

A Successful HSCA Funded Cleanup:

Intercourse TCE

Leacock Township, Lancaster County, PA



The Intercourse TCE Site in Leacock Township, Lancaster County, has groundwater contaminated with Trichloroethylene (TCE) that affected a large portion of the Township referred to as the Intercourse Village Growth Area. Prior to HSCA cleanup efforts, residential and commercial properties relied on private wells for potable water.

The final HSCA response was the construction of a Public Water Supply (PWS) that would be given to Leacock Township (Township). In addition, HSCA coordinated with the Township in drafting an ordinance that would require mandatory connection to the PWS as well as abandonment of private wells to prevent exposure pathways for properties in the affected area.

Construction of the PWS began December 16, 2016, and was completed September 14, 2020. A mixture of 364 residential and commercial properties were connected within the HSCA designated area. The Township elected to extend the PWS, raising the total number of connections to greater than 450 properties. On September 14, 2021, the Township accepted ownership, operation, and maintenance of the PWS.

Intercourse TCE Site

The Intercourse TCE Site (Site) in Leacock Township, Lancaster County consists of residential and commercial properties that relied on private supply wells for potable water. In 2004, Trichloroethylene (TCE) contamination was discovered in the groundwater by a private residential developer who was drilling two public supply wells for an upcoming subdivision. Starting in 2004, DEP, and its contractor GES, conducted an investigation to determine the extent of groundwater contamination in the area. It was discovered that approximately eighty private wells were impacted with TCE contamination exceeding the EPA Maximum Contaminant Level (MCL) for drinking water. DEP provided bottled water to these properties. Sixteen additional properties were found to have elevated TCE contamination that posed a vapor inhalation threat. DEP installed and maintained point of entry treatment systems at properties affected by the elevated TCE contamination. More properties were impacted by TCE at levels below the MCL. The investigation concluded with a feasibility analysis in November 2008, which recommended the construction of a public water supply to serve the affected area.

A public meeting was held in April 2009 to inform the residents that the proposed remedy would be providing public water to the Village of Intercourse. In the Statement of Decision, issued on August 10, 2009 in coordination with Leacock Township and the community, DEP decided that construction of a new Public Water Supply (PWS) would best serve the community in mitigating the threat posed by the TCE groundwater contamination. The Township opted to let DEP carry out the design and construction for the PWS System.

In November 2009, DEP, and its contractor SAIC/Leidos, began the task of locating

Project at a Glance

Location:

Leacock Township,
Lancaster County, PA

Project Size:

Approximately 1280 acres

Principal Use:

Residential Area

Total Project Cost:

\$22.0 M

Consultant:

Groundwater & Environmental
Services, Inc. (GES),
Science Applications International
Corporation (SAIC)/Leidos,
Wexcon Inc.,
Bernier Construction Inc.

Project Period:

2004-2021 (17 years)

Partners:

Leacock Township,
Susquehanna River Basin
Commission

suitable supply well locations. Agricultural Preservation use restrictions, obtaining approval from perspective property owners, and sinkhole formation during drilling activities presented challenges early in this phase of the project.

DEP, and its contractor GES drilled three supply wells between 2011 and 2013 and permits were obtained between 2015 and 2017 by working with the Susquehanna River Basin Commission (SRBC). The SRBC assisted DEP with guidance on obtaining a permit as well as expediting the application process due to the nature of the project.

In April 2015, DEP provided a \$350,000 reimbursement grant to Leacock Township for the purposes of obtaining property and all the rights-of-way and easements necessary to construct the PWS, water lines, and service connections. A condition of this grant required that the Township enact a Mandatory Connection and Well Abandonment Ordinance to assure that all current and future residents and business establishments connect to the PWS. The ordinance was enacted in May 2019.

The construction of the PWS was separated into two contracts and managed by DEP and its contractor GES. The first construction contract was awarded to Wexcon Inc. Work under the first contract consisted of installing main distribution lines throughout the affected area within the Township. Construction of the mains began December 16,

2016 and concluded November 17, 2017. The second construction contract was awarded to Berner Construction Inc. Work under the second contract consisted of construction of the water treatment plant and water tower, and installation of supply well pumps and the lateral lines from the distribution system to each individual property served by the PWS. All lateral connections were inspected by Code Administrators Inc. Construction started May 10, 2018 and concluded September 14, 2020. Private wells that presented an exposure pathway to the contamination were abandoned by DEP and its contractor GES, with property owners' cooperation, in accordance with the Leacock Township municipal ordinance. A mixture of 364 residential and commercial properties were connected within the HSCA designated area. The Township elected to extend the PWS raising the total number of connections to greater than 450 properties. On September 14, 2021, the Township accepted ownership, operation, and maintenance of the PWS.

Highlight:

- Construction of a Public Water Supply with greater than 450 connections that serves Leacock Township.

The Hazardous Sites Cleanup Fund (HSCF), a special fund established under the Hazardous Sites Cleanup Act (HSCA) (35 P.S. §6020.101 *et seq.*), provides the funding for the Department of Environmental Protection (DEP) to carry out a number of activities to address releases and threatened releases of hazardous substances to the environment.



Project Photos

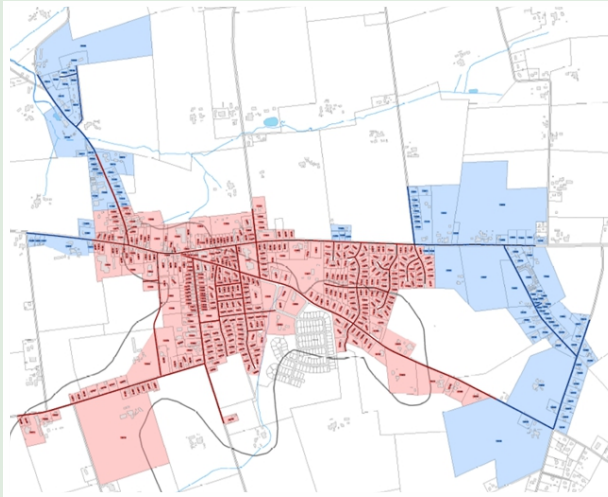


Water Treatment Plant (Left to Right) Installation of Clearwater Tank, Foundation and Floorplan, Completed construction



500,000 Gallon Water Tower (Left to Right) Foundation, Mid Construction, Completion

Project Photos



Water Line Mains:
Red – property parcels connected by DEP
Blue – property parcels connected by Leacock Township

Truck carrying high-density polyethylene (HDPE) pipe used for waterline mains



On September 14, 2021, the Township accepted ownership, operation, and maintenance of the PWS. DEP, GES, and Leacock Township participated in a transfer ceremony and toasted with treated water.