Meeting Minutes
Restoration Advisory Board
Former Schenectady Army Depot – Voorheesville Area
October 17, 2002
New York State Department of Environmental Conservation
Albany, New York

Restoration Advisory Board Members and Project Staff Attendees

Ted Ausfeld
Ray Gemme
Charles Rielly
Dan Geraghty, New York State Department of Health
Gregory J. Goepfert, U.S. Army Corps of Engineers, Corps Co-Chair
Jeffrey McCullough, New York State Department of Environmental Conservation
George Moreau, Parsons Engineering Science, Inc.
Dennis Wesolowski, Defense Logistics Agency
Deb Volkmer, Weston

Other Attendees

Lorraine Benton, New York State Department of Health
John Brzezenski, U.S. Army Corps of Engineers, Baltimore District
Ronald Groves, Albany County Health Department
Carol Kaelin, Altamont *Enterprise*
Betsy Lewis-Michl, New York State Department of Health
Russell Marsh, U.S. Army Corps of Engineers, Baltimore District
Jim Quinn, New York State Department of Environmental Conservation
Michael Rivara, New York State Department of Health

Meeting Called to Order

G. Goepfert called the meeting to order at 9:10 a.m. and welcomed the participating Restoration Advisory Board (RAB) members, project staff, and other attendees to the meeting. He said that the RAB contributed thoughtful comments to the draft Remedial Investigation Report. He added that he appreciates the public's participation to assist the Corps in moving forward with the site cleanup activities. He asked that the RAB to continue with their participation. (Attachment 1 provides a list of questions/potential actions items posed by RAB members requiring post-meeting follow-up responses.)

C. Rielly asked whether there will be a summary report on the cleanup conducted at the Guilderland Central School District.

G. Goepfert responded, yes, a report will be prepared and distributed.

Presentation

G. Goepfert gave a PowerPoint presentation about the remedial investigation and cleanup at the Guilderland Central School District and the investigation and remediation planned in fiscal year 2003 at the Former Schenectady Army Depot – Voorheesville Area (FSADVA). (Attachment 2 provides G. Goepfert's PowerPoint presentation.)

T. Ausfeld asked how accurate was the ground penetrating radar (GPR).

G. Goepfert responded that the greatest useful depth of exploration of the GPR equipment used is 18 feet.

T. Ausfeld asked whether the GPR will be utilized in the warehouse area.

G. Goepfert responded that the GPR will be used with the burn pit investigation; primarily west and north of the warehouse.

C. Rielly asked how difficult is the GPR system to use on larger areas.

G. Goepfert responded that one-day usage of the GPR is $5,000 to $6,000 per day and that could get expensive. He said some GPR surveys have been conducted at the burn pit and landfills. He added that the Corps would use the GPR system on an as needed basis.

T. Ausfeld said there is a whole field that may be developed at a later date. He added that the school should have used the GPR before it built the school bus garage.

G. Goepfert said that the school did some limited investigation with the GPR but did not find any buried objects.

D. Geraghty said he was pleased with the Corps' quick response to the school bus garage situation.

G. Goepfert said he was pleased that the Corps had the capability to address the school bus garage situation and to identify the buried items.

T. Ausfeld said we knew there was a problem in the warehouse and burn pit areas. Rain moved contamination from the soil to other areas. The Corps could have seeded the area to prevent migration of contamination to the drainage areas. He added that he was concerned that measures were not taken to prohibit migration of contamination.

D. Geraghty said the contamination is 10 feet below the surface.

T. Ausfeld responded that the ash is not 10 feet below the surface. He said more investigation is needed. More areas are contaminated than the nine areas currently identified.

D. Geraghty replied that T. Ausfeld provided a good point. He added that his experiences with military bases have found new areas of contamination after original locations were identified.

G. Goepfert stated that the U. S. Army Corps of Engineers is the lead agency in addressing Formerly Used Defense Sites (FUDS), and the Army would take responsibility for any items linked to the Department of Defense use of the site. A policy statement to that effect will be included in the Remedial Investigation Report.

Discussion of Draft Remedial Investigation Report

The remainder of the meeting was dedicated to the review of RAB comments and Corps responses to the comments on the draft Remedial Investigation Report. (Attachment 3 provides the RAB comments and issues presented to the Corps. Attachment 4 provides the Corps response to the RAB comments and issues.) Copies of the comments and issues presented by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) and copies of the Corps responses to the state agencies were made available to the meeting participants; however, the state's comments/issues were not reviewed at the meeting. (Attachment 5 provides the NYSDEC and NYSDOH comments and issues presented to the Corps. Attachment 6 provides the Corps response to the state.)

Please note that the meeting participants discussed many of the RAB comments/issues and the Corps corresponding response; however, not all of the comments/issues/responses were discussed. The following provides an account of the comments/issues/responses that were discussed during the meeting.

Attachment 3, Page 3. Letter from Mr. Thadeus W. Ausfeld, dated November 16, 2001	AOC (3), AOC (1), and AOC (5) should all have focused feasibility reports finalized and put on record for funding. Additionally, AOC (2) should be a priority. (Private Home Owner)
Attachment 4, Page 1. Corps written response to comment/issue	2. A Focused Feasibility Study has been prepared for Area of Concern (AOC) (3) and is included in the reference sections of the Guilderland and Voorheesville libraries. A Focused Feasibility Study is being prepared for AOC (2); the draft document will be available in November 2002. As funding allows, Focused Feasibility Studies will be prepared for AOC (1). The Defense National Stockpile Center operates the Voorheesville Depot (AOC (5)), and is implementing measures to reduce off-site migration of sediments and soils at this location; the design of these measures is in lieu of a Focused Feasibility Study.

D. Wesolowski said the Defense Logistics Agency (DLA) is prepared to move forward with the proposed activities: expand a pond, add a pond, trench, and add public water to the facility.

(The following three comments refer to the "Road Show")

T. Ausfeld asked if there was construction occurring on the north side of the DLA property and on the other side of the fence.

D. Wesolowski responded that was not DLA property but Northeast Industrial Park owners' land. He was concerned of the possibility that someone could crash the DLA fence; however, nothing on the DLA property was affected.

C. Rielly said he was uneasy that the construction was so close to the areas of concerns. He added that there was no communication about the construction and he interpreted the lack of communication by the Galesi Group, the property owners, to demonstrate their lack of concern.

Attachment 3, page 3. Letter from Mr. Thadeus W. Ausfeld, dated November 16, 2001	3. The New York State Departments involved with the SAD Remedial Investigation should make a written report, available to the public, involving this watershed as stated in past minutes and the Black Creek should be Class A.
Attachment 4, page 1. Corps written response to comment/issue.	3. NYSDEC will address at the 17 October 2002 meeting.

J. McCullough said he contacted a local official who said he would attend the next RAB meeting. He added that the area is monitored and State Pollutant Discharge Elimination System (SPDES) permits are in effect.

C. Rielly asked if the state had a record of what is allowed for the SPDES permits discharging into Black Creek.

J. McCullough responded that there are three SPDES permits for the Black Creek:

- A company that is in Chapter 11 bankruptcy and is not discharging
- Town of Guilderland
- Guilderland Water Plant

T. Ausfeld asked if the discharge [allowed by SPDES permits] was plastics contamination.

J. McCullough responded that the company was allowed to discharge in low levels.

T. Ausfeld asked what happened to the stored plastics?

J. McCullough responded that the plans are to recycle the plastics.

T. Ausfeld asked if plastics are currently stored on site.

J. McCullough responded that he had not been in the facility.

T. Ausfeld asked if the bankruptcy actions will end the SPDES permit.

J. McCullough responded that the permit will have to end.

Attachment 3, Page 3. Letter from Mr. Thadeus W. Ausfeld, dated November 16, 2001	4. Each year during the springtime run off period, the Black Creek should be tested for all contaminants noted in ACE Reports. Also, the Guilderland High School well water should be tested.
Attachment 4, Pages 1 and 2. Corps written response to comment/issue	4. Black Creek testing will be addressed in a follow-on Remedial Investigation/Data Gap Workplan; yearly testing may be out of scope of this investigation, however, further testing will be dependent on a review of future testing results. The New York State Department of Health tested the water from the well located in the Transportation Building of the Guilderland Center Transportation Facility, on April 24, 2002 and on June 13, 2002. In NYDOH's letter to the Assistant Superintendent for Business for the Guilderland School District, Mr. Daniel Geraghty reported the results as follows: sodium was detected at a concentration of 32 mg/l; he notes that people on a severely restricted sodium diet should not drink water with more than 20 mg/l sodium. In the April 24, 2002 sample, the only semi-volatile compound found above standards a plasticizer compound widely used in a variety of common products including synthetic rubber, food packaging and cosmetics was found at 420 mcg/l—slightly above the Federal standard of 400 mcg/l. The name of the compound is Di-(2-ethylhexyl) Adipate. Mr. Geraghty added that because of this result, the well was resampled on June 13, 2002, and Di-(2-ethylhexyl) Adipate was not detected in this second sample. Mr. Geraghty noted in the letter that he understands that the water is not used for drinking, but for irrigation of the Guilderland High School athletic fields, for washing of school buses, and is the water supply for the washrooms in the employee's lounge.

D. Geraghty said the Black Creek has been sampled three times and no contaminants (metals, pesticides, and PCBs) were detected.

T. Ausfeld said there is another landfill, started by the Army, that will be contributing contamination. As a kid in the 1960s he observed vehicles coming in the area and dumping. He added that other people may have witnessed the Army dumping.

G. Goepfert suggested that T. Ausfeld review the oral history and compare the persons interviewed with the individuals he believes observed the dumping. G. Goepfert added that the Corps will talk to the persons T. Ausfeld identifies.

C. Rielly asked if the new wells for irrigation across the creek were tested.

D. Geraghty responded, no, the test wells are downgradient from the site.

C. Rielly asked if the state had any input into the location of the new irrigation wells.

D. Geraghty responded, no.

C. Rielly said the draw of the wells could change the plume and asked if the state should be aware of that.

D. Geraghty responded that there was no need to contact the state. There could be a lot of drawing water.

T. Ausfeld said there is a lot of water use in the area and people need to know if the groundwater is polluted. He added everything in the area needs to be tested.

G. Moreau said the monitoring well network is in place to examine the changes in the plume.

T. Ausfeld said the monitoring well network is just in one area. There are other areas with possibility of contaminated groundwater and wells. He added that private wells could be installed.

J. McCullough said the water is used for irrigation and not drinking.

T. Ausfeld said that is unknown and that it is not being done correctly. He added that wells are pulling the water around.

G. Goepfert asked if there are wells near the municipal landfill.

T. Ausfeld responded, yes, however the water is not being used at this time.

C. Rielly said, according to the Assistant School Superintendent, the school can use water from Black Creek to water its fields.

J. McCullough said he was not aware of that but he was not concerned with pumping water for irrigation uses.

C. Rielly said it was not right and something needs to be done.

J. Quinn said the data does not show a problem.

Upon arrival of three additional NYSDOH representatives the discussion focused on health related comments and issues.

Attachment 3, page 10. Restoration Advisory Board letter of July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	8. A study of the health of long-term residents living in the immediate area surrounding the FSADVA as well as present and former workers at the Northeastern Industrial Park (NEIP) should be done. This effort will assist in determining if any cumulative adverse health effects have been caused or are expected to be caused by exposure to the various pollutants that are or were present at the FSADVA/NEIP.
Attachment 4, page 6. Corps written response to comment/issue.	VI. (8) NYSDOH representative will address at the 17 October 2002 meeting.

T. Ausfeld said at a meeting there were nine women with breast cancer and one man with health problems.

B. Lewis-Michl said it is difficult to study small groups of human beings. She added that often time the NYSDOH is not in a good position to respond to the questions.

C. Rielly asked if there was a NYSDOH form that people could complete to get an idea if there is a health problem in the area.

B. Lewis-Michl responded that there is no form because there is no method to use the information. Public health officials monitor infectious diseases and there is good information about cancer, birth defects, births, and deaths. She added that the NYSDOH can help people sort out various types of cancer. One out of every two men and one out of every three women acquire some form of cancer. (The NYSDOH's cancer mapping Web site is http://www.health.state.ny.us/nysdoh/cancer/csiiweb2.htm.). The Web site provides cancer data per zip codes. The cancer registry is for a geographic area or addresses to determine if a pattern of cancer occurrences are unusual. Cancer data in the last 10 years can also be made available for specific street addresses that cover a small area.

C. Rielly asked what would be the next step after a group or area is identified believing to have a high rate of cancer.

B. Lewis-Michl responded to conduct a cancer surveillance. Census tract locations would assist in the cancer profile of the area. The study area is very important.

C. Rielly asked whether a resident would have to spearhead the action.

B. Lewis-Michl responded that the NYSDOH would need to know the area of concern and then arrange a meeting with the NYSDOH Cancer Surveillance Director. She added that there could be more than one study area.

T. Ausfeld agreed that there could be more than one study area.

B. Lewis-Michl said the NYSDOH could organize a meeting for the residents of a designated area and provide some educational information as well as gather health information. She added that some individuals may want to keep their respective health concerns to themselves. She suggested local organizers to contact Lorraine Benton with NYSDOH at 518-402-7950 to plan small group meetings.

Attachment 3, page 4. Letter from Mr. Thadeus W. Ausfeld, dated December 10, 2001	The monthly mean average data on precipitation (chart P 2 – 4, Table 2.1) is incorrect. It does not show spring and fall rain and runoff periods on the watershed.
Attachment 4, page 2. Corps written response to comment/issue.	Please clarify your request with regard to precipitation data.

T. Ausfeld said the chart does not show the high and low levels of precipitation.

G. Moreau responded that the chart presents the averages on a monthly basis.

T. Ausfeld said it does not look good with the spring runoffs and rains (heavy rain event) like we had yesterday [peak and spikes].

G. Goepfert asked whether the data was available.

T. Ausfeld said that it was a problem because the peaks of rain are carried downstream.

G. Goepfert said in the future sampling crews will note the weather pattern conditions prior to the collection of samples.

T. Ausfeld said he was concerned about the ponds during heavy rain events.

Attachment 3, page 4. Letter from Mr. Thadeus W. Ausfeld, dated December 10, 2001.	In my mind, this report indicates a very large problem within the watershed. Core samples should be done at the first dam site on the Black Creek after NEIP and at the Route 158 Bridge (east of the bridge) in the sediments of the Watervliet Reservoir.
Attachment 4, Page 2. Corps written response to comment/issue	Deeper sediment sampling will be performed in the Black Creek as part of a follow-on Remedial Investigation/Data Gap Workplan, which will be provided for review by the RAB and regulatory agencies; the locations tested may not be those suggested.

T. Ausfeld said the Metweld well needs to be tested.

R. Groves said he would look for the testing information.

G. Goepfert said there will be testing in deeper sediment.

C. Rielly said sampling is needed in the delta area.

G. Goepfert asked if data already exists for the delta area.

J. McCullough said he would check the availability of sampling data in the delta area.

G. Goepfert said at this time he could not make any promise to test the delta area.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	How many underground tanks remain and are being used in the Industrial Park?
Attachment 4, Page 3. Corps written response to comment/issue	Refer your question directly to the Galesi Group.

J. McCullough said a list of removed and existing tanks is presented in the Archive report.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	What is going to be done with NEIP Landfill? Is it an approved landfill?
Attachment 4, Page 3. Corps written response to comment/issue	NYSDEC will address, at the 17 October 2002 meeting.

J. McCullough said he reviewed the area with Tim Alund and he covered this question at the April 29, 2002, RAB meeting. The landfill has been covered over. The piles have been recycled. The pallets were chipped and the steel was removed for reuse.

C. Rielly said the landfill is on a wetland.

J. McCullough said no, it is not on a wetland.

C. Rielly said we saw a mountain of stuff on the wetlands and it was removed before J. McCullough conducted his site visit. C. Rielly asked what was the stuff and where was it taken.

J. McCullough replied that this question had been asked previously and answered.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	How many SPDES permits are approved in the Industrial Park?
Attachment 4, Page 3. Corps written response to comment/issue	NYSDEC will address, at the 17 October 2002 meeting.

G. Goepfert said three SPDES permits were approved for companies in the Industrial Park.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	Where are their discharges and are signs posted on the Black Creek?
Attachment 4, Page 3. Corps written response to comment/issue	NYSDEC will address, at the 17 October 2002 meeting.

T. Ausfeld said there are signs but it does not matter because no one can go down there and see.

J. McCullough said he did not know who designed the Industrial Park.

T. Ausfeld said why can't the Corps design an updated system for discharges from the Industrial Park property.

G. Goepfert responded the owner of the property is responsible for that.

T. Ausfeld said he does not care what the Galesi Group is doing … he cares about Black Creek.

G. Goepfert responded that Mr. Ausfeld needs to talk to the Galesi Group. He added that the Galesi Group will respond to RAB member questions.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	How many spills have occurred in the last five years?
Attachment 4, Page 3. Corps written response to comment/issue	NYSDEC will address, at the 17 October 2002 meeting. The archive search report identifies spills on page 4-137.

J. McCullough said Allen Geisendorfer is checking on the number of spills.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	How close to the Black Creek are the chemical dumps? (Army)
Attachment 4, Page 3. Corps written response to comment/issue	The only items that have been found in proximity to Black Creek were the items found recently (August 2002) on the property of the Guilderland Central School District. The U.S. Army Corps of Engineers took responsibility for the investigation, removal and proper disposal of items discovered, which included vials of calcium hypochlorite, protective ointments for the skin and eyes, and miscellaneous paint cans, bottles of distilled water/0.1% citric acid [for plasma regeneration], and bottles of dried plasma granules.

T. Ausfeld asked if there are not other burial areas on the site.

G. Goepfert responded none that he knew as of now. He added that the Corps will be doing more GPR work in the burn pit area [AOC # 3].

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	Why has the buffer zone along the Black Creek been removed?
Attachment 4, Page 3. Corps written response to comment/issue	NYSDEC will address, at the 17 October 2002 meeting.

J. McCullough said the NYSDEC does not regulate the buffer zone. The City of Watervliet or the Town of Guilderland would have to address that.

C. Rielly said there is something holding up the watershed study's revised rules.

R. Groves said it is the County of Albany that reviews the rules and regulations and that he will check out the status of the watershed study's revised rules and get back to Mr. Ausfeld. Mr. Groves added that the county's contractor might still be reviewing the rules and regulations.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	How can a plan be put together to protect the Black Creek?
Attachment 4, Page 3. Corps written response to comment/issue	NYSDEC will address, at the 17 October 2002 meeting.

J. McCullough said the watershed management plan is prepared by the Town of Guilderland and Watervliet.

Attachment 3, Page 5. Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002	Why can't raw materials stored in the Industrial Park be covered? (All Types – [including Federal Stockpiles])
Attachment 4, Page 3. Corps written response to comment/issue	Refer your question directly to the Galesi Group.

C. Rielly asked what was the status of the stockpile in Area of Concern 5.

D. Wesolowski responded zinc and aluminum oxide (such as for making sandpaper) are stored. The DLA will continue to sell the stockpile and expects the stockpile will be depleted in 2009. Mr. Wesolowski added that the program is subject to market demands.

C. Rielly asked what has been done about the footprints.

G. Moreau responded that there are no exposure pathways. The Corps is looking at surface water runoff and that the ponds were built in an effort to address runoff. Mr. Moreau added that in the long term, the Corps will have to address the soil left behind.

C. Rielly asked whether the footprint soil is stationary or does it go to the ponds. He also asked about the ponds.

G. Moreau responded that the ponds will be addressed.

C. Rielly asked if the ponds were on Army property.

D. Wesolowski responded yes, the ponds were all on DLA-leased property.

G. Moreau said that cleanup of the ponds will take into account the future re-use plans for the site.

G. Goepfert said materials are in drums.

D. Wesolowski added that materials are in drums and bulk stockpiles. Migration from stockpiles is very, very limited. He added that DLA brought in stone to create a base – the metals bonded with the stone to minimize spreading contamination.

Attachment 3, Page 7. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	The objective of the RIR document was to determine the presence or absence of contamination within the confines of the FSADVA as a prelude to determine remedial measures, as required. Black Creek is one of the tributaries to the Watervliet Reservoir which is the main source of drinking water for the residents of the Town of Guilderland, the City of Watervliet and some neighboring communities. It is obvious from the information contained in this report that contamination of Black Creek has occurred. It is imperative to address resulting contamination beyond the confines of the FSADVA downstream and into the reservoir. Only after additional testing has been done, as proposed here, and other comments on the report have been addressed, can the mutual objectives of this RIR document be met.
Attachment 4, Page 4. Corps written response to comment/issue	Further monitoring and characterization of Black Creek sediment and water quality upstream and downstream of the former Depot will be proposed in the follow-on Remedial Investigation/Data Gap Workplan. Additional sediment sampling in the pond at AOC (1) will be undertaken as part of a Focused Feasibility Study, and will target those contaminants of concern that have been shown to exceed the sediment criteria.

R. Gemme said he believes contamination has reached as far down as the reservoir and that the Corps needs to find out what is buried in the reservoir soil.

D. Wesolowski asked whether there was any timetable to dredge the reservoir.

T. Ausfeld responded no, they might raise the dam.

G. Goepfert said the Corps will do deeper sediment sampling in the creek.

R. Gemme said the sediment might have stayed and built up rather than flow downstream.

C. Rielly said he would like the Corps to sample the delta area of the reservoir.

G. Goepfert responded that he and J. McCullough will first seek existing data regarding the delta area. G. Goepfert added that the Corps recognizes the RAB's concern and will consider sampling of the delta area subsequent to and based on the analysis results of Black Creek sampling closer to the Industrial Park. He said the Corps will sample areas of low mobility in the stream further upstream from the dam and closer to the industrial park.

Attachment 3, Page 8. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	There are many references in the RIR document comparing testing data obtain in the 9 areas of concern (AOC) to background data. These comparisons were used as the basis for decision making concerning required levels of remediation at each AOC. a. No reference was found in the RIR document concerning any analysis and summary of the background data that was to develop comparisons. b. Was the background information analyzed and massaged statistically to formulate comparisons? There were several anomalies or outliers found in the data. <u>If they were included in the comparisons, they would skew the results to the conservative side and thereby lessen the required remedial effort</u>. They do not adequately reflect the pollution in the FSADVA/NEIP. Please recall that our previous communication of February 6, 2002, highlighted the problem that arises when two dissimilar data populations are merged ant the result is a favorable outlook; geologist call this effect "salting the outcrop". Outliers were found in the following locations and therefore data from these locations and any similar locations must be excluded from the determination of the <u>pre</u>-FSADVA background: ■ Table 3.3 – Carcinogenic PAH in AOC8-SD28 ■ Table 3.4 – Carcinogenic PAH and Non-Carcinogenic PAH in AOC2-HP10 ■ Table 3.2 – Semivolatiles in AOC8-SW22 & SW23
Attachment 4, Page 4. Corps written response to comment/issue	a. Pg. 3-1, para. 3.2.1 contains two pages of discussion concerning background data. b. Absolute result values were used for comparisons; no statistical analysis of the raw data were performed. Technical Assistance Guidance Memorandum (TAGM) values will be used to compare analyses results for organic compounds in an effort to ascertain the necessity for remedial actions. All background soil organic data exhibited results below TAGM levels.

Per question "a," D. Geraghty said contamination would not depend on background numbers.

Per questions "b," G. Moreau said Parsons will use state TAG (Technical Assistance Guidance) data rather than rely totally on background data.

J. McCullough said that additional information (state TAG data) is useful because there are pockets of naturally occurring material.

Attachment 3, Page 8. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	a. Figure 3.27 shows many locations where BEHP contamination exists in AOC8, Black Creek. It appears that none of the other AOC were tested for this chemical. This does not allow for determination of the source of contamination. Will additional testing be done in the other AOCs to find the source of this pollutant in Black Creek? If not, why not? b. The results of older testing in this AOC shown on Parsons Drawing No. 18 (Job 736741) previously submitted to the RAB should also be summarized on Figures 3.27 and 3.28.
Attachment 4, Page 4. Corps written response to comment/issue	a. All Areas of Concern (AOCs) were tested for BEHP, except for AOC (5). It was detected in these AOCs: AOC 1 – surface water (SW) and sediment (SED) AOC 2 – SW/SED/Groundwater (GW)/soil AOC 3 – soil/GW AOC 6- not detected (ND) AOC 7- soil/GW AOC 8- SW/SED AOC 9- GW. There will be some additional testing for BEHP. b. The previous data will be presented on Figures 3.27 and 3.28 in the same format shown in the present figures, i.e., exceedances of TAGM criteria for BEHP and metals will be displayed. The previous drawing # 18 in its entirety will be included in the Remedial Investigation report.

Per question "a," D. Geraghty said BEHP *bis*(2-ethylhexyl) phthalate (BEHP) is a plasticizer and more information can be located on the Agency for Toxic Substances and Disease Registry Web site TOXFAQs. He said BEHP is commonly used in plastics and evaporates quickly.

G. Goepfert said the Corps will be doing additional testing.

D. Geraghty said if testing shows BEHP contamination in wells that exceeds drinking water standards action will need to be taken.

Per questions "b," G. Goepfert said the drawing will be comprehensive.

Attachment 3. Page 9. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	AOC2 a. This area was originally included in a NYSDEC Superfund list of sites. What, if any effect have the results of the testing program had on this determination? b. The report indicated that groundwater and subsurface soil sampling was done in a 10-foot grid pattern. It appears from the information shown in figures 3.10 and 3.11 that the pattern is closer to 15 feet. What is the basis for grid site selection? c. The report indicates a selection of 5 pill bottles for testing. The results are questionable to adequately represent the full range of chemicals present. Five samples are not considered enough to provide for random sampling of the thousands of bottles located in the area.
Attachment 4, Page 5. Corps written response to comment/issue	a. The NYSDEC advises that testing has not changed the determination. b. Ten (10) feet was the basis, as specified in the Workplan. The "scaled" drawing will be noted as an "approximate" scale. c. All environmental media has been sampled at AOC (2) to allow a feasibility study to be conducted. The sampling of the pill bottles was performed for screening purposes only, and not meant to be fully representative of the contents of all bottles found at AOC(2). The analyses performed confirmed the suspicion that the bottles contained salt or iodine tablets. The bottles sent for analysis were one of each of the different bottle types found at AOC(2)(i.e., 4 bottle types); one was analyzed for sodium and the others for iodide, cyanide, sodium and chloride.

Pertaining to question "a," J. McCullough said Mrs. Burns property was reviewed in light of Superfund, but did not meet the criteria.

G. Goepfert said the Army under its Formerly Used Defense Sites (FUDS) program will pay for the cleanup of AOC2.

Pertaining to question "b," G. Goepfert said the drawing will be revised.

Pertaining to question "c," G. Moreau said the sampling was targeted for specific purposes.

D. Geraghty said every sampling event indicates salt tablets. He added that the focus here is to clean up the site; however, no contamination located has presented health concerns.

T. Ausfeld asked if that was the same view of high school. He also asked if a GPR will be conducted at the high school.

J. McCullough said that test pits are needed to find anything really big.

D. Geraghty and G. Goepfert said that there will be extensive remediation when needed per test pit results.

G. Goepfert said the school bus property investigation detected hazardous substances and the pill bottles on Mrs. Burns' property do not contain hazardous substances.

T. Ausfeld said he believes there is or will be contamination in private wells.

D. Geraghty said that private wells have been sampled and nothing was found.

G. Goepfert said the Corps will add the "c" paragraph to the Remedial Investigation Report.

Attachment 3, Page 9. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	The presently closed Town of Guilderland landfill was originally used by the DOD. Do we have any idea what they dumped there? Since there was a federal activity involved at the landfill, the RAB requests that samples be taken of the water and sediment in the drainway of the landfill to determine if they have a FSADVA/NEIP "signature."
Attachment 4, Page 5. Corps written response to comment/issue	The Archive Search Report (ASR) indicates that the landfill area was used as a borrow pit; no records indicate that D.O.D. dumped there.

G. Goepfert said the bottom line is if any material is linked to the Army, the Army will take action to remediate the contamination.

D. Geraghty asked what the RAB members meant by the term "signature."

C. Rielly responded "signature" refers to substances and/or compounds showing up in contamination pertaining unique to Army use.

D. Geraghty said none of the contamination is unusual.

T. Ausfeld said there could be other burial pits located in the area outside of the depot facility. He asked who had the actual documentation of locations of the burial pits.

D. Geraghty said he has reviewed the files and found no such documentation. He added that the agencies are aware to be cautious to look for other burial sites.

T. Ausfeld said burial sites could be located across the railroad tracks. He suggested the Corps publish a newspaper article asking the public whether they have knowledge of or are concerned about burial pits to inform G. Goepfert about potential locations of burial pits.

Attachment 3, Page 10. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	A laboratory study of fish and invertebrates i.e. crabs, frogs, snails, etc., living in the Southern Landfill retention pond, should be undertaken to evaluate the effects of these animals (i.e., by regional predators) on the biota of the surrounding region. The RAB is especially interested to obtain information on the effects of the contaminants in the DOD's Southern Landfill on the regions rare and endangered species.
Attachment 4, Page 5. Corps written response to comment/issue	We will consult with the Fish and Wildlife staff of the NYSDEC prior to finalizing the Remedial Investigation/Data Gap Workplan.

J. McCullough said normally the NYSDEC does not see any other than substances that bioaccumulate like PCBs. He added that no rare or endangered species were identified on the depot.

C. Rielly said that Mr. Ward Stone would be a contact.

D. Geraghty said the NYSDEC has a Fish and Wildlife Division that does that work.

C. Rielly said that it was needed to net some fish and look if they appear normal [more than a visual study was meant].

G. Goepfert said that the Corps could net fish and check for normalcy as a biological qualitative assessment.

G. Moreau said that the contamination study in sediment does not lead one to believe there is a problem with biota.

Attachment 3, Page 10. Letter form Dr. Peter Buttner and Mr. Raymond Gemme, dated July 23, 2002.	The Guilderland Central School District has apparently drilled a number of irrigation wells across the Black Creek from the District's bus garage. What effects will the use of these wells have on the migration of pollutants from the burn pit (<u>now considered for substantial federal attention</u>) and other polluted sites in the NEIP? What hydrologic modeling has been done to evaluate the effects of the FSADVA/NEIP contaminants on the many wells that surround the FSADVA/NEIP?

Attachment 4, Page 5. Corps written response to comment/issue	The intention of the burn pit interim removal action is to eliminate a source of contamination. It is anticipated that follow-up monitoring, to be conducted subsequent to the removal action, will indicate an improvement in groundwater quality proximate to the burn pit site. [Beyond this monitoring work, no modeling is planned, or has been done]. Post-remediation monitoring that we plan to conduct should help assess the effects irrigation wells are having on the migration of pollutants.

C. Rielly asked if there are enough wells to do the monitoring.

G. Goepfert responded yes, there are enough monitoring wells.

D. Geraghty said yes, there are enough wells; however, the NYSDOH may request the Corps to extend monitoring beyond two years.

C. Rielly said apparently the school shoulders the responsibility for irrigating fields with contaminated groundwater.

D. Geraghty said if something is found the NYSDOH would take action.

Attachment 3, Page 10. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	We understand that a comprehensive program has been conducted to contact former workers at the FSADVA/NEIP site. In an effort to jog the memories and/or consciences of former FSADVA (and perhaps later NEIP) employees, they should be re-contacted, provided with absolute written immunity and their activities as employees of, or contractors to, the federal government.
Attachment 4, Page 6. Corps written response to comment/issue	The U. S. Army Corps of Engineers is not authorized to grant immunity. It is planned to compile the past interview information in bound form, as a formal document for the site. If the RAB membership can provide the names of any former Depot employees who have not been interviewed previously, the individual(s) will be contacted and, if they would be open to being interviewed, we will interview them. Note also that formal Records of Communication (ROC) were included as Appendix A of the Archive Search Report, dated August 1999, prepared by EA Engineering, Science and Technology.

C. Rielly said RAB members have a lack of faith in the completeness of the information from the people who came forward. They may have been proud to help the war effort and inadvertently contaminated areas.

T. Ausfeld said some former depot employees refused to talk with Lori Davidson, the DLA interviewer, and were concerned there could be an effect on their retirement, etc.

G. Goepfert said it is a trust issue and that barrier cannot be broken.

Attachment 3, Page 11. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	The NYSDOH and the NYSDEC must be encouraged to investigate past, present and future pollution caused directly or indirectly by the NEIP such as: (a). the State Pollution Discharge elimination System (SPDES) permits for tenants of the NEIP; and, (2) the dump that was placed by the NEIP without a permit and without local, state, or federal oversight into the federal wetland that is itself near-adjacent both to the Black Creek and to the heavily-contaminated DOD Southern Landfill, a state Superfund Site on the NEIP property.
Attachment 4, Page 6. Corps written response to comment/issue	NYSDEC and NYSDOH representatives will respond at the meeting of 17 October 2002.

J. McCullough said some of those concerns have been addressed already. He added that a dump on an owner's facility is permited; the wetland is state and not federal; and SPDES permits are allowed.

C. Rielly said he is concerned about SPDES permits.

Attachment 3, Page 11. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	In the Black Creek, BEHP is above background as well as NYSDEC Class C criteria. Where is it coming from and what will be done about it? What action is usually taken by state environmental and public health agencies when a contaminant is found to exist at such levels in a drinking water supply? Could we please have copies of the agency documents that set out the policies and procedures to be followed in such cases by each of the state regulatory agencies represented as advisors to the RAB?
Attachment 4, Page 6. Corps written response to comment/issue	We are not aware of the source of BEHP; BEHP was detected as stated in para. IIIa. (above) and upstream in Black Creek. Additional sampling, to include analysis for BEHP, will be proposed in the follow-on Remedial Investigation/Data Gap Workplan. The concerns you have expressed regarding drinking water will be addressed by NYSDEC at the meeting on 17 October 2002.

J. McCullough said if there is any contamination found in drinking water supply the county and state agencies would be notified and the contamination would be addressed. He added that state regulations for every department are provided on the state's Web site.

Attachment 3, Page 11. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	What is the status of the requests by the RAB that samples be taken: a. at the northern end of the NEIP where ISOW9 is on the Black Creek; b. of the water and sediment below the dams, c. of sediment and water ponding in front of the Watervliet Reservoir?
Attachment 4, Page 6. Corps written response to comment/issue	a. Additional sampling at the northern end of Northeast Industrial Park (NEIP) <u>where ISOW9 is on Black Creek</u> will be addressed in the follow-on Remedial Investigation/Data Gap Workplan. b. Sampling of the water and sediment below the dams is not anticipated at this time. c. Sampling of sediment and water ponding in front of the Watervliet Reservoir is not anticipated at this time.

Pertaining to question "b," G. Moreau said the Corps will address it when investigations detect the need.

Attachment 3, Page 11. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	What is the answer to the RAB question regarding the DOD's reason for construction of dams on the Black Creek? History? Contaminant trapping?
Attachment 4, Page 6. Corps written response to comment/issue	Information cannot be located that cites the reason for the construction of the dams.

G. Moreau said the old topo map shows presence of dams, but no known information.

J. McCullough said there could be a variety of reasons.

Attachment 3, Page 11. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	If state and federal pollution criteria were found to be exceeded by recent and past FSADVA/NEIP sampling by environmental regulators, then why had no action been taken or recommended by those regulators?
Attachment 4, Page 6. Corps written response to comment/issue	NYSDEC representative will address at the 17 October 2002 meeting.

J. McCullough said the Corps was contacted and took over the investigation and remediation.

C. Rielly said there is a difference between state and federal standards, and the charts in the RIR show the contradiction of standards.

J. McCullough said the state and federal agencies are working on those differences. He added that the state does not do the work if the potentially responsible party does it.

Attachment 3, Page 12. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	What was the reference made to "double the criteria" in order to recommend action?
Attachment 4, Page 6. Corps written response to comment/issue	The reference to "double the criteria" is not intended to recommend remedial action. The references to "double the criteria" are to help quantify, in a simple and consistent manner, how high the concentrations are relative to the regulatory criteria.

C. Rielly said he does not know where the term "double the criteria" was referenced and that it was taken out of context. He asked if it meant no action will be taken unless the criteria was doubled.

G. Moreau said there are references to "double the criteria" in the RIR and that Parsons will cull the document and clarify those references.

Attachment 3, Page 12. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	What does the creosote from railroad ties turn into and has that been a contaminating influence on the past and recent sediment analyses?
Attachment 4, Page 7. Corps written response to comment/issue	Creosote does contain polycyclic aromatic hydrocarbons (PAHs). PAHs are also contained in asphalt, vehicle exhaust, etc. PAHs have been evidenced in the pond sediment at AOC(1), at an upstream Black Creek location (SD28) and a Black Creek location within the former Schenectady Army Depot (SD19).

C. Rielly asked if creosote is a hazard to the water supply.

J. McCullough responded that creosote saturates the first half-inch of the surface but does not go any farther. Sampling results of the Watervliet Reservoir would determine if there is adverse impact on the water supply.

Attachment 3, Page 12. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	Does the RIR document compare all ground water and surface water data to Class A drinking water criteria? If not, why not? People are drinking the water that flows out of the polluted FSADVA/NEIP site!
Attachment 4, Page 6. Corps written response to comment/issue	"Class A" applies to surface water—and that was the comparison. Groundwater data is compared to "Class GA" drinking water standards.

G. Moreau said yes, the RIR compares the data to both sets of criteria.

C. Rielly asked how does it compare to Class A.

G. Moreau responded that Class A is more stringent; however, he could not address it without the document at hand.

J. McCullough referred to the state Web site for information on the regulations.

Attachment 3, Page 12. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	If contaminant screening criteria are exceeded, how can the assumption be made that these values do not pose a significant hazard to human health or the environment? This is especially true since there have been limited studies regarding the cumulative and/or combining affect of the many contaminants found in the FSADVA/NEIP.
Attachment 4, Page 7. Corps written response to comment/issue	NYSDOH representative will address at the 17 October 2002 meeting.

R. Gemme said the RAB thinks there is potential of exposure from the Watervliet Reservoir.

G. Geraghty said the NYSDOH requires sampling and it is done and recorded. He added that the NYSDOH does not know how all combined contamination exposure effects humans. When standards are exceeded, action is taken.

C. Rielly said if contamination is not supposed to be there, it should be removed from the reservoir.

T. Ausfeld said the RAB needs to see and compare the raw water data from the last five years.

D. Geraghty said people drink treated water not raw water and there is no exposure.

G. Goepfert said the Corps will ask Nick Ostapkovich, Deputy General Manager of Watervliet Reservoir, for the raw water data.

Attachment 3, Page 12. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	Is the vertical extent of the contaminated soil impacts from AOC3 known?
Attachment 4, Page 7. Corps written response to comment/issue	Yes. The vertical extent of soil impacts at AOC(3) has been adequately characterized.

G. Goepfert said that soil boring data is presented.

Attachment 3, Page 12 and 13. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	We understand that twenty years of water testing data from the City of Watervliet has been made available to the RAB. We have yet to see this data and would like to have a copy for our analysis and review. What has the 20-year data provided by the City of Watervliet revealed? At what levels do they test? What are the accuracy and precision of their measurements? How does Watervliet's sampling, measurement processes and analytical techniques compare with those used to compile the August, 1998 data displayed on Parson's Drawing 18 (Job 736741)? Did Watervliet's program find any of the substances that the USACOE (Job 736741) found in the Black Creek in August 1998 or at any other time? How does the City of Watervliet's ability to find such pollutants compare with that of the laboratory used by Parsons? How do the average costs per sample compare? Given the analytical capabilities of both entities is it reasonable to compare their results?
Attachment 4, Page 7. Corps written response to comment/issue	The water testing data from the City of Watervliet will be provided to the RAB.

G. Goepfert said the real question is – is there anything in the water that is of concern from the depot. He added that the answer is that the treated water product is safe to drink.

T. Ausfeld said there are several tributaries that feed into the reservoir and the raw water needs to be sampled.

J. McCullough asked if that sampling was done, how does one know which tributary is the cause.

G. Goepfert said studies have been done from the property downstream, not from the reservoir backwards.

T. Ausfeld said the contamination should be traceable and the data does not show that.

J. McCullough said there is no signature from the depot.

D. Geraghty said sampling is done from the source outwards.

T. Ausfeld said what matters is the Black Creek.

G. Goepfert said the Black Creek is an area of concern.

T. Ausfeld said the number one problem in the environment is the NEIP since it was established.

C. Rielly said apparently since the Watervliet Reservoir has not shown any contamination, then no action is required?

G. Geraghty said the raw water is sampled and the county health department has the data.

G. Goepfert said from the treatment operators' viewpoint they have to look at the raw water.

G. Geraghty said the focus is on the finished water because it is drinking water, and the raw water is important to make the finished water.

T. Ausfeld said the raw water is not being tested and he is concerned about all of the runoff from NEIP into the Black Creek.

Attachment 3, Page 13. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	The NYSDEC representative to the RAB has often said that if RAB members have any concerns that are under the jurisdiction of their agency, then those concerns will be researched, investigated and reported in writing to the RAB. Yet, members of the RAB have often raised the same questions and issues at meeting after meeting. For instance, what SPDES permits have been issued to tenants and owners of the NEIP? This, and similar environmental questions have been asked by RAB members at almost every meeting. When can the RAB member expect answers to such questions? (When serious, relevant environmental and public health questions are presented by the RAB to the state environmental and public health regulatory representatives present at various RAB meetings, the RAB members are told: "those questions should be directed to other parts of their respective agencies." Well why don't THEY direct the questions to those parts of their agencies and find the answers? Are not these regulatory participants representatives of their agencies and should they then function as information conduits for this federal Restoration Advisory Board? If they do not feel competent to speak for their respective agencies perhaps they should be replaced by hose who are able to more properly assist the RAB in this very difficult public federal activity?)
Attachment 4, Page 7. Corps written response to comment/issue	The NYDEC representative will respond at the 17 October 2002 meeting.

J. McCullough said he had been involved with the FSADVA project for a long time and would continue to stay involved for the duration of the project.

D. Geraghty said it is his job to assess human exposure on 100 sites in 30 counties. He added that NYSDOH sampled private wells and determined there were no completed exposure pathways. He said a potential exposure pathway is Watervliet Reservoir. He concluded that he is accessible to calls from RAB members.

C. Rielly said the RAB comment/issue was a strong statement. He added that RAB members would appreciate the NYSDEC and NYSDOH representatives to follow-up within their department and provide the responses to the RAB questions.

Attachment 3, Page 13. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	Why isn't protection of the Black Creek, a major source of drinking water, mentioned in the objectives of the Focused Feasibility Study for AOC3? Why doesn't the state environmental and public health regulators on the RAB insist that this become a major consideration?
Attachment 4, Page 7. Corps written response to comment/issue	The Remedial Investigation focuses on Black Creek as an Area of Concern (AOC(8)).

R. Gemme said this goes back to what G. Goepfert said about working from the source outward.

Attachment 3, Page 12. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	How does the intermittent nature of the Black Creek affect the RIR results and recommendations? Again, (see item 29, above) where were our state environmental and public health regulators "<u>when the creek went dry</u>?" Noxious substances can continue to flow into Black Creek which exceed the "dilution standards" for the NEIP tenant's SPDES permits?
Attachment 4, Page 7. Corps written response to comment/issue	The Remedial Investigation has not been designed to address the intermittent nature of the Black Creek.

J. McCullough asked what if it does not rain for six months and we cannot use the water.

C. Rielly said he is concerned about the number of SPDES permits in the watershed area.

G. Goepfert said SPDES permits take into account how water is treated before it is discharged to Black Creek.

D. Geraghty said SPDES permit engineers are pretty conservative in presenting data and establishing treatment systems.

R. Gemme said SPDES permitting considers drinking water supply.

Attachment 3, Page 13. RAB letter dated July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB	Why was construction by NEIP permitted in the vicinity of AOC3 when it was known that the site was a source of pollution and contaminated soils? It was reported to be on the aerial photographs that these agencies shared. Doesn't the federal government have any control of their contaminated sites? Isn't the federal government interested in containment of their polluting contaminants so as to expedite their removal and enhancement of the polluted location? Or is the federal government eager to support such policies and activities that, in effect, disperse the polluting contaminants and thereby reduce their concentrations so that they fall "within accepted limits," and thus the federal contaminated site will "require no further action"?
Attachment 4, Page 7. Corps written response to comment/issue	The property owner has the right to develop his property within the guidelines of planning and zoning policies of local authorities. The U. S. Army Corps of Engineers is not a regulatory agency. Note that the property owner relocated (to the north) the footprint of the new warehouse to avoid the contaminated area at AOC (3), and has postponed the addition to the warehouse, so as to allow the U.S. Army Corps of Engineers to perform an interim removal action in the contaminated area identified at AOC (3).

T. Ausfeld said it was contaminated property and they should not have been allowed to build.

D. Geraghty said they were told to stop building and they did.

Meeting Closure

G. Goepfert said minutes will be prepared for this meeting and the RIR document will be revised per the discussion. He added that he would work to secure funding for work on the site to continue.

C. Rielly said he appreciates the Corps' work and bringing the group together. He added that he appreciates the Corps allowing the RAB to voice their concerns about Watervliet Reservoir even though it may not be associated with the depot.

G. Goepfert said the Corps has developed a good rapport with the RAB members and has assembled a good team that depends upon each other to get the work done. He added that the RAB members are an important part of the team and he has learned a lot from the RAB members.

D. Geraghty asked when is the next RAB meeting.

G. Goepfert said the next RAB meeting will be considered in January 2003 and that it would be an evening meeting. He added that at that time there will be documents to review.

The meeting was adjourned at 3:23 p.m.

Attachment 1

RAB Working Group Meeting Follow-Up Activities/Responses to Questions Per Meeting Minutes – October 17, 2002

1. Reference: minutes, page 5. G. Goepfert suggested that T. Ausfeld review the oral history and compare the persons interviewed with the individuals he believes observed the dumping. G. Goepfert added that the Corps will talk to the persons T. Ausfeld identifies.

2. Reference: minutes, page 8. R. Groves said he would look for the testing information.

3. Reference: minutes, page 9. G. Goepfert asked if data already exists for the delta area. J. McCullough said he would check the availability of sampling data in the delta area.

4. Reference: minutes, page 9. C. Rielly said we saw a mountain of stuff on the wetlands and it was removed before J. McCullough conducted his site visit. C. Rielly asked what was the stuff and where was it taken.

   Response/Follow-up: Mr. McCullough advised that this question has been answered previously.

5. Reference: minutes, page 11. R. Groves said it is the County of Albany that reviews the rules and regulations and that he will check out the status of the watershed study's revised rules and get back to Mr. Ausfeld. Mr. Groves added that the county's contractor might still be reviewing the rules and regulations.

6. Reference: minutes, page 15. Per question "a," D. Geraghty said BEHP *bis*(2-ethylhexyl) phthalate (BEHP) is a plasticizer and more information can be located on the Agency forToxic Substances and Disease Registry (ATSDR) Web site TOXFAQs. He said BEHP is commonly used in plastics and evaporates quickly.

   Response/Follow-up: "BEHP" is not provided as a ToxFAQs on ATSDR's Web site; however, it does provide a ToxFAQs for di(2-ethylhexyl)phthalate (DEHP), a slightly different name for the same compound, at http://www.atsdr.cdc.gov/tfacts9.html.

7. Reference: minutes, page 18. T. Ausfeld said burial sites could be located across the railroad tracks. He suggested the Corps publish a newspaper article asking the public whether they have knowledge of or are concerned about burial pits to inform G. Goepfert about potential locations of burial pits.

8. Reference: minutes, page 18. G. Goepfert said that the Corps could net fish and check for normalcy as a biological qualitative assessment.

9. Reference: minutes, page 23. C. Rielly asked how does it compare to Class A. G. Moreau responded that Class A is more stringent; however, he could not address it without the document at hand.

10. Reference: minutes, page 24. G. Goepfert said the Corps will ask Nick Ostapkovich, Deputy General Manager of Watervliet Reservoir, for the raw water data.

US Army Corps of Engineers®
New York District

Former Schenectady Army Depot
Voorheesville Area

RAB Working Group Meeting
October 17, 2002

US Army Corps of Engineers®
New York District

Investigation/Cleanup at Guilderland Central School District

- Notified 8/26/02 by NYSDOH, Mr. Dan Geraghty, vials of white granular substance found during the excavation of utility trench for bus garage
- On site 8/27/02, Messrs. Jeff McCullough, Jim Quinn, of NYSDEC, Dan Geraghty, NYSDOH, Ron Groves, Albany County Health Department, Robert Paquette, Assistant Superintendent for Business, Guilderland Central School District, et. al.
- Arrangements made for further investigations by "test pits" and ground penetrating radar (GPR)

17 Oct 2002

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Investigation/Cleanup at Guilderland Central School District

- Items Discovered: vials of calcium hypochlorite, ortho-tolidine test kits, tubes of "anti-lewisite" and "M-5" skin anti-blister ointments, distilled water bottles (0.1% citric acid) for plasma regeneration, dried plasma for regeneration, assorted paint cans/ink bottles
- Over 860 tons of waste disposed (220 ton lead/640 ton oxidizer)
- "… no significant anomalies within the survey grid."
- Cost: $500,000 +

17 Oct 2002

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Former Schenectady Army Depot
Voorheesville Area

Calcium Hypochlorite Vials

17 Oct 2002

Former Schenectady Army Depot Voorheesville Area

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"British Anti-Lewisite Ointment Tubes" 17 Oct 2002

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Voorheesville Area

Ground Penetrating Radar Grid

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Former Schenectady Army Depot
Voorheesville Area
Fiscal Year 2003 Plan

- Complete Burn Pit Cleanup*
- Complete draft Feasibility Study – Area of Concern #2
- Assemble Remedial Investigation Data Gap Workplan*
- Perform sampling & analysis*

*pending availability of funds

17 Oct 2002

US Army Corps of Engineers®
New York District

Former Schenectady Army Depot Voorheesville Area

- Response to RAB Issues

- Response to comments on the draft Remedial Investigation Report

17 Oct 2002

TO: Mr. Gregory J. Goepfert
190 State Highway 18, Suite 202
East Brunswick, New Jersey 08816

February 6, 2002
[redacted]
Gregory.J.Goepfert@nan02.usace.army.mil

From: FSADVA RAB Members: P. Buttner, R. Gemme, C. Rielly, M. Tanis, E. Tanis, S. Yachup and T. Ausfeld

Re: **OUR EXTENSIVE REVIEW OF:**

Remedial Investigation Report, Former Schenectady Army Depot-Voorheesville Area, Guilderland, N.Y. May 2001 (RIR-3-01)

We have spent **many, many days** going through this complex document. Again and again we returned to what we consider a pervasive problem: the reliability of the assembled data as a basis for decisions. In order to understand one of our major objections to the information, analyses and conclusions presented in this report, we ask you and your technical review committee to consider the following comments by P. Buttner and R. Gemme.

MIXING CONTAMINATED SITES WITH UNCONTAMINATED SITES YIELDS CONTAMINATED - SITE -BIASED BACKGROUND ANALYSES

Background Chemistry: In the context of this study, what is "background?"

IN CONTEXT OF THIS STUDY, BACKGROUND IS SUPPOSED TO BE THE PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE AREA SURROUNDING THE FORMERLY SCHENECTADY ARMY DEPOT VOORHEESVILLE AREA (FSADVA) THAT WAS NOT CONTAMINATED BY THE ACTIONS OF THE DEPARTMENT OF DEFENSE, ITS SUBCONTRACTORS, OR ANY OTHER RELATED, UNDEFINED ACTIVITY.

Moreover, in keeping with the goals and objectives of the FUDS Program, if one or more sites were discovered outside the expected contamination zone around the FSADVA with the same general contamination signature as those found at sites within that zone, then might it be expected that such remote sites could be considered as additional candidates for remediation?

As a means to assist in the selection of possibly- ***uncontaminated sites that might have characteristics that would represent the background of the region***, we (Gemme and Buttner) selected ten sites for sampling as possible candidates. We located these sites for the USACE's representatives. Nine of these sites were selected, sampled, their chemistry analyzed, and the data reported in Table 3.4 "Background Soil Data"

Of the nine samples listed in Table 3.4, one sample (AOC2-HP-10) has an *exceptionally strong signature of the contaminated materials found in the FSADVA - **in statistical terms it is defined as an outlier*** and must be excluded from all analyses. It does not represent the background *as defined by the five (5) uncontaminated sites* of AOC2 -HP-11, -12, -13, -16 and -18. Likewise, sites AOC2-HP-14, -16 and -17 are, to a lesser degree, contaminated by the chemistry of the FSADVA; as with AOC2-HP-10, ***they are also outliers*** *of the uncontaminated, background distribution* and also should be excluded from any description or representation of the background.

As any statistician will tell you, the *five (5) uncontaminated sites* are from a different population then that of the *four contaminated sites*. Excluding their variable pesticide content as a result of farmland contributions, these five sites appear to represent the local background that has not been contaminated as a result of the actions of the Department of Defense, its subcontractors, or any other related, undefined activity.

Therefore, it would seem that all calculations, models, schemes, etc. that reference or use **your contaminated background data** as a basis in RIR-3-01, must be reconsidered?

With regard to the four (4) contaminated sites, it seems like a lot of FSADVA chemistry has found itself outside, ***and very likely downstream***, of the the boundary of the FUDS site. Perhaps the search for additional contaminated sites as well as the cleanup program will have to be expanded?

By the way, what is the basis for those "***estimated*** (J)" values that are sprayed throughout this report? For instance, in Table 3.4 the reported number of estimated values range from 18 to 21 *for the contaminated sample sites* and from 7 to 14 *for the uncontaminated, background sample sites*. This report is loaded with (" contaminated" with?) ***estimated values***! How can we reviewers tell what's real and what's not? Why estimate? Do all "estimators" estimate at the same rate, within the same limitations, using the same guidelines? What are the *errors* associated with the many types of estimates reported in this document?

Interestingly, the values reported for site AOC2-HP-12 (12 estimated values) and its repeat sample AOC2-HP-112 (9 estimated values) could be separated into two slightly different samples via a statistical regimen called Cluster Analysis. **As we noted in previous discussions**, perhaps the analysis of this and other dupe-sets could provide you with a measure of the possible values ***for the errors associated with sampling, measurement, computation, operator interaction, transcription and equipment that typically are always a component of such sampling studies***.

We can't imagine using ***just five (5) samples*** (that were selected in a non-representative manner: biased rather than random) of the bottles that were dumped by DoD on the Burns property and using the chemical analyses of those five (5) bottles to represent the characteristics of a population of perhaps more than ***several thousand individuals***. Data developed from such ***non-rigorous*** investigated work is ***meaningless***.

Another glaring error in this report has to do with the classification of "non-contaminated vs. contaminated" materials: some lower concentration values are identified as contaminated while some higher reported values are not so designated. Basis for this distinction?

However, because of the above comments and items that relate to some of the apparent, striking computational procedural, editing, tabulation, presentation, cross-referencing, indexing and scientific anomalies in this report, we have decided to hold all further comment until we receive an updated, readable, corrected, edited and properly referenced version of the RIR-3-01.

Please don't complain to us about all the calculations, remediation plans, etc. that will have to be redone if you follow our scientifically-based critique. You should have all your documents and reports for such complex projects reviewed by both a text editor and by outside reviewers with a skeptical eye for detail and good science!

For the FSADVA Local Community Members of the Restoration Board,

Peter J. R. Buttner, Ph. D.
Raymond L. Gemme, P.E., L.S., M.S.

1279 Old State Road East
Schenectady, NY 12303
(518) 356 - 3705

November 16, 2001

Restoration Advisory Board
David Brower, Project Manager ACOE
NYS Department of Health
NYS Department of Environmental Conservation

The November meeting was very good and our minutes are much better than the past year. I have a few additional comments which I feel need written.

1. All questions in the past minutes need to be reviewed and answered by the ACOE, NYSDEC and NYSDH.

2. AOC (3), AOC (1), AOC (2), and AOC (5) should all have focused feasibility reports finalized and put on record for funding. Additionally, AOC (2) should be a priority. (Private Home Owner)

3. The New York State Departments involved with the SAD Remedial Investigation should make a written report, available to the public, involving this watershed as stated in past minutes and the Black Creek should be Class A.

4. Each year during the springtime run off period, the Black Creek should be tested for all contaminates noted in ACE Reports. Also, the Guilderland High School well water should be tested.

5. It would be appreciated if a copy of the written historical data could be given to the Guilderland Town Historian.

Thank you.

Respectfully,

Thadeus W. Ausfeld (signature on original letter)

Thadeus Ausfeld
RAB Member

3279 Old State Road East
Schenectady, NY 12303
(518) 356 - 3705

December 10, 2001

Restoration Advisory Board
David Brower, Project Manager ACOE
NYS Department of Health
NYS Department of Environmental Conservation

A few comments in regards to "The Remedial Investigation Report – May 2000" by Parsons Engineering.

1. The Black Creek is a Class C Water Body, suitable for fishing, fish propagation and primary and secondary contact recreation as stated by the New York Bureau of Watershed Management and The New York State Department of Environmental Conservation. Not suitable as a source of water for drinking, culinary or food processing yet flows into the Watervliet Reservoir.

2. All sites 1 – 9 have some type of contaminants but may be lower than the standard!

3. The monthly mean average data on precipitation (chart P 2 – 4, Table 2.1) is incorrect. It does not show spring and fall rain and runoff periods on the watershed.

4. Demography and land use should recognize the population of Guilderland High School and the private use of schools wells (2 – 4).

5. ACO 1 has a Class 2 ranking indicating the site is a significant threat to public health.

6. In my mind, this report indicates a very large problem within the watershed. Core samples should be done at the first dam site on the Black Creek after N.E.I.P. and at the Route 158 Bridge (east of the bridge) in the sediments of the Watervliet Reservoir.

I would only hope that cleaning of the site can be started and the long-term benefits to the Watervliet Reservoir and the Watershed get better in the years to come.

What can I say?

Thank You.

Respectfully,

Thadeus Ausfeld
RAB Member

2

3279 Old State Road East
Schenectady, NY 12303
(518) 356 - 3705

May 02, 2002

Restoration Advisory Board
Project Manager ACOE
NYS Department of Health
NYS Department of Environmental Conservation

The following list of questions need to be addressed for the protection of the Black Creek from possible contamination from past and present operations of the N.E.I.P:

1. How many underground tanks remain and used in the Industrial Park?
2. Where does NEIP garbage end up?
3. What is going to be done with NEIP Landfill? Is it an approved landfill?
4. How many SPEDES permits are approved in the Industrial Park?
   Where are their discharges and are signs posted on the Black Creek?
5. Why is there no Industrial Wastewater Plant?
6. How much salt is used during winter months?
7. How many spills have occurred in the last five years?
8. Could OSHA inspection get Environmental concerns corrected in Industrial Park?
9. How close to the Black Creek are the chemical dumps? (Army)
10. What types of chemicals are stored inside the NEIP? (What type of protection)
11. Why has the buffer zone along the Black Creek been removed?
12. What types of industry will be coming to the NEIP in the future?
13. How can a plan be put together to protect the Black Creek?
14. Why cant the raw materials stored in the Industrial Park be covered? (All Types)
15. How can the storm drainage system be improved to protect the Black Creek?

A Black Creek buffer zone should be established and the Watervliet Watershed regulations applied.

Thank You.

Respectfully.

Thadeus Ausfeld
RAB Member

3279 Old State Road East
Schenectady, NY 12303
(518) 356 - 3705

May 2, 2002

Restoration Advisory Board
Project Manager ACOE
NYS Department of Health
NYS Department of Environmental Conservation

Comments in regards to the last RAB meeting on 29 April, 2002.

Keeping in mind that I worked for the Town of Guilderland (within the N.E.I.P. grounds) from 10/21/74 to 4/11/75 and from 6/20/77 to the Present.

It appears that when the US Army turned over the Depot, many Federal, State, County and Town Officials (also probably the Galesi Group) knew of the environmental problems within the N.E.I.P.?

What was the date of the first engineering report?

How much actual cleanup was done prior to RAB?

Question - When I started working for Guilderland, why was I not informed of environmental problems and of possible health risks within N.E.I.P from AOC (6). (Town Properties)

Question - Why did it take over 20 years for these problems to surface?

During the past 25 years, I have been in a position not knowing what was happening and only finding things out as they came up!

1. Working and assigning people to work within the original Depot and Wastewater Plant.
2. Iodine pits discovered during plant construction.
3. Soil condition of grounds in Water and Wastewater areas.
4. Soils and dirt conditions under the new 1.0 MGD Clearwell.
5. WTP pipes underground corroding because of soil conditions.
6. All cleanups on Town Properties have been paid for by Water and Sewer Districts (Local Tax Payers)(Should The Town be reimbursed)
7. Possible dust contamination from construction projects above AOC sites (Strong winds).

–Thank You.

Respectfully.

Thadeus Ausfeld
RAB Member

Gregory J. Goepfert, USACOE Co-Chairman, Restoration Advisory Board (RAB)
Former Schenectady Army Depot Voorheesville Area (FSADVA)
190 State Highway 18, Suite 202
East Brunswick, New Jersey 08816

July 23, 2002

Dear Mr. Goepfert:

What follows are the assembled comments of the Local Community Members of the FSADVA - RAB concerning its comprehensive review of a Remedial Investigation Report (RIR) prepared by Parsons Engineering Science, Inc. for the U.S. Army Corps of Engineers, dated May 2001 concerning the environmental aspects of the Former Schenectady Army Depot Voorheesville Area (FSADVA). A large portion of the FSADVA has now been developed as the Northeastern Industrial Park (NEIP).

Our work took considerable time and effort and many of the issues listed below that we have raised for your consideration had to be discussed and re-discussed in order to provide your office with suggestions, comments and arguments that were relevant, reasonable and adequately stated.

First, let us deal with the technical presentation. We expect that the scientific and technical documentation of a study program (where the results of which, in our view, will have a significant, long-term impact on the public health, welfare and safety) would be carefully prepared and edited. After careful review of the study it appears that it can be challenged; i.e., if samples are supposed to be taken on synthetic grid intersections, and reported as such, then that's where we expect to find they were taken! There are many "discontinuities" in this report and we wonder if the same unreliability and "flexible expressionism" extends to the reported data!

It is truly a shame that possibly excellent science and engineering might be masked by poor reporting!
There is no excuse for some of the mixups. Discontinuities include but are not limited to the following:

I. The objective of the RIR document was to determine the presence or absence of contamination within the confines of the FSADVA as a prelude to determine remedial measures, as required. Black Creek is one of the tributaries to the Watervliet Reservoir which is the main source of drinking water for the residents of the Town of Guilderland, the City of Watervliet and some neighboring communities. It is obvious from the information contained in this report that contamination of Black creek has occurred. It is imperative to address resulting contamination beyond the confines of the FSADVA downstream and into the reservoir. Only after additional testing has been done, as

proposed here, and other comments on the report have been addressed, can the mutual objectives of this RIR document be met.

II. There are many references in the RIR document comparing testing data obtained in the 9 areas of concern (AOC) to background data. These comparisons were used as the basis for decision making concerning required levels of remediation at each AOC.

a. No reference was found in the RIR document concerning any analysis and summary of the background data that was used to develop comparisons.

b. Was the background information analyzed and massaged statistically to formulate comparisons? There were several anomalies or outliers found in the data. If they were included in the comparisons, they would skew the results to the conservative side and thereby lessen the required remedial effort. They do not adequately reflect the pollution in the FSADVA/NEIP.

Please recall that our previous communication of February 6, 2002, highlighted the problem that arises when two dissimilar data populations are merged and the result is a favorable outlook; geologists call this effect "salting the outcrop".

Outliers were found in the following locations and therefore data from these locations and any similar locations must be excluded from the determination of the pre-FSADVA background:

- Table 3.3 - Carcinogenic PAH in AOC8-SD28
- Table 3.4 - Carcinogenic PAH and Non-Carcinogenic PAH in AOC2-HP10
- Table 3.2 - Semivolatiles in AOC8-SW21, SW22 & SW23

III. AOC8 - Black Creek

a. Figure 3.27 shows many locations where BEPH contamination exists in AOC8, Black Creek. It appears that none of the other AOC were tested for this chemical. This does not allow for determination of the source of contamination. Will additional testing be done in the other AOC to find the source of this pollutant in Black Creek? If not, why not?

b. The results of older testing in this AOC shown on Parsons Drawing No. 18 (Job 736741) previously submitted to the RAB should also be summarized on Figures 3.27 and 3.28.

IV. AOC6 & AOC9

SVOC test results in these areas are higher than those shown for AOC7, yet, AOC7 has tagged locations of contamination and AOC 6 & 9 are not tagged for the same or higher levels of SVOC test results. Please explain?

V. AOC2

a. This area was originally indicated to be included on a NYSDEC Superfund list of sites. What, if any effect have the results of the testing program had on this determination?.

b. The report indicated that groundwater and subsurface soil sampling was done in a 10-foot grid pattern. It appears from the information shown on figures 3.10 and 3.11 that the pattern is closer to 15 feet. What was the basis for grid site selection?

c. The report indicates a selection of 5 pill bottles for testing. The results are questionable to adequately representing the full range of chemicals present. ***Five*** samples are not considered enough to provide for random sampling of the ***thousands*** of bottles located in the area.

VI. AOC3

Figures 3.15a and 3.15b depict different water table elevations but they note the same date. It appears that the date on one of them must be in error.

The following thirty-two issues represent the special concerns of the Local Community Members of the FSADVA -Restoration Advisory Board (RAB) and all are deemed relevant to the final form and execution of the RIR:

1. The presently closed Town of Guilderland landfill was originally used by the DOD. Do we have any idea what they dumped there? Since there was a federal activity involved at the landfill, the RAB requests that samples be taken of the water and sediment in the drainway of the landfill to determine if they have a FSADVA/NEIP "signature."

2. If any of the studies of the FSADVA that were done by various local, state or federal entities revealed the presence of chemical pollution of a nature that could not possibly be attributable to federal activities, then the RAB request that the results of those studies be shared with the Town of Guilderland and other, relevant environmental regulatory agencies for appropriate action and cleanup.

3. What degree of consistency is there between test results of the FSADVA such as those tests repeated over the years by (or sponsored by) local, state and federal agencies?

   How do they compare with the results in the City of Watervliet's Annual Reports, etc.(see also item 27)?

   We request that tables be constructed for each analyte that show the results of tests for that analyte (please - no need to annotate with any reference to "standards" data), indicating when it was sampled, when it was tested, who did the analysis, where the sample was collected (Lat-Long or State Plane will be OK) and any other relevant data.

If you have trouble researching these data, we will provide volunteers (RAB members) to assist. All you have to do is assure that we have access to the sources and then the RAB volunteers will develop the data lexicon and make it available through your website to any interested party.

Eventually, we would like to create three-dimensional contour models of both the concentrations of each analyte and their variation over time.

4. It appears that "dams" were installed on Black Creek by DOD during the construction of the FSADVA (see also item 15). Therefore, additional chemical testing of sediment samples should be considered from both above and below each of the dams on the Black Creek in the reach between the NEIP exit and the confluence with the Bozenkill.

5. As a means to define the extent of Black Creek's dispersal of FSADVA/NEIP pollutants, a program of sediment coring and detailed chemical analysis should be conducted of the Black Creek/Bozenkill delta in the Watervliet Reservoir.

6. A laboratory study of fish and invertebrates i.e. crabs, frogs, snails, etc., living in the Southern Landfill retention pond, should be undertaken to evaluate the effects of these animals (i.e, by regional predators) on the biota of the surrounding region. The RAB is especially interested to obtain information on the effects of the contaminants in the DOD's Southern Landfill on the regions rare and endangered species.

7. The Guilderland Central School District has apparently drilled a number of irrigation wells across the Black Creek from the District's bus garage. What effects will the use of these wells have on the migration of pollutants from the burn pit (now considered for substantial federal attention) and other polluted sites in the NEIP? What hydrologic modeling has been done to evaluate the effects of the FSADVA/NEIP contaminants on the many wells that surround the FSADVA/NEIP?

8. A study of the health of long-term residents living in the immediate area surrounding the FSADVA as well as present and former workers at NEIP should be done. This effort will assist in determining if any cumulative adverse health effects have been caused or are expected to be caused by exposure to the various pollutants that are or were present at the FSADVA/NEIP.

9. All sampling results (without any incorporated "soft-shoeing") and the description of any proposed remediation plans should be sent to the Town of Guilderland and the City of Watervliet, delivered with "return receipts."

10. We understand that a comprehensive program has been conducted to contact former workers at the FSADVA/NEIP site. In an effort to jog the memories and/or consciences of former FSADVA (and perhaps later NEIP) employees, they should be re-contacted, provided with absolute written immunity and their activities as employees of, or contractors to, the federal government.

11. If in the future, NYS and/or Federal pollution standards become more stringent and levels currently acceptable are exceeded under the new criteria, then will the USACOE or another federal agency take whatever steps that are necessary to meet the new criteria, including reopening the RAB process? Can some written form of this policy be included in the RIR and all relevant future documents?

12. The NYSDOH and the NYSDEC must be encouraged to investigate past, present and future pollution caused directly or indirectly by the NEIP such as: (a). the State Pollution Discharge Elimination System (SPDES) permits for tenants of the NEIP; and, (2) the dump that was placed by the NEIP without a permit and without local, state, or federal oversight into the federal wetland that is itself near-adjacent both to the Black Creek and to the heavily-contaminated DOD Southern Landfill, a state Superfund Site on the NEIP property.

The state has permitted the existence of pollution discharges by NEIP tenants into the Black Creek even though it was already a source of drinking water (and presently a source of drinking water for perhaps 40,000 people) via the State Pollution Discharge Elimination System (SPDES). These SPDES permits, which permit continuous delivery of contaminants to the Town of Guilderland's and the City of Watervliet's drinking water supply, were granted as an accommodation to the development of the Northeastern Industrial Park (NEIP). These SPDES permits allow NEIP tenants to discharge pollutants into the Black Creek and make the NEIP a favorable site for such polluters. (See items 28, 29 and 31; below)

The RAB members think that it is important to separate responsibility for federal sources of pollution from any possible sources of pollution from the NEIP.

13. In the Black Creek, BEHP is above background as well as NYSDEC Class C criteria. Where is it coming from and what will be done about it? What action is usually taken by state environmental and public health agencies when a contaminant is found to exist at such levels in a drinking water supply? Could we please have copies of the agency documents that set out the policies and procedures to be followed in such cases by each of the state regulatory agencies represented as advisors to the RAB?

14. What is the status of the requests by the RAB that samples be taken:
(a) at the northern end of the NEIP where ISOW9 is on the Black Creek;
(b) of the water and sediment below the dams,
(c) of sediment and water ponding in front of the Watervliet Reservoir?

15. What is the answer to the RAB question regarding the DOD's reason for construction of dams on the Black Creek? History? Contaminate Trapping?

16. If state and federal pollution criteria were found to be exceeded by recent and past FSADVA/NEIP sampling by environmental regulators, then why has no action been taken or recommended by those regulators?

17. Why was the reference made to "double the criteria" in order to recommend action?

18. What does the creosote from railroad ties turn into and has that been a contaminating influence on the past and recent sediment analyses?

19. Pond sediment samples were collected from the top 6 inches of the Southern Landfill Pond; PCB testing in the Hudson River suggested remediation that goes deeper than that. What are we missing? How thick is the mud in the Southern Landfill Pond and what's in its layers? Has there been a study of the limnology of this pond? Has the topography and the thickness of the bottom sediments been mapped? According to map and photographs this pond was not present prior to the construction of the FSADVA.

20. What is the most recent data regarding the pollution plume from the Former Bivouac Area AOC2?

21. Have there been any further efforts to explain the soil discoloration in AOC2? If not, why not?

22. Does the RIR document compare all ground water and surface water data to Class A drinking water criteria? If not, why not? People are drinking the water that flows out of the polluted FSADVA/NEIP site!

23. Where is the soil that was scraped off AOC3 by the owner/operator of the NEIP? It should be located, tagged and sampled. (See also item 32, below.)

24. If contaminant screening criteria are exceeded, how can the assumption be made that these exceeded values do not pose a significant hazard to human health or the environment? This is especially true since there have been limited studies regarding the cumulative and/or combining affect of the many contaminants found in the FSADVA/NEIP.

25. Is the latest extent of contaminated groundwater impacts from AOC3 now known?

26. Is the vertical extent of the contaminated soil impacts from AOC3 known?

27. We understand that twenty years of water testing data from the City of Watervliet has been made available to the RAB. We have yet to see this data and would like to have a copy for our analysis and review. What has the 20-year data provided by the City of Watervliet revealed? At what levels do they test? What are the accuracy and precision of their measurements? How does Watervliet's sampling, measurement processes and analytical techniques compare with those used to compile the August, 1998 data displayed on Parson's Drawing 18 (Job 736741)? Did Watervliet's program find any of the substances that the USACOE (Job 736741) found in the Black Creek in August, 1998 or at any other time? How does the City of Watervliet's ability to find such pollutants compare with that of the laboratory used by Parsons? How do the average

costs per sample compare? Given the analytical capabilities of both entities is it reasonable to compare their results?

28. The NYSDEC representative to the RAB has often said that if RAB members have any concerns that are under the jurisdiction of their agency, then those concerns will be researched, investigated and reported on in writing to the RAB. Yet, members of the RAB have often raised the same questions and issues at meeting after meeting. For instance, what SPDES permits have been issued to tenants and owners of the NEIP? This, and similar environmental questions have been asked by RAB members at almost every meeting. When can the RAB member expect answers to such questions?

(When serious, relevant environmental and public health questions are presented by the RAB to the state environmental and public health regulatory representatives present at various RAB meetings, the RAB members are told: "those questions should be directed to other parts of their respective agencies." Well why don't THEY direct the questions to those parts of their agencies and find the answers? Are not these regulatory participants representatives of their agencies and should they then function as information conduits for this federal Restoration Advisory Board? If they do not feel competent to speak for their respective agencies perhaps they should be replaced by those who are able to more properly assist the RAB in this very difficult public federal activity?)

29 Why isn't protection of the Black Creek, a major source of drinking water, mentioned in the objectives of the Focused Feasibility Study for AOC3? Why doesn't the state environmental and public health regulators on the RAB insist that this become a major consideration?

30. The Focused Feasibility Study (FFS) for AOC3 does not presently address impacts on groundwater. Why was this environmental impact excluded from the "Focus"? When will this be addressed?

31. How does the intermittent nature of the Black Creek affect the RIR results and recommendations? Again, (see item 29, above) where were our state environmental and public health regulators "when the creek went dry?" Noxious substances can continue to flow into Black Creek which exceed the "dilution standards" for the NEIP tenant's SPDES permits?

32. Why was construction by NEIP permitted in the vicinity of AOC3 when it was known that the site was a source of pollution and contaminated soils? It was reported to be on the aerial photographs that these agencies shared. Doesn't the federal government have any control of their contaminated sites? Isn't the federal government interested in containment of their polluting contaminants so as to expedite their removal and enhancement of the polluted location? Or is the federal government eager to support such policies and activities that, in effect, disperse the polluting contaminants and thereby reduce their concentrations so that they fall "within accepted limits," and thus the federal contaminated site will "require no further action"?

The comments and considerations in this Review represent the major concerns of the Local community Members of the federal Restoration Advisory Board of the Formerly Schenectady Army Depot Voorheesville Area. Some themes are old, some are new, but all are RAB concerns that need to be addressed now that physical remediation operations are being considered and designed.

We look forward to receiving written responses to each of the information requests, comments, proposals, critiques, suggestions, analyses and interrogatories provided in our comprehensive Review.

There are some aspects of this Review that should be answered by the various environmental and public health regulators involved. However, we wish all responses to go through your office.

Finally, when you expect that responses to all the necessary items have assembled by your office, then, please send me an original document together with three copies for circulation to the Local Community Members of the RAB.

Sincerely,

Peter J. R. Buttner, Ph.D., Chairman, Local Community Members, FSADVA RAB
6175 Hawes Road, Altamont, NY 12009, 518.861.6821

By

Raymond L. Gemme, P.E., L.S., Member, Local Community Members, FSADVA RAB
P.O. Box 433, Guilderland, NY 12084, 518.861.6330

As requested, this review has been made available to the public.
cc: M.H.S.

DRAFT

Former Schenectady Army Depot – Voorheesville Area
Responses to Restoration Advisory Board Issues and Concerns

Letter from P. Buttner, R. Gemme, C. Rielly, M. Tanis, E. Tanis, S. Yachup and T. Ausfeld dated February 6, 2002

A meeting was held at Headquarters, New York State Department of Environmental Conservation (NYSDEC) on April 4, 2002. In attendance was Dr. Peter Buttner, RAB Community Co-Chair, Mr. George Moreau of Parsons Engineering Science, Messrs. Jeffrey McCullough & Jim Quinn , NYSDEC, and Mr. Gregory Goepfert, U. S. Army Corps of Engineers. Although it was agreed to remove the "Background Range" column listing from Table 3.4, it should be noted that the contamination assessment would not change based on this approach. Further, a page will be included in the final Remedial Investigation report that documents the rationale of the contamination assessment.

Letter from Mr. Thadeus W. Ausfeld, dated November 16, 2001

1. Questions in the past minutes were reviewed by the U.S. Army Corps of Engineers (USACE), and the New York State Department of Health (NYSDOH). Actions will be addressed at our meeting of 17 October 2002.

2. A Focused Feasibility Study has been prepared for Area of Concern (AOC)(3) and is included in the reference sections of the Guilderland and Voorheesville libraries. A Focused Feasibility Study is being prepared for AOC (2); the draft document will be available in November 2002. As funding allows, Focused Feasibility Studies will be prepared for AOC(1). The Defense National Stockpile Center operates the Voorheesville Depot (AOC (5)), and is implementing measures to reduce off-site migration of sediments and soils at this location; the design of these measures is in lieu of a Focused Feasibility Study.

3. NYSDEC will address, at the 17 October 2002 meeting.

4. Black Creek testing will be addressed in a follow-on Remedial Investigation/Data Gap Workplan; yearly testing may be out of scope of this investigation, however, further testing will be dependent on a review of future testing results. The New York State Department of Health tested the water from the well located in the Transportation Building of the Guilderland Center Transportation Facility, on April 24, 2002 and on June 13, 2002. In NYDOH's letter to the Assistant Superintendent for Business for the Guilderland School District, Mr. Daniel Geraghty reported the results as follows: sodium was detected at a concentration of 32 mg/l; he notes that people on a severely restricted sodium diet not drink water with more than 20 mg/l sodium. In the April 24, 2002 sample, the only semi-volatile compound found above standards a plasticizer compound widely used in a variety of common products including synthetic rubber, food packaging and cosmetics was found at 400 mcg/l—slightly above the Federal standard of 420 mcg/l. The name of the compound is Di-(2-ethylhexyl) Adipate. Mr. Geraghty added that because of this result, the well was resampled on June 13, 2002, and Di-(2-ethylhexyl) Adipate

was not detected in this second sample. Mr. Geraghty noted in the letter that he understands that the water is not used for drinking, but for irrigation of the Guilderland High School athletic fields, for washing of school buses, and is the water supply for the washrooms in the employee's lounge.

5. Written historical data is contained in the Archive Search Report, which is placed in the Guilderland and Voorheesville Libraries. The oral history information taken from former Depot employees by Ms. Lori Davidson will be assembled in a formal report, a copy of which can be made available to the Guilderland Town Historian.

Letter from Mr. Thadeus W. Ausfeld, dated December 10, 2001

1. Classification of Black Creek: A letter was sent in response to this comment on May 16, 2002 to Mr. Ausfeld from NYDEC, signed by Mr. Jeffrey McCullough.

2. Please clarify your request with regard to precipitation data.

3. The description of demography and land use will recognize the population of the Guilderland High School and the private use of the school's wells.

4. Deeper sediment sampling will be performed in the Black Creek as part of a follow-on Remedial Investigation/Data Gap Workplan, which will be provided for review by the RAB and regulatory agencies; the locations tested may not be those suggested.

Letter from Mr. Thadeus W. Ausfeld, dated May 2, 2002

1. The first engineering report dated September 1984 was prepared for the NYSDEC, and was entitled "Engineering Investigations and Evaluation of Inactive Hazardous Waste Disposal Sites-Superfund Program, Phase I Investigation Report, Northeastern Industrial Park, Guilderland Center, Albany County, New York," prepared by Wehran Engineering, P.C., and Camp Dresser & McKee. The first report prepared for the U.S. Army Corps of Engineers was the "Engineering Final Report Site Investigation, Contamination Evaluation at the Former Schenectady Army Depot, Guilderland, New York," dated February 1988, prepared by Metcalf & Eddy.

2. Actual cleanup work accomplished prior to the establishment of the RAB included the removal of iodine pills in the vicinity of the water treatment plant, and the removal of an oil/water separator at AOC (9). A drum removal project was completed at the Southern Landfill (OHM Remediation Services, report dated 21 June 1991) and the [OHM] report states that there were approximately 20 empty containers collected from the Northeast Industrial Park (NEIP) and Bivouac Area. A total of seven containers, including one drum removed from the pond [at the

Southern Landfill], were sampled and analyzed for compatibility analysis and disposal analysis (ref. Archive Search Report, pg. 3-18 to 3-19 ff.).

3. The U.S. Army Corps of Engineers is complying with all requirements for public participation under the Formerly Used Defense Site Program. The Corps has been involved with addressing issues on this site since December 1998.

Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002

1. Refer your question directly to the Galesi Group.

2. Refer your question directly to the Galesi Group.

3. NYSDEC will address, at the 17 October 2002 meeting.

4. NYSDEC will address, at the 17 October 2002 meeting.

5. NYSDEC will address, at the 17 October 2002 meeting

6. Refer your question directly to the Galesi Group.

Letter from Mr. Thadeus W. Ausfeld, dated May 02, 2002(continued)

7. NYSDEC will address, at the 17 October 2002 meeting. The archive search report identifies spills on page 4-137.

8. The U.S. Army Corps of Engineers has been designated as the executive agency to address past contamination on Formerly Used Defense Sites. Your comment may be directed to OSHA.

9. The only items that have been found in proximity to Black Creek were the items found recently (August 2002) on the property of the Guilderland Central School District. The U.S. Army Corps of Engineers took responsibility for the investigation, removal and proper disposal of items discovered, which included vials of calcium hypochlorite, protective ointments for the skin and eyes, and miscellaneous paint cans, bottles of distilled water/0.1% citric acid [for plasma regeneration], and bottles of dried plasma granules.

10. Refer your question directly to the Galesi Group.

11. NYSDEC will address, at the 17 October 2002 meeting.

12. Refer your question directly to the Galesi Group.

13. NYSDEC will address, at the 17 October 2002 meeting.

14. Refer your question directly to the Galesi Group.

15. Refer your question directly to the Galesi Group.

Establishment of Black Creek buffer zone and application of Watervliet Watershed regulations: NYSDEC will address, at the 17 October 2002 meeting.

Restoration Advisory Board letter of July 23, 2002, signed by Mr. Raymond Gemme, P.E., co-authored by Peter J.R. Buttner, Ph.D., and Local Community Members of the RAB

I. AOC (8): Further monitoring and characterization of Black Creek sediment and water quality upstream and downstream of the former Depot will be proposed in the follow-on Remedial Investigation/Data Gap Workplan. Additional sediment sampling in the pond at AOC (1) will be undertaken as part of a Focused Feasibility Study, and will target those contaminants of concern that have shown to exceed the sediment criteria.

II. a. Pg. 3-1, para. 3.2.1 contains two pages of discussion concerning background data.

b. Absolute result values were used for comparisons; no statistical analysis of the raw data were performed. Technical Assistance Guidance Memorandum (TAGM) values will be used to compare analyses results for organic compounds in an effort to ascertain the necessity for remedial actions. All background soil organic data exhibited results below TAGM levels.

III. a. All Areas of Concern (AOCs) were tested for BEHP, except for AOC (5). It was detected in these AOCs:

AOC 1 – surface water (SW) and sediment (SED)
AOC 2 – SW/SED/Groundwater (GW)/soil
AOC 3 – soil/GW
AOC 6- not detected (ND)
AOC 7- soil/GW
AOC 8- SW/SED
AOC 9- GW.

There will be some additional testing for BEHP.

III. b. The previous data will be presented on Figures 3.27 and 3.28 in the same format shown in the present figures, i.e., exceedances of TAGM criteria for BEHP and metals will be displayed. The previous drawing # 18 in its entirety will be included in the Remedial Investigation report.

IV. It appears that the comparison you are making is between soil in AOC (6) and (9) and groundwater in AOC (7). It is true that some concentrations are shaded as being above criteria in AOCs (6) and (9), while the same or higher levels of the same compounds are not shaded for AOC (7). This is because the shaded values are for soil samples in AOCs (6) and (9), and are for groundwater samples in AOC (7). Soil and groundwater have different reporting units (ug/kg vs.

ug/l, respectively), and different regulatory criteria, depending on whether the compound is detected in soil or groundwater.

V. a. The NYSDEC advises that testing has not changed the determination.

V. b. Ten (10) feet was the basis, as specified in the Workplan. The "scaled" drawing will be noted as an "approximate" scale.

V. c. All environmental media has been sampled at AOC (2) to allow a feasibility study to be conducted. The sampling of the pill bottles was performed for screening purposes only, and not meant to be fully representative of the contents of all bottles found at AOC(2). The analyses performed confirmed the suspicion that the bottles contained salt or iodine tablets. The bottles sent for analysis were one of each of the different bottle types found at AOC(2)(i.e., 4 bottle types); one was analyzed for sodium and the others for iodide, cyanide, sodium and chloride.

VI. Date is incorrect in the figure; the correct date is November 30, 2000 on Figure 3-15b.

VI. (1) The Archive Search Report (ASR) indicates that the landfill area was used as a borrow pit; no records indicate that D.O.D. dumped there.

VI. (2) NYSDEC is in agreement.

VI. (3) Sampling decisions were made based on review of previous data. The previous reports consulted are itemized in Section 5. Consistency of results has been varied.

The intake to the City of Watervliet's water treatment plant has shown the consistent presence of sodium from 1987 – April 2000; further review of these results are at the RAB's discretion. RAB members may restructure the data provided in a data lexicon, as offered.

VI. (4) Surface water and sediment sampling was performed at the upstream side of the first dam downstream of the site. Locations of additional Black Creek sampling will be proposed in a follow-on Remedial Investigation/Data Gap Workplan. It is not anticipated that sampling below the dams will take place during the data gap sampling; future sampling will be dependent on results encountered.

VI. (5) We will defer any further sampling decisions until RI data gap analysis results are received and reviewed.

VI. (6) We will consult with the Fish and Wildlife staff of the NYSDEC prior to finalizing the Remedial Investigation/Data Gap Workplan.

VI. (7) The intention of the burn pit interim removal action is to eliminate a source of contamination. It is anticipated that follow-up monitoring, to be conducted subsequent to the removal action, will indicate an improvement in groundwater quality proximate to the burn pit site. [Beyond this monitoring work, no modeling is planned, or has been done]. Post-remediation

monitoring that we plan to conduct should help assess the effects irrigation wells are having on the migration of pollutants.

VI. (8) NYSDOH representative will address at the 17 October 2002 meeting.

VI. (9) The Guilderland and Voorheesville Libraries are the official information repositories for the site where documents are available for public review.

VI. (10) The U. S. Army Corps of Engineers is not authorized to grant immunity. It is planned to compile the past interview information in bound form, as a formal document for the site. If the RAB membership can provide the names of any former Depot employees who have not been interviewed previously, the individual(s) will be contacted and, if they would be open to being interviewed, we will interview them. Note also that formal Records of Communication (ROC) were included as Appendix A of the Archive Search Report, dated August 1999, prepared by EA Engineering, Science and Technology.

VI. (11) 40 CFR 300.430(f)(B)(1) states: "Requirements that are promulgated or modified after a Record of Decision (ROD) signature must be attained (or waived) only when determined to be applicable, relevant and appropriate and necessary to ensure that the remedy is protective of human health and the environment." The ROD is the relevant document where this statement would be included.

VI. (12) NYSDEC and NYSDOH representatives will respond at the meeting of 17 October 2002.

VI. (13) We are not aware of the source of BEHP; BEHP was detected as stated in para. IIIa. (above) and upstream in Black Creek. Additional sampling, to include analysis for BEHP, will be proposed in the follow-on Remedial Investigation/Data Gap Workplan. The concerns you have expressed regarding drinking water will be addressed by NYSDEC at the meeting on 17 October 2002.

VI. (14) (a). Additional sampling at the northern end of Northeast Industrial Park (NEIP) where ISOW9 is on Black Creek will be addressed in the follow-on Remedial Investigation/Data Gap Workplan.
(b) Sampling of the water and sediment below the dams is not anticipated at this time.
(c) Sampling of sediment and water ponding in front of the Watervliet Reservoir is not anticipated at this time.

(15) Information cannot be located that cites the reason for the construction of the dams.

(16) NYSDEC representative will address at the 17 October 2002 meeting.

(17) The reference to "double the criteria" is not intended to recommend remedial action. The references to "double the criteria" are to help quantify, in a simple and consistent manner, how high the concentrations are relative to the regulatory criteria.

(18) Creosote does contain polycyclic aromatic hydrocarbons (PAHs). PAHs are also contained in asphalt, vehicle exhaust, etc. PAHs have been evidenced in the pond sediment at AOC(1), at an upstream Black Creek location (SD28) and a Black Creek location within the former Schenectady Army Depot (SD19).

(19) Additional sediment sampling will be performed in the pond. Deeper characterization of the pond will be perfomed.

(20) Available data for AOC (2) is presented in the draft Final Remedial Investigation Report.

(21) No. The data presented is sufficient to characterize AOC(2).

(22) "Class A" applies to surface water—and that was the comparison. Groundwater data is compared to "Class GA" drinking water standards.

(23) The owner's representative reported that the soil was not moved from its original location.

(24) NYSDOH representative will address at the 17 October 2002 meeting.

(25) Three (3) additional wells were established and sampled in November 2001. It is believed that the lateral extent of contaminated groundwater has been characterized.

(26) Yes. The vertical extent of soil impacts at AOC(3) has been adequately characterized.

(27) The water testing data from the City of Watervliet will be provided to the RAB.

(28) The NYDEC representative will respond at the 17 October 2002 meeting.

(29) The Remedial Investigation focuses on Black Creek as an Area of Concern (AOC(8)).

(30) Source removal is intended to protect groundwater quality.

(31) The Remedial Investigation has not been designed to address the intermittent nature of the Black Creek.

(32) The property owner has the right to develop his property within the guidelines of planning and zoning policies of local authorities. The U. S. Army Corps of Engineers is not a regulatory agency. Note that the property owner relocated (to the north) the footprint of the new warehouse to avoid the contaminated area at AOC (3), and has postponed the addition to the warehouse, so as to allow the U.S. Army Corps of Engineers to perform an interim removal action in the contaminated area identified at AOC (3).

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, 11th Floor
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9623 • **FAX:** (518) 402-9577
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

February 19, 2002

Mr. Greg Goepfert
Program Manager
Department of the Army
Formerly Used Defense Site Program
190 State Highway 18
Suite 202
East Brunswick, NJ 08816

Dear Mr. Goepfert:

RE: Schenectady Army Depot - Voorheesville Area Site # 401009

The New York State Department of Environmental Conservation has reviewed the revised draft final Remedial Investigation (RI) Report, dated May 2001. We have the following comments.

(Page ES-3) Former Burn Pit Area - This section should be updated to reflect the work that was completed in 2001 and the issuance and recommendations detailed in the Focused Feasibility Study, dated November 2001.

(Section 2.3.2.1.3) Identify in the report the general location of the source of drinking water for the Town of Guiderland.

(3.2.2.5.9) One semi-volatile compound, bis(2-ethylhexyl)phalate (BEHP) appears in numerous samples through out the study area . Does the ACOE have any speculation as to the source of the BEHP? The source of this contaminant will require further investigation, especially in AOC 7 which showed contamination of BEHP above NYS groundwater and drinking water standards.

(3.2.2.5.28) The text states that "A background sample was not available for comparison for this sampling event." Were there ever any background groundwater sample results available and, if not , why? A background groundwater sample(s) would be beneficial in determining if inorganics found in groundwater samples are naturally occurring or related to site impacts.

(3.2.3.5.19) The text states that, "The dioxin results indicate that further evaluation of the soils in this area is necessary,...". How does the ACOE propose to further evaluate, by additional sampling or other means? This recommendation is not included in Section 4 (Summary, Conclusions and Recommendations).

(3.2.4.5.5) It is stated in this section that during the sampling at the Burn Pit area compressed gas cylinders were observed on the ground surface as a result of soil moving activities in this area. Were the gas cylinders removed from this area? If these cylinders are still buried and if the contents are unknown, a significant health hazard may still exist for workers in this area. Attempts should be made by the ACOE or the current property owners to find the cylinders so they may be properly characterized and disposed.

(3.2.4.5.7) Explain the guidelines used to determine the various types of odors found while conducting work in AOC 3. Were these odors identified thru instrumentation or by olfactory chromatography?

(3.2.5) This section needs to be updated to indicate that the Defense Logistics Agency is currently proposing the expansions of the on site retention basins to guard against erosion and migration of metals contaminated soils. The DLA will be working with the NYSDEC on this issue.

(3.2.7.5.9) Groundwater sample results indicate BEHP contamination at twenty times the state standard. Additional investigation will need to be done at this area to determine the source.

(4.1.2) A line needs to be added to the text to indicate that when the appropriate site clean up remedies are established, a decision document will be issued detailing the remedy for each AOC. Once the decision document has been finalized a remedial design can then be assembled.

(4.2.2) We agree with the recommendation that additional sediment sampling of the pond adjacent to AOC 1 is required.

(4.3.2) We agree with the recommendation that the fill material at the Burns property attributed to the former Depot should be removed and properly disposed off site.

(4.4.2) The text should be revised to include the recommendations detailed in the November 2001 Focused Feasibility Study for AOC 3.

(4.6.2) The text should be revised to indicate the DLA is taking action to control the migration of contaminated soils by storm water run off thru the proposed expansion of the on site retention ponds.

(4.8.2) Additional investigative work is required in AOC 7 to find the source and extent of the BEHP contamination found in groundwater samples taken in this area.

(4.9.2) The text states that impacts to the Black Creek do not appear to be related to former practices of the Army. It is clear that contamination of the stream sediments with metals may have possibly come from AOC 5, the DLA stockpile area. Contaminants found in sediment samples are similar to the materials that were/are stored at the DLA facility. Storm water run off from the DLA property may have carried contaminants to the Black Creek at levels which could cause adverse environmental impacts. Since the Black Creek is located on the former Depot property and the fact that investigation of the DLA property is included in this remedial investigation by the ACOE of the Depot, the ACOE should take responsibility for implementing further investigation and remediation, if found necessary, of the metals contaminating the Black Creek.

Comments from the Division of Fish, Wildlife and Marine Resources (DFWMR)

(AOC 1.) Sediment samples were taken at a depth of 0 to 0.2 feet in the pond (Table 3.1). Deeper samples should also be taken in order to determine if contamination exists at greater depths. In addition, the analysis of only two samples does not represent a reliable characterization of the sediment contamination. Additional samples should be taken or historical samples should be reported and included in the sediment assessment if they exist. Concentrations of pesticides, PAHs and several metals in the main pond are at potentially toxic levels.

(AOC 2.) The concentration of dioxin in soil may present an ecological hazard. DFWMR agrees with the recommendation that further characterization should be undertaken.

(AOC 5. (Page 3-9)) What is the basis for the statement "There are no habitats for threatened or endangered species within 0.5 miles of the Depot"?

(AOC 8. (Page 3-53)) It is stated that the 1998 and the 2000 data sets for the sediments do not provide enough information to make conclusions about sediment quality changes over tim3e. Indeed, even over a much longer period of time, sediment contamination would not be expected to change significantly unless sediments moved or were buried by major disturbances.

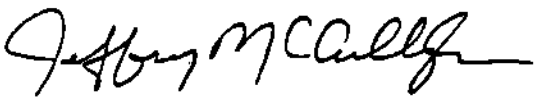
(4.2.2) DFWMR agrees with the recommendation that the extent of contamination should be better defined both laterally and horizontally.

(4.6.2) DFWMR agrees with the recommendation that steps should be taken to reduce the migration of contaminated soils and sediments into areas draining into Black Creek.

(4.9.2) Additional sampling and characterization of the western drainage ditch sediments should be undertaken to determine if contaminant levels warrant removal. Lack of site related contaminants from a sample over half a mile downstream in the main channel of Black Creek does not necessarily indicate that there is no significant contribution to the stream. If data exist fro Black Creek from areas closer to the drainage ditch, they should be presented in the report. In addition, the sediment sampling depth of 0 to 0.2 inches does not provide sufficient vertical characterization. Samples from greater depths should be analyzed.

If you have any questions, please call me at (518) 402-9623 or e-mail *jbmccull@gw.dec.state.ny.us*, also enclosed are comments from the New York State Department of Health.

Sincerely,



Jeffrey McCullough
Federal Projects Section
Division of Environmental Remediation

c: J. Quinn / file
D. Geraghty (NYSDOH)
P. Carella (DFWMR)

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

February 15, 2002

Mr. Jeff McCullough
Bureau of Eastern Remedial Action
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
625 Broadway – 11th Floor
Albany, New York 12233-7015

Re: Northeast Industrial Park
(Former Schenectady Army Depot)
Voorheesville Area
Site #401009
(T) Guilderland, Albany County

Dear Mr. McCullough:

I have reviewed the May 2001 draft Remedial Investigation Report for the former Schenectady Army Depot in Guilderland, Albany County and have the following comments:

Executive Summary:

1. AOC 1 - U.S. Army Southern Landfill: I concur with the conclusion that the extent of sediment contamination resulting from this landfill has not been fully defined and that additional sampling should be conducted.

2. AOC 2 - Former Bivouac Area / Base Commander's Landfill: I concur with the recommendation to remove the fill material attributable to the Department of Defense from this site.

3. AOC 3 - Former Burn Pit Area: The recommendations for this AOC should be updated to reflect the results of the August 2001 Supplemental Remedial Investigation and the recommendations of the November 2001 Focused Feasibility Study for AOC-3.

4. AOC 5 - Voorheesville Depot: I agree that measures should be taken to manage surface water flow across the site in order to reduce the potential for migration of contaminated sediments.

5. AOC 6 - Former SADVA Wastewater Treatment Plant: I concur with the conclusion that based on the investigative work done to date this AOC does not appear to be a disposal area and no further action is necessary.

6. AOC 7 - Triangular Disposal Area: The presence of bis(2-ethylhexyl) phthalate in excess of drinking water and groundwater standards in each of the groundwater samples collected at this AOC requires further investigation.

7. AOC 8 - Black Creek: I concur with the recommendation for continued periodic monitoring of sediment and water quality in Black Creek.

8. AOC 9 - Building 60 Area: I concur with the recommendation to redevelop and resample groundwater monitoring well MW9 before making a remedial decision for this AOC.

Specific Comments:

1. Section 2.6.9 - AOC 9 - Building 60 Area: Has the NYSDEC Region 4 Petroleum Bulk Storage program been contacted for information regarding possible past tank removals at this AOC? If so, it should be reflected in the text of the document.

2. Section 3.2.3.2 - Site History: The January 10, 1983 letter referred to in this and other sections of the document regarding what is now AOC2 was in fact written by the Albany County Department of Health not the New York State Department of Health. I have attached a copy of the letter and suggest it be added to the final version of the RI in an appendix. This letter states that the County Health Department had been unable to find any record of disposal at the site not that no disposal had occurred. Please correct the incorrect references.

3. Section 3.2.3.5.19 - AOC 2 Surface Soil Results: Staff from the New York State Department of Health's Bureau of Toxic Substance Assessment has reviewed the dioxin sampling results for AOC 2 and offers the following comments:

   - We evaluated the analytical results for the 12 surface soil (0-0.2 feet) samples as reported in Table 3.13 of the documentation provided. Figure 3.11 indicates the locations of only 11 of these (sample SB03 is not shown).

   - We were unable to ascertain from the materials provided the method used to calculate the 2,3,7,8-TCDD Toxicity Equivalents (TEQs). We used the most current approach (i.e., as recommended by Van den Berg, et. al., 1998). The TEQs reported for these samples are inconsistent with what would be expected using this method. If the appropriate values were used, the TEQs would be lower than reported here.

- The analytical results reported for the 12 samples ranged 6.05-1304 picograms per gram (pg/g) or parts per trillion (ppt) TEQs, assuming zero values for non-detected compounds. Results for these samples were slightly higher when non-detects were evaluated at one-half the detection limit (range 6.7-1400 ppt TEQs). Five of the 12 samples were within the expected background range (0.1-50 ppt TEQs) as reported in the NYSDOH August, 1995 fact sheet on the Apex Warehouse Fire in Binghamton (Broome County) (copy attached). The results for the remaining seven samples ranged from 83.42-1304 ppt (89-1400 ppt with non-detects evaluated at one-half the detection limit). Only the highest of these is slightly above the Centers for Disease Control and Prevention (CDC) screening guideline for residential soils of 1000 ppt. This guideline is the level at which the CDC would begin to consider actions to limit human exposure. In addition, although these seven results exceed typical background levels, these levels are in the low end of the range of expected values for TEQs in wood or coal soot (49-51,000 ppt TEQs), as presented in the NYSDOH Apex Warehouse Fire Update (August 16, 1995) (copy attached).

4. Figure 3.9 - AOC 2 Sediment Sample results: The results table for sediment sample SD-4 erroneously lists a mercury level of 215 micrograms per kilogram (ug/kg). The 215 ug/kg concentration is in fact for zinc. The mercury level in this sample was estimated to be 0.15 ug/kg.

5. Figure 3.18 - AOC 5 Soil Sample Results: The word chromium is misspelled in all instances in this figure.

6. Section 4.3.1 - AOC 2 - Summary and Conclusions: I agree with the recommendation to remove the fill material from this AOC which is attributable to the DOD for the reasons stated in the text as well as the physical hazards posed by the glass and metal debris.

7. Section 4.4.2 - AOC 3 Recommendations: To the extent that it can be done, I suggest updating the recommendations of this section in light of the results of the August 2001 Supplemental Remedial Investigation and the recommendations of the November 2001 Focused Feasibility Study for AOC-3.

In response to requests from the Restoration Advisory Board and after conferring with Mr. Robert Paquette, Assistant. Superintendent of Business for the Guilderland School District, I have enclosed a copy of the cover letter and results of the water sample I collected from the Transportation Building of the Guilderland Center Transportation Facility on April 4, 2001. I suggest this be added as an appendix in the final remedial investigation report.

I suggest that the Army Corps of Engineers coordinate closely with the Galesi Group to avoid any further interference with the investigation and remediation of this AOC.

General Comment:

Can the Army Corp of Engineers, Parsons or the Galesi Group offer an explanation for the wide spread presence of the compound bis(2-ethylhexyl) phthalate (BEHP) in all the media sampled during this investigation? BEHP is found above the New York State Class A and C Ambient Water Quality (surface water) standard of 0.6 micrograms per liter (ug/l) in surface water samples from AOC 1, AOC 2, and AOC 8. BEHP is found above the New York State Class GA Ambient Water Quality standard (5 ug/l) and/or the New York State Drinking water standard (6 ug/l) in groundwater samples from AOC 2, AOC 3, AOC 7, and AOC 9. Each of the AOC's that have levels of BEHP above the drinking water MCL of 6 ug/l will require additional investigative work or ultimately an engineering control of some sort to prevent groundwater beneath these AOCs being used as a drinking water supply.

If you have any questions please call me at (518) 402-7890.

Sincerely,

Daniel R. Geraghty
Program Research Specialist III
Bureau of Environmental Exposure Investigation

Enclosure

cc: Mr. G. Litwin/Mr. M. Rivara/FILE
Mr. K. Gleason/Mr. J. Ridenour
Mr. J. Quinn – DEC
Mr. E. Hamilton – DEC Region 4
Mr. S. Lukowski - ACHD

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Albany 401009 92/HR1F
Albany 4010
NE Ind. Park

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

June 19, 2001

Mr. Robert Paquette
Asst. Superintendent of Business
Guilderland School District
6076 State Farm Road
Guilderland, New York 12084

Re: Well Water Sample
Guilderland Center
Transportation Facility
Guilderland (T), Albany County

Dear Mr. Paquette:

On April 4 2001, I collected a sample of water from the well located in the Transportation Building of the Guilderland Center Transportation Facility. It is my understanding that this well supplies water for irrigation of the Guilderland High School athletic fields, is used to wash the school buses and is the water supply for the washrooms in the employee's lounge. I collected the sample as part of the investigation into environmental contamination at the adjacent Northeast Industrial Park (former Schenectady Army Depot, ID #401009). I have enclosed a copy of your laboratory results as well as a laboratory report explanation sheet to help you understand the laboratory report.

As we discussed, the water sample was analyzed for volatile organic compounds, semi-volatile organic compounds, pesticides, PCBs, metals, ketones and petroleum products. The results of the sample analysis indicate that none of the above compounds were detected in the water sample and that metals are found at naturally occurring levels. One inorganic compound, sodium, was detected in your water at a concentration of 38 mg/l. Although I understand this water is not used for drinking, the New York State Department of Health recommends that people on severely restricted sodium diets not drink water with more than 20 mg/l of sodium.

You will note that the compound bis (2-ethylhexyl) phtalate is reported at a concentration of 0.3 mcg/l [BJ]. The qualifier BJ indicates that the 0.3 mcg/l is an estimated quantity and that this compound was also found in the laboratory blank and was likely introduced during sample preparation at the laboratory. Similarly, the compound trans-2-Ethyl-3-methylcyclohexanone is reported at a concentration of 2.0 mcg/l [JN]. The qualifier JN indicates that the 2.0 mcg/l is an

estimated quantity of a tentatively identified compound and was also likely introduced during sample preparation at the laboratory.

If you have any further questions please call me at (518) 402-7890.

Sincerely,

Daniel R. Geraghty
Program Research Specialist III
Bureau of Environmental Exposure Investigation

Enclosure

cc: Mr. G Litwin/Mr. M. Rivara/FILE
Mr. J. McCullough – DEC, w/att.
Mr. D. Brouwer – USACE, w/att.
Mr. R. Groves - ACHD
Mr. E. Hamilton - DEC Reg 4

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ANALYTICAL REPORT EXPLANATION SHEET FOR WATER SAMPLES

SAMPLE ID: laboratory identification number

SAMPLE RECEIVED: the date the laboratory received your sample

POLITICAL SUBDIVISION: your town, city or village **COUNTY:** your county

LOCATION: describes the general sample area

DESCRIPTION: describes the specific sample location (e.g. specific address, kitchen tap, ---)

SAMPLE TYPE: describes what was sampled (e.g. water)

TIME OF SAMPLING: date and time that your sample was collected

DATE PRINTED: date report was issued

ANALYSIS: the name of the laboratory test performed

---------PARAMETER---------	---------RESULT---------
The chemicals for which the laboratory analyzed the sample	Numbers and symbols that represent the lowest concentration that the laboratory can reliably measure or the concentration of the chemical that the laboratory found in the sample

The following describe the results:

- "<" - means "less than". The number following a less than sign (<) is the lowest level the laboratory test can reliably measure (detection limit). If there is a "<" before any number, then the chemical was NOT detected in your sample.
- MCG/L - Abbreviation for "micrograms per liter". One MCG/L is approximately equivalent to 1 part chemical in a billion parts of water.
- MG/L - Abbreviation for "milligrams per liter". One MG/L is approximately equivalent to 1 part chemical in a million parts of water.
- "B" indicates that the compound was also detected in the laboratory blank, indicating that the compound may have been introduced into the sample at the laboratory. Blanks are control samples known to be free of contaminants and are tested as a quality control measure.
- "J" indicates that the compound was detected at a concentration below the detection limit and the concentration is estimated.
- "N" indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TIC), where identification is based on a mass spectral library search.
- "PL" indicates that the compound is present in the sample but at a concentration less than the reported level.
- "CR" indicates a confirmed result.

h:\wpdoc\LAB-WATE.WPD

0002 NEW YORK STATE DEPARTMENT OF HEALTH SRCA

WADSWORTH CENTER

PAGE 1 RESULTS OF EXAMINATION REPORT MAILED OUT

SAMPLE ID: [illegible] SAMPLE RECEIVED [illegible] CHARGE: [illegible]

PROGRAM: [illegible] STATE SUPERFUND ANALYTICAL SERVICES

SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:0155

POLITICAL SUBDIVISION:GUILDERLAND COUNTY:ALBANY

LATITUDE: [illegible] LONGITUDE: [illegible] Z DIRECTION:

LOCATION: GUILDERLAND CENTER TRANSPORTATION/MAINTENANCE FACILITY

DESCRIPTION:GCT/MF

REPORTING LAB: DEDP:DIV. ENVIRONMENTAL DISEASE PREVENTION - ACCESSION LAB

TEST PATTERN: [illegible]

SAMPLE TYPE: [illegible] PRIVATE WATER SUPPLY - DRILLED WELL

TIME OF SAMPLING: 04/04/2001 12:55 DATE REPORTED:06/01/2001

<> >>>>> INQUIRED [illegible] BY D.E.H.(FSN01) <<<<< <>

<> >>>>> INQUIRED [illegible] BY D.E.H.(FSN01) <<<<< <>

<> >>>>> INQUIRED 010531 BY D.E.H.(FSN01) <<<<< <>

<> >>>>> INQUIRED 010601 BY D.E.H.(FSN01) <<<<< <>

<> >>>>> INQUIRED [illegible] BY D.E.H.(FSN01) <<<<< <>

ANALYSIS: 5022W VOLATILE ORGANICS IN WATER-EPA 502.2 (DES 310-33)

DATE REPORTED: 04/11/2001 REPORT MAILED OUT

PARAMETER	RESULT
DICHLORODIFLUOROMETHANE (FREON-12)	< 0.5 MCG/L
CHLOROMETHANE	< 0.5 MCG/L
VINYL CHLORIDE	< 0.5 MCG/L
BROMOMETHANE	< 0.5 MCG/L
CHLOROETHANE	< 0.5 MCG/L
TRICHLOROFLUOROMETHANE (FREON-11)	< 0.5 MCG/L
1,1-DICHLOROETHENE	< 0.5 MCG/L
METHYLENE CHLORIDE (DICHLOROMETHANE)	< 0.5 MCG/L
METHYL-tert-BUTYL ETHER (MTBE)	< 0.5 MCG/L
TRANS-1,2-DICHLOROETHENE	< 0.5 MCG/L
1,1-DICHLOROETHANE	< 0.5 MCG/L
2,2-DICHLOROPROPANE	< 0.5 MCG/L
CIS-1,2-DICHLOROETHENE	< 0.5 MCG/L
CHLOROFORM	< 0.5 MCG/L
BROMOCHLOROMETHANE	< 0.5 MCG/L
1,1,1-TRICHLOROETHANE	< 0.5 MCG/L
1,1-DICHLOROPROPENE	< 0.5 MCG/L
CARBON TETRACHLORIDE	< 0.5 MCG/L
1,2-DICHLOROETHANE	< 0.5 MCG/L
BENZENE	< 0.5 MCG/L
TRICHLOROETHENE	< 0.5 MCG/L
1,2-DICHLOROPROPANE	< 0.5 MCG/L
BROMODICHLOROMETHANE	< 0.5 MCG/L

**** CONTINUED ON NEXT PAGE ****

NYS ELAP ID'S: 10762(INORGANIC,NUCLEAR) 10763(ORGANIC) 10765(BACTERIOLOGY)

COPIES SENT TO: CO(1), RO(1), LPHE(1), FED( ), INFO( ), INFO LC( )

THIS REPORT HAS BEEN PRODUCED
BY THE ELDARS SEARCH FACILITY
FROM THE ACTIVE DATABASE

SUBMITTED BY DGERAGHTY

LOCATION: GUILDERLAND CENTER TRANSPORTATION/MAINTENANCE FACILITY
TIME OF SAMPLING: 04/04/2001 12:55 DATE REPORTED:06/01/2001

PARAMETER	RESULT
DIBROMOMETHANE	< 0.5 MCG/L
CIS-1,3-DICHLOROPROPENE	< 0.5 MCG/L
1,1,2-TRICHLOROETHANE	< 0.5 MCG/L
1,3-DICHLOROPROPANE	< 0.5 MCG/L
1,2-DIBROMOETHANE (EDB)	< 0.5 MCG/L
CHLOROBENZENE	< 0.5 MCG/L
m/p-XYLENE	< 0.5 MCG/L
o-XYLENE	< 0.5 MCG/L
BROMOFORM	< 0.5 MCG/L
1,1,2,2-TETRACHLOROETHANE	< 0.5 MCG/L
BROMOBENZENE	< 0.5 MCG/L
1,3,5-TRIMETHYLBENZENE	< 0.5 MCG/L
tert-BUTYLBENZENE	< 0.5 MCG/L
1,2,4-TRIMETHYLBENZENE	< 0.5 MCG/L
1,3-DICHLOROBENZENE	< 0.5 MCG/L
1,4-DICHLOROBENZENE	< 0.5 MCG/L
1,2-DIBROMO-3-CHLOROPROPANE	< 0.5 MCG/L
1,2,4-TRICHLOROBENZENE	< 0.5 MCG/L
1,2,3-TRICHLOROBENZENE	< 0.5 MCG/L
PH OF VOLATILE ALIQUOT	2

ANALYSIS: XPEST-PCB - ORGANOCHLORINE PESTICIDES & PCB'S (DESS16-29)
DATE REPORTED: 04/30/2001 REPORT MAILED OUT

PARAMETER	RESULT
HEXACHLOROCYCLOPENTADIENE (C-56)	< 0.01 MCG/L
HEXACHLOROBENZENE	< 0.01 MCG/L
HCH,ALPHA	< 0.02 MCG/L
HCH,GAMMA (LINDANE)	< 0.02 MCG/L
HCH,BETA	< 0.02 MCG/L

**** CONTINUED ON NEXT PAGE ****

LOCATION: GUILDERLAND CENTER TRANSPORTATION/MAINTENANCE FACILITY
TIME OF SAMPLING: 04/04/2001 12:55 DATE REPORTED:06/01/2001

PARAMETER	RESULT
HCH,DELTA	< 0.02 MCG/L
HEPTACHLOR	< 0.02 MCG/L
ENDOSULFAN I	< 0.02 MCG/L
4,4'-DDE	< 0.02 MCG/L
4,4'-DDD	< 0.02 MCG/L
ENDOSULFAN II	< 0.02 MCG/L
ENDOSULFAN SULFATE	< 0.02 MCG/L
METHOXYCHLOR	< 0.1 MCG/L
CHLORDANE	< 0.05 MCG/L
AROCLOR 1221	< 0.05 MCG/L
AROCLOR 1248	< 0.05 MCG/L
AROCLOR 1254	< 0.05 MCG/L

ANALYSIS: PP-SV SEMI-VOLATILE ORGANICS (GC/MS)
DATE REPORTED: 06/01/2001 REPORT MAILED OUT

PARAMETER	RESULT
PHENOL	< 19. MCG/L
BIS(2-CHLOROETHYL)ETHER	< 19. MCG/L
2,2'-OXYBIS(1-CHLOROPROPANE)	< 19. MCG/L
4-METHYL PHENOL	< 19. MCG/L
NITROBENZENE	< 19. MCG/L
ISOPHORONE	< 19. MCG/L
BIS(2-CHLOROETHOXY)METHANE	< 19. MCG/L
2,4-DICHLOROPHENOL	< 19. MCG/L
2-METHYLNAPHTHALENE	< 19. MCG/L
2,4,6-TRICHLOROPHENOL	< 19. MCG/L

**** CONTINUED ON NEXT PAGE ****

LOCATION: GUILDERLAND CENTER TRANSPORTATION/MAINTENANCE FACILITY
TIME OF SAMPLING: 04/04/2001 12:55 DATE REPORTED:06/01/2001

PARAMETER	RESULT
2-NITROANILINE	< 47. MCG/L
DIMETHYLPHTHALATE	< 19. MCG/L
3-NITROANILINE	< 47. MCG/L
ACENAPHTHENE	< 19. MCG/L
DIBENZOFURAN	< 19. MCG/L
2,4-DINITROTOLUENE	< 19. MCG/L
FLUORENE	< 19. MCG/L
4-NITROANILINE	< 47. MCG/L
---> NOTE: CANNOT BE SEPARATED FROM DIPHENYLAMINE.	
4-BROMOPHENYL PHENYL ETHER	< 19. MCG/L
ANTHRACENE	< 19. MCG/L
CARBAZOLE	< 19. MCG/L
PYRENE	< 19. MCG/L
BUTYL BENZYL PHTHALATE	< 19. MCG/L
CHRYSENE	< 19. MCG/L
BIS(2-ETHYLHEXYL)PHTHALATE	0.3 MCG/L [BJ]
BENZO(k)FLUORANTHENE	< 19. MCG/L
BENZO(a)PYRENE	< 19. MCG/L
BENZO(ghi)PERYLENE	< 19. MCG/L

TENTATIVELY IDENTIFIED COMPOUNDS - S.V. 010531

<> CPA SAMPLE NO <>
<> SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET <>
<> TENTATIVELY IDENTIFIED COMPOUNDS | 200180037 | <>
<> <>
<> Lab Name: WCLR Contract: <>
<> Lab Code: WCLR Case No.: 4403 <>
<> SAS No.: SDG No.: 4403 <>
<> Matrix: Water Lab Sample ID: 200180037 <>

**** CONTINUED ON NEXT PAGE ****

LOCATION: GUILDERLAND CENTER TRANSPORTATION/MAINTENANCE FACILITY
TIME OF SAMPLING: 04/04/2001 12:55 DATE REPORTED:06/01/2001

<> Sample wt/vol: 1060 ML Lab File ID: 3_0426F <>
<> Level: L Date Received: 04/04/01 <>
<> Inj. Volume: 2.0 (uL) Dilution Factor: <>
<> GPC Cleanup: pH: <>

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

**** ADDITIONAL PARAMETERS ****

DATE REPORTED: 04/19/2001 REPORT MAILED OUT

PARAMETER	RESULT
4-METHYL-2-PENTANONE (MIBK)	< 10. MCG/L
ACETONE	< 10. MCG/L

<> not show a pattern indicative of petroleum hydrocarbon contamination. <>

PARAMETER	RESULT
SELENIUM	< 5. MCG/L
CADMIUM	< 1. MCG/L
LEAD	< 5. MCG/L
BERYLLIUM	< 1. MCG/L
COBALT	< 5. MCG/L
CHROMIUM	< 5. MCG/L
MANGANESE	140. MCG/L
NICKEL	< 5. MCG/L

**** CONTINUED ON NEXT PAGE ****

LOCATION: GUILDERLAND CENTER TRANSPORTATION/MAINTENANCE FACILITY
TIME OF SAMPLING: 04/04/2001 12:55 DATE REPORTED:06/01/2001

PARAMETER	RESULT
VANADIUM	< 5. MCG/L
ZINC	94. MCG/L
ALUMINUM	< 50. MCG/L
CALCIUM	93. MG/L
SODIUM	38. MG/L

**** END OF REPORT ****

DEPARTMENT OF HEALTH
COUNTY OF ALBANY
SOUTH PERRY AND GREEN STS.
ALBANY, NEW YORK 12201

William A. Grattan, M.D.,
[redacted]
COMMISSIONER

January 10, 1983

Mr. Kevin A. Moss, Supervisor
Town of Guilderland - Town Hall
Guilderland, NY 12084

RE: HAZARDOUS WASTE SITE INVENTORY
BURNS PROPERTY & NORTHEASTERN INDUSTRIAL PARK
TOWN OF GUILDERLAND

Dear Mr. Moss,

In response to your recent letter regarding the above, I have attached copies of pertinent information from our files regarding this Department's investigation of these two (2) potential sites. Both sites were included on the recently published N.Y.S. Superfund list of sites in an attempt to confirm previously obtained information, (indicating that no hazardous waste burial site(s) exist), through detailed site investigation. Unfortunately, both these sites have such low ratings, due to the lack of environmental and health impacts, that it may be several years (if ever) before monies are allocated for investigation.

The Burns property has been sampled by the N.Y.S.D.E.C. Bureau of Hazardous Wastes and Region 84, D.E.C. The results of these samplings indicate that priority pollutants are not a concern and that the unknown pills found at the site were identified as salt tablets. Additionally, the United States General Services Administration and the Department of Army were contacted relative to their records on disposal activities in this area. Their findings were negative, and to their knowledge, no disposal activities were performed at this location.

The Northeastern Industrial Park has been surveyed by this Department and the N.Y.S. D.E.C. with no apparent environmental or health problems being noted. Again, the General Services Administration and the U.S. Department of Army indicate that no toxic and/or hazardous waste material was ever dumped on this property.

Mr. Kevin A. Rose, Supervisor
Town of Guilderland 1/10/02

I hope that above mentioned information clarifies the current status of these 2 sites. If you should require further information, please feel free to contact me.

Sincerely,

Stephen S. Lakowski, P.E., Director
Division of Environmental Health Services

SSL:ghm

enclosures

cc: Mr. Irving Rehsel, P.E., Region 4, DEC

FACT SHEET

Apex Warehouse Fire
Binghamton (Broome County)

August 1995

STATE OF NEW YORK
DEPARTMENT OF HEALTH
Center for Environmental Health
2 University Place
Albany, New York 12203-3399

52070186

Apex Warehouse Fire
Binghamton (Broome County)

BACKGROUND

At 11:22 p.m. on June 29, 1995, the Binghamton Fire Department received a call that a warehouse on Slauson Avenue was on fire. The firefighters responded immediately and tried to extinguish the fire, but the entire building was involved. The firefighters evacuated the residents along Slauson Avenue and Crandall Street and spent the night trying to control the fire and keep nearby buildings from becoming involved. The next morning, the fire department brought in a wrecking and salvage company to demolish the building, which allowed the firefighters to put out the fire. The fire was out by 3:30 p.m. on June 30.

By the following week, the owners of the warehouse hired a company to remove the debris from the fire. The metal structure of the building was taken by a salvage company as scrap metal. The rest of the fire debris was taken to the Broome County Landfill.

The warehouse was being used to store a variety of plastics for recycling. The plastics in the warehouse were not easily marketable, and some of the material had been stored for three years or more. The day before the fire, a materials recovery manager for Broome County had visited the site in preparation for the material to be taken to the Broome County Landfill. She reported seeing ABS rigid plastic, polystyrene (high impact plastic and packaging peanuts), sheets of foam packing, polyethylene bottles, polyvinylchloride (PVC) strapping tape, shrink wrap and bubble wrap. Some of the plastic was stored on wooden pallets and some treated lumber was also stored in the building. The owner of the material reported that about one million pounds of plastics were in the warehouse at the time of the fire. The exact amount of each type of plastic is not known. However, much of the plastic did not burn in the fire and a large quantity of waste was taken to the County landfill.

Following the fire, many residents called the BCHD with questions about exposures to chemicals from the fire and the soot that fell in the area. The BCHD answered their questions and recommended ways to minimize exposure to chemicals in the soot. Later, they also issued a press release describing these recommendations.

Residents were concerned about possible residues from the fire and asked the BCHD and the City of Binghamton to measure contamination in environmental samples. To respond and resolve citizen questions and concerns, particularly about dioxin-like chemicals, the BCHD and the City asked the NYS DOH to do the sampling and analysis.

SOIL SAMPLING

On July 20, 1995, the NYS DOH and the BCHD took four soil samples from yards near the site of the fire; three samples from other areas of the city to use for comparison; and one sample of soil/debris with visible fire contamination from next to the Apex Warehouse foundation, a site likely to have high levels of contamination. In addition, the NYS DOH took a sample of hosta plant leaves that had visible soot on them. The sampling locations are shown on the attached map.

Q: What were the samples analyzed for?

A: The soil and hosta plant samples were analyzed for polychlorinated dibenzo-*p*-dioxins and dibenzofurans (also known as dioxins and furans). These compounds can be formed when certain plastics (for example, PVC) and other materials burn.

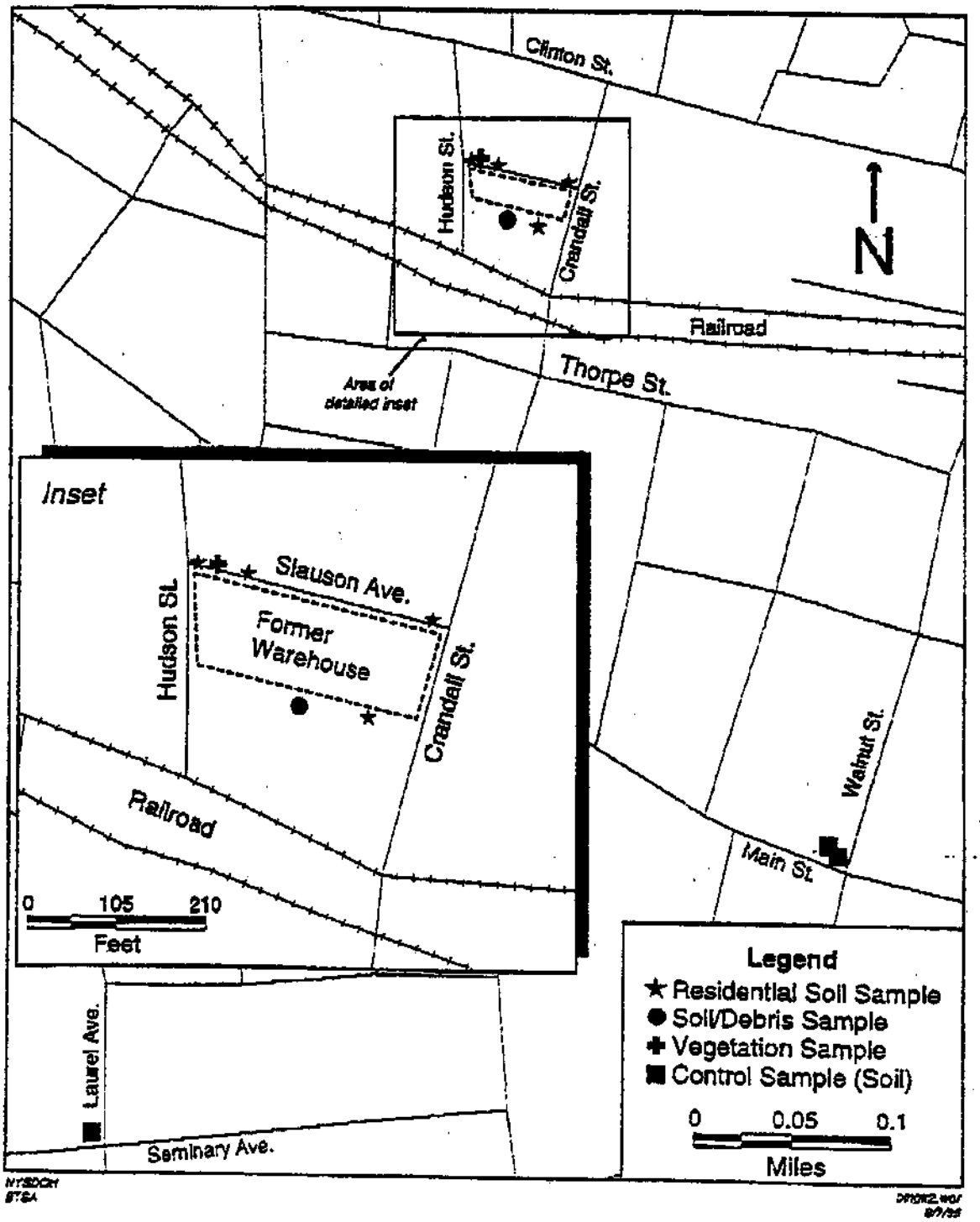
SUMMARY

On June 29-30, 1995, the Apex Warehouse on Slauson Avenue in Binghamton (Broome County) burned. The fire burned for 16 hours and residents living on Crandall Street and Slauson Avenue were evacuated. The building contained about one million pounds of a variety of plastics for recycling. By the following week, the fire debris was removed from the site.

The Broome County Health Department (BCHD), in consultation with the New York State Department of Health (NYS DOH), provided information to residents on ways to minimize exposure to soot and other contaminants from the fire. Based on information from similar fires, sampling people's homes and yards was not believed to be necessary. However, residents in the area were still concerned, particularly about dioxin-like chemicals, and requested sampling. On July 20, 1995, the BCHD and the NYS DOH took soil samples for dioxin-like chemicals from four yards in the neighborhood and three sites from outside the neighborhood that were primarily upwind of the fire to use for comparison. One sample of soil/debris with visible fire contamination was taken next to the Apex Warehouse foundation, because this was a site likely to have high levels of contamination.

The soil samples have been analyzed, and the levels are not a health concern. Dioxin and furan levels were similar to those reported by other scientists in soils from urban, suburban and rural areas of the United States and Europe. The levels in soil from neighborhood yards were well within the guideline developed by the United States Centers for Disease Control and Prevention (CDCP). If dioxin were to exceed this level in residential soil, the CDCP would begin to consider actions to limit human exposure.

Apex Warehouse Fire
Environmental Sampling Locations
New York State Department of Health &
Broome County Health Department
July 20, 1995



Q: What are dioxins and furans and how do scientists use measurements of dioxins and furans in a sample?

A: Dioxins and furans are two closely related groups of chemicals. There are 75 different types of dioxin and 135 different types of furan. The individual dioxins or furans are called congeners. These congeners are believed to cause the same types of health effects, but each congener has a different level at which it might cause these effects. Often, many different congeners are found in the same environmental sample. To use the measurements of several congeners in a sample, scientists combine the levels of all the congeners in the sample into one number. This number, called the 2,3,7,8-TCDD equivalent concentration (dioxin equivalents or TEQs), takes into account how much of each congener is in the sample and the toxicity of each congener. A fact sheet with more information about TEQs is available.

Q: What are the results of the soil samples?

A: Four samples were taken from yards near the warehouse and three control samples were taken from other areas of the city. The control sites were about ½ mile south of the fire site, upwind during most of the fire. Control samples were taken to help determine what levels of dioxins and furans typically occur in Binghamton soils. Levels of TEQs in the four samples from the residential yards were compared to levels in the control samples and samples of soils from urban, suburban and rural areas elsewhere in the United States and Europe (background levels). They were also compared to the United States Centers for Disease Control and Prevention (CDCP) guideline for residential soils of 1 part per billion (ppb), which is the same as 1,000 parts per trillion (ppt) for 2,3,7,8-TCDD (the most toxic dioxin congener). The guideline is the level at which the CDCP would begin to consider actions to limit human exposure.

As shown in the table below, all of the results, including the soil/debris sample from next to the warehouse foundation, are lower than the CDCP guideline and within the background range. The levels found in residents' yards are slightly higher than the levels found in the control samples, but much lower than the soil/debris sample taken next to the warehouse foundation.

Results from Soil Sampling for Dioxins and Furans - Apex Fire, Binghamton
July 1995

Sample location	TEQs (ppt)*	
	ND=½DL**	ND=0
Residence A	6.7	3.5
Residence A (duplicate)	10	7.6
Residence B	28	26
Residence C	11	7.9
Residence D	15	11
Control 1	4.7	0.3
Control 2	4.4	0.5
Control 3	4.5	0.8
Near warehouse foundation	680	680
Comparison Data		
TEQs in background soils	1.2 to 50	0.1 to 50
CDCP Guideline	1000	

* ppt = parts per trillion
** ND = not detected.
DL = detection limit. See text for further explanation.

In many of the samples, some congeners were not present or were present at a level too low to be detected. The detection limit is the lowest level of a congener that the laboratory can detect. When adding up the levels of the individual congeners to determine the TEQs, we must choose what number to use for a congener that was not detected. We made two assumptions, 1) that there is no congener present and thus the amount is zero, and 2) that the congener is present and the amount is equal to one half of the detection limit. The table shows the TEQs calculated using both assumptions. When many of the congeners were not detected, the value of the TEQs was determined mostly by the detection limits and not by the presence of congeners.

Q: Are the levels of furans and dioxins found in the soil samples a health concern?

A: No. For each of the soil samples, the combined dioxins and furans (as dioxin equivalents or TEQs) were less than the CDCP guideline and within the range of background levels for residential soils.

Q: Why did you test for dioxins and furans and not other chemicals?

A: Plastic fires, especially those that involve burning PVC such as this warehouse fire, can produce small amounts of dioxins and furans. Some dioxins and furans are very toxic and do not break down quickly in the environment. At high levels in the soil or in homes, they can be a health concern. Other chemicals produced by the fire, that might remain in the neighborhood, are less toxic and typically formed during any fire.

Q: Why did you do soil sampling?

A: The houses, street and warehouse foundation were cleaned. Given this cleaning, if any contamination were left from the fire, soil is one of the most likely ways people would come in contact with that contamination. The soil was not removed or treated and would be expected to contain contaminants, such as dioxins or furans, if they were produced in any quantity by the fire.

Q: Why did you collect plant leaves?

A: Soot was visible on hosta plant leaves in amounts that appeared adequate for analysis. If dioxin and furan levels had been unusually high in the soil, the soot sample could help determine whether the fire or pre-existing contamination might be the source. We do not yet have the results from the plant analysis. The results will be released to the public as soon as they are available.

Q: Should I do anything special to make sure that my yard is safe to use?

A: No additional action is needed. The levels of dioxins and furans are not different from background levels found in other residential areas of the US and Europe and are much less than the CDCP guideline for residential soils.

Q: Is more testing planned?

A: Based on the results of this sampling, the NYS DOH and BCHD do not believe that additional sampling is necessary.

FOR MORE INFORMATION

If you have any questions, please contact any of the people listed below.

Broome County Health Department

Bob Denz/Ron Brink
1 Wall Street
Binghamton, NY 13901
Telephone: 778-2887

New York State Department of Health

Susan VanPatten
2 University Place, Rm. 240
Albany, NY 12203
Telephone: 1 800 458-1158, extension 402

Ron Heerkens/Gary Robinson
217 S. Salina Street
Syracuse, NY 13202
Telephone: (315) 426-7627

52070186
NYS DOH - BTSA
9 August 1995

RESPONSES TO NYSDEC AND NYSDOH COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT FOR THE FORMER SCHENECTADY ARMY DEPOT – VOORHEESVILLE AREA

COMMENTS FROM NYSDEC

The following responses are to address comments made by NYSDEC in a letter from J. McCullough to G. Goepfert (USACE) dated February 19, 2002.

1. (Page ES-3) Former Burn Pit Area – This section will be updated as requested.

2. (Section 2.3.2.1.3) The general location of the source of drinking water for the Town of Guilderland will be identified.

3. (3.2.2.5.9) The sources of the bis(2-ethylhexyl)phthalate (BEHP) detected in Area of Concern (AOC) 7 and elsewhere are not known. BEHP was also detected upstream in Black Creek and during a previous RI at AOC 1; both of these areas are upgradient of AOC 7. Given the widespread occurrence of BEHP, tracking the source may be problematic. The United States Army Corps of Engineers (USACE) would like to discuss the option of a groundwater use restriction for the AOCs where BEHP was detected above groundwater standards, as opposed to tracking the source.

4. (3.2.2.5.28) The samples referred to in this subsection were only analyzed for volatile organic compounds (VOCs) to update the status of the VOC plume previously found to exist in this area. A more complete assessment of groundwater quality, including inorganic analyses and background sample results, may be found in the 1997 Malcolm Pirine, Inc "Final Limited Remedial Investigation Report Former Voorheesville Army Depot U.S. Army Southern Disposal Landfill Guilderland, New York" dated April 1997.

5. (3.2.3.5.19) The dioxin Toxicity Equivalents (TEQs) will be recalculated per New York State Department of Health (NYSDOH) guidance, and our recommendation for further assessment will be changed to no further action, based on the NYSDOH's comments in the letter from D. Geraghty to J. McCullough dated February 15, 2002.

6. (3.2.4.5.5) The gas cylinders observed by Parsons staff were staged on the ground surface, apparently by the property owener's crews doing the earthwork for the new warehouse construction. It is not known whether the cylinders have been removed, or what the contents, if any, are. The specifications for remediation of this area will include provisions for making the potential presence of additional gas cylinders known to site workers.

7. (3.2.4.5.7) The descriptions of odors were qualitative observations made by the field geologist. Given that these were qualitative descriptions, they will be removed from the text.

8. (3.2.5) This section will be updated as requested.

9. (3.2.7.5.9) The sources of the BEHP detected in AOC 7 and elsewhere are not known. BEHP was also detected upstream in Black Creek and during a previous RI at AOC 1; both of these areas are upgradient of AOC 7. Given the widespread occurrence of BEHP, tracking the source may be problematic. USACE would like to discuss the option of a groundwater use restriction for the AOCs where BEHP was detected above groundwater standards, as opposed to tracking the source. Installing additional monitoring wells where temporary wells samples were collected (at the "HP" locations) and resampling the existing wells to confirm the presence of BEHP will be added as recommendations for future action at AOC 7.

10. (4.1.2) The text will be modified to explain that interim remedial actions may be completed at various AOCs until a decision document can be issued that describes the remedy for each AOC.

11. (4.2.2) Additional sediment sampling in the pond at AOC 1 will be undertaken as part of a Focused Feasibility Study, and will target those contaminants of concern that have been shown to exceed the sediment criteria.

12. (4.3.2) The recommendation to remove the fill material at AOC 2 will be changed to a recommendation to conduct a focused feasibility study that will evaluate removal and capping options.

13. (4.4.2) The text will be revised as requested.

14. (4.6.2) The text will be revised as requested.

15. (4.8.2) Refer to the response to Item 9.

16. (4.9.2) USACE and DLA will be discussing the manner in which each agency will take responsibility for future actions at the various AOCs. The USACE's position regarding further sampling in Black Creek is presented in the responses to comments made by the NYSDEC Division of Fish, Wildlife and Marine Resources.

Responses to comments made by the NYSDEC Division of Fish, Wildlife and Marine Resources (DFWMR)

17. (AOC 1) Additional sediment sampling in the pond at AOC 1 will be a part of a Focused Feasibility Study; refer to the response to Item 11.

18. (AOC 2) The dioxin Toxicity Equivalents (TEQs) will be recalculated per New York State Department of Health (NYSDOH) guidance, and our recommendation for further assessment will be changed to no further action, based on the NYSDOH's comments in the letter from D. Geraghty to J. McCullough dated February 15, 2002.

19. (AOC 5 page 3-9) The basis for the referenced statement is provided in the Preliminary Assessment Report for the Voorheesville Depot dated February 2001. The U.S. Department of the Interior Fish and Wildlife Service and the New York State National Heritage Program were contacted in 1998 to confirm this statement.

20. (AOC 8 page 3-53) No response is necessary.

21. (4.2.2) Further details of the recommendation for further sediment characterization will be provided in the Focused Feasibility Study for AOC 1.

22. (4.6.2) The Defense National Stockpile Center operates the Voorheesville Depot (AOC 5), and is planning measures to reduce off-site migration of sediment and soils at AOC 5.

23. (4.9.2) All data for Black Creek that were collected during the RI have been compiled in the RI Report, and all data for Black Creek collected during previous investigations were presented in the RI Field Sampling Plan dated June 2000. Additional deeper sediment characterization in Black Creek and the western ditch will be addressed in the RI data gap work plan.

COMMENTS FROM NYSDOH

The following responses are to address comments made by NYSDOH in a letter to J. McCullough (NYSDEC) from D. Geraghty dated February 15, 2002.

24. AOC 1 – Please refer to the response to Item 11.

25. AOC 2 - In the Final RI Report, the recommendation to remove the fill material at AOC 2 will be changed to a recommendation to conduct a focused feasibility study that will evaluate removal and capping options.

26. AOC 3 - This section will be updated as requested.

27. AOC 5 - The Defense National Stockpile Center operates the Voorheesville Depot (AOC 5), and is planning measures to reduce off-site migration of sediment and soils at AOC 5.

28. AOC 6 – No reponse necessary.

29. AOC 7 – Refer to the response to Item 9.

30. AOC 8 – Further monitoring and characterization of Black Creek sediment and water quality will be proposed in the data gap work plan.

31. AOC 9 – Further development and sampling of well MW-9 will be conducted as part of the data gap investigation.

32. Section 2.6.9 – The field notes prepared by the USACE representative indicates that unidentified NYSDEC personnel were onsite during the immediate response work conducted at AOC 9 in 1998, and that Victor Cardona (NYSDEC) was present for a site meeting and visit on March 3, 1998. It is not known whether NYSDEC Region 4 staff were contacted at that time; however, NYSDEC Region 4 staff have not been contacted during the RI conducted by Parsons.

33. Section 3.2.3.2 – The incorrect reference will be corrected in the Final RI Report.

34. Section 3.2.3.5.19 – Figure 3.11 will be corrected. The TEQs will be recalculated and those new values will be presented in the Final RI Report. Based on the NYSDOH assessment of the dioxin data, the Final RI Report will conclude that no further characterization of dioxin levels in soil at AOC 2 is necessary.

35. Figure 3.9 – the mercury value for SD-4 will be corrected.

36. Figure 3.18 – The misspelling will be corrected.

37. Section 4.3.1 - In the Final RI Report, the recommendation to remove the fill material at AOC 2 will be changed to a recommendation to conduct a focused feasibility study that will evaluate removal and capping options.

38. Section 4.4.2 – This section will be updated as requested. The information provided with the NYSDOH letter will be included as an appendix as requested. USACE will continue to closely coordinate all investigation and future remediation activities with the Galesi Group.

39. General Comment – The source of the BEHP is not known. The RI data validation report (Appendix B), and subsequent reassessment of the laboratory quality control data, indicates the BEHP is not a laboratory contaminant. Refer to the response to Item 9.