



Proposed Plan and Non-Time Critical Removal Action for Operable Unit B-2 Cleanup of Munitions and Explosives of Concern

**Former Adak Naval Complex
Adak Island, Alaska**

October 2012

Agenda



- **Introduction**
 - Presentation Logistics
 - Proposed Plan Purpose
 - General Background
- **Operable Unit (OU) B-2 Investigation**
 - OU B-2 Remedial Action Areas (RAAs)
 - OU B-2 Investigation Results
- **Remedial Alternatives**
 - Remedial Alternatives
 - Navy's Preferred Alternatives
 - Alternative Selection Rationale
- **Non-Time Critical Removal Action**
- **Cost**
- **Schedule**
- **Community Participation**
- **Questions or Comments**

Presentation Logistics



- **Two locations – Adak and Anchorage**
- **Meeting will be transcribed and included in the Administrative Record**
- **Please identify yourself before speaking**

Proposed Plan Purpose



- Summarize background information from the remedial investigation/feasibility study (RI/FS)
- Describe cleanup options evaluated
- Identify preferred cleanup alternatives
- Solicit public comments



PROPOSED PLAN for Operable Unit B-2 Cleanup of Munitions and Explosives of Concern

September 2012

INTRODUCTION

(Note: Technical terms used in this plan are italicized where they are first used and defined in the Glossary section at the end of the plan.)

This *Proposed Plan* is issued by the U.S. Navy (Navy), the lead agency for site activities. The U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC), the regulating agencies, have overseen the Navy's investigations at *Operable Unit (OU) B-2*. The *Proposed Plan* describes the cleanup of *munitions and explosives of concern (MEC)* in OU B-2 on the former Adak Naval Complex, Adak Island under the *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*, and was developed in accordance with the requirements of Section 117(a) of CERCLA and Section 300.430(D)(2) of the *National Contingency Plan (NCP)*. The *Proposed Plan* has the following purposes:

- Provide basic background information
- Describe the cleanup options evaluated
- Identify the preferred cleanup alternatives
- Explain the reasons for recommending the preferred cleanup alternatives
- Solicit public review of and comment on all cleanup alternatives
- Provide information on how the public can be involved in the preferred cleanup alternative selection

The Navy requests comments from the public on this *Proposed Plan*. The Navy may consult with EPA and ADEC and modify any of the cleanup alternatives, including the preferred alternative, based on public comments. After public comments have been considered, the *Record of Decision (ROD)* will present the final decision for the OU B-2 sites. The *ROD* will include a responsiveness summary describing how public comments were addressed.

OU B-2 consists of 24 areas of concern (AOCs) or sites that have been evaluated for potential cleanup under CERCLA. This plan identifies the Navy's Preferred Alternative and other cleanup alternatives considered for 11 sites where MEC removal activities are warranted and identifies 13 OU B-2 sites that were evaluated and/or remediated such that implementation of island-wide *Institutional Controls (ICs)* are adequately protective. There are also 15 additional areas within OU B-2 that were determined to require no further action in the *preliminary assessment*, were never designated as AOCs for the *Remedial Investigation/Feasibility Study (RI/FS)*, and are therefore not addressed in this *Proposed Plan*, but are also subject to the island-wide ICs.

This document summarizes information that can be found in greater detail in the May 2012 RI/FS for OU B-2, as well as other relevant documents cited in this *Proposed Plan*, which are available in the information repositories listed on

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PUBLIC COMMENT PERIOD
September 27, 2012 through
October 28, 2012

The Navy will accept written comments on the *Proposed Plan* during the public comment period.

For more information, see the information repositories at the following locations:

Bob Reeve High School
Mechanic Road
Adak, AK 99546
(907) 592-4500

Adak Update Website
www.adakupdate.com

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General Background

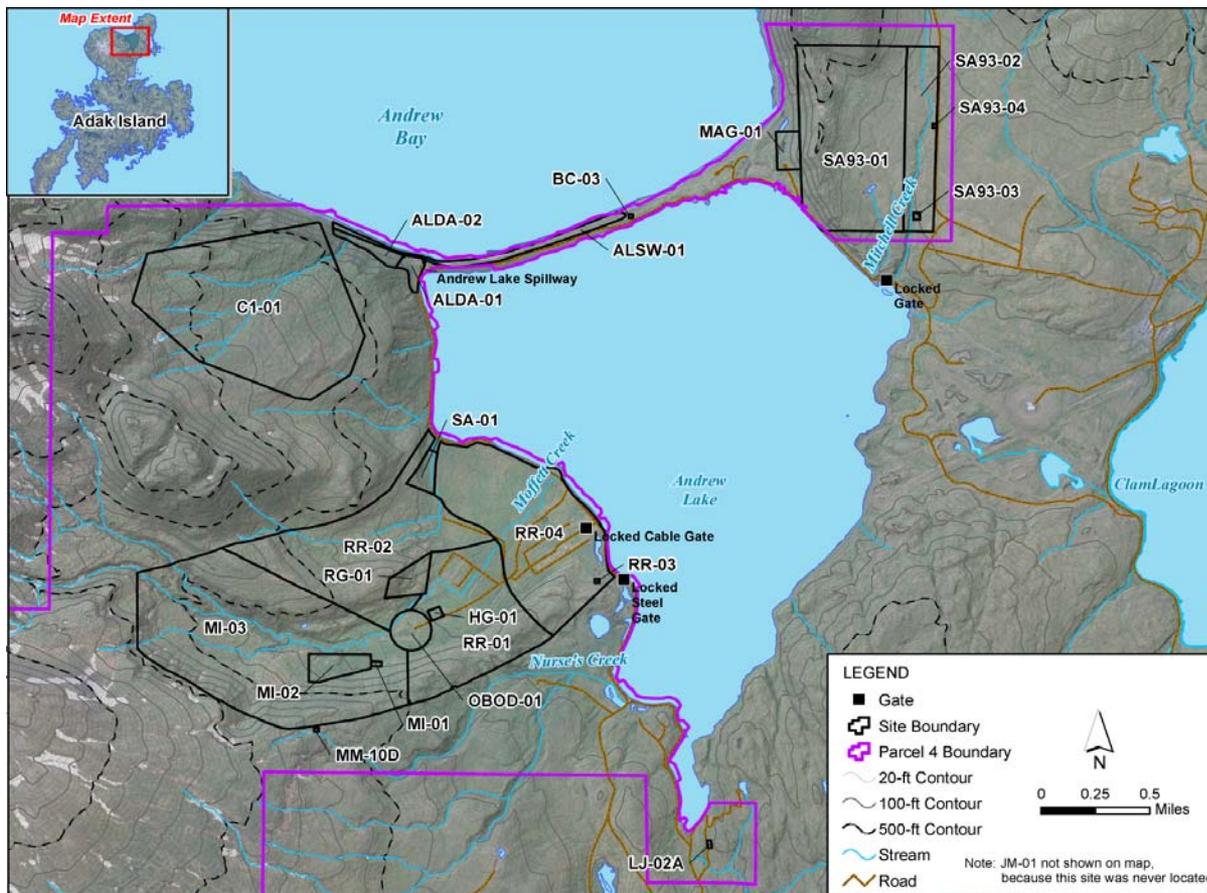


- **The Navy, the lead agency for OU B-2, issued this Proposed Plan**
- **Alaska Department of Environmental Conservation (ADEC) and Environmental Protection Agency (EPA) are the regulating agencies**
- **Cleanup to be conducted under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**
- **Cleanup alternatives, including the preferred alternatives, may be modified based on public comments**
- **Final cleanup alternatives will be presented in a Record of Decision (ROD)**
 - **Will include a public comment responsiveness summary**

OU B-2 Remedial Investigation / Feasibility Study



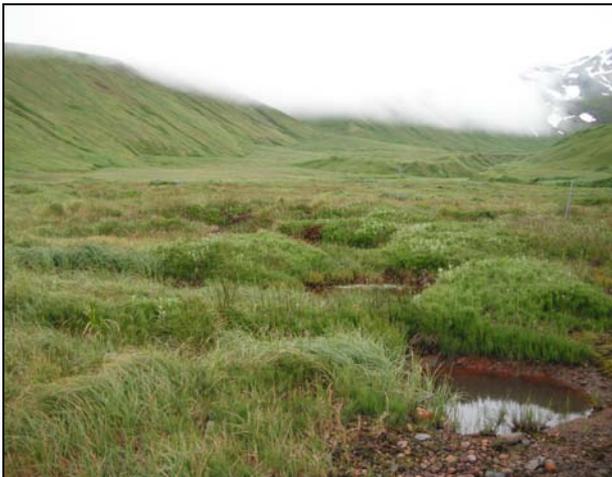
- 39 areas identified in OU B-2
- 15 areas required no further action but are still subject to OU B-1 island-wide ICs
- 24 sites required further evaluation in the RI/FS



OU B-2 Remedial Action Areas



- Of the 24 sites, 11 sites warrant MEC removal activities
- These 11 sites were grouped into 5 Remedial Action Areas: RAA-01 (OB/OD-01); RAA-02 (C1-01); RAA-03 West (MI-01, MI-02, and MI-03) and RAA-03 East (HG-01 and RR-01); RAA-04 (SA93-01 and SA93-03); and RAA-05 (ALDA-01 and ALSW-01)

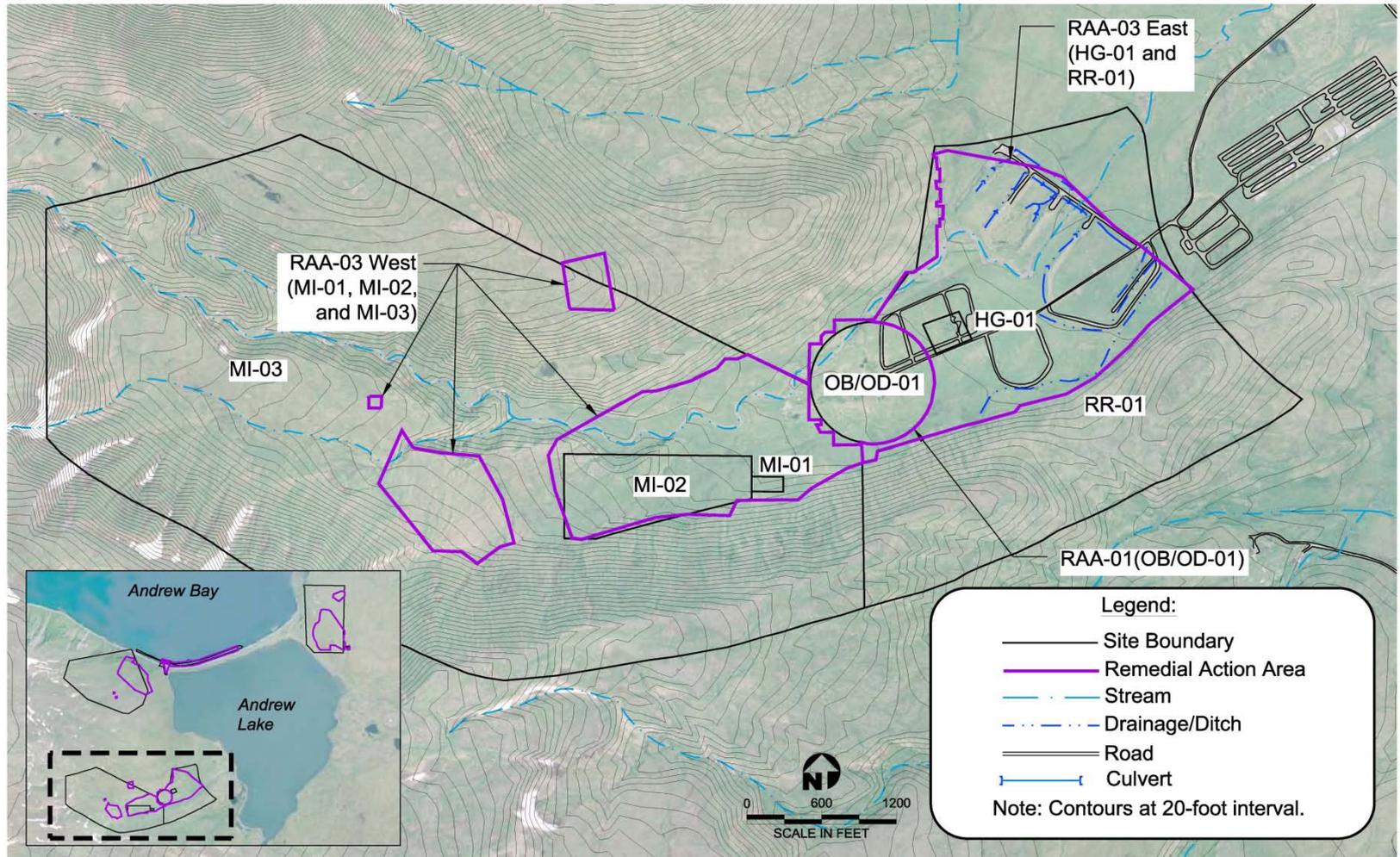


RAAs-01 and 03 – Moffett Valley

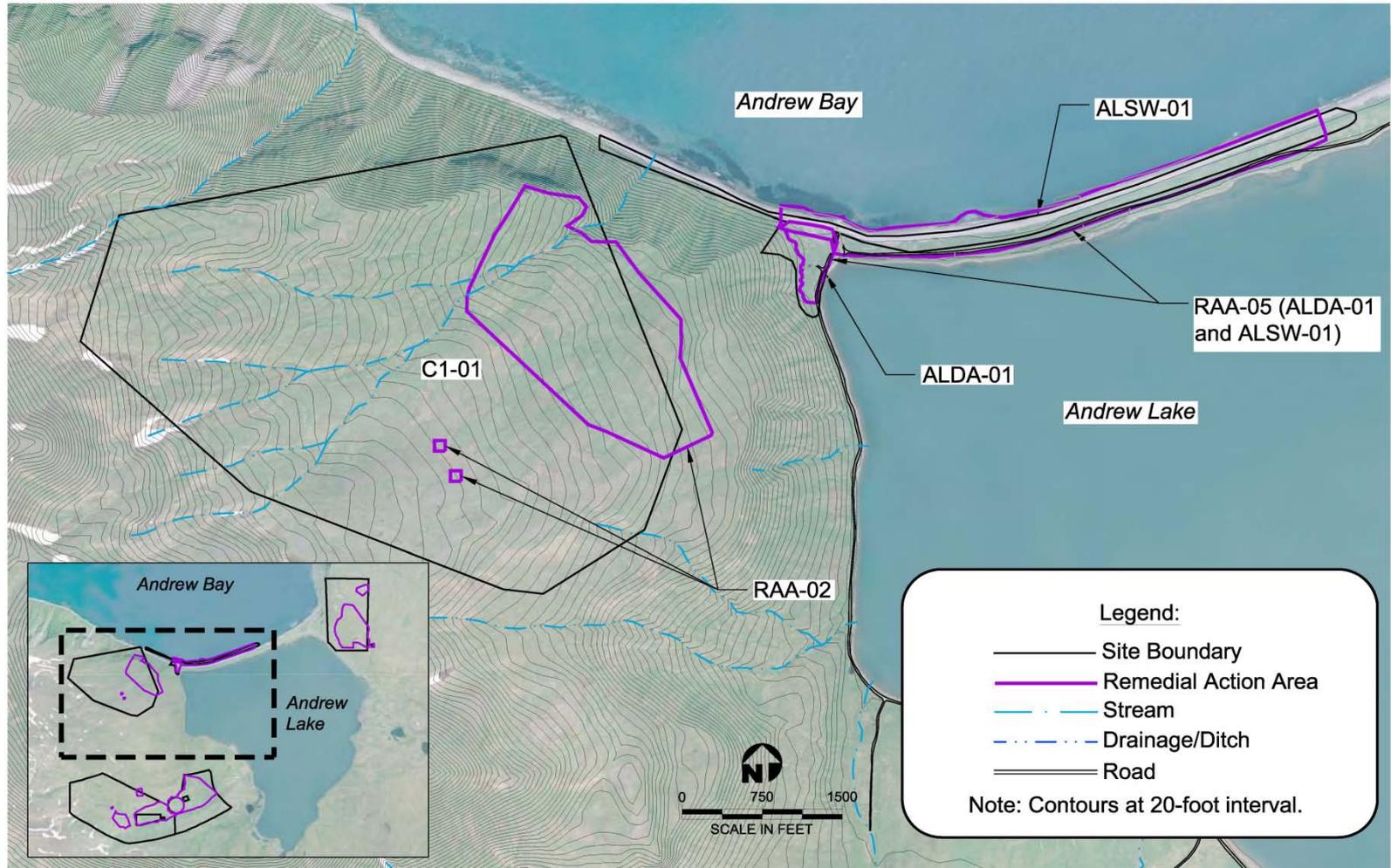
RAAs-02 and 05, from RAA-04

RAA-04

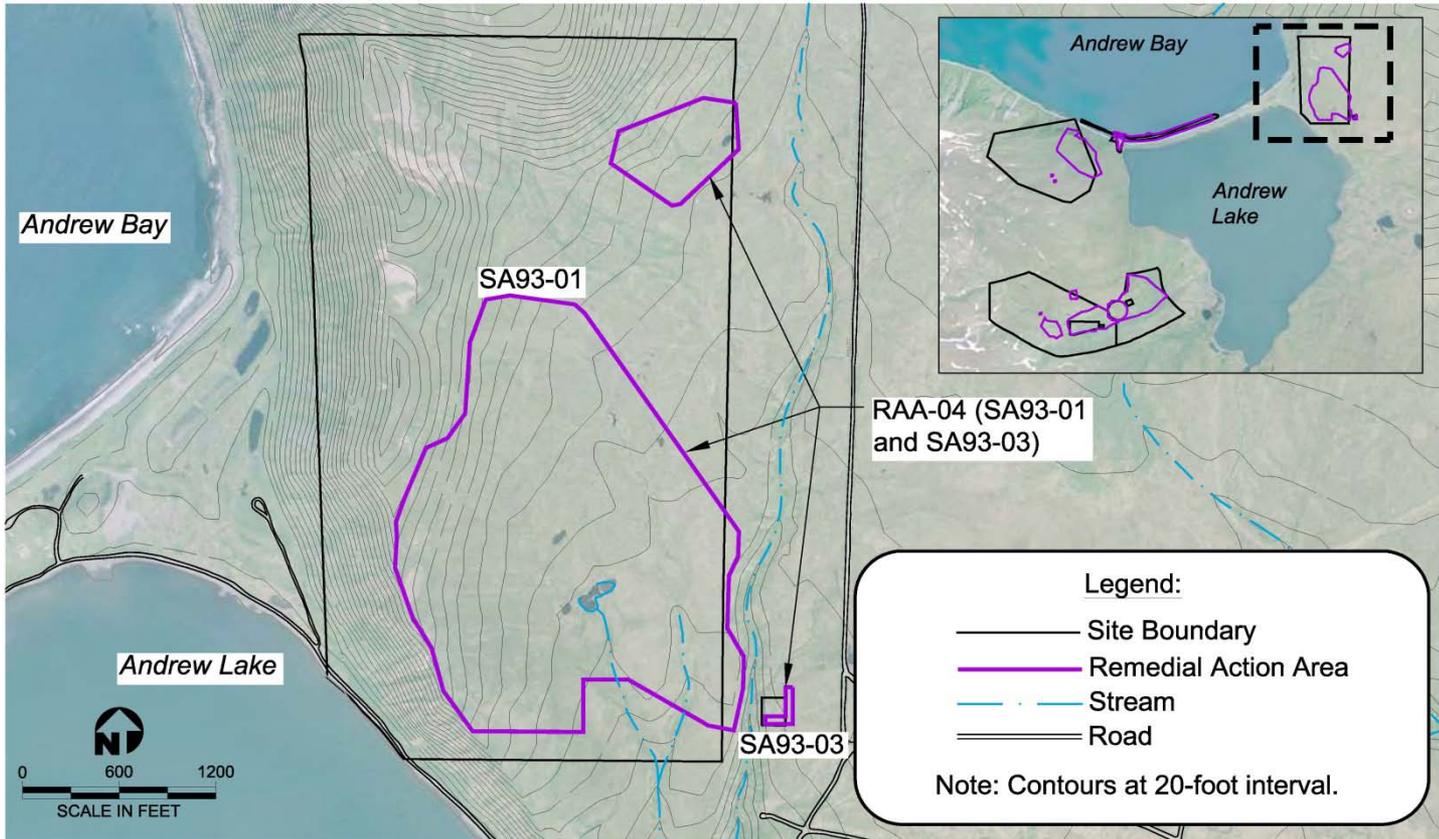
Locations of RAA-01 and RAA-03 (West and East)



Locations of RAA-02 and RAA-05



Location of RAA-04



OU B-2 Investigation Results



- Numerous investigations performed between 1986 and 2010
- Munitions constituents sampling found concentrations below levels of concern
- MEC found included mortars, rockets, projectiles, bombs, grenades, small arms, and other miscellaneous explosive devices
- Surface and subsurface distribution of MEC provided in table below for all sites, except ALSW-01:

MEC Distribution by Depth

Distribution of MEC by Depth (Percentage)	Remedial Action Area					
	RAA-01 (OB/OD-01)	RAA-02 (C1-01)	RAA-03 West (MI-01, MI-02, and MI-03)	RAA-03 East (HG-01 and RR-01)	RAA-04 (SA93-01 and SA93-03)	RAA-05 (ALDA-01 only) ^a
Surface	25%	56%	2%	14%	15%	93%
Near Surface (0 to 0.5 ft bgs)	67%	22%	66%	79%	45%	0%
Subsurface (0.5 to 2 ft bgs)	8%	22%	32%	7%	36%	7%
Subsurface (2 to 4 ft bgs)	0%	0%	0%	0%	4%	0%
Total Quantity	12	9	87	29	67	15

^a – MEC beach sweep results for RAA-05, ALSW-01, is provided separately in table on the following slide.
ft bgs – feet below ground surface

OU B-2 Investigation Results



- MEC found at ALSW-01 during beach sweeps provided in table below:

Summary of MEC Beach Sweep Results for RAA-05 (ALSW-01)

Time Frame ^a	60-mm Mortar	81-mm Mortar	Bomb	Fuzes	Grenades	Projectiles
1962-1967	68	363	47	23	14	95
1971-1975	0	3	6	7	0	1
1979-1992	8	24	25	9	5	40
2004-2009	0	45	0	19	0	4
Totals	76	435	78	58	19	140

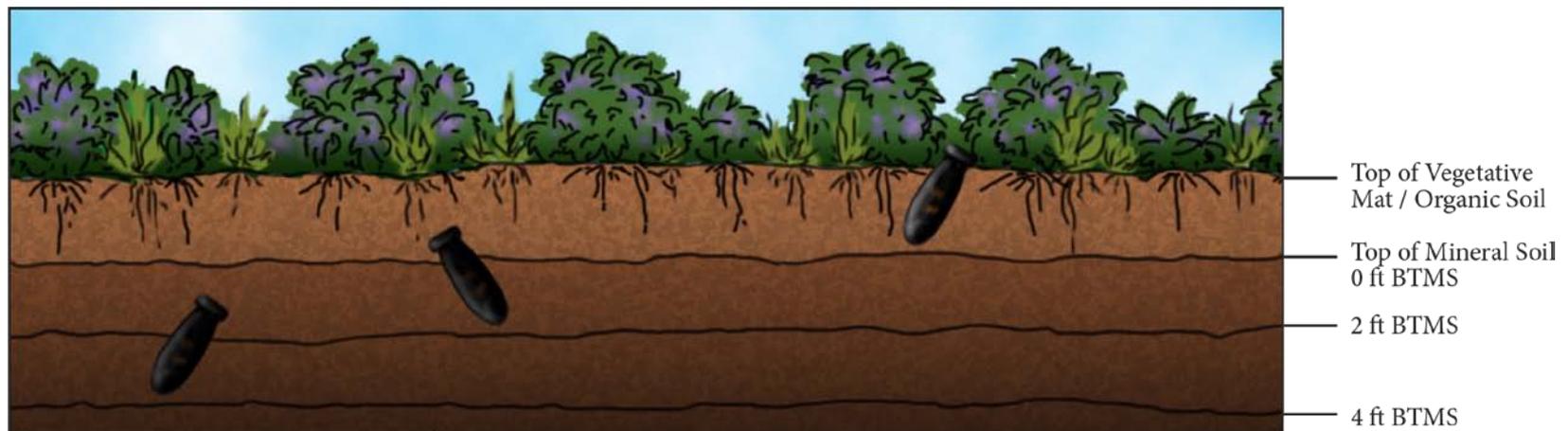
^a - All items found at surface, no intrusive investigation conducted.
mm – millimeter



Remedial Alternatives for RAA-01, RAA-02, RAA-03 (West and East), and RAA-04



- **Alternative 1: No Action**
- **Alternative 2: Surface MEC Removal to 0.5 Foot Below Top of Mineral Soil (BTMS) and Land Use Controls (LUCs)**
- **Alternative 3: Surface and Subsurface MEC Removal to 2 Feet BTMS and LUCs**
- **Alternative 4: Surface and Subsurface MEC Removal to 4 Feet BTMS and LUCs**
- **Alternative 5: Surface and Subsurface MEC Removal to Depth of Detection and LUCs**



Note: BTMS - below top of mineral soil

Remedial Alternatives for RAA-05



- **Alternative 1: No Action**
- **Alternative 6A: Beach Sweeps, MEC Removal to 2 Feet BTMS at ALDA-01 and RAA-specific LUCs**
- **Alternative 6B: Beach Sweeps, MEC Removal to 4 Feet BTMS at ALDA-01 and RAA-specific LUCs**
- **Alternative 7A: Dredging, Beach Sweeps, MEC Removal to 2 Feet BTMS at ALDA-01 and RAA-specific LUCs**
- **Alternative 7B: Dredging, Beach Sweeps, MEC Removal to Depth of Detection at ALDA-01 and RAA-specific LUCs**



Navy's Preferred Alternatives



- **RAA-01, RAA-02, RAA-03 West, and RAA-03 East**
 - **Alternative 3: Surface and Subsurface MEC Removal Beyond Depth of Historical Finds (to 2 Feet BTMS) and LUCs**
- **RAA-04**
 - **Alternative 4: Surface and Subsurface MEC Removal Beyond Depth of Historical Finds (to 4 Feet BTMS) and LUCs**
- **RAA-05**
 - **Alternative 6A: Beach Sweeps, MEC Removal Beyond Depth of Historical Finds (to 2 Feet BTMS) at ALDA-01 and RAA-specific LUCs**

Alternative Selection Rationale



- **Remedial Action Objective (RAO) for OU B-2**
 - Provide protection to human health and the environment by reducing and/or mitigating the risk associated with MEC exposure during future use of the area for wildlife management, subsistence, and recreational activities
- **How the Remedial Action Objective is met**
 - Removes surface and subsurface MEC to the depths found at each RAA
 - Removal of MEC combined with LUCs will provide protection of human health and the environment for the expected future land use as a wildlife refuge
 - Maintains flexibility to investigate and clear deeper anomalies
 - Periodic reviews will be conducted to demonstrate that the cleanup action remains protective
 - Consistent with regulatory requirements
 - Employs proven and reliable technologies
 - The current island-wide OU B-1 MEC educational awareness program addresses potential risks from residual MEC

Non-Time Critical Removal Actions for RAA-02, RAA-03 (West and East) and RAA-04



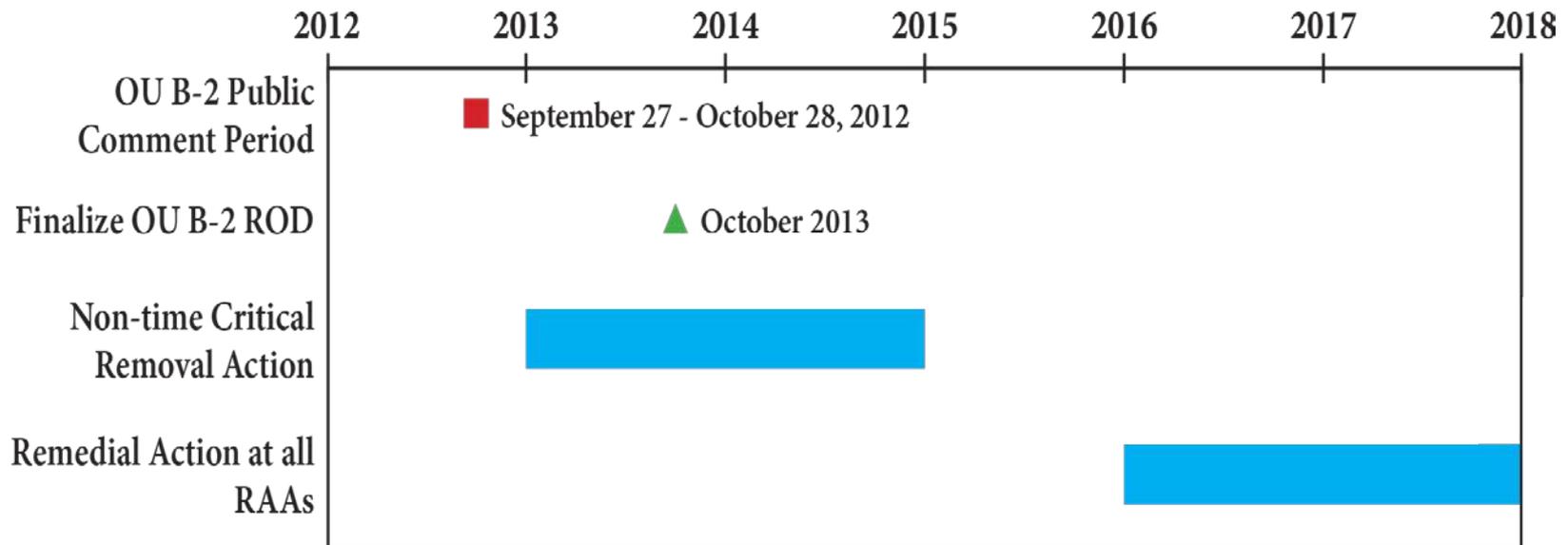
- **Remediation goals the same as in the Proposed Plan**
- **Accelerated schedule for these RAAs**
 - Funding became available
 - Allows more even spread of work between 2013 and 2018
 - Allows 60% of RAAs to be cleaned up ahead of the ROD and accelerates risk reduction at Adak
- **Removal actions planned for 2013 and 2014**

Cost



RAA	Range of Costs	Selected Remedy
1	\$0 to \$2M	\$2M
2	\$0 to \$5M	\$5M
3 – East	\$0 to \$6.7M	\$6.4M
3 – West	\$0 to \$7.7M	\$7.5M
4	\$0 to \$7.3M	\$7.3M
5	\$0 to \$169M	\$5M

Schedule



Clean-up is anticipated to be complete in 2018, with a Remedial Action Completion Report and Finding of Suitability to Transfer planned for late 2018.

Community Participation



- Verbal comments will be accepted during this public meeting
- Written comments will be accepted through the close of business on **October 28, 2012** by submitting them to:
 - Justin Peach, PG, PE
Naval Facilities Engineering Command Northwest
1101 Tautog Circle, Suite 203, Silverdale, WA 98315
Fax: (360) 396-0857 / justin.peach@navy.mil
- Media inquiries and requests for general information should be submitted to:
 - Leslie Yuenger
Public Affairs Officer
Naval Facilities Engineering Command Northwest
1101 Tautog Circle, Suite 203, Silverdale, WA 98315
Phone: (360) 396-6387 / leslie.yuenger@navy.mil
- More information is available at:
 - Bob Reeve High School
Mechanic Road
Adak, AK 99546
 - Adak Update Website: www.adakupdate.com



Questions or Comments?

