

# An Overview of the Former Market Street Gas Works Site Remediation and Restoration Project – Area D

## Background on Market Street Gas Works Remediation

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 they were common in many urban areas of the United States during the late nineteenth and early twentieth centuries.

A predecessor of Public Service Electric and Gas Company (PSE&G) operated an MGP in Newark from the mid-1800s to the early 1900s at several property parcels along Market Street/Raymond Boulevard. Manufactured gas was used for cooking and residential/street lighting. The manufactured gas process produced byproducts, 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 effects from coal tar and various by-products on the environment.

For remedial investigation purposes, the site was divided into six areas referred to as Area A through Area F. Areas A, B and C are located north of Raymond Boulevard/Market Street, while Areas D, E and F are located south of Raymond Boulevard/Market Street. PSE&G is committed to remediating the Market Street Gas Works Site to address the environmental impacts from these historic operations.

The focus of PSE&G’s remediation efforts to date includes:

- Areas A & B – the original plant site along Jersey Street to the north of Raymond Boulevard/Market Street
- Area C – an adjacent offsite property, which is privately owned and currently in operation as Jersey Parking
- Area F – Iberia Restaurant parking lot between Prospect Street and Congress Street to the south of Raymond Boulevard/Market Street

As of summer 2014, soil remediation activities at these four Areas are complete. Approximately 230,000 tons of soil containing MGP-related constituents have been successfully removed and replaced. Soil was transported to off-site facilities for treatment and beneficial reuse.

The work is being conducted in accordance with the regulations of the New Jersey Department of

Environmental Protection (NJDEP) and in cooperation with, and under the direction of, our Licensed Site Remediation Professional (LSRP). The consulting firm ERM provides engineering oversight of the day-to-day operations of the project on behalf of PSE&G.



*Area D: Focus of upcoming remediation work*

## Current Project Focus: Remediation of Area D

The next phase of the project focuses on a privately-owned property, approximately three quarters of an acre in size, located at the corner of Market and Prospect Street (418-428 Market Street), which is referred to as Area D.

PSE&G plans to remove and replace with clean fill approximately 31,000 tons of impacted soil from Area D. An additional 34,200 tons of soil, below a depth of 14 feet, will be treated with stabilizing constituents, such as portland cement and contained onsite.

## Project Schedule

Work is anticipated to begin in early August and to be completed in early 2015. Work will take place between the hours of 7 a.m. and 8 p.m., Monday through Saturday, in accordance with City Ordinances.

## What You Can Expect To See

**Installation of a Temporary Electric Power Line** – PSE&G will begin the project by marking out and surveying all existing utilities (e.g. electric, gas, telephone, cable, sewer and water) in the site vicinity to ensure that work does not impact public utilities. In addition, a portion of the overhead electric line along Prospect Street will be de-energized. In its place, a bypass overhead electric line

will be installed across the Iberia Restaurant parking lot, between Congress and Prospect streets, to ensure that community residents/businesses continue to receive power.

**Workers in Protective Clothing** - In keeping with standard federal health and safety procedures, all workers will wear personnel protective equipment, including hard hats, safety glasses, reflective clothing and steel-toe boots. Workers performing certain activities may wear Tyvek coveralls, which are one-piece garments (usually white) commonly worn by mechanics, painters and laboratory workers, where a disposable, one-time use coverall is needed. Usage of these garments does not mean there is a hazard to the public. The work performed on-site is often dirty and workers can choose to wear these garments to keep their clothes clean. Other protective gear may include gloves, overboots and respirators.

**Installation of Cofferdam to Stabilize Site** - At the start of the project, we will install a subsurface steel wall along the Area D perimeter. A specialized column structure will also be installed in the ground adjacent to the commercial/residential building on Prospect Street. The purpose of the cofferdam and column structure is to support the excavation and protect surrounding utilities and structures.

**Trucks Carrying Clean and Treated Soil** - Excavated soil will be loaded into trucks for transport to facilities where it will be treated and then beneficially reused. Trucks will be covered and cleaned prior to leaving the site and will take a prescribed route through the City of Newark. We will work closely with the City to ensure that the route does not cause adverse impacts to traffic in the community.

**On-Site Controls for Surface and Groundwater** - During the excavation of soil, we will be required to control any surface water from rain events along with some minimal dewatering of groundwater as needed. Water encountered during the excavation will be stored in a container and shipped offsite for treatment if needed, and disposal.

**Site Restoration** - Once the excavation and stabilization has been completed, the site will be restored with clean fill and six inches of crushed stone. PSE&G is committed to cleaning up and restoring the site for productive future use, but the company is not the property owner and will have no role in the property's eventual future use.

## **Protecting Health and Safety**

**Vibration Monitoring** - Vibrations resulting from the installation of sheet piles will be closely monitored to ensure that limits are not exceeded and damage does not occur to nearby infrastructure and buildings.

**Air Monitoring** - An air monitoring plan specific to the site's activity, constituents of concern and the proximity of neighboring residents has been developed. Air monitors will be installed along all four sides of the work area perimeter and closely monitored to ensure that we stay below health-based action levels.

## **Minimizing Offsite Impacts**

**Dust and Odor Control Measures** - Dust and vapor control measures (such as: water mist, foam spray, plastic sheeting and sand cover) will be used as needed to control potential dust and odors during excavation and non-work periods.

Soils containing MGP-related materials sometimes have an odor similar to that of fresh asphalt. These odors can be detected by people at levels below what can be detected by an air monitoring instrument and well below what would be considered a health concern. However, we recognize that these odors are a nuisance and will use all effective methods to control odors during soil removal, including applying odor-reducing foam and covering work areas and soil piles with tarpaulins.

**Truck Route and Use of Traffic Control** - A truck route will be planned in cooperation with the City. To ensure the safety of pedestrians and local traffic, a flagger and off duty police officer will be used when required. No trucks will travel into the community along Ferry Street.

## **About the MGP Constituents**

The source of environmental impacts at the site is the former MGP operations. Some by-products of the gas manufacturing process, including coal tar and oils, were found in the soil and groundwater at and near the site. Compounds of concern include benzene, toluene, ethylbenzene and xylene(s) (or BTEX), polycyclic aromatic hydrocarbons (or PAHs), and metals.

The potential concern associated with the presence of MGP materials would involve the ingestion (eating) of the affected soil or drinking of the affected groundwater. The site's former parking lot has served as an effective barrier to the materials in the soil.

### **For More Information**

PSE&G is committed to open communications. We will continue to keep City officials and interested neighbors informed of our progress and plans.

### **Questions?**

Please call PSE&G's Market Street  
Project Information Line: 1 (866) 520-6765