

**RESTORATION ADVISORY BOARD
MEETING NOTES
FORMER NAVAL AIR STATION, BRUNSWICK, MAINE
THURSDAY, DECEMBER 11, 2014
BRUNSWICK TOWN HALL, BRUNSWICK, MAINE**

MEETING ATTENDEES

Paul Burgio	U.S. Navy, BRAC PMO/RAB Co-Chair
Robert Leclerc	U.S. Navy
Tom Brubaker	Midcoast Regional Redevelopment Authority
Suzanne Johnson	Brunswick Representative to RAB/RAB Co-Chair
Chris Evans	Maine Department of Environmental Protection
Doug Heely	Environmental Strategies & Mgt.
David Chipman	Town of Harpswell Representative to RAB
David Page	Town of Brunswick Rep to RAB/BACSE
Scott Libby	Town of Topsham Representative to RAB
Catherine Ferdinand	Bowdoin College
Linda Smith	Town of Brunswick
Jeff Orient	Tetra Tech
Carol White	BACSE Technical Advisor
Carol Warren	BACSE
Antoinette Mercadante	BACSE
Juris Apse	BACSE

1. Introductions

Suzanne Johnson, Restoration Advisory Board (RAB) Co-Chair, opened the meeting at 4:30 p.m. She reviewed the purpose of the RAB process and discussed the structure of the citizen's group Brunswick Area Citizens for a Safe Environment (BACSE). She asked everyone around the front table to introduce themselves. For the television audience, she said that handouts for this meeting are available at the public library. She introduced Paul Burgio (U.S. Navy Base Realignment and Closure (BRAC) Coordinator for NAS Brunswick) as the other RAB Co-chair. Paul reviewed the agenda for this afternoon's meeting.

2. FOST Update (Paul Burgio, U.S. Navy)

The Finding of Suitability to Transfer (FOST) process is the Navy's mechanism to document that any environmental concerns at a parcel have been sufficiently addressed to allow for transfer of the property. Two FOSTs were completed this year. FOST 2013-5 included about 60 acres and encompasses the aviation district parcels, the new air traffic control tower and the Seabee compound; FOST 2014-1 included almost 40 acres and encompasses the Topsham MSAD area, two recreation parcels in the Town of Brunswick transfer area, and the Fitch Avenue Skeet Range. As of September 2014, the Navy has FOST-ed over 2800 acres of land amounting to approximately 87% of the base property. Paul showed a color-coded map of the base showing all

of the land that has been transferred. The white parcels are still under Navy control, and include the Eastern Plume area, several landfills, Site 12, and a few smaller miscellaneous parcels.

One FOST is planned for 2015, and will include housing buildings 904 and 905, the remainder of the Fitch Avenue skeet range, the Orion Street skeet range, the undocumented Orion Street landfill, and Buildings 9 and 233 in the aviation district. Tetra Tech is currently preparing the two buildings in the aviation district for transfer.

3. Recent Activities Update

- PFC Investigation (Paul Burgio)

Perfluorinated compounds (PFCs) are a group of emerging contaminants that were not previously identified by EPA as contaminants of concern, and therefore were not previously monitored for. Toxicity information is incomplete and there are currently no enforceable standards, although there are health advisories of 0.4 and 0.2 ug/l for the compounds perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), respectively. Maine also has established a maximum exposure guideline (MEG) of 0.1 ug/l for PFOA. PFCs are found in many common household products, although their use in aqueous firefighting foam (AFFF) is of most significance at the former base.

The Navy initially investigated PFCs in groundwater near the groundwater extraction and treatment system (GWETS) where firefighting training events took place. The purpose of this initial sampling was to identify source areas and determine where impacted groundwater may have migrated to. A Navy contractor conducted historical research and a site visit was conducted by the former Assistant Fire Chief and Maine DEP to inspect areas where AFFF may have been used or disposed.

A sampling and analysis plan was developed and a field sampling program was conducted in November. Groundwater samples were collected from 21 existing monitoring wells, 15 new monitoring wells, and from the GWETS treatment system to determine treatment efficiency for these compounds. The investigation also included collection of water level data to determine groundwater flow direction. The results of this investigation will be available after the holidays.

- Eastern Flightline Area Investigation Update (Jeff Orient, Tetra Tech)

Several previous investigations found low concentrations of chlorinated ethenes in groundwater around Building 250/Hanger 4, former Buildings 7/10, and Hangar 1. Additional investigations were proposed to determine if the observed concentrations in groundwater were from a specific release or from multiple smaller releases associated with general airfield operations. The sampling program also included analysis for PFOS and PFOA, and the collection of water level data.

Water level gauge data collected in April of this year showed groundwater flow to the southwest in the northern part of the study area, transitioning to southeast flow in the southern area. Groundwater appears to discharge to the impoundment pond that is upstream of Picnic Pond. Monitoring wells were installed at 9 locations and these wells were sampled along with selected previously-installed wells in the study area.

Some of the sampling data is in, and the rest will be available in the next few weeks. The work activities and sampling results will be summarized in a technical memorandum.

Carol Warren asked if there is a contiguous plume of chlorinated ethenes or individual pockets. Jeff said the data so far indicates low concentrations only, with no indication of a specific common source area.

- Site 12 Update (Jeff Orient)

Site 12 was used from the early 1980s to until the mid-2000s for disposal and detonation of ordnance, and landfilling of construction debris. The goal of the ongoing cleanup work is to make the area safe for future recreational use. An extensive geophysical survey was completed last year to identify buried objects. This year, efforts were focused on pond and berm remediation.

The pond work included draining of the pond and the clearing of 2.4 acres of land to remove geophysical anomalies. All munitions debris and other miscellaneous debris were disposed off-site, and a confirmatory geophysical survey was conducted. Jeff showed several pictures of the cleanup operation and the types of debris removed, including trees and wood debris, construction debris, miscellaneous metal, and military-related debris such as jet-assisted take-off bottles. The work area was re-graded and the pond was allowed to refill naturally. Some of the stumps and trees were left in the pond for animal habitat. No significant munitions were found during this work, and no explosive devices were found. All projectiles 20 mm and larger were removed.

In the berm areas, decision unit DU-1 was the existing berm, and DU-2 included historic berms. The work in these areas included excavation of soil, mechanical screening to remove munitions and other debris, confirmatory geophysical surveying, and restoration. The excavations extended to about two feet below the berms. The mechanical screening process worked well for granular soil but was inefficient for soil with high clay content, thus some hand-screening was also performed. The field work began in September and no significant safety hazards or soil contamination was found.

The work in DU-1 was completed in October and the work in DU-2 extended into December. No munitions or explosives of concern (MEC) were found. There were many 20 mm projectiles (bullets), metal fragments and construction/demolition debris found. Some of the munitions debris was initially classified as potentially explosive but later found to be inert. The post-excavation geophysical survey identified additional anomalies, and further investigations were conducted at 50 of these locations. This investigation found only metallic fragments and construction debris – no MEC was found nor was contaminated soil observed.

David Chipman asked if the source of the anomalies was found. Jeff said that Tetra Tech did not complete this work but he believes the source of the anomalies was identified. Jeff reiterated that no explosive hazards were found and that most of the material was common construction debris.

Carol Warren asked if the field observations were mostly visual. Jeff said that trained people were present to identify munitions and to look for signs of contamination. Some composite soil samples were collected and results were consistent with other surface soil data.

Restoration in the berm areas included placement of an orange geotextile warning layer overlying 6 inches of clean soil, then backfilling to original grade. Bedrock in some areas negated the need for the geotextile material. The areas will be re-seeded in the spring.

- Quarry/Town Commons Update (Paul Burgio)

Initial exploratory work in the Quarry area was conducted based on geophysical surveys, which found some munitions debris as well as a variety of non-munitions debris. In 2013, additional clearance work was conducted beyond the initial site boundaries, which identified munitions debris and materials potentially possessing explosive hazard (MPPEH) in decision unit DU-7, mostly within the upper six inches. Items included fuses, flares, and other items that field technicians could not visually identify. No intact warheads or unexploded ordnance (UXO) were found. A significant amount of dump debris was found that is unrelated to military munitions.

David Chipman asked about a grenade that was found near where the fence was to be located. Paul said it was a practice grenade and was not live.

Paul showed several pictures of the munitions debris found. He said that these items were found to be material documented as safe (MDAS). No explosive components were found. This work was completed to make the Quarry area safe from munitions so that a remedial investigation (RI) could proceed. The purpose of the RI is to develop a conceptual site model and feasibility study. The RI has three components – determine hazard levels of MEC, determine the nature and extent of chemical contamination, and conduct screening level assessments for possible radiological contamination.

Suzanne Johnson asked about CERCLA contaminants that will be investigated. Contaminants could include VOCs, metals, and chemical contaminants related to munitions. Because the Quarry site was identified in the historical radiological survey, the RI includes surface screening for radiological impact.

Munitions clearance was the first step in the process to make sure the work areas are safe. Transects were completed at 50' intervals inside and outside fence, and metal detectors were used to look for anomalies. Radiological screening was conducted on soil removed to investigate anomalies, and samples were collected for chemical analysis.

The preliminary RI results related to the MEC investigation and clearance showed that munitions debris is present in the upper six inches outside of the quarry and landfill areas, although no munitions debris was found west of Route 123 on Town Commons property. The investigations on Town Commons property was conservative to see if munitions pieces flew over Route 123 and impacted Town property.

Twenty two new trenches were excavated in known and suspected disposal areas. Munitions debris was found but no MEC was identified. Bedrock was encountered in most of the trenches, and the lack of overburden soil suggests that land farming was not likely or widespread.

Surface water and sediment sampling results are not available yet. Soil data did not indicate any new sources of hazardous materials. Elevated photoionization detector readings were observed in Trench 15, however the laboratory data has not yet been reviewed. Groundwater data from 2012/2013 revealed low levels of petroleum and munitions constituents. Additional samples will be collected in the spring.

David Chipman asked if the petroleum in groundwater indicates land farming. Paul said that land farming in a limited area is a possibility.

Joshua Katz asked if groundwater was found to be in bedrock. Paul said that is was.

Carol White asked if surface water samples would be collected this spring. Paul said that surface water sampling will be included in the spring sampling program.

Suzanne Johnson asked what the photoionization detector does. Paul said it is a field instrument that detects volatiles.

A Remedial Investigation report will be prepared in 2015, which is one of the steps in achieving a Record of Decision for this site.

- o Old Navy Fuel Farm Update (Paul Burgio)

A significant amount of work has been completed over the years to clean up the Old Navy Fuel Farm (ONFF). Currently, there are discrete areas within the ONFF where significant soil impacts were identified. To address this, soil was excavated from areas DP06 and DP07 in November/December. Petroleum-impacted sediment was also removed from the Swale Area and from nearby manholes and catch basins. One round of groundwater samples was collected this fall and one additional round will be collected next spring. The excavation program is expected to be complete by December 15, followed by site restoration work.

Soil samples were collected from the limits of the excavation for laboratory analysis of extractable petroleum hydrocarbons (EPH). Only one sample indicated residual concentrations above Maine DEP Commercial Worker criteria. The post-excavation soil data will be utilized in a risk characterization.

Chris Evans said that several excavations have now been completed in an effort to remove residual EPH. Additional surface samples should be collected to make sure that soil meets recreational use standards since the area will likely be used for ball fields in the future.

4. 2014 Accomplishments (Paul Burgio)

Paul reviewed the many investigation and remediation projects that were completed this year. Investigation activities included RI work at the Quarry site, sampling of the Topsham debris area, MEC clearance at Site 12 and the Quarry site, groundwater investigations in the Eastern Flightline study area, soil sampling at the Fitch Avenue skeet range, ongoing PFC investigations, Building 233 investigations, and radiological surveys at numerous sites.

Remediation activities completed this year included cleanup of the pond and berms at Site 12, soil removal at the Fitch Avenue skeet range, building demolition at Sites 1/3, additional soil removal at the ONFF, radiological site free releases at several buildings (i.e., certification of no radiological impact), and initiation of the Site 2 landfill cover.

In addition to the investigation and remediation accomplishments, an Explanation of Significant Difference (ESD) was completed to allow for the removal of cadmium-impacted soil from Site 7 and placement of that soil under the Sites 1 and 3 cap. A significant amount of work was also completed on the GWET system, including replacement of the HiPOx unit and upgrading of the SCADA control system.

Carol Warren asked if the operations manual for the GWETS plant is complete. Paul said that the work on the GWETS was just completed and there are plans to prepare an updated manual.

5. 2015 Planned Projects

The Navy is planning on implementing a number of investigation and remediation activities next year, including:

- Completion of the investigations in the Eastern Flightline and PFC areas, and at the Fitch Avenue skeet range;
- Investigation of the small acid caustic pit in the old transportation shop (Site 4), including sampling outside the building;
- Completion of the Picnic Pond investigation, including sampling from similar ponds as part of a background study;
- Additional radiological surveys, including at Site 9;
- Completion of the RI report for the Quarry site;
- Placement of other contaminated soil under the Sites 1 and 3 cap extension (in addition to cadmium-impacted soil from Site 7);
- Remediation of radiologically-impacted areas as needed, and completion of additional radiological free releases;
- Completion of the next Five Year Review;
- Completion of a decision document (similar to a ROD) for the Orion Street skeet range;
- Completion of a Base-wide Land Use Control Implementation Plan; and
- Finalization of FOST 2015-1.

Suzanne Johnson asked where FOST 2015-1 is located. Paul said that this FOST will encompass about 45 acres and will include Buildings 904 and 905, the remainder of the Fitch Avenue skeet range, the Orion Street skeet range, the undocumented Orion Street landfill, and Buildings 9 and 233 in the aviation district.

Joshua Katz asked if groundwater beneath the old transmitter site in East Brunswick was analyzed for PFCs. Paul said that this parcel has already been conveyed. If PFCs are found there in the future, the Navy would address the issue at that time.

Carol White asked about the ESD for Site 9. Paul said that this is part of the land use control ESD process. Carol also asked about the scope of the long term monitoring plan optimization work. Paul said that Claudia Sait initiated this process some time ago, but the Navy has not had time to focus on its completion. This involves review of the monitoring program and streamlining (in terms of wells to monitor and analytical tests) to lower costs.

Chris Evans said that the LTM optimization plan for the Eastern Plume has been finalized, and that the stakeholders are close to implementing revisions at many of the other CERCLA sites. Paul said that this winter would be a good time to review this now that the field season is mostly over.

Meeting adjourned at 5:45 p.m.