



PROPOSED PLAN

Waikane Valley Impact Area Munitions Response Site
Kaneohe, Oahu, Hawaii

January 2012

THE U.S. MARINE CORPS ANNOUNCES PROPOSED PLAN

The United States Marine Corps invites the public to review and comment on this Proposed Plan for Waikane Valley Impact Area. The Waikane Valley Impact Area (WVIA) is a 187-acre area located in the Waikane Valley on Oahu's windward side, approximately 10 miles northwest of Kaneohe Bay. It was once part of a 2,000-acre lease (see Figure 1) used for military jungle training and field maneuvers. The remaining acres fall under the Defense Environmental Restoration Program for Formerly Used Defense Sites and are not addressed in this Proposed Plan. Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Marine Corps is responsible for the investigation and cleanup of contamination resulting from its past operations.

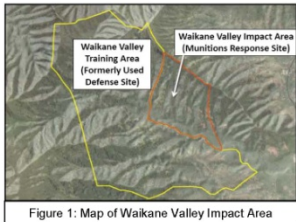


Figure 1: Map of Waikane Valley Impact Area

INTRODUCTION

This Proposed Plan summarizes the background and characteristics of WVIA, explains the findings of investigations and results of risk assessments, discusses the cleanup objectives and remedial alternatives considered, summarizes the alternatives analysis, and identifies the preferred alternative. Detailed site information is provided in the reports referenced at the end of this Proposed Plan. The Marine Corps issues this Proposed Plan to invite public involvement in the process of selecting the final remedy for the site and fulfill the requirements of CERCLA and the National Oil

and Hazardous Substances Pollution Contingency Plan (NCP). The Marine Corps, as the lead agency, and the State of Hawaii Department of Health (DOH), as the lead oversight agency, present their conclusions and recommendations in this Proposed Plan.

The former WVIA has been investigated under the Navy and Marine Corps Munitions Response Program to determine what types of cleanup actions are needed to reduce risks from Munitions and Explosives of Concern (MEC) or Munitions Constituents (MC) remaining from past training activities. MEC includes unexploded ordnance (UXO), discarded military munitions, and MC which pose human health or ecological risks.

The WVIA was divided into three action areas (see Figure 2) based on the distribution of MEC items found in previous investigations, accessibility of the areas, and former and potential future land use.

The **Southern Area** contains most of the cultural features of Waikane Valley. Although it shows no evidence of MEC, clearance is recommended to confirm the assumption that there is no MEC in the area.

The **Northern Non-Target Area** includes the steepest slopes of WVIA, with field teams unable to investigate the majority of the area. The accessible portions contain minimal MEC, but the area still has potential for explosive hazards.

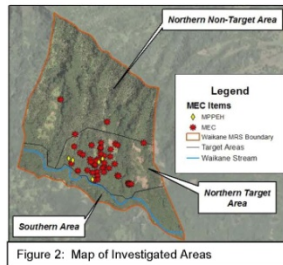


Figure 2: Map of Investigated Areas

Proposed Plan Waikane Valley Impact Area Marine Corps Base Hawaii, Kaneohe Bay

Public Meeting January 12, 2012

PUBLIC COMMENT PERIOD: January 12, 2012 – February 13, 2012
PUBLIC MEETING: January 12, 2012, 7:00 pm at Waihalo Elementary School



Topics



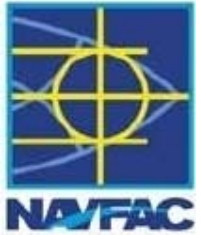
- **Site History and Background**
- **Feasibility Study Findings**
- **Proposed Plan Preferred Alternative**
- **Proposed Plan comments/discussion**
- **Preview of the Decision Document**
- **Project schedule**



Waikane Valley Impact Area (2008)



Acronyms / Definitions



MPPEH

Material Potentially Presenting an Explosive Hazard

MEC

Munitions and Explosives of Concern

MC

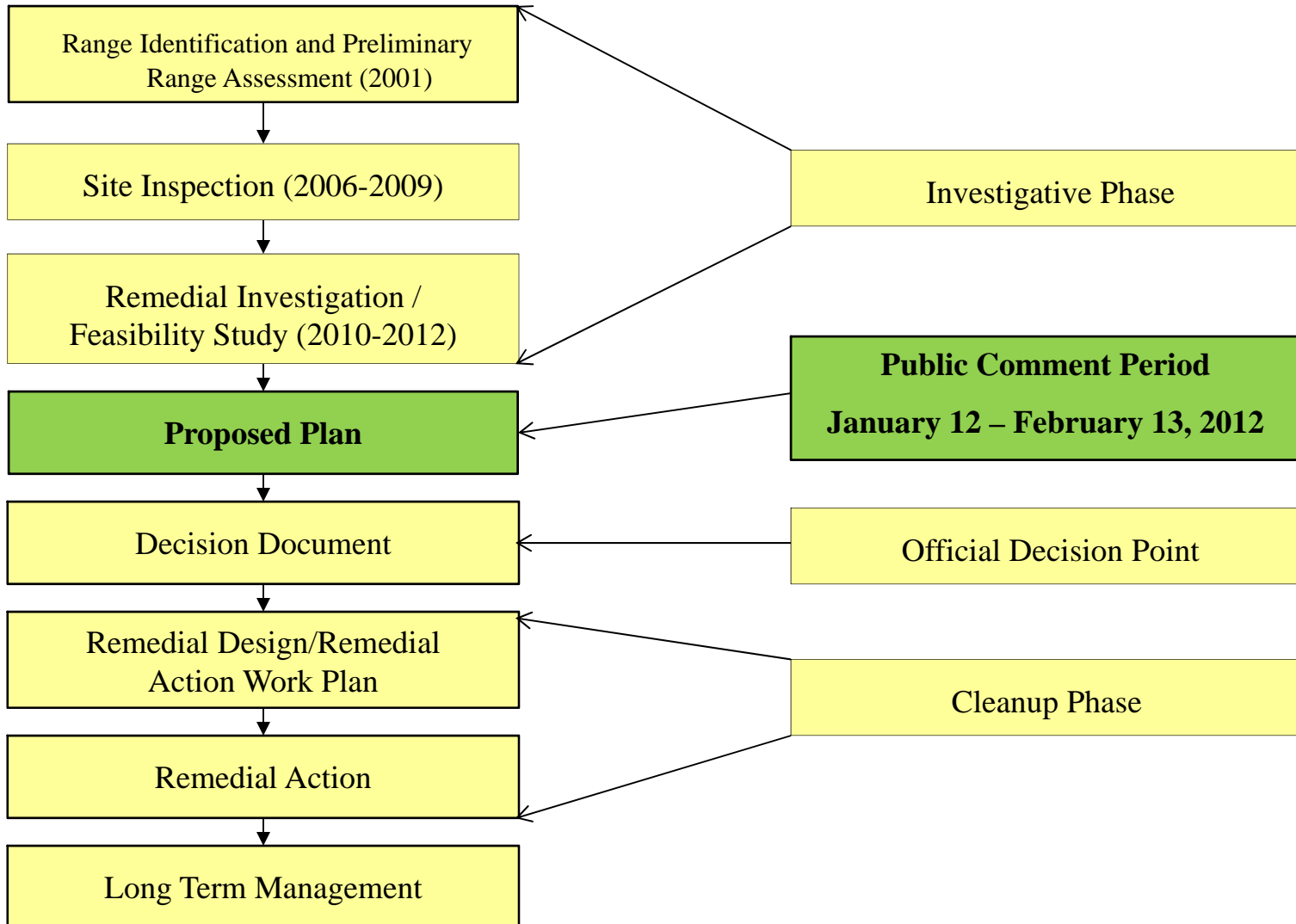
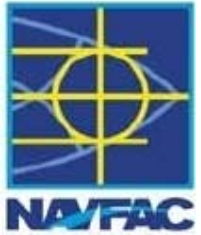
Munitions Constituents

Accessible Land

Slope of less than 30 degrees

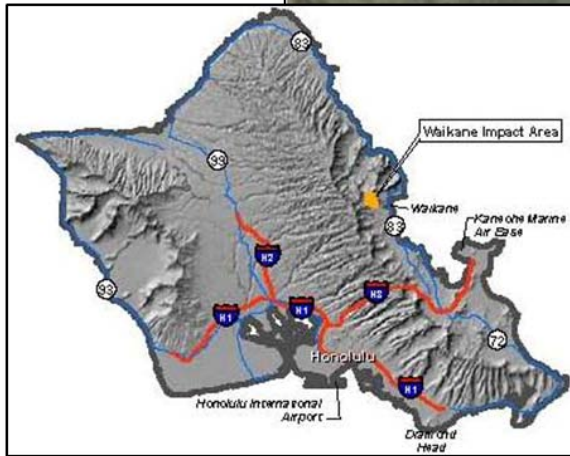
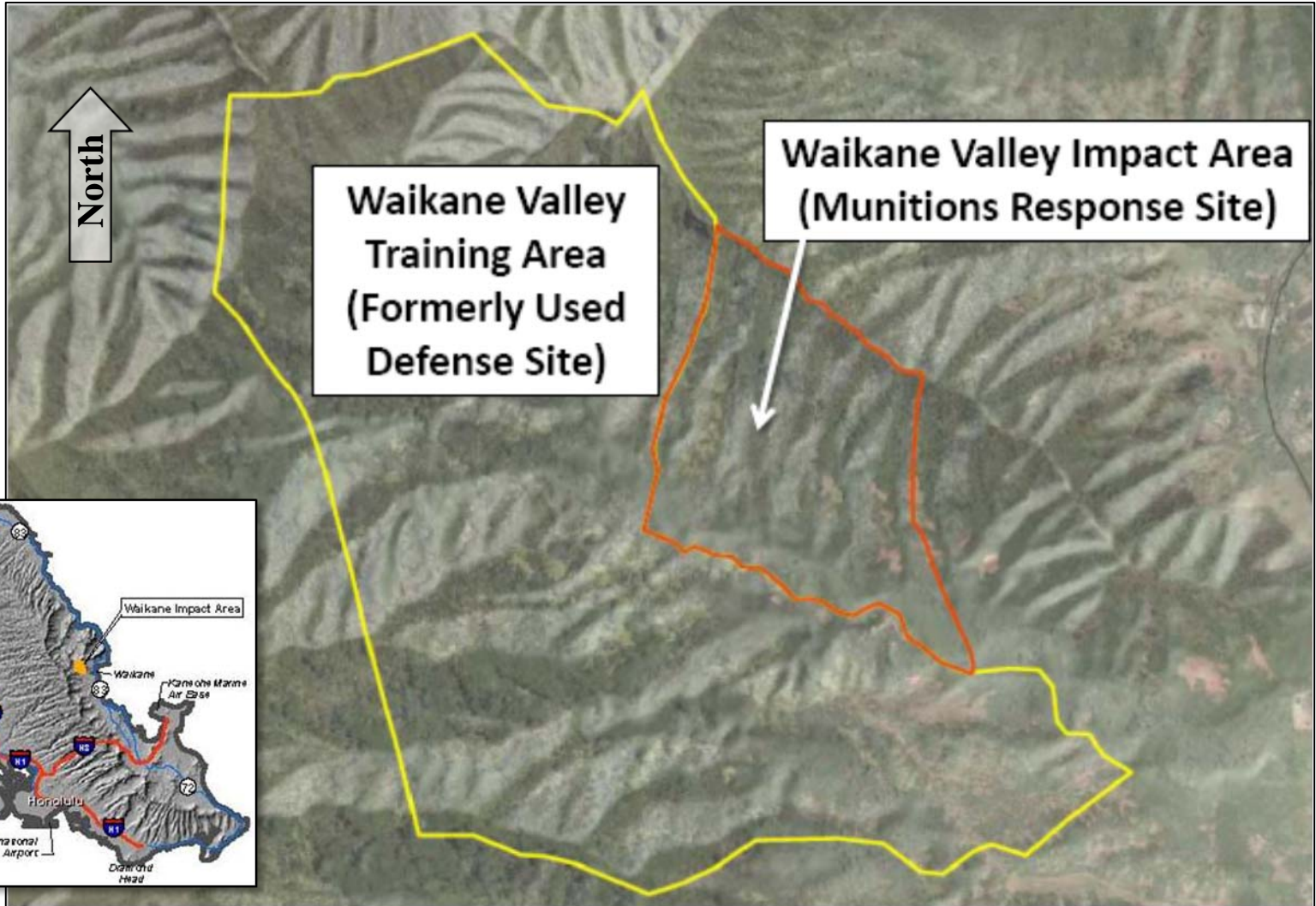


Waikane Valley Impact Area Overview





Site Location Map





Site History



- **1943-1953 –US Army training area.**
- **1953 -1976 – Leased to Marine Corps for small arms and rocket firing.**
- **1976 and 1984 Marine Corps ordnance clearance**
 - Explosive risks remained
- **1989 – US Government acquired title to 187-acre site.**
- **2005 – Range closed. Added to the Navy and Marine Corps Munitions Response Program**



**U.S. troops training in Waikane Valley
circa 1943**



Previous Investigation Results - MC



Soil / sediment sampling during Site Inspection and Remedial Investigation

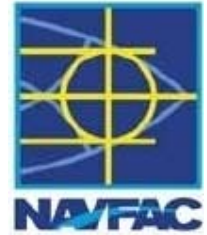
1. No unacceptable risks to human health
2. All ecological risks within acceptable ranges



Surface soil sampling



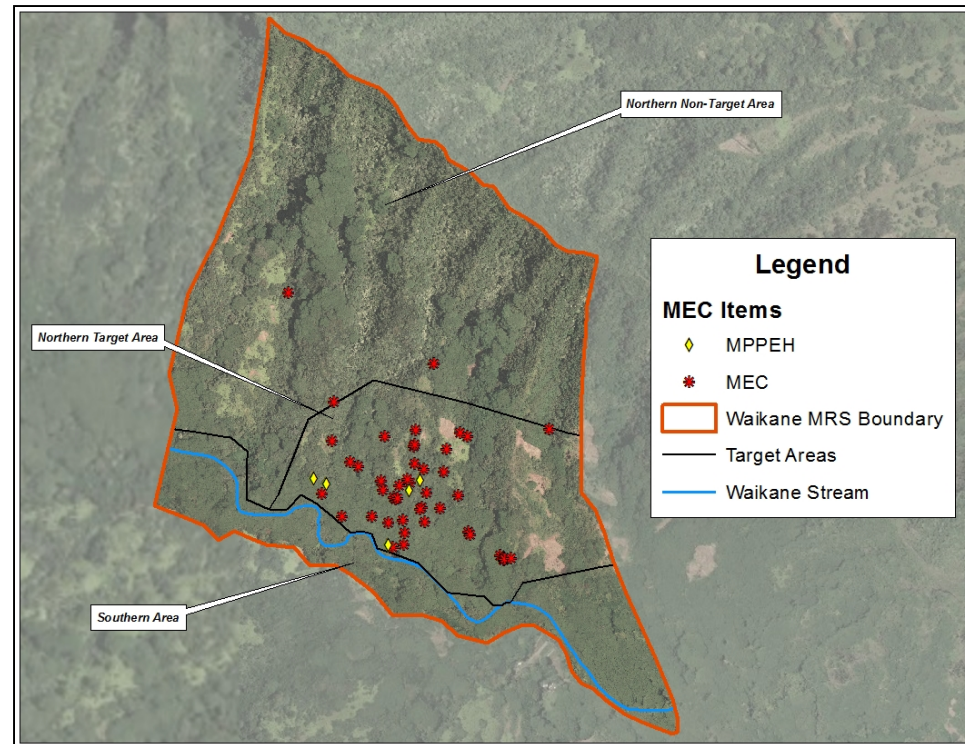
Previous Investigation Results - MEC



- SI identified areas w/potential surface MEC

- RI conducted surface clearance and subsurface investigation

1. 92 MEC items and 26 MPPEH items identified
2. All but 2 found on ground surface
3. No MPPEH found in Southern Area
4. Defined areas for MEC Hazard Assessment/Feasibility Study (Southern Area, Northern Target Area, Northern Non-Target Area)



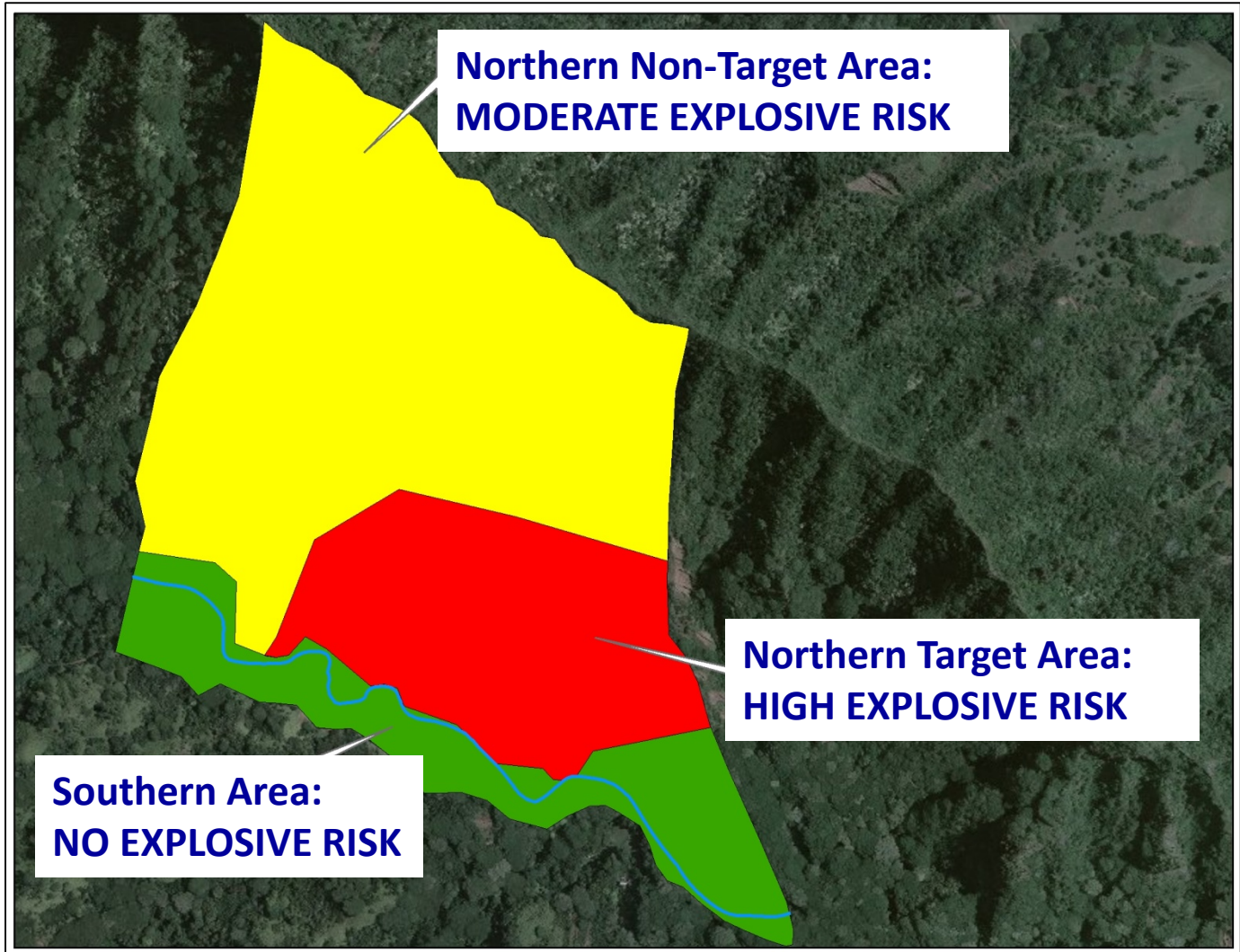
MEC removed in 2010



MEC Hazard Assessment



Uses MEC Investigation Results to estimate explosive risks





Feasibility Study (FS)

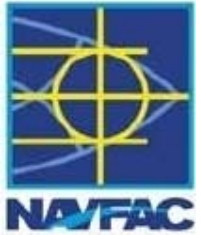


- **Developed Remedial Action Objectives**
 1. Prevent current and future exposure to MEC through reduction of MEC hazards
 2. Restore the site to support existing and future land use
 3. Protect and provide access to cultural sites
 4. Prevent migration of MEC into accessible areas.

- **Identified and evaluated 4 potential remedial alternatives**
 1. No action
 2. Land use controls (LUCs)
 3. Surface clearance (accessible land) with LUCs
 4. Surface and subsurface clearance (accessible land) with LUCs



FS Evaluation Criteria



	U.S. Environmental Protection Agency Criteria
Threshold Criteria	1. Overall Protection of human health & environment
	2. Complies with applicable relevant and appropriate requirements
Balancing Criteria	3. Long Term effectiveness & permanence
	4. Reduction of toxicity, mobility, or volume of contaminants through treatment
	5. Short-term effectiveness
	6. Implementability
Modifying Criteria	7. Cost
	8. Regulatory agency acceptance
	9. Community acceptance



Preferred Alternative



Incorporates Current Community and Regulatory Input

Surface Clearance

- **Accessible land within Southern Area and Northern Target Area**

Subsurface Clearance

- **50 foot area around any MEC found in the Southern Area**
- **Corridors to and around the Kamaka Shrine and Waikane Spring**
- **10-foot wide buffer along south side of the new fence**



Preferred Alternative



Incorporates Current Community and Regulatory Input

Land Use Controls

- **Fencing**

1. **Remove existing fence around the Southern Area**
2. **Erect new fence between Southern and Northern Areas**

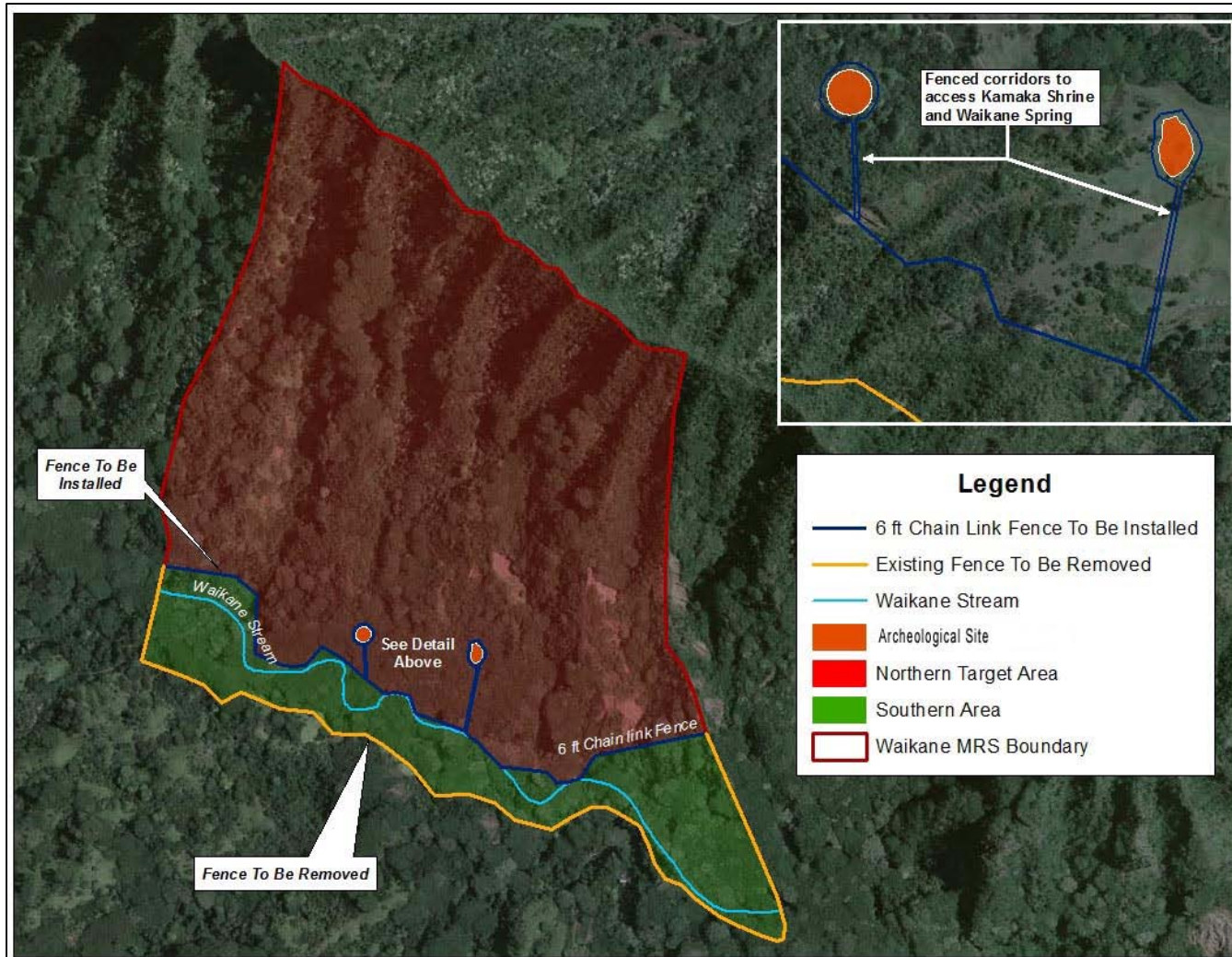
- **Community Education and Awareness Program**

Long Term Management

- **Annual inspections and 5 year reviews for 30 years**

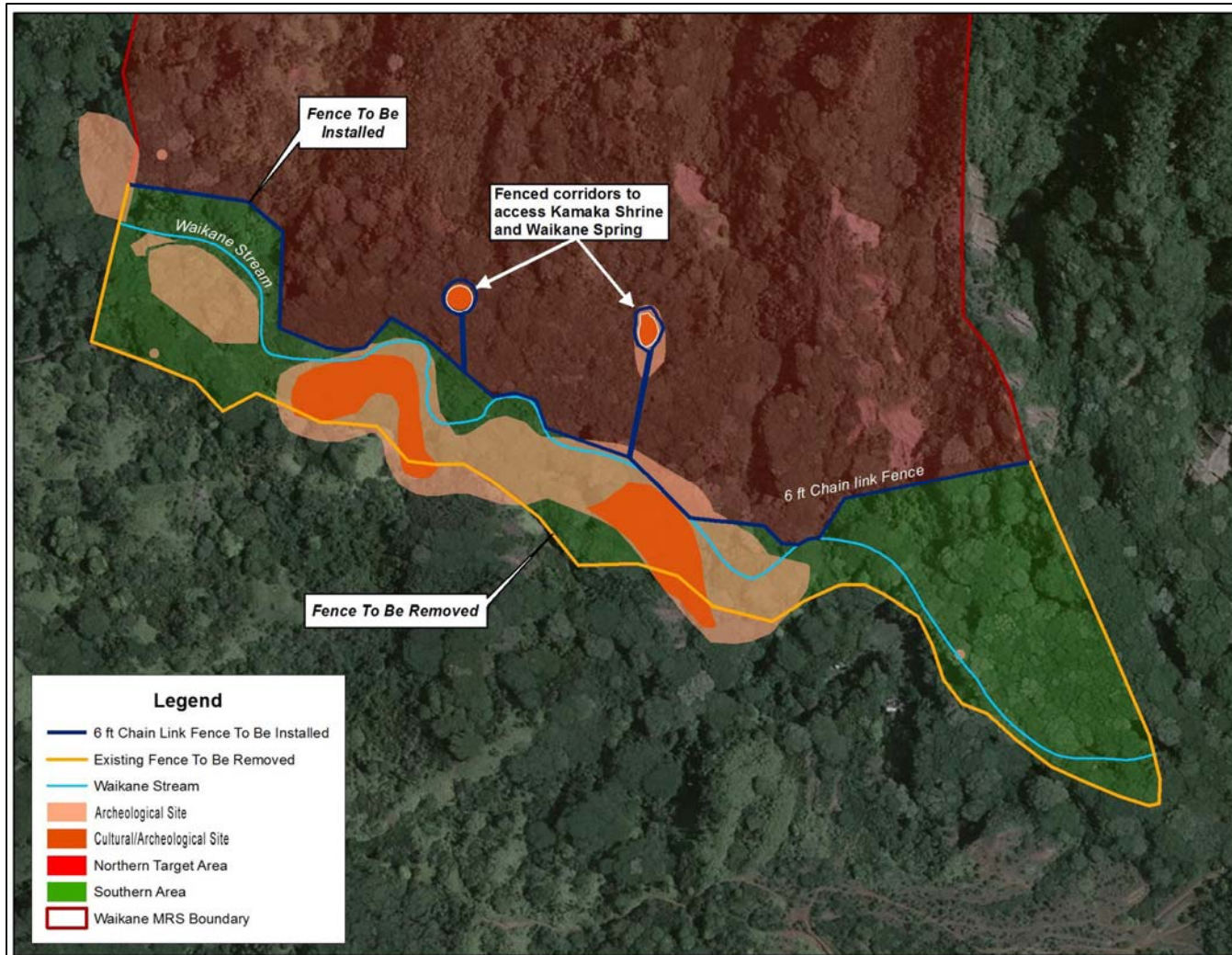


Preferred Alternative



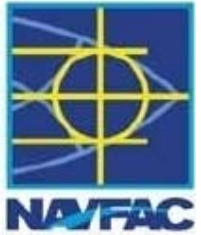


Preferred Alternative (Southern Area)

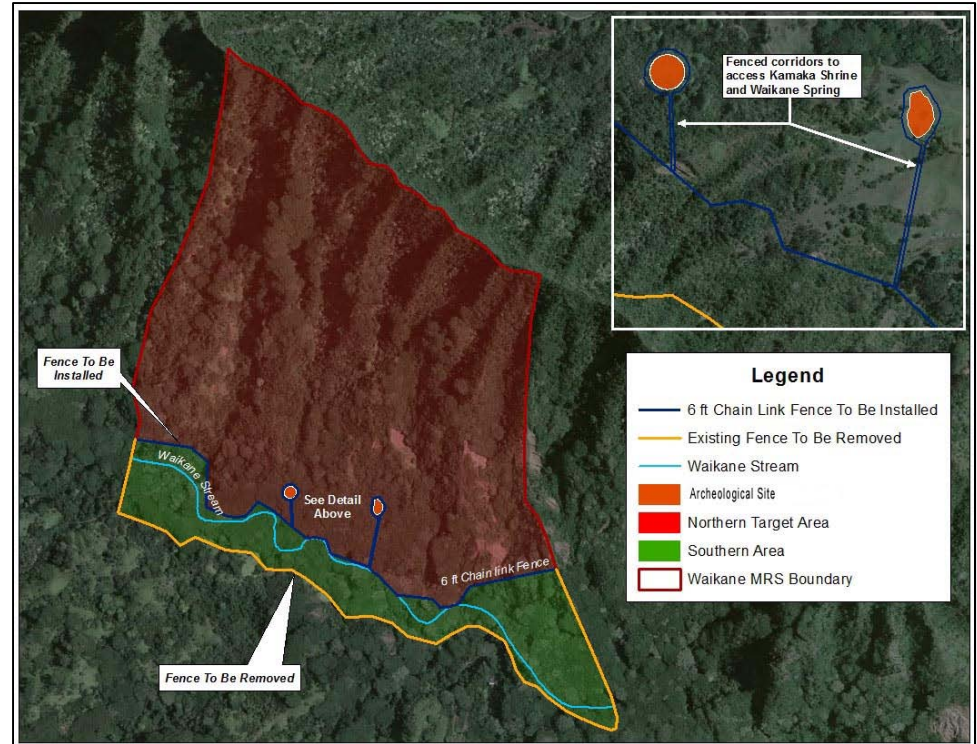




Preferred Alternative



- Reduces explosive risk by removing MEC from accessible areas
- Provides a buffer zone between the northern area and the southern area
- Provides safe access to sites of known cultural significance
- Provides the best potential for unrestricted land use in Southern Area



Preferred alternative summary



Public Comment Period



- **January 12, 2012 – February 13, 2012**
- **Two ways to provide comments**
 - **Oral or written during this public meeting**
 - **Written comments to Marine Corps by mail or email**

Additional Public Information

- **In Information Repositories:**
 - **Kaneohe Public Library**
 - **KEY Project**
 - **Hamilton Library**
- **On Restoration Advisory Board website:**

<http://www.mcbh.usmc.mil/g4/environ/WaikaneRAB.htm>



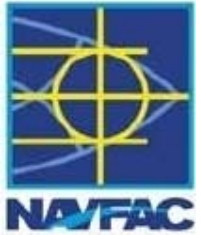
Questions/Comments



- **Send your comments to Randall Hu at:**
COMMANDING OFFICER
ATTN LE (R HU)
BOX 63062 ENVIRONMENTAL
MCBH KANEOHE BAY HI 96863-3062
 - **Telephone – 808-257-7142**
 - **Email – randall.hu@usmc.mil**



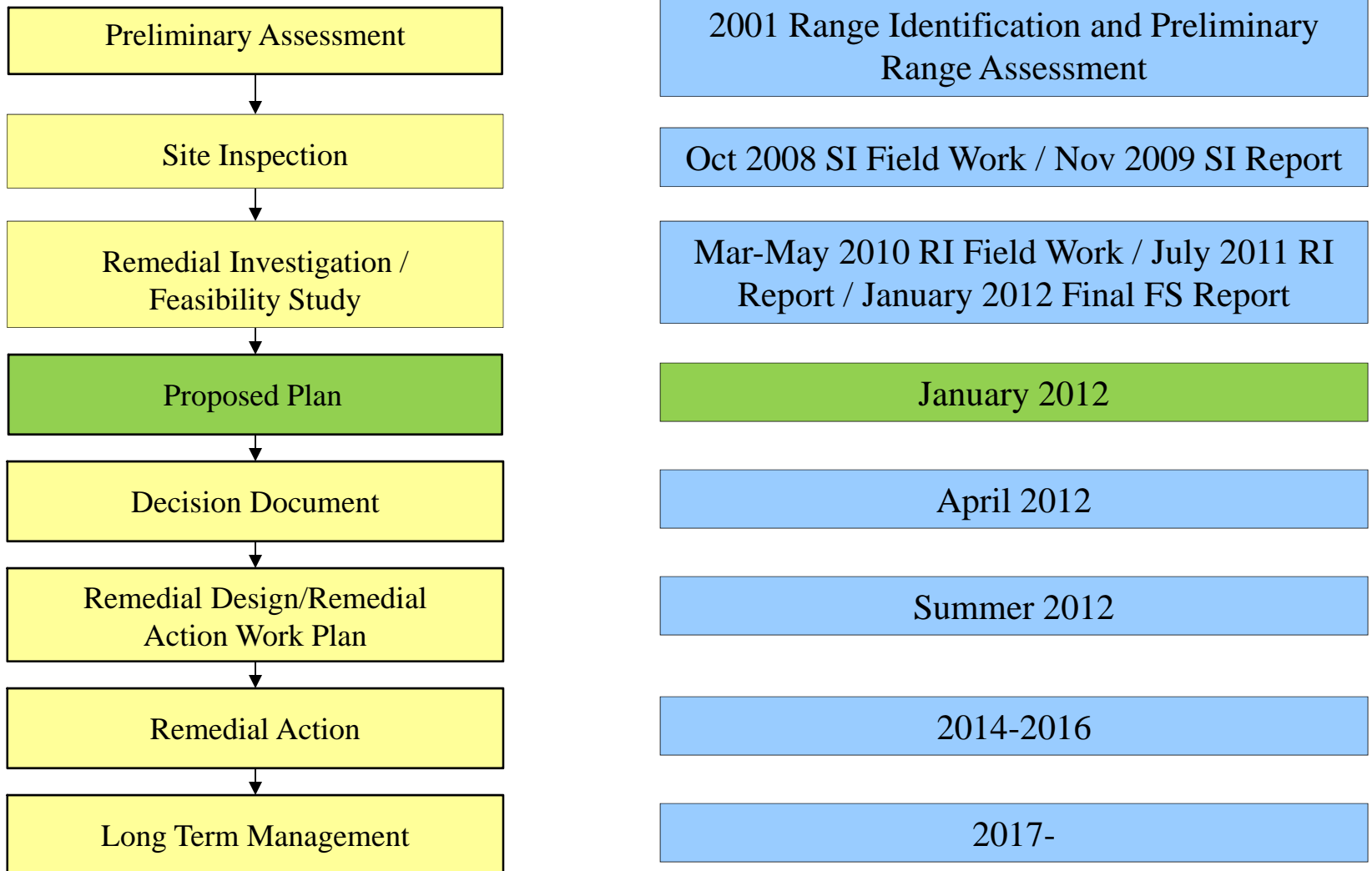
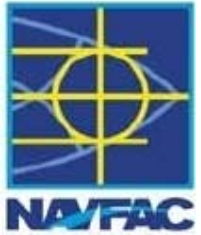
Decision Document



- **Present selected final remedy**
- **Address public and stakeholder comments on the Proposed Plan (Responsiveness Summary)**
- **Document concurrence from the State of Hawaii Department of Health**
- **Place final Decision Document in Navy Information Repository and Administrative Records File**

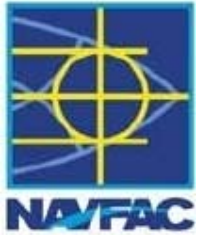


Waikane Valley Impact Area Timeline





Project Schedule



- **Proposed Plan/Public Meeting (January 2012)**
 - **Comment period ends February 13, 2012**
- **Draft Decision Document March 2, 2012**
- **Next RAB meeting March 7, 2012**
- **Final Decision Document (April 2012)**
- **Award Remedial Design June 2012**







Information Repositories



- **University of Hawaii at Manoa
Hamilton Library, Hawaiian &
Pacific Collection**
2550 McCarthy Mall
Honolulu, HI 96822
Ms. Jean Kusano (ph. 956.8227)
- **Kaneohe Public Library**
45-829 Kamehameha Hwy.
Kaneohe, HI 96744
Ms. Cynthia Chow (ph. 233.5674)
- **KEY Project**
45-200 Waihee Road
Kaneohe, HI 96744
**Ms. Lanette Mahelona
(ph. 239.5777)**

**Lifelong Learning**

Marine Corps Base Hawaii
Supporting Readiness and Global Projection

Installations, Environment & Logistics Directorate (IE&L)
Environmental Compliance and Protection Department

Waikane Valley RAB

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<http://www.mcbh.usmc.mil/g4/environ/WaikaneRAB.htm>



Thank You

