

**RESTORATION ADVISORY BOARD
MEETING NOTES
FORMER NAVAL AIR STATION BRUNSWICK, MAINE
THURSDAY, SEPTEMBER 25, 2014
BRUNSWICK TOWN HALL, BRUNSWICK, MAINE**

MEETING ATTENDEES

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

1. Introductions

Suzanne Johnson, Restoration Advisory Board (RAB) Co-Chair opened the meeting at 4:05 p.m. She reviewed the purpose of the RAB process for those people watching the meeting on television, and she also asked everyone at the front table to introduce themselves. She discussed the structure of the citizen's group Brunswick Area Citizens for a Safe Environment (BACSE). They have been receiving grant funds for 23 years, which are used to retain an environmental consultant to advise them. She then introduced Paul Burgio (U.S. Navy Base Realignment and Closure (BRAC) Coordinator for NAS Brunswick) as the other RAB Co-chair. Paul Burgio introduced Matt Slack as the first speaker of this afternoon's meeting.

2. Historical Radiological Assessment Update (Matt Slack, U.S. Navy)

Matt Slack, Principal Radiological Project Manager, Naval Sea Systems (NAVSEA) Command Radiological Affairs Support Office (RASO) presented an update of the Historical Radiological Assessment (HRA). He was last here two years ago to discuss the draft HRA report. He reviewed the objectives of the HRA program, which are to survey, characterize and remediate (as needed)

sites that are impacted by radiological material. The goal of the program is to release sites for reuse. He explained the acronym MARSSIM, which stands for Multi Agency Radiological Survey and Site Investigation Manual. In essence, MARSSIM guides assessment and cleanup of radiological contamination, and dovetails with the CERCLA process particularly for cleanup actions.

The HRA report was just finalized this year. The research process under the HRA is exhaustive and time consuming, and includes searches of thousands of records, site inspections and interviews. The assessment included NAS Brunswick and all satellite locations. The report is a historical study culminating in 2011 when base activities ceased.

In summary, the HRA identified 19 sites where there is low potential for residual radioactive contamination. The next step is to conduct scoping surveys at these 19 sites. No high level contamination has been found nor is expected, and none of the sites to be surveyed require restricted access.

Past operations at NAS Brunswick included maintenance and calibration of aircraft instruments, dials and gauges that contained radio luminescent material. Many similar items are found in the civilian market such as watches and alarm clocks, glow dots, pressure gauges, etc. In addition, aircraft components such as counter weights and ice detector probes contained depleted uranium. NAS Brunswick contains several landfills where these items may have been disposed.

Many sites that were surveyed were “free released”, including Buildings 41, 200, 250/Hanger 4, 539, 543/544 and Bunker 626. In Building 9, a small area (< 1 square inch) was found to contain radium contamination. Site surveying will be conducted at IR Sites 1 & 3, 2, 6, 7, 8, 9, 18, Building 584 DRMO laydown yard, the Quarry disposal area and the Orion Street disposal area.

The surveying process relies on a number of documents including the Basewide Radiological Management Plan. This document includes a general Sampling and Analysis Plan (SAP) to specify how samples will be collected and analyzed, Standard Operating Procedures and Task Specific Plans. The Task Specific Plans outline procedures to be followed for each specific site, including MARSSIM classification, radionuclides of concern and instruments to be used. The MARRSIM classifications range from Class 1 where contamination is known or where radioactive materials were used, to Class 3 where no contamination is expected.

Suzanne Johnson asked about the Task Specific Plans and whether they have been shared with the stakeholders. Matt said that yes, about half of the plans have been reviewed and approved by Maine DEP and EPA. The review and approval process for these documents is identical to documents prepared for CERCLA activities.

Ed Benedikt asked about the Orion Street area. Matt said that this area will be the subject of a Task Specific Plan, however not until next year. Ed also asked about Building 220, which Matt said is not included on the list of sites to be surveyed because it was determined to not be potentially impacted. The Navy followed the HRA process, which did not indicate the potential for impact. Ed asked that they review Building 220 and the attached buildings, which apparently

were used for machining. Paul Burgio will direct Matt on the next steps in order to follow up on this concern.

Matt showed pictures of the typical instruments used for surveying, including a gamma scanning towed array and a hand-held gamma scanning instrument. The surveys conducted in the outside areas include 100% surface scan for gamma radiation. This process also includes collection of soil samples at a minimum of 20 locations. The results are compared to background levels that would be typical at areas outside of the base.

David Chipman asked how far apart the detectors are on the towed array. Matt explained that the detectors overlap to cover the entire surface area.

Below is a summary of the sites to be surveyed:

- Building 9 was originally a laundry facility but was later used as an electronic and ordnance shop where maintenance and repair of electronic components was conducted. These components may have contained radioactive material. A Class 3 survey identified a very small area containing radium contamination. This area will be cleaned up by removing tiles and impacted concrete. After the cleanup, the entire building will be resurveyed.
- Building 584/Defence Reutilization Marketing Organization (DRMO) area was used to coordinate the sale or disposal of hazardous waste and surplus materials. Some of these materials may have had radiological components. The survey will include the current building and parking area.
- At the Quarry area, granite was originally quarried and the area was subsequently used for disposition of miscellaneous material including ordnance. Numerous subsurface anomalies have been found during geophysical surveys. Material that is removed will be scanned for radiological impact. Ed Benedikt asked if this process will identify other problems such as chemical contamination or ordnance. Paul Burgio said that the Quarry is their most complex site due to possible radiological, ordnance and CERCLA issues. He emphasized the importance of safe work practices, which dictates that material be removed in stages.
- Site 2 is the Orion Street landfill located near the southern end of the main runways. It was used as a landfill for a variety of wastes, and is being included in the survey list because it is unknown whether radioactive material was buried there. Matt said this site has two separate areas. The area under the cap has already been cleaned up; however, the area(s) beyond the cap need to be surveyed. They are clearing trees and vegetation from these areas to accomplish 100% coverage.
- Sites 1 and 3 combined is about 10 acres in size and both accepted hazardous wastes from 1955 until 1973. Wastes were typically buried in trenches or in low areas, and covered with clean fill. Aircraft parts were disposed in a portion of this site, and other debris containing radioactive material may have also been disposed.

- Site 6 is the Sandy Road Rubble and Asbestos Disposal area and is about 1 acre in size. There is the potential for this landfill to contain radioactive material. This site was not discussed during the draft presentation a few years ago.
- Site 7 is the old acid/caustic pit area, and is about 1.4 acres in size. Although this site was primarily used to dispose of liquid wastes, research indicated it was also used by the DRMO facility, and therefore could have also potentially been used for storage of aircraft components. It is for these reasons additional work is recommended, including a scoping survey.
- Site 8 is the Perimeter Road Disposal site. It was used in the 1960's and 1970's for disposal of construction debris.
- Site 9 is the Neptune Drive Disposal Area, which is approximately 20 acres and has been partially remediated. This landfill apparently accepted the ash of incinerated hazardous wastes. It is possible that some of the items that were incinerated and subsequently buried in Site 9 contained radioactive material. There are currently land use controls in place at this site, although restrictions need to be reviewed to determine their applicability to radiological issues. Since surface scanning only detects radiation to about 12 inches, the land use controls need to restrict all soil excavation.

Carol Warren asked if the entire area will be scanned, since much of Site 9 has been excavated and filled with clean material. Matt said that yes, the site in its entirety will be scanned.

- Site 18 is the West Runway Site and is part of the former munitions bunker area. Metallic debris was found during test pits completed in 1993. This site is included on the scoping survey list because the type and origin of the debris is unknown.
- The undocumented Orion Street disposal area was identified by former Navy personnel as a place where electronic components were disposed of. This site will be surveyed next year.

Matt discussed the proposed schedule for the scoping surveys, which specifies that most of the sites will be done this year, with Sites 9, 18 and 6 being done next year. Paul Burgio said that because the Quarry and Site 2 are very complex and time consuming, he is not sure how many of these sites can be completed this year.

Catherine Ferdinand asked what type of laboratory testing is done for radiological constituents. Matt said that gamma spectroscopy scanning is done on all samples to determine the type of radiation present. Additional wet chemistry can be completed depending on the results of the scan. The sampling and analysis plans cover the types of laboratory tests, method detection limits, etc.

Ed Benedikt asked for an explanation of risk levels, to workers and the public. Matt said that a health and safety plan is developed for each site to dictate safe work practices for field personnel. Following any remedial work, a risk assessment is conducted for residual contamination. Paul

Burgio said that most of the areas identified in the HRA are also CERCLA sites, which will have land use controls restricting soil excavation and groundwater use.

Paul said that Matt will be back in a few years to discuss the final outcome of the scoping surveys.

3. CERCLA/Due Diligence Update

- Site 12 Berm/Pond Remediation (Jeff Orient, Tetra Tech)

Jeff Orient of TetraTech provided an update of work around Site 12 and the adjacent pond. The focus for this summer was on the pond, and the work associated with the berm is just getting started. The goal for the pond remediation program is to remove any munitions and other concerns to minimize the need for land use controls. Before the remediation work could start, an ecological assessment of the pond was conducted. No endangered species of plants or animals were found. A geophysical survey was completed of the pond and 54 anomalies were found. The majority of the pond was dewatered, and a confirmatory geophysical survey was completed. Field crews are completing the removal of all munitions debris and some construction debris, after which the pond will be restored.

Jeff showed pictures of the excavator equipped with a blast shield, and some of the miscellaneous debris found including jet-assisted takeoff (JATO) bottles. The plan is to continue work on the pond through next week, then move the field crews to the Quarry site.

Jeff said there is a low probability of finding any significant munitions and explosives of concern (MEC) items beyond the berm area. All geophysical anomalies greater than 20 mm in size have been removed.

- Picnic Pond Investigation (Paul Burgio, U.S. Navy)

The stakeholder group conducted a site visit to Picnic Pond in June to evaluate current site conditions, and to revise the SAP for the background study. The SAP is currently under review with the Navy and will then be sent to stakeholders for comment. The objective of the proposed work is to determine background concentrations of a variety of constituents in sediment. This will be accomplished through collection of sediment samples from ponds in and around Brunswick that have similar characteristics. Paul said that one of the ponds they were considering for this study was privately owned and access was not granted. Because of access difficulties, this project will likely not move forward until next spring.

Ed Benedikt asked if the Navy had considered Lily Pond in Bath, which is owned by the city and has public access. Paul said that is one of the ponds they are considering, but that access will still be needed to conduct this work.

- Sites 1/3 Building Demolition (Paul Burgio)

Paul Burgio explained that in order to complete the cap installation at Sites 1 and 3, Buildings 642 and 643 needed to be demolished. The first step in this process was to remove all of the asbestos-

containing materials and other wastes such as transformer fluids, lighting fixtures and smoke detectors. The buildings were then demolished, the fencing around the former weapons compound was removed, and the septic tank was abandoned in place. This process generated one-roll off container of asbestos waste, two roll-off containers of scrap metal, and 1200 tons of building demolition debris. A summary report of this process is scheduled to be released this fall.

Paul said that before the cap for Sites 1/3 is installed, the land surface will be screened for radioactive material.

- Old Navy Fuel Farm (Paul Burgio)

A soil sampling program was conducted this summer which included completion of 23 soil borings. Soil samples were collected for analysis of volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH) and polyaromatic hydrocarbons (PAH). This sampling work was conducted to define the limits of a proposed excavation program, to pre-characterize soil for disposal, and to design a post-excavation groundwater sampling plan. A Technical Memorandum summarizing this work is currently under review with the Navy. Paul said he is hoping to complete the excavation this fall.

Ed Benedikt asked if the sampling work will include analysis for perfluorinated compounds (PFCs). Paul said that the PFC sampling program is just getting started. The Navy is first looking at areas where PFCs were most likely used in the past, such as fire training areas, along the runways, etc. Paul said this sampling program will likely grow in magnitude as they learn more about these compounds and how they were used and stored. Mike Daly of the EPA said PFCs are common at other military sites.

- Quarry Remedial Investigation Update (Jeff Orient)

Jeff Orient reviewed the history of investigative work at the Quarry, which began with test pits and MEC clearance work in 2010. Groundwater investigations in 2012 and 2013 indicate that impact to groundwater has been characterized. There have been no exceedances maximum contaminant levels (MCLs) but sporadic exceedances of Maine's maximum exposure guidelines (MEG) for VOCs, SVOCs, Research Department Explosives (RDX) and metals. A sampling and analysis plan was finalized in September 2014 to continue with remedial investigations (RI) work this fall. This work will require a coordinated effort with multiple contractors to screen for MEC and munitions, radiological impact, and chemical contamination.

Suzanne Johnson asked if a new contractor is working at this site. Jeff said that Tetra Tech does not have sufficient budget under their contract to do all of this work; therefore, USA Environmental is conducting the current MEC clearance work.

The scope for this remedial investigation includes soil, sediment and surface water sampling with analysis for a full suite of potential contaminants. Risk characterizations for human and ecological receptors will also be conducted. The Quarry has been split into six Decision Units (DUs), and each DU will be evaluated separately. Decision Units 2, 3 and 4a are within the Quarry area fence and are of greatest concern in terms of chemical contamination.

Jeff showed a map of the proposed MEC survey transects and RI sampling locations. The green shaded areas on the map will be labeled. Across the street (Route 123) is Brunswick Town Common.

- Eastern Flightline Area Investigation Update (Jeff Orient)

The Eastern Flightline Area encompasses Building 250/Hanger 4, former Building 7/10 and former Hanger 1. Low levels of chlorinated VOCs have been found in groundwater in this area. The objective of the proposed investigation is to see if a specific source is responsible, or if impacts are from general operations around the airfield. The proposed work plan is under review and includes installation of temporary monitoring wells, groundwater sampling and water level measurements. Building 9 (just north of former Buildings 7/10) was once used as a laundry facility, and it is therefore possible that perchloroethylene (dry cleaning fluid) was used there. Jeff presented a map showing proposed well locations and another showing water table elevation contours.

Carol Warren asked why only some of the samples are being analyzed for PFCs. Paul Burgio said that the Navy decided to analyze some samples for PFCs while the field crews were mobilized. This work is however separate from the main PFC investigation. The constituents perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are included in the PCF analysis.

4. Questions

Ed Benedikt said that at the last meeting BACSE raised the issue that land use controls (LUC) are not included on the deeds that are conveyed. Paul Burgio said that he met with Brunswick officials yesterday to discuss how to incorporate LUC information into the town's zoning ordinance. The Navy has also discussed this issue with EPA and Maine DEP. The parties are looking at different ways to make the LUC information more available.

Suzanne Johnson said the town is currently reworking their zoning ordinance and this issue has been raised. Anna Breinich from the Town of Brunswick said this issue is being considered with the new ordinance, which will not be adopted for several months.

Ed Benedikt is retiring as the Chairman of BACSE. Susan Johnson spoke about his dedication and leadership of the group, and Paul Burgio thanked him for his service to the RAB process.

Meeting adjourned at 5:50 p.m.