

CURRENTS

A Rewarding Journey

Deliberate steps to reduce lead levels in Pittsburgh.



Despite a challenging year, 2020 was marked with several successes for the Pittsburgh Water and Sewer Authority. We seamlessly provided safe and reliable services during a global pandemic, reached our highest level of capital investment of \$122,108,191 and, most notably, brought lead levels into compliance.

This major landmark was achieved in June 2020, with the lowest lead levels in PWSA's drinking water in over 20 years, at 5 parts per billion (ppb). This was the second consecutive water sampling round under the federal action level, which placed PWSA's water system back in compliance with regulatory standards.

The journey to reach this point began in 2016 and resulted in one of the most comprehensive, well-designed responses to lead in the country. To date, we have replaced over 8,200 lead lines using innovative and cost-efficient methods and reduced lead levels by

improving our water treatment process with the addition of orthophosphate.

Achieving this Landmark

People: Pittsburgh Mayor, William Peduto and his office provided the support to develop our Community Lead Response making it clear that we do everything possible to eliminate the risk of lead in water. Our Board of Directors and executive leadership committed to addressing this crisis when lead levels first exceeded federal standards in 2016. They allocated funding and directed policy changes that made it possible to implement our community-based response. We also established a Lead Help Team, a group of 12 PWSA employees and consultants dedicated to implementing the program. They manage the construction crews that are charged with replacing lead lines, interact with customers eligible for private lead line replacements, and facilitate the testing to track lead levels within our service area.

Changes in Legislation:

In 2017, a change in State legislation made it possible to replace full lead service lines. This is a safer approach and provided the ability to use public funding to replace lead service lines on private property.

State Funding: In 2019 we received our first loan from the Pennsylvania Infrastructure Investment Authority (PENNVEST) of \$49 million funding, and in 2020 received a second loan of \$65 million. This low-interest loan helps to reduce long-term costs to our ratepayers while providing adequate funding to advance the removal of lead.

Addition of Orthophosphate:

In April 2019, we began treating water with orthophosphate, which forms a protective barrier between lead service lines and the water flowing through them. Orthophosphate was selected by PWSA and approved by DEP after a comprehensive, year-long study of treatment alternatives.

What's Next?

Going forward, we will continue to replace lead service lines through our water main replacement program. Between 2021 and 2025, we will invest over \$250 million in water main replacements, resulting in dozens

COMING UP:

Next Board Meeting: February 26

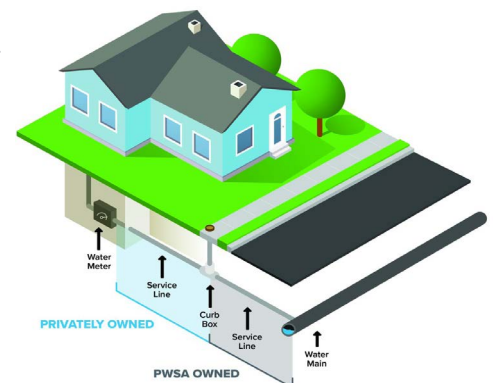
For a complete list of PWSA's board and community meetings, please visit pgh2o.com/events-meetings.

Following COVID-19 restrictions, meetings are held virtually and may be tentative or postponed. For the most up to date information, please visit pgh2o.com/events-meetings

of miles in new water mains and non-lead service lines. We will also continue to use orthophosphate in our water system to keep lead levels low.

We are proud of this accomplishment and remain committed to providing our drinking water customers with safe, high quality water. We realize that there is no safe level of lead and we are working towards our goal of replacing all lead service lines.

To learn more about our Community Lead Response, please visit lead.pgh2o.com.



PWSA owns the water service line from the curb box to the main and the homeowner owns from the curb box to the house.

DIRECTOR'S CUT

By Chief Executive Officer Will Pickering

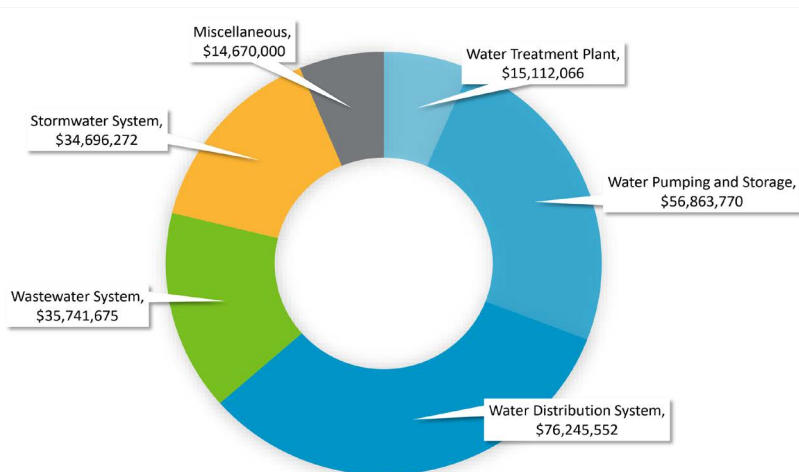


Increasing Capital Spending: Where does the money go?

Recently, local radio station WESA featured a story about our increasing capital investment describing why this is a good sign. As you see more construction activity taking place within our service area, it is important to recognize that this is a positive step in Pittsburgh's water future that will lead to a more secure, reliable water system, less service disruptions, and higher quality water.

Our total capital investment in 2020 was approximately \$122 million - an increase from 2019 and our largest annual investment in our history despite construction delays due to the pandemic. Investment will continue as we renew large water infrastructure and rehabilitate our network of water and sewer pipes that carry water to and from homes and businesses.

2021 Capital Investment by Category



This construction activity falls into several categories outlined in our [2021-2025 Capital Improvement Plan \(CIP\)](#).

Renewing Critical Water Infrastructure

These projects will renew key components of our water production and distribution systems culminating with the complete restoration of the Clearwell, a large, century old water storage facility. Together, these projects will strengthen our water system, add needed redundancy, and ensure an uninterrupted supply of quality water. The capital projects that make up our plan include rehabilitating the Aspinwall and Bruecken Pump Stations, replacing reservoir liners and cover systems, updating electrical and backup

power systems, restoring pump stations, and repairing or replacing various large-diameter water mains throughout the system.

Replacing Water Mains

The strategic replacement of water mains will improve reliability, improve water pressure, maintain water quality, and minimize disturbances caused by breaks. Our small-diameter water main replacement program focuses on replacing existing 4" and 6" water mains that have a history of frequent breaks. As we replace these water mains, we will also remove any lead service lines attached to them. This is a cost-effective way to maintain our water distribution system and proactively remove lead.

Rehabilitating Sewer Lines

Sewers are the workhorse of our infrastructure - they move sewage and stormwater away from homes and businesses, but a sewer failure can be very disruptive. We are identifying aging sewers and making improvements to prolong their life and rehabilitate them before they fail. Many of these projects will use sewer lining technology, which creates a protective barrier that secures cracks in the pipe and prevents leaks.

Improving Stormwater Infrastructure

We are building new stormwater infrastructure to capture stormwater runoff, reduce flooding and basement backups, and improve capacity within our combined sewer system. This year, construction is slated to begin on the [second phase of the Wightman Park](#) project in Squirrel Hill and we anticipate starting construction on the [Maryland Avenue](#) project in Shadyside and the [Thomas and McPherson](#) project in North Point Breeze. These projects will help to better manage stormwater in Pittsburgh.

As you see more work taking place in your neighborhood or around our facilities, know that every dollar we receive from ratepayers is reinvested back into the system to improve water services and create a more reliable system. We thank you for your patience as we make this investment and appreciate your support as we advance these projects.

For more information about capital projects in design or construction, please visit:
pgh2o.com/projects-maintenance.

Inspiring the Next Generation: ACE Mentor Program

The ACE Mentor Program of Western PA is a local affiliate of a national program that focuses on introducing careers in architecture, construction, and engineering (ACE) to high school students.

Increasing workforce development efforts is one of the less-discussed but equally-important goals of the current PWSA administration. PWSA is pursuing a multipronged approach to achieve this goal. One such avenue is through the ACE Mentor of Western PA. Professionals in ACE disciplines present to the students at biweekly sessions from October to May. Each session focuses on a different career path and skill set. The sessions range from designing hypothetical projects to visiting active construction sites. PWSA has held a position on the ACE Board Western PA Chapter since 2019.

This year, we co-hosted our first virtual student session on the topic of civil engineering on January 6th. Manda Metzger, PWSA Project Manager in the Engineering Department, shared her experience on the Smallman Street Construction project. Her presentation emphasized the importance of a good design in the planning stages and the problem-solving skills required in the field after construction commences.

Ana Flores, PWSA Project Manager in the Engineering Department, taught the students about sewersheds with an interactive Find Your Sewershed activity (you can find it on our website [here](#)).

Human Resources Specialist, Stacey Hamilton, provided the students with typical, entry-level job descriptions to provide more information on how to get into the field and the qualifications required. Our colleagues at Lagan Engineering co-hosted the session, providing insight into civil engineering in the public sector.

PWSA is a proud sponsor of the ACE Mentor Program of Western PA. We look forward to building our relationship for a long-term impact on Pittsburgh students.

To learn more, sponsor, or volunteer with the ACE Mentor Program of Western PA, visit their website at acementorwesternpa.org.



ACE MENTOR PROGRAM
ARCHITECTURE • CONSTRUCTION • ENGINEERING

★ WESTERN PA



The Smallman Street Water and Sewer Reconstruction Project in Pittsburgh's historic Strip District, replaced over 7,000 feet of water line, storm sewer, and sanitary sewer over the course of a year. This was a \$13 million investment in the health of our system, completed in April 2019.

"I am proud to represent PWSA on the board of ACE. We look forward to sharing our expertise and building our relationship with the next generation of professionals."

PWSA Industry Relations Manager,
Julie Asciolla

U.S. Environmental Protection Agency Invites PWSA to Apply for WIFIA Water Infrastructure Loan

PWSA's critical water infrastructure projects rose to the top among a pool of 67 first-round applicants.



Clearwell construction circa 1908; We are beginning a series of critical water infrastructure projects that will lead to the replacement of the century-old Clearwell. These once-in-a-generation projects are a significant investment in Pittsburgh's water future.

PWSA was invited by the U.S. Environmental Protection Agency (EPA) to apply for a Water Infrastructure Finance and Innovation Act (WIFIA) loan. If approved, it would provide 49% of the funding needed for critical water infrastructure projects that would lead to the complete restoration of the Clearwell, a large, century old water storage facility.

After submitting a letter of interest in October, PWSA was one of 55 applicants invited to move to the next round for these competitive federal loans. The WIFIA program, established in 2014, funds water infrastructure improvements across the country focused on improving water quality, creating jobs, and ensuring access to clean and safe drinking water.

If PWSA's application is approved, the low-interest loan would provide \$127,901,498 to fund a series of once-in-a-generation projects to renew key components of our water production and distribution systems. These projects will strengthen our water system, add needed redundancy, and ensure an uninterrupted supply

of quality water. The capital projects that make up our plan culminate with the restoration of the Clearwell and includes rehabilitating the Aspinwall and Bruecken Pump Stations, replacing reservoir liners and cover systems, updating electrical and backup power systems, restoring pump stations, and repairing or replacing various large-diameter water mains throughout the system.

These critical projects, which total nearly \$250 million, are a significant part of our \$1.2 billion Capital Improvement Program. We are seeking other funding sources to support the remaining cost of these projects.

Criteria used by the EPA to evaluate projects include project readiness, credit worthiness, and national or regional impact of the project. Our critical water infrastructure projects stood out among 67 letters of interest requesting more than \$9 billion and was selected to move forward due to water quality improvements that will benefit our drinking water customers, ability to meet water quality regulations, create jobs, and support the growth of Pittsburgh's local economy.

"PWSA is embarking upon the largest capital investment in its history. Securing low interest state and federal loans will help to reduce long term costs to our ratepayers," said Will Pickering, PWSA's Chief Executive Officer. "As a publicly owned and controlled utility, every dollar is reinvested back into the water system, and we will continue to pursue opportunities like WIFIA to keep rates as affordable as possible."



Media and Press Releases

MEDIA COVERAGE

Why PWSA's Growing Capital Budget Is A Good Sign, WESA

EPA invites 55 new projects to apply for WIFIA loans, Water Finance and Management

Pittsburgh And PWSA Hammering Out Stormwater Management Plan, WESA

New federal lead rule mandates testing in schools, lowers required replacement rate for pipes, Post-Gazette

PWSA rolling out new online EZ-PAY portal January 1, KDKA TV

PRESS RELEASES

PWSA's Community Lead Response Meets New Lead and Copper Rules Standards, December 24

PWSA kicks-off 2021 with a new, modern billing and payment portal, December 30

PWSA to Undertake \$7.7 million PENNVEST-Funded Sewer Rehab Project, January 21

Employee Spotlight

Among many other duties, Senior Automated Metering Infrastructure and Billing Manager, Tracy Willy, serves as the project manager for our new billing and payment portal.



Starting as a customer service representative upon her hire at PWSA, Tracy then played various other roles including a stint in our Management Information Technology (MIS) Department.

"I'm proud to serve the public and make things easier and more convenient for our customers. I love working with people," said Tracy regarding what motivates her.

Tracy has been a member of Team PGH2O for an impressive 18 years. Now, her primary task is to ensure the integrity of our billing system, which includes managing the transition to our brand-new billing and payment portal. Launched at the beginning of the year, this new feature provides customers with a more streamlined, easy, and convenient way to receive, view, and pay their monthly bill.

"So far, the project is going very well. There's been no lag time in getting bills out to customers, our joint project team (with KUBRA, our new vendor) is very responsive to feedback, and we're making great progress towards high enrollment," Tracy said.

A critical part of the billing process is to make sure that the meter readings we take are accurate. Although maintaining and upgrading our metering infrastructure has been made somewhat more difficult during the pandemic, Tracy is thankful for the efforts of her team and elsewhere, such as self-reads from our great customers.

Concerning billing, Tracy said, "Verifying that bills are based on actual water consumption is something we take very seriously with a lot of time and effort involved."

Tracy's other duties include overseeing our Water for Community Gardens Program, which provides up to \$500.00 worth of potable water to approved community gardens, gateway gardens, and vacant land greening projects within our water service area.

In addition, Tracy manages the processing of backflow device testing results for nonresidential properties and apartment buildings with more than four units. A backflow prevention device is a fixture installed on a private water service line that prevents the reverse flow of water from a building into the public water system.

In her time away from work, Tracy is currently keeping busy by the many school-related and extracurricular activities of her 13-year-old daughter.

"I'm proud to serve the public and make things easier and more convenient for our customers. I love working with people."

PGH2O Excellence Award

We applaud our employees' exceptional efforts! These talented individuals set a high standard and inspire our team to go above and beyond expectations. Congratulations to the following employees:

Jacob Bishop, *Engineering Tech III*

Elaine Hinrichs, *Outreach and Education Associate*

Diana Szuch, *Water Production Administrator*

Tracy Willy, *Senior Manager of AMI and Billing*

Job Postings

Interested in working at PWSA? We are looking for dedicated and talented people to join our team.

Laboratory Manager

Water Quality and Compliance

Plant Operator

Water Quality & Production

Electrician

Water Quality & Production

Project Manager

Engineering & Construction

Associate Project Manager

Engineering & Construction

Inspector II

Engineering & Construction

Steamfitter

Field Operations

Plumber

Field Operations

Account Clerk

Customer Service

Customer Service Representative (Full-time and Part-time)

Customer Service

New Hires

WELCOME ABOARD!

Midori Bridges

Co-Op, Engineering

Donald Hohman

Help Desk Technician II

Anthony Iacovino

Project Systems Specialist

Anthony Igwe

Sr. Group Manager, Stormwater

Marco Sciulli

Project Manager, Construction

Promotions

CONGRATULATIONS!

Amiee Butch

Office Manager

Elizabeth Kennedy

Senior GIS Analyst

Michael Onyshko

Truck Driver

Tiffany Patton

Senior Project Systems Specialist

Thoyrn Simpson

Procurement Manager

Kenneth Thurston

Quality Control Manager

Adam Votedian

Scientist II

Rebecca Zito

Senior Manager of Public Affairs

Visit pgh2o.com/about-us/careers to learn more.

District Report: Herron Reservoir Cover Project, Lead Service Lines, and Water Mains in District 6

Perry Hilltop, The Hill, Northside, Uptown, Downtown, Oakland

PWSA recently completed an important upgrade to one of its major water storage facilities in the Upper Hill District. Work began on the southern portion of the reservoir. Our contractor removed the existing liner and cover, installed a new liner, cover, and other materials like rainwater removal pumps, then brought the southern portion of the reservoir back into service. Once this work was complete, they moved onto the northern portion of the reservoir to complete the same process. With work completed in January 2020, this over \$5 million upgrade protects the reliability and security of our treated drinking water.



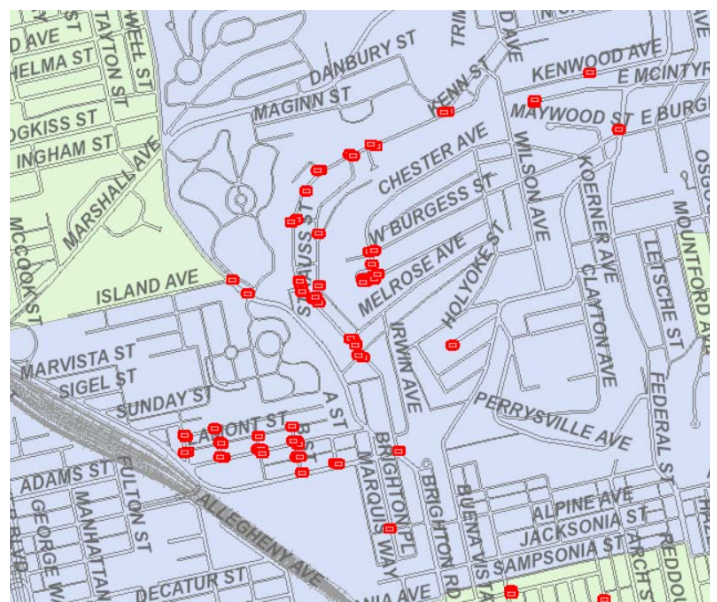
Herron Hill Reservoir

Like many neighborhoods in PWSA's water service area, District 6 saw lead service line replacements over the past year. In 2020, PWSA completed one of its final Lead Service Line Replacement work areas in The Bluff, replacing 91 lead service lines in the area.

In efforts to upgrade aging infrastructure in coordination with other public utilities, PWSA will replace over two miles of water mains on Fifth Avenue and Forbes Avenue in 2021. This work will occur ahead of the Port Authority of Allegheny County's Bus Rapid Transit Project, which will begin in 2022. This replacement work will help avoid emergency water main breaks in the future and provide reliable service to our customers. As part of this work, PWSA will coordinate with customers whenever we find a lead service line and replace it at no cost.

Storm Drain Replacement

PWSA has a slew of storm drain replacements planned for Perry South. This work will provide better water flow to our storm drains, making for safer roadways during storms.



Map of storm drain replacement locations in Perry South neighborhood

2021 Capital Spending

2020 Ends with Record Capital Investment.

The Pittsburgh Water and Sewer Authority closed 2020 with a record investment of \$122,108,191 in capital expenditures. This is the largest investment in our history and we anticipate seeing future growth as we make the needed improvements to our infrastructure.

In 2020, \$30,168,074 was spent on the replacement of lead service lines. We are working towards our goal of replacing all lead service lines by 2026 and in the coming years will replace them in conjunction with the replacement of water mains.

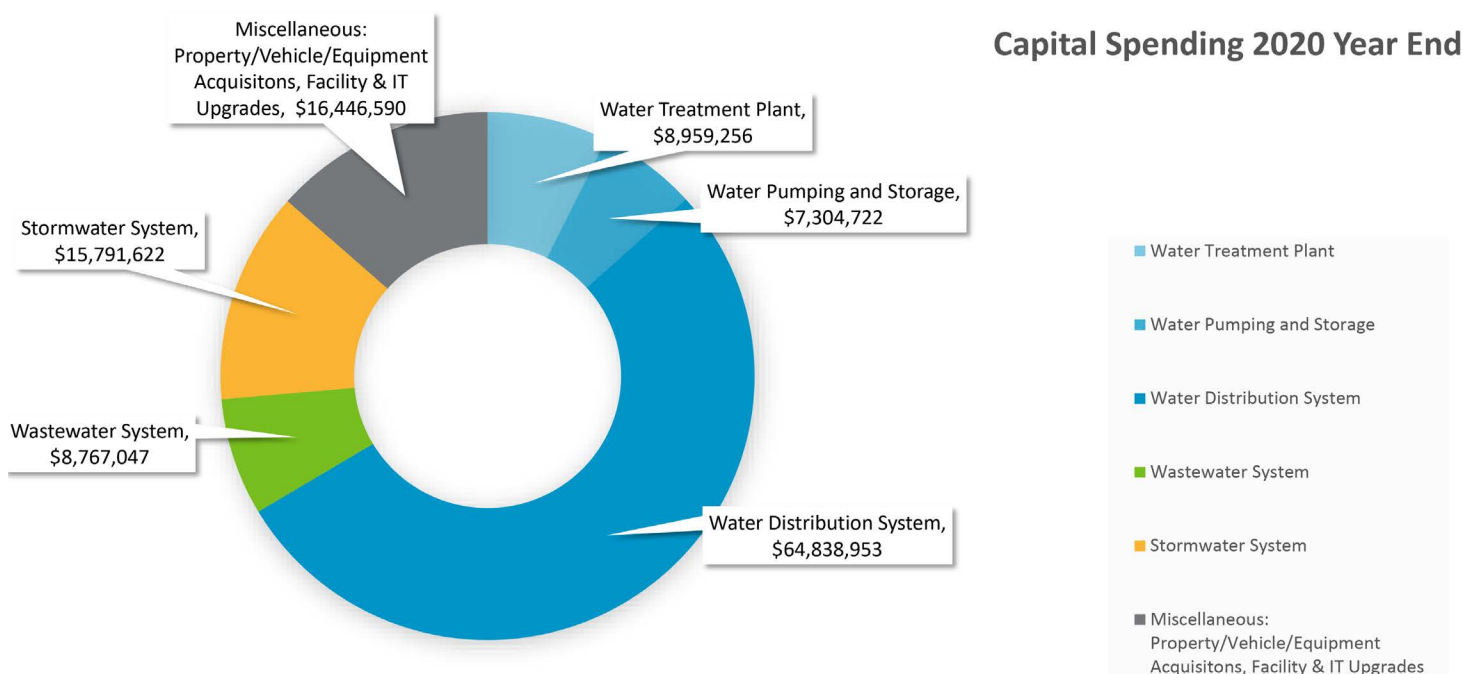


Crews performing a lead service line replacement.

Surface restoration, replacing catch basins and rehabilitating sewer lines was also a tremendous part of the 2020 capital program. In total \$15,203,687 was spent in 2020 to return streets and sidewalks to pre-construction conditions. While an additional \$8,208,838 million went towards replacing catch basins in several neighborhoods, and \$3.2 million was spent on the rehabilitation of aging sewer lines in the Lincoln Place neighborhood as part of the [31st Ward Sewer Reconstruction Project](#). This project is approximately 45% complete and will extend the life of approximately five miles of sewer lines.

We also completed work on larger water infrastructure including improvements to the Herron Hill Reservoir and the restoration of the parapet wall around the Highland Reservoir.

These projects to remove lead lines, replace water mains, rehabilitate sewer pipes, and renovate our water, sewer, and stormwater infrastructure reflect the variety of work outlined in our five-year [Capital Improvement Program](#). These improvements are a major investment in the safety and reliability of our water services.



Digging Into Development

Development Permits

This month, we are tackling our most complex process: Development Permits. A development or redevelopment project with a scope more substantial than a single-family home typically requires a development permit. The development permit falls under its own category due to the level of review necessary to understand the impact of the project. We want to know information such as the amount of sewage flows it will add to our system, the water demand required to feed its domestic and fire protection systems, the size and type of connection to the public water and sewer mains, any additional Department of Environmental Protection (DEP) regulations that may apply, fees to be assessed, existing lines that will be terminated, etc. Depending on the project's complexity, a development permit's issuance could take up to six months.

The first step in getting a development permit from PWSA is hiring an engineer. The engineer will complete calculations and prepare a set of plans to submit with a development permit application. All of that information is then reviewed by our Development Services group in our engineering department.

PWSA requires a pre-development meeting for any applicant proposing to submit a development permit. This meeting is crucial to talk through rules and regulations, existing and proposed conditions, resolve any current issues, set expectations on the process, and establish project contacts. Our development services team highly values these meetings.

Our [developer's manual](#) serves as a resource for understanding our rules and regulations governing development projects. The manual is updated yearly and underwent a comprehensive update in 2020. Keep an eye out for our latest update in the second quarter of 2021.

We will be digging into development permits in more detail in future issues.

Learn more at pgh20.com/developers-contractors-vendors/permits/development-permits.



Construction of the new UPMC Mercy Vision and Rehabilitation Tower. This tower is an example of a project that would be required to apply for a development permit. Photo by Terry Clark/PublicSource www.publicsource.org/how-fast-has-upmc-grown-the-answer-in-four-charts/



WATER WISE

Remove Snow and Ice Responsibly



Melting snow and ice can cause problems as stormwater runoff. When the ground is frozen at the surface during winter, it is difficult for soil to absorb melting snow. This presents a unique flooding challenge. In addition, the presence of environmentally harmful chemicals in de-icing salt makes winter runoff a significant risk to the health of our rivers and streams.

Try these tips to help reduce flooding and pollution:

- **Clear out snow surrounding your downspouts.** This will allow melting snow from your roof to flow instead of collecting at your foundation, which can help prevent basement flooding.
- **Do not pile snow on top of storm drains.** Clear off any blocked storm drains near your property.
- **Pile snow where it is most likely to be absorbed by the ground when it melts.** For example, choose areas that are relatively flat or do not typically pond during rainstorms.
- **Do not over-apply de-icing salt or sand.** Shovel or plow before salting.
- **Use less-toxic ice removal methods.** For example, mix beet juice with de-icing salt to reduce salt use and lower the freezing point.

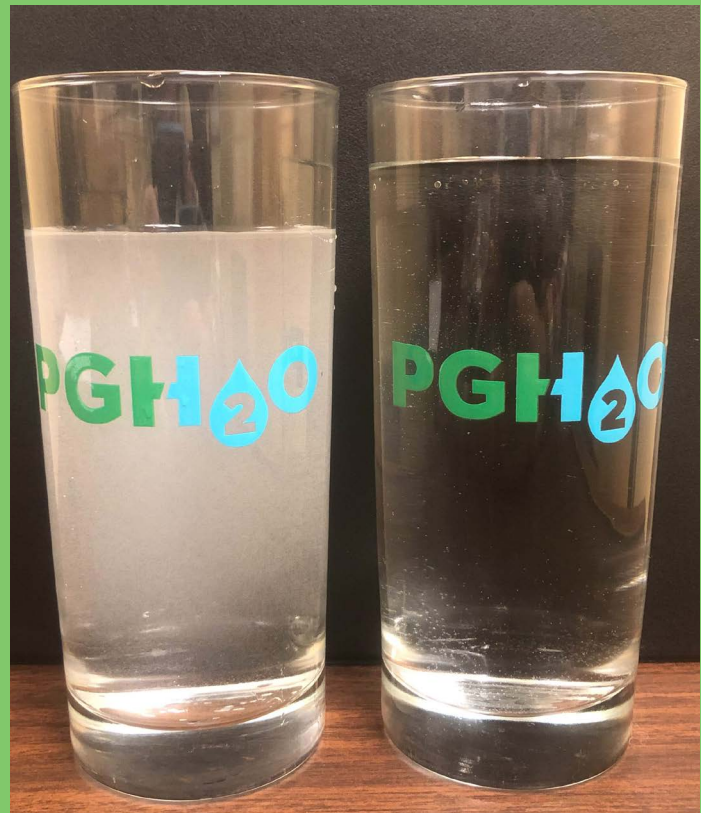
Learn more at pgh2o.com/help-manage-stormwater.



Winter Tips: Cloudy Water

During the winter months, water that comes out of the tap can sometimes appear “cloudy.” This is usually caused by harmless air bubbles because cold water holds more air than warm water. Water out of a faucet also holds more air since it is under pressure. Let the water settle for a minute or two and it should go back to being crystal clear!

You can find many more helpful tips, including seasonal advice about protecting your pipes and winter water main breaks, at pgh2o.com/tips-maintenance-prevention.





Customer Assistance Programs

Our Customer Assistance Programs are designed to provide financial relief for income-qualified residential customers who are having difficulty paying their water and wastewater bill.

For more information about our programs, including the Winter Shut-off Moratorium, Bill Discount, Hardship Grant, and Lead Line Reimbursements, please visit pgh2o.com/CAP or call Dollar Energy Fund at [866.762.2348](tel:866.762.2348).



Do We Have Your Number?

Did you know that we call customers during water emergencies and outages? It is important to verify that we have the best number to reach you. You can even add multiple numbers for your account, so your entire household is informed about our work.

HOW DO I UPDATE MY CONTACT INFORMATION?

Call PWSA Customer Service: [412.255.2423](tel:412.255.2423) (Press 5)

Or visit our website: pgh2o.com/update-contact-info

PWSA is committed to maintaining and protecting the confidentiality and privacy of our customers and will not share your information with third party vendors.

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Industry Relations Manager

Rachel Rampa
Senior Public Affairs Coordinator

Mora McLaughlin
Construction Communications Project Manager

Jordan Treaster
Development Coordinator

Elaine Hinrichs
Education and Outreach Associate

Hali Hetz
Public Affairs Associate

Nick Letzkus
Public Affairs Associate

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Penn Liberty Plaza 1
1200 Penn Avenue
Pittsburgh, PA 15222

Customer Service

T 412.255.2423 (Press 5)

F 412.255.2475
info@pgh2o.com

Emergency Dispatch

412.255.2423 (Press 1)
Available 24/7