



NAVAL AIR STATION JOINT RESERVE BASE (NAS JRB) WILLOW GROVE Restoration Advisory Board (RAB) Meeting Minutes RAB Meeting No. 51

Meeting Date: December 5, 2012

Meeting Time: 2:00 p.m.

Meeting Place: Horsham Township Public Library

	<u>Name</u>	<u>Organization</u>
Attendance:	Mary Liz Gemmill (R)	RAB Community Co-Chair
	Tom Ames	Horsham Township Authority (HLRA)
	Mike McGee	HLRA
	Eric Stahl	Weston
	Eric Lindhult (R)	RAB Member
	Lauren Bogle	SAIC
	Willie Lin (R)	Navy, BRAC PMO (Co-Chair)
	Brian Helland (R)	Navy, NAVFAC
	Martin Schy	NAS JRB Navy Caretaker's Office
	Lisa Cunningham (R)	EPA (via telephone)
	Margaret Pollich (R)	PADEP
	Jessica Kasmari (R)	PADEP
	Andrew Frebowitz	Tetra Tech
	(R) Designates RAB Member	

Willie Lin opened the meeting by greeting the attendees. Mr. Lin indicated this was the first afternoon RAB meeting and is a good trial to try to allow other people to attend. He also noted that EPA's project manager, Lisa Cunningham, was participating via phone. Mr. Lin asked all attendees to introduce themselves. After introductions, Mr. Lin referred the attendees to the agenda and asked if there were any comments or questions on the minutes from the last RAB meeting which were distributed in November 2012. There were no specific comments on the meeting minutes; however, Mike McGee asked if the transcribed stenographer report was placed in the administrative record. Mr. Lin indicated that the minutes were a summary of the transcript and only the minutes are placed in the record.

Mr. Lin proceeded with the first agenda item; the radiological update. During the September 2012 RAB meeting, the Navy's Radiological Affairs Support Office (RASO) provided a briefing on the radiological program and the Historical Radiological Assessment (HRA) which is required by Navy policy. The draft report has been completed and transmitted to the regulators on November 28, 2012 with a request for comments by January 30, 2013. A copy was also provided to the Horsham Township Land Redevelopment Authority. The HRA identified 18 potentially impacted sites. A Basewide radiological plan is now being prepared and is under RASO review. This will be the plan that describes how sites will be investigated; so no investigations can be done until the plan is approved. Sites 3 and 12 will be the first sites that

will be scoped under the plan. These sites will require some clearing and grubbing followed by a surface scan and subsurface soil sampling.

Mr. Lin asked if there were any questions. Mr. McGee asked if clearing and grubbing would involve clear-cutting the entire site. Mr. Lin explained that the radiological investigation includes towing arrays close to ground level so it is necessary to clear to obtain good results. Additional input is needed from the radiological technicians but it may be necessary to clear all the trees in the areas of investigation including the disposal trenches and landfill areas. It may not be necessary to clear to the edges of the sites. Mr. McGee referred to a slide showing Site 3 and asked for a clarification of the site boundary. Andrew Frebowitz identified the disposal and trench areas on the figure. Tom Ames indicated that there is a boundary line shown on the Site 12 figure, but not on the Site 3 figure and inquired if there is a similar boundary line for Site 3. Brian Helland replied that the boundary lines as shown on the figures are arbitrary and were drawn at the beginning of the investigation as the full extent of disposal area was unknown. The remedy will focus on the locations where waste and contamination has now been identified. For now, the site will maintain the boundaries as shown, but the remedy may not include all the areas within the boundary or extend to the edges of the boundary. Mr. Lin and Jessica Kasmari added that there is a site boundary, it just isn't shown on the figure used in the presentation. Mr. McGee indicated that identification of a boundary is important when land use controls (LUCs) are determined. Mr. Helland replied that the actual boundaries are determined during the remedial design after the FS. Mr. Lin added that it is too early at this time to determine what the LUCs and the boundaries will be. Mr. McGee asked if the boundaries as shown are the study area as opposed to the actual boundary that would be included in any LUC and Mr. Helland acknowledged the boundaries are the study areas for the sites.

Mr. Frebowitz continued the presentation with a briefing on the Site 3 – Ninth Street Landfill status. The remedial investigation (RI) has been completed and has characterized the types and extent of contamination. The feasibility study (FS) is in progress. The FS has developed remediation goals and evaluated removal and capping alternatives, but will not be completed until after the radiological investigation is completed. The results of the radiological investigation will be incorporated into the FS and the alternatives will be re-evaluated, if needed, based on the outcome of the investigation. Mr. McGee asked when the FS will be completed. Mr. Frebowitz responded since the FS is dependent on completion of the radiological survey and a specific time cannot yet be determined. Mr. Lin added that the draft FS includes only the non-radiological contaminants of concern and it will not be possible to complete the FS without the radiological data. The end goal is to make sure that human health and the environment are protected and without the radiological information it is not possible to determine the appropriate alternatives. Eric Lindhult asked when the FS could be done if no radiological impacts were found. Mr. Lin replied that, if no radiological impacts were found after the survey, there was enough information from the RI to move forward with the FS.

Mr. Ames asked if the Radiological Management Plan was being prepared by RASO in-house or by a consultant. Mr. Lin replied that the BRAC office prepared it for RASO review. Mr. Ames asked if the plan would require regulatory review. Mr. Lin replied that it does after the RASO review is completed.

Mr. Frebowitz continued with an update on Site 5, the Former Fire Training Area. This is the area where the groundwater bioremediation pilot study was performed. The treatment system is still operating. Groundwater was sampled in August 2012 and results continue to show degradation of the parent compounds and production of end-stage compounds. The monitoring also showed that an anaerobic environment was being maintained, but a slight increase in oxidation-reduction potential (ORP) was observed. It has been determined that additional Lactoil amendments should be added to the system with recirculation of the groundwater to maintain the reducing environment. This work is scheduled for late December 2012.

In September 2012, the Site 5 groundwater Record of Decision (ROD) was signed by the Navy and EPA; the ROD is available in the Administrative Record at the library or online. The selected remedy is in-situ groundwater treatment by anaerobic bioremediation. That involves continuation of the treatment conducted under the pilot test and further development of the treatment system. Monitored natural attenuation (MNA) is also part of the remedy, so a long-term monitoring plan will be developed. The remedy also includes implementation of LUCs to prevent the use of untreated groundwater and require future buildings that are constructed to include mitigation measures to prevent the potential intrusion of VOCs from the subsurface into the building. If existing buildings are to be reused, these will require a vapor mitigation system or vapor intrusion investigation to show there are no risks due to VOC migration into the building.

The next step for Site 5 is preparation of a remedial design (RD). A RD for LUCs and a RD for operation of the treatment system are in preparation. The treatment system RD includes additional injection wells and sampling to determine how often to inject amendments to the system. Mr. Lindhult asked about the extent and direction of migration of the contaminants as well as types of compounds observed and if dissolved ethenes have been detected. Mr. Frebowitz referred to a figure to show the approximate area of impacted groundwater and direction (southwest) of groundwater flow. Mr. Frebowitz also indicated that parent VOC compounds were decreasing and daughter compounds are being produced; some of these are also decreasing in concentration. Monitoring for dissolved gases is also conducted on a periodic basis and ethane gases are being detected. Mr. McGee asked if the LUCs are in preparation, when they will be done, and will they be presented at a RAB meeting. Mr. Frebowitz and Mr. Helland replied that the timeline is several months and LUCs will be presented to the RAB. Mr. McGee asked about the funding for the Site 5 cleanup and if it is funded in perpetuity or annually. Mr. Lin replied that the ongoing work (RD, new injection wells) is currently funded. Future work is subject to Congress. The Navy is trying to fund as many tasks as possible ahead of time. The long-term monitoring and operation of the system is not funded so that work will have to be awarded through another contract. Mr. McGee asked about the duration of the cleanup. Mr. Frebowitz replied cleanup is anticipated within 10 to 15 years; Mr. Helland added that the monitoring results will dictate the length of the remedial action.

Mr. Frebowitz provided an update on Site 12 – the South Landfill. The Phase II RI has been prepared and is in internal review. The RI evaluates all data from the Phase I investigation and investigations conducted prior to the RI. The RI field work included numerous soil borings and test pits that delineated areas of disposal and also included installation of monitoring wells to evaluate groundwater conditions. The Phase II results confirmed the Phase I findings and were

used to provide further delineation of the extent of contamination. A risk assessment was performed to determine the contaminants of concern in soils which include arsenic, chromium, and polycyclic aromatic hydrocarbons (PAHs) in surface soils; arsenic, chromium, PAHs, polychlorinated biphenyls (PCBs), and dioxins in subsurface soils; and primarily dioxins in groundwater. There were no questions from the meeting attendees regarding Site 12.

Mr. Frebowitz continued with a briefing on the status of Building 21. The building was a former painting and blasting facility. An investigation conducted in 2011 showed lead-impacted soils in some areas adjacent to the building as shown in a presentation figure. A recommendation to remove soils with lead above 400 mg/kg was made. The removal action was performed in November 2012. Mr. Helland added that the soil was removed from the areas depicted on the figure; however, some of the confirmation results along the concrete pad came back exceeding the cleanup level. Work was scheduled to resume later in the week to remove additional soil which should complete the removal effort. The stockpiled soil will also be hauled off-site for disposal in the near future. Mr. Lin added that Tetra Tech is not performing the work; the removal is being performed by Shaw Environmental.

Mr. Lin continued with the next agenda item regarding RAB Rules. The Department of Defense requires a RAB Mission Statement and Operating Procedures as per the RAB Handbook (March 2007). The handbook provides a framework for how a RAB is supposed to operate. The Navy has searched through the records and it appears that the Willow Grove RAB does not have these documents. The Navy is proposing to initiate a draft version of RAB Operating Procedures based on formats used at other naval air stations. This will then be circulated to other RAB members for comment. The RAB agreed that the Navy should prepare the document.

Mr. Lin wanted to make sure the RAB knew about the public scoping meetings for the environmental impact statement. The meetings have been announced twice in the Federal Register. The first meeting was deferred due to Hurricane Sandy. The public scoping meetings are now rescheduled for Thursday, December 13th from 4:00 to 8:00 p.m. and Friday, December 14th from 10:00 a.m. to 2:00 p.m. If there are any issues or questions about the environmental impact statement, these may be brought up during the meetings.

Mr. Lin discussed the schedule for future RAB meetings. The next meetings are scheduled for March 6, 2013; June 5th, 2013; and September 4th, 2013. All these meetings will start at 6:00 p.m. The December 4th, 2013 meeting will be scheduled for the afternoon.

Mr. Lin asked if there were any questions or comments. Lauren Bogle wanted to know about the status of the air sparging pilot test at the POL site. Mr. Lin replied that this is an Air Force site; the Air Force was asked to attend the RAB meeting but was unable. The Air Force plans to provide an update during the March 2013 RAB meeting. Mr. Lin stated that if there is a specific question for the Air Force, he can forward that to them. There were no other questions or comments.

Meeting adjourned.



**NAS JRB
WILLOW GROVE
RESTORATION
ADVISORY BOARD
(RAB)**

**December 5, 2012
Meeting Number 51**



Agenda



- Welcome Community RAB Members
- Radiological Update
- Site 3 – Ninth Street Landfill Status
- Site 5 – Fire Training Area Groundwater Remediation Status
- Site 12 – South Landfill Phase II Investigation Status
- Building 21 Lead Investigation
- RAB Operating Procedures
- Environmental Impact Statement Scoping Meetings
- Closing Remarks



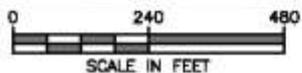
Radiological Update



- Historical Radiological Assessment (HRA)
 - As briefed in September 2012 RAB, The HRA is required by Navy Policy for BRAC 2005 Bases
 - HRA is a file review for potential radiological impacts
 - Draft report transmitted to regulators on Nov. 28, 2012, comments requested by Jan. 30, 2013
 - 18 sites identified as potentially impacted
- Basewide Radiological Management Plan
 - Provides plan for investigating sites from the HRA
 - Sites 3 and 12 will be first sites investigated (Scoping Survey)
- Scoping Survey for Sites 3 and 12
 - Clear and grub site first
 - Surface scan and subsurface soil sampling
 - Results will be incorporated into the Feasibility Study



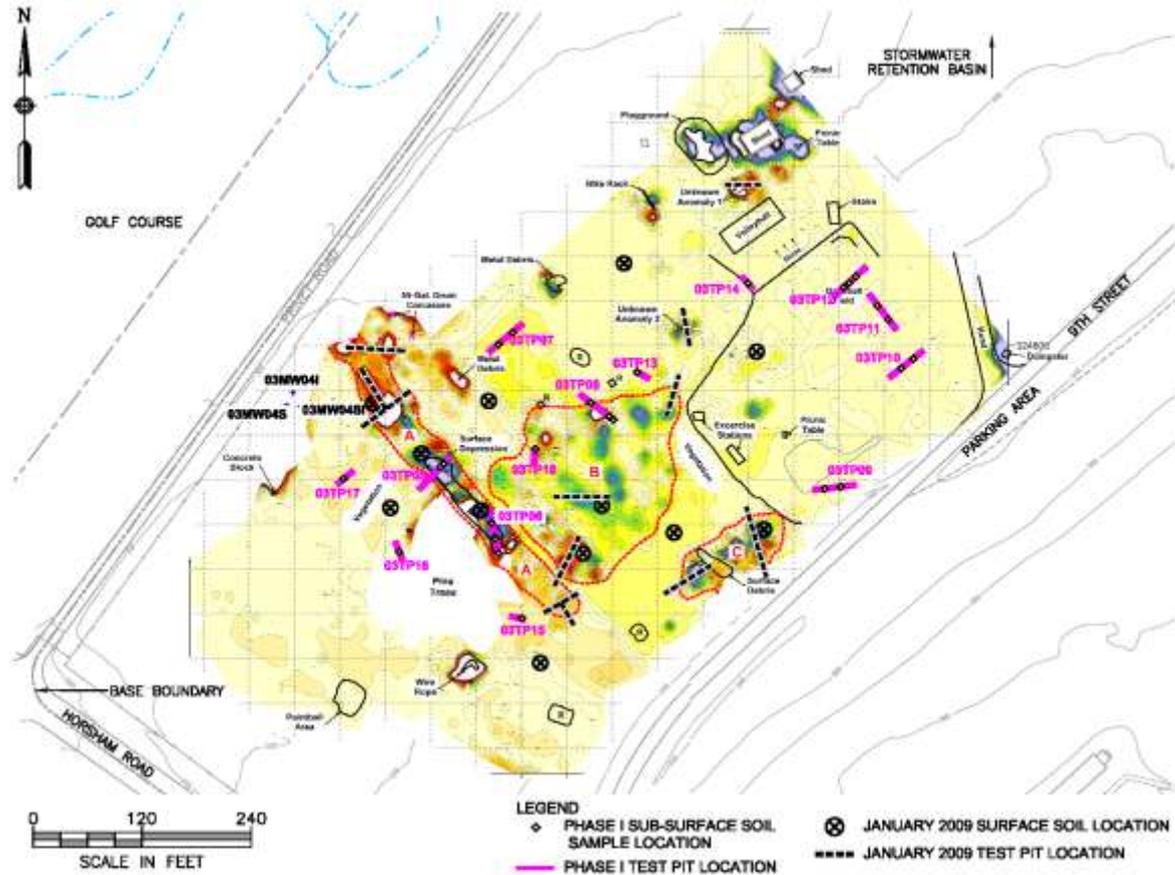
Site 3 – Ninth Street Landfill



SOURCE:
DELAWARE VALLAY REGIONAL PLANNING COMMISSION
2005 DIGITAL ORTHOIMAGERY



Site 3 – Ninth Street Landfill





Site 3 – Ninth Street Landfill



- Feasibility Study (FS) in preparation
 - Remediation goals developed
 - Evaluates removal and capping alternatives
 - Completion of FS After Radiological Field Survey
 - Results from survey will be incorporated into FS

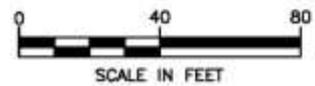


Site 5 – Fire Training Area Groundwater





Site 5 – Fire Training Area Groundwater



LEGEND

- MONITORING WELL LOCATION
- INJECTION/EXTRACTION WELL LOCATION
- UNDERGROUND ELECTRIC AND WATER LINE
- UNDERGROUND ELECTRIC LINE



Site 5 – Fire Training Area Groundwater



•Current Status

- Original solvent compounds sharply reduced to absent, intermediate compounds steady to declining, and end stage compounds appearing
- August 2012 – sampling for VOCs, dissolved gases and field parameters
 - Results show subsurface environment maintaining an anaerobic and reducing state
- Periodic biostimulation is required
 - Lactoil injection scheduled for December 2012
- Record of Decision signed by EPA and Navy – September 2012
 - Available in Administrative Record @ Horsham Library or <http://www.horshamlibrary.org/WillowGroveNASindex.html>



Site 5 Groundwater Selected Remedy



- In-situ treatment of groundwater by anaerobic bioremediation in and around the former drum storage source area
- Monitored Natural Attenuation
- LUCs will be initiated to preclude use of untreated groundwater and require that future buildings are constructed to mitigate the potential for vapor intrusion of VOCs from the subsurface into the buildings



Site 5 Groundwater Remedial Design/Remedial Action



- In Progress:
 - Remedial Design for Land Use Controls
 - Remedial Design for Additional Injection Wells
 - Well installation
 - Sampling
 - Evaluation of subsurface conditions to determine “recipe” for amendments to continue and enhance bioremediation

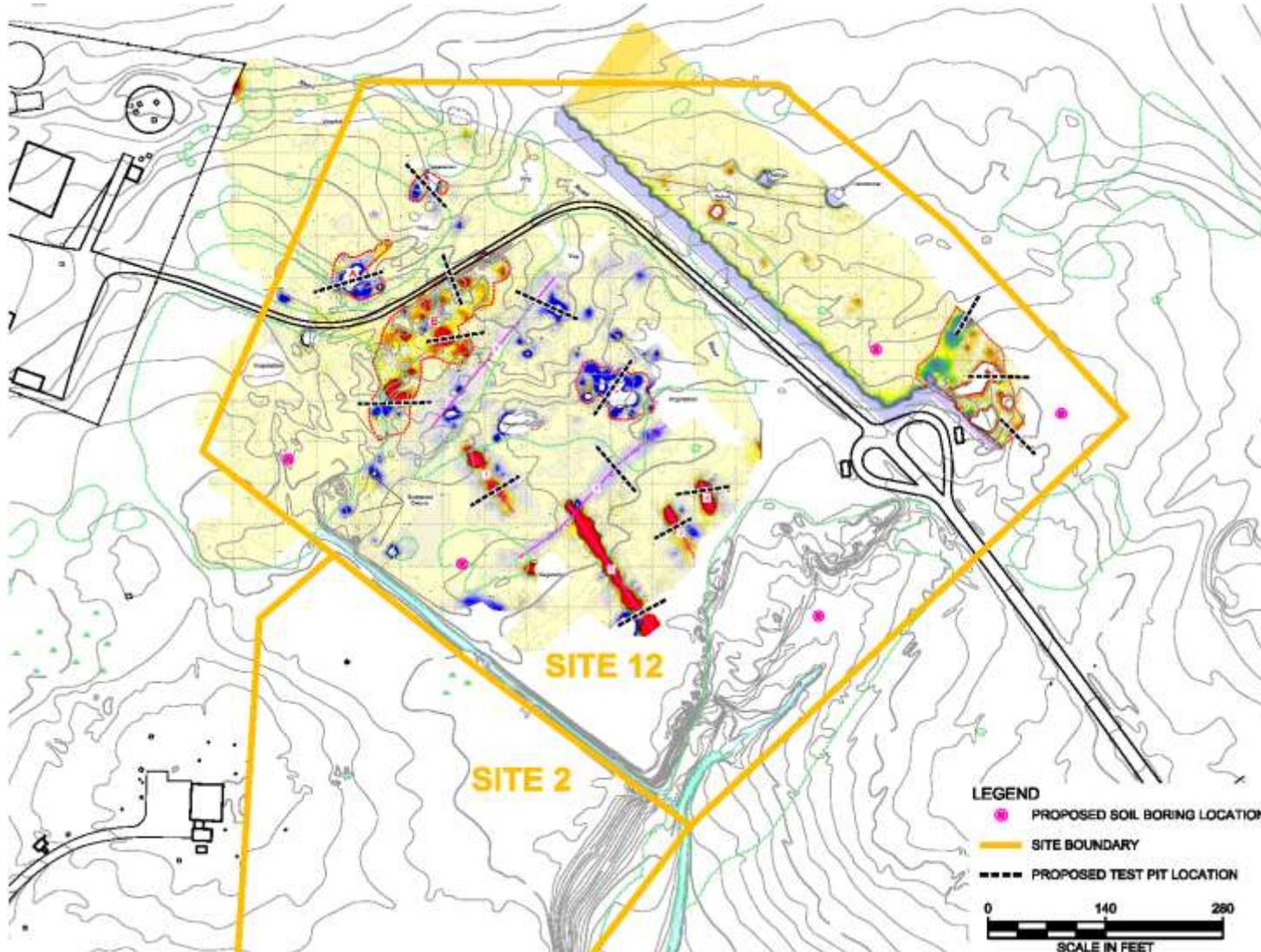


Site 12 – South Landfill Phase II Remedial Investigation





Site 12 Phase I EM Study





Site 12 Phase II Status



- Remedial Investigation Report in Progress
 - Report in internal review
 - Results confirm Phase I and provide further delineation of contamination
 - Risk assessment performed to determine contaminants of concern (risk drivers)
 - Surface Soil
 - Arsenic, chromium, PAHs
 - Subsurface Soil
 - Arsenic, chromium, PAHs, PCBs, dioxins
 - Groundwater
 - Dioxins



Building 21 Lead Investigation





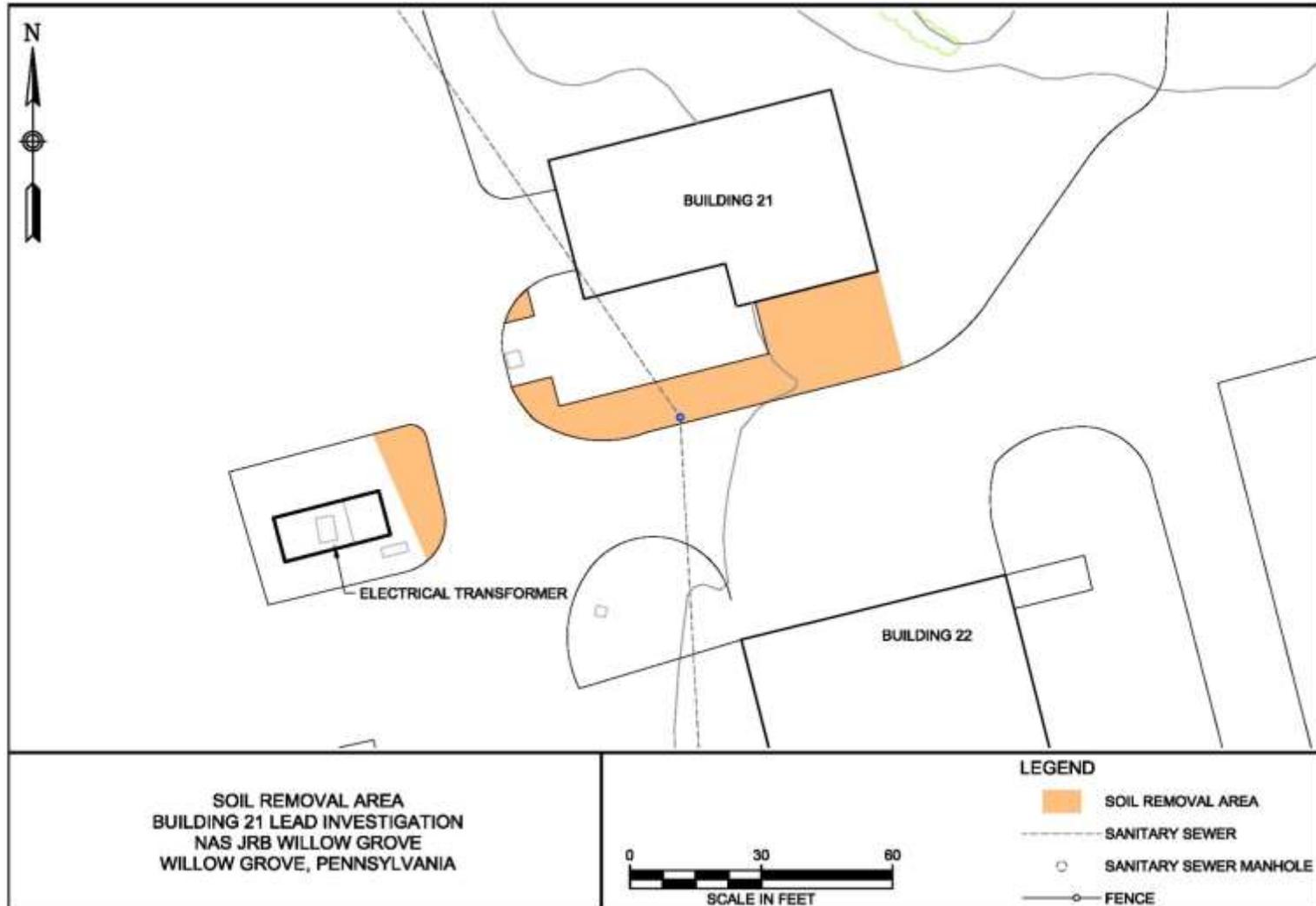
Building 21 Lead Investigation



- Former paint blasting and painting facility
- Lead-impacted soil on southern side of building and near transformer area (shaded area on next slide)
- Recommendation for removal of lead-impacted (>400 mg/kg) soil
- Soil removal completed late November 2012



Building 21 Lead Investigation





RAB Operating Procedures



- March 2007 - DoD published the RAB Rules handbook
- Provides a framework for RAB establishment, responsibilities, and operation
- Each RAB is required to have a "mission statement" and "operating procedures"; we don't have either
- If acceptable to the RAB, Navy can initiate draft documents using a format from another Naval Air Station



Environmental Impact Statement (EIS) Scoping Meetings



- The Department of the Navy will conduct public scoping meetings in Horsham Township to receive comments on the environmental concerns that should be addressed in the EIS of the disposal and reuse of former Naval Air Station Joint Reserve Base (NAS JRB) Willow Grove.
- This was announced in the Federal Register on November 23, 2012 and in local newspapers recently.
- Public scoping open houses will be held at the Horsham Twsp. Community Center; 1025 Horsham Road, Horsham, PA.

Thursday, December 13, 2012, 4:00 p.m.–8:00 p.m.

Friday, December 14, 2012, 10:00 a.m.–2:00 p.m.



NAS JRB Willow Grove RAB Meeting 50



- Closing Remarks
- Questions or Comments From The Community?
- Next Meeting – March 6, 2013 @ 6:00 pm



NAS JRB Willow Grove RAB Meeting 51



THE END