

DRAFT AGENDA

ADAK RESTORATION ADVISORY BOARD

Wednesday, 13 April 2016
12:00 pm Adak: Reeve's High School Conference Room
1:00 pm Anchorage: ADEC Office and via Teleconference

Toll free dial-in number (U.S. and Canada): 877 361-4268; Access Code - 750127919

<u>Adak Time</u>	<u>Agenda Topic</u>	<u>Speaker\Lead</u>
12:00 pm	Welcome and Introductions	Esther Bennett, Community Co-Chair Mark Murphy, Navy Co-Chair
	Approve Minutes From 14 October RAB Meeting, including a review of action items	RAB Members
	Munitions Program Update	Mark Murphy, Navy Alex Smith, CB&I
	Petroleum Update	Chris Generous, Navy and Alex Smith, CB&I
	Long Term Monitoring (Including Marine Monitoring)	Jessica Faragalli, Navy
	Institutional Controls Repairs (2015)	Mark Murphy, Navy;
	Five Year Review	Steve Saepoff, Navy
	Community Report/New RAB Member Discussion/Comments	Esther Bennett, Community Co-Chair
	Review New Action Items	Navy Co-Chair, All
	Preliminary Agenda for Next Meeting Distribution Sequence and Materials Prior to RAB Set Date for Next RAB	Navy Co-Chair, All



DRAFT

ADAK

Restoration Advisory Board (RAB) Meeting Minutes October 14, 2015

The meeting was held via teleconference with participants calling in from the Bob Reeve High School Conference Room on Adak; ADEC conference room in Anchorage; NAVFAC Northwest in Silverdale, WA; and several other locations.

1. WELCOME AND INTRODUCTIONS

Navy Co-chair Mr. Mark Murphy called the meeting to order at approximately 12:00 noon (Adak Time), and introductions were made. Mr. Murphy introduced himself as the replacement for Mr. Peach as the Navy's new project manager for the site. Six community RAB members attended, which constituted a quorum. The following people were in attendance:

Name	Affiliation	Location
Esther Bennett	RAB member (Community Co-Chair)	Adak, AK
Darrell Tannehill	RAB member	Adak, AK
Elaine Smiloff	RAB member	Adak, AK
Tom Spitler	RAB member	Adak, AK
Mark Murphy	*RAB member (Navy Co-Chair)	Adak, AK
Chris Cora	*RAB member (EPA)	Seattle, WA
Guy Warren	*RAB member (ADEC)	Anchorage, AK
Carrie Plant	Adak Resident	Adak, AK
April Smiloff	Adak Resident	Adak, AK
Jim Ruef	Sealaska Environmental	Poulsbo, WA
John B	Sealaska Environmental	Poulsbo, WA.
Mike Cassista	State of Alaska, DHSS	Adak, AK
Mike Corry	Navy Technical Representative	Silverdale, WA
Steve Saepoff	Navy Technical Representative	Silverdale, WA
Steve Skeehan	Navy Technical Representative - Adak	Silverdale, WA

Oscar Broadway	Battelle	Adak, AK
Jody Lipps	Battelle	Columbus, OH
Michael O'Hare	Deputy Project Manager, TetraTech	Adak, AK
JoAnn Grady	Grady and Associates	Seattle, WA
Eric Zentner	Boreal Communications	Juneau, AK

*non-voting RAB member

2. REVIEW OF ACTION ITEMS / APPROVAL OF PRIOR MEETING MINUTES

Ms. Bennett reviewed the action items from the April 8th 2015 RAB meeting. The Board agreed to carry forward Action Items 5 and 8. The Board agreed that all the other action items had been completed. Ms. Bennett asked for the minutes to be approved. Ms. Smiloff motioned and Mr. Spitler seconded the motion to approve the April 8th 2015 meeting minutes. All voting members of the RAB agreed and the minutes were approved.

Action Item 1 (Carried Forward) - Mr. Murphy will follow up with Mr. Layton Lockett and Mr. Smith on the possibility of coordinating the removal of scrap metal from field activities with the possible removal of some of the scrap metal that is currently being managed by the City of Adak.

Action Item 2 (Carried Forward) - Ms. Bennett will determine whether Mr. Peach was able to assemble a collection of photos from the USA Environmental Munitions Closure Report that generally represent the remediation phase of the Navy's involvement on Adak.

3. MUNITIONS UPDATE

Mr. Michael O'Hare presented the munitions update.

INSERT PP list? Chart? Page?

Mr. Michael O'Hare introduced himself and reviewed the activities that were conducted during the previous summer under the Non-Time Critical Removal Action (NTCRA). He said 42 grids were identified for removal action in three remedial action areas (RAAs) within the Open Burn/Open Detonation (OB/OD) area (RAA-01 and 03 West) and near Andrew Lake Seawall (RAA-05). The first phase of the field season (Phase I) was to consist of a general surface clearance of each grid followed the intrusive removal of all targets identified during the digital geophysical mapping (DGM) that was conducted in 2013. A new round of DGM was to be conducted following the completion of Phase I. The second phase of the field season (Phase II) was to consist of the intrusive removal

of the targets identified during the second round of DGM. Each grid was then to be turned over to the Quality Assurance (QA) contractor before its final close out. Monthly sweeps of Andrew Lake Seawall were also scheduled as part of the 2015 field season along with weekly consolidated demo-shots and semi-weekly burns of relevant items in mobile thermal demolition units (MTDUs).

Mr. O'Hare presented a series of slides showing the progress that has been made on the grids during the 2015 field season. The Phase I investigation was completed in all grids in RAA-01 and RAA-03 West (RAA-03 W). New DGM data was collected and processed for final closure in all grids in RAA-01 and RAA-03 W except for Grid 18, which is expected to be completed by the end of the field season. Mr. O'Hare reported no work was completed in the northern portion of ALDA-01 (Grid D3 and portions of Grids D1 and D2). All the work that was scheduled for these grids will be carried over to a subsequent field season. The surface clearance and Phase I and Phase II investigations in RAA-05 was completed in all other grids in RAA-05. Mr. O'Hare noted, however, that a number of grids along the western boundary of RAA-05 were deemed inaccessible to DGM due to excessively steep terrain.

Mr. O'Hare noted, as of the date of the meeting, TetraTech had removed 41,900 items that met failure criteria and prosecuted 11,300 targets generated from anomalies identified in DGM data. They recovered 2,000 items classified as Munitions Presenting a Potential Explosive Hazard (MPPEH) and Munitions and Explosives of Concern (MEC). Mr. O'Hare said that TetraTech recovered over 8,600 pounds of Materials Documented as Safe (MDAS) and 21,300 pounds of metal debris for off-site removal.

The team discussed Mr. O'Hare's presentation. Ms. Bennett asked whether the outstanding work from the 2015 field season would be completed in the following field season. Mr. Murphy replied that he will not know the schedule for the remainder of the work until he is able to address a few outstanding contractual issues. He said that it is almost certain that the Navy will need at least two more field seasons to finish the project. He reiterated that any projected timeframe prior to the actual start of the work is subject to change.

4. INSTITUTIONAL CONTROLS UPDATE

Institutional Controls (IC) / Landfill Inspections and Repairs

Mr. O'Hare presented an overview on the work that was performed by TetraTech in support of the ongoing land use controls (LUCs) and institutional controls (ICs) that have been put in place on Adak. Mr. O'Hare said repairs or improvements to the LUCs and ICs were conducted at 11 sites, including landfills, disposal areas, downtown area locations, ordinance areas, and one shoreline section on Adak Island. The repairs/improvements to the sites included:

- One gate replacement
- 3429 linear feet of barb wire fence repair
- 30 sign repairs/replacements
- Landfill cap repairs
- Swale repairs
- Armor wall (shoreline repairs)
- Erosion control and fill of sinkholes
- Site restrictions.

Mr. O'Hare presented a series of slides showing Palisades and Metals Landfill – Solid Waste Management Units (SWMU) 11 and 13 respectively - before and after the LUC/IC repairs. He noted that roughly six tons of debris of, mostly, metal debris was removed from the creek at SWMU 11, and 30 yards of armored rock was placed along the shoreline at SWMU 13. Ms. Smiloff asked whether the Navy plans to remove the scrap metal that is located to the north of the main metals landfill at SWMU 13. Mr. Murphy replied that if the debris was designated as being stable, there might not be any plans to remove it. He added however, that corrective actions will probably be taken to address the debris it was listed as an area that is degrading over time.

The team discussed Mr. O'Hare's presentation. Mr. Tannehill asked whether it would be possible to have "no trespassing" signs posted along the west side of Metals Landfill. Mr. Warren said that the "no trespassing" signs were placed at certain areas to discourage people from driving over the landfill cap and destroying it vegetation. He explained that additional signs were not placed along the fence since walking along the landfill cap is not prohibited. Ms. Plant commented that, as a new resident of the Island, she is sometimes confused about where she is allowed to walk. Mr. Warren replied that Parcel 4 is the only area on the Island which is restricted. He added that the rest of the Island is open for recreational use. Ms. Plant suggested that the Navy place the coordinates of the corners of the restricted area on its map of the Island. She added that it may be possible to delineate the boundaries of the restricted area on GPS-based smartphone apps. Mr. Murphy replied that he would look into the suggestion.

Action Item 3 - Mr. Murphy will determine whether it is possible to add the coordinates of the landfill boundaries on the map that the Navy distributes to residents and visitors of Adak. He will also research the possibility of showing the boundaries of the restricted area on GPS-based smartphone apps.

Ms. Smiloff expressed concern about metal and glass being exposed on a community beach near Kuluk Bay. She noted that the beach is a gathering place for the community during the Fourth of July holiday and asked whether it may be possible to address the exposed metals by the upcoming Fourth of July. Mr. O'Hare replied that the remedy is to ensure the overall stability of Metals Landfill rather than to address every remnant of

debris found in its vicinity. He said action will be taken to address areas that are found to be significantly degraded, particularly if they exist on the seaward side of the landfill. Mr. Warren noted that he believes that the area in question is actually located beyond the boundary of Metals Landfill. Ms. Bennett asked when the area will be inspected. Mr. O'Hare replied that it will be inspected during the next Five-Year Review.

5. PETROLEUM SITES UPDATE

Free-Product Recovery

Mr. O'Hare reported that free product recovery is being conducted at several sites - predominantly in the downtown area – on a bi-monthly basis. In addition to the recovery, the six booms in East Canal and two booms in South Sweeper Creek are being inspected and maintained on a monthly basis. He added that a draft summary of the Free Product Recovery Report is scheduled to be submitted on November 25th, 2015. Ms. Bennett asked whether there are any plans for Area 303 in addition to the ongoing monitoring. Mr. Murphy replied that recovery efforts in Area 303 were ended last spring since no product had been found in the wells in that area for some time. He added, however that the groundwater chemistry in Area 303 is still being monitored.

6. ANNUAL LONG TERM MONITORING UPDATE

Mr. O'Hare reported that the annual long-term monitoring (LTM) was conducted by Sealaska from August 24th to September 3rd, 2015. Groundwater, Surface water, and sediment samples were collected at Area 303/GCI Compound, Former Power Plant 1451, and SWMU 60 (Tank Farm A). The annual IC inspections were conducted from September 4th to September 10th, 2015 at 33 sites across the Island. The Navy's Explosives Ordinance Disposal Mobil Unit 11 (EOD MU 11) conducted interviews and presented findings from the annual IC inspections during a presentation they gave at the local school on unexploded ordinance (UXO) in early September. Mr. O'Hare said he expects that draft versions of the IC and Monitoring Report will be available on December 16th, 2015 and January 25th, 2016 respectively.

Marine Monitoring

Mr. Murphy reported that the bi-annual sampling for the Marine Monitoring Program was conducted from June 14 – 21, 2015. As in previous sampling events, marine tissue from rock sole and blue mussels taken from Sweeper Cove and Kuluk Bay were sampled for polychlorinated biphenyls (PBCs). Five composite samples consisting of between 15 and 20 mussels were taken from six sampling stations in Sweeper. Five composite samples consisting of between 15 and 20 mussels were taken from Kuluk Bay. Five composite samples of rock fish were taken from ten trawls that were conducted in both Sweeper Cove and Kuluk Bay. A total of 25 fish were taken in the ten

trawls that were conducted in each location. Mr. Murphy reported that a draft version of the technical memorandum and fact sheet for the sampling program are scheduled to be submitted on October 22, 2015 and March 16, 2016 respectively. He added that he hopes to be able to present the findings from the analysis of the samples during the next RAB meeting.

6. CERCLA FIVE-YEAR REVIEW

Mr. Skeeahan stated that the site visit for the 5-Year Review was conducted between August 27th and September 23rd at Operable Unit A (OU A), OU B1, and the petroleum sites. He noted that, in addition to the site visit, the 5-Year Review involves a comprehensive historical analysis of all of the studies that have been conducted at the island. A fact sheet for the 5-Year Review was sent out to stakeholders in July, followed by a questionnaire, which was sent out on September 23rd of 2015. Mr. Skeeahan encouraged the attendees to fill out the questionnaire and to arrange an interview with him if they have any questions regarding the Five-Year Review. Mr. Skeeahan added that a draft copy of the Five-Year Review will likely be submitted in April or May of 2016. He intends to complete the process for the 5-Year Review by December 2016.

The team discussed the presentation on the 5-Year Review. Ms. Bennett asked whether the public will have an opportunity to see a draft version of the document. In response to the question from Ms. Bennett, Mr. Skeeahan confirmed that the public will have an opportunity to review a draft version of the 5-Year Review. Ms. Bennett added she will make certain hard copies of the Five-Year Review are placed in the project repository on Adak. Mr. Warren believes that a recent decision was made to transfer the items in the repository and maintain future project records in digital format. Ms. Grady added that she believes that the decision was recently made per a request from the city Manager Mr. Layton Lockett. Mr. Murphy said that he could at least commit to placing a disk version of the 5-Year Review in the Adak repository. He added that he will review project policies to clarify who is responsible for maintaining the repository and the formatting requirements for the documents that are stored therein. Mr. Warren added that any of the attendees should feel free to call him for assistance as well when looking for project information.

Action Item 4 - Mr. Murphy will review project policies regarding the maintenance of the Adak repository and the formatting of requirements for the documents that are stored therein.

7. COMMUNITY REPORT AND COMMENTS

The Board discussed the composition of its membership. Ms. Bennett said that she would contact Ms. Cynthia Galaktianoff and ask if she is still interested in participating as a RAB member. Ms. Bennett motioned to induct Ms. Plant as a new member of the

RAB. The motion was seconded by Mr. Tannehill and unanimously approved by all members present.

Action Item 5 - Ms. Bennett will ask Ms. Galaktianoff whether she wants to remain a member of the RAB.

8. NEW WEBSITE

Ms. Murphy reported that the old project website – www.adakupdate.com – is no longer being maintained. Anyone that attempts to visit the old website will be redirected to the new website - www.adakstatus.com.

9. REVIEW NEW ACTION ITEMS

Mr. Murphy summarized new action items.

Number	Description	Responsible Person
1	(From the previous meeting) Follow up with Mr. Layton Lockett and Mr. Smith on the possibility of coordinating the removal of scrap metal from field activities with the possible removal of some of the scrap metal that is currently being managed by the City of Adak.	Mark Murphy
2	(From the previous meeting) Determine whether Mr. Peach was able to assemble a collection of photos from the USA Environmental Munitions Closure Report that generally represent the remediation phase of the Navy's involvement on Adak.	Esther Bennett
3	Determine whether it is possible to add the coordinates of the landfill boundaries on the map that the Navy distributes to residents and visitors of Adak. He will also research the possibility of showing the boundaries of the restricted area on GPS-based smartphone apps.	Mark Murphy
4	Review project policies regarding the maintenance of the Adak repository and the formatting of requirements for the documents that are stored therein. COMPLETE: <i>During his stay on island, Mr.</i>	Mark Murphy

Number	Description	Responsible Person
	<i>Murphy met with Ms. Deb Sharrah, Adak City Clerk, who confirmed the City of Adak houses the hard copies of project documents in the Adak Repository. She also keeps a complete digital set of repository documents on DVD (provided and updated regularly by the Navy) that she uses to copy to a thumb drive or other media upon receiving requests for specific digital document versions of repository material from residents. Navy will continue to work with the City of Adak to keep the repository updated and materials available as described above. Navy certainly appreciates the City of Adak's support, in particular Deb Sharrah's help, in making sure this information is available to island residents</i>	
5	Ask Ms. Galaktianoff whether she wants to remain a member of the RAB.	Esther Bennett

NEXT RAB MEETING

Preliminary Schedule and Agenda for Next RAB Meeting

The team discussed the sequence and schedule for the next RAB meetings. Ms. Bennett tentatively agreed the draft agenda for the next meeting will follow the current outline, but added that the discussion on the new website should be removed.

The team agreed to meet on April 13th, 2016 at 12:00 PM Hawaii-Aleutian Standard Time (HST).

Ms. Smiloff motioned to adjourn the meeting, and the motion was seconded by Mr. Tannehill.

The meeting adjourned at 1:13 PM HST.

Attachment A

Current RAB Membership

Updated October 2015

Name	Affiliation	Location	Voting Member
Esther Bennett	RAB member (Community Co-Chair)	Adak, AK	1
Christopher Lagua	RAB member	Adak, AK	2
Cynthia Galaktianoff	RAB member	Roseburg, OR	3
Darrell Tannehill	RAB member	Adak, AK	4
Carrie Plant	RAB member	Adak, AK	NEW MEMBER
Elaine Smiloff	RAB member	Adak, AK	5
Jack Stewart	RAB member	Adak, AK	6
Layton Lockett	RAB member	Adak, AK	7
Melvin Smith	RAB member	Anchorage, AK	8
Tom Spitler	RAB member	Adak, AK	9
Will Tillion	RAB member	Adak, AK	10
Chris Cora	*RAB member (EPA)	Seattle, WA	
Guy Warren	*RAB member (ADEC)	Anchorage, AK	
Mark Murphy	*RAB member (Navy Co-Chair)	Silverdale, WA	

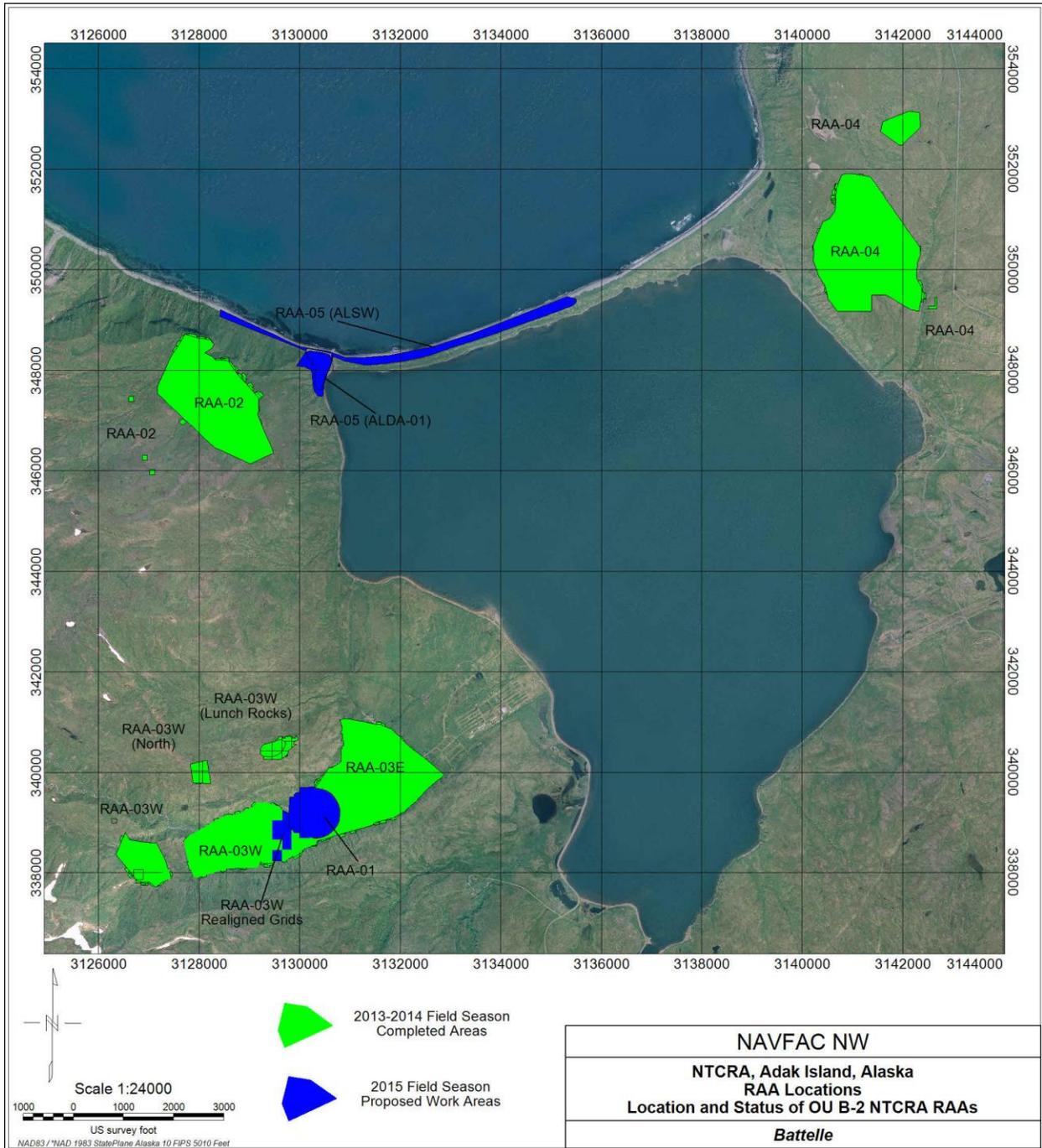
* Non-voting member

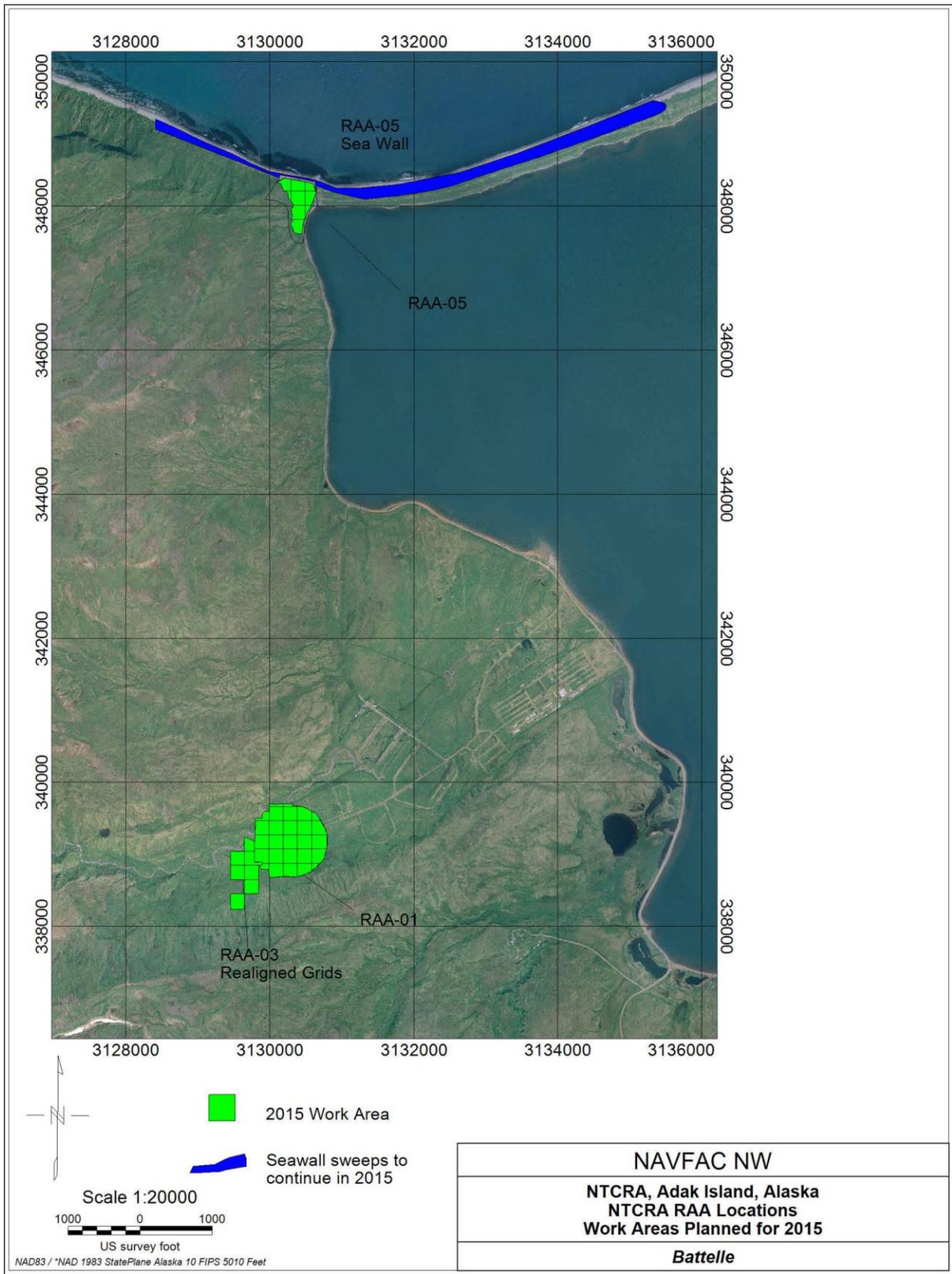
A quorum to take action will consist of 1/3 of the community RAB members.

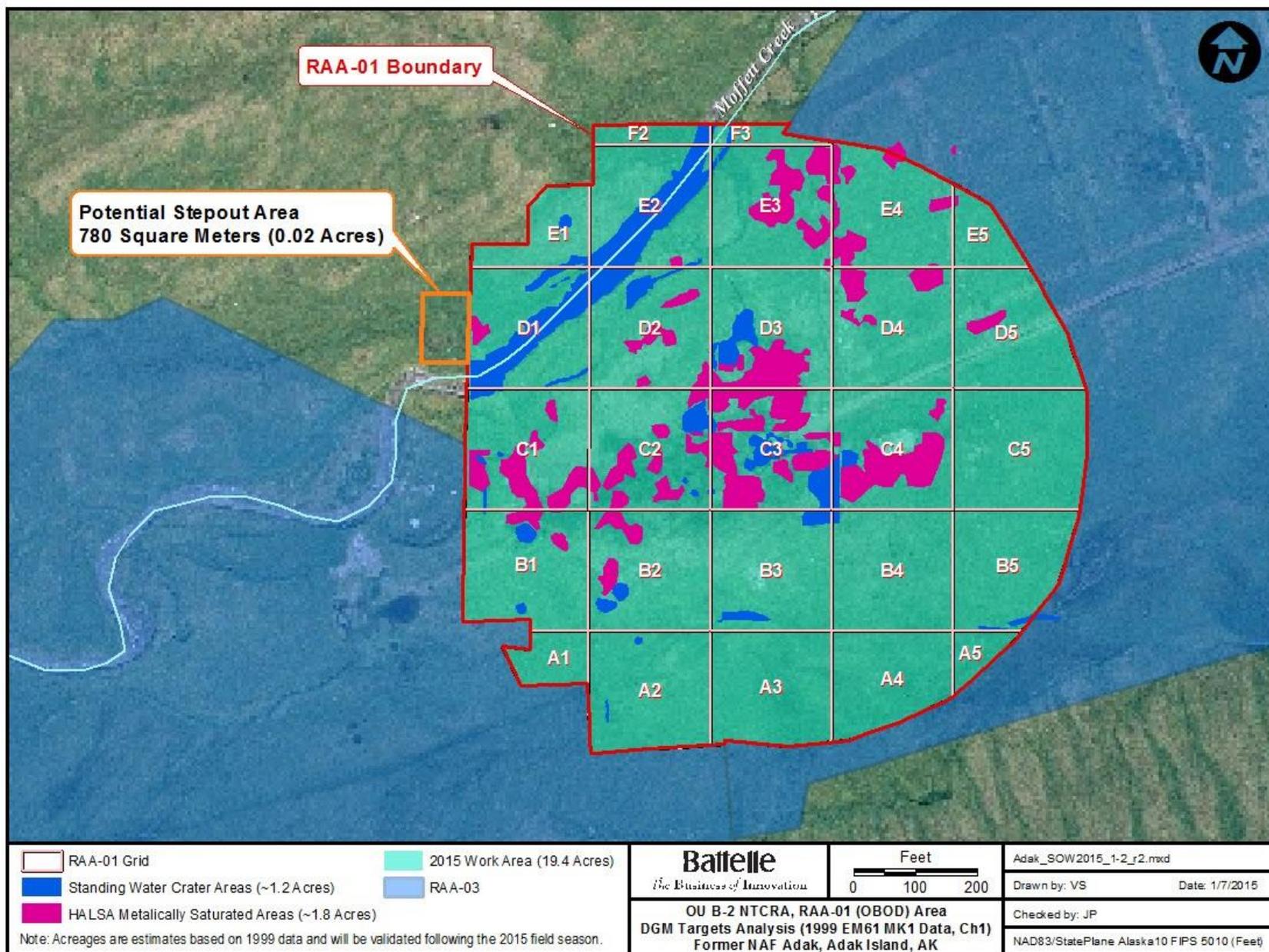
Action items will be reviewed and approved by a 2/3 vote of RAB community members participating in the meeting.

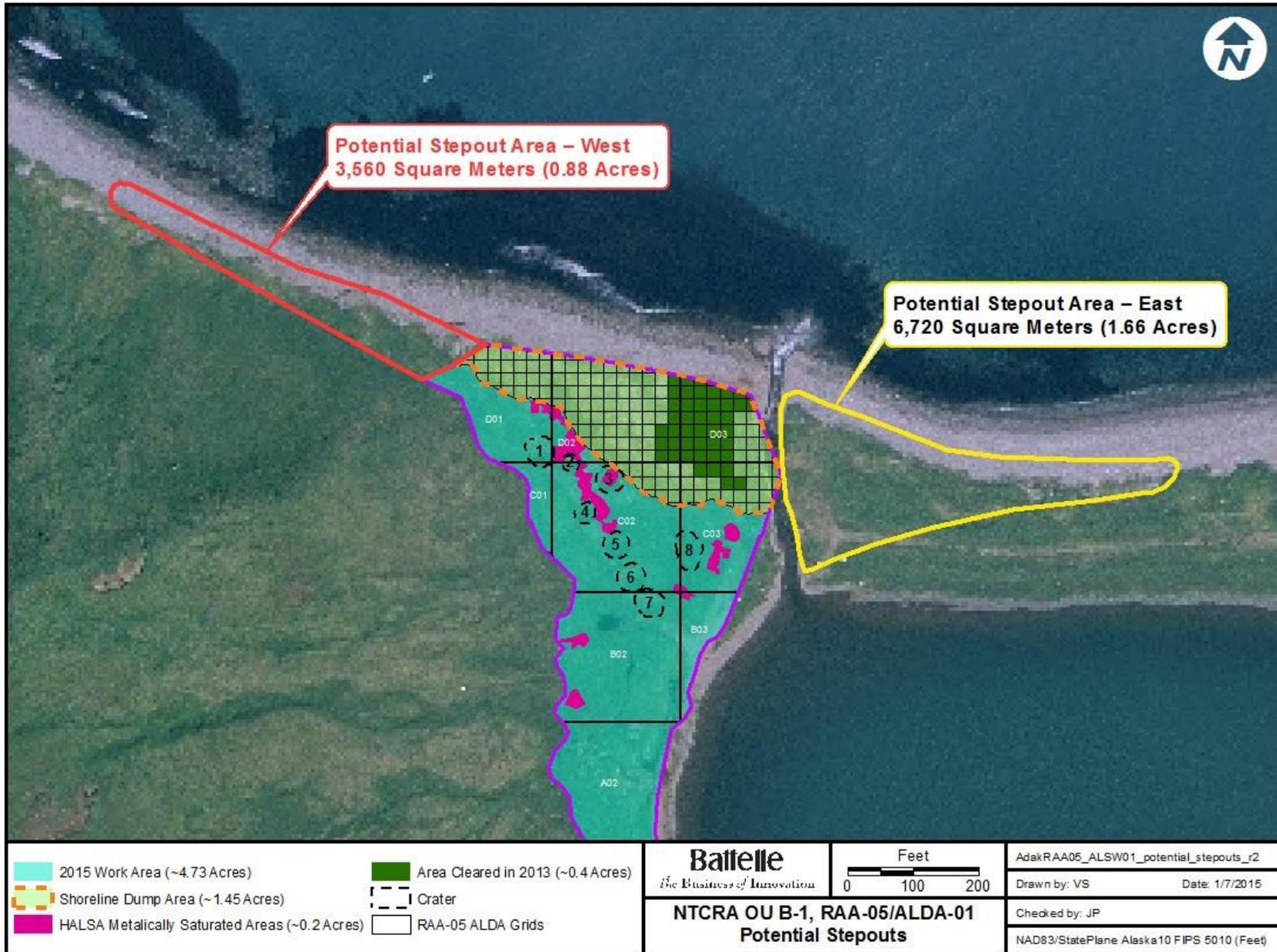
Additional members may be added to the RAB by a quorum present and a 2/3-majority vote of present RAB community members.

Attachment B
Operable Unit B-2
Non-Time Critical Removal Action
Figures









2016 Meeting Materials



TETRA TECH EC, INC.

NAVFAC NW Adak Projects

April 13, 2016 RAB Meeting

Report Period: October 15, 2015
through April 4, 2016

2015 Field Summary

Land Use Controls Repairs





Adak Land Use Control Repairs

- **Repairs/improvements to the LUCs and ICs were conducted at 11 sites, including landfills, disposal areas, downtown area locations, ordnance areas, and one shoreline section on Adak Island.**

The repairs/improvements to the sites included:

- One gate replacement
- 3,429 linear feet of barb wire fence repair
- 30 sign repairs/replacements
- Landfill cap repairs
- Swale repairs
- Armor wall (Shoreline) repairs
- Erosion control and fill of sinkholes
- Site restoration
- Closure Report completed March 2016



SWMU 11, Palisades Landfill Sinkhole Location Before/After Repairs





SWMU 11, Palisades Landfill Metal Debris Before/After Removal





SWMU 13, Metals Landfill

Armor Rock Sections Before and After Repairs





TETRA TECH EC, INC.

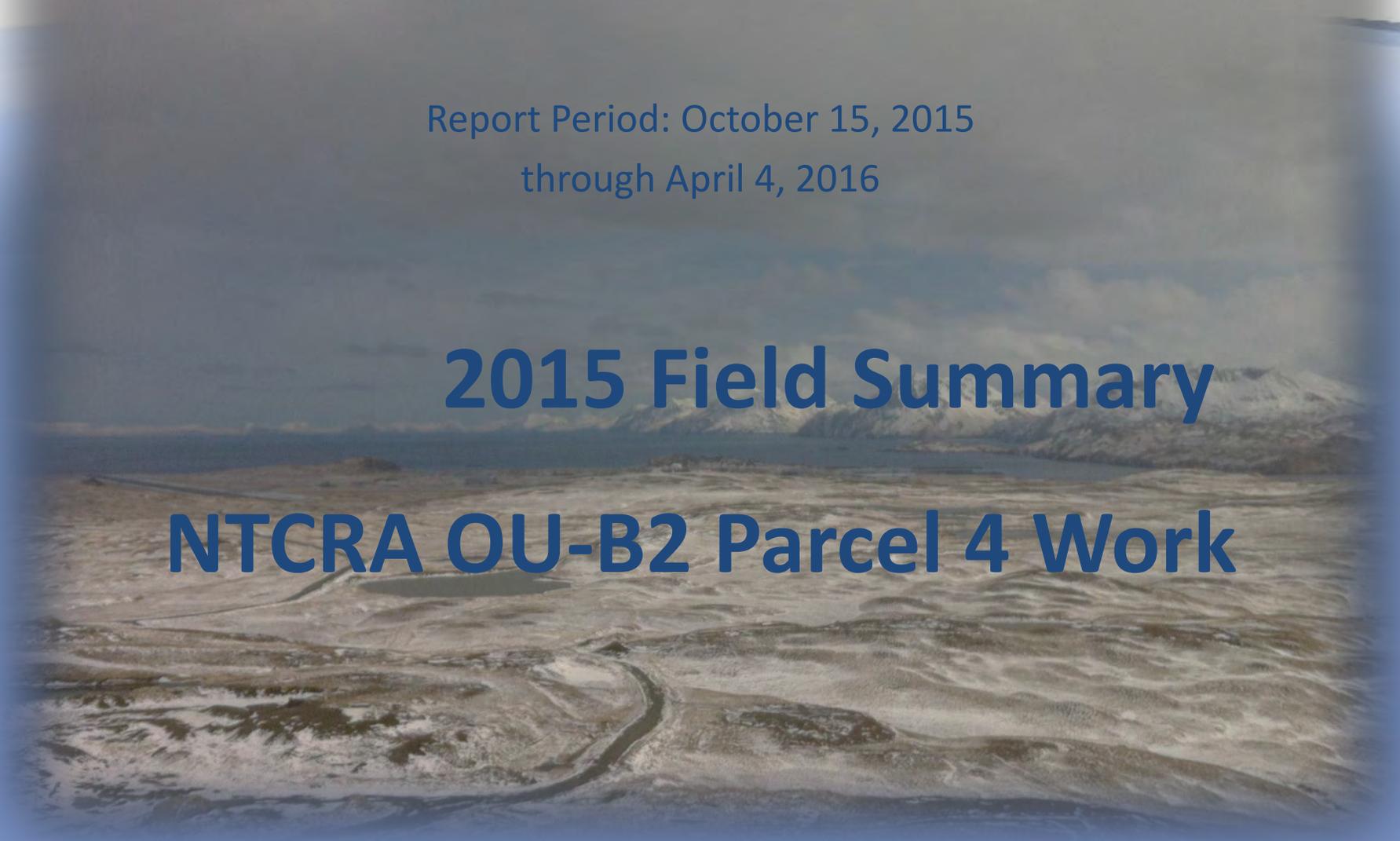
NAVFAC NW Adak Projects

April 13, 2016 RAB Meeting

Report Period: October 15, 2015
through April 4, 2016

2015 Field Summary

NTCRA OU-B2 Parcel 4 Work





2015 Field Season Summary



Site set up in April



Metal debris in OB/OD Area



Tug and barge arrival in Sweeper Cove



Intrusive Removal Operations in Moffett Valley

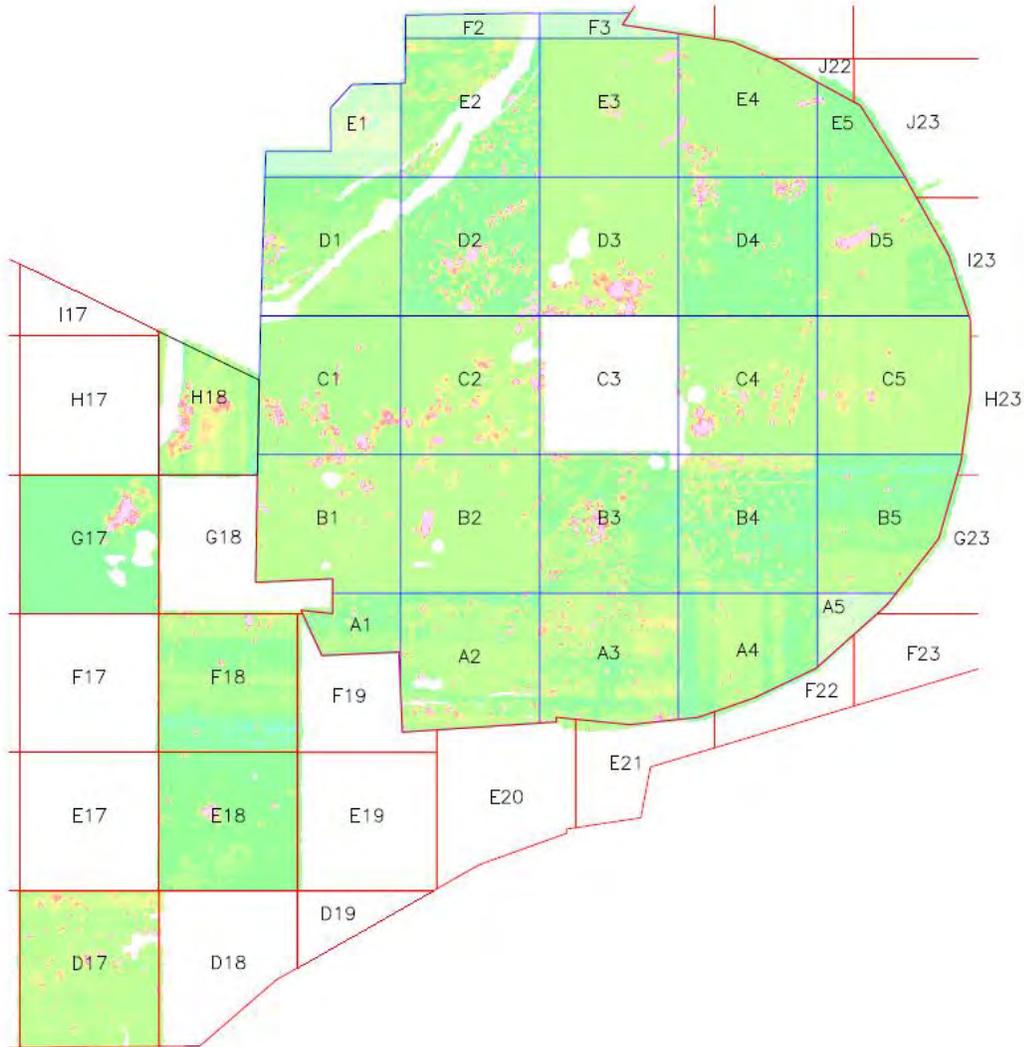


NTCRA Field Activities Overview

- 42 Grids identified for removal action in 3 RAAs within OB/OD area (RAA-01 and 03W) and near Andrew Lake Seawall (RAA-05)
- Complete Surface Removal
- Complete 1st Phase Intrusive Removal
- Complete Digital Geophysical Mapping of Grids
- Conduct 2nd Phase Intrusive Removal
- Weekly consolidated demo shots
- Semi-weekly MTDU burns
- Monthly Andrew Lake Seawall sweeps



RAA-01/03W Completed DGM and Grid Summary



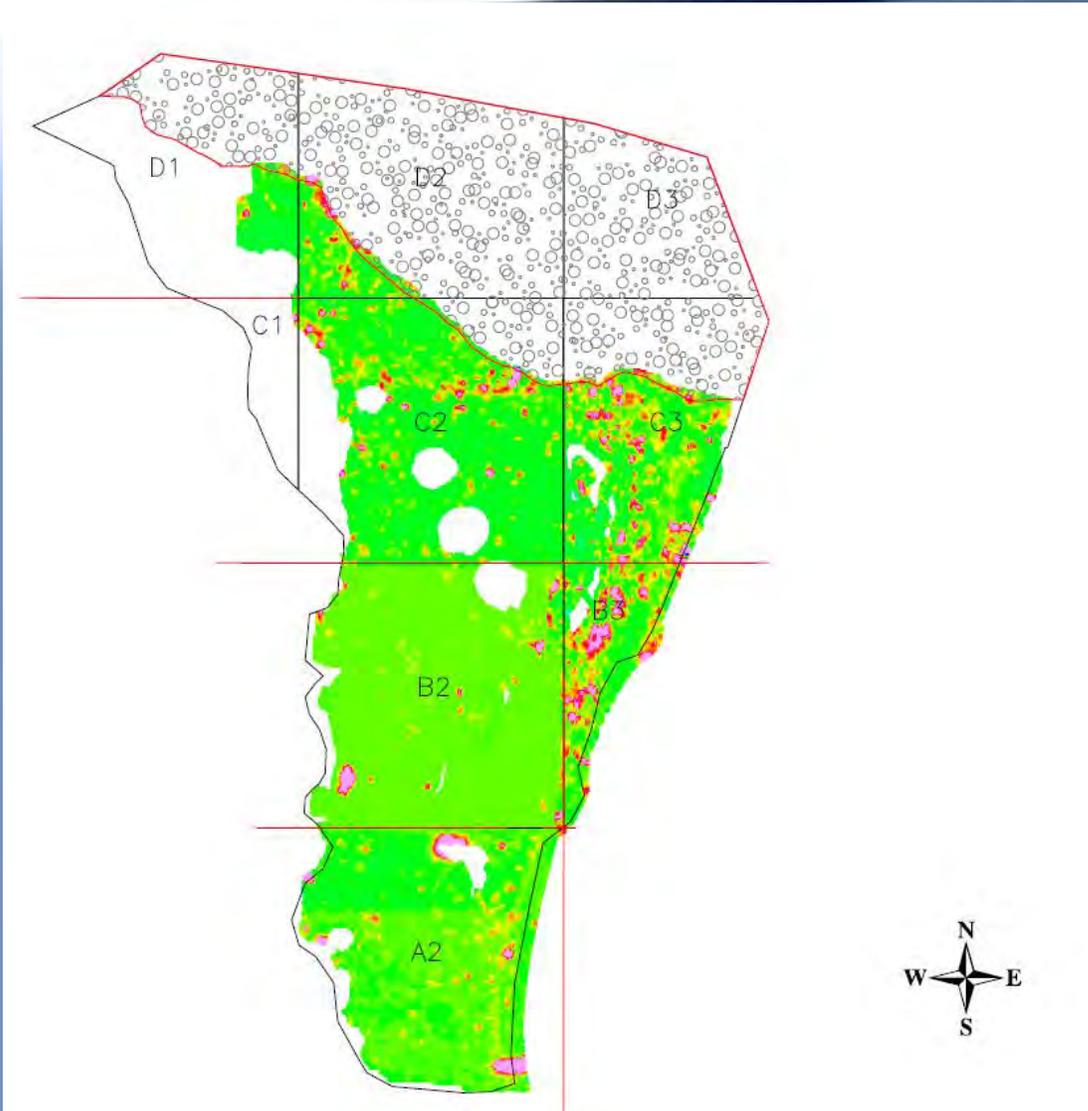
- RAA-01:
- Phase I completed for all grids
- New DGM collected and processed for all grids (C3 data not shown)

- RAA-0-3W:
- Phase I completed for all grids
- New DGM collected and processed for all grids (F17 and G18 data not shown)

- Adjacent grids to both RAAs cleared during previous field seasons



RAA-05 Completed DGM and Grid Summary



- RAA-05:
- No work completed in northern portion of ALDA-01 (Grid D3 and portions of Grids D1 and D2) in areas set aside for subsequent field work
- Phase I completed for all other grids
- New DGM collected and processed
- Grid portions along western boundary are inaccessible to DGM due to sloping terrain
- Phase II completed for all DGM-area grids
- Interiors crater floors shown as DGM gaps have been covered with clean fill



NTCRA Field Activities Summary

- Completed removal of over 52,600 items meeting failure criteria
- Completed prosecution of over 13,100 targets generated from anomalies identified in DGM data
- Recovered over 2,200 MEC and MPPEH items; destruction on site
- Recovered over 10,200 lbs of MDAS and 23,900 lbs of metal debris; Shipped for off-site Nov. 2015 for certified disposal
- Draft completion report 26 February 2016.



Adak Land Use Control Repairs

- **Repairs/improvements to the LUCs and ICs were conducted at 11 sites, including landfills, disposal areas, downtown area locations, ordnance areas, and one shoreline section on Adak Island.**

The repairs/improvements to the sites included:

- One gate replacement
- 3,429 linear feet of barb wire fence repair
- 30 sign repairs/replacements
- Landfill cap repairs
- Swale repairs
- Armor wall (Shoreline) repairs
- Erosion control and fill of sinkholes
- Site restoration
- Closure Report completed March 2016



SWMU 11, Palisades Landfill Sinkhole Location Before/After Repairs





SWMU 11, Palisades Landfill Metal Debris Before/After Removal





SWMU 13, Metals Landfill

Armor Rock Sections Before and After Repairs



METALS LANDFILL –SWMU 13

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METALS LANDFILL – SWMU 13



Looking South along landfill armor and rip rap repairs

METALS LANDFILL – SWMU

- About 32 acres total area. About 19 acres of this used for landfill
- Does not include areas to the north where debris has been observed
- Does not include Monument Hill area between boundary and Bayshore Highway
- Intent is to preserve cover, capping and armor on the landfill

RAB Meeting

April 13, 2016

**Non Time Critical Removal Action
at
Operable Unit B2 - RAA-01 & RAA-05
2016 Field Season**

**Former Naval Air Facility
Adak Island, Alaska**

Who We Are

- CB&I is an energy infrastructure focused company with 125 years of experience in design, engineering, construction, fabrication, maintenance and environmental services.
- CB&I Federal Services was formerly Shaw Environmental & Infrastructure, Inc.
- Our munitions response experience covers the past 25 years.



WHAT ARE WE DOING?

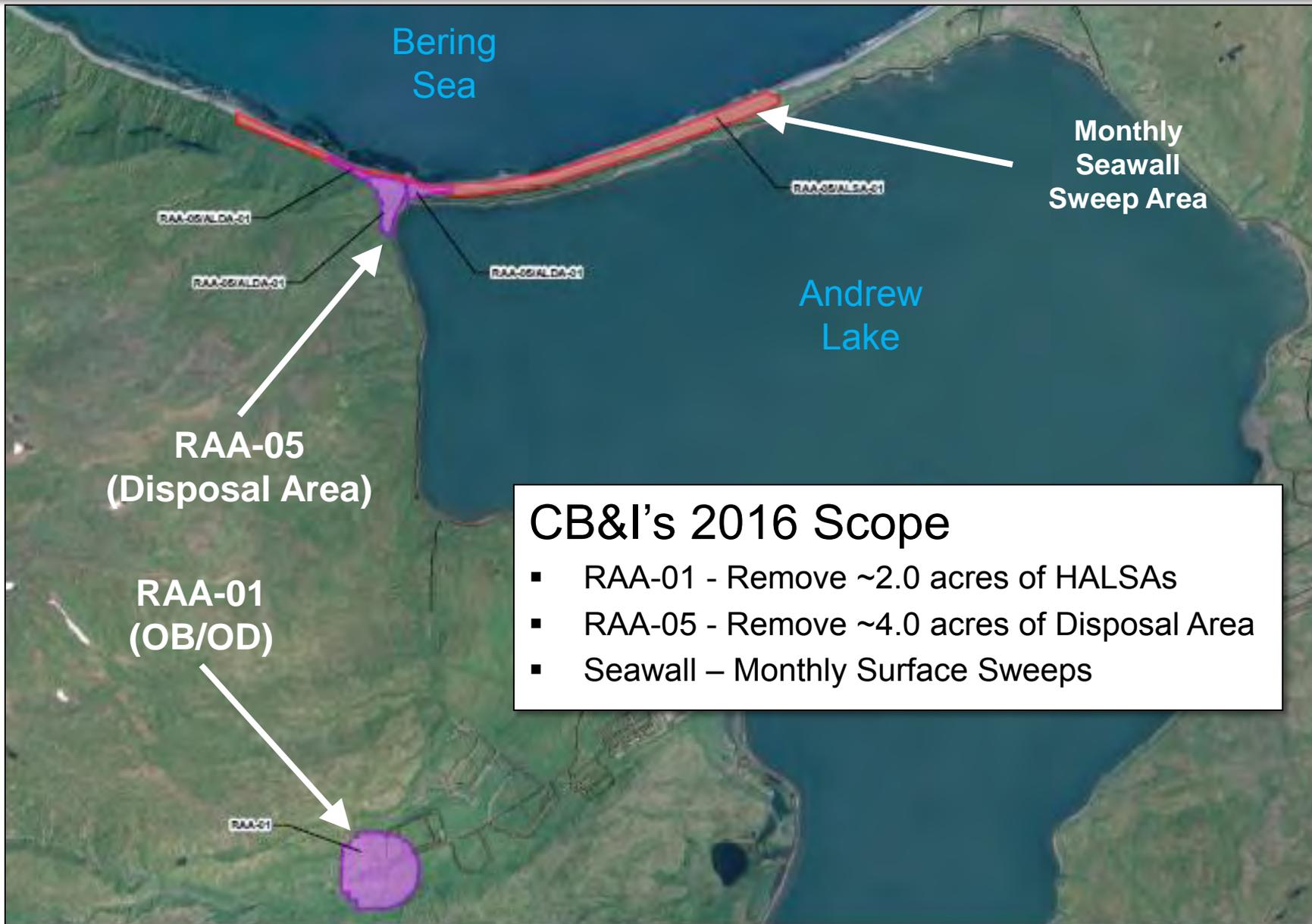
- Removal of Munitions and Explosives of Concern (MEC) and Material Potentially Presenting and Explosive Hazard (MPPEH)
- CB&I's work in 2016 focuses on areas of highest metallic contamination

WHEN?

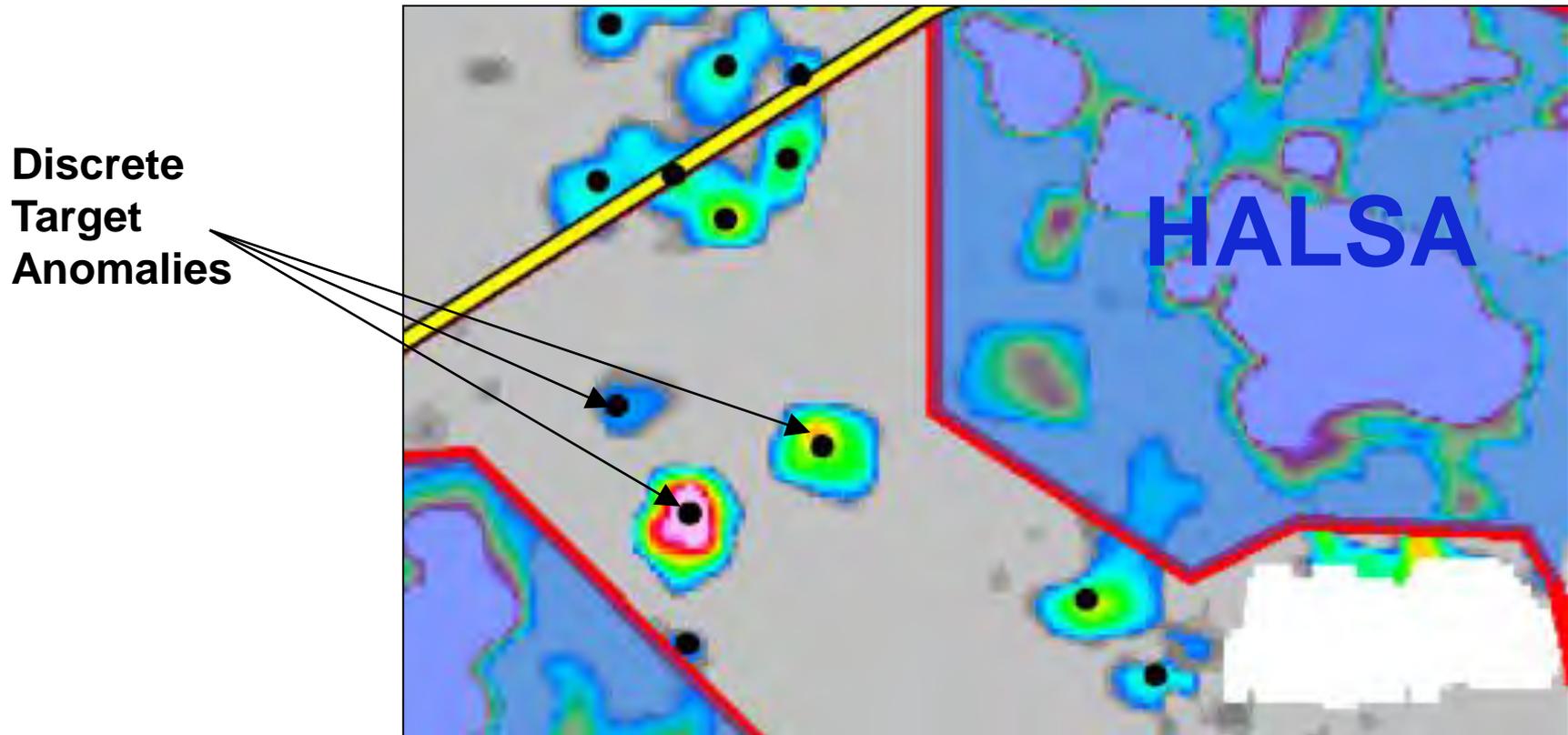
- April to October 2016
- Additional work will occur in a future season

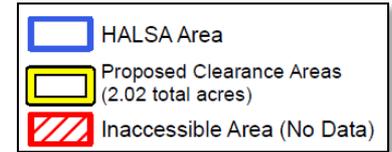
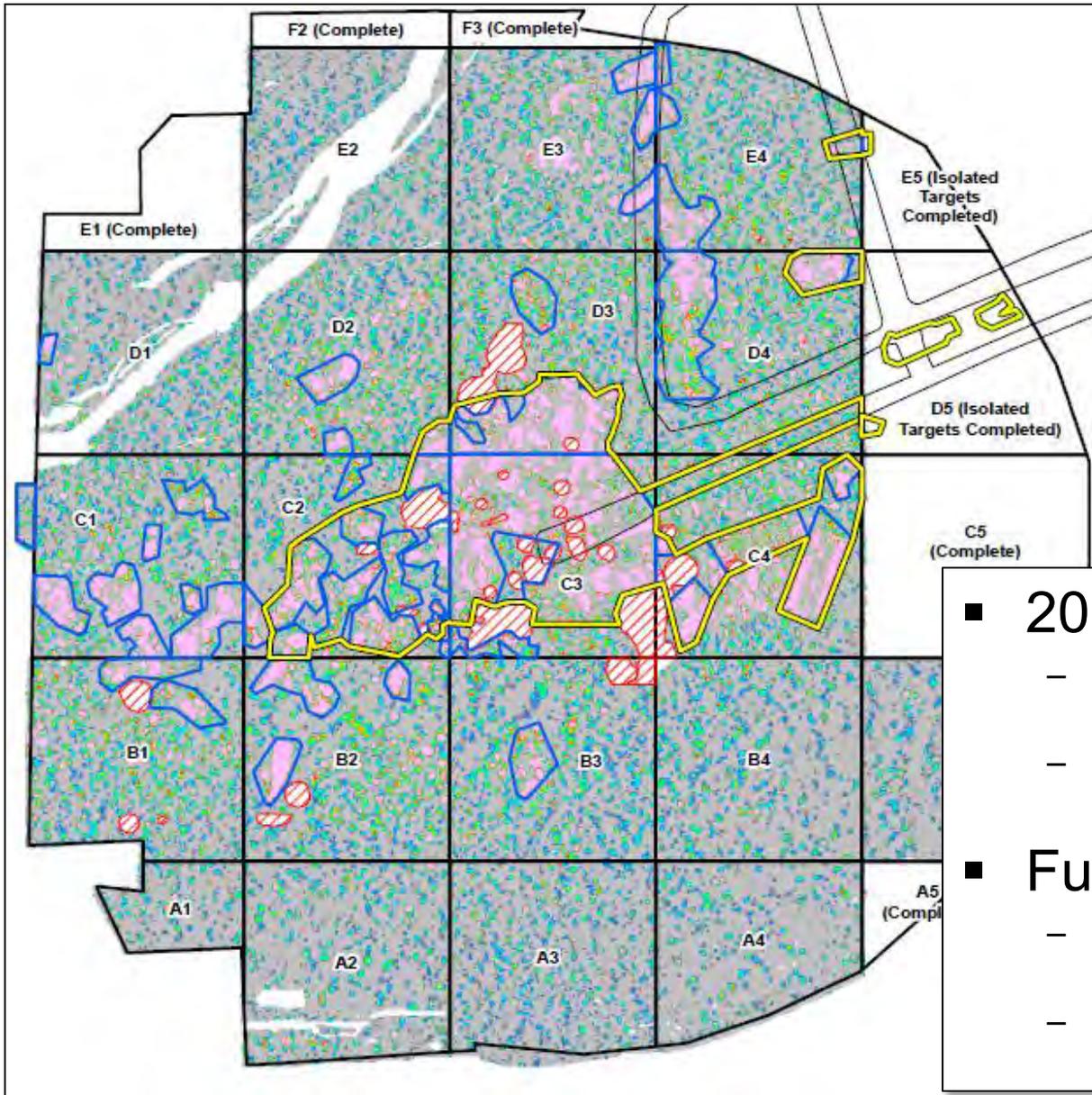
WHERE?

- RAA-01 – former open burn/open detonation (OB/OD) area
- RAA-05 – waste disposal area



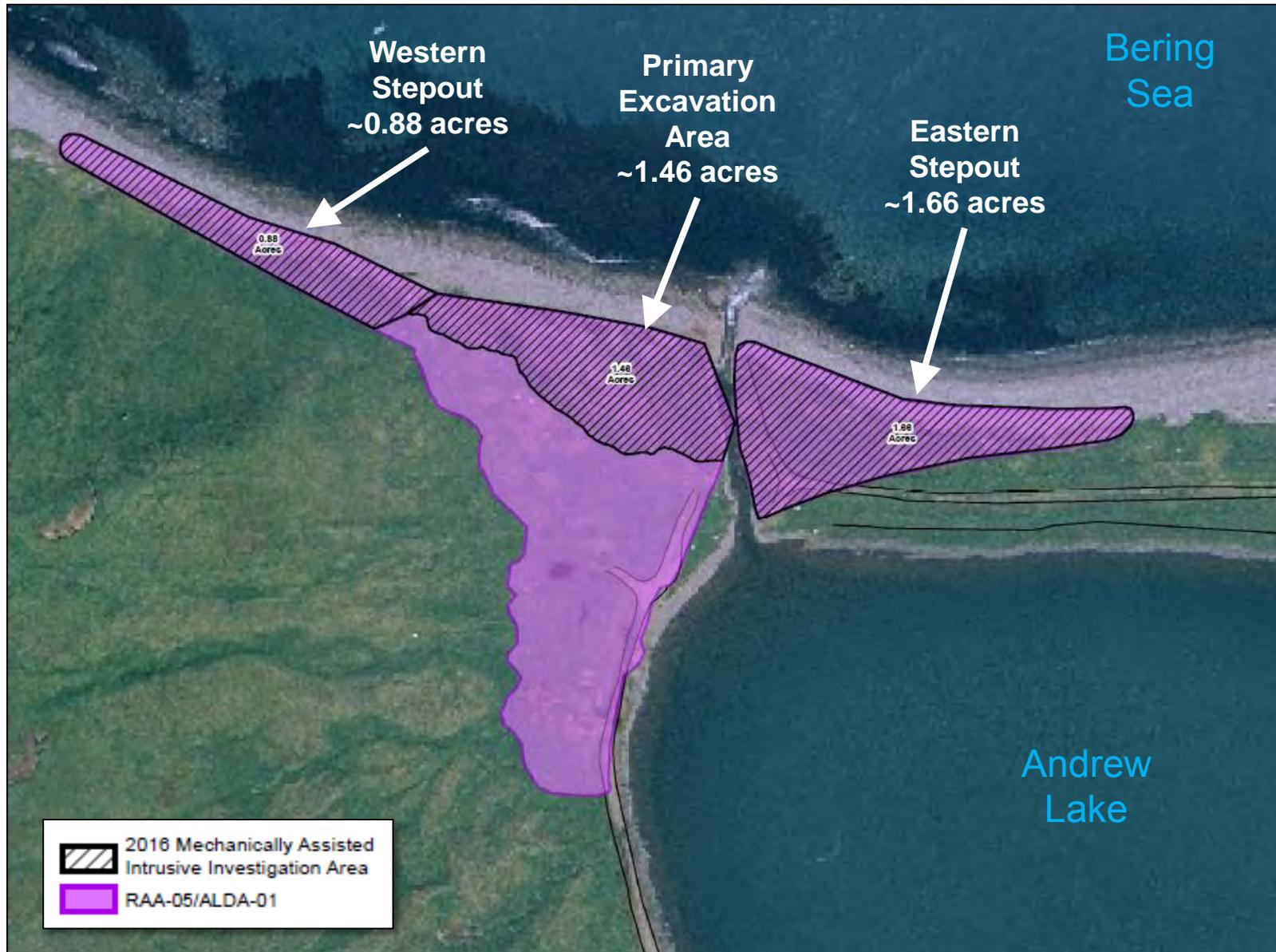
- HALSA term coined in 2013 for areas where extensive metal in the ground prevents identification of discrete target anomalies.





- **2016 Scope (CB&I)**
 - Remove ~2.0 acres of HALSAs (outlined in yellow)
 - Dewater, Surface Clear, and Backfill Ponds/Craters (inaccessible areas)

- **Future Scope**
 - Remove the discrete targets outside the yellow outline
 - Remove the rest of the HALSAs outside the yellow outline



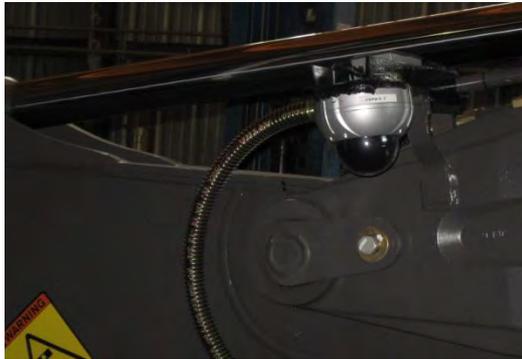


Seawall Sweep Area

Area excavated in 2013



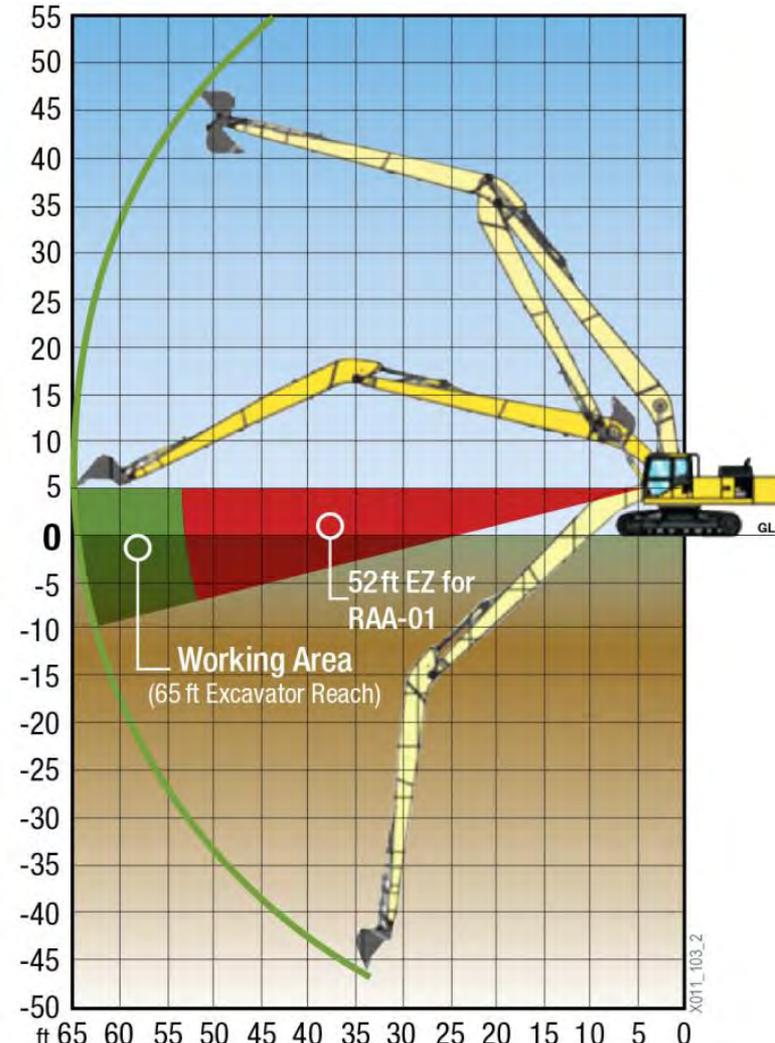
Steel Plate to Protect Operator from Fragmentation Hazard



Remote Camera on boom and Video Display in Cab



Long reach to Protect Operator from Blast Overpressure



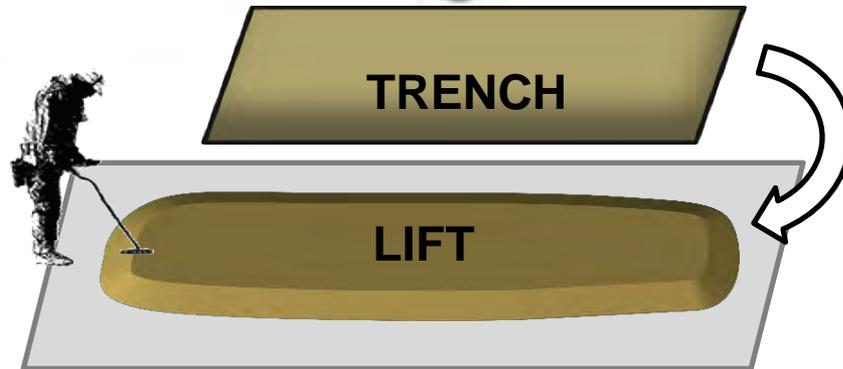
(1)

Excavator places spoils from Trench into thin Lifts for inspection



(3)

After Trench is complete, cleared spoils used for backfill



(2)

UXO Technicians search Lift and remove MEC/MPPEH

- CB&I will have approximately 30 employees on island for the season, including some local residents.
- CB&I has a strong commitment to safety, and will be mindful of the community.
- Hours of operations will generally be daylight hours Monday through Saturday.

CB&I Local Points of Contact			
Name	Title/Role	Telephone Number	E-mail Address
Trenton Richards	Project Engineer	(720) 554-8205	trenton.richards@cbifederalservices.com
Brian McInturff	Project Superintendent	(843) 421-9201	brian.mcInturff@cbifederalservices.com
Robert "Harry" Harrison	Senior UXO Supervisor	(253) 486-2687	robert.harrison@cbifederalservices.com
Tom Spitler	Field Tech/ Data Manager	(907) 577-2410	thomas.spitler@cbifederalservices.com

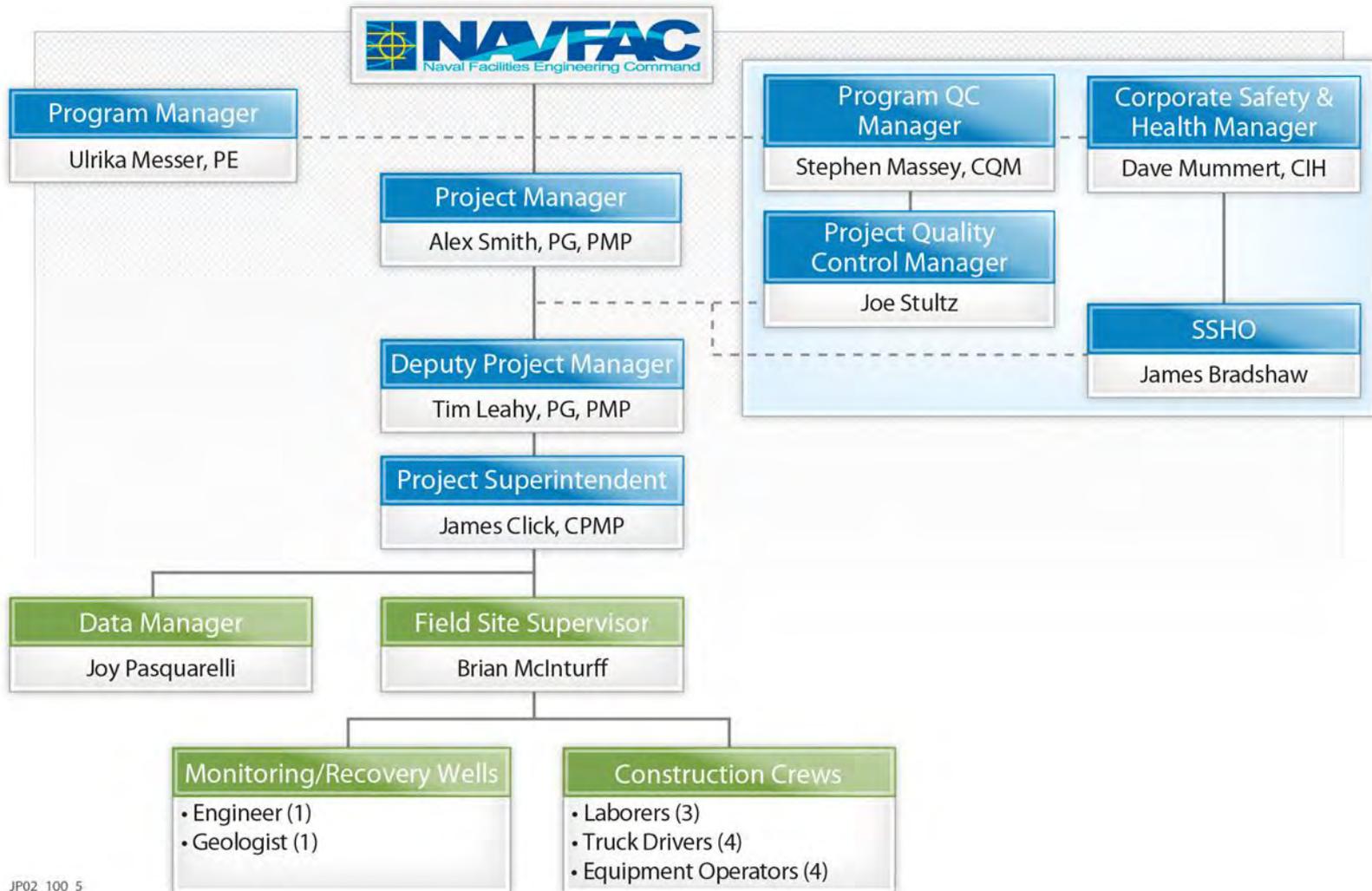
Questions?

RAB Meeting

April 13, 2016

**Removal Action
at the
East Canal/SWMU 62 Product Recovery Trench
and
Building T-1451 Areas**

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



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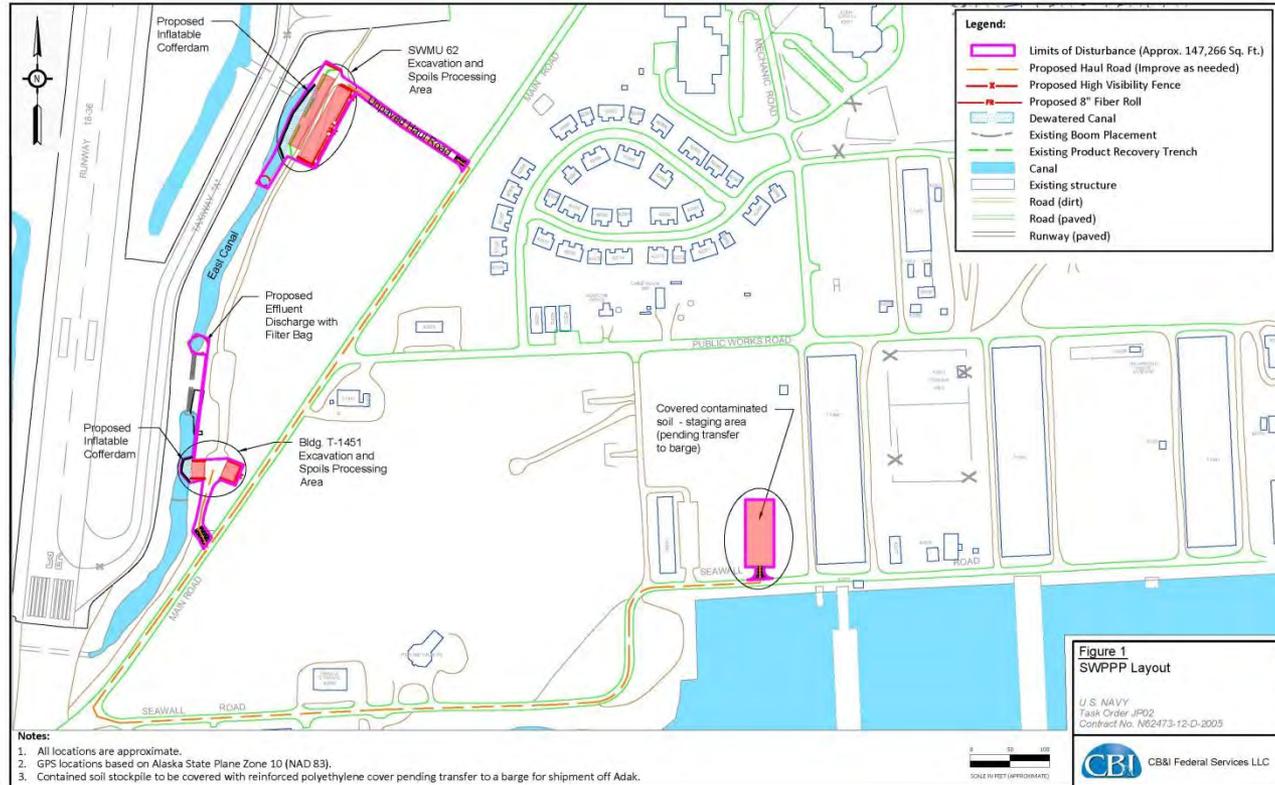
- The East Canal is an isolated, manmade, non-navigable waterway that is lined with grasses and other soft-stemmed plants.
- The East Canal is part of the airport ditch system that flows into the West Canal via the cross-over canal (underground culverts) where it is transferred through turbine pumps to South Sweeper Creek.
- Petroleum Hydrocarbons are seeping into the East Canal near the SWMU 62 Product Recovery Trench Area and near the Building T-1451 Area.
- **A Monitored Natural Attenuation (MNA) treatment area was created in 2011 in the East Canal/Building T-1451 Area by amending the backfill used to fill in the excavation with Oxygen Biochem[®] and wood fiber.**

WHAT ARE WE DOING?

- Excavations in two areas contaminated with petroleum products to remove contaminated soil with the objective of eliminating the sheen on the East Canal
- Mix oxygen generating compounds into the backfill when backfilling the excavations
- Install Monitoring/Recovery Wells

WHY ARE WE DOING IT?

- Excavations physically remove contamination for disposal offsite.
- Adding oxygen generating compounds to the soil helps break down contamination in place (“in situ”)
- Wells allow monitoring in the future to assess whether the in situ part of the remedy is working as expected



- **WHERE ARE WE PERFORMING THE WORK?**
- Two excavation areas:
 - SWMU 62 Product Recovery Trench
 - Building T-1451 Area



Photo from: *Monthly Technical Report Free Product Recovery/O&M Operating Period 10/1-10/31*.
Prepared by Sealaska. October, 2015

- **SWMU 62 Product Recovery Trench Area**
 - average of approximately 8 feet deep (expected maximum of 15 feet deep) and approximately 300 feet along the East Canal, 50 feet wide (east of the East Canal) including ~ 10 feet into East Canal

- **Building T-1451 Area**
 - approximately 60 feet along the East Canal and 50 feet wide, expected to average 8 feet deep.
 - Near the previous 2011 MNA treatment

How will work be performed?

- Soil will be excavated with Cat 336 excavator
- Groundwater intrusion will be pumped out, treated with GAC and discharged to an area with known petroleum contamination
- Soil will be staged, screened and segregated.
 - Clean soil from the upper part of the excavation and larger cobbles will be reused as backfill.
 - Contaminated soil will be placed in covered, lined stockpile for offsite disposal.
- Backfill from bottom to 1 ft above smear zone will be mixed with Calcium Peroxide and RegenOx (Part A & B) to promote MNA.
- Wells will be installed using a Geoprobe 7822 DT Rig. Plan to install 10 wells, each 25 feet deep



- Geoprobe 7822 trailer mounted rig



Questions?



RESTORATION ADVISORY BOARD

April 13, 2016

Long Term Monitoring Program

Former Adak Naval Complex
Adak Island, Alaska



Long-Term Monitoring Program Groundwater, Sediment and Surface Water



- **2015 sampling conducted at 38 locations (3 petroleum sites)**
- **Trends are consistent with 2013 and 2014**
- **Recommend continuation of existing program through 2016**
- **The 2016 sampling program will be a larger effort with more sites and locations sampled.**



Institutional Control Inspections



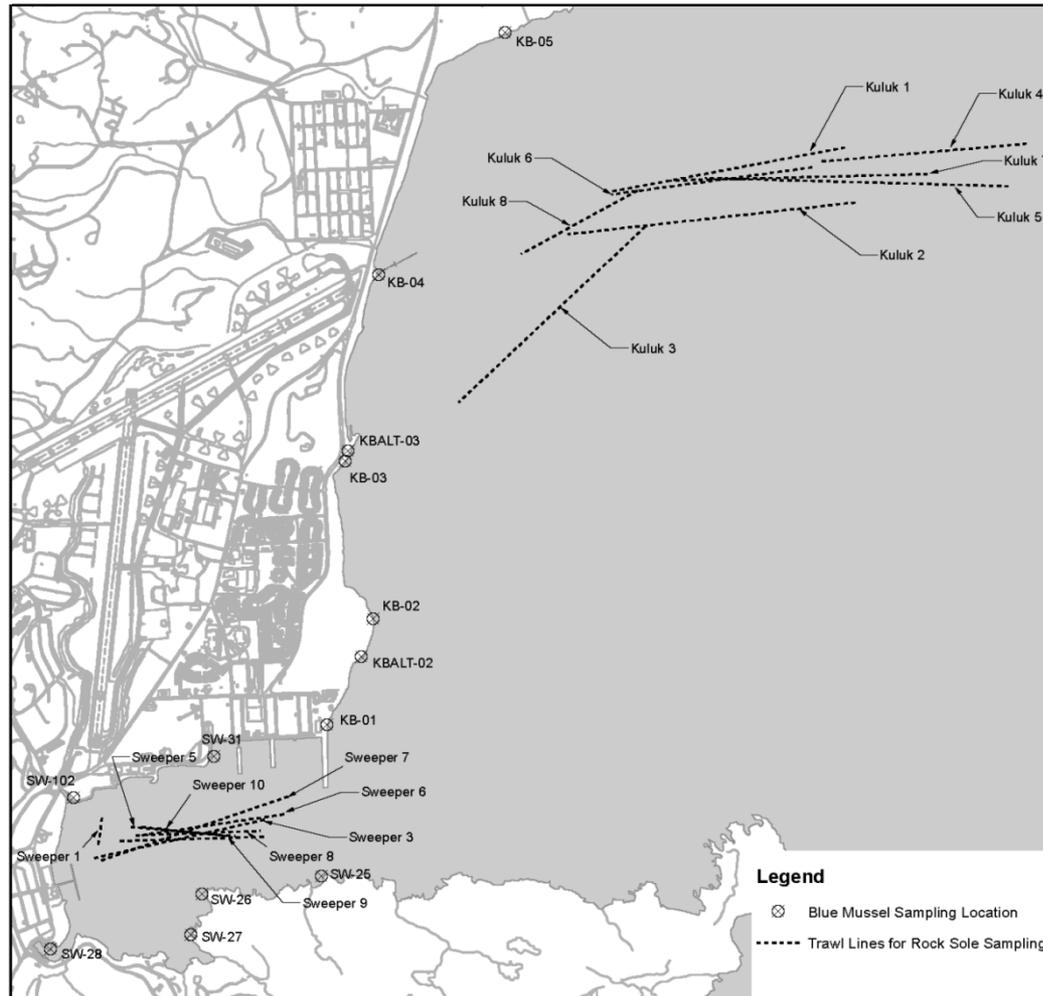
- Institutional Control inspections were completed at 29 sites plus Parcel 4
- Educational survey completed
- The 2016 IC program will not include site inspections – the next inspections are planned for 2017.

Concerns and Recommendations from 2015

- Housekeeping improvements were recommended at SWMU 17 (Power Plant 3), SWMU 24, SWMU 55, Former Power Plant Building T-1451 (GEM building), GCI Compound, and the NMCB Building.



2015 Tissue Sampling Locations



2015 Sweeper Cove Sampling and Results



- Fish were collected along 10 trawl lines in Sweeper Cove and composited to create 5 representative samples.
- Concentrations of total PCBs ranged from 22.4 to 139.5 $\mu\text{g}/\text{kg}$. The mean concentration was 53.5 $\mu\text{g}/\text{kg}$, which is above the action level.

- Shellfish (blue mussels) were collected at 5 locations in Sweeper Cove and composited at each location to create 5 representative samples.
- Concentrations of total PCBs ranged from 10.6 to 41.5 $\mu\text{g}/\text{kg}$. The mean concentration was 19.3 $\mu\text{g}/\text{kg}$, which is below the action level of 31 $\mu\text{g}/\text{kg}$ for shellfish.



Analysis of Results for Sweeper Cove



Fish

- The 2015 sampling results for rock sole in Sweeper Cove showed a decrease in the mean total PCB concentration compared to 2013.
 - Statistical analysis of fish data from 1999 through 2015 indicated a slight, but not statistically significant, decreasing trend in the data.
 - Because the 2015 mean total PCB concentration was above the action level for fish, retaining the consumption advisory for fish caught in Sweeper Cove is recommended.
-

Shellfish

- The 2015 sampling results for shellfish in Sweeper Cove showed a decrease in the mean total PCB concentration since 2013.
- Statistical analysis of shellfish data from 1999 through 2015 indicated a very slight, but not statistically significant, decreasing trend in the data.
- The 2015 mean total PCB concentration was below the action level; however, the consumption advisory for shellfish gathered in Sweeper Cove is recommended to be retained at this time.

2015 Kuluk Bay Sampling and Results



- Fish were collected along 8 trawl lines in Kuluk Bay northeast of downtown Adak and composited to create 5 representative samples.
- Concentrations of total PCBs ranged from 2.61 to 7.47 $\mu\text{g}/\text{kg}$. The mean concentration was 4.96 $\mu\text{g}/\text{kg}$, which is below the action level of 6.5 $\mu\text{g}/\text{kg}$ for fish.



- Shellfish were collected at 5 locations in Kuluk Bay and composited at each location to create 5 representative samples.
- Concentrations of total PCBs ranged from 5.04 to 10.2 $\mu\text{g}/\text{kg}$. The mean concentration was 7.08 $\mu\text{g}/\text{kg}$, which is below the action level of 31 $\mu\text{g}/\text{kg}$ for shellfish.

Analysis of Results for Kuluk Bay



Fish

- The 2015 sampling results for fish in Kuluk Bay showed an increase in the mean total PCB concentration compared to 2013.
 - Statistical analysis of fish data gathered from 1999 through 2015 indicated there is a slight, but not significant, decreasing trend in the data.
 - Although the 2015 mean total PCB concentration was below the action level, retaining the consumption advisory for fish caught in Kuluk Bay is recommended because the 2011 PCB concentration was above the action level.
-

Shellfish

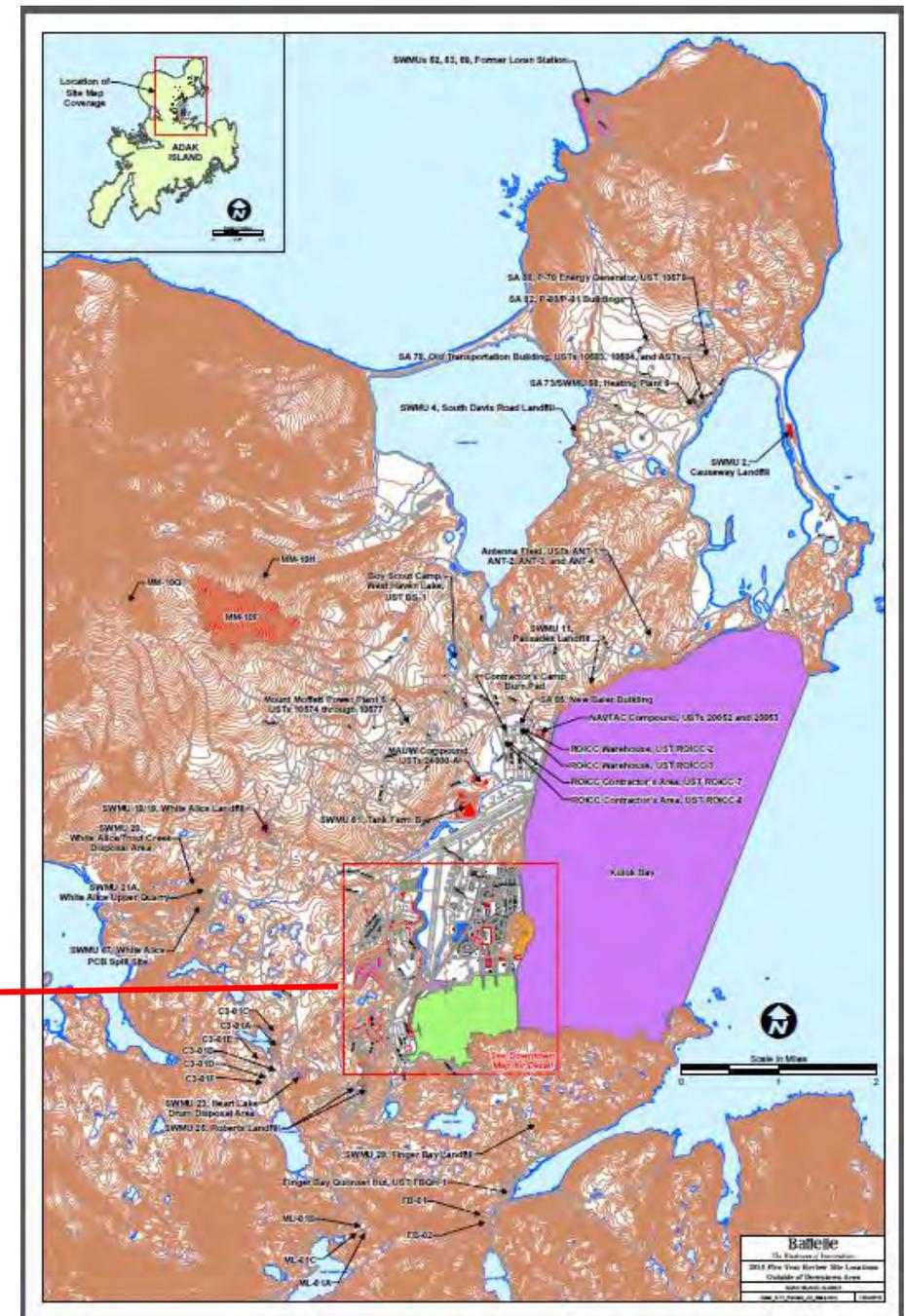
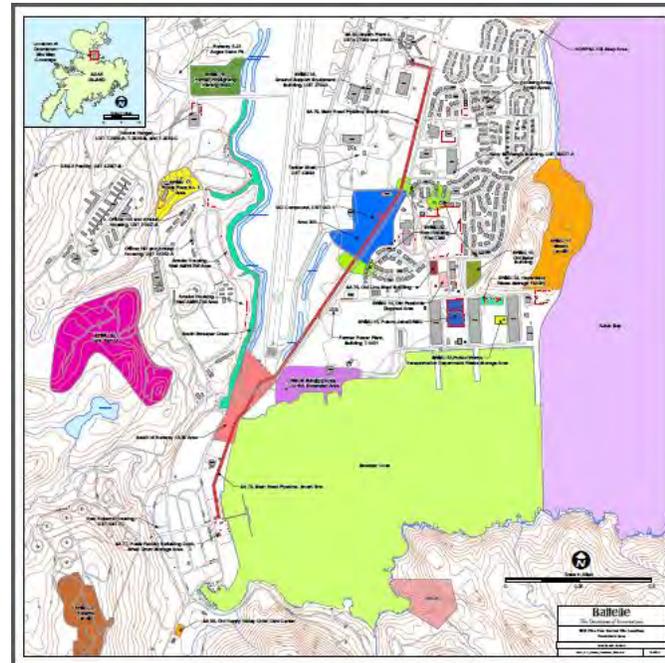
- The 2015 sampling results for shellfish in Kuluk Bay showed a decrease in the mean total PCB concentration since 2013.
- Statistical analysis of shellfish data gathered from 1999 through 2015 indicated there is an increasing, but not statistically significant, trend in the data.
- The shellfish consumption advisory for Kuluk Bay was removed in 2003. Because the 2015 mean total PCB concentration was below the action level, it is recommended that the advisory not be reinstated at this time.

Do you have any questions?

CERCLA 5-Year Review

- Review includes a comprehensive data review and a site visit
 - Site visit was conducted Aug 27 – Sep 3
 - Included sites from OU A, OU B1 and petroleum sites
- Draft 5-Year Review due in late May/early June

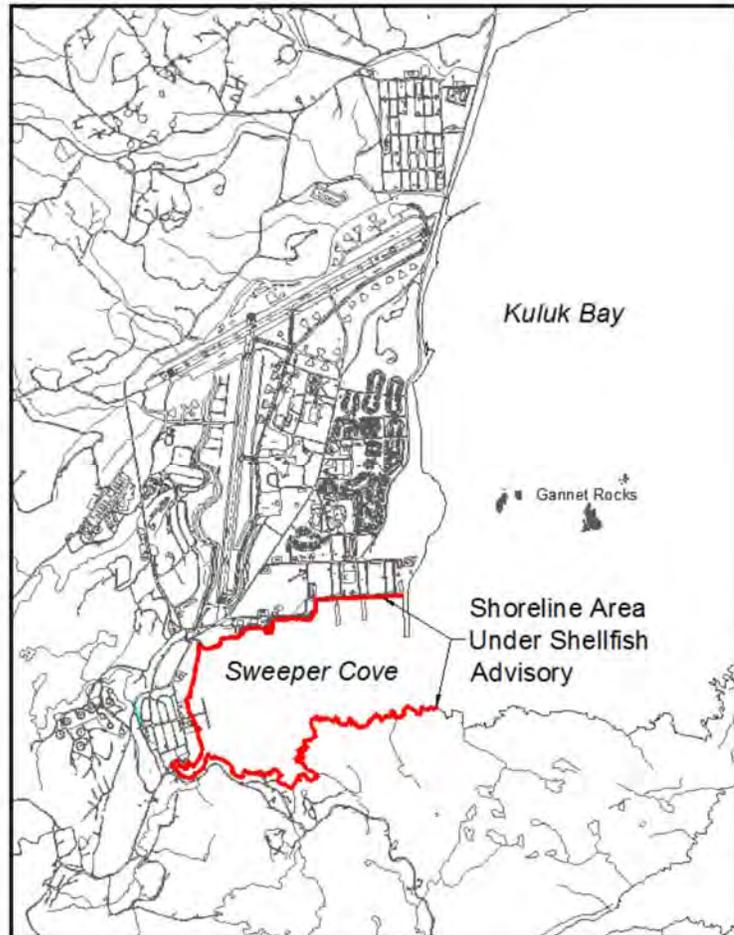
Downtown Sites



Health Advisory

PCB Levels in Rock Sole and Blue Mussels March 2016

- The health advisory for Adak fish consumption includes rock sole caught in Sweeper Cove and Kuluk Bay and blue mussels gathered in Sweeper Cove.
- Suggested limits for the amount of rock sole and blue mussels are shown in the table.
- Women of childbearing age and children through six years of age should carefully follow the meal limits.
- The advisory does not apply to other species of fish, such as salmon or halibut caught in these or other waters around Adak.
- For more information, please visit the Adak information repository at City Hall.



Rock Sole



Blue Mussel

Rock Sole/Blue Mussel Recommended Meal Limits*

Sweeper Cove

Rock Sole about 1 meal every 2 weeks
Blue Mussels about 1 meal every 2 weeks

Kuluk Bay

Rock Sole about 2 meals per week**

* One meal equals 8 ounces of fish or shellfish for the average adult.

** This meal limit is based on higher 2011 concentrations to be more conservative.

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