

Joint Base McGuire-Dix-Lakehurst (JB MDL)  
Restoration Advisory Board (RAB) Final Meeting Minutes  
Meeting No. 56 – 16 March 2017

SUBJECT: Restoration Advisory Board (RAB) Meeting No. 56 – Meeting Minutes

1) Place: Edward Holloway Senior Citizen Community Center, 5 Cookstown Browns Mills Road, Cookstown, New Jersey

2) Date/Time: Thursday, 16 March 2017; 6:30 PM

3) Co-Chairs: Col Gregory McClure, 87<sup>th</sup> Civil Engineer Group Commander, JB MDL  
Mr. Michael Tamm, Resident, Southampton Township, New Jersey

4) Attendees:

Mr. Frank Storm	RAB Member
Mr. Rich Bizub	RAB Member
Mr. Tom Besselman	RAB Member
Ms. Branwen Ellis	RAB Member, Pinelands Commission
Mr. Matt Csik	Ocean County Health Department
Mr. Doug Pocze	US Environmental Protection Agency, Region II (EPA)
Ms. Carla Struble	US Environmental Protection Agency, Region II (EPA)
Ms. Donna Gaffigan	NJ Department of Environmental Protection (NJDEP)
Mr. Haiyesh Shah	NJ Department of Environmental Protection (NJDEP)
Mr. Christopher Archer	JB MDL, 87 <sup>th</sup> CEG, Deputy Base Civil Engineer
Mr. Curtis Frye	JB MDL, AFCEC/CZO, Chief, Environmental Restoration Program
Mr. Michael Figura	JB MDL, AFCEC/CZO, Environmental Restoration Program
Ms. Erin Laux	JB MDL, AFCEC/CZO, Environmental Restoration Program
Mr. Joseph Rhyner	JB MDL, 787 CES/CEIE, Chief Environmental Engineer
Mr. Jim Richman	JB MDL, AFCED/CZO, Environmental Restoration Program
Ms. Agnes Marsala	Resident, Chesterfield
Ms. Dee Merder	Resident
Ms. Liz SpannleBato	NAD
Mr. Chris ten Braak	Parsons
Mr. Tom Mills	Parsons
Mr. Tom Crone	Arcadis
Ms. Katrina Harris	Bridge Consulting Corp./Arcadis

5) Handouts

- JB MDL Restoration Advisory Board, Meeting No. 56, 16 March 2017, Agenda
- JB MDL Restoration Advisory Board, Meeting No. 56, 16 March 2017, Presentation Slides
- JB MDL, List of Documents Provided to Mr. Tamm as of 10 March 2017

6) Call to Order:

The meeting was called to order by Col. Gregory McClure, 87<sup>th</sup> Civil Engineer Group Commander,

JB MDL. Col. McClure welcomed everyone and thanked everyone for attending. Col. McClure stated the meeting was an opportunity to share current activities and information about the environmental program. Col. McClure reviewed the meeting agenda.

7) Minutes of Previous Meeting and Review of Agenda Items:

Mr. Michael Tamn, RAB Community Co-Chair, asked if there were any other topics the RAB would like added to the meeting agenda. Mr. Rich Bizub said he would like to hear more about the detections of perfluorinated compounds (PFCs) in the groundwater wells on Lakehurst.

Mr. Michael Tamn asked for any comments on the minutes from the 8 December 2016 RAB meeting. A motion was made, seconded, and passed to approve the minutes. Mr. Tamn asked for any comments on the 17 August 2016 minutes. A motion was made, seconded, and passed to approve the minutes. Mr. Tamn asked for any comments on the 12 May 2016 minutes. A motion was made, seconded, and passed to approve the minutes. Mr. Bizub advised he was abstaining from voting as he had not been present at any of the 2016 meetings.

Mr. Curt Frye reminded all that the meeting was being recorded for purposes of preparing meeting minutes. Mr. Frye welcomed Mr. Bizub as a new RAB member who is replacing Ms. Theresa Lettman. Mr. Frye recognized Ms. Lettman's many years of service to the RAB and expressed the Air Force's appreciation for her time and dedication. Mr. Frye invited Mr. Bizub to introduce himself. Mr. Bizub stated he has been with the Pinelands Preservation Alliance for 20 years; previously he worked as a geologist for environmental consulting firms, including one firm which had done some work at the BOMARC site on JBMDL.

Mr. Frye reviewed action items from the last meeting. He stated a public forum on PFCs was held at the Christa McAuliffe Middle School in Jackson Township on February 28; the RAB was notified in advance of the forum. He said the purpose was to give the community an opportunity to learn about the off-base sampling program, and there were about 20 technical experts from the Air Force and Army Corps of Engineers and regulatory agencies present to answer questions and discuss posters on display. He advised about 40 local residents attended the forum. He stated the posters used at the public session are on the JBMDL web site for PFCs ([www.jointbasemdl.af.mil/PFCs](http://www.jointbasemdl.af.mil/PFCs)). He invited anyone with more questions after reviewing the web site to call him. Mr. Bizub asked about the status of Wells 5 and 9 on Lakehurst where PFCs were detected. Mr. Frye explained there were several iterations of on-base drinking water sampling. He stated under a rule called the Unregulated Contaminant Monitoring Rule (UCMR3) which is part of a program managed by EPA for a variety of unregulated chemicals, the Air Force sampled Dix in 2013/2014. He continued explaining that under this program, the Dix main water system was the only drinking water at JB MDL required to be sampled. He advised that subsequently the Air Force issued a directive to sample all on-base drinking water, and in the late summer/fall of 2016, McGuire and Lakehurst wells were sampled. Mr. Frye advised at the time of that sampling four Lakehurst back-up wells had detections of PFCs but they were below EPA health advisory numbers. He said in December 2016 one of the main wells at Lakehurst had a pump maintenance issue so back-up wells 5 and 9 were turned on. Mr. Frye stated that as a precautionary measure, the base decided to sample the back-up wells again; the second sample showed a level of 215 parts per trillion (ppt) which is above the EPA health advisory level. Mr. Bizub asked if the back-up wells are shallow, and Mr. Frye responded they are shallow; the main wells are much deeper at approximately 1,000 feet. Mr. Frye advised the back-up wells were used for about 20 days in December and then taken off-line. He stated the information about the back-up wells is included in the consumer confidence report that is sent to users of the water system.

8) Overview of the Remedial Investigation at the Lakehurst Proving Grounds and Bombing Targets:

Mr. Chris ten Braak of Parsons stated his firm is contracted to conduct the Remedial Investigation at the Lakehurst Proving Grounds and Bombing Targets.

Mr. ten Braak displayed a map of Lakehurst and pointed out the two areas included in the Remedial Investigation—the Parachute Jump Circle Bomb Target and Target Area A.

Mr. ten Braak reviewed the topics he would be covering in his presentation, as well as the key organizations involved in the Remedial Investigation. He explained the U.S. Army Corps of Engineers, Huntsville, oversees investigations on behalf of the Department of Defense where chemical warfare materiel may be present. He stated the Edgewood Chemical Biological Center (ECBC) performs air monitoring and chemical agent analysis, and the Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE) Analytical Remediation Activities (CARA) are on-site during the investigation to conduct assessments of suspect chemical warfare items, and pack and store the items if needed. He explained the Project Manager for Non-Stockpile Chemical Materiel (PMNSCM) is the agency that provides technical support and handles the disposition when chemical warfare materiel is found.

Mr. ten Braak reviewed the history of the sites and stated from 1915 to 1917 the Eddystone Ammunition Corporation proved out projectiles for the Russian Imperial Government on 4,000 acres near Lakehurst Village which included the testing of high explosive projectiles. He noted the same ground was used after World War I when the Chemical Warfare Services was established for the testing of chemical projectiles on the Lakehurst Proving Ground ranges. Mr. ten Braak showed a historical picture of a Livens projectile and noted it looked like a scuba tank. He stated that the projectiles were filled with mustard, phosgene, and chloropicrin.

Mr. ten Braak stated during the 1930s and 1940s the West Range was used by the Navy for practice bombing, and it was during this time that the Parachute Jump Circle was developed for the dropping of live bombs. He advised this testing and bombing ceased in the mid-1940s.

Mr. ten Braak summarized the environmental investigation and sampling conducted prior to the Remedial Investigation. He noted there was a Site Inspection conducted which included digital geophysical mapping along three-foot-wide transects at a spacing of 30-feet between transects; he displayed a map showing the results of the mapping and where potential sub-surface metallic items were found. He stated surface soil and groundwater sampling were also conducted during the Site Inspection. Mr. ten Braak advised the Site Inspection recommended a Remedial Investigation be conducted to investigate sub-surface anomalies to determine if the metallic objects were munitions or explosives of concern (MEC) or chemical warfare materiel (CWM) and to conduct sub-surface sampling if such items were found, along with collecting additional groundwater samples.

Mr. ten Braak summarized the conceptual site model for the 62-acre investigation area, noting the current use is a payload drop training site and future use is intended to continue to be military. He stated land use controls are in place at the Jump Circle to prohibit intrusive activity without pre-clearance and authorization. He said potential receptors would be workers and training personnel as well as site visitors and trespassers; residents were considered as a hypothetical scenario since residential use of the Jump Circle is not anticipated.

Mr. ten Braak stated the objectives of the Remedial Investigation were to determine if CWM or MEC are present, and if so, what types are present. He explained these questions would be answered by doing an intrusive investigation of sub-surface anomalies; if unexploded ordnance, MEC or CWM

were found, the entire area would be considered to be contaminated by munitions or CWM as the premise would be if some are found, it is likely there are more present. He said another objective is to characterize the chemical agent and munitions constituents in the sub-surface soil and groundwater to determine if unacceptable risk to human health or ecological receptors is present.

Mr. ten Braak summarized the findings of the Remedial Investigation, noting 385 sub-surface anomalies were investigated at the Jump Circle and 391 sub-surface anomalies were investigated at Target Area A. He stated the findings included: two intact CWM items, 35 unexploded ordnance items with an associated explosive hazard, 658 munitions debris items with no explosive hazards, and eight disposal pits. He noted that since the history of the area was testing and the Navy dropping bombs, and nothing to indicate the possibility of disposal pits, the finding of eight disposal pits was not anticipated. Mr. ten Braak showed photographs of the items found. Mr. Doug Poczé asked what percentage of anomalies were excavated, and Mr. Michael Figura said about 776 anomalies were excavated between the two areas; the anomalies excavated were chosen based on their digital signature most likely representing a munition or CWM item.

Mr. ten Braak showed photographs of the two CWM items found—a 75mm projectile which was half filled with mustard and a Livens projectile which was half filled with phosgene. He noted both items had been destroyed on site in 2016 using an Explosive Destructive System (EDS) as discussed at previous meetings. Mr. Frye asked how deep these two items were buried when discovered, and Mr. ten Braak responded the Livens projectile was 28 inches deep and the 75mm projectile containing mustard was 18 inches deep. Mr. ten Braak advised soil sampling was conducted underneath the items to show that the soil was not impacted.

Mr. ten Braak stated seven groundwater monitoring wells were installed, including one near the CWM item found; the wells were sampled and the results compared to screening values. He advised there were no exceedances of the screening values.

Mr. ten Braak next discussed the explosive hazard assessment which is based on the type of munitions, size, access, and a number of other factors. He stated the assessment ranked the area as a Hazard Level 2 which indicates a high potential explosive hazard condition. He said based on the confirmed presence of CWM and MEC, a potential exists for both MEC and CWM to be throughout the investigation area.

Mr. ten Braak reviewed the results of the human health risk assessment conducted for sub-surface soil which showed no chemicals of concern and unacceptable risks to human health are not expected at the sampled locations. He noted there could be additional items in areas that were not scanned, and there will be a recommendation for further assessment. He reviewed the results of the ecological risk assessment and noted it found metals present (antimony, copper, lead and zinc) which represent unacceptable risk to ecological receptors.

Mr. ten Braak summarized the Remedial Investigation conclusions which are that MEC and CWM hazards have been identified, and the potential exists for additional items to be present; eight disposal pits have been identified (of which six have been cleared of munitions); no unacceptable human health risk for groundwater; no unacceptable human health risks for sampled locations but could be other issues identified in the future; and, there are potential ecological risks from metals in the soil. He said that based on these conclusions, a Feasibility Study is recommended to evaluate possible remedial actions.

Mr. ten Braak invited questions, and none were asked.

9) McGuire Operable Units 1 and 3 Landfill Sites Update:

Mr. Tom Crone of Arcadis, a contractor to the Air Force, reviewed the topics he would be covering in his presentation. He stated both Operable Units 1 and 3 are at the Feasibility Study/Proposed Plan stage so he wanted to bring the RAB up to date on the remedial alternatives being considered for these landfill sites.

Mr. Crone first discussed Operable Unit (OU) 1. He displayed a map and pointed out the location of the three sites which comprise OU-1—LF-03, LF-04, and ST-07. He stated LF-03 operated for 10 years in the 1950s and 1960s as a trench and fill landfill where mixed municipal waste was disposed. He noted the site is generally a continuous waste mass. He noted LF-04 was operated for a shorter duration and has eight discrete waste pits. Mr. Crone stated a removal action was conducted in 2011 at ST-07, which is a former storage yard for used materials and equipment, to remove soil contaminated with polychlorinated biphenyls (PCBs).

Mr. Crone reviewed the recent environmental studies performed at the sites. He noted the recent efforts has included two rounds of groundwater sampling conducted at the end of 2016 to collect data to compare to the Pinelands cleanup standards; the groundwater data will be included in the Feasibility Study.

Mr. Crone discussed the current site conditions and stated LF-03 is generally flat with mixed open fields with heavy vegetation, while LF-04 is heavily forested. He advised for both sites groundwater flows to the North Run. Mr. Crone displayed a number of photographs depicting the current site conditions.

Mr. Crone advised four alternatives are evaluated in the Feasibility Study for the landfill sites. He advised the Proposed Plan will be released for a 30-day public comment period on the alternatives later this year. Mr. Crone said the first alternative, No Action, is required by law and provides a baseline if nothing is done. He stated the second alternative, Optimized Soil Cover, involves conducting a landfill cover assessment to determine how much clean soil is part of the soil cover and ensure there is a minimum of one to two feet of soil cover over the waste, as well as stabilizing the slope along the North Run embankment to prevent erosion and exposure of waste. Mr. Crone explained the third alternative, Two Foot Soil Cover, would place two feet of fresh soil over the waste; the cover would be permeable to allow rainfall to move through but prevent any direct contact with the waste. He noted forests would need to be clear cut to allow for the grading and stabilization work. Mr. Crone said the fourth alternative, RCRA Landfill Cover, would involve installing an impermeable two-foot thick cover to prevent infiltration of rainfall and also stabilization of the embankment.

Mr. Haiyesh Shah asked why a range of one to two feet was being used. Mr. Crone responded that an evaluation would be done in the pre-design stage to see where a balance might be achieved with clear cutting and the amount of soil cover and perhaps to minimize the removal of trees, less than two feet of soil might be recommended. Mr. Shah stated that generally NJDEP would require two feet of soil.

Mr. Tamn asked about the sampling results for the groundwater wells near North Run and the surface water in North Run. Mr. Crone responded there had been no change since the update provided at the December 2016 RAB meeting. Mr. Frye added that the surface water sampling results shows some low level detections; however, no action is needed for the surface water. Mr. Frye advised the Air Force will continue to monitor the groundwater that discharges to the surface water. Mr. Frye said updated fact sheets for OU-1 and OU-3 will be provided at the next meeting.

Mr. Crone showed graphics of the grading and sub-grading plans for the different alternatives. Ms. Branwen Ellis asked if stormwater discharges are considered, and Mr. Crone said stormwater

discharges are an important factor that is considered, and the plans need to comply with NJDEP rules.

Mr. Crone discussed the path forward and schedule for OU-1. He advised the Draft Feasibility Study is scheduled to be submitted for regulatory review this month, a Proposed Plan is expected to be finalized by October, and the Record of Decision which documents the remedy selected is scheduled for April 2018.

Mr. Crone next discussed OU-3 which includes four sites that are landfills or former waste disposal area—LF-02, LF-19, LF-20 and WP-21. He advised the Air Force had just completed its review of the draft Proposed Plan so it will be distributed to the regulators for review soon. He stated OU-3 is about six months ahead of OU-1 in its schedule.

Mr. Crone displayed a map and showed the locations of the three landfills and one former waste disposal area. He stated they were operational from 1958 through the 1980s, with some operating only for a few years in the 1970s. He noted WP-21 (Former Waste Water Treatment Plant Disposal Area) was decommissioned in 1994.

Mr. Crone reviewed recent environmental investigations including installing 11 additional groundwater monitoring wells during 2012, two rounds of groundwater sampling in 2016 to compare to the Pinelands standards, and ongoing landfill inspections to make sure there are no additional erosion or other issues.

Mr. Crone showed a graphic of the site with the boundaries for the waste at each of the four sites. He also showed pictures of the current conditions at the sites.

Mr. Crone displayed a chart showing the alternatives evaluated for OU-3. He said the first alternative, No Action, is required by law to provide a baseline. He said the other alternatives were similar to those discussed for OU-1—a permeable soil cover or an impermeable RCRA landfill cover. He said a soil removal is also part of the alternatives to address PCB-contaminated soil. He explained since a surface water body is acting as a boundary and groundwater discharges to the surface water, the alternatives include long-term monitoring of the groundwater and surface water.

Mr. Crone said the schedule for OU-3 is to finalize the Feasibility Study in March 2017, finalize the Proposed Plan in July 2017 with a public meeting, and have a final Record of Decision in September 2017.

Ms. Ellis asked if more than two feet of soil is ever used for a cover, and Mr. Shah responded that two feet is the standard, although sometimes less can be used.

Mr. Shah said one comment from NJDEP is that the remedies address groundwater and surface water and not sediment based on the risk assessment. He said installing a cap may disturb the contamination, and there might be some leaching and thus bioaccumulation in the sediment; sediment sampling for the first couple years may need to be added to the proposed remedy. Mr. Frye said surface water at OU-3 is not actionable, but the remedy would include monitoring since groundwater is discharging to surface water.

#### 10) Update on Lakehurst Sites:

Mr. Crone noted a number of the Lakehurst sites have had remedies in place for many years. He displayed a map showing the Lakehurst Study Areas.

Mr. Crone first discussed Areas A/B (4 sites) and C (2 sites).

Mr. Crone stated Area A/B was used for a variety of industrial and training facilities including a

fuel farm and landfills. He noted these are mature sites, with remedies in place; a pump and treat system has been in place since 1995. He stated in 2014 a plume stability study was initiated, and the pump and treat system was shut off for the two-year study period. He said the study included eight sampling events to see if the plume is stable and to determine the appropriate next steps. He noted that volatile organic compounds are the main constituent of concern.

Mr. Crone said Area C was also used for a variety of industrial and training facilities including a fuel farm and fire training area. He said similar to Area A/B, the remedy in place since 1995, a pump and treat system, was turned off in 2014 during the plume stability study. He said the next steps for the remedy at Area C are being determined.

Mr. Crone discussed the 2016 Five-Year Review for Area A/B. He said the review found the remedy to still be protective and recommended completing the plume stability study and updating the contaminant of concern lists for groundwater and TT013 soil.

Mr. Crone discussed other recent activities at Area A/B. He explained the plume stability study found additional air sparge/soil vapor extraction would help achieve remedial goals by 2021 so more aggressive treatment has been proposed for TT013 and LF042. Mr. Crone noted a pre-design investigation was done to design the air sparge/soil vapor extraction system. He showed a graphic depicting how the current design will expand the present system. He noted the semi-annual groundwater sampling of 17 wells will continue; he noted five of the wells had detections above the remedial goals in the most recent sampling conducted in October 2016. Mr. Crone advised at LF029 and AT014 the plume stability study found monitored natural attenuation will achieve remedial goals by 2021. He stated semi-annual groundwater sampling of the nine wells at these two sites will continue; one of the wells had a contaminant above remedial goals in the most recent sampling conducted in October 2016. Mr. Crone displayed a map showing the results of the October 2016 groundwater sampling.

Mr. Crone next discussed other recent activities at Area C. He stated the plume stability study found additional air sparge/soil vapor extraction is needed to achieve goals by 2021 so a pre-design study was undertaken to expand the current system. Mr. Crone stated the semi-annual groundwater sampling of 26 wells will continue. He displayed a map showing the results of the October 2016 groundwater sampling and stated eight of the wells had detections above remedial goals in October 2016.

Mr. Crone advised the design to expand the systems has just been submitted to the regulators for review. He said the estimated schedule is to begin drilling in May or June 2017 and begin operation of the systems by August 2017. He advised the Air Force is working with EPA on an Explanation of Significant Difference to document changes since the Record of Decision.

Mr. Crone next discussed Area D and stated the remedy at this area is monitored natural attenuation. He said the site received sanitary waste in 1960 or 1961 and was closed and capped in 1980. He stated a Record of Decision was signed in 1993 for no further action with groundwater monitoring since volatile organic compounds are present in the groundwater. He advised the 2016 Five Year Review found the remedy is still protective and recommended updating the contaminant of concern list for the area. Mr. Crone stated six wells are sampled annually; the November 2016 sampling showed two wells with a contaminant slightly above remedial goals. Mr. Crone showed a map of the groundwater plume from 1993 compared to 2016 and noted the substantial decrease in size. He said the annual sampling will continue with annual reports being submitted to the regulators and stakeholders. Mr. Crone said Arcadis' contract includes annual sampling through 2024, but groundwater remedial goals may be achieved sooner.

Mr. Crone next discussed Area H, which consists of grass covered and forested areas bordered by wetlands with the receiving ends of five test tracks and several maintenance buildings. He stated a Record of Decision was signed in 1996 for Site DP032, and the selected remedy of pump and treat for groundwater contaminants is still operating, along with routine groundwater monitoring. He noted the 2016 Five Year Review found the remedy is still protective and recommended optimizing the system and updating the contaminants of concern list. He explained the semi-annual monitoring of groundwater wells was conducted in April and October of 2016. He said the results showed the contaminants are not migrating and are declining or stable, although some wells still have concentrations above remedial goals. Mr. Crone showed a graphic comparing the groundwater plume from 1990 to 2016. Mr. Crone advised the semi-annual sampling will continue and the system will be optimized in coordination with the regulators.

Mr. Crone next discussed Area I/J where a Record of Decision was signed in 1999 for monitored natural attenuation of the volatile organic compounds detected in the groundwater. He advised the 2016 Five Year Review found the remedy is still protective and recommended updating the contaminants of concern list. He stated 28 wells are sampled once a year; the most recent sampling in November 2016 showed decreasing or stable trends; nine wells still have detections above remedial goals. Mr. Crone showed a graphic comparing the groundwater plume from 1992 to 2016. He advised the annual sampling and reporting will continue.

Mr. Crone discussed Area K which consists of grass covered, densely forested areas bordered by wetlands and includes the receiving ends of five test tracks and several maintenance shops. He noted a Record of Decision was signed in 1997 for limited pumping of groundwater with sprinkler irrigation and monitoring of contaminants through sampling and analysis. He explained a solar pump was used with some effectiveness, and annual groundwater monitoring continues. Mr. Crone stated the 2016 Five Year Review found the remedy to be protective and recommended updating the contaminants of concern list. He discussed the results from the most recent groundwater sampling event in November 2016 which showed decreasing or stable trends, with two of the nine wells sampled having detections about remedial goals. He showed a graphic comparing the groundwater plume from 1997 to 2016. Mr. Crone advised annual sampling and reporting will continue. He stated Arcadis' contract includes monitoring through 2024 but remedial goals may be achieved sooner.

#### 11) Performance-Based Remediation Contract Update:

Mr. Crone first discussed sites at McGuire.

Mr. Crone displayed a chart showing the status of the McGuire sites on the National Priority List and where each site is in the CERCLA process. He noted OU-1 and OU-3 are advancing towards Proposed Plans, and OU-2 and OU-4 Feasibility Studies are being finalized. He said final Remedial Investigation Reports for OU-6, OU-7, and OU-8 have been submitted to the Air Force for review. Mr. Crone advised there were two significant field events in August and the fall of 2016 with more than 600 samples collected at each event; the data is being evaluated and will be used in the Feasibility Studies. Mr. Crone noted pilot-scale tests are under evaluation at OU-7 and OU-8 to help determine the best potential remedies; field-scale pilot testing will follow.

Mr. Crone reviewed the McGuire petroleum sites where the State is the lead regulatory agency. He stated all these sites are in remedial action and moving towards closeout through a variety of remedies including monitored natural attenuation, air sparge/soil vapor extraction, in situ chemical oxidation, biosparging, and source excavation/monitored natural attenuation. Mr. Crone reviewed the progress at several sites since the last RAB meeting. He noted at Site TU013, 50 additional pounds of contamination has been removed for a total of 275 pounds of petroleum mass removed

to date; this air sparge/soil vapor extraction system will continue to operate for one to two years. Mr. Crone displayed a recent picture of TU003 and noted excavation of contaminated soils and placement of oxygen release material is underway; he advised the original plan was for air sparging, but the sub-surface conditions were not sufficiently permeable. He advised the biosparging system has started at the Former Pumphouse site to address jet fuel compounds. He stated higher methane levels were observed so the system was shut down for further evaluation and will be re-starting in a few weeks. He said the system is expected to run for one to two years.

Mr. Crone advised the BOMARC Feasibility Study is with NJDEP for review. He said the anticipated schedule is to finalize the Feasibility Study in May and issue a Proposed Plan in November 2017; a Record of Decision is targeted for May 2018 with the remedial action to start in late 2018.

Mr. Crone next reviewed the status of sites at Dix. He advised the three active treatment systems are effectively removing contaminants.

Mr. Crone stated the update on Arcadis' work at the Lakehurst sites had been given in his previous presentation.

Mr. Crone reviewed Arcadis' basewide work, noting the biennial well survey of over 2,000 monitoring wells to inspect and repair as needed was completed. He said a report is being compiled which will include recommendations. Mr. Crone reported that all sites with land use controls have been inspected, and the 2016 Certification Report is under Air Force review; he advised this inspection is conducted annually.

## 12) Public Comments:

Mr. Tamn invited comments from the RAB members.

Mr. Tamn invited comments from members of the public.

A resident from Chesterfield asked about the groundwater monitoring results and land usage at Area I/J. Mr. Crone reiterated the most recent groundwater monitoring results from his presentation. He advised the Records of Decision include land use controls or Classified Exemption Areas which determines how groundwater can be used. He said within an exemption area groundwater cannot be used for drinking, but the land at Area I/J could be used for other purposes. The resident questioned whether the proposed NJ Natural Gas pipeline could change the direction of the plume and move contaminants off base. Mr. Frye responded that the question has been addressed at previous meetings and information is contained in previous meeting minutes available on the web site ([www.envirorestorejbmndl.com](http://www.envirorestorejbmndl.com)). He said the groundwater contamination at Area I/J is fairly low concentrations of volatile organic compounds at deep levels. Mr. Frye stated the remedy is monitored natural attenuation so no active treatment system is at the site. He explained that work done near the ground surface will not impact groundwater; Mr. Crone said the depth to groundwater is about 20 feet.

The resident asked about the approval process and whether EPA needs to approve the proposed pipeline placement. Mr. Frye stated there are no restrictions on use of this ground at the surface. He said the Air Force analyzed the potential impact of the pipeline and determined there would not be any significant impact. He advised the most appropriate way to provide comments on the proposed pipeline project is during the public comment period on the NEPA Environmental Assessment. Mr. Joseph Rhyner stated the public comment period on the Environmental Assessment would begin in about a week and would be announced in the newspaper and on the web site. Mr. Tamn asked why there was no public meeting planned on the Environmental Assessment. Mr. Rhyner responded a public meeting is not required on an Environmental

Assessment; if the action advanced to an Environmental Impact Statement, a public meeting would be required. Mr. Bizub asked if the RAB would be provided with an electronic copy of the Environmental Assessment, and Mr. Rhyner said the document will be on the NJ Natural Gas web site and at public libraries.

A resident stated her husband is a civil engineer and had prepared written comments expressing environmental and safety concerns regarding the pipeline drilling. She provided the comments to Mr. Rhyner.

Mr. Tom Besselman asked about the testing of wells for PFCs off-base, particularly in Pemberton Township. Mr. Frye said the testing of the wells continues to be done as permission forms are received. He said to date no wells in Pemberton have been found to have exceedances of EPA's health advisory levels. He advised the Air Force will be following up with those who have not yet provided permission forms and encourage them to respond. Mr. Frye said the Air Force will continue to collect data and take actions as needed based on the data.

Mr. Pocze asked if the tables had been updated on the web site, and Mr. Frye responded they had not yet been updated but can be updated.

13) 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 8:32 PM.

The meeting schedule for the balance of 2017 is being developed. Potential topics can be emailed to Mr. Curt Frye or Ms. Nicole Brestle.