

An Overview of the John Fitch Way Project: Former Warren Street Coal Gas Site Remediation and Restoration



Project Background

Prior to the widespread availability of natural gas, gas was “manufactured” through a process of heating coal in a specialized oven. These facilities were called Manufactured Gas Plants (MGP) and were common in many urban areas of the United States during the late nineteenth and early twentieth centuries. Manufactured gas was used for residential heating, street lighting and cooking similar to the way natural gas is used today. The manufactured gas process produced by-products such as coal tar and other chemicals that were used in the chemical, dye and pharmaceutical industries. An unintended consequence of the MGP industry was the release of coal tar and various by-products to the environment.

A predecessor company of Public Service Electric and Gas Company (PSE&G) operated an MGP in Trenton from the late 1840s to late 1890s on four parcels, east of Route 29. MGP operations ended in the late 1890s. The site subsequently served as a gas district operations headquarters facility until the 1920s, when it was acquired through a series of transactions by the City of Trenton. Between 1960 and 1965, buildings were removed, and the site was then redeveloped.

This three-acre site, near the corner of South Warren and Market Streets (Block 10701, Lots 1, 2 and 3), is located on State of New Jersey property. It is currently composed of a portion of a large parking lot and adjacent to a helicopter pad near the Department of Labor and Division of Taxation buildings, and across the street from the Hughes Justice Complex.

Work Completed to Date

PSE&G has conducted extensive remedial investigations of the site in accordance with the regulations and oversight provided by the New Jersey Department of Environmental Protection (NJDEP). The investigation results were provided to the NJDEP for their review and approval in the late 2000s.

A Remedial Action Work Plan (RAWP) describing the excavation remediation method was submitted to the NJDEP in March 2010 and subsequently approved by the site’s Licensed Site Remediation Professional (LSRP). In preparation for starting soil remediation in 2024, soil sampling was performed in the summer of 2023 to further refine the extent of the excavation areas and for waste classification purposes. It is a standard part of pre-design planning for the remediation of impacted soils.



General Area of Future Soil Remediation and Excavation

Current Focus of Activities

Approximately 100,000 tons of MGP-impacted soil will be excavated. Any infrastructure related to the former MGP operations that remain underground also will be removed. The excavation of impacted soil will have a beneficial effect on groundwater, which will continue to be monitored following the soil remediation.

The majority of the work will be performed within a temporary sprung structure (i.e., tented enclosure). Excavated soil will be transported to a licensed off-site soil treatment facility. The remedial site will be backfilled with certified clean fill and restored to the pre-existing conditions. Groundwater encountered during soil remediation activities will be treated and conveyed off site in accordance with permitting.

All activities are being completed in accordance with the NJDEP Technical Requirements for Site Remediation and under the oversight of the Licensed Site Remediation Professional (LSRP) of record.

Schedule and Hours of Activity – The remediation, which began with mobilization in April 2024, is anticipated to take approximately 18 months to complete including restoration. The work is being performed weekdays, 6 am – 6 pm. Some equipment maintenance activities may occur over weekends.

About the MGP Constituents – The source of the MGP materials is the former MGP operations. The remediation is driven by the presence of MGP coal tar and oil by-products in the soil and groundwater that include benzene, polycyclic aromatic hydrocarbons (or PAHs) and metals. Potential concerns from MGP contaminants are associated with ingestion (eating) of the affected soil or drinking the affected groundwater. The City of Trenton water supply is not impacted, and the buildings, streets and sidewalks served as an effective barrier to ingestion.

What You Can Expect to See

Establishing a Freeze Wall as a Cofferdam to Stabilize the Excavation Area – We are implementing an innovative method that will freeze the soil around the perimeter of the excavation area to provide structural support and keep the area dry for safe work conditions. This eliminates the need for installing steel sheeting for excavation support, which would cause more noise and vibration.

Groundwater Treatment System – An onsite pump and treatment system is being established to control groundwater and any surface water accumulations in the excavation area during excavation and backfilling. Groundwater will be treated and then discharged in accordance with permits issued by the NJDEP and the City of Trenton Sewer Utility.

Construction of Temporary Enclosure or Tent – A temporary sprung structure approximately 250 x 150 x 60 feet will be constructed over the excavation area. Most soil removal will take place inside the tent. The structure will be moved within the site 3 to 4 times during the approximate 12 months of soil removal activity utilizing a large crane.

On-Site Controls for Surface Water and Groundwater PSE&G is maintaining soil erosion and sediment controls to manage surface water from rain events in accordance with a permit received from the Mercer County Soil Conservation District. Hay bales and sediment filter socks are placed around areas where soil is disturbed and around soil piles to prevent run-off of soil to roadways and storm water inlets.

Trucks Carrying Impacted Soil and Clean Fill – Excavated soil will be loaded into trucks for transport to licensed facilities where it will be treated and disposed. Trucks leaving the site will be covered and wheels cleaned prior to exiting. They will follow a traffic route approved by the City of Trenton and State of New Jersey police.

Minimizing Offsite Impacts

Mitigating Odors Typical of MGP Materials – Odors associated with some constituents can often be detected

at levels that are well below what is considered a health concern and below what can be detected by an air monitoring instrument. While the project team is committed to minimizing them, odors similar to fresh asphalt or mothballs could at times persist.

Dust and Odor Control Measures – Control measures (such as water mist, foam spray, plastic sheeting, and soil cover) are used proactively to control potential dust and mitigate odors during excavation and non-work periods, including evenings and weekends. Additionally, an odor assessment team will evaluate and document the potential for odors along the site perimeter.

Protecting Health and Safety

Vibration Monitoring – Vibrations resulting from the excavation are monitored to ensure limits are not exceeded and damage does not occur to nearby infrastructure and buildings.

Air Monitoring – Perimeter air monitoring is being performed, based on the Perimeter Air Monitoring work plan that was developed in accordance with NJDEP requirements. The work plan is specific to the site's activity, constituents of concern and the proximity of neighboring buildings. Air monitors are installed along the work perimeter and closely monitored to confirm plan objectives are achieved as designed.

For More Information



jfitchwayproject.com

Contact us with your questions:

Call the Project Information Line at **(855) 356-2383**
(TTY callers please use 711)

Leave a voicemail and a PSE&G community liaison will return your call as soon as possible.

The LSRP is Michael Newton. He also can be reached via the Project Information Line.

Email us at **comments@jfitchwayproject.com**

The NJDEP Site Remediation Program Interest (PI) number for the site is G000005462. This project is identified as Activity #: LSRI120001.