

MEMORANDUM

TO: Mr. Vincent Carroccia and Ms. Lynn Klous, City of Wilmington, Delaware
FROM: Mr. Craig Murray and Mr. Ethan Henbest, D'Huy Engineering (DEI)
PROJECT: City of Wilmington Rodney Reservoir Demolition
Environmental Considerations
DEI Project No. 718018
DATE: October 9, 2023

As you are aware, the City of Wilmington is making plans to demolish the interior basin/tank at the Rodney Reservoir property. The former reservoir, which held a portion of the City's treated drinking water supply, is no longer useful to the water system. The concrete tank is in deteriorating condition. Demolition of the reservoir will eliminate a potential safety hazard. Prior to initiating demolition activities, sampling activities have been performed to identify potential environmental concerns as well as to guide any specific demolition methods or monitoring that must be utilized.

The specific environmental concerns that were investigated included the following:

- Asbestos
- Cinders
- Lead
- Soils

The City and its consultants have researched these items in accordance with Delaware Natural Resources and Environmental Control (DNREC) standards and have compiled the status of each specific issue below.

Asbestos

- Asbestos testing was performed at the gate house on October 14, 2022.
- Asbestos testing was performed on the reservoir concrete walls and brick mortar on December 8, 2022.
- All tests were negative. Reports have been provided to the City.

Cinders

- Construction drawings from May 1916 indicate the use of "cinder concrete" and "cinders" as underlayment fill in certain areas of the site.

- The use of these materials was limited to the Shelter and Gate/Head House roofs (cinder concrete) and the Shelter House/Bandstand fill/foundation (cinders). There is no reference to cinders being used in the construction of the reservoir tank/roof.
- The Gate/Head House roof was demolished and replaced as part of an October 1980 project. The replacement roof was wood. Consequently, it appears that all cinder concrete in that structure has already been removed from the site.
- The Shelter House and Bandstand were demolished and removed the site sometime between December 2002 and September 2005. This demolition work removed the remaining cinder concrete roof and the cinder fill from the site.
- No cinders are anticipated to be encountered during the new demolition work. However, if they are encountered during demolition they will be selectively removed and disposed of as opposed to comingled with other debris.

Lead

- Based on construction documents from May 1916, the drawings indicate the use of “lead covered cable” (conduits) to supply power to the lamps that were originally installed around the top of the reservoir. These conduits were removed from the site and the site wiring was re-routed as part of a project dated August 1963.
- Drawings from the October 1980 renovations to the Gate/Head House call out four interior locations for new lead joints. As part of the demolition project, piping will be selectively demolished. All lead material will be remediated and removed in accordance with applicable regulations.

Soil Testing

- To date, 31 soil samples have been taken from around the tank berm and analyzed in a certified laboratory.
- A draft summary report of the soil testing was prepared and submitted to DNREC. DNREC provided feedback and a final report was submitted. A copy of the final report will be made available on the City’s website.
- Per DNREC guidance, a Human Health Risk Assessment was prepared based on the sampling results. The risk assessment passed under the “Recreator” and “Urban Garden” scenarios.

- Based on its review of the sampling data and report, DNREC indicated that demolition can proceed. DNREC and the City's consultants discussed the following stipulations that are planned to be included as part of the demolition project contract documents:
 - A formal air monitoring program must be implemented. The plan must be submitted and approved by DNREC prior to the start of demolition.
 - The generic DNREC Contaminated Material Management Plan (CMMP, dated April 18, 2023) should be followed.
 - At the completion of final grading, an additional round of soil sampling within the top 2 feet of soil across the site must be completed. An updated risk assessment must be performed if levels are elevated in the final exposed soil, and additional actions may be required if the outcome of the risk assessment deems the site unsuitable for a future exposure scenario.