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Subject: Distribution of RAB Meeting Minutes, April 30, 2008
Distribution of Public Meeting Minutes, April 30, 2008
NAS JRB Willow Grove, Pennsylvania

Dear Restoration Advisory Board (RAB) Member:

At the request of Curt Frye of the Navy's Base Realignment and Closure (BRAC), Program Management Office (PMO), Northeast, copies of the RAB meeting minutes for the RAB meeting held on April 30, 2008 are enclosed. Minutes from the Public Meeting held on April 30, 2008 to present the Proposed Remedial Action Plan (PRAP) for Site 1 Groundwater are also enclosed. Questions should be addressed to Gloria Abarca, the RAB Coordinator for the Naval Air Station Joint Reserve Base, Willow Grove, at (215) 773-2106.

Sincerely,

Russell E. Turner
Project Manager

RET/nfs

Enclosure: RAB Meeting Minutes
Pubic Meeting Minutes
Presentation Slides
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NASJRB WILLOW GROVE
RESTORATION ADVISORY BOARD MEETING
APRIL 30, 2008**

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**NAS JRB WILLOW GROVE
PUBLIC MEETING TO PRESENT THE
PROPOSED REMEDIAL ACTION PLAN
FOR SITE 1 GROUNDWATER (OU 3)**

Meeting Date: April 30, 2008
Meeting Time: 6:00 p.m.
Meeting Place: Horsham Township Public Library Meeting Room

<u>Name</u>	<u>Organization</u>
Attendance: Mary (Liz) Gemmill (R)	Community Co Chair
Kaye Maxwell-Martin (R)	RAB Member
Eric Lindhult (R)	RAB Member
Rick Myers (R)	RAB Member
Gary Horne	Horsham EAB
CDR. Humphreys (R)	NAS JRB Willow Grove Executive Officer, RAB Co Chair
Bob Lewandowski (R)	Navy, BRAC PMO
Curt Frye (R)	Navy, NAVFAC
Gloria Abarca (R)	Navy, Willow Grove
Hal Dusen (R)	Navy, Willow Grove
William Downs (R)	Air Force Reserve
Evelyn Nacleman	Air Force
Richard Frattarelli	Air National Guard
Lisa Cunningham (R)	US EPA
Charles Clark (R)	PADEP
Jessica Kasmari (R)	PADEP
Russ Turner	Tetra Tech NUS, Inc
Kevin Kilmartin	Tetra Tech NUS, Inc
Scott Shaw	Geotrans, Inc
Andrew Johnson	Geotrans, Inc
(R) Designates RAB Member	

Bob Lewandowski opened the meeting and welcomed all in attendance to the public meeting to present the Proposed Remedial Action Plan (PRAP) for Site 1 groundwater, also known as Operable Unit (OU) 3. This public meeting to present the OU 3 PRAP will be followed immediately by our 35th RAB (Restoration Advisory Board) meeting. Depending on the time to present the PRAP and solicit comments from the public and RAB members, we will adjourn the public meeting and go into our regularly scheduled RAB meeting in about a half hour or maybe a little less.

Mr. Lewandowski introduced some of the principals: Liz Gemmill is the RAB Community Co-Chair; Commander Humphreys is the Navy Co-Chair; Curt Frye is the Navy RPM (Remedial Project Manager); Lisa Cunningham is the EPA RPM; Charles Clark is the PADEP representative; Russ Turner is from Tetra Tech, the Navy's consultant; and Mr. Lewandowski introduced himself as the Base Realignment and Closure (BRAC) Environmental Coordinator. Mr. Lewandowski then introduced Curt Frye, the Navy RPM working for Naval Facilities Engineering Command, to provide a brief synopsis of site history and a description of our proposed approach.

Mr. Frye explained that the purpose for this public meeting is to present the Navy's Proposed Plan for Site 1 groundwater and referred meeting attendees to a projected slide consisting of an overview of his presentation for the evening. The main objectives tonight are to explain the site location and history; describe the Navy's proposed plan; provide information about how the public can obtain additional information and submit comments; describe future events; and summarize how these activities are governed by the CERCLA (the law governing activities at federal Superfund sites) process. Copies of the proposed plan and this evening's presentation slides were provided for anyone interested in following along.

Mr. Frye made his presentation according to the attached copy of his projected slides. Using the projected slide of the CERCLA process, Mr. Frye pointed out the place in the process we are passing tonight, public meeting to present the Proposed Plan. There has been a series of steps and milestones along the way. We have completed the Remedial Investigation and prepared a Focused Feasibility Study, as well as having carried out a soil removal action at Site 1. Tonight we share the Proposed Plan, which is our proposed remedy selection, with the public for comment before we move forward with Record of Decision (ROD), which is the next phase of the process mandated by CERCLA.

Pointing to a projected map of the site, Mr. Frye explained that Site 1 – Privet Road Compound was split into two Operable Units (OUs) that are each treated essentially as two different sites, one for soil (OU 1) and one for groundwater (OU 3). A remedial decision and soil removal action for the soil OU has already occurred in the past. We are talking tonight about the Proposed Plan for groundwater (OU 3).

Mr. Frye mentioned that in the early phases of the CERCLA process, the Privet Road Compound was discovered to be a place across from the Public Works Building compound, near the Base waste water treatment plant and Route 611, where waste was stored, burned and buried. It was called a “waste transfer station” operating in the late 1960’s through the mid 1970’s. This site happens to be located near where the two Navy water supply wells for the Base are situated.

Referring to a projected slide, Mr. Frye summarized the investigation process at Site 1 to date. Site soil was contaminated with PCB’s (poly chlorinated biphenyl compounds) from electrical transformers that had been stored there. No PCB’s were found in the groundwater but we found chlorinated solvents in the groundwater. No connection was found between the PCB’s in soil and the solvents in the groundwater. Further investigation led to the conclusion that the source of solvent contamination was upgradient of this site, off-Base.

The Navy performed a soil removal action in 1999. Approximately 1,200 tons of soil were excavated and disposed off Base. Confirmation soil samples taken after the soil removal action verified that the remaining soils were clean. The Navy prepared a no further action ROD for OU 1, which was signed in September 2006, leaving the groundwater contamination (OU 3) to be dealt with separately.

Groundwater contamination at the Privet Road Compound is deep (approximately 100 feet). The main contaminants were chloroform, PCE (tetrachloroethene), TCE (trichloroethene) and carbon tetrachloride. Human health risk assessment indicated potential risks from site groundwater were not acceptable. The Navy public water supply wells obtain water from this area, but the Base treats the water in an “air stripper” installed and operated by the Navy, but unrelated to any CERCLA program activity. So there is not an immediate concern over groundwater use.

Upon further investigation, the Navy chased the contaminant upgradient to try to locate the source of the plume. This process pointed to an off-Base source past the Navy fence line, across (east of) Route 611. The off-Base source has been suspected over the last few years, but was confirmed with three new perimeter monitoring wells installed at the Navy property line, and agreed to after multiple discussions with regulatory agency personnel resulted in consensus that the source of contamination is off-Base, not Navy-related. However, since contamination is on Navy property, and there is no responsible party available to clean it up, the Navy still has to deal with it in some fashion. A Focused Feasibility Study was developed to consider two alternatives. The No Action, alternative was considered to be non responsive. The second Alternative developed involved land use controls (LUCs) and periodic groundwater monitoring. The purpose of LUCs is to ensure that folks do not drink untreated groundwater, and to enable the regulatory agencies an opportunity to investigate the source upgradient.

Mr. Frye presented a slide summarizing the remedy preferred in the Proposed Plan. It includes LUCs, periodic groundwater monitoring, and review every five years. It is a CERCLA requirement that sites where waste is left, that does not allow for unrestricted use, will receive a formal review every five. Once every five years the Navy will check the available data, like groundwater monitoring results, and compare it to current risk evaluation information to see if risks from the site have changed in the last five year period. This remedy is being called an “Interim Remedy” because it allows the EPA to investigate the

source of the contamination. This property is intended to be transferred one way or another. It is our plan, that this Proposed Remedy including land use controls to protect against use of untreated groundwater will be transferred with the property.

Mr. Frye presented a slide with information about ways that you can obtain additional information about the site or provide comments on the Proposed Plan. One way to obtain more information is to read a copy of the Proposed Plan that's available to everybody tonight. There are also copies available in the library here. Additional information can also be obtained by contacting the people listed in the PRAP, Curt Frye, Lisa Cunningham and Hal Dusen.

As required by CERCLA, The Navy placed a notice of this public meeting in the local newspaper (Daily Intelligencer) on April 17, 2008. The public comment period (as agreed upon by the Navy and EPA in the NAS JRB Willow Grove Federal Facilities Agreement) is 45 days. The public comment period ends May 30, 2008. Any comments received tonight or during the public comment period will be responded to in writing, and will be included in the interim ROD for this OU. Notice of availability of the Interim ROD will be placed in the newspaper after the Interim ROD is completed and distributed.

Mr. Lindhult asked if the soil removal had gone down to the bedrock? And what is the depth to groundwater in that area? Mr. Frye answered that the excavation did not reach bedrock, which is at a depth of about 15 feet in that area. Groundwater depth is about at 20 feet in that area.

Mr. Lindhult asked if there were any down gradient receptors past the Site 1 wells, in the down gradient groundwater flow direction to the north? Mr. Turner answered that, historically, the Air Force had a series of wells (public-type production wells) in the area, but they stopped pumping them in the 1970's, when the Air Force realized that the wells were contaminated. There is actually an air stripper treatment system on the (long since shut down) Air Force water supply system also.

Mr. Lindhult commented that was likely how the contamination got past the two Navy supply wells, because the wells were deep and the pumps were set deep. The ground water beneath Site 1 was being drawn back due to the pumping wells and drawing water from off site. Mr. Kilmartin agreed that the contaminant plume was being pulled onto the Base by the pumping of the supply wells.

Mr. Myers asked if there had been any change in the water quality in the two perimeter wells. Has there been weakening of the concentrations in those wells? Mr. Kilmartin answered that the wells were very new and did not have an extensive sampling history, so no trends have been established.

Mr. Myers asked about soil excavation site details, what did it look like? Regarding the 1,200 tons of soil taken away, were they replaced, and with what? Mr. Frye answered that the area of the soil removal action was near the bowling alley. Mr. Turner added that the contaminated soil was replaced with certified clean soil, and that the excavation essentially looked like you were digging a swimming pool near the bowling alley. It was excavated in stages, 4 feet then another 2 feet in parts, after soil samples were analyzed. In the process, it looked like a big wide rectangular excavation, almost square, about 4 feet deep.

Lisa Cunningham introduced herself as the EPA RPM assigned to the site. Ms. Cunningham mentioned that there is a part of EPA assigned to investigate the former Kellet Aircraft area. EPA met on April 22, 2008 with the contractor and the EPA hydrogeologist who reviews these documents. The meeting with the contractor was to determine the approach for assessment and sampling events at the site. Currently, they are in the process of obtaining access from the current owner/operator to initiate investigation activities and dealing with funding issues to contract the work out.

Mr. Myers mentioned that "Kellet Aircraft" hasn't been existence since the mid 1980's. What happens if it (the groundwater contamination) is coming from there? Is the tax payer going to

have to pay for the cleanup? Or are State taxes going to pay for it? Mr. Lewandowski replied that possibly the majority of these sites are like that, where the contamination happened twenty or thirty years ago. EPA responds with several mechanisms they have to look for funding. Mr. Myers added that there are firms located near there between Kellett and C&C Ford her group could investigate.

Mr. Lewandowski asked if there were any more verbal comments. Any remaining comments should be postmarked by May 30. If anyone thinks of questions or comments after leaving tonight's meeting, send them in to us at the address in the PRAP. We will address those concerns in the Responsiveness Summary of the Record of Decision. There were no further questions or comments, so Mr. Lewandowski adjourned the meeting.

Proposed Remedial Action Plan (PRAP)

Site 1 Groundwater (OU 3)

April 30, 2008

Overview

- Summary of CERCLA process
- Location
- Site history
- How the public can obtain more information
- Comment period and how to submit comments
- Future events

CERCLA Process

- Remedial Investigations completed
- Focused Feasibility Study completed
- Soil removal action completed
- Public meeting to present PRAP

Site Location

LEGEND

- SHIPPA HILL OFFICE
- PROPERTY OF U.S. EPCOR

PAWCO logo

Site History

- The Privet Road Compound served as a waste transfer station between 1967-1975
- Solid wastes were stored, burned and buried
- Soil was contaminated with PCB oil spilled from electrical transformers stored on the site

Site History

- Preliminary Assessment (PA) was completed in 1984
- A Site Inspection (SI) was completed in 1990
- A Remedial Investigation (RI) was completed in 1993
- A Phase II RI was completed in 1998. The Final Phase II RI report was completed in 2002, with addenda RI groundwater reports through February 2008
- A Site 1 groundwater Focused Feasibility Study (FFS) was completed in February 2008



Site History

BRAC
PMO

- The main contaminant in Site 1 soil (OU 1) was polychlorinated biphenyls (PCB's)
- Site 1 groundwater (OU 3) was found to contain chlorinated solvent contamination. The source of groundwater contamination has been proven to be off-Base. PCB's from soil were not found in the groundwater



Soil Removal Action History

BRAC
PMO

- An Action Memorandum for soil removal was issued in 1999
- In June 1999 Navy removed approximately 1,200 tons of soil
- A No Further Action ROD for Site 1 soils was signed in September 2006



Groundwater Contamination Summary

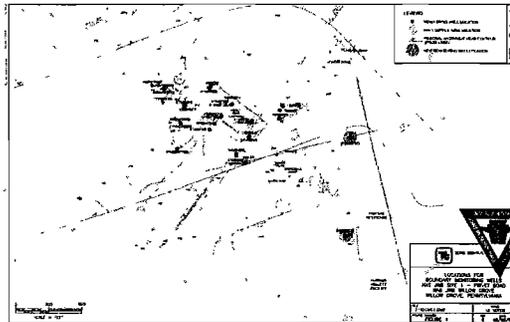
BRAC
PMO

- Chlorinated solvent contaminants in groundwater include chloroform, carbon tetrachloride, PCE and TCE
- Potential human health risks exceed acceptable levels if contact with untreated groundwater is not precluded
- Currently the Navy treats the groundwater from the area before distribution for Air Station uses
- Investigation determined that groundwater contamination originated off-Base



Groundwater Contamination Summary

BRAC
PMO



Site 1 Groundwater Remedial Alternatives Considered

BRAC
PMO

- No Action - Baseline case would include only review of site conditions and risks every five years.
- Land Use Controls (LUCs) and Periodic Groundwater Monitoring - LUCs would be implemented to preclude use of untreated groundwater, periodic monitoring would provide data for EPA and the Navy to monitor protectiveness of the remedy



Site 1 Groundwater Proposed Remedy

BRAC
PMO

- Land Use Controls (LUCs), Periodic Groundwater Monitoring and review of site conditions and risks every five years.
- This is considered an *interim remedy*, that will allow the EPA, with the cooperation of the Navy, to maintain the protective activities currently provided by the Navy until EPA can identify the parties responsible for the contamination
- LUCs will be transferred with the property





How to Obtain Information

BRAC
PMO

- Read the PRAP made available at tonight's meeting
- Review "Administrative Record File" available in the Horsham Township Public Library
- Call or write to the people listed in the PRAP document



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Comments Invited

BRAC
PMO

- Notice of PRAP availability and Public Comment Period placed in the *Intelligencer* newspaper April 17, 2008
- Public comment period ends May 30, 2008



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Future Events

BRAC
PMO

- Navy incorporates public comments into Responsiveness Summary
- Issue *Interim* Record of Decision (ROD)
- Notice of OU 3 ROD availability will be published in the local newspaper
- EPA will conduct a site assessment of the source of groundwater contamination off-Base



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NAS JRB WILLOW GROVE RAB MEETING No. 35 MINUTES

Meeting Date: April 30, 2008
 Meeting Time: 6:35 p.m.
 Meeting Place: Horsham Township Public Library Meeting Room

<u>Name</u>	<u>Organization</u>
Attendance: Mary (Liz) Gemmill (R)	Community Co Chair
Kaye Maxwell-Martin (R)	RAB Member
Eric Lindhult (R)	RAB Member
Rick Myers (R)	RAB Member
Gary Horne	Horsham EAB
CDR. Humphreys (R)	NAS JRB Willow Grove Executive Officer, RAB Co Chair
Bob Lewandowski (R)	Navy, BRAC PMO
Curt Frye (R)	Navy, NAVFAC
Gloria Abarca (R)	Navy, Willow Grove
Hal Dusen (R)	Navy, Willow Grove
William Downs (R)	Air Force Reserve
Evelyn Nacleman	Air Force
Richard Frattarelli	Air National Guard
Lisa Cunningham (R)	US EPA
Charles Clark (R)	PADEP
Jessica Kasmari (R)	PADEP
Russ Turner	Tetra Tech NUS, Inc
Kevin Kilmartin	Tetra Tech NUS, Inc
Scott Shaw	Geotrans, Inc
Andrew Johnson	Geotrans, Inc
(R) Designates RAB Member	

Bob Lewandowski opened the meeting 35th Restoration Advisory Board (RAB) meeting and asked each person present to introduce him/herself and state their affiliation. Russ Turner introduced himself as the project manager for the Navy's consulting contractor, Tetra Tech. Curt Frye identified himself as the Navy project manager. Kevin Kilmartin introduced himself as a geologist for Tetra Tech, contractor to the Navy. Bob Lewandowski introduced himself as the BRAC (Base realignment and closure) environmental coordinator for the Navy. Commander Eric Humphreys is the Base Executive Officer (XO) and he serves as the military co-chair for the RAB. Kaye Maxwell Martin is a RAB member. Jessica Kasmari is with the Pennsylvania Department of Environmental Resources (PADEP). Charles Clark is the PADEP project manager. Liz Gemmill is a RAB member and the community Co-chair. Eric Lindhult is a RAB member. Rick Myers is a RAB member. Gary Horne represents the Horsham Environmental Advisory Board. Rich Frattarelli is with the Air National Guard. Hal Dusen is Director of the NAS JRB Willow Grove Environmental Division. Bill Downs is with Air Force Headquarters environmental allocation division. Andy Johnson is with Tetra Tech, managing consultant services for the Air Force, and Scott Shaw is also with Tetra Tech, providing geologist services for the Air Force. Gloria Abarca is the NAS JRB Willow Grove Environmental Division point of contact for RAB issues, and Lisa Cunningham is the EPA project manager. Mr. Lewandowski welcomed everyone and thanked them for coming and mentioned that there had been a question from the floor about any upcoming planned events at the Air Station. Cdr. Humphreys replied that with the Base man power drawing down at the same time security needs have been drawing up as a consequence of 9/11, the balances of those issues have caused the Navy to rethink all the activities held on the Base. Things can change, but right now there are no events or concerts planned.

Mr. Lewandowski presented the agenda for tonight's meeting and gave a brief summary of the pending property transfer under Base Realignment and Closure (BRAC), referring to and reading from a letter from Pennsylvania Governor, Ed Rendell to the Secretary of the Navy, Donald Winter. The letter

describes the process and determinations made by the Commonwealth of Pennsylvania in pursuing implementation of Section 3703 of the US Troop Readiness, Veterans Care, Katrina Recovery, and Iraq Accountability Appropriations Act of 2007. The Commonwealth contracted with L. Robert Kimball and Associates to prepare an implementation plan report that describes three options. The Governor has determined that the preferred option includes converting all land and facilities within the Air Station fence line, together with all land, easements and air installation compatible use zones outside the fence needed to maintain and operate a fully functional airfield to the Joint Interagency Installation (JII). The Commonwealth is not seeking to include the 54-acre Base housing area (located away from the main Base) currently used to house Navy personnel. Pennsylvania wishes to proceed with the transfer process, but not to interfere with military operations slated to continue through September 2011. However, the Commonwealth is prepared to work within a phased approach to be able to accept operational responsibility for some parts of the JII by early 2009. Mr. Lewandowski offered to field any questions or thoughts regarding the proposed JII or property transfer issues now or later if there are any.

Since there were no questions or comments on JII issues, Mr. Lewandowski introduced Bill Downs from the Air Force Reserve to begin the discussion of Air Force remedial plans.

Mr. Downs referred to his Willow Grove Air Reserve Fact Sheet that was distributed at the last RAB meeting. That document describes program plans and progress for Fiscal Years '07 and '08. The Air Force environmental consultant, Tetra Tech Geotrans, has been asked to present a briefing about the results of the investigation.

Scott Shaw mentioned that he was going to provide an update on investigations at the Air force POL (fuel spill site) maintained by the Air Force on the northern end of the Base. Historically, this area resulted from a jet fuel spill in the late 1970's. Over the last five to ten years, the Air Force developed a remedial strategy of combining chemical oxidation in-situ with and biosparging. Chemical oxidation deals with residual contamination and free-phase product. Biosparging would follow that to deal with dissolved contamination in groundwater. Tonight's presentation (a copy of the presentation slides is attached) will concentrate on investigations performed in the natural gas right-of-way, adjacent to the Base right near the fuel storage tanks.

Mr. Shaw mentioned that site-wide soil sampling performed in 2002-2003 identified about six areas off-Base that required additional remediation. The investigation included test pits, soil and groundwater sampling, and membrane interface probe (MIP) investigations. The MIP is a drilling technique that collects data of three types simultaneously. The MIP probe has three sensors a photoinitiation detector (PID) a flame ionization detector (FID) and an electron capture device (ECD) to detect different classes of chemicals in the soil or groundwater. After the MIP survey was completed, the Air Force also performed soil and groundwater sampling to confirm the findings. This investigation extended down to bedrock in the area. After collecting the data and receiving the laboratory analysis, the Air Force then prepared a series of transect cross section maps to describe where data gaps exist or where remediation is needed in soil or groundwater. Risk assessment was performed using the data as part of a treatment and alternatives analysis. One issue that was recognized was that since groundwater discharges to surface water, the Air Force will have to investigate this potential pathway in the future. Treatment alternatives reviewed included No Action as required as a baseline, and various soil excavation and treatment options listed in the projected slide.

Future work includes compliance monitoring of groundwater quarterly; the Air Force intends to move the existing biosparging system that has been operating on-Base to the off-Base leased property associated with the site; and to start right-of-way excavation and restoration efforts.

Mr. Horne asked if the Air Force had been in contact with the pipeline owner about the effect that the contamination could have on the pipe in the ground? Maybe they could go through and install a lining in their piping internally. Mr. Shaw explained that the Air Force is aware of the issue of potential impacts on the pipeline, and that Transco (the owner) is with them in the field. Bill Downs explained that the Air Force is looking at doing the excavation in conjunction with Transco. Transco will be doing some maintenance on their pipeline at the time the pipes are exposed. Mr.

Downs added that the Air Force has a draft document only now. When the final document is available in June, it will be posted on the Library's Web site.

Mr. Lewandowski introduced Curt Frye to provide a summary of the work we've done so far and work we intend to do for the Site 3 landfill investigation. Mr. Frye mentioned, that he has about six slides to show to give a quick update. Referring to a projected slide of the site, Mr. Frye summarized the rationale for performing the recent test pit investigation that resulted in the discovery of significant evidence of historical landfill operations. The Navy had planned to excavate eight test pits, but then based on the finding significant amounts of debris mixed with soil, ended up doing about twice that number. Sampling performed in conjunction with the test pit program verified that the site was not contributing to the (solvent) contamination found in groundwater. A lot of the debris found seemed to be inert metal-type debris that came out of the shops, like soda cans and that type of thing. However, some lead was measured in a sample at a concentration at around 4,000 ppm, which was a significant issue for our plans going forward. We felt that we needed to delineate the extent of that debris.

The intent of the planned second phase landfill delineation, that we are in the process of doing, is landfill delineation; involving electromagnetic (EM) survey followed by the second phase of test pits and soil sampling. The EM survey was performed in March. Referring to projected slides, Mr. Frye pointed out the locations of the test pits excavated last year, and described the photos of the buried debris encountered. Referring to projected slides from the EM survey, Mr. Frye showed locations where the geophysicist outlined potential features hidden under the ground. Next steps for the site will be to receive the full EM Survey report and use that to help select second-phase test pit and soil sample locations. We hope to start the second round of test pits this summer. Hopefully, we will have further results to discuss with the RAB in the fall and see whether or not we have pinned down the extent of this landfill. There were no questions, so Mr. Frye handed over to Russ Turner to discuss Site Screening Area number 12, which is adjacent to Site 2, another landfill.

Mr. Turner began by referring to a projected slide of the site to provide orientation of the site location in the southwest corner of the Air Station property near the corner of Maple Avenue and Horsham Road. SSA 12 is next to and was initially studied in conjunction with the Site 2 - Antenna Field Landfill, but since Site 2 is moving along (more advanced in the decision-making process), SSA 12 is being studied separately. SSA 12 is the site identified by Navy follow-up to EPA photographic interpretation identification of anomalies in historical aerial photographs. The Navy found and removed drums and surface debris in about 2003 and obtained soil samples for analysis. Due to a data quality issue with the soil sample analysis, the Navy asked Tetra Tech to obtain confirmation soil samples to verify previous results. The field personnel had difficulty locating the previous sample locations because the site was overgrown with thick brush. When we cleared some of the brush, we encountered differing site conditions than the Navy had anticipated. There was uneven terrain and we found protruding materials, possibly aircraft parts, a bit reminiscent of what was encountered at some of the locations at Site 3. The Navy was concerned that possibly there could have been past practices analogous to what was found at Site 3 not yet discovered, so while the Navy was performing the EM survey at Site 3 that Curt Frye described earlier, they authorized Tetra Tech to perform a similar EM survey here at SSA 12.

Analytic results from soil confirmation sampling found PAH (polyaromatic hydrocarbon) compounds above regulatory screening levels and above background. These were petroleum-type compounds like anthracene. Metals were also found, namely arsenic and thallium, generally in the range of background concentrations as well as a couple of pesticide compounds. Arsenic concentrations were found up to 13 ug/kg, but the site-wide background concentration of arsenic was determined a few years back to be up to about 10.5 ug/kg. So the main things encountered were the PAHs, the petroleum compounds.

An EM survey was carried out at SSA 12 to investigate possible undocumented historical landfill activity at SSA 12. Referring to preliminary EM survey report figures, Mr. Turner pointed out several areas of apparent electromagnetic returns (anomalies) that could be associated with buried waste, but necessarily, maybe there are buried utility lines like electricity, and we know that the runway drain pipes run somewhere in this area. So, it is important to view this data as preliminary. The geophysicists final report will have more to say about these anomalies.

Mr. Turner summarized by saying that we now have the SSA 12 soil confirmation analytical data and will soon have the EM survey report under review. From there the team will get together to decide next steps.

Mr. Horne mentioned that if he remembers correctly, the Kimball report had that corner (of the Base) being developed in one of its plans. Mr. Turner replied that it is too early to conclude that there is any unknown landfill activity there. This area is wooded and there was some construction-type debris on the surface. The main drainage of the airfield runs through there (pointing to the projected slide of the area). These EM anomalies could be caused by underground utilities or storm drain pipes. The Navy saw some objects on the surface and felt it was appropriate to investigate with the EM, so they instructed Tetra Tech to do so while they were already preparing to mobilize to the field. Conditions were favorable before the spring and summer leaf growth (that would interfere with the global positioning system (GPS)). Mr. Lewandowski added that the Navy is really about at step two out of a ten step process relative to looking into historical events at this site. Mr. Horne stated that it seems to him that this investigation has been going on for ten years. If Kimball is going to do a report where he is going to have that corner of the Base totally developed and you have detections of metals and whatever, then why would he take that data and say, well, we're going to build offices there? That doesn't make any sense. Mr. Lewandowski explained that the Navy did talk to Kimball people and provided input. At the time of these discussions this (EM) survey hadn't even been done yet. We knew we had gone out to this area and removed debris from the surface and taken soil samples. We had gone back out to resample because of a problem with the data. That is when we started to be concerned about the terrain, saying something is not right here. Coincidentally, the Navy had an EM survey planned for Site 3, so we decided to extend the investigation to SSA 12. That could give us some insight to anything we may have here. Unfortunately we did not have this information when we were talking to Kimball for their report, but in fact, this is all pretty preliminary. We will be going through this new data analyzing what it really means in the next several weeks. Mr. Turner added that he would not jump to conclusions about the red and blue dots on the projected slide. The Navy has to investigate the possibilities, and that is still underway. There were no more questions on this topic.

Mr. Lewandowski mentioned that the Flyers playoff game started about a half hour ago, but there were two more things to talk about before the meeting could adjourn; RAB improvement topics and setting a date for the next meeting. At the last meeting, while discussing RAB improvements, we agreed to perform a small survey by mail of RAB member preferences. We received a pretty good response to the survey; 14 community members and ten state and federal officials responded. We found that two community members no longer wanted to participate in the RAB, but one of those wishes to continue to be informed about meetings. About 85 percent of survey respondents said that they would like to receive work plans and draft reports, and there was a preference to receive these documents by e-mail. Now, after we put the survey together and looked at our options, we realize that due to the large size of these documents, it will be difficult to these documents by e-mail. However, the Horsham Township library people have been good to this group (providing this meeting space and posting documents to their Web site). So one of the things we are kicking around now is working with the Horsham Township Library to put the draft reports on the Web site. Then the Navy would e-mail notifications along with the Web link to interested parties to let them know that the report is there to review. If that is okay with everyone, we will explore that and make sure we do not become a pest to the Library. We would like to listen if anyone has other ideas or suggestions.

Liz Gemmill said that she thinks that approach would be fine. Anything that can save trees is welcome. Most people, and all of the people in this group, are computer literate, and have access to the Web site. Mr. Lewandowski added that if there is anyone who prefers, we will be more than happy to send out a paper copy to them.

Mr. Lewandowski asked if there were any other thoughts regarding the RAB; it seem as though our (public) participation is getting smaller and smaller. That may mean we are doing a really good job

looking at it from the see-the-glass-half-full point of view. We hope we are not boring people, or not providing information that they find is useful enough to come and spend an hour and a half do discuss every few months. Certainly, if there is anything we can do, we'll be glad to try to do it.

Mr. Horne explained that when he called to find information about this RAB meeting and what happens here, the person he spoke with explained that the RAB deals with contamination and EPA cleanup. There are other environmental impacts from the Air Base that are not related to spills, one of which Mr. Horne wanted to talk about is flooding on Keith Valley Road. That is just one of many environmental impacts. Mr. Lewandowski replied that the RAB was set up primarily just by the name of it, Restoration Advisory Board, but that certainly it can be a vehicle and an opening when people have issues like that. We have folks here from the Base and from the Department of the Navy that can sit and talk with you or arrange a meeting to go over issues you have in that area. Mr. Horne stated that he brought some handouts. He would like to pass them out whenever it is appropriate. It will take five minutes. Mr. Lewandowski suggested that he could do that now, and then our next step will be to determine a date for the next meeting.

Mr. Horne explained that he had made a copy of the USGS (United States Geological Survey) map and was looking at the (storm water) runoff from the runway and how it would affect flooding on Keith Valley Road, and a potential solution to that. He did some rough calculations (copy of Map and calculations is attached), concluding that roughly 20,000 gallons of water would run off from the runway and head towards Keith Valle Road. Based on the elevation differential, about 59 psi (pounds per square inch) static pressure potential would develop. That could certainly account for most of the flooding we are experiencing on Keith Valley Road. Mr. Horne added that maybe this will be an opportunity to solve this before the JII takes over and also that he had raised this topic here about four years ago, suggesting installation of check dams on the downslope side of the runway to try to alleviate some of this runoff coming from the runway.

Mr. Lindhult asked if complete runoff from the entire runway was assumed. There are areas of grass there also. Commander Humphreys explained that the runway is crowned, so water runs off the sides of the runway, and there is a storm water runoff system on Base to channel that water. A general discussion ensued with various meeting attendees adding information about the the Base storm water system design, components and outfalls. Some of the runoff from the south end of the runway flows to the south and enters the Pennypack creek; some from the middle of the runway flows to the retention basin located near Site 3 discussed earlier tonight, and discharges out through the Golf Course; and an unknown portion of the storm water from the north end of the runway does flow through a storm water basin constructed on multiple levels that discharges through Outfall No. 8 toward the north. Mr. Horne suggested that the basin toward the north may be tiered, but it is not built up like a check dam, and hoped that this issue resolved before there is a new commission in charge of the base. Mr. Lindhult pointed out that there could be an error in one of the calculations handed out. Cubic feet of water would be multiplied by 7.4803 to obtain the corresponding gallons of water, not divided, resulting in much more storm water than shown on the handout. Mr. Lewandowski suggested that after speaking with Cdr. Humphreys, he would like to suggest that possibly the Base public works department can look at what has been done for storm water in the past, look at historical records of any flooding and the design of that basin we have walked through in the wetland area. Then the XO (Executive Officer - Cdr. Humphreys) will talk to the planning folks and maybe set up a future meeting to discuss this issue. How does that sound? We'll try to make sure it's not another four years. Mr. Horne agreed, saying that he sees this as an opportunity since there is a change in regime coming.

Mr. Lewandowski thanked Mr. Horne for coming to the meeting. The next act is to set a date for the next RAB meeting. The proposed date is August 27, that has been checked as not in conflict with the Horsham Sewer and Water Board. There were various potential summer vacation conflicts with that date and Mr. Lindhult mentioned that he would be away at his wedding. After general agreement by those in attendance, September 17, 2008 was set for the next RAB meeting. Mr. Lewandowski thanked everyone for coming and adjourned the 35th Restoration Advisory Board meeting.



**NAS JRB
WILLOW GROVE**

**BRAC
PMO**

**RESTORATION
ADVISORY BOARD
(RAB)**

April 30, 2008




Agenda

**BRAC
PMO**

- Update on Joint Interagency Installation (JII) property request
- Air Force Reserve Discussion of Remedial Action Planned
- Site 3 Landfill Investigation Status
- Site Screening Area 12 Preliminary Soil Results
- RAB Member Survey Results




JII Property Request

**BRAC
PMO**

- Governor Rendell letter to Navy Secretary Winter April 11, 2008




**Air Force Reserve
Remedial Action Plan**

**BRAC
PMO**

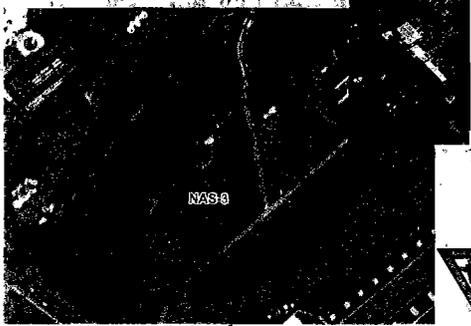
Point of Contact

Bill Downs (478) 327-1073




Site 3 Landfill Investigation

**BRAC
PMO**



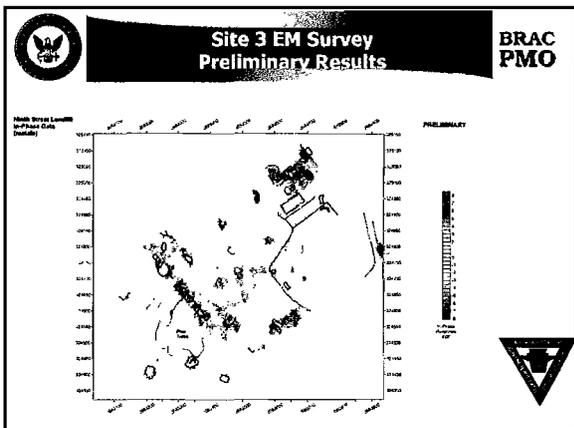
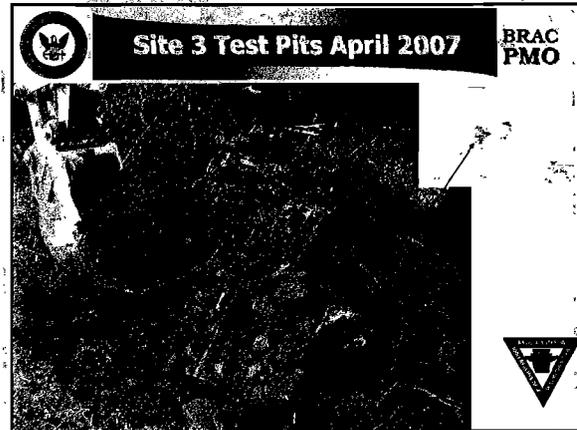
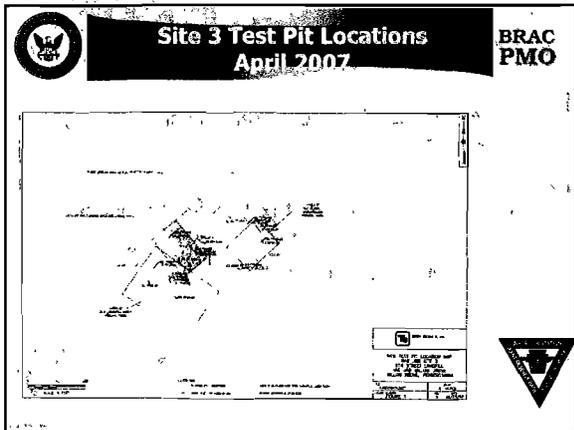


**Site 3 Landfill
Investigation Status**

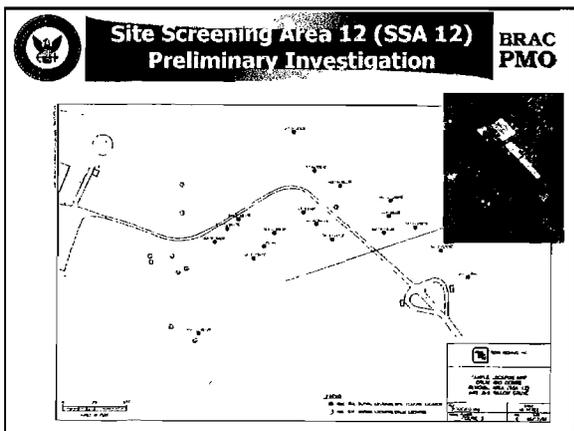
**BRAC
PMO**

- Preliminary test pits and soil samples performed in April 2007 discovered landfill waste and soil contamination
- Navy awarded contract for landfill delineation investigation including electromagnetic (EM) survey, confirmation test pits and soil/waste sampling
- Tetra Tech Performed EM Survey in April 2008

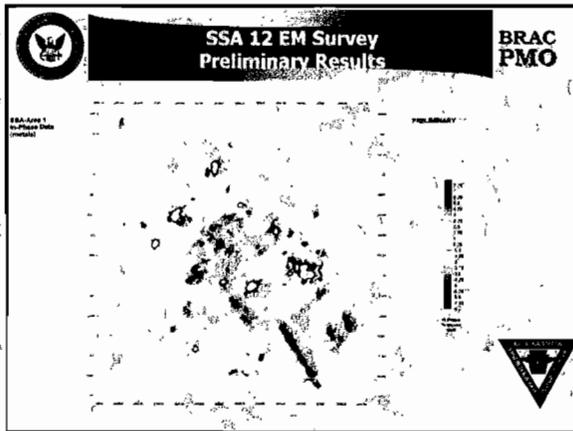




- Site 3 Landfill
Next Steps** BRAC PMO
- Final landfill delineation work plan (UFP SAP) anticipated May 2008
 - Commence test pit and soil sampling activities in June 2008
 - Landfill Delineation Report due approximately September 2008



- SSA 12 Investigation Status** BRAC PMO
- Navy contractor performed drum and debris removal and soil sampling in 2003
 - Tetra Tech performed confirmation soil sampling in December 2007
 - Evidence of previous landfill activities in the area included uneven terrain, construction debris piles and protruding buried waste including corroded metal aircraft parts and melted glass bottles
 - Tetra Tech Performed EM Survey in April 2008



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- SSA 12 Next Steps
- BRAC PMO
- Navy internal draft confirmation soil sampling report under review
 - EM survey geophysicist report due this week
 - Next steps to be determined
- 14

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- RAB Process/Improvements
- BRAC PMO
- RAB member survey results and discussion
 - Document availability at Horsham Township Library and on line
 - RAB member suggestions
- 15

Willow Grove POL Site ST-01



Restoration Advisory Board Meeting
Wednesday April 30, 2008



Presentation Outline

- Introduction – Site History
- Remedial Strategy
 - Chemical Oxidation
 - Biosparging
- ROW Investigations
 - Initial Investigation (November – December 2006)
 - Follow-On Investigation (November – December 2007)
- Planned Activities – remainder of 2008 and 2009

Planned Activities Reported to RAB in October 2007

- Relocate biosparge system to off-base leased property associated with the site
- Perform biosparge system operations and maintenance, and performance sampling at off-based leased property associated with the site
- Complete four compliance sampling events
- Complete a follow-on investigation at POL Area to fill-in remaining data gaps, and if necessary complete an alternatives analysis

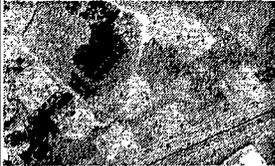
Past Investigations



Follow-On Investigation

- Treatment Area Well Inventory
 - Aquifer Testing
 - Well Development
 - Groundwater Sampling and Free Product Observations
- MIP Investigation
 - PID
 - FID
 - ECD
- Confirmation Sampling
 - Soil Sampling
 - Groundwater Sampling
- Risk Evaluation
- Remedial Measures Evaluation

Treatment Area Well Inventory

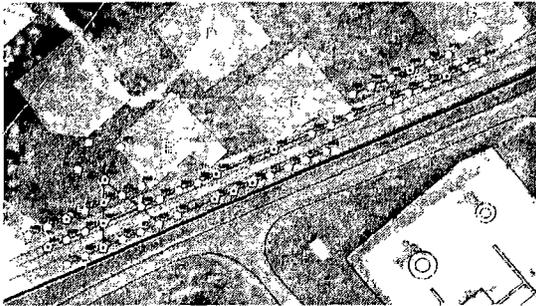


- Evaluate treatment area resources
- Located wells in each of the off base treatment areas
- Completed aquifer tests in treatment areas A, C, D, E, F and G
- Collected groundwater samples in treatment areas A, C, D, E, F and G

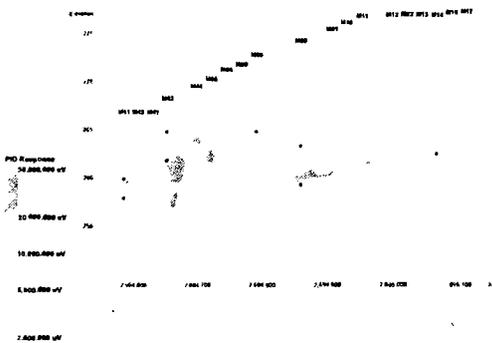
Treatment Area Well Inventory

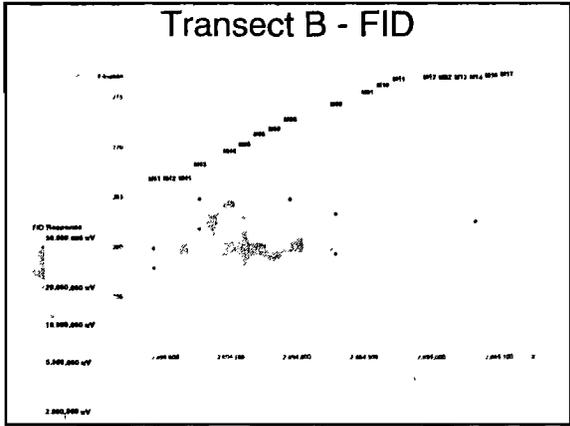
- Aquifer testing showed a wide range of aquifer response to the injection of water
- Results of aquifer testing will be used during future remedial measures
- Results of groundwater sampling indicated that COCs were detected in each of the treatment areas
- Free Product was encountered in areas A, C, D and G

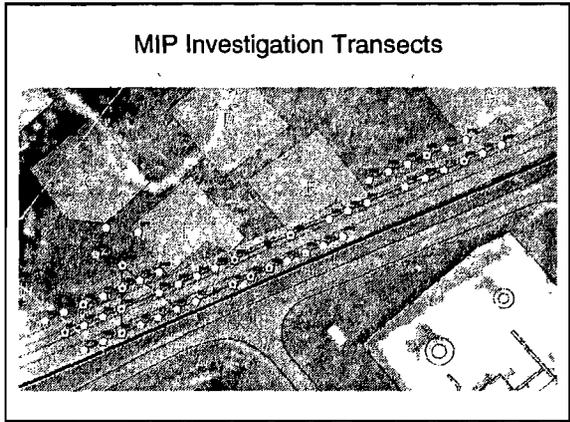
MIP Investigation Transects

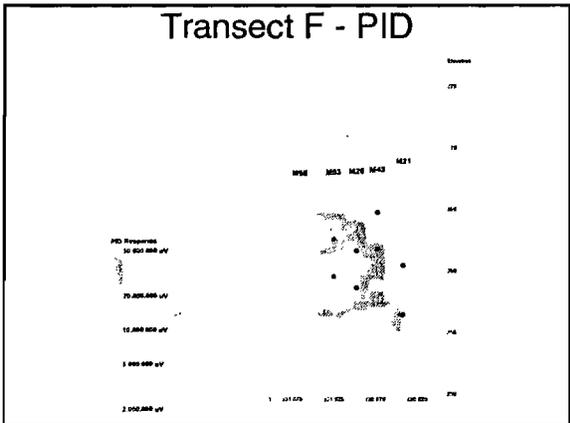


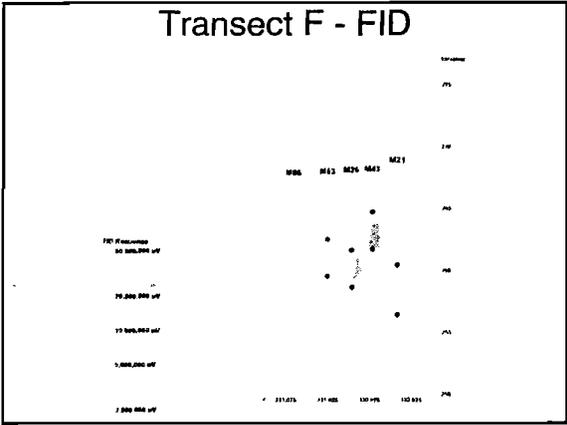
Transect B - PID











MIP Investigation Results



- Data gaps from initial investigations
- Largest area of contamination located on the western end of the ROW
- Contamination extends across the ROW at one location

Risk Analysis

- Risk of exposure to contaminated soils is low
- Groundwater at the site not being used for drinking water
- Groundwater to surface water pathway should be evaluated by sampling creek water (anticipated in 2009)

Treatment and Alternatives Review

- Evaluated six alternatives
 - No further action
 - Soil excavation, Off-site disposal and backfilling with clean soil
 - Soil excavation, backfilling with clean soil and thermal desorption treatment
 - Soil excavation, backfilling with clean soil and treatment of contaminated soil with land treatment
 - Soil excavation, backfilling with clean soil and treatment of contaminated soil using composting
 - Soil excavation, backfilling with clean soil and treatment of contaminated soil using biopiles
- Evaluation using nine RCRA standards determined that the final treatment method used will be based upon the volume of contaminated soil encountered and the results of treatability studies

Planned Activities

- Compliance monitoring will continue on a quarterly basis; completed latest round in March 2008
- Biosparge system will be moved, installed, and tested by the end of the calendar year
- Anticipate the start of ROW excavation activities during current calendar year followed by treatability studies
- Restoration efforts will continue in 2009, including biosparge system operation in the off-base area and implementation of final treatment alternative for contaminated soils excavated from the ROW
