

**RESTORATION ADVISORY BOARD  
MEETING NOTES  
FORMER NAVAL AIR STATION BRUNSWICK, MAINE  
THURSDAY, JANUARY 19, 2017  
FAIRFIELD INN AND SUITES  
BRUNSWICK, MAINE**

**MEETING ATTENDEES**

Paul Burgio	U.S. Navy, BRAC PMO/RAB Co-Chair
Thuane Fielding	U.S. Navy, BRAC PMO
Robert Leclerc	U.S. Navy
Tom Brubaker	Mid-Coast Regional Redevelopment Authority
Mike Daly	U.S. Environmental Protection Agency
Marilyn St. Fleur	U.S. Environmental Protection Agency
Chris Evans	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
Dave Page	Town of Brunswick Representative to RAB
Anna Breinick	Town of Brunswick
Tom Farrel	Town of Brunswick
Jeff Orient	Tetra Tech
Carol White	BACSE Technical Advisor
Antoinette Mercadante	BACSE
Josh Katz	BACSE
Catherine Ferdinand	Bowdoin College

**1. Introductions**

Paul Burgio (U.S. Navy Base Realignment and Closure (BRAC) Coordinator for NAS Brunswick and Restoration Advisory Board (RAB) co-Chair) opened the meeting at 4:30 p.m. Everyone in the room introduced themselves. Paul reviewed the agenda for this afternoon's meeting.

- New Business

Paul is implementing a new document tracking matrix to show what documents will be issued each quarter. For many years, this was not possible given the large volume of reports. Now, the number of reports is more manageable and this will be a good tool to let everyone know what to expect. Paul will send the matrix out to everyone in late February or early March.

**2. Recent Activities Update**

- GWETS PFC Treatment Study – Paul Burgio

The groundwater extraction and treatment system (GWETS) has been reconfigured several times over the past few years to address emerging contaminants, and has undergone extensive testing. A third carbon vessel is being installed, although it is not likely that all three vessels will operate in series simultaneously. The Navy is still reviewing what type of carbon to use in this vessel.

David Chipman asked if the sampling port after the HiPOx unit was removed. The sampling port is still there but is not being used because it is well known that the HiPOx unit won't remove perfluorinated compounds (PFCs), although it does remove 1,4 dioxane. Effluent samples of the system as a whole are still being collected for the full suite of target contaminants, including PFCs.

Paul reviewed the history of the treatment study and the monitoring results. Breakthrough for PFOA was noted last fall in the mid-point sample (i.e., concentrations exceeded the EPA health advisory of 0.07 ug/l). The lead vessel, which contained coconut-based carbon, was then replaced with coal-based carbon. The Navy will continue to operate the system with two vessels in series, and will continue collecting sampling data until PFOA breakthrough is again seen at the mid-point.

The coconut-based carbon in the lead vessel was installed in November 2015, so it lasted about a year before PFOA breakthrough.

- Quarry (Munitions Clearance, RI/FS) – Paul Burgio

Paul reviewed the history of the various response actions for the three main components of work at the Quarry Site: munitions, radiological, and chemical. Regarding munitions work, the Navy has cleared about 24 acres of land by the “detect and dig” method, which is time consuming and expensive. A map was displayed showing how grids were established to methodically complete this work. The Quarry munitions explosives of concern (MEC) remedial investigation (RI) report summarizes the actions taken and what areas still need additional work. Regarding impact to soil and groundwater, the report states that the only unacceptable chemical risks are for PAHs in soil. The data shows that risks relative to groundwater, surface water and sediment are acceptable. The Navy is in the process of reviewing stakeholder comments.

Paul also discussed the draft Feasibility Study which contains conclusions relative to the radiological, chemical and munitions studies. While no significant radiological issues were found, Paul is waiting for regulatory concurrence on that. As stated previously, the only chemical risks identified are for PAH compounds in soil. Iver Mcleod said that DEP agrees there are no groundwater issues, but he noted that local background levels for some metals are above MEGs. The remedy for this Site will include land use controls relative to groundwater use, and monitoring.

A map was displayed showing the area of elevated risks relative to PAHs in fill soil. The group briefly discussed the fact that PAHs are common and ubiquitous in soil across the former base.

While there remains some potential for encountering small MEC items within Area 1 (waste disposal fill area) and Area 2 (“kick-out” area), risks are low and considered acceptable.

The draft FS report contains remedial alternatives to address MECs and PAHs:

1. No action – this would result in restricted access and use of the land, and is not a reasonable option.
2. Cap the fill area (about 2.8 acres), complete MEC clearance work, and implement soil and groundwater land use controls (LUCs) – this option allows for use of the land, with excavation restrictions within the cap area.
3. Complete removal of all contaminants – infeasible due to cost.

Catherine Ferdinand asked whether solar power development would be possible on top of the cap. This is likely an acceptable use, although the cap may need some design considerations to support the equipment. Bowdoin would need to evaluate the distance between the cap and where the power would be used to determine feasibility.

- Site 4/Building 584 Investigation – Jeff Orient

Site 4 includes a small acid/caustic pit that was originally outside of Building 584. In the mid-1970's the building was expanded to cover over the pit. Low-levels of VOCs have been found in groundwater, but are being addressed under the Eastern Plume response actions. The ROD stated that the pit would be addressed if the building was ever removed.

Additional investigations were initiated last September. The first step was to determine where the pit was, since available information was not clear. Two possible locations were identified and soil borings were placed in both locations. Soil and groundwater samples were collected, and borings/wells were also completed downgradient of the two locations. Samples were analyzed for VOCs, SVOCs, metals and PCBs.

For groundwater, no exceedances of MCLs or RAGs were found for VOCs, SVOCs, and PCBs. Jeff said that total metals were above criteria in well GW3, but dissolved metals were not. For soil, only a single PAH was above criteria in the sample from soil boring SB08. Jeff said that a white substance was found in some of the pit soil samples, but no unusual laboratory results were observed. There was no evidence of oil or PCBs.

The Navy is currently reviewing the Technical Memo summarizing this work.

### **3. 2016 in Review**

- Picnic Pond Investigation – Paul Burgio

The Picnic Pond investigation report was issued last August for stakeholder comment. Paul had told everyone not to rush, but he is now asking for comments so the report can be finalized. Paul summarized the conclusions for surface water, porewater and sediment:

- Surface Water – most constituents were detected infrequently. Metals were found at higher concentrations in Ponds A and B versus in Picnic Pond. PFOS and PFOA were detected in surface water samples.
- Porewater – VOCs were detected in porewater but were below ecological benchmarks.

- Sediment - elevated levels of pesticides, PAHs, and TPH were found at select locations. The distribution of metals follows the expected conceptual site model – metals move with and are deposited with fine materials and can move downstream with significant storm events. Organics are bound to organic carbon.

Contaminants have entered the system from overland and outfall sources, and generally accumulate in sediment. Sediment can move downstream from one impoundment to another during significant storm events. The impoundment system sediments are retained by the dam at the end of Picnic Pond. Metals concentrations are generally consistent with background, and PFC concentrations in surface water do not pose unacceptable risk. Concentrations of pesticides, TPH, and PAHs in sediment may pose some risk to human or ecological receptors.

Paul said that the Navy has a very long funding process, so they are trying to understand what level of remediation may be needed. Dredging is very expensive, and would need to be planned well in advance. He suggested that a technical meeting may be warranted to discuss the results of the Picnic Pond study.

David Page said that the impoundment ponds are continuing to function as they were intended and contain most of the impacted sediment. He mentioned that there are many cases where dams are being removed, but that cannot happen here. The group briefly discussed stormwater permitting – the Navy was operating under a stormwater permit, but no permit exists for MRRA (or other property owners) at this time. It may be challenging to determine who will permit and maintain this system in the future.

- Eastern Flightline Phase II Investigation – Jeff Orient

Most of the Eastern Flightline Area (EFA) investigative work was completed in 2014 and 2015. The objective was to see if VOCs in groundwater were from multiple minor localized releases or from more significant sources. The focus was within the vicinity of the EFA, but work extended to impoundment ponds. During Phase 2 of the work, samples were also collected at the NEX and Site 12 to help consolidate those investigations.

The investigative work showed that groundwater flows to the southwest, then bends towards the southeast towards the impoundment ponds. No significant VOC sources were found – impacts to groundwater appear to be from multiple minor releases of VOCs and are not related to the Eastern Plume. New staff gauges were installed in the impoundment ponds, and the new surface water elevation data now fits with the conceptual site model.

- Sites 1/3 Landfill Air Investigation – Jeff Orient

Additional air sampling was completed in June of 2016 to follow up on the 2012 air sampling results. The 2016 results were similar to the 2012 results, and were well below screening criteria. A trip report summarizing this work is currently under review with Navy.

- OSSR ROD – Paul Burgio

Paul signed the Record of Decision (ROD) for the Orion Street Skeet Range (OSSR) in September of 2016. Lead-contaminated soil was removed so that No Further Action was achieved for soil. Groundwater was excluded from the ROD, since it is being addressed as part of the PFC and EFL studies.

- Coombs Road Residential Well Sampling

The Navy and DEP joined efforts to collect samples from 35-40 private wells. It was a time-consuming process to obtain signed agreements from each homeowner before sampling. Although the focus was on PFCs, samples were analyzed for VOCs and 1,4 dioxane also. No water quality sampling results exceeded any criteria. The Navy, EPA and Maine DEP will determine next steps, although Paul believes that additional sampling may be conducted in 2018. They will likely collect samples from a sub-set of the private wells, starting with those where detections were found. The results of this study will be reported such that homeowner confidentiality will be maintained.

No other contaminants were analyzed for (i.e., bacteria). The Navy's statement that their water was safe to drink was relative to the analytes they sampled for.

Carol White thanked the Navy and DEP for completing this work. This was one of the highest priorities for BACSE.

- Bath Road Residential Well Sampling

Four residential wells were sampled in October and November 2016, and no PFCs found. The commercial businesses in this area were generally not very cooperative.

#### **4. 2017 Priorities – Paul Burgio**

- Sites 1/3 Landfill Cap Extension

The radiological work for this Site is almost complete. Some screening results were higher than expected but still below standards and not of concern. The Navy is very conservative relative to radiological matters.

The southern edge of the cap was originally not completed due to the Navy's mission when the base was active (the area was used for munitions-related activities). Since the ROD stated that the cap would be completed if the base ever closed, the Navy is working to comply. Paul said that the cap will be completed this year, and will include soil removed from the skeet ranges and maybe Site 7.

- Quarry Decision Documents

Paul expects to complete public meetings this spring, and to sign the ROD this summer.

- Site 12 Transfer

The Finding of Suitability to Transfer (FOST) for Site 12 is under Navy review. It includes four parcels, which will all be used for passive recreational use. There are a total of 45 acres slated for transfer in 2017. About 15.5 acres will be granted to MRRA, and about 29.5 acres will be granted to the Town.

- Fitch Ave Skeet Range and Site 7 Soil Removals

Lead-impacted soil will be removed from the Fitch Avenue skeet range, similar to the OSSR. This soil will also be placed under the Site 1/3 cap. Following this removal action, this Site will be suitable for unrestricted use.

At Site 7, there have been several removal actions to remove cadmium-impacted soil, with the hope that cadmium levels in groundwater would decrease. During the most recent (currently ongoing) removal action, two munitions items and a small radium item were found. These findings have slowed the latest soil removal effort down, and is why this soil probably will not be placed under the Sites 1/3 cap.

- LUCIP Implementation

Paul signed the land use control implementation plan (LUCIP) in September. The Navy has developed a database to keep track of the various property owners and related restrictions. Property owners will get a letter each year asking them to fill out a form to confirm that no violations of the LUCs have occurred. The first annual property owner's meeting was held last summer, and Paul hopes to get all property owners to attend the next meeting. The Town, MRRA and Bowdoin are major property owners.

One of the biggest challenges is implementing a system that notifies the Navy when a property owner needs to excavate soil. Paul is not comfortable with the process now, and said that he is trying to implement a system similar to Charleston, South Carolina. The primary issue in Brunswick is that it's not clear where proposed work is, and therefore, it is difficult to determine what restrictions apply. The process needs to allow property owners to seek permission to dig, or to remove/modify restrictions if appropriate.

The group discussed whether the Navy's LUC restrictions are consistent with the State's restrictions (outlined in the Uniform Environmental Covenants Act or "UECA"). Mike Daly said that EPA wants the State covenants to be consistent with the Navy's restrictions, and to run with the land (i.e., follows new property owners). The Navy supports the UECA process since it helps to protect their remedies. The UECA covenants are between the property owner and DEP, and do not involve the Navy. The UECA covenants are imposed at the time of transfer.

Catherine Ferdinand asked about properties with restricted groundwater use, and whether a hydrogeologic study could be used to change the restriction. Paul thought that if all of the stakeholders agreed, such a restriction could be modified. If such a request were made, the Navy,

EPA and DEP would jointly need to make the decision to change the restriction. The Navy won't release or change any restrictions unless all parties agree that it is appropriate to do so.

The group discussed Site 12, and how it will ultimately be owned by two separate entities – MRRA and the Town of Brunswick. The perimeter of Site 12 is fenced, and the property will be conveyed as is. The fence is not part of the remedy, so the Town and MRRA can decide how to manage the property in the future to accommodate future users and wildlife.

#### **4. Questions**

No other questions were raised. The next RAB meeting will likely be in May 2017.

**Meeting adjourned at 6:30 p.m.**