



DEPARTMENT OF THE NAVY  
BASE REALIGNMENT AND CLOSURE  
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BPMO NE/TB  
Ser 09-039  
November 18, 2008

Mr. Michael J. Daly  
Remedial Project Manager  
Federal Facilities Superfund Section  
U.S. Environmental Protection Agency (EPA)  
1 Congress Street, Suite 1100 (HBT)  
Boston, MA 02114-2023

Ms. Claudia Sait  
Remedial Project Manager  
Maine Department of Environmental Protection (MEDEP)  
Bureau of Remediation and Waste Management  
17 State House Station  
Augusta, ME 04333-0017

Dear Mr. Daly and Ms. Sait:

Enclosed you will find the Final October 2008 Restoration Advisory Board (RAB) Meeting Notes, Naval Air Station (NAS) Brunswick, Maine. These notes are provided for your use/reference.

If you have any questions or comments, please contact the Navy's Remedial Project Manager, Todd Bober at (215) 897-4911.

Sincerely,

A handwritten signature in black ink, reading "Paul F. Burgio", is positioned above the printed name.

Paul F. Burgio  
BRAC Environmental Coordinator  
By direction of BRAC PMO

Enclosure:  
Final October 2008 RAB Meeting Notes, NAS Brunswick, Maine

Copy to:

MEDEP (C. Evans)

Gannet-Fleming (D. McTigue)

NASB (L. Joy, M. Fagan, J. James)

Lepage Environmental (C. Lepage)

NAVFAC MIDLANT (T. Bober)

NAVFAC ATLANTIC (J. Wright, B. Capito)

TtNUS (L. Klink, C. Race, J. Orient)

ECC (A. Easterday, G. Calderone, C. Guido, R. Phinney, J. Kiker, J. Donovan)

Curtis Memorial Library (J. Fullerton)

Copy to: (w/o encl)

BRAC PMO NE (P. Burgio)

NAVFAC ATLANTIC (D. Barclift)

BACSE (E. Benedikt, C. Warren)

CO NASB (CAPT Fitzgerald)

RAB Brunswick Representative (S. Johnson)

RAB Harpswell Representative (D. Chipman)

RAB Topsham Representative (S. Libby)

MRRA (V. Boundy)

**RESTORATION ADVISORY BOARD MEETING  
NAVAL AIR STATION BRUNSWICK, MAINE  
PARKWOOD INN  
15 OCTOBER 2008  
MEETING NOTES**

**MEETING ATTENDEES**

Todd Bober, Remedial Project Manager	U.S. Navy, MIDLANT
Paul Burgio, BRAC Environ. Coordinator	U.S. Navy, BRAC PMO Northeast
Matthew Slack	U.S. Navy, RASO
Claudia Sait, Remedial Project Manager	Maine Department of Environmental Protection
Chris Evans, Project Geologist	Maine Department of Environmental Protection
Mike Daly, Remedial Project manager	U.S. Environmental Protection Agency
Stacy Greendlinger	U.S. Environmental Protection Agency
Al Easterday, Sr. Project Manager	ECC
Gina Calderone, Project Manager	ECC
Doug Heely	Environmental Strategies & Management
Lisa Joy, Environmental Director	Naval Air Station Brunswick
Carol Warren	Brunswick Area Citizens for a Safe Environment
Victoria Boundy, Planner	Midcoast Regional Redevelopment Authority
David Chipman, RAB Member	Town of Harpswell, Maine
Scott Libby, RAB Member	Town of Topsham, Maine
Lawson Bailey	TtNUS
Jeff Brandon	MACTEC Engineering and Consulting
Carolyn Lepage	Lepage Environmental Services
Suzanne Johnson, RAB Co-Chair	Brunswick Area Citizens for a Safe Environment
Ed Benedikt	Brunswick Area Citizens for a Safe Environment
John James, Public Affairs Officer	Naval Air Station Brunswick
Marty McMahan	NAS Brunswick, BRAC
Captain Will Fitzgerald, RAB Co-Chair	Naval Air Station Brunswick Commanding Officer
Ann Fitzgerald	Brunswick Citizen
Weston Watts	Student

**1. RAB CO-CHAIR OPENING REMARKS**

Todd Bober opened the meeting at 7:00 PM. He announced that slides for tonight's meeting, and minutes from the last meeting, are available in the back. Todd reviewed the agenda and said there would be a lot of information to cover tonight.

Todd went around the room and introduced the project team members from the Navy, Environmental Protection Agency (EPA), Maine Department of Environmental Protection (DEP), Restoration Advisory Board (RAB) members, and consultants.

## 2. RAB ADMINISTRATIVE ITEMS

- Old and New Business

Suzanne Johnson asked about the status of the Base Environmental Tracking System (BETS) system to track new information that comes from citizens, former base personnel, etc.

Paul Burgio said that the BETS is still in development, and that the Navy will be focusing on it more this winter. He said the focus for now is data collection in the field. The BETS is lower in priority because they have been so busy with all of the field activities.

Suzanne asked how the Navy is dealing with new citizen reports. Paul said that for now, people should call him and he will track information. He said that DEP has gotten some inquiries, and they are following up. Paul and John James will be points of contact for now until the BETS is up and running. Eventually this new information will get transferred to the BETS. Then, the information will be on a spreadsheet that lists the environmental issues. The public will have access to this system.

Carol Warren asked about getting information from current and former base personnel. She expressed concerns about the timing with the up coming base closure. Paul said that the BETS has been reviewed internally, and they are continuing to collect information from base personnel.

Ed Benedikt asked about the difference between the BETS and the Site Management Plan (SMP). Paul said the SMP has also been shelved as lower priority because of all of the field work this summer and fall. He explained that the SMP is a list of known and active sites. The BETS will track new issues. If anything comes out of the BETS, it will be managed under the Site Management Plan. Paul thought that the SMP would be finalized in December 2008. Carol mentioned that it has been promised for a long time.

Ed Benedikt asked why the Navy has taken records from the public library. Many of the important documents are not there now.

Lisa Joy said the Navy is updating the administrative record, and making sure it is up to date. She was not sure when everything would be put back and when the Admin Record update would be completed. Lisa will let everyone know the status of this effort.

Suzanne asked about the technical meetings for December 2008. Todd said that the technical meeting will either be the day before or after the next RAB meeting (December 3, 2008). Suzanne wanted to confirm that the meetings will be held and she does not have a date preference. Todd said there was no technical meeting associated with this RAB, because there was very little sampling data available at this time. The Navy is focusing on field work and data collection at this time.

Todd said that the agenda for the next technical meeting will be issued a week or two before the meeting. There is a lot of field work going on now, and it is not clear yet what data will be available for the next meeting.

Todd asked Suzanne if there were specific items she wanted to cover. She answered no; that she had no specific items.

Todd presented a proposed schedule of work for Naval Air Station (NAS) Brunswick for the short term. A slide with the schedule was shown. He quickly reviewed the technical items that would be discussed. More details will be discussed in the following presentations.

Suzanne asked about the 1,4-dioxane investigation and whether the results would be available for the December 2008 meeting. Todd said that the field work is on going and will continue this fall. Not all of data will be quick turnaround, so he was not sure how much of the data would be available for the December 2008 meeting. There will be at least some information to discuss in December 2008.

Ed Benedikt asked about the fish tissue report. Mike Daly said it is not ready yet, as the report is being revised based on some technical comments EPA received. He said that the results of the study have not changed. He thought it would be ready in December 2008.

### **3. RAB CHARTER**

Paul gave an update of the new RAB charter and said it was 95% complete. This is also not the highest priority right now. He said it should be ready for the December 2008 meeting. Ed asked for some lead time to be able to review it ahead of time.

Suzanne announced that Scott Libby from the Town of Topsham will join the RAB group. She mentioned his background dealing with water quality issues and said that he would be a good resource. Since the RAB charter has not been adopted yet, it was not clear how to officially nominate him. Todd said that there was no need for formalities. So, Suzanne nominated him and several people seconded the nomination.

### **4. HISTORICAL RADIOLOGICAL SURVEY (HRA)**

Matt Slack, Navy Radiological Affairs Support Office (RASO) Site Manager, gave a presentation on the planned survey. He is from the Navy's RASO in Yorktown, Virginia. He explained that RASO is a technical support group that offers regulatory guidance, training, technical support, and waste disposal coordination. He listed a number of active sites that he and his office are involved with, including NAS Brunswick.

The attached slides provide explanations of what an HRA is and why it is needed. In summary, an HRA is a "paper study" that identifies potential, likely, or known sources of radioactive material, and identifies where these materials were used, stored, or disposed. The study classifies areas as

impacted or non-impacted. The HRA is needed for NAS Brunswick because historical operations at this base are indicative of potential use of some radioactive materials.

Matt explained that RASO provides technical support for active military bases, as well as Base Realignment and Closure (BRAC) bases. The facilities also include decommissioned facilities. MARSSIM (Multi-Agency Radiation Survey & Site Investigation Manual) is a multi-agency manual that provides guidance on how to conduct HRAs at all facilities.

Matt introduced Lawson Bailey, with TtNUS. They are the consultant performing the HRA for NAS Brunswick, with Matt's oversight. Lawson explained that the HRA is the "upfront" work to identify likely or known sources of radioactive material. He said that an "impacted area" has the potential for contamination from past practices and would require further investigation. Non-impacted areas are those with no evidence of radioactive use.

The HRA looks at areas where radioactive uses were possible based on historical records review and interviews. The study looks for activities that may have included radioactive uses. Lawson explained that the word 'impacted' does not mean it is actually contaminated but that the area included radiological use or activity.

Carolyn Lepage asked for examples of historical uses and activities. Lawson said that some airplanes had radium in the dials as a fluorescent source, and uranium was also sometimes used on counter weights and for flight control instruments. Tritium was also used for some gun sights. Most of these materials were not regulated historically. The AEC (Atomic Energy Commission) was established in the early 1960's to regulate radiological materials, which was later replaced by the NRC (Nuclear Regulatory Commission).

Ed Benedikt asked if the term 'impacted' would apply to any place a plane was stored. Matt said they are not sure yet. For NAS Brunswick, people and records are still on base, which will help with the research effort. Some bases have been closed for many years, which makes research difficult. The Navy does not want to speculate at this time. The research conducted under the HRA will go forward to answer these questions. These are examples from other bases and may not apply here.

The research will look for areas where radioactive material may have been used or disposed. The HRA will identify areas needing further attention, and will recommend actions to achieve closure. These actions may include assessment and/or clean up.

The approach for NAS Brunswick will include site visits to inspect potentially impacted areas and records review, including archive records in Virginia and Maryland. The review will also include base licenses, log books, and maintenance records. The team will interview current and former base personnel. The Navy and its consultant will compile the information and evaluate it to prepare the HRA report. The report will be in a searchable PDF format so that all of the back up documentation will be included.

To solicit information, TtNUS set up a toll free number (1-866-941-6426), which is connected to an answering machine. Lawson Bailey will return those calls. An email address is also available

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for people to submit information (NASBHRA@yahoo.com). The team will prepare a Fact Sheet to explain the process and ask for public input.

Matt said that this HRA document is a snapshot in time, and can be reopened in the future. He said this happens frequently at other bases. All of the information they find will be available to the public.

Matt described the HRA guidance that standardizes this process. In the past, EPA, NRC, Department of Energy (DOE), and Department of Defense (DOD) all had different protocols. In 1997 the MARSSIM workgroup was formed to consolidate protocol and guidelines, from assessment to closure. This guidance was updated in 2000 and 2001, and is available on the web.

The team has already started to look at records for NAS Brunswick. Public notices will be issued in November 2008. The draft HRA report will be issued in September 2009, followed by a one year comment period.

Vicky Boundy asked about the next steps in this process. The HRA will identify impacted areas and make recommendations such as a characterization survey. At this point the process would go under BRAC for site assessment and possible remediation.

Capt. Fitzgerald asked about the fact sheet and how this process ties to MRRRA – would this process prevent conveyance of the base to the Midcoast Regional Redevelopment Authority (MRRRA)? Matt said this was a good question, since the public comment period is long. Capt. Fitzgerald asked that the team look to compress this process. Matt said that the public notices need to go out three times to make sure the messages get out, and that the comment period needs to be long to ensure good feedback. All agreed that this will be a big issue if conveyance is delayed. Also, this timeline does not include assessment or cleanup, if needed. Matt said that many questions will be answered by the time HRA goes draft.

Another question was how to identify gaps in information early in the process, and how to keep the RAB up to speed during the process. Periodic updates will be made to the RAB, and general notices will also result in some new information.

There was a discussion about how some people with knowledge may be hesitant to participate for fear of backlash. The team has implemented a number of things to ensure privacy; however, anyone who does give information needs to sign a statement. Interviews can be done one on one if needed.

Ed Benedikt said that citizens often come to them with information, and they don't want their names used. The Navy needs to avoid hearsay, and they need to be able to go back to them if necessary. The Navy has no desire to punish anyone, so people should not worry about recriminations if they come forward. It was also discussed that people who worked on classified information may feel they cannot come forward.

The intent of the HRA is to find out where additional investigation needs to be done. Hearsay information can be reviewed, but needs to be verified in order to publish the HRA.

Suzanne asked if “no further investigation” is ever an outcome to this process. Matt said that Hunters Point had 91 “impacted” areas, but that no further work was needed.

Matt showed an example of an HRA from another site, which included CDs of all of the backup information. The electronic copy has links to the entire backup.

Todd said that any questions will need to be answered by Matt Slack or Lawson Bailey. Todd and others are not qualified to answer questions about radiological matters.

## **5. STATUS OF FALL FIELD PROGRAM**

An update of the 2008 field program was presented.

- Munitions and Explosives of Concern (MEC) Results

Six sites are presently under study, and three of those sites are suspected to have MEC: Site 12, Quarry, and Munitions Bunker West. TtNUS did a geophysics survey, and chemical sampling will be the next activity. Three of the Munitions Response Program (MRP) sites need additional reviews to make sure these areas are safe to work. A picture of the geophysical survey area was shown, with flags marking anomalies. These anomalies could be metal fragments. John James said it was standard practice to dig holes with a backhoe, and then explosives were placed in the hole to detonate them. This made the sound and shock waves go up rather than towards neighbors. These detonations were limited to 5 lb net explosive weight (NEW).

At the Quarry site a rocket motor was found, which was not expected. This area will need to be cleared before additional sampling is performed.

Carolyn Lepage asked why the rocket motor was unexpected. Lisa Joy said that information/documentation that was reviewed before the field work did not indicate that motors would be there. Linda Klink from TtNUS will be at the meetings in December 2008 to provide additional details on the MRP sites.

- EPA/Maine DEP Porewater Study

As part of 1,4-dioxane study, in the Eastern Plume, it was suggested that porewater sampling should be done. DEP and EPA led this effort, since there was so much other field work going on.

Claudia Sait presented an overview of the work, which was completed on August 11, and 12, 2008. DEP provided labor and EPA supplied a mobile lab. Confirmatory samples were sent to EPA’s fixed lab. The field crew completed over 80 sampling locations in 2 days. Claudia presented a map showing where detections were found in the samples. The only detection above criteria was for 1,1-DCE (dichloroethene), which is a chlorinated solvent. Detections were found in clusters. This work will help to identify transect locations.

- 1,4-Dioxane Evaluation of Eastern Plume

Based on the porewater results, the project team has defined 7 transect lines. Additional temporary points are planned for this fall, and permanent monitoring wells are planned for next year. TtNUS has already verified the transect locations in the field. Groundwater samples will be collected for volatile organic compounds (VOCs) and 1,4-dioxane.

Carol Warren asked where the new bedrock wells will be located. Todd said they would be near monitoring well MW-308. Monitoring well MW-309 has been identified as the sentinel well to the east. Chuck Race of TtNUS will be at the December 2008 meeting to provide more detail.

- Site 07 Fieldwork

The proposed soil and groundwater sampling is scheduled to take place in December 2008. A grid approach will be used to define the source of metals in groundwater.

- Site 17 Soil Removal Project

Al Easterday of ECC explained that Site 17 is a former pesticide shop. About 30 cubic yards of soil was excavated in 1994. This soil was spread out and covered with geofabric material and two feet of clean soil. Slides were shown of a test pit program that was just completed to find this buried soil. The top two feet of soil was removed with a backhoe and the geofabric was uncovered. The field crew cut flaps out of the geofabric, and holes were dug by hand into the target soil. ECC collected soil samples, and then replaced the top soil over the geofabric.

Carolyn Lepage asked if you could see the difference between the overlying soil and the formerly excavated soil below. Al said that the impacted soil was in a six to twelve inch layer. Visually, the impacted soil was mottled. ECC also did test pits on both ends of the burial area. Six soil samples were collected from the middle test pits, and two from each end. ECC also collected samples from below the layer to confirm native material. The results will be available in December 2008. After results are reviewed, the Navy will develop a plan to remove the soil.

- Site 17 Remedial Investigation Work Plan and Fieldwork

TtNUS is currently doing geoprobe transects in the Site 17 pesticide storage and disposal area. This work plan was previously reviewed and agreed upon. The plan is to delineate the depth of impact from the previous removal action. TtNUS will also update the risk assessment for this area, and, if needed, a new Record of Decision (ROD).

- Site 9 Northern Area Direct Push Program & Monitoring Well Replacement

Al Easterday presented a map showing the extent of the Site 9 removal action. Contractors are in the process of backfilling and loaming the work area. This area will be hydro-seeded near the end of October.

A work plan was developed for direct push points in the northern area of the excavation to delineate ash. Elevated concentrations of contaminants and ash were found at the end of the

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northern excavation. The direct push work is scheduled for November or December 2008. Around this time, seven new wells will be installed to replace wells destroyed during the removal action. Some of these wells will be couplets.

At the southern area, ECC completed a similar direct push program to define the extent of ash beneath Neptune Drive and to the south. Direct push points were also completed around Building 201 and the athletic field. The work successfully defined the extent of ash under Neptune Drive. The thickest area coincides with the former stream channel, and was about 4-5 inches thick. The thicknesses tailed off to the east and west. The average depth of the ash was about seven feet.

Around Building 201, six direct push points were completed with the collection of groundwater samples for diesel range organic (DRO) analysis. No DRO compounds were detected above Maximum Exposure Guidelines (MEG) and detection limits. Pore water samples were also collected along the northern bank of the impoundment pond. These samples were analyzed for VOCs and DRO. Seven samples had DRO detections above the MEG of 50 ug/l (micrograms per liter). Additional work is needed to look for this source – it does not appear to be from the galley. This pond receives runoff from the flight line and roads.

At the athletic field, treated water from the Groundwater Extraction and Treatment System (GWETS) was used to irrigate the field before the water was known to contain 1,4-dioxane. ECC did four direct push points in the field to collect groundwater samples. No 1,4-dioxane was detected. In this area, groundwater was about three feet below the surface, and the points extended about six to seven feet into the groundwater.

- Old Navy Fuel Farm Well Repairs

Three wells damaged by plowing can no longer be sampled. The current plan is to decommission these wells and replace them with new wells. Several other wells are still in place at this site. A soil removal action was completed at this site in 2003.

- Naval Exchange Cleanup Project

Todd said that a new contractor, AGVIQ/CH2M has been hired to prepare a pre-design work plan (currently under review). The contractor will conduct field work in November 2008, which will take about a week. This data will not be ready by the December 2008 RAB meeting, but will ultimately be used to develop a cleanup work plan.

Suzanne Johnson asked if the only cleanup option involves just soil removal. Todd said many other things have been tried, and none of them worked. The Navy decided to conduct a soil removal action to directly remove the source. This will be very difficult, as there are many utilities and an active road bisecting the site. The removal will be started next summer, and should be mostly done by winter. Restoration and monitoring will be conducted the following year.

- Site 02 Investigation

TtNUS has been doing field work within Site 2 this season. The work plan was approved in 2007, and included a geophysical survey. Test pits have been excavated to investigate geophysical anomalies. The survey was done north of the landfill to investigate high concentrations of metals in the seeps north of Site 2. Soil borings and monitoring wells have also been installed, and groundwater samples will be collected soon. TtNUS will present these findings in December 2008. Ash associated with some of these anomalies was found fairly close to the surface. A resistivity survey was also used to look for the source of metals.

Carolyn Lepage asked whether soil samples were collected for dioxin. Todd said yes, although he was not sure how many were collected. Fill was observed to the north. Additional samples, beyond the work plan, were collected.

Ed Benedikt asked whether a decision tree had been developed to look at the cost of taking samples versus soil removal. Todd said that this is an investigation to find the source of metals in groundwater seeps, and that the need for soil removal has not been determined yet.

- Background Site Walkover

Paul Burgio said that the work plan for the background study has been delayed. It is a big document, and the Navy is not yet satisfied with it. He hopes to be further along with it in the next few weeks. He hopes to do some of the site reconnaissance this fall to assess some of the proposed background locations.

Ed Benedikt asked about the purpose of the study. Paul said he expects there will be lots of discussion when the work plan is published.

- Fall Long-Term Monitoring (LTM) Sampling Event

The Fall LTM sampling event was conducted in September 2008. One residential well still needs to be sampled. This homeowner has agreed to allow access for the sampling, so it should be done soon.

## **6. QUESTIONS AND FUTURE RAB AGENDA TOPICS**

Todd asked for agenda items for the next meeting. Ed Benedikt asked again about the fish tissue study. Mike Daly said that none of the results and conclusions that were presented in the June 2008 RAB meeting have changed. EPA is working on edits to the report. The data that was presented previously has been validated and the results of the study have not changed.

Todd said that the next RAB meeting will be held on December 3, 2008. This meeting will include lots of updates, and there will be a full agenda.

Capt. Fitzgerald asked the audience if there was trust between the citizens group and the Navy, and asked if they (the Navy) were doing the right things? A few members of the audience said there is some mistrust. Ed Benedikt mentioned the background issue, and said he is concerned that the Navy will say that background levels are high in order to lower their cleanup responsibilities. He

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also mentioned the lack of distribution of records. BACSE is a volunteer group, and they need information given to them. Emails have not been forthcoming to notify citizens about draft documents. Paul apologized and said there was nothing intentional if citizens were not included in the email list. The citizen's group will tell the Navy what documents they need.

Carol Warren said that the community has an issue with the schedule. She cited the Site Management Plan as an example, and said that the community does not have a schedule of the work or information about what is funded. Paul said that the Navy has reservations about providing proposed schedules because so much changes while they wait for funding. Carol said the citizens know that many things change, but they want to see what is being asked for.

Paul and Todd talked about the funding process and how fast it can change. Other bases may give up money that they cannot use. This was the case for NAS Brunswick this year – they received extra funding, which allowed them to do all of the extra work this year. Paul agreed that they will provide a rough idea of what projects are being funded in the future. It was further discussed that not everything will get done before the base closes. The citizens want to see the Navy's priority list to ensure that the Navy's priorities match with their priorities. Vick Boundy said that MRRA believes the Navy knows what the MRRA's priorities are.

Suzanne Johnson said that they are not criticizing Paul and Todd – they have moved forward on many items. She said that redevelopment priorities may not be the same as the citizens group. The citizens see the Eastern Plume as a major priority. The citizens do believe in redevelopment, but they have separate concerns as well.

The audience asked who sets priorities for funding. Paul said that funding for 2008 was very low, but that lots of new money came in from other bases. They talked to several people to figure out what work to add for this year. Paul and Todd got a second infusion of money just after that. Paul said that the process should be to propose work and a schedule, then get funding. They should be able to prioritize projects with everyone's input, including citizens. He said that Eastern Plume, Naval Exchange Service Station (NEX), and Site 2 were priorities for this year.

It was discussed that Site 2 is an environmental concern that does not involve redevelopment issues. In the BRAC system there are many competing interests, and funding changes.

Lisa Joy proposed that the December 2008 meeting could be a prioritization meeting for 2009 work. The group could discuss things that will be done and could be done. That way, the Navy will be able to react if additional funds come up. These discussions would need to be done at the technical meeting, to be held the day before or after the next RAB meeting.

It was mentioned that the RAB co-chairs should be controlling the agenda for the next meetings.

There were many accolades to the Navy people working on the environmental issues at NAS Brunswick - good people are doing good work. Todd recognized DEP and EPA, and their role in providing quick review of work plans and reports.

**Meeting adjourned at 9:35**