

**New Cumberland Army Depot
Formerly Used Defense Site
Marsh Run Park Site Restoration
Community Meeting Transcript
Fairview Township Fire Hall, York County, PA
April 23, 2013**

The following is a transcript of the community meeting. The presentation used during the meeting is attached to this transcript with references within the transcript to the presentation slide numbers.

The meeting was opened at 6:39 p.m.

Introduction by Liza Finley, Project Manager, U.S. Army Corps of Engineers

Slide 1: Good evening. My name is Liza Finley, and I work for the Army Corps of Engineers in Baltimore, and I am the Project Manager for the New Cumberland Army Depot Formerly Used Defense Site (FUDS). Formerly Used Defense Sites are any property owned or leased by the Department of Defense in the past. The Army Corps of Engineers is tasked to perform any investigation or cleanup on these sites based on past Department of Defense activities. The New Cumberland Army Depot is known around here as the Marsh Run Park property and is considered a Formerly Used Defense Site because it was one of the landfills used by the New Cumberland Army Depot in the past. This evening we are here to tell you about the restoration of Marsh Run Park and also inform you of the Army Corps' future approach to the Park.

(Ms. Finley pointed out restroom locations and building exits.)

Slide 2: (Ms. Finley displayed the meeting agenda.) Before I tell you about the restoration of Marsh Run Park, we're going to tell you a little about the site history of the Formerly Used Defense Site, the investigations and the cleanup that took place over the years, as well as our path to closure. After we finish the presentation, we will be doing a poster session for you. We have six or seven posters in the back so you can take a closer look at some of the materials and have the opportunity to ask specific questions.

Slide 3: There are a lot of people here who have been participating in the project over the years. There are Army Corps of Engineers staff who you will meet as the presentation goes on. Mr. Steven Smith is here who is the Fairview Township Manager. From the Pennsylvania Department of Environmental Protection (PADEP), I have been working closely with Ms. Pamela Trowbridge and Ms. Kathleen Horvath who are present. I also have two consulting firms working with me on the project, EA Engineering and the ARM Group. All the project staff have name badges showing their organizations and what their role is with the project.

(Ms. Amy Holjes, from Pennsylvania House of Representative Mike Regan's office, arrived after Ms. Finley had made formal introductions.)

Slide 4: (Ms. Finley displayed an aerial photograph of the site and surrounding area.) This is the current status of Marsh Run Park. This is the former landfill that was on the property, here is the Depot, and here is the Pennsylvania Turnpike and Marsh Run Road. This is what the site looks like now.

Slide 5: This is what we are planning to go to, which is the overlay of the three soccer fields. The existing building with the treatment plant will remain, and the insides cleaned out so it can be used for storage.

Ms. Finley introduced Dr. Chuck Lechner.

Site History by Dr. Chuck Lechner, U.S. Army Corps of Engineers

Slide 6: I'm Dr. Chuck Lechner, one of the engineers at the Corps of Engineers helping various project managers. Lisa asked me to look at the historical aspects of the Park. The Army's use of the site started in 1918 and it was used, as far as we know, as the main landfill for the Depot. Back in those days there were no environmental laws preventing the landfilling of waste; if you had the space, you disposed of waste on the property. It received all of the waste from light industrial operations and from residences that were on the property as was the common practice up through 1950. Roughly around 1960, they closed it out with normal practices for landfills at the time. They covered the waste with one to two feet of soil.

In 1970, an Executive Order from President Nixon required all Federal agencies to identify surplus property to get it into other use, and the southeast corner of the Depot was listed as surplus and was deeded to Fairview Township for recreational use only in 1976. A Federal law passed in the late 1940s allowed surplus property to be given to municipalities and states for recreational use permanently, and this was the law which provided the property to the Township. A Department of the Interior program called "Lands to Parks" lists this property. The Township got the property in 1976. In 1980, the Township started developing it as soccer fields and brought in soil and topsoil from offsite to grade the site, and in 1981 started using the property for soccer games.

In 1986, an environmental law was passed called the Superfund Amendments and Reauthorization Act which not only reauthorized Superfund but created an environmental program for the Department of Defense requiring cleanup of active and Formerly Used Defense Sites. The law provided a program, money and guidance for cleaning up sites, and this site was nominated as a site because it was a landfill. In 1987, we started investigating deep groundwater, and soil test pits confirmed the chemicals on the property were consistent with landfill operations. The most common chemical was TCE, trichloroethylene, a common solvent for degreasing metals and engine parts. The results were given to the Township in 1987, and they decided to cease recreational use of the property. A question at that time was whether there was any health impact upon the children who played soccer from 1981 to 1987. There was a lot of Congressional interest and public concern--letters from Senator Specter to the EPA Administrator and the Pennsylvania Secretary of the Environment. The letters requested the Corps of Engineers take quick action, so the Corps got the investigation going in 1988 and did surface sampling of soil to verify if there was contamination in the soil the children had been playing soccer on. U.S. EPA also did surface sampling. We took those samples and prepared a Public Health

Evaluation, and there are copies on the back table. The evaluation indicated there were no health hazards for the children who had played soccer. We then had to do a much larger investigation to find how much contamination was present, whether it was moving offsite, and if so, how far offsite it had moved.

To discuss the investigation further is Mr. Ethan Weikel, project geologist from the Corps of Engineers.

Site Investigations by Ethan Weikel, U.S. Army Corps of Engineers

Slide 7: Good evening. I'm going to be discussing three things-- investigations, cleanup, and site restoration. From 1987 to 1990, there were a variety of investigations and all the data provided led to the selected cleanup. In 1987, there was environmental testing, and in 1988 there was sampling of residential wells offsite. In 1988, the public health evaluation which Chuck talked about was completed which indicated no health concerns from the prior few years. From 1988 to 1990, there was a CERCLA (Comprehensive Environmental Restoration, Compensation and Liability Act) investigation and risk assessment. CERCLA is a Federal process under which sites like Marsh Run Park, Formerly Used Defense Sites, go through investigation, cleanup and restoration. From 1990 to 1992, the data collected was evaluated and a remedy was selected.

Slide 8: This aerial photograph shows soil sample locations and monitoring well locations, as well as test pits. We collected a lot of information all across the site to help evaluate conditions.

Slide 9: This figure depicts the groundwater on site and its flow direction. From the landfill, the groundwater flows north to northeast. Similarly the landfill contaminants and constituents are moving to the north and northeast.

Slide 10: This figure shows the off-site residential sampling that was done; the samples were all non-detect for landfill-related constituents.

Slide 11: There was a Record of Decision which determined the cleanup plan based on all the data collected. The Record of Decision was signed by the Pennsylvania Department of Environmental Protection (PADEP) and the Army and established the cleanup strategy for the site. The first part was to operate a groundwater pump and treat system for deep groundwater, then to vent soils via vacuum extraction, and to establish specific numeric cleanup criteria, Remedial Action Objectives, consistent with Federal and state standards.

Slide 12: From 1992 to 1995, there was planning, design and construction of the treatment systems. This schematic is the inside of the treatment building, and this photo shows the extraction wells that were part of the system. From 1995 to 1996, the pump and treat system operated but it was destroyed by fire in 1996.

Slide 13: From 1996 to 2002, there was analysis and re-design of the system based on data collected to that point. In 1999, an Explanation of Significant Differences was prepared. An Explanation of Significant Differences is the change in cleanup based on data collected up to that point. If you see

something is working well or not working well, you formally document it in an Explanation of Significant Differences. As a result, the landfill area cleanup method was changed from soil vapor extraction to dual phase. [After the meeting, Mr. Weikel clarified that the original cleanup method was groundwater pump and treat as well as soil vapor extraction.] Basically, this means instead of just pulling water out of the ground, air and water were pulled for a more efficient cleanup. Cleanup of the bedrock groundwater was changed from containment (the pump and treat system) to natural attenuation which is the process by which constituents break down naturally over time. From 2002 to 2004, the new system operated, and in 2004, that system was shut down as the remedy was complete in shallow groundwater (groundwater less than 60 feet deep).

Slide 14: This figure shows a lot of information, but I want to highlight the locations with pink labels which are shallow groundwater locations where we have achieved the remedy in the Record of Decision.

Slide 15: This chart displays the results from the pink-labeled wells I just showed you; they are virtually all completely non-detect. The only location where we have detections above the standard is MW-1A which is slightly higher than the five parts per million standard.

Slide 16: This chart shows removal of landfill-related constituents over time. As you can see, there was an initial increase and then a decrease over time. This chart depicts that removal was performed to the extent possible.

Slide 17: In 2004, US EPA and the Pennsylvania Department of Environmental Protection agreed they could work under one set of combined guidelines for CERCLA closure of the site through the Act 2 Land Recycling Program. In 2004, this site entered the Act 2 program, and additional information was needed, both onsite and offsite, so additional groundwater monitoring data was collected.

Slide 18: From 2004 to the present, the Army Corps of Engineers continued implementing the remedy for cleanup under CERCLA, monitoring the landfill area, and assessing bedrock (deep) groundwater and potential offsite impacts. In 2005, the Corps installed five offsite downgradient wells and began monitoring at those locations. In 2010 and 2012, the Corps performed additional onsite and offsite delineation of soil and groundwater to make sure results from sampling in the 1980s was consistent or lower than now as part of the Act 2 process. In response to a question as to whether the more current samples were better than the 1980s, Mr. Weikel said they were better and were used in the risk assessment that would be discussed by Ms. Cynthia Cheatwood.

Slide 19: This figure shows the 2011 soil sampling locations and the additional delineation results.

Slide 20: In the deep groundwater, deeper than 60 feet, we have not met the Remedial Action Objective for that portion of the cleanup. The remedy is natural attenuation which is ongoing.

Slide 21: This chart shows concentrations in one of the wells with the highest concentrations onsite, but there is a clear decreasing trend for this well and other wells that are in deep groundwater below the shallow groundwater and the source area.

Evaluation of Marsh Run Park Use, Ms. Cynthia Cheatwood, EA Engineering

Slide 22: As the project risk assessor, my job is to evaluate whether there are concerns for human health or the environment for contact with the site. I am going to present a very brief summary of the full evaluation we did, and if you have any questions, I'll be available afterwards.

Our risk evaluation verified that the site is safe for use. There are no health concerns for adult or child park visitors, trespassers or construction workers. There are no health concerns to residents in the area. There are no health concerns to children or adults in contact with water or sediment in the Marsh Run Creek. There are no concerns related to ecological habitat. However, groundwater at depth should not be used.

Slide 23: This is a brief summary of the human health evaluation or what we call a risk assessment. The purpose of a risk assessment is to show who is exposed to a site and how. We evaluate both current and future site users for health concerns. While the Park is not currently used, we evaluate who will have access and who will use it in the future. We determined that the potential human receptors are construction workers, trespassers, recreational users, and offsite residents. Trespassers is the terminology used to identify people who would visit the site infrequently, much unlike a recreational user, people who are using the site for soccer. Once we determine who is going to use the site, then we can determine how will they come into contact with what we just went over or we have tested for at the Marsh Run Park. There are three basic ways: contact with surface soil; contact with surface water/sediment in Marsh Run; and, contact with groundwater including drinking. When I say drinking groundwater, it would mean groundwater is the primary water supply at the home.

An example of one of the exposures we evaluated is a child recreational user or child soccer player who visits the park 52 days a year for 10 years. So there is an additive effect over 10 years, and each of the 52 days a year the child visits the site, they ingest some soil, get soil on their skin or what we call dermal contact, and inhale soil particles that become airborne due to wind or playing. From these exposures, we determine if there are any health concerns.

This is a very brief summary, but there is a poster in the back that shows the complete evaluation, and I will be standing next to it after the presentations.

Slide 24: We also evaluated vapor intrusion. Vapor intrusion assesses any health concerns from volatile chemicals in the subsurface that may enter into buildings at the site and offsite. In deep groundwater, there are some volatile chemicals still present. The vapor intrusion evaluates whether these chemicals would volatilize, come up to ground surface, and then go into buildings at the site. The evaluation included potential bathrooms or concession stands that will be built, and the offsite evaluation included a resident who lives above the groundwater plume. We determined there are no health concerns from inhalation.

Slide 25: In addition to the vapor intrusion study, we did outdoor air sampling. Since the chemicals are still present in the deep groundwater, we evaluated whether they would come to the surface and then be within the breathing zone of the soccer fields. This figure shows the locations tested for volatiles, and methane was also tested for along the soccer fields. Methane is not in the groundwater; it is a breakdown product of landfills. This line shows the monitoring points where they sampled to determine if methane was present and none was found. The purple dots are where we collected outdoor air samples, two in the soccer fields and two outside the soccer fields. Sampling location Air-3 was placed at the location above the highest detected chemicals in deep groundwater.

Slide 26: This table shows the results of the outdoor air sampling. None of the volatiles present in the deep groundwater were detected within the soccer fields (ND stands for non-detect).

Slide 27: Similar to human health, we also do an ecological evaluation. We identify potential receptors and determine if they are going to have contact with the soil and surface water/sediment at the Park. The receptors we identified were benthic organism (small organisms living in the upper parts of the sediment of Marsh Run); aquatic biota (organisms within the Creek); plants and invertebrates; birds and mammals. All this wide range of ecological receptors were evaluated to determine if there were any problems. We found no concerns for ecological receptors.

Slide 28: After we completed our full evaluation of both human health and ecological receptors, we found no concern for anyone who would make use of the site, maintains the site, or lives nearby. And, there are no concerns for ecological receptors. And, once again, groundwater at depth should not be used.

Since we found no concerns, the Corps is going to enter site closure, and Ethan is going to discuss the State program that is available for closure.

Site Closure by Ethan Weikel, U.S. Army Corps of Engineers.

Slide 29: Our Remedial Investigation and Risk Assessment Report has been received by the Pennsylvania Department of Environmental Protection. In that report, we meet a variety of state health standards and site-specific standards. The PADEP and US EPA risk standards have been met and/or exposure pathways eliminated. The Act 2 Final Report has been submitted to PADEP, and a release of liability will be granted after the report is approved. US EPA acceptance is through the One Cleanup Program. The property is safe for recreational use, and there are no exposure pathways to contaminants. Future property use will continue as recreational.

Slide 30: Another Explanation of Significant Differences has been prepared. As I mentioned earlier, an Explanation of Significant Differences is a change in the cleanup based on data collected over time. There are a couple things being included in this Explanation of Significant Differences. The first is additional land use controls. Groundwater at deeper levels is not currently suitable for use and therefore will be restricted by environmental covenants. This control is a deed restriction which is permanent until cleanup standards are met. Onsite excavation is also restricted by environmental covenants; again this is a deed restriction until all standards are met. Natural attenuation monitoring

will continue for deep groundwater which is part of the Federal cleanup process under CERCLA. Other portions of the remedy are complete, and five year reviews of the data collected for the deep groundwater will continue until clean-up objectives are met

Permanent Commitment to Public and Environmental Safety by Liza Finley, Project Manager, U.S. Army Corps of Engineers

Slide 31: The Army Corps of Engineers is committed to cleanup of Marsh Run Park and returning safe and usable property to Fairview Township. As Ethan mentioned, there will be environmental covenants on the property, and the Pennsylvania Department of Environmental Protection will be monitoring and enforcing those covenants. Also, Fairview Township will make sure the restrictions stay in place, the soil cover on the landfill will be maintained, and there will be no new deep groundwater wells to access the contamination greater than 60 feet. The Army Corps will continue with the CERCLA process and will be sampling groundwater every five years and make sure the concentrations in the groundwater decline over time and ensure the cleanup is continuing in the deep groundwater aquifer.

Slide 32: Before we restore the Park, we have to remove all the environmental equipment, which includes about 90 extraction and monitoring wells. They will be closed out in the May/June 2013 timeframe. Once those are removed, we have to replace the bridge over Marsh Run Creek as the current bridge will not support our construction equipment. The bridge will be replaced with a similar concrete bridge. We will then start construction of the soccer fields. Three soccer fields are planned, one for smaller kids and two for adolescents. We will be bringing in about one to two feet of clean soil to grade the site and that soil will meet Pennsylvania's clean fill policy so the soil will be tested and certified it is clean. We will be putting an acre parking lot on the property for recreational use. This diagram shows the layering of the landfill and soil.

Slide 33: This graphic shows the design we have come up with, and there is a poster in the back and you can discuss with EA Engineering personnel the actual design for the fill and the grading and the placement of the three soccer fields and parking lot.

Slide 34: This is an overlay on an aerial photograph of the site and here is where the bridge will be replaced.

Slide 35: Here is what is left to be done at the site. The Explanation of Significant Differences, the decision for the future approach, is almost finalized and we will publish a notice when it is final. The Final Report under Act 2 has been submitted to the Pennsylvania Department of Environmental Protection, and they will be reviewing the report. Once the report is approved, we will receive a release of liability, and the Corps can turn over the Park to the township. Once construction of the soccer fields is complete, the Corps will be terminating our lease and full site custody returns to Fairview Township which we anticipate occurring sometime next spring or summer.

Slide 36: Many documents have been prepared over time, beginning in 1987 through the present. These documents can be viewed on disks at two places, the Township Municipal Building and the New Cumberland Public Library. Also the Township will be uploading the documents to its web site.

Slide 37: You also have this information in your handout but this is my contact information if you have questions or concerns.

Slide 38: Does anyone have any questions?

Meeting Close

No questions were offered, and attendees adjourned to the poster session. Staff were available at the poster stations to provide additional information and answer questions.

The meeting concluded at 7:46 p.m.

A handwritten signature in cursive script that reads "Katrina A. Harris".

Meeting Recorder
Katrina Harris
Bridge Consulting Corp.