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RESTORATION ASVISORY BOARD (RAB) MEETING MINUTES, AGENDA, AND PRESENTATION SLIDES 23 OCTOBER 2014 NSWC INDIAN HEAD MD
10/23/2014
NAVFAC WASHINGTON

INSTALLATION RESTORATION PROGRAM

NAVAL SUPPORT FACILITY
INDIAN HEAD
3838 STRAUSS AVENUE
INDIAN HEAD, MARYLAND
20640-5133

RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES

Date of Meeting: October 23, 2014, 6:00 pm

RAB Member Attendees:

Mr. Joseph Rail (N) *
Ms. Allison Cantu (N)
Mr. Curtis Detore (S)
Mr. Nicholas Carros (N) *
Mr. Elmer Biles (C)

Additional Attendees:

CAPT Mary Feinberg (N)
LCDR Dennis La (N)
Mr. Jeffrey Bossart (N)
Mr. William Potter (N)
Mr. Daniel Bragunier (N)
Ms. Tara Carlson (C)
Mr. Jim Long (C)
Ms. Jeron Hayes (N)
Mr. Emery Nauden (N)

RAB Members Not in Attendance:

Mr. Mark Williams (L)
Mr. Fred Pinkney (F)
Mr. John Burchette (F)
Ms. Karen Wiggen (L)

* Co-chair

C= Community
F= Federal Official
K= Contractor
L= Local Official
N= Navy Official
R= Newspaper Reporter
S= State Official

Topics Discussed:

1. Arrival/Welcome

Mr. Joseph Rail of the Naval Facilities Engineering Command, Washington (NAVFAC Washington) began the meeting by conducting introductions and welcoming everyone to the Indian Head Senior Center. Copies of RAB presentations and the agenda were offered to anyone in attendance. Mr. Rail then presented the meeting agenda, which is included in Attachment A.

2. RAB Presentations

Presentations and updates of numerous sites were given by Mr. Rail, Mr. Nicholas Carros, and Ms. Allison Cantu of NAVFAC Washington. Mr. Rail presented a FY15 budget update followed by a Community Relations Plan update. Ms. Cantu then provided an update on long-term monitoring and trend analyses for several sites. To conclude the presentations, Mr. Carros provided an update on remedial investigation fieldwork at UXO 11-The Valley and UXO 20-Safety Thermal Treatment Point. Copies of all presentations are included in Attachment D.

3. Comments, Questions and Answers

Numerous comments were made and questions asked during the meeting. These comments, questions and answers are provided in Attachment B. Additional correspondence concerning the Installation Restoration Program (IRP) or the Munitions Response Program (MRP) at the facility can be directed to:

Public Affairs Officer
Naval Support Facility South Potomac
Attn: Public Affairs Officer, Code 00P
6509 Sampson Rd.
Dahlgren, VA 22448-5108
PHONE: (540) 284-0129
FAX: (540) 653-4269
Email: jeron.hayes@navy.mil

4. Meeting Adjourn

Mr. Rail presented the tentative agenda for the next RAB meeting, which is scheduled for April 9, 2015. A copy of the draft agenda is included in Attachment C. Mr. Rail then concluded the meeting at 8:00 pm and thanked everyone in attendance.

NAVAL SUPPORT FACILITY INDIAN HEAD
INSTALLATION RESTORATION (IR) PROGRAM
RESTORATION ADVISORY BOARD (RAB) MEETING AGENDA

October 23, 2014

6:00 - 6:05 pm	**ARRIVAL/WELCOME** Mr. Joseph Rail Naval Facilities Engineering Command, Washington (NAVFACWASH) Remedial Project Manager
6:05 – 6:20 pm	**FY15 BUDGET UPDATE** Mr. Joseph Rail
6:20 – 6:40 pm	**COMMUNITY RELATIONS PLAN UPDATE** Mr. Joseph Rail
6:40 – 7:00 pm	**LTM AND TREND ANALYSIS UPDATE** Ms. Allison Cantu
7:00 – 7:15 pm	**UXO 11-THE VALLEY FIELDWORK UPDATE** Mr. Nicholas Carros
7:15 – 7:30 pm	**UXO 20-SAFETY THERMAL TREATMENT POINT REMEDIAL INVESTIGATION UPDATE** Mr. Nicholas Carros
7:30 pm	**ADJOURN**

Attachment A

INSTALLATION RESTORATION PROGRAM

NAVAL SUPPORT FACILITY
INDIAN HEAD
3838 STRAUSS AVENUE
INDIAN HEAD, MARYLAND
20640-5133

RESTORATION ADVISORY BOARD (RAB) MEETING
COMMENTS, QUESTIONS AND ANSWERS
October 23, 2014

Arrival/Welcome

No questions were asked nor comments made during this topic.

FY15 Budget Update

Question: What is Building 1018 (Site 69?)

Answer: Building 1018 is an oxidizer process building that was used for the unloading and transferring of ammonium perchlorate from the 1960s to 2000s.

Question: Does the money for the Indian Head budget come from the SUPERFUND and what is used for?

Answer: Yes, the Installation Restoration (IR) site and Munitions Response (MR) site funding comes from SUPERFUND appropriations. It is used to conduct environmental investigations, studies, remedial actions, and monitoring. It is not used to pay for salaries, training, travel, or other operating expenses.

Community Relations Plan Update

Question: When updating the Community Relations Plan (CRP), did you communicate directly with the town of Indian Head?

Answer: Yes, efforts were made to reach as many people as possible in areas surrounding Indian Head. Advertisements announcing the update of the CRP were published in the Maryland Independent and Washington Post (Southern MD edition) newspapers. Additionally, the CRP update was announced by the Indian Head Public Affairs Officer at a Community Relations meeting held on August 1, 2013 in the town of Indian Head. This

Attachment B

meeting included several members of the community working in government, business, academia and conservation.

Question: What was updated in the latest version of the Community Relations Plan? Was the update based solely on the online survey results?

Answer: The latest CRP updated the list of active IR and MR sites and their associated contaminants of concern, added information on newer sites such as Site 66-Turkey Run Disposal Area, Site 67-Hogout Facility, Site 69-Building 1018, Site 70-Groundwater Contamination along Waterworks Way, and SWMU 14-Photographic Lab Septic Tank System. It also updated points of contact and schedules for community relations activities. Finally, the results of the online survey were considered and discussed in the CRP update, but was not the sole factor driving the update.

Question: Was the RAB meeting time moved based on the online survey results?

Answer: Yes, based on input from RAB members and the online survey, the majority of respondents indicated they would be most likely to attend a public meeting between the hours of 5:00 and 8:00 p.m. In order to accommodate attendees that may work until 5:00 p.m., the meeting start time was set at 6 p.m. to allow travel time to Indian Head.

LTM and Trend Analysis Update

Question: What is the difference between total and dissolved metals?

Answer: Total metals include the metals dissolved in water and the metals that are present in the particulates in the water. The concentration of total metals will be equal to or greater than the concentration of dissolved metals.

Question: Concerning pore water sampling at Site 36-Closed Landfill, if you have metals that exceed maximum contaminant levels (MCLs), how do you know if ecological receptors are being negatively impacted in the Chicamuxen Creek?

Answer: MCLs are standards that drinking water is cleaned up to before it leaves the water treatment facility. They do not relate directly to ecological receptors. EPA and MDE review the sample results. We are taking sediment pore water samples at the site, to help give better insight as to what may be impacting the ecological receptors. In order to have a complete idea of the impact to the ecological receptors, the Navy completes an ecological risk assessment. This was done prior to the remedial action and it was determined that there were no unacceptable risks to ecological receptors.

Question: How many sites still have unauthorized dumping occurring?

Answer: None, the installation has increased its efforts to monitor liquid, solid, and vapor waste sources, as well as a general increase of individual environmental awareness.

Question: Concerning Site 42-Olsen Road Landfill, what does the trend tell us for high manganese?

Answer: The trend for high manganese is similar to what we have seen at other sites at Indian Head. We have found higher levels of manganese throughout sites at the base and it could be due to high levels of manganese naturally occurring in soil.

Question: What happened in the one well at Site 42 where TCE increased over time since the remedial action was completed in 2006?

Answer: There is not enough information to tell us why TCE concentrations have been increasing. There may have been a small source of TCE that was not found prior and it is now releasing TCE slowly and we are finding it. It might be related to the cover that was placed on the site. The cover reduces groundwater infiltration, which can then cause concentrations to temporarily increase due to a lower amount of groundwater.

UXO 11-The Valley Fieldwork Update

Question: How old was the 75mm armor piercing projectile that was found at the site?

Attachment B

Answer: Based on the site inspection report dated September 2010, the 75mm armor piercing projectile would have been deposited between 1891 and 1944.

Question: What was area D used for and where did you hear that chemical agents were stored there?

Answer: Area D was suspected as a potential testing site for “lachrymatory agents”. This was identified by the former Navy historian Mr. James Dolph (dec.)

Question: Because numerous projectiles were shot at the site, is lead in soil a concern?

Answer: No, lead was not a concern at this site. Lead is typically associated with “small arms” sites. This site was primarily used for munitions greater than small arms. Site samples were analyzed for lead in both the site inspection and the remedial investigation and no issues were identified.

UXO 20-Safety Thermal Treatment Point Remedial Investigation Update

Question: Does this site get mowed?

Answer: The area associated with the site, as shown on the slide, does not have a regular mowing schedule.

Question: How many acres is this site?

Answer: The site was originally 1.3 acres; although in 2011, the area was increased to 1.6 acres to account for the sediment that accumulated adding to the land mass.

Question: Why were peninsulas like this created and why was fly ash used?

Answer: This peninsula was created to allow for a safe open burning / open detonation location. Fly ash would have been used due to its low cost and easy availability as a byproduct of Indian Head’s coal fire power plant.

General Questions

Question: Can you describe any recent organizational changes at the base?

Attachment B

Answer: Other than a change in the Commanding Officer (CO) from Captain Peter Nette to Captain Mary Feinberg, there have been no significant organizational changes. The CO for the South Potomac region still retains responsibility for Naval Support Facility Indian Head and Dahlgren, VA.

Question: Why did it take almost one year to receive responses to public comments for the public meeting that was held in August 2013? This was the public meeting to solicit comments on the Proposed Plans for Site 28-Original Burning Ground, Site 38-Rum Point Landfill, and UXO 32-Scrap Yard.

Answer: There were delays associated with the Indian Head chain of command review of the responses. There were delays associated with the turnover to a new EPA RPM-getting them up to speed on the project as well as additional EPA technical reviewers of the responses. EPA’s legal review of the responses also caused a delay.

Attachment B

NAVAL SUPPORT FACILITY INDIAN HEAD
INSTALLATION RESTORATION (IR) PROGRAM
RESTORATION ADVISORY BOARD (RAB) DRAFT MEETING AGENDA

April 9, 2015

6:00 - 6:05 pm	**ARRIVAL/WELCOME** Mr. Joseph Rail Naval Facilities Engineering Command, Washington (NAVFACWASH) Remedial Project Manager
6:05 – 6:20 pm	**UXO 4-BASIC IED AREA, UXO 5-ADVANCED IED AREA, UXO 12-TORPEDO BURIAL SITE, & UXO 21-TEST AREA 1 STUMP NECK MRP REMEDIAL INVESTIGATION UPDATES** Mr. Joseph Rail
6:20 – 6:30 pm	**UXO 9-SINGLE-BASE PROPELLANT GRAIN SPILL AREA RI/FS UPDATE** Mr. Joseph Rail
6:30 – 6:45 pm	**SWMU 14-PHOTOGRAPHIC LAB SEPTIC TANK SYSTEM PILOT STUDY UPDATE** Ms. Allison Cantu
6:45 – 7:00 pm	**SITE 38-RUM POINT LANDFILL REMEDIAL ACTION UPDATE** Mr. Nicholas Carros
7:00 – 7:10 pm	**SITE 43-TOLUENE DISPOSAL AREA FEASIBILITY STUDY** Mr. Nicholas Carros
7:10 – 7:20 pm	**SITE 47-MERCURIC NITRATE DISPOSAL AREA POST-INJECTION MONITORING UPDATE** Ms. Allison Cantu
7:20 – 7:30 pm	**SITE 57-BUILDING 292 TCE CONTAMINATION FIELDWORK UPDATE** Mr. Nicholas Carros
7:30 – 7:45 pm	**SITE 66-TURKEY RUN DISPOSAL AREA BASELINE ECOLOGICAL RISK ASSESSMENT** Ms. Allison Cantu
7:45 – 8:00 pm	**SITE 70-GROUNDWATER CONTAMINATION ALONG WATER WORKS WAY RI UPDATE** Ms. Allison Cantu
8:00 pm	**ADJOURN**

Attachment C

Attachment D- RAB Presentations

NAVAL SUPPORT FACILITY, INDIAN HEAD

FY15 Budget & Schedule Update

Joseph Rail

NAVFAC Washington

October 23, 2014

FY15 Budget & Schedule Update

- ***Approximate budget for FY 2015-***

  $1.9 mil for IRP

  $780K for MRP

  Planned work includes:

  – *Remedial Investigation (RI)/Feasibility Study (FS)*
  – *Proposed Plan (PP)*
  – *Record of Decision (ROD)*
  – *Remedial Design (RD)*
  – *Remedial Action (RA)*
  – *Long-Term Operation (LTO)*
  – *Long-Term Monitoring (LTM)*

FY15 Budget & Schedule Update

- ***RI/FS for:***
  - *Site 66- Turkey Run Disposal Area*
  - *Site 67- Hog Out Facility*
  - *Site 69- Building 1018*
  - *UXO 20- Safety Thermal Treatment Point*
- ***PP/ROD for:***
  - *Site 43- Toluene Disposal Area*
  - *Site 69- Building 1018*
  - *UXO 11- The Valley*
- ***RD for:***
  - *Site 43- Toluene Disposal Area*

FY15 Budget & Schedule Update

- ***RA for:***
  - *Site 1- Thorium Spill*
- ***LTO for:***
  - *Site 17- Disposed Metal Parts Along Shoreline*
  - *Site 47- Mercuric Nitrate Disposal Area*
- ***LTM for:***
  - *Site 11- Caffee Road Landfill*
  - *Site 21- Bronson Road Landfill*
  - *Site 36- Closed Landfill*

FY15 Budget & Schedule Update

Questions?

NAVAL SUPPORT FACILITY, INDIAN HEAD

Community Relations Plan Update

Joseph Rail
NAVFAC Washington

October 23, 2014

Community Relations Plan Update

- ***Dept. of Navy requires a formal Community Relations Plan (CRP) at all ER program Sites***

- ***CRPs have three objectives:***
  - ***Set up channels for communicating information to the public***
  - ***Provide opportunities for citizens to express their concerns***
  - ***Solicit input from the public***

Community Relations Plan Update

- ***Contents of the NSF-IH CRP include:***
  - *Introduction*
  - *Site Background*
  - *Community Relations Background*
  - *Community Issues and Concerns*
  - *Community Relations Objectives, Techniques, and Implementation*
  - *Schedule of Community Relations Activities*
  - *Stakeholder List/Community Survey/Fact Sheets*

Community Relations Plan Update

- ***CRPs are reviewed and updated periodically***
- ***The last CRP for NSF-IH dated 2005***
- ***Community survey was developed and made publicly available online from May 31, 2013 through August 31, 2013***
- ***Ads for the survey were published in the Maryland Independent and Washington Post, Southern MD Edition***
- ***83 responses were received***

Survey Results

1. In which county do you currently reside (check one)?

Response	Chart	Percentage	Count
Charles		88%	73
Prince George's		0%	0
Calvert		0%	0
St. Mary's		2%	2
Anne Arundel		0%	0
King George		1%	1
Stafford		0%	0
Prince William		0%	0
Other		8%	7
	Total Responses		83

Community Relations Plan Update Survey Results (cont.)

2. How long have you lived in the area?

Response	Chart	Percentage	Count
Less than 2 years		10%	8
2 to 5 years		10%	8
5 to 15 years		24%	20
15 or more years		56%	46
	Total Responses		82

3. Do you work at NSF Indian Head?

Response	Chart	Percentage	Count
Yes		61%	50
No		39%	32
	Total Responses		82

4. If you are employed but answered no to question #3, does your place of employment provide goods or services to NSF Indian Head, its employees or military members of the Indian Head Naval community?

Response	Chart	Percentage	Count
Yes		44%	21
No		56%	27
	Total Responses		48

Community Relations Plan Update Survey Results (cont.)

5. Do you currently or have you ever had concerns about NSF Indian Head's past or present operations, including base construction, traffic, etc. negatively impacting the landscape, natural habitat, or wildlife?

Response	Chart	Percentage	Count
Yes (currently concerned)		27%	22
Yes (concerned in the past)		24%	20
No, not concerned		54%	45
	Total Responses		83

6. Do you have significant concerns about the following environmental topics; enough to express your concerns to the public or find others who share similar concerns? For each topic, check only if you would be interested in learning more or discussing the topic in a public forum; otherwise check no. (Note the term "local" below refers to the local area surrounding the NSF Indian Head installation.)

Response	Chart	Percentage	Count
Local natural resource preservation and wildlife protection?		19%	15
Local outdoor recreation and natural history?		15%	12
Local environmental pollution, degradation, or habitat loss?		38%	30
No concerns.		55%	44
	Total Responses		80

Community Relations Plan Update Survey Results (cont.)

7. Do you currently participate in organized public or local meetings, including school or community organizations?

Response	Chart	Percentage	Count
Yes		30%	25
No		70%	58
	Total Responses		83

8. Which of the following media formats/ communications do you utilize regularly (and more than once per month) to stay informed about local community news and issues? (check all that apply)

Response	Chart	Percentage	Count
a. Printed newspaper (local municipality)		60%	50
b. Local television news reports		60%	50
c. Local radio		52%	43
d. NSF Indian Head newsletters and publications		46%	38
e. Public meetings		13%	11
f. Town/local municipality website		30%	25
g. Online newspaper (local municipality)		40%	33
h. Public bulletin boards (town hall or library)		8%	7
i. Electronic mailing list (email updates) or blog		27%	22
j. Other (specify):		12%	10
k. None of the above. I do not obtain current information about news or issues affecting my community.		4%	3
	Total Responses		83

Community Relations Plan Update Survey Results (cont.)

9. Please indicate (with a letter) which response from the preceding question represents your preferred method of receiving news and information regarding local issues:

The 79 response(s) to this question can be found in the appendix.

10. Are you interested in obtaining periodic updates regarding NSF Indian Head environmental topics and environmental restoration activities via the preferred media format indicated in your response to #9?

Response	Chart	Percentage	Count
Yes		69%	57
No		31%	26
	Total Responses		83

11. Are you aware that the Navy has made specific commitments to stewardship of the environment, and to being a good neighbor to the community?

Response	Chart	Percentage	Count
Yes		73%	61
No		27%	22
	Total Responses		83

12. Are you aware that the Navy encourages the community to participate in its environmental restoration program?

Response	Chart	Percentage	Count
Yes		59%	49
No		41%	34
	Total Responses		83

Community Relations Plan Update Survey Results (cont.)

13. Do you think other members of your community are aware of this?

Response	Chart	Percentage	Count
Yes		25%	20
No		75%	60
	Total Responses		80

14. Do you think NSF Indian Head is currently doing a good job communicating environmental restoration activities with the public/local community?

Response	Chart	Percentage	Count
Yes		27%	22
No (If no, please provide comments/suggestions for improvement in Question #18 below.)		21%	17
Don't know		52%	43
	Total Responses		82

15. Have you ever heard of the NSF Indian Head Restoration Advisory Board, made up of government, citizen, agency, and interest group representatives who conduct biannual environmental restoration public meetings?

Response	Chart	Percentage	Count
Yes		19%	16
No		81%	67
	Total Responses		83

Community Relations Plan Update Survey Results (cont.)

16. Would you attend public (in-person) meetings to obtain information and responses to your questions and concerns related to environmental topics specific to the NSF Indian Head Environmental Restoration program?

Response	Chart	Percentage	Count
Yes. I prefer to have a live forum to address these topics.		23%	19
No, I prefer to receive published information only.		62%	51
No, I am not interested in these environmental topics as they relate to NSF Indian Head		15%	12
	Total Responses		82

17. If you were to attend a public (in-person) meeting, at what time of the day would you most likely attend?

Response	Chart	Percentage	Count
Morning (8:00 a.m. – 12:00 p.m.)		11%	8
Afternoon (12:00 p.m. – 5:00 p.m.)		3%	2
Evening (5:00 p.m. – 8:00 p.m.)		53%	39
No preference		34%	25
	Total Responses		74

18. Do you have any comments or suggestions on improving environmental restoration or other communications from NSF Indian Head? Please describe:

The 22 response(s) to this question can be found in the appendix.

Community Relations Plan Update

- ***Survey results were evaluated and used to compile a Draft CRP which was submitted for regulatory review in March 2014***
- ***All comments were addressed and the Final CRP was submitted in May 2014***
- ***To obtain a copy of the Final CRP-***

  - download from NSF-IH public website at http://go.usa.gov/DyQF

  - request a hard copy/electronic copy through NSF-IH Public Affairs Officer

Questions?

LTM and Trend Analysis Update

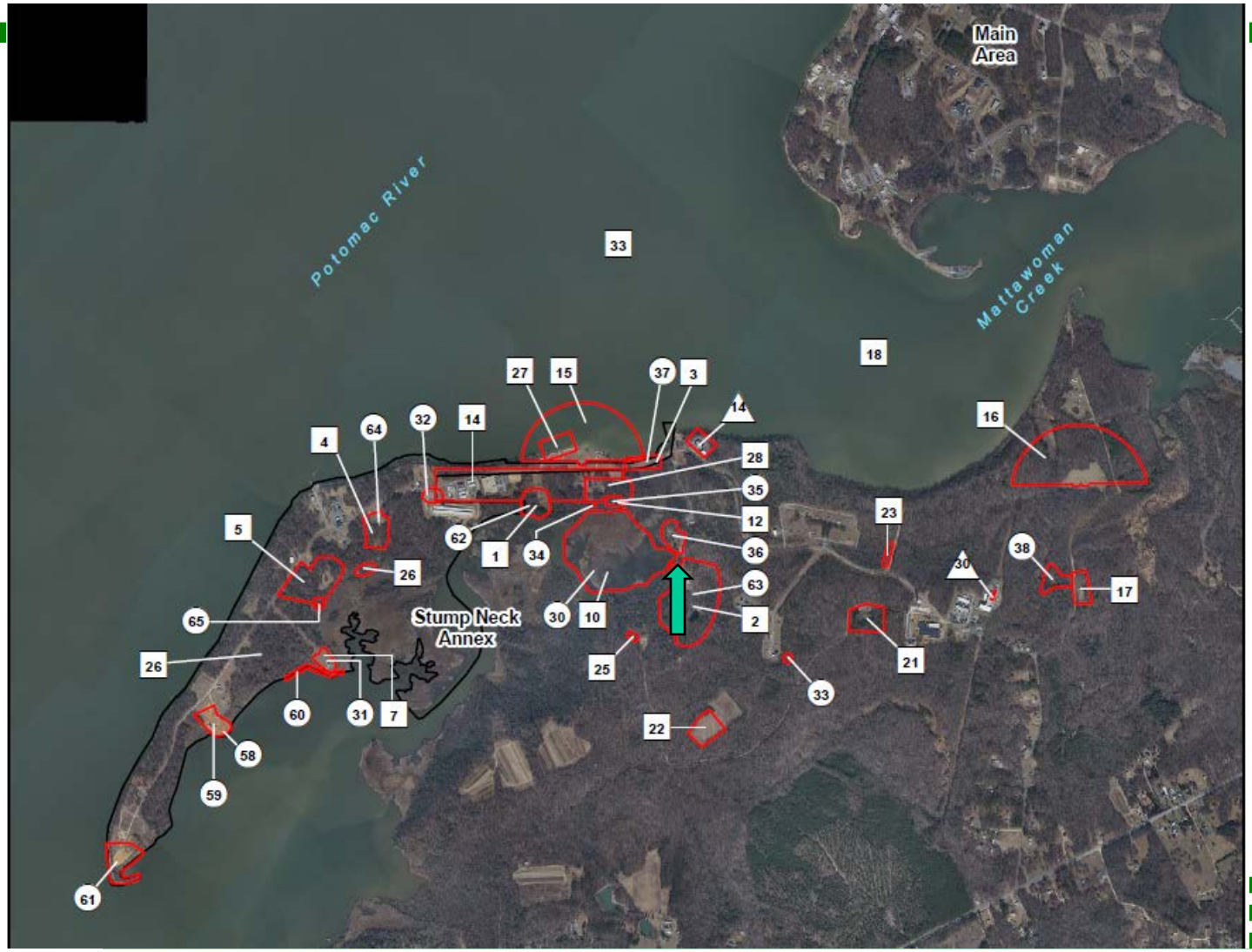
Allison Cantu
NAVFAC Washington

October 23, 2014

LTM and Trend Analysis Update Presentation Overview

- *Site 11- Caffee Road Landfill*
  - *Background*
  - *LTM*
  - *Path Forward*
- *Site 21- Bronson Road Landfill*
  - *Background*
  - *LTM*
  - *Path Forward*
- *Site 36 – Closed Landfill*
  - *Background*
  - *LTM*
  - *Path Forward*
- *Site 42 – Olsen Road Landfill*
  - *Background*
  - *Trend Analysis*
    - *Long Term*
    - *Short Term*
  - *Path Forward*

N
POTOMAC RIVER
Main Area
Marsh Island
Thouroughfare Island
Bullit's Neck
MATTAWOMAN CREEK
Stump Neck Annex
AOC 31
IR SITE KEY
1 Thorium Spill
2 Waste Crank Case Oil Applied to Torrence Road
3 Nitroglycerin Explosion, Nitration Building Area
4 Lloyd Road Oil Spill Sites
5 X-Ray Building 731
6 Building 1349, Hypo Spill
7 HMX Spill, Slurry Mix Building 682
8 Mercury Contamination from Building 766
9 Patterson Avenue, Oil Spill
11 Caffee Road Landfill
12 Town Gut Landfill
13 Paint Solvents Disposal Dumping Ground
14 Waste Acid Disposal Pit
15 Mercury Deposits in Manhole, Fluorine Lab
16 Laboratory Chemical Disposal
17 Disposed Metal Parts Along Shoreline
18 Hog Island
19 Catch Basin at Chip Collection House (1051)
19 Catch Basin at Chip Collection House (785)
20 Single-based Powder Facility
21 Bronson Road Landfill
23 Hydraulic Oil Spill Discharges from Extrusion Plant
24 Abandoned Drain Lines
25 Hypo Discharge X-Ray Building No.2
26 Thermal Destructor 2
27 Thermal Destructor 1
28 Original Burning Ground
AOC 31 Building 259 (Storehouse / Detonator Production)
39 Silver and Palladium Catalyst in Sediment
40 Silver and Palladium Catalyst in Sediment
41 Scrap Yard
42 Olsen Road Landfill
43 Toluene Disposal Site
44 Soak Out Area
45 Abandoned Drums
46 Cadmium Sandblast Grit
47 Mercuric Nitrate Disposal Area
48 Nitroglycerine Plant Disposal Area
49 Chemical Disposal Pit
50 Building 103, Crawl Space
53 Mercury Contamination of the Sewage System
54 Building 101, Dry Well/Building 101
55 Building 102, Dry Well/Building 102
56 IW87 - Lead Contamination
57 TCE Building 292 Area
66 Turkey Run Disposal Area
67 Hog-Out Facility
69 Building 1018 (Oxidizer Process Building)
70 Groundwater Contamination Along Water Works Way


Main Area
Potomac River
Mattawoman Creek
Stump Neck Annex
33
18
27
15
37
3
14
16
4
64
32
14
28
35
12
36
63
2
5
62
1
34
26
30
10
25
23
30
38
17
21
33
65
26
60
31
7
22
58
59
61

LTM and Trend Analysis Update

- *Site 11 – Caffee Road Landfill*
  - *Background*
    - *Area A was used as a landfill for bulk metal items, trash and building debris, rocket motor casings, munitions debris and open burning residue until the early 1960s*
    - *Area B contained 4 open-burning pits for incineration of classified documents or waste-burning activities and 2 former incinerators*
    - *Site currently used to burn metal debris to remove residual explosives prior to transportation of a metal recycling center*

LTM and Trend Analysis Update

- *Selected Remedy (ROD signed in 2009)*
  - *Soil, solid waste, and nearshore sediment in Area A*
  - *Nearshore sediment adjacent to Area B*
  - *Land Use Controls (LUCs) for land, groundwater and waterway use*
  - *Long-term Monitoring for groundwater*
  - *Conduct Five-Year Reviews*
- *Remedial Action completed 2012*
  - *Soil cover and seed mixture for land and shoreline stabilization for Area A*
  - *Gravel blanket on nearshore sediment and wetland stabilization along shoreline near Area B*

LTM and Trend Analysis Update

LTM and Trend Analysis Update

- *Site 11 – LTM*
  - *First round of LTM sampling occurred in January 2014; Second round in July 2014*
  - *10 volatile organic compounds (VOCs) were detected; all were below respective maximum contaminant levels (MCLs) in both January and July*
  - *12 total metals were detected; all were below respective MCLs in January; 14 total metals were detected- antimony, barium, iron and manganese were detected above respective MCL or SMCL in July*
  - *9 dissolved metals were detected; all were below respective MCLs in January; 13 dissolved metals were detected- barium, iron and manganese were detected above respective MCL or SMCL in July*

LTM and Trend Analysis Update

- *Site 11- Path Forward*
  - *Continue sampling every 6 months*
    - *VOCs, total and dissolved metals, and general water quality parameters*
  - *Continue performing 5-Year Reviews*
    - *Trend analysis will be performed at this time*
  - *Continue Post Closure Landfill Inspections*
  - *Enforce Land Use Controls*

LTM and Trend Analysis Update

- *Site 21 – Bronson Road Landfill*
  - *Background*
    - *Site was location of 2-acre gravel-mining pit*
    - *Starting round 1975, the sitewas filled with trash- solid waste, paint sludge, asbestos and barium sulfate*
    - *Until June 1982, site accepted sludge from paint spray booths and bagged asbestos*
    - *In 1981, a dumpster was placed on site for the trash*
    - *Dumpster was removed in 1996 and the area was regraded*

LTM and Trend Analysis Update

- *Selected Remedy (ROD signed in 2011)*
  - *Protective soil cover*
  - *Land Use Controls*
  - *Long-term Monitoring for groundwater*
  - *Conduct Five-Year Reviews*
- *Remedial Action completed 2013*
  - *Protective soil and vegetative cover*
  - *Grade for surface water control and storm water management*

LTM and Trend Analysis Update

Legend
- Monitoring Well
- Groundwater Contours (2.0 ft) - January 2014
- Site 21 Boundary

N W E S

0 80 160 320 Feet

Figure 3
Site Map and Groundwater Contour Map (January 2014)
Naval Support Facility Indian Head
Indian Head, Maryland

LTM and Trend Analysis Update

- *Site 21 – LTM*
  - *First round of LTM sampling occurred in January 2014; Second round in July 2014*
  - *9 VOCs were detected; all were below respective MCLs in January and July*
  - *14 total metals were detected in January- all were below respective MCLs; 12 total metals were detected in July- iron and manganese were detected above respective MCL or SMCL*
  - *10 dissolved metals were detected in January- all were below respective MCLs; 12 dissolved metals were detected in July- iron and manganese were detected above respective MCL or SMCL*

LTM and Trend Analysis Update

- *Site 21- Path Forward*
  - *Continue sampling every 6 months*
    - *VOCs, total and dissolved metals, and general water quality parameters*
  - *Continue performing 5-Year Reviews*
    - *Trend analysis will be performed at this time*
  - *Continue Post Closure Landfill Inspections*
  - *Enforce Land Use Controls*

LTM and Trend Analysis Update

- *Site 36 – Closed Landfill*
  - *Background*
    - *Landfill was used from 1972 – 1974*
    - *Landfill created from a filled area that was part of the creek and/or a wetland/marsh*
    - *Was believed to contain inert metal casings from mines, bombs, and torpedos and wood fragments*
    - *Surface debris, including tires, empty 55-gallon drums, tanks, airplane parts and a large item that appeared to be farm machinery were present along Chickamuxen Creek shoreline*

LTM and Trend Analysis Update

- *Selected Remedy (ROD signed in 2011)*
  - *Removal of metal debris along shoreline and landfill surface*
  - *Land Use Controls*
  - *Long-term Monitoring*
  - *Conduct Five-Year Reviews*
- *Remedial Action completed 2014*
  - *Surface debris removal*
  - *Re-establish vegetation approved seed mix*

Aerial photograph taken in 2005.
N
CHICKAMUXEN CREEK
S36PW001
S36PW002
S36MW002
Former Building 2010 (demolished)
Roach Rd
S36MW003
S36MW001
S36PW003
S36PW004
Legend
Monitoring Well
Pore Water Sample Location
Fence Line
Surface Water Course Centerline
Site Boundary (Limit of Waste)
Installation Area Boundary
Wetland Area
0 37.5 75 150 Feet
TETRA TECH
Sampling Locations Map
Site 36 - Closed Landfill
Naval Support Facility Indian Head
Indian Head, Maryland
112G03107
FIGURE 3-1

LTM and Trend Analysis Update

- *Site 36 – LTM*
  - *First round of LTM sampling occurred in April - May 2014; Second round in November 2014*
  - *Groundwater*
    - *All VOCs were below screening criteria*
    - *Only manganese exceeded MCL as total and dissolved metal*
  - *Sediment pore water*
    - *All VOCs were below screening criteria*
    - *10 of 21 total metals exceeded MCLs or SMCLs*
    - *4 of 12 dissolved metals exceeded MCLs or SMCLs*

LTM and Trend Analysis Update

- *Site 36- Path Forward*
  - *Continue sampling every 6 months*
    - *VOCs, total and dissolved metals, and general water quality parameters*
  - *Continue performing 5-Year Reviews*
    - *Trend analysis will be performed at this time*
  - *Continue Post Closure Landfill Inspections*
  - *Enforce Land Use Controls*

LTM and Trend Analysis Update

- *Site 42 – Olsen Road Landfill*
  - *Background*
    - *Used as unauthorized disposal site between 1982 and 1987, and also in 1992*
    - *Construction and demolition debris, wood, metal debris, and demolished steel drums*
  - *Selected Remedy (ROD signed in 2005)*
    - *Construction of an engineered cap system*
    - *Removal of soil and sediment hot spots*
    - *Implement Land Use Controls*
    - *LTM for groundwater and surface water*
    - *Conduct Five Year Reviews*
  - *Remedial Action completed 2006*

LTM and Trend Analysis Update

Site 42– Olsen Road Landfill

Legend
- Newly Installed Groundwater Monitoring Well Location
- Existing Groundwater Monitoring Well Location
- Stream
- Approximate IR Site Boundary

N W E S

0 50 100 Feet

Figure 1
Monitoring Well Locations
Site 42 Monitoring Well Installation and Development
NSF-IH, Indian Head, Maryland

CH2MHILL

LTM and Trend Analysis Update

- *Site 42– Trend Analysis*
  - *Groundwater and Surface Water sampling began in 2006 (sampled quarterly)*
  - *Surface water discontinued October 2007 monitoring event*
  - *In February 2012, sampling was reduced to once per 9 months*
  - *In April-May 2014, 4 new monitoring wells were installed and sampled during the most recent LTM sampling event*
  - *Low or no detection of TCE in new wells demonstrate that it is delineated*
  - *Other VOCs non-detect in new wells*

LTM and Trend Analysis Update

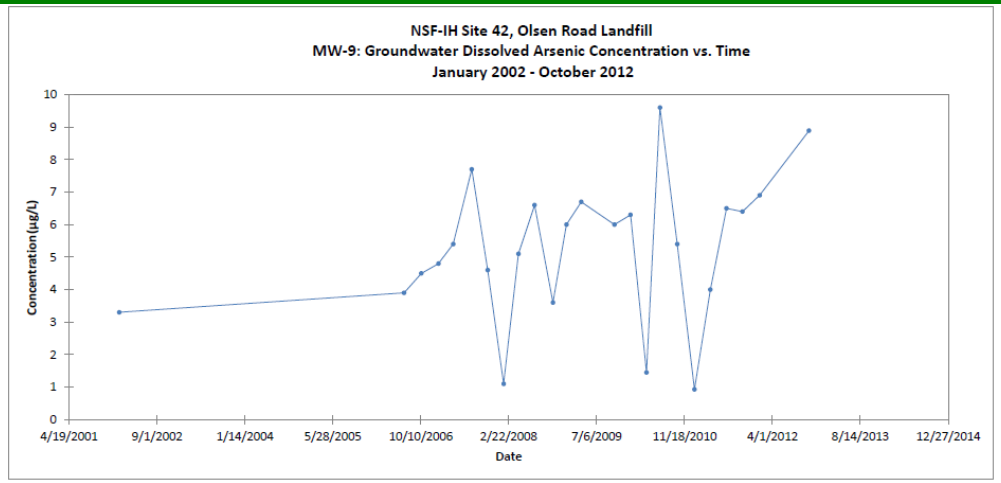
Site 42 – Long Term Trends

- *MW-03 → decreasing TCE*
- *MW-08 → decreasing TCE, DCE, VC, and manganese*
- *MW-09*
  - *Decreasing TCE and DCE*
  - *Increasing arsenic (below MCL)*
- *MW-10*
  - *Decreasing VC*
  - *Increasing TCE, iron, and manganese*

Site 42 – Short Term Trends

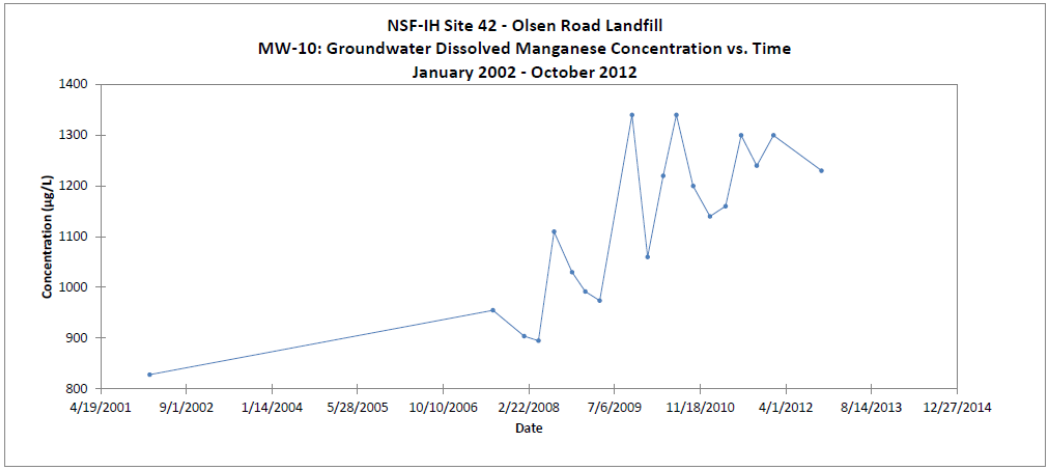
- *Majority of analytes showed no trend*
  - *MW-10 → DCE increasing*
    - *Well below MCL*

LTM and Trend Analysis Update

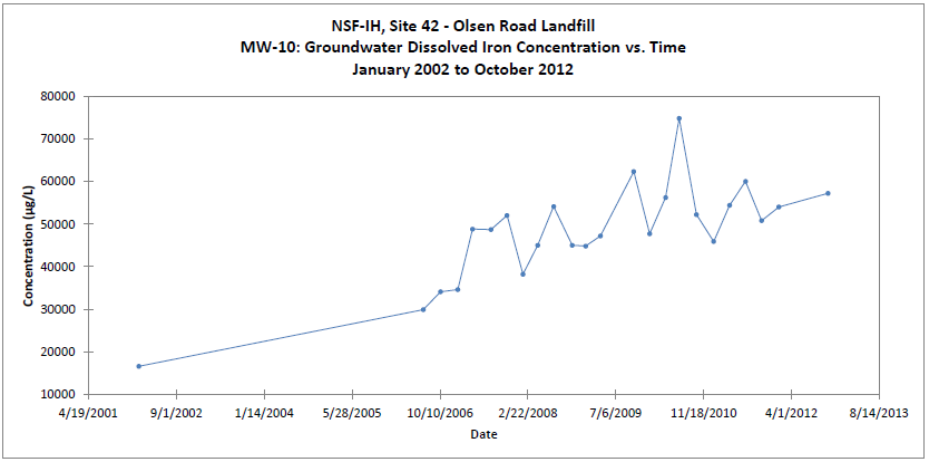


Arsenic MCL = 10 ug/L

Manganese MCL = 50 ug/L

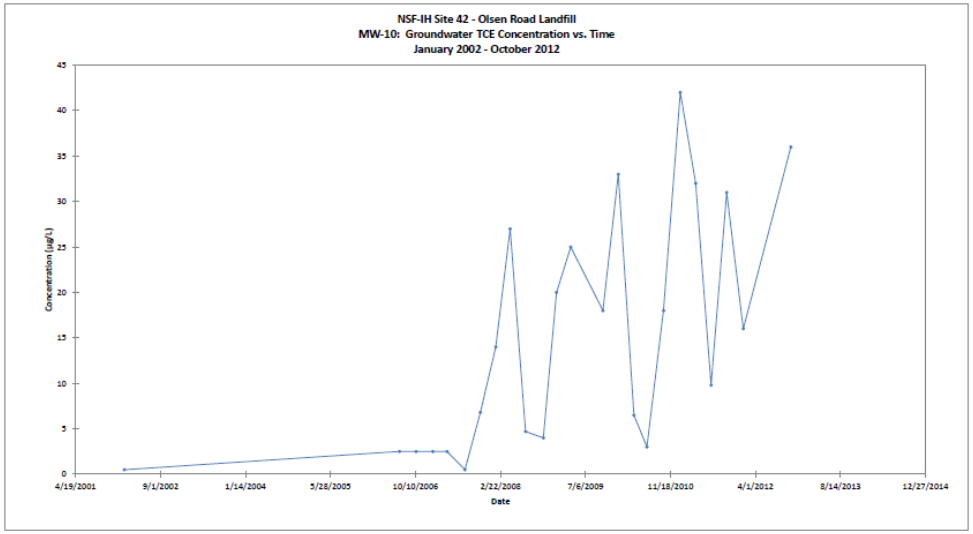


LTM and Trend Analysis Update



Iron SMCL = 300 ug/L

TCE MCL = 5 ug/L



LTM and Trend Analysis Update

- *Site 42 – Path Forward*
  - *Continue sampling every 9 months*
    - *Arsenic, iron, manganese*
    - *TCE, DCE, VC*
  - *Continue performing 5-Year Reviews*
    - *Trend analysis performed every 4 sampling events, last one completed in August 2014*
  - *Continue Post Closure Landfill Inspections*
  - *Enforce Land Use Controls*
  - *Discuss need for potential monitoring well addition(s) and/or increased sampling*

LTM and Trend Analysis Update

QUESTIONS?

UXO 11 – The Valley

Remedial Investigation Phase 2

Naval Support Facility Indian Head, Maryland
Indian Head Installation Restoration Advisory Board

23 October 2014

Nicholas Carros

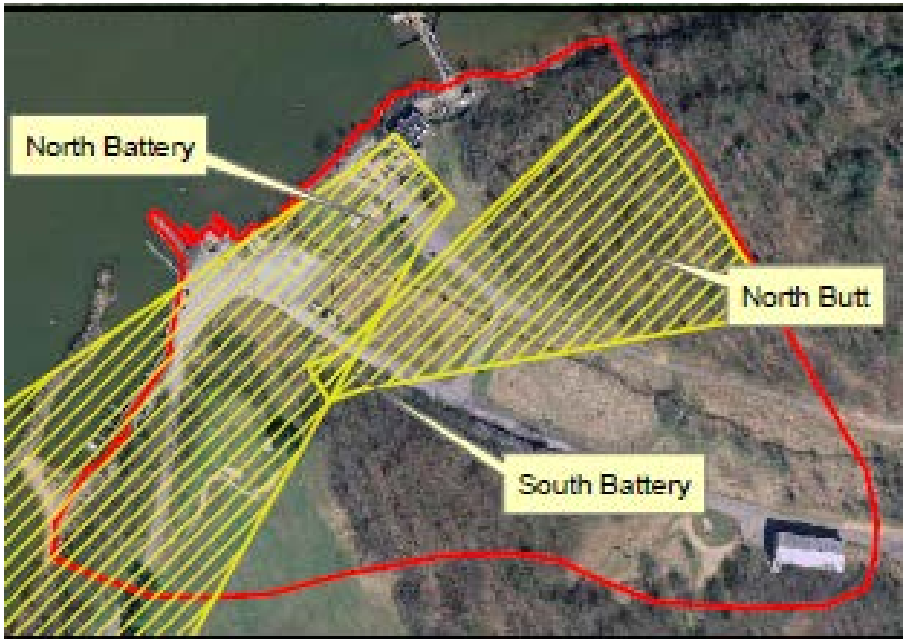
UXO 11
Goal and Outcome

- Presentation/Discussion Goal(s)
  - Quick review of the site location & history
  - Quick review of previous investigations
  - Review of phase 2 investigation
- Fiscal Year Goal
  - Complete RI report for UXO 11.

UXO 11
Site Location

UXO 11
Site Background

- 21-acre land site
- Used for developing and testing numerous ordnance items from 1891 to 1921
- Used for jet propulsion research from 1940 through 1944
- Part of UXO 11 has been redeveloped as the Dashiell Marina and is used for recreational boat access



UXO 11
Current Site Conditions

UXO 11
Previous Investigations

- **IAS, 1983**
  - Site investigated as Site 29
  - Site moved to the MR program
- **PA, 2005**
  - No munitions, MC, or evidence of munitions were observed
  - Noted that munitions and related debris may be present
  - Recommended an SI for MEC and MC

UXO 11
Previous Investigations (Cont.)

- **SI, 2010**
  - Investigation covered approximately 7.5 acres, including 5 areas (Areas A through E)
    - Area A: West Hillside
    - Area B: North Butt Hillside
    - Area C: Hill Slope
    - Area D: Other
    - Area E: Bomb-Proof Area (contained within Area A)

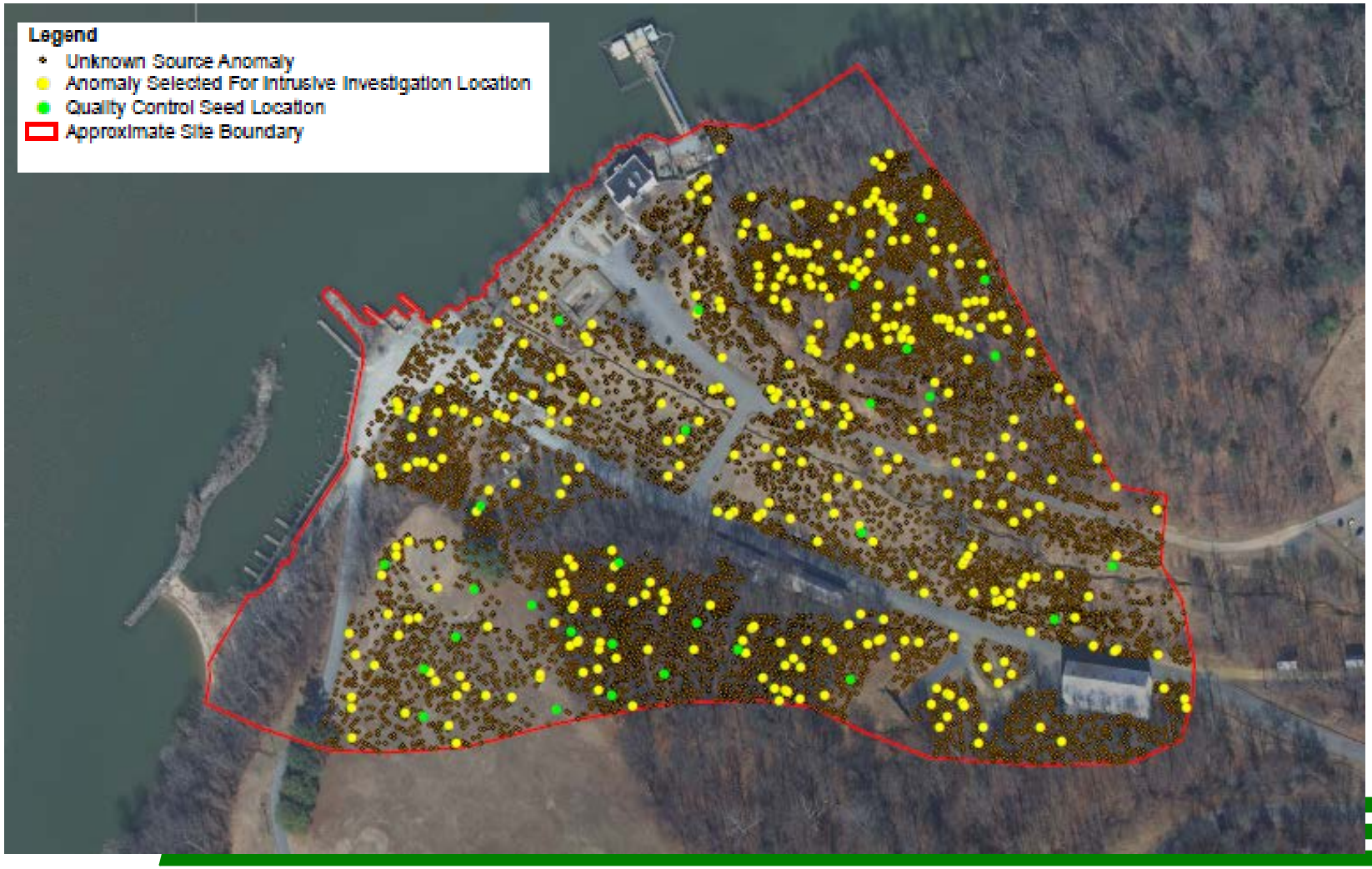
UXO 11 Remedial Investigation – Chemical

- **Objectives**
  - Define the nature and extent of TAL metals and explosives contamination in the surface soil, subsurface soil, surface water, sediment, and shallow groundwater
  - Evaluate whether contaminant concentrations attributable to releases from the site present unacceptable risk to human health or the environment and, therefore, whether the site warrants action to mitigate or control the unacceptable risk
- **Activities – Completed in 2013**
  - Installed and sampled 8 permanent monitoring wells
  - Collected discrete surface soil samples, discrete subsurface soil samples, surface water samples, and sediment samples
  - All samples were analyzed for TAL metals (total for soil and sediment; total and dissolved for surface water and groundwater), explosives, PETN, NG, NC, nitroguanidine, and perchlorate
  - Soil was also analyzed for pH, TOC, and grain size
  - Sediment was also analyzed for grain size

UXO 11 Remedial Investigation – MEC

- Conducted in 2 phases
  - Phase 1 – Completed in 2013
    - Objective: Determine the presence or absence of ferrous anomalies in the subsurface (over 14 acres)
    - Vegetation and surface debris clearing
    - DGM survey
  - Phase 2 – Completed in 2014
    - Objective: Characterize the sources of the DGM anomalies
    - Excavate anomalies to obtain 95%confidence in the distribution of the different types of sources of anomalies (i.e, MEC, non-MEC)

UXO 11
Anomalies Selected for Intrusive Investigation



UXO 11
Anomalies Excavated

MDAS

Scrap metal

Scrap – metal bars

75 mm armor piercing projectile

MDAS

UXO 11 Remedial Investigation – MEC

- Excavated 398 anomalies
  - No MEC or MPPEH items were found
  - Encountered abandoned utilities and old foundations, which were not removed
  - 2,400 lbs of scrap debris and 2,240 lbs of MDAS were collected and taken to Montgomery Scrap; MDAS was smelted
- Remedial Investigation Report will incorporate previously found items from the site
  - Examples of items recovered by other operations at the site include:
    - 3 inch projectile
    - 4” unfused shrapnel projectile
    - Navy 1 pounder projectile

UXO 11
Chemical Investigation

- *Objectives:*
  - *Define the nature and extent of target analyte list metals, explosives, and perchlorate contamination in the surface soil, subsurface soil, surface water, sediment, and shallow groundwater*
  - *Evaluate whether contaminant concentrations attributable to releases from the site present unacceptable risk to human health or the environment and, if so, provide the information necessary to evaluate remedial alternatives to mitigate or control the unacceptable risks*

UXO 11
Chemical Investigation

- *Fieldwork*
  - *Installed and sampled 8 permanent monitoring wells*
  - *Collected:*
    - *30 discrete surface soil samples*
    - *40 discrete subsurface soil samples*
    - *4 surface water samples*
    - *4 sediment samples*
  - *All samples were analyzed for TAL metals (total and dissolved for water; total for soil), explosives (PETN, NG, NC, NQ), and perchlorate*
  - *Soil was also analyzed for pH, TOC, and grain size*
  - *Sediment was also analyzed for grain size*

UXO 11
Chemical Investigation

- *Preliminary Constituents of Potential Concern*
  - *Surface Soil, Shallow Subsurface Soil, Combined Surface and Subsurface Soil, Sediment, & Groundwater suggests explosives & metals may be an issue.*
  - *Surface Water & Sediment suggests metals may be an issue*
- *Draft Remedial Investigation Report is expected in December with a final in February*

UXO 11 – The Valley

Questions?

UXO 20 – The Safety Thermal Treatment Point

Remedial Investigation Update

Naval Support Facility Indian Head, Maryland
Indian Head Installation Restoration Advisory Board

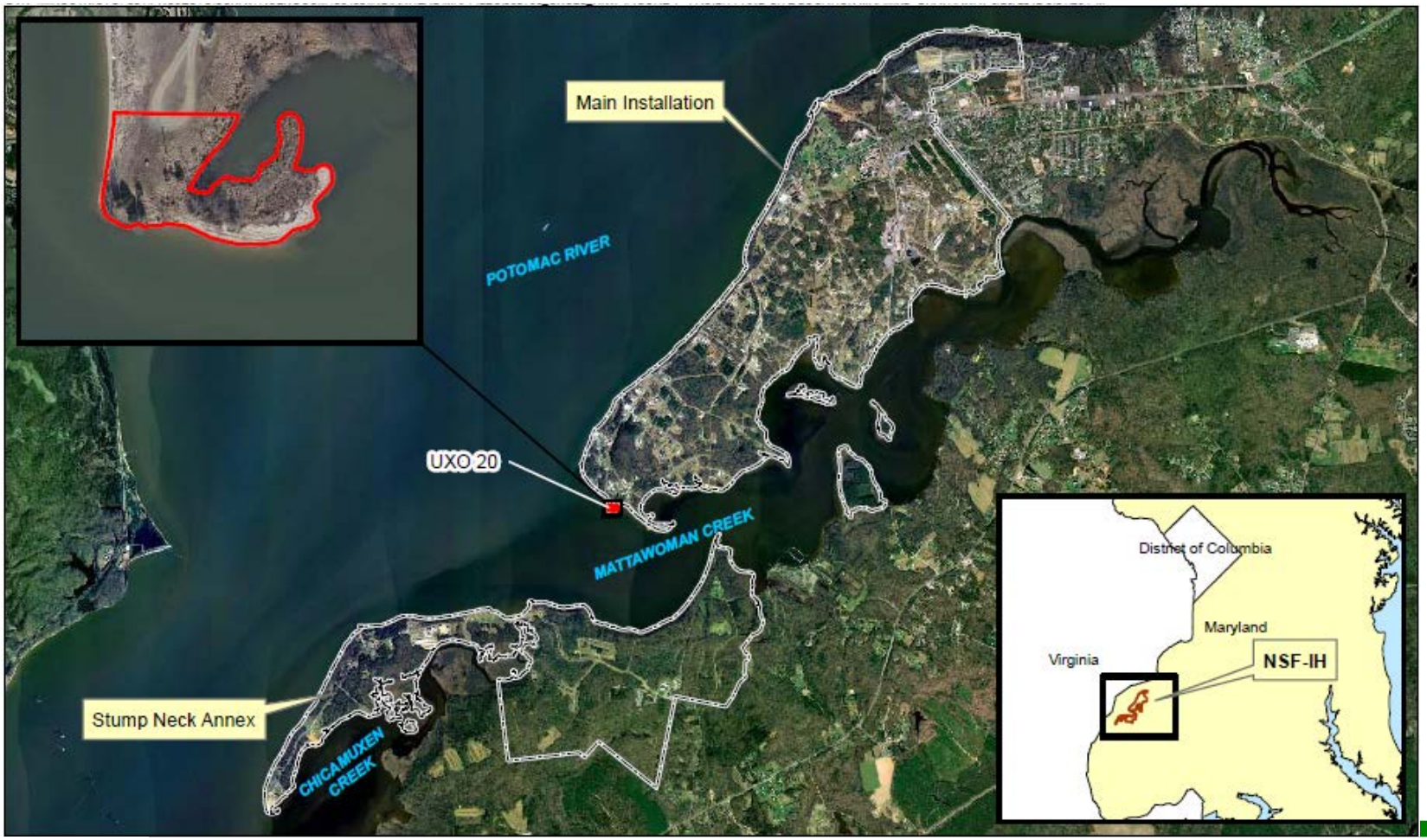
23 October 2014

Nicholas Carros

UXO 20
Goal and Outcome

- Presentation/Discussion Goal(s)
  - Quick review of the site location & history
  - Quick review of previous investigations
  - Review of current investigation
- Fiscal Year Goal
  - Complete the Remedial Investigation

UXO 20
Site Location



UXO 20
Site Background

- *Man-made peninsula between 1940 and 1942*
- *Constructed of sand, fill material, rocket motor casings, empty cartridges, and coal fly ash*
- *1942-1954: OB on the ground surface or in an open top steel thermal treatment vessel. Propellants including CAD and PAD items were burned at a rate of 40 to 50 pounds per week. Water or solvent wet wastes with oil were burned in 55-gallon drums.*
- *1954-1988: Continued burning of up to 25,000 pounds per year of less-sensitive explosives, other pyrotechnics (for example, squibs, igniters, caps, black powder) and difficult–to-burn ordnance materials*

UXO 20
Investigation History

- *Preliminary Assessment (1993)*
  - *Soil & gw results indicated concentrations of explosives and metals would prohibit closure without further investigation.*
- *1988*
  - *96 drums of ash/residue and solvent contaminated surface soil were removed from the site; subsurface was not disturbed*
  - *Estimated 40-foot diameter area to a depth of 1 ft bgs*
  - *Location of soil removal, backfill efforts, and quantification of contaminant concentrations are not specific enough for risk management.*
- *Site Inspection (2010)*
  - *Recommended for RI for MEC and MC in soil and groundwater*

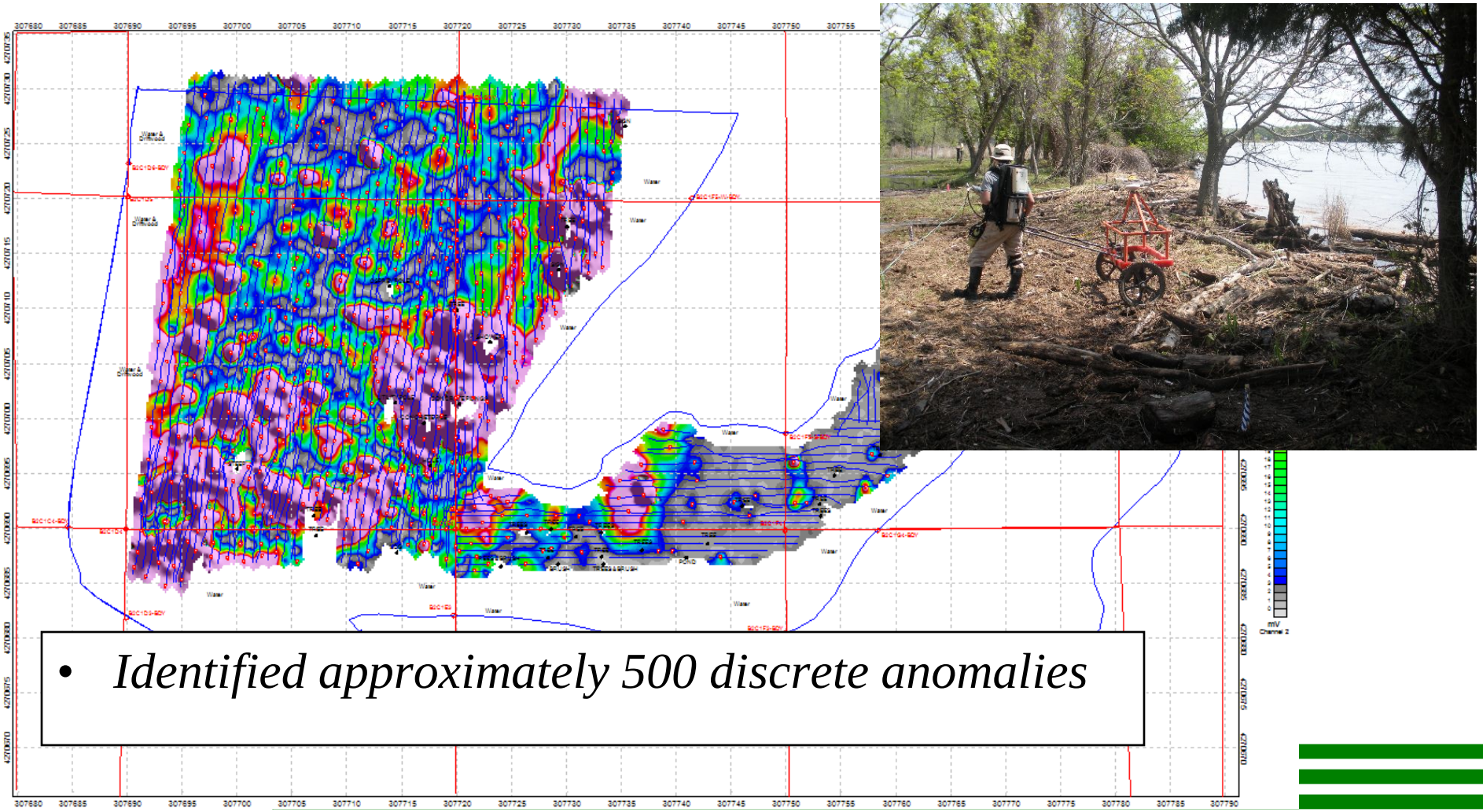
UXO 20
Current Site Conditions

UXO 20 Current Remedial Investigation

- *Objective is to define the nature and extent of MEC and MC (excluding the shoreline and shallow water).*
- *MEC investigation*
  - *Remove MEC, MPPEH, and metal from the land surface (Phase 1)*
  - *Conduct a DGM survey (Phase 1)*
  - *Intrusively investigate a percentage of anomalies (Phase 2 -TBD)*

UXO 20
Metal from the land surface

UXO 20
DGM Survey



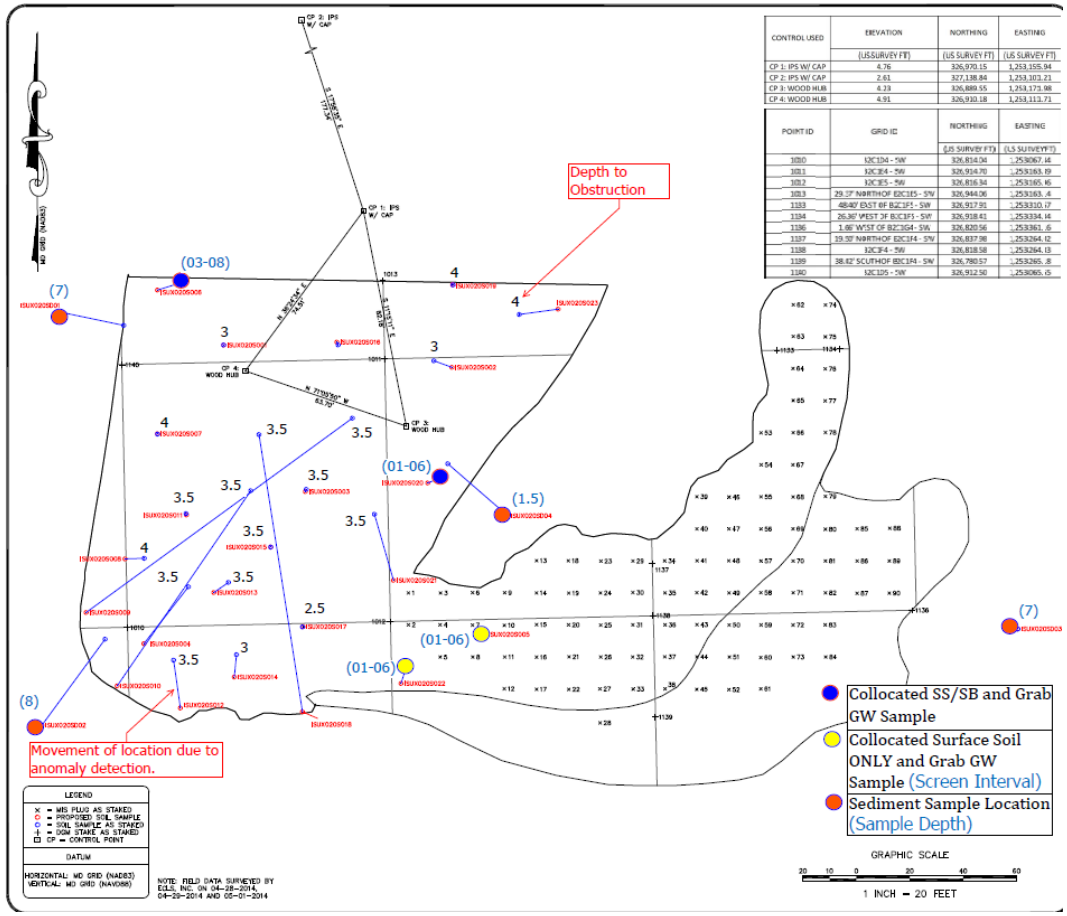
- *Identified approximately 500 discrete anomalies*

UXO 20 Current Remedial Investigation

- *Objective is to define the nature and extent of MEC and MC (excluding the shoreline and shallow water).*
- *MC investigation*
  - *Environmental sampling (ground water, surface/subsurface soil, sediment) (Phase 1)*
  - *Install and sample permanent monitoring wells (Phase 2 - TBD)*
  - *Evaluate whether contaminant concentrations attributable to releases from the site present unacceptable risk to human health or the environment and, therefore, whether the site warrants action to mitigate or control the unacceptable risk (Phase 2 – TBD)*

UXO 20
Current Remedial Investigation

- *23 Surface Soil*
- *1 MIS*
- *21 Soil Borings*
  - *2 SB not collected due to groundwater at 6” bgs*
  - *Debris was encountered at nearly every boring location, which is where the boring was terminated.*
- *4 sediment samples*
- *4 Groundwater samples*



UXO 20 Current Remedial Investigation

- **Sampling Preliminary Results**
  - Surface Soil
    - *Detection of 11 VOCs, 24 SVOCs, 4 explosives, and 24 metals*
  - MIS
    - *Detection of 2 explosives, and 17 metals*
  - Subsurface Soil
    - *Detection of 16 VOCs, 24 SVOCs, 6 explosives, and 24 metals*
  - Sediment
    - *Detection of 5 VOCs, 21 SVOCs, 2 explosives, and 23 metals*
  - *Groundwater*
    - *Detection of 8 SVOCs, 3 explosives, 21 total metals, and 22 dissolved metals*

UXO 20 Current Remedial Investigation

- **Next Steps**
  - *Intrusively investigate a representative portion of the anomalies*
  - *Install and sample 4 permanent monitoring wells based on the in situ groundwater results*
  - *Conduct risk assessment for RI*

UXO 20 – The Safety Thermal Treatment Point

Questions?