

Joint Base McGuire-Dix-Lakehurst (JB MDL)  
Restoration Advisory Board (RAB) Final Meeting Minutes  
Meeting No. 71 – 25 May 2023

SUBJECT: Restoration Advisory Board (RAB) Meeting No. 71 – Meeting Minutes

1) Place: In Person and Virtual Meeting via MS Teams

2) Date/Time: Thursday, 25 May 2023; 6:30 PM

3) Co-Chairs: Mr. Christopher Archer, Deputy Base Civil Engineer, JB MDL  
Mr. Michael Tamn, Resident, Southampton Township, New Jersey

4) Attendees:

Mr. Frank Storm	RAB Community Member
Ms. Branwen Ellis	NJ Pinelands Commission, RAB Member
Mr. Gene Fowler	Pinelands Municipal Council, RAB Member
Mr. Doug Pocze	US Environmental Protection Agency, Region II (EPA)
Ms. Carla Struble	US Environmental Protection Agency, Region II (EPA)
Mr. Bill Friedmann	US Environmental Protection Agency, Region II (EPA)
Mr. Haiyesh Shah	NJ Department of Environmental Protection (NJDEP)
Ms. Kristine Iazzetta	NJ Department of Environmental Protection (NJDEP)
Mr. Ralph Rodrigues	NJ Department of Environmental Protection (NJDEP)
Ms. Heidi Yeh	Pinelands Alliance
Mr. Matt McCann	Pineland Alliance
Mr. Curt Frye	JB MDL, AFCEC/CZOE, Environmental Restoration Program
Mr. Michael Figura	JB MDL, AFCEC/CZOE, Environmental Restoration Program
Mr. King Mak	JB MDL, AFCEC/CZOE, Environmental Restoration Program
Mr. Jim Richman	JB MDL, AFCEC/CZOE, Environmental Restoration Program
Mr. Michael Wierman	JB MDL, AFCEC/CZOE, Environmental Restoration Program
Ms. Sarah DeFalco	Burlington County Health Department
Ms. Rachel Delgado-Simmons	Burlington County Health Department
Ms. Michele Zolezi	Pure Soil
Ms. Susan Trussell	US Army Corps of Engineers
Mr. Neils van Hoessel	FPM Remediations
Mr. Kevin Jago	Leidos
Mr. Nick Rodriguez	Parsons
Mr. Bob McGlade	Weston
Ms. Katrina Harris	Bridge Consulting Corp./Arcadis

5) Handouts

- JB MDL Restoration Advisory Board, Meeting No. 71, 25 May 2023, Agenda
- JB MDL Restoration Advisory Board, Meeting No. 71, 25 May 2023, Presentation Slides

6) Call to Order:

The meeting was called to order by Mr. Christopher Archer, Deputy Base Civil Engineer, JB MDL. He welcomed everyone and thanked everyone for attending the in person and virtual meeting of the RAB. Mr. Archer stated he had previewed the presentations and continues to be impressed with the progress being made under the Performance Based Remediation Contract as projects move forward in partnership with EPA, NJDEP, and all the stakeholders involved in the environmental program. Mr. Archer recognized the upcoming retirement of Mr. Haiyesh Shah in September and thanked him for his great partnership and contributions to JBMDL's environmental program.

7) Administrative Items and Review of Agenda Items:

Mr. Jim Richman noted the meeting was being recorded for the purpose of preparing the minutes.

Mr. Richman stated there are no open action items from the previous meeting.

Mr. Richman reviewed the meeting agenda (PowerPoint slide #4).

8) Per- and Polyfluoroalkyl Substances (PFAS) General Update (PowerPoint slides #5-30)

Mr. Richman summarized the background on PFAS, noting there are more than 2,000 PFAS chemicals which are resistant to natural degradation and oil and water. He stated PFOS/PFOA have historically been used in AFFF (fire-fighting foam) and many other industrial and consumer products.

Mr. Richman noted PFOS/PFOA are known as emerging contaminants with evolving regulations. He reviewed the history of regulations, including EPA's initial lifetime health advisory guidance of 70 parts per trillion in drinking water, NJDEP's maximum contaminant level of 13 parts per trillion for PFOS and 14 parts per trillion for PFOA in drinking water, and EPA's final lifetime health advisory level of 2,000 parts per trillion for PFBS and 10 parts per trillion for GenX chemicals. Mr. Richman advised the Air Force has not moved forward with using EPA's revised levels; once EPA issues Maximum Contaminant Levels, the Air Force will move forward with implementing these standards into the cleanup program.

Mr. Richman discussed proactive actions the Air Force is taking to address PFAS/PFOA associated with mission-related AFFF releases. He advised the current goal is to protect human health and ensure access to safe drinking water for installations and surrounding communities. He noted the Air Force is investigating PFOS/PFOA under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); however, PFAS is not a regulated Federal hazardous substance. He stated the Air Force is taking immediate mitigation measures to impacted drinking water receptors where PFAS/PFOA is detected above the EPA's lifetime health advisory level of 70 parts per trillion.

Mr. Richman displayed a graphic of the CERCLA process and stated the JBMDL PFAS investigation is at the Remedial Investigation phase. He reviewed the initial investigations conducted and the results which identified potential source areas and pathways to receptors—11 at McGuire, 4 at Dix, and 6 at Lakehurst. He stated the Remedial Investigation began in 2020 and is ongoing with the goal of delineating the nature and extent of PFAS in soil, groundwater, surface water and sediment on-base and off-base. Mr. Richman displayed a map showing the PFAS sites included in the Remedial Investigation.

Mr. Richman reviewed the past and ongoing work being done under two contracts looking at off-base

impacts. He noted some data gaps were found as the existing NJDEP database is not complete, and the depth of private wells is unknown by a majority of the owners. Mr. Richman displayed maps showing the five off-base focus areas at McGuire, Dix and Lakehurst.

Mr. Richman next discussed sampling conducted and mitigation measures taken by the Air Force off-base. Mr. Richman stated the Air Force offered sampling to properties with private wells in the five off-base focus areas, and bottled water was immediately provided at impacted properties off-base, followed by short-term and long-term, permanent solutions implemented or being implemented. He also discussed the sampling performed on all on-base drinking water systems and a new back-up water system constructed at Lakehurst. Mr. Richman showed several pictures of the on-post drinking water well installation and treatment system construction at Lakehurst.

Mr. Richman gave an update on the JBMDL Phase I PFAS Remedial Investigation for 21 sites. He showed maps of the location of the sites. He noted there are several sites which JBMDL is trying to get validated and include in the Remedial Investigation. In response to a question from Mr. Shah, Mr. Richman advised the Remedial Investigation contract has options for adding additional sites.

Mr. Richman reviewed the groundwater results from the initial round of sampling under the Remedial Investigation, noting he was only showing results for where the levels exceeded screening levels (4 ppt or 6 ppt) as of 13 February 2023, and all the exceedances on the chart were at locations on-base. Mr. Richman discussed the sampling conducted under the Remedial Investigation at the Lakehurst sites and showed a chart with the exceedances of the screening levels.

Mr. Richman discussed a chart showing the total samples collected to date under the Remedial Investigation, noting 933 groundwater samples from temporary wells, 1425 soil samples, and 149 groundwater samples from existing wells have been collected.

Mr. Richman summarized an expanded off-base PFAS investigation contract as a follow-on to work completed from 2016 to 2022. He noted the investigation is being conducted in larger sections of the focus areas up to about four miles off-base. Mr. Richman reviewed maps showing the off-base groundwater and surface water locations. He also discussed the groundwater and surface water sampling conclusions from December 2022. He explained the differences in detections in groundwater that are not impacting any drinking water wells and detections in drinking water wells where immediate actions have been taken, noting the drinking water wells are not always in the same aquifer as where the PFAS is being detected. Mr. Richman explained that additional characterization is necessary to determine the full nature and extent of the PFAS and the potential future impacts to drinking water receptors.

Mr. Tamn asked if the area around the Lakehurst fire station is being investigated. Mr. Richman said he would clarify the location Mr. Tamn is referring to and get back to Mr. Tamn.

9) New/Future Contract Updates (PowerPoint slides #31-35)

Mr. Richman reviewed a summary of JBMDL PFAS contracts starting from 2015. He stated \$38.6 million in funding has been provided to date for PFAS work, some of which has been completed and some of which is ongoing work. He advised two potential contracts are anticipated in the near future for groundwater actions and an off-base drinking water action.

Mr. Richman discussed several upcoming contracts for the Military Munitions Response Program. He also reviewed the status of the Performance Based Remediation contract which will end September 2024.

Mr. Richman summarized a new Optimized Remediation Contract that will be a ten-year contract covering the period 2024 through 2034. He stated it will include work for both the Environmental Restoration Program and the Military Munitions Response Program, but will not include PFAS investigations or projects involving chemical warfare munitions.

10) Dix Second Basewide Five Year Review (PowerPoint slides #36-42)

Mr. Michael Wierman explained five year reviews are required by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as long as hazardous contaminants remain on the site above levels that permit Unlimited Use and Unrestricted Exposure. He continued explaining that the intent is to evaluate the implementation and performance of cleanup remedies to determine whether they continue to remain protective of human health and the environment.

Mr. Wierman reviewed a list of the Dix Sites included in the five-year review: Sanitary Landfill, EPIC-8 Landfill, New Egypt Armory, MAG-1 Area, and 4300/4400 Area. He displayed a map showing the location of the sites.

Mr. Wierman discussed the recommendations from the Five Year Review Report for each of the sites. He noted the review concluded that remedial actions being performed at the Dix Sites continue to be protective of human health and the environment. He noted NJDEP and USEPA concurred that the remedies are protective. Mr. Wierman stated public notices were placed in local newspapers advising the community of the availability of the Five Year Review Report.

Mr. Wierman stated the next five year review is due in May 2028.

11) ZZ003 Lakehurst Former Proving Grounds Remedial Investigation (PowerPoint slides #43-60)

Mr. Mike Figura introduced Mr. Nick Rodriguez, Program Manager for Parsons, to provide an update on the ZZ003 Site Remedial Investigation Report which has just been completed.

Mr. Rodriguez noted the work was performed between 2019 and June 2023. He displayed a map showing the location of the site and reviewed a chart of investigations conducted prior to 2019. Mr. Rodriguez stated that groundwater was investigated and determined to not be impacted by munitions constituents, while soil was determined to be potentially impacted by munitions constituents. He noted munitions and explosives of concern (MEC) and munitions debris (MD) has historically been recovered and removed from the site. He advised a removal action completed in 2021-2022 removed chemical warfare materiel projectiles, but other MEC and MD are potentially present on site.

Mr. Rodriguez reviewed the tasks conducted as part of the comprehensive Remedial Investigation within the eight target areas to complete a RI Report and Human Health and Ecological Risk Assessments for each target area. He displayed several pictures showing the sampling conducted during the investigation.

Mr. Rodriguez reviewed the sampling conducted and the risk assessment findings for each of the eight target areas. He summarized the results which showed the potential for munitions of explosive concern to be present at two areas, and chemical warfare materiel hazards to be potentially present at all target areas. He stated the Human Health Risk Assessment showed no unacceptable human health risk at any of the eight areas. Mr. Rodriguez explained the Ecological Risk Assessment showed the potential for unacceptable ecological risk from exposure to munitions constituents in soil at only one target area.

Mr. Rodriguez said the Remedial Investigation Report recommended moving forward with a

Feasibility Study due to the presence of munitions of explosive concern and ecological risk.

- 12) Performance-Based Remediation Contract Updates (PowerPoint slides #61-138; up to slide 98 discussed during the meeting)

Mr. Tim Llewellyn, Program Manager for Arcadis, reviewed the topics planned for discussion. He advised Arcadis' Performance Based Remediation Contract ends September 2024 and reviewed charts showing the anticipated end points for each active site or Operable Unit. Mr. Archer asked if EPA or NJDEP had any concerns with their resources in terms of having the resources to reach the anticipated end points. Mr. Shah said NJDEP does have limited resources and would not be able to review a significant number of documents if they are received towards the end of the JV contract, especially where site closeout is the goal. Mr. Richman acknowledged that some of the documents are with the Air Force for review. Mr. Archer suggested there be additional discussion sometime in the next few weeks to hopefully resolve a few issues which will help achieve the goals outlined by Mr. Llewellyn.

**Operable Unit 1 Remedial Action Update:** Mr. Llewellyn provided an update on Operable Unit 1 Sites which include two landfills (LF003 and LF004) and the Former Defense Reutilization and Marketing Office Storage Yard (ST007).

Mr. Llewellyn noted the selected remedy for LF003 is an enhanced soil cover to ensure a minimum of two feet of soil was over all of the landfill, along with land use controls and long-term monitoring. He displayed a series of photographs showing the implementation of the remedy which has been completed.

Mr. Llewellyn advised the selected remedy at ST007 is land use controls and long-term monitoring, with inspections and monitoring underway.

Mr. Kevin Jago of Leidos discussed the installation of the enhanced soil cover at LF004 to ensure there is two feet of cover over the entire landfill. He showed photographs of the construction activities, noting preserving habitat was a focus and thus vegetation clearance was carefully planned to preserve larger diameter trees wherever possible. Mr. Jago advised revegetation has been completed at this site. He showed photographs of the land use control measures put in place, including an access road gate and signage. He reviewed upcoming activities which includes submitting an Interim Remedial Action Completion Report and long-term monitoring.

**Operable Unit 3 Remedial Action Update:** Mr. Niels van Hoessel, Project Manager for FPM Remediations, discussed the landfills (LF020 and LF002) and sludge disposal area (WP021) which are part of Operable Unit 3. Mr. van Hoessel stated LF019 remediation has been delayed due to the discovery of munitions at the site. He noted the sites are currently at the Remedial Action phase which will result in land use controls and long-term monitoring for the landfills and site closure for the sludge disposal area. Mr. van Hoessel showed photographs of the original condition of the sites, the soil cover installation and other construction work, and how the site currently looks after the remedial activities were completed. He discussed upcoming work which includes step out sampling and over excavation at WP021.

Due to time constraints, presentations were not given on all topics (PowerPoint slides #98-138).

- 13) RAB and Public Comments:

Mr. Archer asked for additional questions from RAB members and then from members of the public observing the meeting.

Questions were asked by members of the general public:

- It was mentioned that the current focus is on drinking water but what about surface water sampling to protect people who fish? Mr. Archer responded that signs have been posted and NJDEP has done sampling. Mr. Richman added NJDEP conducted sampling of several lakes around the base in 2018. Mr. Richman said that surface water sampling has been conducted on-base, and off-base sampling will be conducted as part of the PFAS Remedial Investigation. Mr. Richman said if any advisories are needed for off-base conditions, the advisories would be issued by the State or County. Mr. Shah stated the State (NJDEP) will coordinate with the County.
- Is the vegetation installed on top of the landfills native grass? Where does the soil come from? Mr. Richman responded that the vegetation is native grass and the soils are obtained from local sources, as well as supplies like sand and gravel.
- Do residents of Browns Mills need to be concerned about our drinking water? Mr. Richman stated that the investigation has just begun, and data such as the depth of private drinking water wells is not known nor is the level of any PFAS that may be present. Mr. Richman noted that most of the private drinking water wells are greater than 50 feet deep whereas the contamination is generally in the shallow aquifer and a confining layer protects the deeper groundwater. Mr. Archer stated that where any impacted private wells have been identified, bottled water has been immediately provided as a short-term solution. Mr. Richard stated that Pemberton Township's source of water for its municipal water system is not impacted by PFAS from JBMDL.

Ms. Tamn asked about the status of the Community Involvement Plan. Mr. Richman advised it had been updated and is undergoing Air Force review. He noted the Air Force has recently issued additional requirements for these plans, and a new contract will be issued to address these new requirements.

Mr. Tamn referred to a question he asked at the last meeting regarding a grant that was given to the RAB in approximately 2002 for technical assistance from an independent consultant to review all the work performed at the BOMARC site. Mr. Tamn asked whether a similar grant could be obtained for an updated review. Mr. Richman said the radioactive material has been addressed, and the current action is addressing the TCE contamination which is the only remaining issue. Mr. Richman said he would look into Mr. Tamn's question further.

Mr. Tamn requested a tour be done of the environmental sites soon while daylight still permits an evening tour.

Meeting Adjourned:

Mr. Tamn asked for a motion to adjourn the meeting. A motion was made, seconded and unanimously passed to adjourn the meeting at 8:45 PM.