

**RESTORATION ADVISORY BOARD
MEETING NOTES
FORMER NAVAL AIR STATION BRUNSWICK, MAINE
THURSDAY, SEPTEMBER 15, 2016
FAIRFIELD INN AND SUITES
BRUNSWICK, MAINE**

MEETING ATTENDEES

Paul Burgio	U.S. Navy, BRAC PMO/RAB Co-Chair
Greg Preston	U.S. Navy, BRAC PMO
Matt Slack	U.S. Navy, Radiological Affairs Support Office
Robert Leclerc	U.S. Navy
Suzanne Johnson	Brunswick Representative to RAB/RAB Co-Chair
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
Scott Libby	Town of Topsham Representative to RAB
Dave Page	Town of Brunswick Representative to RAB
Linde Smith	Town of Brunswick
Jeff Orient	Tetra Tech
Carol White	BACSE Technical Advisor
Antoinette Mercadante	BACSE
Juris Apse	BACSE
Josh Katz	BACSE
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) opened the meeting at 4:40 p.m. Everyone in the room introduced themselves. Paul reviewed the agenda for the meeting.

2. Radiological Program Update – Matt Slack

Matt (U.S. Navy, Radiological Affairs Support Office) attended this meeting to give an overview of the Historical Radiological Assessment (HRA) that was completed in 2014 for the NASB and to update the group on the current status of the radiological program. The HRA included review and study of base activities from 1943 to 2011 (68 years), and this historical information was used to determine where further assessment was warranted. Some buildings and/or sites were identified in the HRA as “impacted”, meaning that further work was needed. The HRA identified 19 sites with

potential for low-level residual radioactive contamination. Matt said that naval air stations do not typically have significant radiological contamination. At NASB, radium was used on dials, signs, and gauges for illumination. Many common household items also contain radium for the same purpose.

The scoping surveys recommended 19 sites for further study. Most of these sites are burial areas around the base, since at the time the areas were active there were no requirements or rules for disposal of used items containing radium. No residual radiation was found in the weapons area, and no other areas were found with high levels that would have necessitated restricted access or emergency actions.

The radiological program is guided by the Multi Agency Radiological Survey and Site Investigation Manual (MARSSIM), which is a guidance document that provides for uniform and consistent investigations. Work plans were developed consistent with this manual, which were reviewed by the Stakeholders.

Matt reviewed the process to conduct a Scoping Survey, including how surface areas are scanned for radiation. This work may also include test pits and collection of samples. The sampling program includes analysis for specific isotopes, since the compounds of concern are well defined. The goal is to be very thorough at any given area to support a conclusion that no further work is needed, if nothing is found.

The initial work typically includes a surface scan. Matt said that a surface scan over bare soil can be very different than over asphalt, which contains granite aggregate. In Maine, there is a lot of granite which exhibits higher background levels of radiologic isotopes than many other materials.

If a radiological issue is identified, the typical remediation approach includes removal of the items by excavation or physical removal (such as grinding impacted concrete from a floor), and collection of post-excavation samples. The sampling results are compared to applicable standards to verify completion of the work.

The final report is about 15,000 pages, which is mostly data reports. This report has been extensively reviewed by his office and has also been reviewed by Maine DEP and EPA. Even though cleanup standards are met at every site, a risk assessment is still completed to demonstrate that the problem has been completely addressed.

Of the 19 sites that were identified as “impacted”, no significant work was needed at most of them. The sites needing further work were mostly the landfill sites – Sites 1/3, 2, 6, 7, 9 and the Quarry Site. At Sites 1/3, a recent surface scan revealed a small volume of impacted material that will be removed and consolidated under the cap. Material removed from other sites may also be placed under the Sites 1/3 cap. At Site 9, a surface scan identified anomalies which turned out to be from naturally occurring minerals and not radioactive material. Since Site 9 is where incineration ash was buried, test pits will be completed soon to investigate subsurface ash and other debris for the presence of radioactive material. At the Quarry Site, Matt said that no radiological impacts were found and that this site is being recommended for unrestricted release.

Matt discussed further the findings at Sites 1/3, which has a soil cap with a french drain system. At the outfalls, there is granite rip rap with sand and mud. The surface scan identified possible impact, but laboratory samples showed only low levels of naturally occurring radiologic material. The drainage pipes are above the cap, so the material in question is not debris but likely from the fill used to construct the cap.

Suzanne Johnson asked about future land use controls to restrict access to this and similar sites. These parcels will eventually be transferred with restrictions in place. MRRA will likely take these parcels for surface uses such as ball fields or parking. A solar array is also a possible surface use. The future property owner(s) must manage the restrictions to prevent future excavation and require maintenance of the cap.

There were 19 sites identified as “impacted” where scoping surveys were conducted. Work at 14 of these sites is now complete. Additional activities are planned at Sites 1/3, 7, 8, 9 and 18.

The group further discussed the test pits that are planned for Site 9. The plan is to collect samples of the ash (as opposed to the soil around the ash) to evaluate the most impacted zones. Test pits are the best method to view the subsurface in detail.

3. Recent Activities Update

- OSSR Decision Documents – Jeff Orient (Tetra Tech, Navy contractor)

The Orion Street Skeet Range (OSSR) decision documents were available for public comment this summer. A Record of Decision is scheduled to be finalized by the end of September 2016.

- Sites 1/3 Landfill Gas Sampling – Jeff Orient

A report of potential exposure to noxious gas emanating from the landfill was received in 2011. Landfill gas samples were collected from sampling probes in 2012, which showed that all sampling results were well below screening values. A round of routine landfill gas and ambient air sampling was completed in 2016, and the preliminary results also indicate that all parameters are again well below screening values. A summary report will be issued regarding the 2016 sampling event this fall. The work included collection of meteorological data from a portable weather station.

- Residential Well Sampling – Paul Burgio

Samples were collected from private drinking water wells along Coombs Road in April and June. Participation of the homeowners was very good; only one homeowner was not available for sampling. Samples were analyzed for VOCs, perfluorinated compounds (PFCs), and 1,4 dioxane. No exceedences of any action levels were found.

Another area along Bath Road is being investigated for private wells, although this area is mostly industrial/commercial with municipal water. The Navy has identified four to five properties that

may have private wells, and they are working on access to those properties. The Merrymeeting mobile home park in this area is serviced by municipal (Town of Brunswick) water.

Suzanne Johnson thanked Paul and his group for getting this work done. It was great news to learn that no private wells have been impacted.

The group discussed groundwater flow and contaminant migration at the former base. While contaminants such as 1,4 dioxane can migrate long distances, the bedrock ridge near Coombs Road has likely limited migration. Hence, the Eastern Plume is mostly discharging into Merriconeag Stream and Mere Brook. The results of the private well sampling program help to confirm the Conceptual Site Model that has indicated no connection from the Eastern Plume to the bedrock aquifer east of Merriconeag Stream/Mere Brook.

The Navy expects to verify these results with additional private well sampling in another year. The Navy will also continue to work on access agreements to sample private wells along Bath Road.

The group discussed how research is conducted to determine whether a property has a private drinking water well or not. Along Bath Road, the Navy has researched Town water records and has also visited all of the target properties. It is rare to find driller's logs or GIS database information for private wells because there are no regulations that require registration.

- GWETS PFC Treatment Update – Paul Burgio

The Navy has been conducting a pilot study since last November to determine the most efficient treatment method for 1,4 dioxane, VOCs, and PFCs. The HiPox unit has been effective for 1,4 dioxane and VOC removal but not for PFCs. The focus of this study is the carbon treatment units, to see if treatment for PFCs is effective. The first carbon unit was filled with coconut-based GAC and the second vessel was filled with a high end coal-based GAC. The sampling results have shown good removal, and a report on this matter is expected late fall 2016/winter 2017. The lead vessel has shown some breakthrough; however, the Navy is waiting for full breakthrough to fully evaluate the efficacy of these materials.

4. Current and Planned Work

- Picnic Pond Report – Paul Burgio

Paul said that the Picnic Pond report was released three weeks ago. His consultants were asked to prepare preliminary steps forward, which have not be reviewed or sanctioned by the Navy. Stakeholders are now being asked to comment, although due to its size and complexity there is no due date for comments at this time.

The risk assessment considered four receptors – teenager trespassers who might swim (assumed to be very infrequent), maintenance workers, construction workers, and recreational users (assumed to be more frequent than swimmers). All of these receptors carry many assumptions about length

of exposure time, frequency, etc. Fish consumption was not considered since there do not appear to be many fish in this stormwater retention system.

The preliminary risk assessment indicated potential risk to recreational users (human health) and to benthic invertebrates in sediment (ecological).

Mike Daly said that EPA has not reviewed this report and he is not sure they will agree with these risk assessment conclusions. Comments are expected from all of the stakeholders. This is a very big, technical report and Paul wants everyone to take their time reviewing it. There is no other work planned for this project this year.

The group discussed what types of benthic organisms may live in sediment, and how impact to those creatures could affect other animals in the food chain. These issues are not addressed in the ecological risk assessment at this time. However, impact to porewater and surface water appears to be minimal.

Suzanne Johnson asked about using data from Coffin Pond to establish background levels. All of the stakeholders will be commenting on the appropriateness of this approach.

Paul reiterated how large and complex this project is. The group needs to carefully consider the risk assessment and make sure that the conclusions are appropriate. If dredging is needed, it would be very expensive and would need to be very focused. It will not be possible to abandon any of the ponds since they are all part of the drainage system that is removing contaminants from stormwater.

- Building 584 and Site 4 Environmental Assessment - Jeff Orient

Site 4 is a historic acid/caustic pit used for disposal of liquid wastes. Building 584 was expanded in the past, which covered over the pit. The site was investigated in the 1980's and a Record of Decision was issued in 1998. Since the exact location of the pit was unknown (after it was covered by building expansion), a geophysical investigation was conducted to locate the pit. A soil and groundwater sampling program is scheduled for this month.

- Additional Carbon Vessel Installation at GWETS - Paul Burgio

As discussed, a study has been ongoing to evaluate the efficacy of carbon at removing PFCs from groundwater. Monthly sampling will continue until complete breakthrough is observed. The data from this study will determine the performance of the two types of carbon and the optimal configuration of the system in the future.

- Quarry Investigations – Paul Burgio

When the Quarry Site was discovered, there were radiological concerns, munitions concerns, and chemical concerns. As presented by Matt Slack, no further action is recommended for radiological concerns. A draft munitions and explosives of concern (MEC) report will be updated to include

current work. Paul believes that this work will define the boundaries of the site. The Navy is working with DEP and EPA to address their comments.

The current work is being conducted by USA Environmental and includes surface and subsurface removal actions. These actions will be included in the MEC report. The report will present three standard feasibility options: 1) no removal (not possible since removals have already been completed); 2) remove everything (may not be feasible in terms of cost); and 3) a combination of removal of identified MEC with risk assessment and land use controls (most likely outcome).

5. Questions

Carol White asked for clarification of priorities. Paul said that the OSSR decision document comments are due next week, but that there is no deadline for comments on the Picnic Pond report. The Phase V PFC report should be reviewed after the OSSR to help refine the path forward for PFCs.

Paul is working on a spreadsheet of deliverables and timelines for remaining projects. He is working with DEP and EPA to prioritize these projects. This summary spreadsheet will help to plan for reviews. The spreadsheet should be available in November.

BACSE has not been receiving monitoring reports from Watermark. This appears to be a persistent problem with them. Paul said that he will investigate.

Mike Daly said it would be good to combine efforts for the monitoring events under the LTM program and look at the big picture instead of numerous smaller pieces. This will help with the PFC investigations in particular. Groundwater may be its own operational unit (OU) and hence may have its own ROD. He said the time is right to shift focus to the remaining CERCLA sites and to groundwater as a whole. Many of the monitoring plans for the individual sites are outdated, so it would make sense to create one new monitoring plan.

The next RAB meeting will likely be in January 2017 but no date has been set. The meeting will be in the Town Hall if it is available.

Meeting adjourned at 7:05 p.m.