-Volatile Organic Compound (SVOC) - Organic compounds that slowly volatilize at standard temperature and pressure (20°C and 1 atmosphere).

Volatile Organic Compound (VOC) - Organic compounds that readily volatilize at standard temperature and pressure.



OPPORTUNITY FOR COMMUNITY INVOLVEMENT

Public Comment Period: July 26 to August 26, 2011

Public Meeting: 6:00 p.m. to 7:00 p.m. on August 8, 2011

You are encouraged to comment on the Proposed Plan and the supporting documents during the 30-day public comment period. Comments should be postmarked or sent via e-mail no later than August 26, 2011, and submitted to:

Theresa Morley, Remedial Project Manager
Naval Facilities Engineering Command, Southwest
1220 Pacific Highway
San Diego, CA 92132-5190
theresa.morley@navy.mil
(619) 532-1502

Comments received during this review period will be incorporated into the Responsiveness Summary portion of the Record of Decision and will be considered in the final decision for IR Site 1111.

A public meeting will be held on Monday, August 8, 2011 from 6:00 p.m. to 7:00 p.m. in the Compass Room at the Pacific View South Mesa Club, MCB Camp Pendleton.

This Proposed Plan is printed on recycled paper.



- Information on IR Site 1111 Proposed Plan
- Public Comment Period: July 26 to August 26, 2011
- Public Meeting: Monday, August 8, 2011

Inside:

MCB Camp Pendleton
AC/S Environmental Security Office
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Box 555008
Camp Pendleton, CA 92055-5008