Joint Base McGuire-Dix-Lakehurst
Restoration Advisory Board (RAB) Draft Meeting Minutes
Meeting No. 30 – 26 May 2010

SUBJECT: Restoration Advisory Board (RAB) Meeting No. 30 – Meeting Minutes

1) Place: Edward Holloway Senior Citizen Community Center, Cookstown, New Jersey

2) Date/Time: Wednesday, May 26, 2010; 6:30 PM

3) Co-Chairs: Col Joseph Poth, Deputy Joint Base Commander, Joint Base McGuire-Dix-Lakehurst
Mr. Michael Tamn, Resident, Pemberton Township, New Jersey

4) Attendees:

Mr. Frank Storm	Resident, Burlington County, RAB Member
Mr. William Walker	Wrightstown Borough resident, RAB Member
Mr. Chris Archer	JB MDL 87 CES, Deputy Civil Engineer
Mr. Ken Smith	JB MDL, 87 CES/CEAN, ERP Chief, Environmental Division
Mr. Curt Frye	JB MDL, 87 CES/CEAN, Environmental Restoration Program Chief
Mr. King Mak	JB MDL, 87 CES/CEAN, Environmental Restoration Program
Mr. Michael Brown	JB MDL, 87 CES/CEAN, Environmental Restoration Program
Ms. Nicole York	JB MDL, 87 CES/CEAN, Environmental Restoration Program
Mr. William Lewendoski	JB MDL, 87 CES/CEAN, Environmental Restoration Program
Mr. Mike Figura	JB MDL, 87 CES/CEAN, Environmental Restoration Program
Ms. Patty Odoardo	JB MDL, 87 ABW/PAO
Mr. John Malleck	US Environmental Protection Agency, Region II
Mr. Phil Cole	NJ Department of Environmental Protection, RAB Member
Ms L. Tamn	Resident, Pemberton Township, New Jersey
Ms. Jennifer Azzarano	Burlington County College
Ms. Pidge Carroll	Representative for Congressman Chris Smith
Mr. Frederick Poli	Shaw Environmental &Infrastructure, Inc.
Mr. Patrick McGinnis	Shaw Environmental & Infrastructure, Inc.
Mr. Gerry Maresca	Shaw Environmental & Infrastructure, Inc.
Mr. James Richman	Shaw Environmental & Infrastructure, Inc.
Ms. Debra Krisak	Shaw Environmental & Infrastructure, Inc.
Mr. Greg Kendall	Plexus Scientific

5) Call to Order:

The meeting was called to order at 1830 by Col Joseph Poth.

6) Minutes of Previous Meeting and Review of Agenda Items:
Mr. Michael Tamn acknowledged the prompt transmittal of the previous meeting minutes well in advance of the next RAB meeting, as requested. Mr. Tamn called for approval of the minutes from the 24 February 2010 RAB meeting. A motion was made by W. Walker, seconded by P. Cole and the minutes were approved.

7) Outstanding Action Items/Questions from Previous February 2010 RAB Meeting:

Mr. Curtis Frye-Chief, Environmental Restoration Program

- Provide update on the Dix Base wide Background Report.
  - Mr. Curtis Frye introduced Mr. William Lewendoski as a replacement for Michael Slade as the Dix Remediation Project Manager (RPM).
  - Mr. Frye announced that a contract was being developed to update the Dix Basewide Background Study utilizing FY10 funding, if available. The study will focus on quantifying the naturally occurring conditions, primarily metals, in groundwater.
  - An additional update, comparing background concentrations for iron and manganese to the NPL landfill data will be provided at tonight's RAB.

- Provide a hand-out to all RAB members on the status of the Dix restoration sites including military munitions response program (MMRP) sites (fact sheets).
  - A bound Dix Fact Sheet booklet dated May 2010 was provided to members of the RAB.

- Provide Mr. Tamn with a copy of the No Further Action Decision Document (NFA/DD) for the Dix Mag-2 Site.
  - Copies of NJDEP and EPA letters concurring with NFA were provided.

- Provide Mr. Tamn with a list of all Dix sites.
  - A list of Dix sites is included in the May 2010 Dix Fact Sheet Booklet.

- With respect to the Dix NPL Landfill, provide information on the monitoring well depths and the existence of a confining layer.
  - Greg Kendall, Plexus was introduced and provided information during the RAB meeting. Mr. Kendall's presentation is summarized below.

- Regarding the 17 November 2009 RAB minutes, ensure that the final version of the minutes included in the Information Repository shows the correct size of the Dix NPL Landfill (113 acres).
  - The minutes included in the Information Repository accurately reflect the size of the Dix NPL Landfill (113) acres.

8) Mr. Gregory Kendall, Project Manager, Plexus Scientific

Dix NPL Landfill Long Term Monitoring Update

- Mr. Tamn had asked if potential contaminants from the Landfill could migrate to deeper portions of the aquifer.
  - Mr. Kendall explained the lithologic data from site borings indicate a continuous silt/clay unit beneath the Landfill. Groundwater data from the Fall of 2009 indicates exceedance of some metals in deep wells and the metals detected at depth are either nutrient metals or deemed to be naturally occurring (Iron [Fe] and manganese [Mn]) due to low pH conditions.

- Mr. Tamn had questioned how the concentrations of Fe and Mn at the Landfill compare to the Background Study.
  - Mr. Kendall said the Fe results are comparable to the Background conditions. Iron and manganese are slightly elevated when compared to the previous background study and the updated background study will include historical data from the area of the base near the Sanitary Landfill. The regional studies by both NJDEP and USEPA concur that elevated Fe and Mn concentrations are naturally occurring in this aquifer due to low pH conditions.

- Prior to the RAB, Mr. Tamn had inquired about potential groundwater impact (radium) from the Landfill to a public water supply well located at 151 Trenton Road.
  - Mr. Kendall explained that given the direction of the groundwater flow and the great distance to the public well, groundwater from the landfill would not impact the well at 151 Trenton Road. Mr. Kendall provided a USGS publication entitled *Radium-226 and Radium-228 in Shallow Groundwater Southern New Jersey* as a good background study.

- Mr. Storm questioned whether methane was a problem at the Landfill.
  - Dix personnel stated that monitoring of methane gas ceased after Year 2000 due to insignificant concentrations.

- Mr. Cole questioned whether or not shallow groundwater discharges to Cannon Run.
  - Mr. Kendall stated that shallow groundwater does discharge to Cannon Run.

- Mr. Tamn inquired whether there ever was an incinerator at the Mag-2 site.
  - Dix personnel stated that no incinerator existed at the site.

- Mr. Tamn stated that there were reports of solvent dumping at the Mag-1 building and wanted to know why there were no monitoring wells at the Mag-1 building.
  - Mr. Poli and Mr. Frye answered that all the groundwater contamination was away from the building near the fence line as demonstrated by several monitoring wells and soil borings in the area and that there are several clean wells upgradient toward the building.

9) Update on BOMARC Sites WP-05, ST-15, and OT-16

Mr. King Mak, Restoration Program Manager, 87 CES/CEAN
Mr. James Richman, Project Manager, Shaw Environmental

WP-05 – 2009 RI Activities/Findings:

- The groundwater investigation included 11 Membrane Interface Probes (MIPs), nine (9) Direct Push Technology (DPT) borings, 19 groundwater grab samples that were collected from DPT borings, and four DPT Borings that were completed at four (4) MIP locations. TCE (5,340 ug/l) was detected in WP05-TW05 at the source area and TCE (119 ug/l) was detected in WP05-TW12 which is approximately 600 feet downgradient.
- Two new well couples were installed (shallow / deep), WP05-MW01 and WP05–MW02 at source area (82.6 ug/l / non-detect [ND]), WP03-MW03 and WP03–MW04 are approximately 600 feet downgradient (123 ug/l / ND).

- Fourteen monitoring wells (MWs) were sampled which includes the ten existing and the four new wells.
- TCE was detected in nine (9) of the monitoring wells. Of the wells with TCE detections, MW-11 (63.8 ug/l) is the furthest downgradient. The water table elevation is approximately 125 feet mean sea level (msl) and the elevation of greatest TCE concentrations are approximately 110 feet - 90 feet msl.
- The surface water investigation consisted of four (4) surface water samples collected in Elisha Branch. No TCE was detected at WP-05 Plume discharge.
- The soil investigation was based on 17 surface soil samples collected; 10 samples exceeded the Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS) for polycyclic aromatic hydrocarbons (PAHs) and two (2) subsurface soil samples were collected; both samples were less than the NRDCSRS.

WP-05 – Future Plan:

- Propose a groundwater Classification Exception Area (CEA) as part of a site-wide groundwater CEA.
- Install additional MWs and begin long-term monitoring (LTM) for volatile organic compounds (VOCs) at selected MWs and surface water locations pursuant to CEA requirements.
- RI Report will show that groundwater from WP-05 merges with the OT-16 TCE plume. The feasibility study (FS) for WP-05 is addressed in the proposed remedial alternative for the OT-16 TCE plume.
- Excavation and off-site disposal of PAH contaminated soils. The aerial extent is approximately 6,200 square feet; the estimated volume (2 feet removal) is 465 cubic yards (cy) and four (4) soil piles from the UST excavations which approximate roughly 730 cy.

ST-15 – 2009 RI Activities/Findings (April through November):

- Installed new groundwater monitoring well ST15-MW01 in the former UST excavation area.
- Sampled three (3) existing and new MWs; VOCs, SVOCs, and dissolved lead were non-detect; total lead detected in wells 15-MW-44 (7.1 ug/l) and ST15-MW01 (35 ug/l); Practical Quantitative Limit = 5 ug/l and lead was non-detect in downgradient well 15-MW-46.
- Ten (10) surface soil samples collected around former fuel dispensing pad and remote fill; one (1) sample exceeded the NRDCSRS for PAHs and one (1) subsurface soil sample collected at surface soil exceedance; result was less than NRDCSRS.

ST-15 – Future Plan:

- Propose a groundwater classification exception area (CEA) as part of a site-wide groundwater CEA, begin long-term monitoring for VOCs and lead at selected MWs pursuant to CEA requirements.
- Excavation and off-site disposal of PAH contaminated soils, aerial extent ~ 195 square feet; the estimated volume (2 feet removal) is approximately 15 cy.

OT-16 (Hydraulic Oil) – 2009 RI Activities/Findings and Future Planning:

- Ten total petroleum hydrocarbon (TPH) subsurface soil samples were collected. The results exceeded the NRDCSRS. The five (5) shallow samples corresponded to the depth of the launcher "pits" in each shed. The maximum concentration was detected in sample ID # OT16-MW02 (136 mg/kg). Five (5) deep samples were collected just above the groundwater interface. The maximum concentration was detected in sample ID # OT16-MW02 (9.7 mg/kg).
- Hydraulic oil is not impacting the soil or groundwater. Therefore, a groundwater CEA will be proposed as part of a site-wide groundwater CEA. If approved, additional monitoring wells will be installed for long term monitoring for VOCs pursuant to CEA requirements.
- RI Report will show that missile shed area is hydraulically upgradient of OT-16 TCE Plume; groundwater will be addressed in the proposed remedial alternative for OT-16 TCE Plume.

OT-16 – (TCE Plume) – 2009 RI Activities/Findings and Future Planning :

- Three (3) downgradient monitoring wells were sampled, seven (7) surface water samples were collected in the discharge area of Success Branch, and two (2) surface water samples collected in the Unnamed Tributary.
- Propose a site-wide groundwater CEA for the BOMARC site which includes sites WP-05, ST-15, OT-16 Hydraulic Oil, and the TCE plume area.
- Submit a feasibility study (FS) for the OT-16 TCE Plume to NJDEP. The alternative Zero Valent Iron Permeable Reactive Barrier (ZVI PRB) appears to be most promising. Following approval of the FS the next steps include: Proposed Plan, Record of Decision, and then the remedial design. The ZVI PRB treats the groundwater before it discharges to stream and will ensure the stream meets surface water quality standards.
    - Mr. Tamn asked about the effectiveness of the barrier and Mr. Richman responded that this is a proven technology. If selected as the remedy, it would be designed based on a Pilot Study on site and an extensive monitoring well network would be included to ensure its effective performance.

10) Update on Operable Unit 2 (Central McGuire OU) at McGuire

Mr. Michael Brown, Restoration Program Manager, 87 CES/CEAN
Mr. Gerry Maresca. Project Manager, Shaw Environmental

Completed Field Work at OU-2:

- LF-23: Former Landfill No. 1 - 30 borings, 13 wells, and one (1) surface water (SW) & sediment (SD) sample have been completed.
- SS-34: Oil Water Separator (OWS), Vehicle Maintenance – 30 borings, 13 wells, and one (1) surface water (SW) & sediment (SD) sample have been completed.
- SS-35: OWS and Former Fuel Storage - 34 borings, 11 wells, eight (8) SW & SD samples, six (6) stream gauges, 12 vapor intrusion (VI) samples.
- SS-36: Structural Repair, Hazardous Waste Storage - 70 borings, 12 wells, eight (8) SW samples from storm sewer catch basins/outfall, and 75 VI samples at nine (9) buildings.

- SS-37: Vehicle Maintenance (Bldg. 2415) – nine (9) borings, one (1) new well, and three (3) existing wells sampled.
- SS-38: Vehicle Maintenance (Bldg. 3001/3002) - 50 borings, 11 new wells, 11 existing wells, and 28 VI samples at two buildings.
- SS-39: Aircraft Maintenance, (3300 Area Buildings) - 32 borings, four (4) wells, 44 VI samples at four (4) buildings.
- SS-41: Former Pesticide Mixing Area (Bldgs.1940, 1941, 1942) – six (6) borings, three (3) wells, four (4) SW and sediment samples.
- SS-42: Power Plant, Former Coal Storage (Bldg. 2101) – seven (7) borings, four (4) wells, four (4) SW and sediment samples, and 76 surface soil samples analyzed for metals by XRF.

Future Plans for OU-2:

- June 2010: Complete RI fieldwork.
- August through September 2010: Perform human health and ecological risk assessments for the nine Central OU sites. Continue Interim Remedy discussion with regulators (SS-36 and SS-34).
- October 2010: Draft Remedial Investigation Report.
- Mr. Tamn inquired about the oil still underground at ST-09 Bulk Fuel Storage Area.
    - Mr. Brown pointed out that the ST-09 site is part of a different Operable Unit, Ou-04, than was being presented tonight. Mr. Brown stated that it was still there but not moving. The underground oil will be remediated following the completion of the upcoming Remedial Investigation.
- Mr. Storm inquired about contamination at the FT-13 burn site and it was explained that an interim remedial action resulted in removal of the contaminated soil and berm areas.
    - Mr. Brown explained that an interim remedial action had resulted in the removal of the contaminated soil and berm areas.

11) Action Items for next RAB meeting:

- Mr. Storm also had some questions about the Triangle Area and follow–up would take place to address that issue.
- Mr. Storm asked about the continued use of TCE around the base; it was stated that it was still used and that JB MDL personnel would report back on this topic.

12) Meeting Adjourned:

Mr. Michael Tamn, RAB Co-Chair

- The meeting was adjourned at 1957.

JOINT BASE MCGUIRE-DIX-LAKEHURST, N.J.
RESTORATION ADVISORY BOARD (RAB)

Document Availability
Wednesday, May 26, 2010

Document Control Point of Contact: Nicole York 609.754.0068

Background: The documents below have been made available since the last RAB meeting.

The following documents are currently available through Mr. Tam, the RAB Co-Chair, and are currently available at the Burlington County Library.

- April through September 2009 Semi-Annual Progress Report for Areas A&B at the Naval Air Engineering Station, Lakehurst
- April through September 2009 Semi Annual Progress Report for Area C at the Naval Air Engineering Station, Lakehurst
- April through September 2009 Semi-Annual Progress Report for Area H at the Naval Air Engineering Station, Lakehurst
- Workplan for Vapor Intrusion Investigation at Areas B and K at the Naval Air Engineering Station, Lakehurst
- Sanitary Landfill, FTDX-10, 2009 Draft Sampling and Analysis Report for Groundwater, Surface Water, and Sediment at Ft. Dix, NJ
- Final Workplan for Soil Removal at Area A (Site 42) Former Lakehurst Dry Cleaning Facility (Building 266) at Joint Base McGuire-Dix-Lakehurst

The following documents are currently available at the at the Burlington County Library.

- Correspondence from the EPA dated October 6, 2009, Subject: Naval Air Engineering Center – Lakehurst, NJ
- Correspondence from the NJDEP dated October 22, 2009, Subject: Progress Report Approval for the Draft Progress Report for Soil Vapor Extraction and Air Injection Systems at NPL Sites 10, 13, 16 and 17, January through December 2008
- Correspondence from the NJDEP dated October 22, 2009, Subject: Draft Final 2008 Ground Water Model Update Report for Areas I and J, Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated October 22, 2009, Subject: Progress Report Approval for Naval Air Engineering Station Lakehurst, Area H, Semi-Annual Progress Report, October 2008 through March 2009

- Correspondence from the NJDEP dated October 22, 2009, Subject: Progress Report Approval for Naval Air Engineering Station Lakehurst, Area C, Semi-Annual Progress Report, October 2008 through March 2009
- Correspondence from the NJDEP dated October 22, 2009, Subject: Progress Report Approval for Naval Air Engineering Station Lakehurst, Areas A and B, Semi-Annual Progress Report, October 2008 through March 2009
- Correspondence from the EPA dated December 1, 2009, Subject: NAES – Lakehurst NPL Site, Former Dry Cleaning Facility Area (Site 42), Time Critical Removal Action
- Correspondence from the Department of the Air Force/JB MDL to the EPA dated December 8, 2009, Subject: Five Year Progress Report, 2004-2008, Groundwater Natural Restoration Study, Areas I and J for the Naval Air Engineering Station, Lakehurst, NJ
- Correspondence from the Department of the Air Force/JB MDL to the EPA dated December 8, 2009, subject: Work Plan for Vapor Intrusion Investigation (Sub-slab and Indoor Air) at Areas B and K at the Naval Air Engineering Station, Lakehurst, NJ
- Correspondence from the Department of the Air Force/JB MDL to the EPA dated December 8, 2009, Subject: April through September 2009 Semi-Annual progress Reports for Areas A, B and C at the Naval Air Engineering Station, Lakehurst, NJ
- Correspondence from the Department of the Air Force/JB MDL to the EPA dated December 21, 2009, Subject: Response to comments on the Time Critical Removal Action Memorandum for Excavation and Off-Site Disposal of Contaminated Soil at Former Dry Cleaning Facility Area (Site 42) Joint Base McGuire-Dix-Lakehurst
- Correspondence from the NJDEP dated January 4, 2010, Subject: Remedial Action Selection Report Approval for Final Time Critical Action Memorandum for Excavation and Off-Site Disposal of Contaminated Soil at Former Dry Cleaning Facility Areas (Site 42) on Naval Air Engineering Station Lakehurst
- Correspondence from the Department of the Air Force/JB MDL to the EPA dated January 19, 2010, Subject: Proposed Exit Strategies and Site Optimization for Lakehurst's National Priority List Sites at Joint Base McGuire-Dix-Lakehurst
- Air Pollution Control Preconstruction Permit and Certificate to Operate dated January 19, 2010
- Correspondence from the NJDEP dated January 26, 2010, Subject: Remedial Investigation Work Plan Approval for the Draft Work Plan for Soil Vapor Intrusion/Indoor Air Investigation at Areas B and K at Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated February 4, 2010, Subject: Ground Water Progress Report Approval for Naval Air Engineering Station Lakehurst, Area H – Semi-Annual Progress Report

- Correspondence from the NJDEP dated February 4, 2010, Subject: Ground Water Progress Report Approval for Naval Air Engineering Station Lakehurst, Areas A and B – Annual Progress Report
- Correspondence from the NJDEP dated March 2, 2010, Subject: Work Plan Approval for Soil Removal at Area A (Site 42) Former Dry Cleaning Facility at Naval Air Engineering Station Lakehurst
- Correspondence from the EPA dated March 1, 2010, Subject: Draft Workplan for Time Critical Removal Action at NAES – Lakehurst NPL Site, Former Dry Cleaning Facility Area (Site 42)
- January through December 2009, Draft Progress Report dated April 14, 2010, Soil Vapor Extraction and Air Injection Systems, NPL Sites 10, 13, 16, and 17 at Joint Base McGuire-Dix-Lakehurst
- Correspondence from the NJDEP dated March 16, 2010, Subject: Progress Report Approval for the Five Year Review Progress Report, 2004 through 2008, Ground Water Natural Restoration Study – Areas I & J, Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated March 24, 2010, Subject: Biennial Certification Approval for Classification Exception Area Biennial Certifications for Areas I and J, April 19, 2007 through December 15, 2009, Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated March 24, 2010, Subject: Biennial Certification Approval for Classification Exception Area Biennial Certifications for Area K, April 19, 2007 through December 15, 2009, Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated March 24, 2010, Subject: Biennial Certification Approval for Classification Exception Area Biennial Certifications for Area H, April 19, 2007 through December 15, 2009, Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated March 24, 2010, Subject: Biennial Certification Approval for Classification Exception Area Biennial Certifications for Area D, April 19, 2007 through December 15, 2009, Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated March 24, 2010, Subject: Biennial Certification Approval for Classification Exception Area Biennial Certifications for Area C, April 19, 2007 through December 15, 2009, Naval Air Engineering Station Lakehurst
- Correspondence from the NJDEP dated March 24, 2010, Subject: Biennial Certification Approval for Classification Exception Area Biennial Certifications for Areas A and B, April 19, 2007 through December 15, 2009, Naval Air Engineering Station Lakehurst
- Action Memorandum dated May 4, 2010, Subject: Time Critical Removal Action Memorandum (TCRA) for Excavation and Off-Site Disposal of Contaminated Soil at Former Dry Cleaning Facility Area (Site 42); Building 266 Joint Base McGuire-Dix-Lakehurst (JB MDL)

The following documents are currently available through Mr. Tam, the RAB Co-Chair, and will be available at the Burlington County Library by June 15, 2010.

- Correspondence from the EPA dated November 6, 2000, Subject: Draft Final Seven (7) of 19 Sites for Motor Pools 5800 and 5900, and Magazine-2 Area.
- Correspondence from the NJDEP dated September 11, 2001, Subject: No Further Action and Covenant not to Sue for the following Areas of Concern: Buildings 5881, 5324/5326, 5800, 5900, 5252, 5426, Magazine-2 Area and Old Sewage Treatment Plant Sites.
- Third Five-Year Review Report for the Fort Dix Sanitary Landfill, May 2010, Plexus Scientific Corporation.