

A Flurry of Activity at NAS Brunswick

There may not be flurries of snowflakes falling from the sky yet, but there is a blizzard of activity going on at Naval Air Station (NAS) Brunswick. As part of BRAC (Base Realignment and Closure) 2005, NAS Brunswick will close in May 2011. The NAS Brunswick Project team has partnered with Environmental Protection Agency (EPA), Maine Department of Environmental Protection (MEDEP), Brunswick Area Citizens for a Safe Environment (BACSE), and the Midcoast Regional Redevelopment Authority (MRRRA) to accelerate environmental cleanup activities. The environmental cleanup activities include new investigations at the Installation Restoration (IR) Sites and Military Munitions Response Program (MMRP) areas of concern. Other environmental cleanup activities include on-going removal actions, environmental monitoring, groundwater treatment, technical and public meetings, as well as production of numerous deliverables documenting the progress of these Programs.

Activity at NAS Brunswick in 2008

In the Field:

A considerable amount of work has been performed at NAS Brunswick, particularly during the past seven months. In 2007, several work plans were finalized. Subsequently, the 2008 field season has been quite busy and is still ongoing. Below is a summary of these recent and ongoing activities being conducted as part of the environmental cleanup program.

ACTION	DATE
• Site 02 Landfill and Area North Investigations	Fall 08
• Naval Exchange Service Station (NEX) Pre-Design Fieldwork	Fall 08
• Old Navy Fuel Farm (ONFF) Monitoring Well Repairs	Fall 08
• Site 07 Investigation of Source Area Investigation Fieldwork	Fall 08
• Site 09 Soil Removal Action and Site Restoration Completion	Fall 08
• Site 09 Monitoring Well Replacements	Fall 08
• Site 09 Ash Delineation-Northern Area Direct-Push Effort	Fall 08
• Site 09 Ash Delineation-Southern Area Direct-Push Effort	Summer 08
• Eastern Plume Aquifer Study/Recovery Test	July 2008
• Extraction (EW-5B) Well Pump Test, Eastern Plume	November 08
• Site 17 Remedial Investigation Fieldwork	October 08
• Site 17 South Soil Test Pits and Removal Action	October/Winter 08
• Eastern Plume 1,4-Dioxane Groundwater Investigation	Fall 08
• MEDEP/EPA/Navy Porewater Study, Eastern Plume	Summer 2008
• Eastern Plume Bedrock Wells Installation and Investigation	Fall 08
• MMRP Area of Concern Survey Efforts	Summer 08
• Bi-Annual 2008 Long-Term Monitoring Events	April/September 08

In the Office:

Our busy 2008 field season is a result of our Team's aggressive schedule for preparation and review of work plans this year. In 2007, the Navy finalized over 40 different documents. These documents include Long-Term Monitoring sampling event reports, meeting notes, newsletters, work plans, and summary reports. In addition to finalizing these documents, the Navy has been meeting with Team members on a regular basis at technical meetings, on conference calls, and at quarterly Restoration Advisory Board meetings. The cooperative spirit amongst all Team members has allowed for implementation of a fast-tracked environmental cleanup effort in 2008.

What is on the Horizon

The fast pace of work being performed at NAS Brunswick will not be letting up any time soon. There is still plenty of work to be done even after the ground freezes. During the winter months the results of all the field work will be evaluated by the Team and will be used for decision making purposes in planning for future work.

On December 3, 2008, the public is invited to attend a quarterly Restoration Advisory Board (RAB) meeting. The Team will also be meeting again to determine the RAB schedule for 2009 as well as to discuss technical issues regarding the ongoing environmental restoration activities.

The Navy is in the initial preparation stages for conducting the 3rd Five-Year Review for NAS



Test Pit Excavation at Site 2

Brunswick. The purpose of the Five-Year Review is to ensure that the remedial actions selected for the Naval Air Station Brunswick National Priorities List (NPL) sites remain protective of human health and the environment, and are functioning as designed.

For additional information regarding any environmental restoration activities at Naval Air Station Brunswick, please contact Public Affairs Officer, Mr. John James.



Geophysical Survey at Site 2

Site 09 Voluntary Soil Removal Action Update

Beginning in 2006, the Navy initiated a voluntary source removal action at Site 09 to eliminate the source material which should reduce any future groundwater contamination resulting from the source material. It also effectively reduces the long-term operation and maintenance of the site, as well as long-term groundwater monitoring efforts at the site.

During this effort, in excess of 36,000 cubic yards of ash, impacted soil, construction debris, demolition debris and loam/overburden were excavated and sent to an appropriate disposal facility. Backfilling operations and site restoration activities have been completed. In addition, further investigations to delineate the impacted soil and ash at the northern and southern edges of the Site 09 ash landfill area have been completed or are ongoing. In addition, groundwater monitoring wells that were destroyed in order to complete the removal action will be replaced in the fall of 2008. The photos below show the considerable amount of work completed at Site 09 in 2008.



Backfilling Removal Action Excavation at Site 09



Site 09 Remedial Action Excavation with Loam and Hydroseed in Place

Education Corner: What are CERCLA and SARA?

You may have heard these acronyms mentioned at a Naval Air Station (NAS) Brunswick Resoration Advisory Board (RAB) meetings or read them in the NAS Brunswick Environmental Restoration News newsletter. You know they are associated with environmental cleanup, but what do they mean and how do they relate to NAS Brunswick?

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. It was a law which created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. It also established prohibitions and requirements concerning remediation of closed and abandoned hazardous waste sites;

- Provided a means for assigning liability of persons and parties responsible for releases of hazardous waste at these sites; and
- Established a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases that are of immediate danger to human health and the environment.
- Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. These actions can be conducted only at sites listed on the Environmental Protection Agency's (EPA) National Priorities List (NPL).

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the NPL.

SARA

The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA on October 17, 1986. SARA reflected EPA's experience in administering the complex Superfund program during its first six years and made several important changes and additions to the program. SARA:

- Stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites;
- Required Superfund actions to consider the standards and requirements found in other State and Federal environmental laws and regulations;
- Provided new enforcement authorities and settlement tools;
- Increased State involvement in every phase of the Superfund program;
- Increased the focus on human health problems posed by hazardous waste sites;
- Encouraged greater citizen participation in making decisions on how sites should be cleaned up.



How do these Programs relate to NAS Brunswick

NAS Brunswick has been a site on EPA's National Priorities List since 1987 and has a number of smaller sites that are in different stages of the cleanup process. The cleanup of these sites is being conducted under the Navy's Installation Restoration Program (IRP) and meets the requirements of CERCLA and Superfund Amendments and the Reauthorization Act (SARA). The Navy is the lead agency for the site investigations and cleanups, with oversight provided by Environmental Protection Agency (EPA) and Maine Department of Environmental Protection Agency (MEDEP) and with input provided the community and Restoration Advisory Board members.

Information regarding the NAS Brunswick environmental cleanup program can be obtained from the information repository at Curtis Memorial Library as well as the website, <http://nasbrunswick.navy-env.com>. Additionally, the Naval Air Station Brunswick Public Affairs Officer, Mr. John James, can also be contacted with any questions or information you may have regarding NAS Brunswick environmental restoration program.



received information regarding NAS Brunswick. Community members cited such resources as local news media, Restoration Advisory Board (RAB) meetings, Federal and State officials, local Town officials, the public repository of NAS Brunswick Administrative Record at the Curtis Memorial Library in Brunswick, and personal communications such as conversations, meetings sponsored by the Navy, government, or local organizations. The interviewees indicated that they felt a wide variety of media resources should be utilized in order to reach a broad audience. RAB meetings have proven to be a successful means for distributing information to the public as well as receiving feedback from the community. Those interested in attending one of these quarterly meetings can obtain meeting dates and times from publication in the local Brunswick Times Record, in the Navy newsletter, and on the NAS Brunswick Environmental Restoration Program website. The Navy newsletter and website are great ways to catch up on the environmental restoration activities at NAS Brunswick. They also provide the address and hours of operation of the Curtis Memorial Library, the information repository/Administrative Record for NAS Brunswick.

For those that use the internet as their source of information, the new website is available for accessing the updated CRP as well as other NAS Brunswick environmental restoration information. The website address is <http://nasbrunswick.navy-env.com>. Additionally, the Naval Air Station Brunswick Public Affairs Officer, Mr. John James, can also be contacted with any questions or information you may have regarding NAS Brunswick's environmental restoration program.

Partnership and Teamwork at NAS Brunswick

From 2006 through 2008, the NAS Brunswick Team has encouraged partnership and teamwork to order to facilitate and accomplish a faster pace environmental restoration of NAS Brunswick. A successful example of partnership and teamwork is the Mere Brook Investigation conducted between December 2006 and September 2007 at the Eastern Plume.

• Mere Brook Investigation

During the Mere Brook investigation, Team members

played a key role in the planning and execution of the investigation. Working together (along with the Navy's subcontractor, ECC), Team members played an integral part in all phases of the investigation, from the initial planning of the field work to the end of the project. Listed below are some of the key decision-making points during the investigation and how teamwork between Team members resulted in a more streamlined decision-making process which ultimately resulted in a more successful project:

• **Site Walk** – Team representatives, along with ECC, conducted a site walk during the initial planning stages of the field program. During the site walk, in December 2006, consensus decisions between the Team members were made regarding well locations, which were then marked in field. When the actual field work began, this made it much easier to locate the well points, resulting in an expedited field program.

• **Mobile Laboratory Selection** – In January 2007, teamwork between the Team members resulted in the selection of a mobile lab which could analyze the samples collected during the field program to a standard which had not previously been attainable by a mobile lab. This resulted in real-time data being available to the Team. Consensus decision making by the Team regarding sampling depths while the field work

was in progress greatly reduced "down time" in the field.

• Monitoring Well/Piezometer Installation

During the field program, which began in February 2007, Team members were involved on a daily basis regarding decisions on the installation depths of monitoring wells and piezometers. The field program was carried out in various stages which included piezometer well installation in March 2007, monitoring well installation in May-June 2007 and groundwater sampling in August-September 2007. The result of the multi-phase investigation was very successful which in turn provided the stakeholders and Navy with excellent data for decision making purposes regarding Mere Brook.

In addition to the Mere Brook investigation partnering effort, during the summer/fall of 2008, EPA, MEDEP and Navy completed a porewater sampling effort along Merriconeag Stream as part of the 1,4-dioxane investigation for the Eastern Plume.

Partnering and teamwork is encouraged such that all Team members are involved in data collection which results in more efficiency in reaching our cleanup program goals.



Field Team Collecting Porewater Samples

(Continued From Page 1)

to the citizens at a July meeting to introduce the military's efforts to review emergent contaminants. This is a class of contaminants that have only recently come to light as posing problems to the environment or public health. Perchlorate has been very much in the national news lately due to contamination being found in other states. The Navy is in the process of testing several munitions/explosives sites on base to see if perchlorate is present on base. Other contaminants will need to be addressed as they become identified as public health risks.

Another issue which has been moved to the forefront of discussion at the request of the citizen group is updated testing of fish tissue samples from fish taken from Merriconeag Stream and Mere Brook. These fish are showing elevated levels of certain metals and pesticides. The health effects of these elevated levels on the fish populations as well as the risk to human exposure needs further study and review to determine what, if any, impact discharges of contaminated water into streams may have had on these fish. Interested citizens need to know that testing results are available and further analyses have been requested.

Every resident of the MidCoast region should be concerned with the environmental contamination of the Brunswick Naval Air Station. Someday you, your children or grandchildren may have direct contact with this property. I encourage

you to join the discussion at any RAB meeting (scheduled quarterly) or to contact me directly. We are fortunate to have an open dialogue which characterizes the RAB – *but dialogue is only as good as those who participate in the discussion.*

Sincerely,
Suzanne Johnson

Updated Community Relations Plan

The first Community Relations Plan (CRP) for Naval Air Station (NAS) Brunswick was issued September 1988 (E.C. Jordan, 1988), a year after NAS Brunswick was listed on the National Priorities List. The 1988 CRP was intended to provide the residents and community official access to information about the site conditions and actions. It was also intended to establish mechanisms to allow interested community members the opportunity to become involved in the decision-making process associated with the environmental cleanup program.

In April 2008, the Navy released an updated Community Relations Plan as a proactive initiative to better understand the communication needs of the community regarding the environmental cleanup program at NAS Brunswick and to foster continued communication with and outreach to the public.

The purpose of the CRP is to ensure that the local public has input to decisions concerning remedial investigations as well as future remedial action activities, and that the public is well informed of the progress regarding those actions.

As part of preparing the CRP, the Navy conducted independent third-party interviews in order to identify community concerns. Local citizens representing the communities of Brunswick and the two adjacent towns, Topsham and Harpswell, were interviewed and asked specific questions regarding environmental issues in their community and specifically those associated with the NAS Brunswick. A total of 47 interviews were conducted with community representatives from various sectors of the local community including citizens, civil leaders, military, public interests groups, and town officials. The interviews were conducted in accordance with community relations and public participation guidelines and requirements set forth by the U.S. Environmental Protection Agency. The community interview process was conducted in order to identify any issues of community concern and to assist the Navy in developing a program designed to provide and maintain the best possible open communication between NAS Brunswick, regulatory agencies, public officials, residents, and other interested parties, and to encourage community input in the cleanup program decision-making process.

Interview participants were asked how they



October 2008 NAS Brunswick Restoration Advisory Board Meeting

NAS Brunswick's Environmental Restoration Team Members

Navy Team Members:

Paul Burgio – BRAC Environmental Coordinator (BEC), United States Navy, Philadelphia, PA. Paul is the BEC for NAS Brunswick and is responsible for management of the Environmental Cleanup Program for the Navy Base Closure Program Management Office.

Todd Bober – Remedial Project Manager (RPM), United States Navy, Philadelphia, PA. Todd is the new Navy RPM for NAS Brunswick and is responsible for the project management of the Environmental Cleanup Program.

David Barclift – Risk Assessor and Technical Support, United States Navy, Philadelphia, PA. Dave is the NAS Brunswick Risk Assessor and provides technical support to the NAS Brunswick Team.

Amy Van Dercook – Geologist and Technical Support, United States Navy, Norfolk, VA. Amy is the NAS Brunswick Geologist and provides technical support to the NAS Brunswick Team.

Jennifer Wright – Ecology/Wetlands, Technical Support, United States Navy, Norfolk, VA. Jennifer is the NAS Brunswick Biologist specializing in ecology and wetlands. She provides technical support to the NAS Brunswick Team.

Naval Air Station Brunswick Team Members:

Captain William Fitzgerald – Commanding Officer, Naval Air Station Brunswick, Maine. Captain Fitzgerald serves as the Navy RAB Co-chair and provides leadership and guidance to the RAB and the Navy team and communicates with the Navy community at large.

Lisa Joy – Environmental Director, Naval Air Station Brunswick. Lisa oversees all environmental related activities at the base and coordinates with the BRAC Program Management Office in Philadelphia.

John James – Public Affairs Director, Naval Air Station Brunswick. John is responsible for the Navy's internal and external communications, congressional liaison and environmental community relations.

Michael Fagan – Restoration Program Coordinator, Naval Air Station Brunswick. Michael supports the Environmental Director and coordinates all environmental restoration activities.

Regulator Team Members:

Claudia Sait – Remedial Project Manager, Maine Department of Environmental Protection, Augusta, ME. Claudia is the State RPM for NAS Brunswick. She is responsible for state regulatory oversight of the NAS Brunswick Environmental Cleanup Program.



Chris Evans – Project Geologist, Maine Department of Environmental Protection (MEDEP), Augusta, ME. Chris is the Project Geologist for NAS Brunswick. He provides technical support to the NAS Brunswick Team on behalf of the MEDEP.

Michael Daly – Remedial Project Manager, United States Environmental Protection Agency (EPA), Region 1, Boston, MA. Mike is the EPA RPM for NAS Brunswick and is responsible for federal regulatory oversight of the NAS Brunswick Environmental Cleanup Program.

Stacey Greendlinger – Community Relations Support, United States Environmental Protection Agency, Region 1, Boston, MA. Stacey is responsible for providing community relations support to the Federal RPM and the NAS Brunswick Team.

Community Team Members:

Edmund Benedikt – President, Brunswick Area Citizens for a Safe Environment (BACSE), Brunswick, ME. Ed is the BACSE President. He is responsible for providing feedback to the NAS Brunswick Team regarding community concerns about the Environmental Restoration Program.

Carol Warren – Member, Brunswick Area Citizens for Safe Environment, Brunswick, ME. She is responsible for providing feedback to the NAS Brunswick Team regarding community concerns about the Environmental Restoration Program.

Carolyn Lepage – Technical Advisor to Brunswick Area Citizens for a Safe Environment, Brunswick, ME.

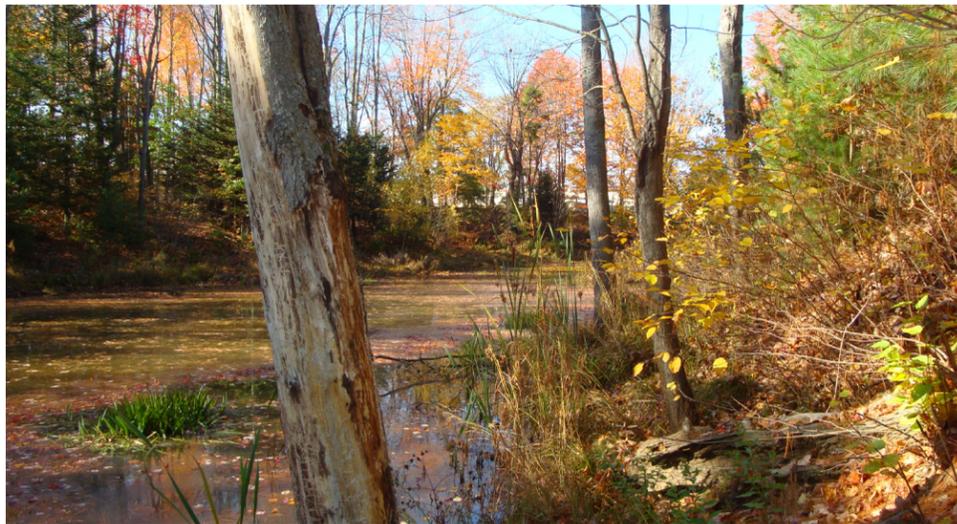
Restoration Advisory Board (RAB) Members:

Suzanne Johnson – RAB Co-Chair. Suzanne is responsible for providing feedback to the NAS Brunswick Team regarding RAB meetings and community concerns about the Environmental Restoration Program.

David Chipman – Town of Harpswell RAB Representative. David is responsible for providing feedback to the NAS Brunswick Team regarding community concerns about the Environmental Restoration Program and environmental matters as they affect Harpswell residents immediately to the south of the base.

Scott Libby – Town of Topsham RAB Representative. Scott is responsible for providing feedback to the NAS Brunswick Team regarding community concerns about the Environmental Restoration Program and regularly reports back to Topsham town officials and residents.

Victoria Boudy – Planning and Environmental Manager, Midcoast Regional Redevelopment Authority (MRRRA), Brunswick, ME. Vicky is responsible for providing feedback to the NAS Brunswick Team regarding the Environmental Restoration Program, MRRRA issues and concerns, and in support of the property transfer.



Upper Impoundment Pond at Site 09

Environmental Cleanup Information and Public Participation

Environmental cleanup program activities began at NAS Brunswick in 1982. State and Federal regulatory agencies provide oversight and concurrence of work conducted, and the RAB provides valuable community input on the cleanup program. Your input is important for the success of the environmental cleanup program.

Please contact Mr. John James, NAS Brunswick Public Affairs Officer, if you have questions, or would like more information.

Mr. John James
Public Affairs Officer
Naval Air Station Brunswick
Brunswick, Maine 04011
Phone (207) 921-2000
Email john.james@navy.mil

The NAS Brunswick Restoration Advisory Board consists of representatives from the state regulatory agencies, federal regulatory agencies, and the community who meet quarterly to provide feedback to the Navy on investigation and cleanup actions. All members of the public are welcome!



Aerial View of NAS Brunswick, Maine

Information Repository

For over 15 years, the Navy has maintained an information repository (i.e. Administrative Record) for the NAS Brunswick that contains project documents and other reference materials related to the investigation and cleanup program for the Base. The repository is updated periodically as new information becomes available.

Curtis Memorial Library

23 Pleasant Street
Brunswick, Maine 04011
(207) 725-5242

www.curtislibrary.com

Hours:

Mon – Thursday, 9:30 AM to 8:00 PM
Friday, 9:30 AM to 6:00 PM
Saturday, 9:30 AM to 5:00 PM (Jun – Aug until 1:00 PM)
Sunday, 12:00 PM to 4:00 PM (Jun – Aug - closed)

Website Links

Naval Air Station Brunswick –
<http://www.cnic.navy.mil/brunswick>

NAS Brunswick Environmental Cleanup Program Website –
<http://nasbrunswick.navy-env.com/>

Navy's BRAC Program Management Office (PMO) –
<http://www.bracpmo.navy.mil/>

DoD Base Realignment and Redevelopment Manual –
http://www.dod.mil/brac/pdf/4165-66-M_BRRM.pdf

US DoD Base Realignment and Closure 2005 Website –
<http://www.defenselink.mil/brac/index.html>

Midcoast Regional Redevelopment Authority –
<http://www.mrra.us/>

Brunswick Area Citizens for a Safe Environment –
<http://www.curtislibrary.com/BACSE/>



Navy RAB Co-Chair's Message

Dear Midcoast Community Members,

As the final commanding officer of Naval Air Station Brunswick (NASB), I am committed to maintaining an open and transparent relationship with the local community as we progress through the base closure process. As part of that effort, I want to ensure Brunswick and Topsham residents that the Navy will continue to be good stewards of the environment and that we are committed to remediating the property that will be transferred once the base closes, as required by law.

The pace and scope of investigation and cleanup activities have increased over the past year including expanded field work at a number of sites and planning efforts for upcoming soil removal activities. In the past few months we have also released an updated Community Relations Plan, nearly completed an updated Administrative Record, and printed this, our third newsletter.

For those familiar with NASB cleanup efforts to date, the Navy has completed "the big dig" at Site 09, removing over 36,000 cubic yards of soil disposed of at an approved landfill. We are currently conducting a sampling effort in preparation for shutting down the Naval Exchange (NEX) gas station and removing petroleum-contaminated soil at that site, beginning next summer. In addition to investigations being conducted at a number of other sites, we are currently performing additional sampling and analysis to determine 1,4-dioxane concentrations in the Eastern Plume groundwater.

With base closure in May of 2011 quickly approaching, we are always looking for ways to "fast track" our cleanup program. The partnership and cooperation between all Restoration Advisory Board (RAB) members is exceptional. The teamwork demonstrated by the Navy, the regulators, the community, the Brunswick Area Citizens for a Safe Environment (BACSE) and the Midcoast Regional Redevelopment Authority (MRRRA) is clearly evident in program execution and process improvements.

Your input matters and I invite every member of the public to get involved by attending quarterly public RAB meetings at the Parkwood Inn located at Cooks Corner. In addition, you may obtain information from our website (<http://nasbrunswick.navy-env.com>) or by visiting the Curtis Memorial Library for information contained in the Administrative Record.

It is only through an open, honest and trusting dialogue between all of us who care deeply about the environment, that we can work together to be good stewards of the beautiful Maine coast environment.

Sincerely,
Captain William Fitzgerald
Commanding Officer

Upcoming Remedial Advisory Board Meetings

The Restoration Advisory Board (RAB) consists of representatives of the community as well as State and Federal regulators, who advise the Navy on environmental cleanup issues and strategies for Naval Air Station (NAS) Brunswick. These meetings are public and you are invited to attend to learn more about the Navy's environmental cleanup activities at NAS Brunswick.

The RAB Meetings are held in the evenings from 7:00 PM to 9:00 PM, within the Town of Brunswick at various locations. The RAB Meeting location is published in the Brunswick Times Record in advance of each NAS Brunswick RAB meeting. During the December 2008 RAB Meeting, the meeting dates will be established for 2009.

2008 Restoration Advisory Board Meetings

03 December 2008, Wednesday



Citizen RAB Co-Chair's Message

Dear Community Members,

RAB meetings are a vital component to the process of insuring timely and proper remediation of environmental contamination which exists at the Brunswick Naval Air Station. Citizen involvement is crucial to insure that citizen-driven priorities for cleanup do not become overshadowed by redevelopment agendas or the Navy's forward deployment to new stations. BNAS and its 3,000 acres will become an integral part of the Town of Brunswick in 2011. So will its more than 26 identified sites of concern, many of which are Superfund sites continuing to need remediation in the years to come, with continuing oversight by state and local governments.

Citizen involvement and representation at the regulatory levels are necessary to maintain focus on areas of remediation not appropriately addressed by redevelopment. For example, groundwater contamination requires constant vigilance and testing to insure remediation is protective of human health. Institutional controls, including mandated public water supply, can provide assurance that contaminated groundwater does not become an immediate public health concern for individuals and businesses which will call the former Navy Air Station their new commercial home.

The Navy recently invited Deputy Secretary of Defense Paul Yaroshack to deliver a presentation

(Continued on Page 2)