



Restore Pennsylvania: Contaminant Remediation and Brownfield Cleanup

Many residential homes and neighborhoods face issues with contaminants like lead and Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS). Studies continue to find elevated lead levels in blood tests of Pennsylvania’s youngest residents, a result of Pennsylvania’s older housing stock, 70 percent of which was built before the 1978 ban on lead paint. Lead is most dangerous to children, especially those under six years old. To help prevent the ongoing exposure of Pennsylvania’s most vulnerable populations, we must redouble our effort to remediate lead paint from schools and residences throughout the commonwealth.

PFAS contaminants have been found in communities in the commonwealth, threatening the safety of residents’ drinking water. The cleanup costs associated with addressing these chemicals can be significant. Because the number of PFAS impacted locations is still unknown and investigations are ongoing, providing an estimate of necessary funding is difficult. When no responsible party exists, treatment falls on the public water system or individual private well owner. Treating one public water system well with granular activated carbon costs approximately \$1 million. Homeowner systems are less expensive, but still cost several thousand dollars.

In communities across the state, underutilized and abandoned former industrial and commercial sites sit waiting for cleanup to unlock their potential as a catalyst for new manufacturing and economic development. Frequently these sites have existing infrastructure, historic buildings and proximity to transportation that make them attractive locations for redevelopment and reuse. Revitalizing these locations improves the health and quality of life of our citizens and injects much-needed revenue into our local communities by returning once lifeless properties to the tax rolls.

For example, the Lehigh Valley played a critical role in Pennsylvania’s proud steel industry, as well as the rise of many other manufacturing sectors during the Industrial Revolution. As these industries faded, they left behind legacy infrastructure Brownfield site restoration is costly, and the commonwealth currently offers limited funding to these types of projects. The Allentown Metal Works, for example, could take up to \$10 million to remediate. There are countless brownfield projects across Pennsylvania.

Restore Pennsylvania will provide grants to abate lead contaminated paint found in schools, child care centers, and residences; provide grants to remediate lead contamination in the drinking water of schools and child care centers; provide grants to treat PFAS in drinking water; and provide funding to ensure the continuation of Pennsylvania’s Brownfields program, ensuring that more sites can be returned to use for recreation, or returned to the tax rolls as commercial, residential, or industrial sites.

Infrastructure Challenge being Addressed

Lead in Homes and Schools: According to the Department of Health, the primary source of childhood lead poisoning in Pennsylvania is exposure to aging, deteriorating lead-based paint. Pennsylvania ranks fifth in the nation for the number of homes built before 1950, when lead-based paint was commonly used. In many urban and some rural areas, the risk of lead exposure is compounded by high numbers of families facing food insecurity. The average cost for house lead paint remediation is \$16,400. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. There is no safe blood lead level in children.

The continuing seriousness of childhood lead poisoning in Pennsylvania was highlighted in the 2017 Childhood Lead Surveillance Annual Report. In that year, 1,082 children in Pennsylvania were identified as having blood lead levels above 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$), and another 7,575 children were identified as having blood lead levels between 5 and 10 $\mu\text{g}/\text{dL}$.

Lead in Drinking Water: The U.S. Department of Environmental Protection (EPA) estimates that 10-20 percent of human exposure to lead comes from drinking water. Lead is rarely found in the water supply, but enters tap water through the corrosion of plumbing materials. Homes built before 1986 are more likely to have lead pipes, fixtures, and solder. Even brass and chrome-plated brass fixtures and faucets in newer homes can leach lead into drinking water. Homeowners are responsible for replacement of the lead service lines that enter their home from the street and any internal plumbing.

Testing water in schools is important because children spend a significant portion of their days in these facilities. The longer water remains in contact with leaded plumbing, the more opportunity exists for lead to leach into water. As a result, facilities with intermittent water use, such as schools, may have elevated lead concentrations in the water. Testing the water at each outlet is the only sure way to find out if the water contains too much lead. EPA recommends that schools develop a plumbing profile and sampling plan to understand how water enters and flows through the building, as well as identify and prioritize sample sites.

PFAS in Drinking Water: PFAS are a relatively new threat across Pennsylvania, impacting water supplies often from unknown sources. When sources are known, responsible parties must provide resources for site cleanup and drinking water treatment. However, when contamination sources are unknown, resources for communities with impacted drinking water sources are scarce. Research and data are constantly evolving on where PFAS contamination is more likely. The Department of Environmental Protection's (DEP) PFAS Sampling Plan prioritizes areas that are higher risk of being contaminated by PFAS chemicals. When those impacted areas are identified, significant resources will be necessary to address impacted water supplies – both public and private.

Brownfield Remediation: Pennsylvania's Land Recycling Act allows for the return of abandoned sites to productive use once they are remediated to a health based cleanup standard. The Hazardous Sites Cleanup Fund provides the financial means for the site cleanup that allows brownfields to be put back into productive use. DEP approved 367 successful cleanups submitted for actions during FY 2017-18. Over the 22-year history of the Land Recycling Program, DEP has approved over 6,687 actions. Just as new sites are identified from new contaminants in Pennsylvania, funding in this program is dwindling as the dedicated funding source was phased out. It is estimated that an additional \$70 million is needed per year to address the current backlog of properties and to accelerate the voluntary cleanup of brownfields sites by economic development agencies.

Description of Proposed Funding Usage

Funding through Restore Pennsylvania will address contaminant remediation and brownfield cleanup in the following ways:

- By the Department of Health to provide grants to abate lead contaminated paint found in Pennsylvania schools, child care centers, and residences.

- By the Department of Education and the Department of Human Services to provide grants to remediate lead contamination in the drinking water of Pennsylvania schools and child care centers.
- By the Pennsylvania Infrastructure Investment Authority for funding a Perfluorinated Compound Remediation Program to provide grants to treat per- and polyfluoroalkyl substances (PFAS) in drinking water throughout the commonwealth. The Pennsylvania Infrastructure Investment Authority will be authorized to recover funds from responsible parties.
- For brownfield clean-up, funds may be used for providing funding to the Hazardous Sites Cleanup Fund for use consistent with the Hazardous Sites Cleanup Act (HSCA).

Detailed Description of Proposed Funding Usage

1. Addressing lead contamination

To abate lead contaminated paint, the Department of Health will offer grants to Pennsylvania schools, child care centers and residences. Grant funds may be used for inspections and risk assessments to determine whether lead is present and whether the condition or location creates a hazard for exposure. Additionally, grant funds may be used to remediate lead hazards to reduce the risk of exposure. Due to the significant number of pre-1978 homes in Pennsylvania, children who have elevated blood lead levels will be prioritized for enrollment into the grant program.

To remediate lead contamination in drinking water, the Department of Education and the Department of Human Services will offer grants to Pennsylvania schools and child care centers, respectively. Funding will allow schools and child care centers to replace lead service lines and internal premise plumbing (pipes, fittings and fixtures) with lead-free materials.

2. PFAS treatment in drinking water

Restore Pennsylvania will provide funding for a Perfluorinated Compound Remediation Program to provide grants for the installation of treatment systems for PFAS in drinking water. The grant program will be administered by the Pennsylvania Infrastructure Investment Authority.

Research indicates that PFAS chemicals are used in a wide variety of industries, including electronics, carpeting, automotive and aviation materials, and others. DEP's PFAS Sampling Plan has identified areas of priority for testing, including public water system sources located within ½ mile of fire training facilities, airports, military bases, landfills, HSCA sites, and manufacturing facilities that may have used PFAS chemicals in processes. As more sites across Pennsylvania are identified as having impacts from PFAS, treatment of drinking water supplies will be necessary.

3. Brownfield clean-up

For brownfield clean-up, funds may be allocated to the Hazardous Sites Cleanup Fund for use consistent with the Hazardous Sites Cleanup Act (HSCA). HSCA funds site remediation and water supply replacement activities at sites where hazardous substances have been released to protect the public health from contamination. Restore Pennsylvania will ensure the continuation of projects consistent with Pennsylvania's Brownfields program, ensuring that more sites can be returned to use for recreation, or returned to the tax rolls as commercial, residential, or industrial sites.