



**US Army Corps
of Engineers®**
New York District

**Former Raritan Arsenal; Edison, New Jersey
Formerly Used Defense Site (FUDS)**

**Public Information Meeting
9 Dec 2014**

Edison Senior Citizens Center • 2963 Woodbridge Avenue • Edison • New Jersey

Meeting Summary

Introduction

The meeting began at 7:03 p.m. Two representatives of local environmental groups (Raritan Riverkeeper and Edison Greenways Group), and one public member attended the meeting. Ms. Sandra Piettro of the U.S. Army Corps of Engineers (USACE) welcomed everyone, described the purpose of the meeting as a project status update on the environmental restoration of the former Raritan Arsenal, and reviewed the agenda.

Presentation/Project Status

Ms. Piettro provided a slide presentation on the status of investigations of the various sites (**Attachment 1**). She began by presenting an overview of the site history, including its original mission, when Raritan Arsenal was closed, and how the property was divided up for reuse.

Ms. Piettro then described the sites, or Operable (Decision) Units. The Former Raritan Arsenal is a large property (about 3200 acres) which is broken into smaller divisions for environmental investigation and remediation. She showed a map of the operable units and described the status of investigation for each one.

Site-Wide Groundwater/Indoor Air/Vapor Intrusion

Ms. Piettro explained that groundwater is being addressed separately from the Operable Units and covers most of the former Raritan Arsenal property. For more than 20 years, groundwater investigations have been going on. A Remedial Investigation (RI) has been completed, and the operable unit is now in the Feasibility Study (FS) phase to evaluate the need for and possible alternatives for moving into the next phase. Following the FS, a Proposed Plan will be prepared, describing the proposed alternative. Public comments will be solicited, there will be a meeting announcement, and a public meeting will be held to discuss the Proposed Plan. The Proposed Plan will be placed on the USACE website and there will usually be a 30-day public comment period. The public meeting will probably take place next summer. Once the public comment period has concluded, USACE will document all of the comments in a Decision Document.

A participant asked why part of the map on Slide 5 wasn't colored in, and Ms. Piettro explained that that area does not have groundwater issues. The participant asked for clarification that contamination has reached the groundwater and Ms. Piettro confirmed that, and reminded the group that the area where groundwater is affected was historically the industrial part of the arsenal. The colored area was not used because it very marshy. Ms. Piettro pointed out specific areas on the poster and described a few specific sites and how they were used, and that materials were buried there. She explained that the USACE now has more than 20 years of groundwater data. Data indicates that the groundwater plumes are reaching a steady-state, and now the USACE will document what actions they would like to do, and then, following the decision process, will execute that response.



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Ms. Pietro continued by referencing the long-term groundwater monitoring program, which will be ongoing with sampling every five years until 2042. They are currently sampling and submitting results to the New Jersey Department of Environmental Protection (NJDEP) and that data is showing the contaminants are reaching a steady-state without intervention.

A participant asked whether that means there is natural attenuation going on, and Ms. Pietro confirmed that. The participant then asked who decides what the “actionable levels” are – USACE? NJDEP?

Ms. Pietro responded that probably both USACE and NJDEP will decide together. The latest results show some detections, but not at high concentrations. She indicated that some Areas of Concern (AOCs) have been dropped for no further action (AOCs 1, 3, 5, and 7). The highest area of groundwater contamination was the black area (on the map) at AOC 2. USACE came in, cleaned up the soil, removed the waste, did a pilot test, and decreased concentrations by 95 percent. Now USACE is monitoring the groundwater; results show that contamination is leveling off.

A meeting attendee asked whether USACE has consulted with the property owner about plans for the property (EPA parcel that houses EPA building 255 and 256). Ms. Pietro replied that they have not and do not know who will be purchasing that property. The meeting attendee explained that he is asking because a studio class from Rutgers University had developed recommendations for wetlands and recreational use of the property. They were talking about constructing some salt marshes with tidal flushing. Mr. Callaghan indicated that was in a different area, nearer to the river, and the meeting attendee replied that it was also in the “El Paso” area. The meeting participant then used a pointer to highlight areas of the poster and showed where they had been looking at freshwater wetlands, a salt marsh, a recreational area in the El Paso area, a river walk, and other similar development. He wondered about the hydrology in that area, whether it is “hot” and what would happen if they do some sort of enhancement to increase water flow through the area.

Mr. Callaghan then clarified that, although they do not know exactly what redevelopment plans area for the area, the extent of groundwater contamination is defined and the levels are currently decreasing. He continued by explaining that groundwater moves extremely slowly downgradient toward the river. To “pull” the groundwater plume, one would have to draw down the water in the area so low it would be like a vacuum. The work could affect surface water, but to affect groundwater, they would have to make a huge hydraulic change – they’d have to pump out a huge amount of groundwater in order to pull the plume down into that area.

The attendee clarified that he thought of it when there was talk of supporting a freshwater wetland in that area and increasing water flow to support that wetland. That made him start to think about the potential to pull contamination in to the area. Mr. Callaghan replied that they



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would not be changing groundwater flow, but that it was a valid concern. The attendee then concluded by reminding Ms. Pietro to ask the property owner, because it does look like the property owner will be doing something there.

Ms. Pietro then continued with her presentation with Slide 7 on indoor air. She described how vapors from groundwater contamination can seep up through pores into sub slab and up through cracks in foundation. Currently, USACE is monitoring indoor air in eight buildings. They collect samples two times per year, document, and it and submit the results to NJDEP.

Middlesex County College Property

She continued with Slide 8, describing the status of the investigation on the Middlesex County College property. She explained that a lot of the slides will be repetitive because they are in the same stage of progress. They have completed the RI, prepared an RI report, and submitted to NJDEP. There will be no FS because there is no unacceptable risk and therefore, USACE will be proposing no further action. They will document that in a Proposed Plan, which will be presented to the public in the spring. USACE will hold release the Proposed Plan to the public, hold a public comment period and a public meeting, and document responses in Decision Document.

Thomas Edison Park

Ms. Pietro continued with Slide 9, showing a graphic of Thomas Edison Park, but explained that there was a later slide with more information about the status.

Commercial/Industrial Area (Raritan Business Center)

She presented Slide 10 and explained that the Commercial/Industrial Area mainly includes the industrial Raritan Center area. Again, they are currently in the reporting phase. The field investigation has been completed (some of it many years ago), and they are compiling the results into the RI report, which is being prepared to submit to NJDEP in the spring. They will then determine the need for a Feasibility Study. She reviewed the CERCLA decision process, which includes the Remedial investigation, a Feasibility Study if there is any unacceptable risk, a Proposed Plan, a public comment period and public meeting, and then a Decision Document.

Area 5 (former Chemical Warfare Materiel Site)

Ms. Pietro presented Slide 11, describing Area 5. She indicated that this area was a former chemical warfare materiel area and is being investigated separately. USACE is preparing the RI report, which will be submitted to NJDEP, and then they will go through the whole CERCLA process – FS, Proposed Plan, public comment period and public meeting, and Decision Document. She anticipates the public meeting will likely be in the summer, but that depends on how quickly NJDEP completes its review.



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A meeting attendee asked where exactly that site is located, and Ms. Pietro replied that it is near the FedEx and UPS buildings. The attendee said there was a big brush fire there last year and Ms. Pietro confirmed that.

USEPA/GSA Property

Ms. Pietro described the USEPA/GSA property (Slide 12) and stated that again, they are in the reporting phase, preparing the RI, and will submit it to NJDEP in the spring. Then they will determine the need for an FS and follow the CERCLA process.

Undeveloped Wetlands Area

Ms. Pietro showed Slide 13 with a map of the undeveloped wetlands area and told participants that the area is being investigated – along with Thomas Edison Park – as part of the site-wide investigation that CH2M HILL is doing. Phase I of that investigation - the field survey - and Phase II – the intrusive investigation - have been completed. Phase III is coming up, and Mr. Callaghan will explain that in his presentation. Again, this area is currently in the reporting phase.

FY 2015 and FY2016 milestones

Ms. Pietro then reviewed the fiscal year (FY) 2015 milestones to show how much has been accomplished and what they plan to accomplish the rest of this year. She explained that FY2015 October 1, 2014 to September 30, 2015. Some of the milestones highlighted on the slide will have been completed by the end of FY2015 and some may carry over to next year. She then presented Slide 16, explaining that they have accomplished a lot, but still have a lot of activities planned for FY2016.

Funding

Ms. Pietro reviewed the budget (Slide 17) showing how much has been spent to date (\$92.2 million), what was allocated in 2013 (\$1.3 million), in 2014 (\$1.6 million) and is planned for 2015 (\$1.6 million). In order for the USACE to say the project is complete and closed out, they will need to spend another estimated \$41.7 million.

CERCLA Process

Ms. Pietro reviewed the CERCLA process (Slide 18) and reminded meeting attendees that the Preliminary Assessment and Site Inspection phases were completed many years ago. After 20 years, they are now finally at the RI phase. However, USACE has also completed many removal actions and other cleanup actions. In the next few years, they will be preparing FS and Proposed Plan documents, holding public comment periods and public meetings, and preparing Decision Documents.

Mr. Frazier clarified that USACE did not begin the investigation using the CERCLA process, and Ms. Pietro confirmed that. USACE originally started addressing “hot spots” and completed removal actions with Formerly Used Defense Sites (FUDS) funding.



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Ordnance Safety

Ms. Piettro reminded meeting attendees about ordnance safety, and the importance of exercising the “3 Rs” of safety – recognize, retreat, and report – if they find anything suspicious.

For More Information

She concluded her presentation by showing the USACE’s website address and stating that proposed plans, fact sheets, and meeting minutes, will continue to be uploaded onto website. She also provided her contact information.

Ms. Piettro then turned the meeting over to Mark Callaghan from CH2M HILL, to give a presentation about the status of the munitions remedial investigation.

Presentation/Munitions Remedial Investigation (RI)

Mark Callaghan, Project Manager for CH2M HILL, began his presentation (**Attachment 2**) by pointing out that the purpose of the munitions investigation is to characterize the nature and extent of munitions, munitions constituents, and any hazardous and toxic wastes specifically related to a Department of Defense (DoD) release. He stated that the munitions RI is ongoing, but the field work is nearing completion, and he would be presenting more details about what has happened, what is coming up next, and give participants a chance to ask questions or express concerns.

Mr. Callaghan presented a map showing the areas under investigation, and then briefly described the phased approach to the investigation. Phase 1 consisted of site preparation and digital geophysical mapping. In Phase II, they go back to find the anomalies identified in Phase I and determine what they are. In Phase III, they will do soil sampling where they found munitions.

He then described the results of the Phase I and II in more detail. In Phase I, they cut vegetation, and did surface clearance; they found no munitions on the surface.

Phase II started in January 2014 after anomalies had been identified and prioritized. More than 1,400 terrestrial and 30 aquatic anomalies were investigated. Of those, only 37 were determined to be “material potentially presenting an explosive hazard” (MPPEH). Mr. Callaghan explained that no MPPEH was found in river – only in the terrestrial work area, mostly in Area 12. Most of what was found was either MK 1 French rifle grenades and or MK 2 hand grenades, all of which were expended or fragmented. The munitions items were all determined to be material documented as safe (MDAS). During the investigation, large exclusion zones were established for safety.

Mr. Callaghan continued by describing Phase III of the investigation. He stated that a visual assessment was made at each of the 37 areas where MPPEH was found. They looked to see if



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the munition was completely expended and whether soil was stained. There was no visual evidence to support additional soil sampling for munitions at any of the 37 locations.

Therefore, the approach is to do some background soil sampling. They will collect soil samples from areas of the Arsenal where the DoD did not work, and then will be able to compare those soil conditions to areas with active DoD involvement, where munitions were used for years.

When that work has been completed, they will start writing RI reports. There are some areas where they do not need to do soil sampling and they are already preparing the RI reports for those areas. Where further remedial actions are determined to be necessary, remedial alternatives will be developed and documented in an FS, and then a Proposed Plan and Decision Document, as Ms. Pietro described earlier.

Mr. Callaghan then concluded his presentation by stating that USACE remains committed to investigating these areas with utmost concern for public safety and with open communication with the public, stakeholders and local government. He emphasized that open communication is “why we’re here” – why there are public meetings, a website, stakeholder meetings, etc. The purpose is to keep everyone informed and for USACE to be transparent about the investigation of the former Raritan Arsenal.

Questions

A meeting attendee asked about a legal notice that was in the paper that day, referring to Garden State Buildings and filing “a bunch of EPA-mandated permits” for fill removal. He asked whether USACE was aware of the proposed construction and whether it was in any areas of concern.

Ms. Pietro said that she was aware of the work – some areas are near the Expo Center and some are in the waterfront areas. She explained that in addition to the public meeting, USACE also holds stakeholder meetings to keep them informed.

Mr. Callaghan added that the work appears to be primarily in Area 16 and showed it on a map. He explained that the area – where there were magazines – had been heavily investigated when the property was being decommissioned. They have done sampling in that area; there was nothing of DoD concern – hardly anything has ever been found there.

Ms. Pietro then added that the water area is in Area 12, not Area 13. USACE did its munitions investigation before they started any activities and coordinated with them.

The meeting attendee asked whether anything was found around the dock area. Mr. Callaghan replied, saying they found a Honda Accord and a lot of debris – cables, trash metal, etc. He stated that they did not come anywhere near the cable that provides power to Long Island, although the power company had two representatives on the barge during the work. They found a lot of flaked iron – old metal that had flaked off the dock or pilings. When prompted, he



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confirmed that it had all been removed and sent to Bayshore Recycling, including the car. He also confirmed that they completed just short of 17 acres of underwater geophysics, mostly in the turnaround area.

Meeting attendees expressed a little concern that nothing was found near the dock or in the water, stating that “old timers” in the area talk about things falling into the water all the time when they were loading ships during the war. Mr. Callaghan replied by reminding the group that the Arsenal was closed in the 1960s, but the shipping activities occurred in the 1940s. The area was frequently dredged so that ships could come in and turn around. Dredged material was placed on the Arsenal property. That is why they are investigating various areas of the Arsenal. He stated that there is no reason there should be hand grenade parts in some of those areas unless they had been scooped up from the river and deposited there. He explained that is the same reason munitions were found in one small area on the south side of the river. When they constructed the sewer pipeline, they removed sediment from the river, deposited it in that one area – and it happened to contain French rifle grenades. He explained that most things that fell over the side and into the river had at some point been scooped up and placed back on the Arsenal property.

Ms. Pietro explained that a previous contractor found hundreds of thousands of munitions (about 200,000) in Area 12, mostly French rifle grenades.

The group discussed why there were so many French rifle grenades on the property and why they weren’t “thrown at the Germans” and were here instead. Mr. Callaghan explained that many of them were World War I items that were brought back to be stored, which is why there were hundreds of thousands of items removed from one area. Others were items that did fall off the dock or off ships during loading, and then were dredged and deposited back on the property as part of fill material. It is therefore not surprising that munitions were not found around the dock and in the water. Now the dock area is considered clear and there are plans for a “water-related business” in that area. The group agreed that it will be interesting to see what happens in that area.

Ms. Pietro concluded by saying that minutes would be drafted and sent to the participants. The meeting adjourned at 7:58 p.m.



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Attachment 1 Slides – Project Status



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Attachment 2 Slides – Munitions Investigation
