



# NAVAL AIR STATION JOINT RESERVE BASE (NAS JRB) WILLOW GROVE Restoration Advisory Board (RAB) Meeting Minutes RAB Meeting No. 46

Meeting Date: August 17, 2011

Meeting Time: 6:00 p.m.

Meeting Place: Horsham Township Public Library

	<u>Name</u>	<u>Organization</u>
Attendance:	Mary Liz Gemmill (R)	RAB Member
	Eric Lindhult (R)	RAB Member
	Eric Stahl	Weston Solutions
	Karl Pfizenmayer	Community Member
	Bob Lewandowski (R)	Navy, BRAC PMO
	Jeffrey Dale (R)	Navy
	Hal Dusen (R)	Navy, Willow Grove
	Tim Sheehan (R)	PADEP
	Jessica Kasmari (R)	PADEP
	David Polish	EPA
	Andrew Frebowitz	Tetra Tech
	CDR David Foster (R)	NAS JRB Willow Grove
	(R) Designates RAB Member	

Bob Lewandowski opened the meeting, welcoming everyone for attending the 46<sup>th</sup> Restoration Advisory Board (RAB) meeting and noting that the RAB was established in 1995 and has a long track record.

Mr. Lewandowski indicated this was the last RAB meeting before the care and custody of the former Base is turned over to the Navy's BRAC Program Management Office which will continue with all the necessary cleanup and closure items. Mr. Lewandowski introduced the Base Commanding Officer (CO), Commander David Foster.

Commander Foster thanked the RAB for their efforts and provided a summary of the status of the Base closing. Commander Foster has seven people on staff and there are approximately 20 public works staff that are still on station closing down buildings. At the end of August most of the public works staff as well as a few of the CO's staff will be departing at which time a hundred percent of the building closures will be complete. The wastewater treatment plant will be the remaining ongoing project, probably through December.

Mr. Lewandowski informed the attendees that Russ Turner, the former Tetra Tech project manager, has accepted another assignment and introduced Andy Frebowitz as Tetra Tech's new project manager. Mr. Lewandowski introduced Jeff Dale to provide an update on the status of Site 1 and Site 5.

Mr. Dale provided a brief summary of the location, operating history, investigations, and issues related to Site 1, the former Privet Road Compound. The area has been transferred to the Air Force, but the Navy maintains the environmental liability and monitoring. Site 1 is in the central area of the Base and was a waste staging area after they closed the Base landfills where they stored waste and shipped it off-site. Site 1 has a no further action Record of Decision (ROD) for soil which has all been remediated. There is an interim ROD for groundwater monitoring and land use controls that's primarily associated with the groundwater contamination emanating off-Base and being captured by the supply wells. That contamination is being investigated by the EPA. But in order for the Navy to be protective, groundwater monitoring is conducted and land use controls are in effect. The new Reserve Center and a detention basin have been constructed at Site 1; the Navy waited for this construction to be completed and for replacement of some of the Navy wells before conducting monitoring.

Part of the protectiveness is making sure that where the land use controls are placed no one else is allowed to drill wells on and there's no problems with vapors getting into buildings with the groundwater use restriction. Every two years the Navy samples five or six groundwater wells to monitor contamination. And then once a year an inspection of the entire area is made to make sure no new wells have been installed. For the land that's already been transferred to the Air Guard, it's written into their master plan they can't drill any wells there without Navy, EPA, and PADEP permission. Sampling is scheduled for this fall.

Mr. Dale continued with a brief summary of Site 5, the Former Fire Training Area. The groundwater at Site 5 is contaminated with two primary chlorinated solvents, TCA and TCE. They're very common degreasing solvents. The Navy believes they were co-contaminants with the waste fuels and oils that they burned during fire training exercises. And they're in the area where the drums were stored and the groundwater beneath it. The Navy's bioremediation pilot test is currently in the second or third year, but the basics are there are some bacteria that destroy the solvents and they remove the chlorine atoms and make them intermediate compounds and then eventually nonharmful byproducts such as carbon dioxide. The test created the right environment for the bacteria by adding sodium bicarbonate to the water to make it better for bacteria live in and adding food to get rid of all the oxygen in the groundwater because bacteria live like in a septic tank where there's no oxygen. And then the Navy purchased and injected the bacteria once the conditions were favorable. And the current status is the conditions are very favorable. The parent compounds are mostly absent in the area of bioremediation. And their intermediate compounds were formed and they're now degrading and we are now detecting the end-stage compounds, carbon dioxide and things like that. More food is injected twice a year for the bacteria to live on, and one of those was completed in the July time frame. The Navy is incorporating bioremediation into the Site 5 remedy and that's going to be the primary remedy for groundwater within the source area. A public meeting was held last month or so for it, but the primary component is the in situ treatment of groundwater. The diffuse portion of the plume will be handled by monitored natural attenuation through dilution and dispersion processes. And there will be land use controls to prohibit use of groundwater. And in this area, because the source of the solvent contamination was shallow up on Navy property, there could be a problem if someone built a building in the future of vapors getting into the building. It's a newer concern called vapor intrusion. The pilot test has been so successful that we're not detecting any of these compounds in the shallow water, but in order to make sure that we're protective, we're going to

incorporate that land use control because it's not a long-term thing; years or a decade, not tens of years.

The Navy had the public meeting. The comment period ended August. We did receive comments from Eric. And we prepare a response to those comments in a responsiveness summary. And that's going to be in the record of decision which we're going to get to the EPA this week for their review. The goal is to sign the record of decision by the end of September. It's a pretty optimistic goal. It coincides with the end of the government's fiscal year. This is a legal document that binds the Navy to continue operating the bioremediation system and to monitor the land use controls and the groundwater. PADEP generally signs a letter and sends it to us that concurs they support our approach and that is incorporated into the record of decision. The next round of sampling is scheduled for September. Mr. Frebowitz added that the sampling date was moved up to the week of August 22, 2011. Mr. Dale asked if there were any questions; no questions were asked.

Mr. Frebowitz provided an update on the Site 12 landfill. A Phase 1 remedial investigation was conducted in January of 2010. A geophysical study was performed to identify anomalies that could be indication of buried materials. Test pits were excavated through those areas where anomalies were detected; buried waste was uncovered, and samples were collected. The samples showed exceedances of project screening levels, including pesticides, metals, polychlorinated aromatic hydrocarbons, and certain dioxins in subsurface soils. There are no groundwater monitoring wells on Site 12, but there are a couple on the border just downgradient on Site 2 showing low levels - but below the drinking water standards- of TCE. After all the work that was done during the Phase 1 at Site 12 was evaluated, the recommendation was to conduct additional sampling to determine the extent and nature of the contamination by expanding the surface and subsurface soil sampling and the test pitting program, and installing wells on the Site 12 area. Referring to a figure, Mr. Frebowitz showed the locations of the Phase I surface water and sediment samples. The evaluation of the Phase 1 data indicated there was sufficient data to do an evaluation and risk assessment on surface water and sediment. No additional surface water and sediment sampling will be conducted during Phase 2.

The Phase 2 plan is now under review. The Navy is hoping to implement the Phase 2 field work before the weather gets bad this fall. Phase 2 work includes a couple more test pits where there were linear anomalies that were inaccessible due to heavy vegetation growth, and additional borings outside where anomalies and waste were found and elevated levels of contamination were detected. The Phase 2 investigation will expand the number of samples to try to get better coverage across the landfill. And in some of the areas where there were detected PAHs, or metals, or pesticides, we're going to step out from those locations to see how extensive that contamination is. Referring to a figure, Mr. Frebowitz identified the proposed sample locations showing the test pit, soil boring, and monitoring well locations. The Navy is placing three monitoring wells at the downgradient edge of the site and one additional downgradient of known contamination and are going to sample those for the full suite of contaminants. Mr. Frebowitz asked if there were any questions; no questions were asked.

Mr. Frebowitz proceeded with a summary of the Building 21 lead investigation. The building was a painting facility, closed in 1995. After the closure, five surface soil samples were taken around the perimeter of the building. And four of the samples exceeded the PADEP action level of 400 milligrams per kilogram (mg/kg) as well as the EPA action level of 500 mg/kg. The plan is to evaluate the distribution of the lead around the perimeter of that building. So the Navy is proposing 14 locations at different sampling intervals: surface to half a foot, half to 1 foot, 1 and a half to 2 feet to try to determine the extent of lead. Referring to two figures, Mr. Frebowitz showed the 1995 sampling locations and where the actions levels were exceeded, and the proposed sample locations for the investigation. Samples are also proposed around the transformer pad where a 1995 sample showed elevated lead. The work plan is in review and sampling will be conducted after regulatory approval.

Mr. Lewandowski asked if there were any questions.

Eric Stahl asked if the objective for the Site 12 Phase 2 RI is to better delineate the footprint of the waste or is there a good understanding of that now and it's more to look at whether or not there's impacts to groundwater and maybe refine some of the footprint? Mr. Frebowitz replied that the intent is to refine the extent of contamination as well as to obtain some groundwater samples in the footprint of the site. Mr. Stahl asked if there is a fairly good understanding of the delineation of the waste area. Mr. Frebowitz replied that the anomalies were pretty well defined. Mr. Dale added, while referring to the site figure showing the geophysical anomalies, that while Site 12 is about 12 acres in size, it really is four or five 1-acre disposal areas. So, a lot of the proposed sampling is between these anomalies to confirm hopefully that there's no impacts there and very much lessen the footprint of what is really called a landfill. Mr. Lewandowski added that during the Phase 1 sampling after the electromagnetic survey, test pits across those anomalies were excavated from one end to the other and saw very definite where the disposal started and where it ended. And we did that at several locations along the disposal trenches. So we've got a real good idea where it's at.

Mr. Stahl asked if there a preliminary estimate of how many years of subsequent treatment will be required to achieve cleanup standards at the fire training area? Mr. Dale replied that the Navy is currently thinking three to five years of treatment including probably 10 or 20 years of monitoring. The monitoring is mostly the diffuse portion of the plume that's not subject to treatment and will take a longer time to naturally attenuate.

Mr. Stahl asked about Site 1. The source of the groundwater contamination there, which is the driver for the land use control, is an off-site source, not the responsibility of the Navy. Is there any update or understanding of where that off-site investigation is in terms of identifying a source and doing any kind of mitigation so that there would be an understanding of maybe how long the treatment systems on the supply wells would need to be maintained until groundwater conditions start improving there? Are you talking 10, 20, 30 years? Mr. Dale replied that the EPA completed the investigation. Mr. Dale believed that maybe a year ago they gave an update that they did confirm that the former Kelleet Aircraft facility was the source. But Mr. Dale was not aware of them proceeding to another phase. Mr. Lewandowski added that since the plume's under Navy property, there is an obligation to make sure that land use control is in place so no one accesses that contaminated groundwater. Navy will continue to monitor and make sure that

that land use control is being adhered to, us and the Air Force, who has acquired some of that property from the Navy.

Karl Pfizenmayer asked about the status of the supply wells at Site 1, if they'll be used, the continued treatment of the water and the plan for potable water. Mr. Lewandowski replied the Air Force has taken them over. They're going to continue to be supplying the portion of the Base that the Air Force continues to own and some of the newly acquired property. When all's told they'll have acquired something on the order of 35 acres of Navy property in addition to the 200 acres of property that they already own. There's probably going to be some decrease in the amount of water that's being pumped because you don't have all the Navy uses of the water. But they are going to continue to operate those wells and with treatment.

Tim Sheehan asked if anybody is doing any evaluation of the pumping of the supply wells -- they're sort of, just by default, containment wells. The fact that their volumes are going to go down, is anybody going to do any assessment as to the effect of that? I guess you have the monitoring wells there anyway. Mr. Lewandowski replied that two of the monitoring wells are right along the property line and are in the biennial monitoring program.

Mr. Sheehan stated that he was thinking more on the other end. If contamination is going to start going further out as the pumping rates for the production wells goes down. Right now they're sort of by default recovery wells or at least containment wells. If you reduce your production rate, is it going to start moving northeast or are you going to be monitoring that? Mr. Lewandowski replied that's a suggestion maybe Navy can maybe make to EPA, because it may impact the plume from Kellet. The Navy doesn't have any plans to be doing additional work, but, we'll talk to EPA. Maybe that can be part of their overall study that they're going to have to do to determine what their next step is out there. You know, they'll have to take into account what our historic rates were and what the current rates are of pumping out there.

Eric Lindhult asked a question if there is any hypothesis as to how the dispersion of lead in the Building 21 area occurred; were they doing sandblasting? Mr. Dale replied that he read a report from when they stopped using the building as a media blasting. It seemed like lead dust got outside the doors and around the buildings, maybe tracked by people or equipment. Mr. Lindhult added that he thought it might be some sort of blasting operation to get so widespread. Mr. Dale said the report he read, the sampling they did was incidental to it. And they said it's going to stay an industrial Navy base, it's not over industrial standards. But our attempts are to clean it up to unrestricted use, which would mean residential standards.

Mr. Lewandowski asked if there were any other questions or comments; there was no response.

Mr. Lewandowski asked about setting the next meeting date. November 16 would normally be the next time the RAB would meet but promised to stay away from the HLRA's meeting, which is also scheduled for November 16th. The week after wouldn't work because that's the Wednesday before Thanksgiving. Mr. Lewandowski suggested November 30<sup>th</sup> rather than earlier in November or the first week of December. It was agreed to hold the next meeting on December 7, 2011.

Mr. Lewandowski thanked everyone for attending the meeting.

Meeting adjourned.