

**RESTORATION ADVISORY BOARD
MEETING NOTES
FORMER NAVAL AIR STATION BRUNSWICK, MAINE
THURSDAY, MAY 12, 2016
FAIRFIELD INN AND SUITES
BRUNSWICK, MAINE**

MEETING ATTENDEES

Paul Burgio	U.S. Navy, BRAC PMO/RAB Co-Chair
Todd Bober	U.S. Navy, BRAC PMO
Greg Preston	U.S. Navy, BRAC PMO
Robert Leclerc	U.S. Navy
Tom Brubaker	Midcoast Regional Redevelopment Authority
Suzanne Johnson	Brunswick Representative to RAB/RAB Co-Chair
Mike Daly	U.S. Environmental Protection Agency
Chris Evans	Maine Department of Environmental Protection
David Wright	Maine Department of Environmental Protection
Iver Mcleod	Maine Department of Environmental Protection
Doug Heely	Environmental Strategies & Mgt.
David Chipman	Town of Harpswell Representative to RAB
Catherine Ferdinand	Bowdoin College
Jeff Orient	Tetra Tech
Carol White	BACSE Technical Advisor
Antoinette Mercadante	BACSE
Juris Apse	BACSE
Josh Katz	BACSE
Beth Beausang	Congresswoman Pingree's Office
Gail Kezer	Senator Angus King's Office
Ralph Tucker	State Representative

1. Introductions

Paul Burgio (U.S. Navy Base Realignment and Closure (BRAC) Coordinator for NAS Brunswick and Restoration Advisory Board (RAB) co-Chair) and Suzanne Johnson (Town of Brunswick representative and RAB co-Chair) opened the meeting at 4:40 p.m. Suzanne gave a brief overview of the citizen's group Brunswick Area Citizens for a Safe Environment (BACSE) and how they are funded. Paul reviewed the agenda for this afternoon's meeting.

Old Business

No old business was discussed.

New Business

No new business was discussed.

2. Recent Activities Update

- Quarry Holdback Area Property Transfer Status – Paul Burgio

Paul said that over 246 acres of land around the quarry were found to be suitable for transfer (to Bowdoin College) in 2011, but that a portion of the parcel was held back (“holdback area”) because of the expanding investigations in the Quarry Area. The investigations were focused on a variety of contaminants including munitions and explosives of concern (MEC) and munitions constituents (MC). In addition, historical research indicated potential radiological “impact”, which does not mean radiological items are present but that further investigation is warranted. By November of 2015, the Navy had determined the boundaries of the Quarry Area, which is allowing them to split the holdback area parcel into two areas. Parcel EDU-BC-2A is about 105 acres and is now being released. Parcel EDU-BC-2B is about 26 acres and will remain with the Navy until the Quarry Area cleanup is complete.

The group discussed the process by which the released land is transferred. The Navy will convey the new parcel to the U.S. Department of Education, who will apply the restrictions to the deed before conveyance to Bowdoin College.

Paul Burgio and Todd Bober explained that the investigation and cleanup actions have been ongoing and will continue for some time. The work started with surface clearing of munitions, and has progressed from there. The outline of the Quarry Area will shrink as the cleanup progresses. Ralph Tucker asked about historical activities and what caused the contamination. Paul said the quarry was an old dump, which included disposal of some munitions. There is no evidence of radiological items but the area was still considered “impacted”. The disposal practices started after rock was mined out, but it is not believed that the Navy was involved in the mining.

There is an internal “white paper” within the Navy to memorialize this hold back situation, since they did not feel that a FOST addendum was necessary. The released land will have typical soil and groundwater restrictions. Greg Preston clarified how properties owned by the United States are transferred. In this case, all of the relevant environmental documents will be given to the Department of Education and they will assemble everything, including the deed notices, to Bowdoin College. The group discussed the timeframe for transfer. The Department of Education is faster than many other agencies, but it is not clear exactly when the process will be complete.

There was a brief discussion about the old control tower within the parcel. It currently needs work to address some safety issues, but will be retrofitted for use as an observation tower.

- Land Use Control Implementation Plan (LUCIP) Update – Paul Burgio

The Land Use Control Implementation Plan includes all of the CERCLA sites that have restrictions as part of their remedies. The Navy has not conveyed any of the CERCLA sites, but all parcels that have been transferred have restrictions on groundwater use. A draft LUCIP was submitted in August 2015 and has since been revised to specify how DigSafe notifications through the Town will be handled, and to specify that transfers will comply with Maine’s Uniform Environmental Covenants Act (UECA).

Suzanne Johnson asked for an update on the mapping overlays so that restricted areas can be included in the Town's database. This work (i.e., development of a basewide map) is still in progress. The current process is that anyone wishing to perform intrusive work is required to notify the Town, who will then notify Paul.

The latest draft of the LUCIP was submitted to the regulators for review. It outlines what steps need to be taken when intrusive work is proposed. Mike Daly said that this is a component of the remedy and requires monitoring and enforcement. The LUCIP will be finalized before the Town's new zoning ordinances are in place, but the zoning changes will "catch up" to the LUCIP thereafter. A final redline version will be available in May.

- Site 2 Cap Extension Update – Jeff Orient

Jeff Orient provided a brief summary of Site 2. This was an old dump site that had a soil cover installed over it many years ago. Recent investigations have focused on the area to the north and west of the cover area where debris and ash have been observed since the original soil cover was installed. The work to extend the soil cover/cap over the expanded area is generally complete, and the entire area will be fenced. A project completion report will be issued this summer.

- Eastern Flightline Area (EFA) Groundwater Investigation Summary – Jeff Orient

The investigation work around the EFA has been completed in two phases. The initial phase was completed in 2014 and included monitoring well installations and groundwater sampling. A second phase of work was completed in 2015 and included additional groundwater sampling, well installations, staff gauge installations, and water level gauging. The Phase II sampling/analysis included perfluorinated compounds (PFCs) and 1,4 dioxane in addition to chlorinated VOCs. Groundwater sampling at the NEX and Site 12 was also included in the Phase II scope of work. The primary purpose of this work was to determine whether a source could be identified for the low levels of VOCs within the EFA and to determine whether there is a connection between the EFA and the Eastern Plume.

Jeff presented a map of the area which shows that the former NEX site is within the EFA study area. Site 12 is in a separate part of the former base. Information pertaining to Site 12 will be incorporated into the EFA report, but the NEX results will be reported separately given its regulatory status. A summary report of the Phase II work is currently with the Navy for review. The water level information shows groundwater flow towards the southwest (in the northern part of the study area) and transitioning to the southeast with discharge into the stormwater impoundment ponds.

Paul Burgio said that the Navy, their contractors, and the regulators are trying to determine if these small "pockets" of VOC-impacted groundwater are connected to the Eastern Plume. The consensus as of right now is that the impact within the EFA is not connected to the Eastern Plume.

The group discussed the genesis of the EFA work and how it has progressed. Impact to groundwater was originally found during transfer of Building 250/Hanger 4. The initial

investigations have expanded outward, and the Navy is in the process of pulling all of the pieces together for a comprehensive view.

The group also discussed the history and current status of the NEX site, which was formerly a gasoline station (and was therefore not a CERCLA site). A large-scale soil excavation program was completed around 2009 and a monitored natural attenuation program is currently in place for groundwater. There are currently two wells where concentrations of volatile petroleum hydrocarbons (VPH) slightly exceed the groundwater standards. Groundwater from one well also exceeds standards for manganese (a naturally occurring mineral) which is likely elevated as a result of the petroleum release. The petroleum levels are trending down and good progress has been made. The manganese concentrations will likely also recede as the petroleum levels continue to go down.

The NEX property has already been conveyed and is in use as an auto repair facility. Maine Institute of Technology is also utilizing a portion of the property. Groundwater monitoring work will continue until the standards are met. Like all land that has transferred, groundwater restrictions are in place.

3. Current/Upcoming Activities

- OSSR Decision Documents – Paul Burgio

The Orion Street Skeet Range (OSSR) has been the focus of several removal actions over the years. A proposed plan was submitted for review and a public meeting will be held in July. A Record of Decision is scheduled for late September 2016.

- Sites 1/3 Landfill Gas Sampling – Jeff Orient

Jeff said that air samples were collected from the vents around this landfill in 2012 after odor complaints were received. Samples were collected directly from the vents with Summa canisters and analyzed for a variety of compounds based Industrial Hygienist recommendations. Landfill gas was also tested in the field with a multi-gas meter. These samples were “worst case” since there was no dilution with ambient air. No concerns were identified as documented in a 2013 field report. Additional sampling will be completed this summer, and will include a more traditional landfill gas approach (i.e., analysis for VOCs and fixed gases). This additional sampling is in anticipation of cap extension work to be completed in the near future.

- Residential Well Sampling – Paul Burgio

The Navy has pro-actively undertaken a private well sampling program around Coombs Road, which is near the extent of the Eastern Plume. Twenty nine homes were identified for this program and Paul has received signed access agreements from 23 homeowners. The response to this program has been very positive, and the six homeowners that have not signed yet have been difficult to reach - no one has refused access. The sampling work started on April 22 and is ongoing. Samples are being analyzed for VOCs, PFCs and 1,4 dioxane.

Greg Preston is involved in PFC investigations at other BRAC sites, and he discussed how the Department of Defense is working on a comprehensive plan for dealing with PFCs. One of the most significant challenges with PFCs is that these compounds are found in many common household products in addition to firefighting foams.

Once the sampling results are available, Paul will call the homeowners and will also send them a letter. The data will be presented to the stakeholder group but the identification of the properties will remain confidential. One of the wells was tested last summer and was retested today, which may give some indication of trends. The tabulated sampling data will include well depth, where available.

The group discussed the complexities of PFCs, including how many compounds are included and what the “standards” are. The current analytical list includes 15 or 16 compounds but only PFOS and PFOA are being analyzed for because these are the only two compounds that have EPA-derived provisional health advisories (PHA). Mike Daly said that the PHA is based on sub-chronic exposures, and that EPA will be issuing an updated health advisory that accounts for longer-term exposure. It is expected that these health advisories will be lower than the current PHA. These are not enforceable standards; however, the Navy intends on complying with the updated health advisories when issued. The State of Maine has maximum exposure guidelines (MEGs) for PFOS and PFOA only, which may be subject to revision after EPA issues the updated health advisories.

Greg Preston described how sampling work, in particular retesting, is conducted at a BRAC site in Pennsylvania. The Navy provides bottled water and arranges for connection to municipal water for any resident that exceeds the health advisories. Retesting is scheduled when results are close to the advisories. The health advisories are based on the most sensitive receptors, and a safety factor is added; therefore these limits are very protective. The Navy intends to monitor overall trends in groundwater as a basis for retesting. Greg said that the pump and treat system in the Eastern Plume has been a factor in containing the plume, and he does not anticipate negative findings during the private well sampling program.

Carol White asked about the human health risks for PFCs. Greg said that ingestion is the primary risk driver and that bottled water and eventual hookup to municipal water is the remedy. There are no risks associated with bathing for these low concentrations. The homeowners he has dealt with have been fine with this approach. Testing of the Jordan Avenue public supply well has not shown any impacts.

Mike Daly said that significant progress has been made at NASB in terms of investigating emerging contaminants and understanding the nature and extent. David Chipman said that public water is available in the area, so if impact is found connections would be possible. Greg said that the Navy will follow through with its responsibilities if impacts are found, but he also mentioned the possibility that there may be other sources of these contaminants. Scotch Guard is one example of a common consumer product that contains PFCs. The Navy will review all available information and will act appropriately.

Carol White asked about PFC impact in other areas, specifically impact to sediment and possible bio accumulation/ecological risk in Harpswell Cove. The Navy is still looking at this issue but is

currently focused on evaluating impact to drinking water. The group agreed that this was the proper prioritization.

The group also discussed the potential for PFCs in the Quarry Area, as well as other areas of the base. The Navy has done extensive due diligence on how and where aqueous firefighting foams (AFFF) were used. There is a very good overall understanding of groundwater flow across the base, which allows them to plan groundwater investigations. The investigations have focused on these high use areas, which has successfully identified the primary source areas. There has been no indication that AFFF was used or disposed in the Quarry Area. Groundwater in the Quarry Area is not significantly impacted.

Suzanne Johnson asked about the expansion of the sampling program to the west side of the base and how requests for the use of groundwater are handled. Paul said that the Navy would receive information on the proposed use and then make a determination. The occurrence of PFCs has clouded the issue of groundwater use and is prompting the Navy to generally decline requests for groundwater use.

Catherine Ferdinand said that the property owners along the west side of the former base are limited to the College, Town, U.S. Coast Guard, and MRRA. These entities are familiar with the deed restrictions and understand how they work. They also understand what actions are required if groundwater use is desired.

The group also discussed the private well testing program along Bath Road. This area includes many commercial properties which do not likely have private wells. The Navy is looking at Water Department records to determine if they receive public water. There are about 30 properties in this study area.

The path forward for the private well sampling program includes notifying property owners of their results, and providing bottled water if the action levels are exceeded. The Navy will devise a plan for additional monitoring, since they do not feel that one test will necessarily be conclusive. Mike Daly said that testing around the former Pease Air Force base has shown that concentrations are generally static.

- GWETS PFC Treatment Update – Paul Burgio

A pilot study has been ongoing for several years to study removal efficiencies for a suite of compounds. Samples have been collected before and after the HiPox unit and before and after the carbon treatment system. The focus of the studies since the beginning of this year has been on the carbon system since the HiPox unit apparently is ineffective on treating PFCs. Carbon in the two large vessels was replaced last fall – one was replaced with coconut-based carbon and the other with another type of carbon called Filtrasorb 600. Extensive sampling has been conducted since November to evaluate breakthrough (i.e., concentrations above action levels), which has not occurred yet. Once all of the data is collected, a performance evaluation will be conducted to determine how to best treat groundwater going forward.

Greg Preston closed the meeting with two takeaways. One takeaway related to how the new (anticipated) health advisories may affect laboratory services. He said that there are only 10 to 12 labs in the country that are equipped to conduct these low-level analyses. The work is very time consuming and requires a number of certifications to ensure there is no cross-contamination from other sources. He is concerned that the lack of laboratory capacity and increased demand will delay sampling projects.

Greg also mentioned that he has been surprised at how infrequently homeowners test their water for typical water quality parameters. Regardless, Greg emphasized that the Navy is very focused on the private well sampling program to determine if NASB-related contaminants are present in private well water.

4. Questions

There will be a public meeting in July relative to the proposed Record of Decision for the OSSR site. The next RAB meeting will likely be in September but no date has been set.

Meeting adjourned at 7:00 p.m.