PWSA Initiates Stormwater Master Plan



Summers in Pittsburgh are notorious for frequent and severe storms that overwhelm our sewer system. When it rains, hard as it often does, all the excess water backs up into homes, floods our streets, and overflows into our rivers and streams.

To address the impacts of too much rain and continue to improve stormwater management in Pittsburgh, the Pittsburgh Water and Sewer Authority is stepping up to create a Stormwater Master Plan that will help to reduce flooding, plan for the impacts of climate change, and improve the quality of life for Pittsburgh residents.

The master planning process, currently underway, builds off past planning efforts, such as the Citywide Green First Plan,



and uses climate change data, community input, and prioritizes public health and wellness to provide a cost-effective, inclusive, and sustainable way to address one of our region's most challenging problems.

Since introducing the Green First Plan in 2016, PWSA has constructed several innovative stormwater projects throughout Pittsburgh that use a combination of green solutions and underground storage to help capture stormwater where it falls and slow its flow into the combined sewer system.

In 2019, ALCOSAN received approval of their Clean Water Plan, a regulatory document defining strategies to reduce combined sewer overflows into our rivers by 2036. With the adoption of this plan, PWSA needed to adapt its approach to avoid duplicating

efforts while continuing to identify solutions that would address many other wet weather challenges in Pittsburgh.

The Master Plan will expand our efforts to manage stormwater and develop the framework and guidelines to establish an acceptable level of stormwater protection to provide across Pittsburgh. This is one of the most important conversations for Pittsburgh to have as a community. By developing a collective answer to this question, we can assure that residents and businesses participating in the process understand the benefits and limitations of the level of service, and realize the cost associated with its implementation.

The Master Planning process is led by a visionary project team from PennPraxis and the Water

COMING UP:

Next Board Meeting: August 27

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.

Center at Penn who are joined by others representing both national expertise as well as deep knowledge of local water issues. Recognizing the importance of public engagement, they will guide the Pittsburgh community through a robust public process to learn about the most critical challenges and barriers facing our city. Special attention will be paid to engaging stakeholders and communities not typically at the table for stormwater conversations and are most impacted by stormwater issues such as flooding and basement backups. The Stormwater Master Plan will serve as Pittsburgh's blueprint to address local stormwater challenges. It will seek to address the specific goals of improving water quality, reducing street flooding and basement backups, and beautifying neighborhoods in an affordable manner. All of which will create a community that is healthier, safer, and more resilient to the impacts of stormwater.

For more information about the Stormwater Master Plan and other stormwater planning efforts, please visit Pgh2o.com/stormwater-plans.

DIRECTOR'S CUT

By Chief Executive Officer Will Pickering

Think Differently About Stormwater.

As the Pittsburgh Water and Sewer Authority takes on more responsibility for managing stormwater in Pittsburgh, we must begin thinking differently and consider how a new stormwater fee is an investment to create a city that is more resilient to current storms and climate change.

There are everyday things we all can do to protect our sewer system from too much rain, reduce the impacts of stormwater to our properties and neighborhoods, and use the solutions to prioritize public health and wellness.

Since 2017, we have been constructing new stormwater infrastructure that use a combination of green techniques such as raingardens, bioswales, and engineered drainage channels and stormwater holding facilities including plastic R-tanks and stone or gravel storage buried underground. These solutions capture rain where it falls and slows its flow before entering the sewer system. The projects help to reduce basement backups and flooding, while also beautifying neighborhoods and combatting climate change.



PWSA contractors constructing a dry stream bed at Chatham University. Other projects are currently under construction in Squirrel Hill and Shadyside, and construction will begin on the Thomas and McPherson project in North Point Breeze in August.

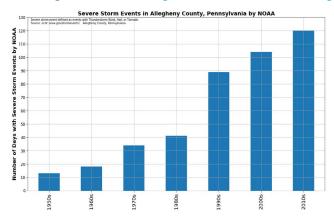
Our proposal to establish a stormwater fee was submitted to the Pennsylvania Public Utility Commission earlier this year. If approved, it would restructure how customers are charged for stormwater service and establish a dedicated funding source to cover the cost of new infrastructure needed to reduce pollution, improve water quality, and protect neighborhoods, residents, and properties from increased stormwater.

As we have seen this summer, our sewer system is not designed to handle intense and frequent storms. The storms in May and June 2021 brought more than an inch and a half of rain in less than an hour – overwhelming the system and



causing it to overflow into streets and homes. We witnessed similarly intense and frequent storms within the past few years.

Unfortunately, experts predict these storms will continue to get worse. Severe storms tracked by the National Oceanic and Atmospheric Administration (NOAA) have increased by 900% in Allegheny County since the 1950s and recent years have brought record breaking amounts of rain to Pittsburgh.



A new stormwater fee ensures that all property owners in Pittsburgh contribute a share that is proportional to the amount of runoff generated by their property. This is a more equitable way to charge for stormwater and is vastly different than our current rate structure.

The new fee is based on impervious surface – the hard surfaces on a property such as roofs, parking lots, driveways, patios, and decks – and is the standard method used by stormwater agencies across the country.

Using this model, all property owners will pay the stormwater fee contributing to the stormwater solutions needed for our community. Residential and non-residential property owners can also reduce their stormwater fee through the credits and incentives program proposed along with the fee.

The stormwater fee is a start. It will take time and additional funding to implement needed improvements throughout Pittsburgh. But, by thinking differently, we can envision a community that is healthier and more resilient to the impacts of stormwater.

For more information about the stormwater fee, please visit Pgh2ostormwater.com, and visit Pgh2o.com/stormwater to learn what we all can do to manage stormwater.

Going above and beyond!

Classy Construction

Our great partners at Frank J. Zottola Construction, Inc. are currently hard at work on the Maryland Avenue Stormwater Improvement Project. This project will use cost-effective green stormwater solutions throughout Shadyside to reduce runoff entering the combined sewer system.

"They have been easy to talk to, have worked with the residents, have great flagmen and have been very neat and tidy at the end for each day," wrote a happy Shadyside customer within the project boundary. "I have supervised park construction in the past and would hire this team in a minute," they added.

Thank you for your excellent and friendly work, Zottolla crews!

Stellar Service Line Replacement

Earlier this month, members of our Operations Department collaborated with contractor, Independent Enterprises, Inc., to replace a lead service line in Point Breeze. Water Repair Foreman, Eugene Saunders; Operator, Tom Conlin; Utility Workers, Ken Kitzinger and Kirk Shimp; and Truck Driver, Rich Mason of Team PGH2O were all praised for preparing the line for replacement.

"The PWSA crews found our buried shut off valve, rerouted water through our outdoor hose outlet so we would still have water to use, and prepared the ground for the lead team to do their work," wrote the customer.

The crew from Independent, led by Joe Bruno, was also thanked for their efforts.

"We were very impressed with their professional attitude, the consideration they showed us, the quality of their work, and the impressive clean-up after they were finished," the customer added.

Keep up the good work!

WHAT PEOPLE ARE SAYING

Terrific Teamwork

Residents in Highland Park reached out to thank a variety of Team PGH2O members for their outstanding work in replacing their meter and water service line. The following individuals were mentioned:

- Administrative Assistant, Donna Scullon, was thanked for her work in getting their meter connected for external read and coordinating the service line replacement.
- Plumber, Ralph Cerminara, was thanked for resolving a pressure difficulty during the meter replacement process.
- Senior Manager, Paul Bingham; Water Repair Foreman, Eugene Saunders; Plumber, John Forse; Utility Workers, Ken Kitzinger and Austin Biondo; Operator, Rich Mason; and Driver, Bob Munizza, were appreciated for the organizing and executing the replacement of the service line.

"The field team reported promptly, worked safely and corrected our problem,"

Thank you, all, for upholding our commitment to highquality service!

On the Road with PWSA!

PWSA staff from our Stormwater and PGH2O Cares teams have been hard at work getting out into the communities to talk about two of our most important topics impacting customers: stormwater issues and customer assistance programs. We have attended the following meetings and events in July:

- Hazelwood Wellness Fair (July 10)
- North Point Breeze Development Corporation (July 12)
- Hazelwood Initiative (July 13)
- 31st Ward Community Action Group (July 13)
- Summer Time Bike Drive, Homewood (July 24)

To schedule a future presentation in your community, go to:

Pgh2o.com/request-us-event



31St. Ward. Right (left to right): PGH2O Cares Analysts, Michael Annania and Rebecca Copney with Homewood residents at the Summer Time Bike Drive

Attend a Flood Education Workshop Series Hosted by **PWSA** and Partners



Are you a homeowner or a business owner in Allegheny County? Have you been asking yourself: Why is my basement flooding? Why is the street flooding? What do I do in a flood?

How do I protect my house? When do I evacuate?

To answer those questions, the US Army Corps of Engineers, 3 Rivers Wet Weather, ALCOSAN, Allegheny County Conservation District, PA Department of **Environmental Protection, PA Emergency Management** Agency, Federal Emergency Management Agency, Southwestern Pennsylvania Commission, Watersheds of South Pittsburgh, and PWSA are holding a flood education workshop series. Through five webinars, you can learn about the basics of flooding, how to prepare and protect yourself and your property, available resources and contacts, and other important information to empower yourself and the people you care about before, during, and after a flood.

The first virtual session, "Watershed Basics and Types of Flooding", was held on Tuesday, July 27. To help residents understand the causes of flooding and sewage backups, PWSA staff explained how our sewer systems were designed and how private sewer laterals tie into the public system. At the August 17 workshop, PWSA staff will also present information on what to do and who to call if you experience a sewage backup, wet basement, or flooding.

The remaining virtual sessions will be held from 6 to 7 p.m. each Tuesday until August 24. Registration at www.eventbrite.com/e/162586369207 for 100 people to attend the live series is currently full, but recordings of each of the five sessions will be available to view online at silverjackets.nfrmp.us/State-Teams/Pennsylvania.

- July 27: Watershed Basics and Types of Flooding
- August 3: Where Flooding Occurs and How You Can Find Out
- August 10: Preparation & Mitigation for Flooding
- August 17: Responding to Flooding
- August 24: Recovering from Flooding

Employee Spotlight: Stormwater Project Managers

Project Manager, Meghan Simek, and Associate Project Managers, Maria Natoli, Ana Flores, and Ryan Quinn supervise a variety of stormwater projects that reduce sewer overflows, mitigate flooding, and improve water quality.



Pictured from left: Project Manager, Meghan Simek, and Associate Project Managers, Maria Natoli and Ana Flores. Not pictured: Associate Project Manager, Ryan Quinn.

A critical component of our ongoing systemwide renewal involves a creative approach to managing stormwater that reduces its heavy burden on sewers. Too much stormwater can lead to unfortunate outcomes such as overflows into our waterways, flooding, and backups into basements. To combat this, we are reimagining how stormwater is collected via a series of innovative projects across the city.

"Pittsburgh is a particularly challenging city for stormwater management due to its varied



One of three stabilized storm sewer outfalls along the restored Saw Mill Run streambank.

topography," said Project Manager, Meghan Simek. "Interestingly, however, we are discovering that the city's natural features can often work to our advantage."

Spearheading these efforts is a team of talented engineers who put their heads together to plan and execute unique solutions for the many pressing stormwater challenges that we confront. Their methods include utilizing a combination of green and gray infrastructure to improve the wet weather conditions of a given project area. Green infrastructure uses vegetation, soils, and other natural elements to restore the natural processes required to manage water locally and create healthier urban environments. Gray infrastructure uses man-made, engineered components such as gutters, storm sewers, tunnels, culverts, detention basins, pipes, and mechanical devices to capture and convey runoff.

For example, the Saw Mill Run Stream

Restoration Project (pictured left) in Overbrook uses natural (green) and engineered (gray) solutions to reduce the amount of pollution and debris entering the stream, protect against future erosion, and slow down the speed that water travels during intense storms.

"I enjoy working for PWSA because I am contributing back to my community, better understanding the challenges we are facing, and helping develop solutions for these stormwater-related challenges," said Associate Project Manager, Ana Flores, who managed the Saw Mill Run Stream Restoration project. Stormwater projects often require close collaboration with external stakeholders including local government, community groups, and residents, which each member of the team acknowledged is a rewarding part of the process.

"Many stormwater projects involve partnerships with the City or other local agencies, and I like that I am able to help deliver projects that include partnerships and shared benefits, such as a renewed community park," said Associate Project Manager, Ryan Quinn, in reference to the Wightman Park Stormwater Project.

To learn more about our stormwater projects, please visit Pgh2o.com/projects-maintenance/ search-all-projects.

> "PWSA is one of Pittsburgh's leaders in green infrastructure and is undergoing many positive changes."

PWSA Associate Project Manager, Maria Natoli

Job Postings

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

Chief Corporate Counsel Legal

Laboratory Manager Water Quality and Compliance

Stationary Engineer Water Quality and Compliance

Plant Operator Water Quality & Production

Chemist I Water Quality & Production

Project Systems Specialist Finance

Project Manager Engineering & Construction

Associate Project Manager Engineering & Construction

Inspector II Engineering & Construction

Human Resources Assistant Human Resources

Collections Analyst Customer Service

Steamfitter Field Operations

Plumber Field Operations

New Hires welcome aboard!

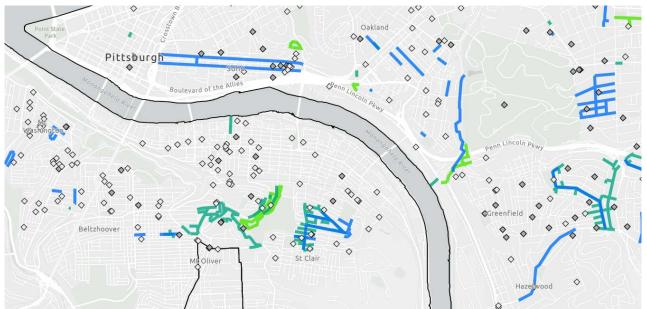
Cowan Bridget Administrative Assistant, Customer Service Paul Dschuhan Electrician Lavina Falck Chemist II **Adam Longwill** Help Desk Technician II **Ross Marcinizyn** Internal Communications Specialist Marie McIntyre Training & Development Manager Sarah Nunlev Administrative Assistant **Tara Panella-Eichler** Paralegal **Anthony Ranallo** Laborer

Promotions congratulations!

Ryan Allard Valve & Hydrant Specialist Tahajud Ghafoor Vactor Operator

Visit Pgh2o.com/careers to learn more.





Web map shows street and sidewalk restoration sites as well as water, sewer, and green stormwater projects.

As PWSA's investment in water, sewer, and green stormwater projects increases, so does the necessary concrete and asphalt restoration work. All utilities, including PWSA, are responsible for the work to restore streets and sidewalks to their original condition after construction work is complete.

Some restoration sites are due to emergency repairs of water leaks or sinkholes where a portion of sewer was replaced, which are completed by our field operations team. Other restorations are planned water or sewer sites that were completed by a PWSA contractor crew. When work is complete, the locations are marked in our mapping system and given to the restoration project team. This year, there are eight contractor crews dedicated to PWSA restoration work, which involves stripping streets down to their base, building them back up, pouring new concrete sidewalks, laying bricks, and landscaping. As of mid-July 2021, there are over 800 restoration sites that are planned or in progress. Over 1,000 sites are completed, which accounts for about 50% of the total work. This translates to a nearly \$700 million investment in Pittsburgh sidewalks and roadways to-date, with more work to come.

Check restoration sites on new, improved project map

This July, PWSA unveiled its new-and-improved interactive project map that now includes future street and sidewalk restoration sites. Sites are shown as light and dark gray diamonds on the map, with light gray showing planned sites, and dark gray showing sites planned or in progress right now. Sites that are in progress have been issued to the contractor and must be completed no later than 45 days from the date they are issued.

For more information on PWSA's paving schedule, visit Pgh2o.com/Paving. To search our interactive map, visit Pgh2o.com/projects-maintenance/search-all-projects.

2021 Capital Spending

PWSA commits funding to improve stormwater infrastructure.

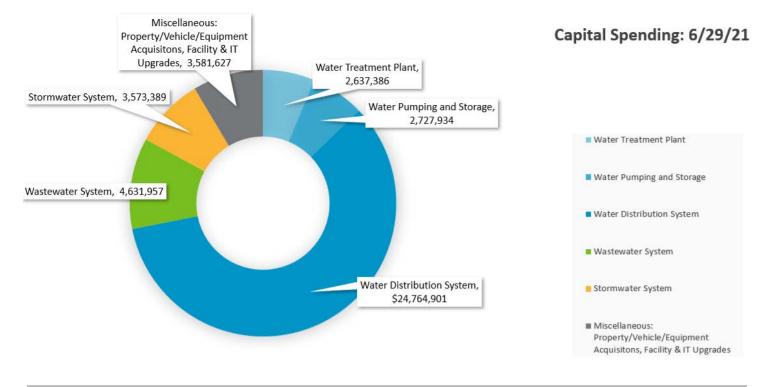


Stormwater infrastructure that will be included in the Four Mile Run Stormwater Project

The Pittsburgh Water and Sewer Authority has invested over \$42 million in our Capital Improvement Plan through July. Through several ongoing initiatives, we remain committed to modernizing and improving our infrastructure. Our investments in the water distribution system are headlined by over \$17 million in funds committed to our small diameter pipe replacement projects through the end of June. PWSA strategically determines these small diameter pipe replacement projects as areas that are aged and in need of repairs. In addition to our water rehabilitation capital projects, PWSA is continuing to fund needed stormwater infrastructure. Our stormwater capital projects focus on projects that will reduce sewer overflows and basement backups and lessen the amount of pollution entering our rivers and streams. The catch basin and inlet replacement projects are critical elements to our rehabilitation of the storm system. Ensuring that the entrance of stormwater into our system is structurally sound allows for better stormwater management and maintenance in our future.

Some of the significant stormwater projects funded by our Capital Improvement Plan are the second phase of the Wightman Park Stormwater project in Squirrel Hill and the Maryland Avenue Stormwater project in Shadyside. Both projects include installing green stormwater systems within the public streets and at intersections to capture, hold back, and slowly release stormwater into the sewer system. The projects use a variety of green solutions including "bump-out" planters at intersections, channel drains, permeable pavers, and underground stone storage. These improvements will help to reduce basement backups, neighborhood flooding, and will slowly release stormwater into the sewer system.

By prioritizing these capital improvement projects in our water, sewer, and stormwater infrastructure, PWSA continues to invest in the reliability of our services. The graphic below shows a financial breakdown of capital spending in 2021.



PGH¿O WATER WISE

Stormwater Tip: Underground Storage. What Is It?



Partially installed R-Tanks at the bottom of the Centre and Herron Stormwater Project in the Hill District.

"Underground storage" is one of the strategies we use to manage stormwater runoff in Pittsburgh. These storage systems are designed to hold stormwater back from the sewer system, which helps reduce street flooding, basement backups, and river pollution. They can be installed beneath rain gardens, playgrounds, pavement, or grassy areas.

Stormwater is routed into the underground storage system through storm drains, soil, or domed grates. Pittsburgh has clay soil, so it is often difficult for stormwater to soak into the ground. Instead, most of our storage systems slowly release the stormwater into the sewer system after it rains. Depending on the location and soil, we sometimes wrap the storage system with impermeable liners, which prevent stormwater from traveling into the ground and toward nearby buildings.

Here are some types of underground storage:

- **Gravel Storage**: These layers of small stones contain empty spaces, called voids, that allow water to flow through and fill up the space. It is ideal for urban environments because it can support the weight of paving and vehicles.
- **R-Tanks**: These modular plastic crates can be placed side-by-side and stacked to fit small or large spaces. Water can pass through the openings in the sides of the crate, then fill up the empty space inside. Different versions can support different weights.
- **Pipe Storage**: These large circular or arched pipes are made of plastic, metal, or concrete, and have capped ends to hold stormwater inside. The pipes are placed side-by-side underground, connected, and then surrounded by gravel.

Heat Wave Tips!



When heat waves strike, it is important to take care of yourself, loved ones, neighbors, and your property. Our bodies need water and regulated temperatures to function properly. Hot or humid weather requires extra water intake, even before you feel thirsty. When outside or without air conditioning, you need to find ways to stay cool to prevent heat exhaustion and heat stroke. Heat waves often lead to increased water use, so reducing water wasted outdoors by evaporation or overwatering will help save money on your bills. Follow these tips:

- **Hydrate!** Drink extra water to make up for fluid lost through sweat. Keep a pitcher of tap water in the fridge so you can easily pour cold glasses of water. Put out extra water for your pets.
- Stay cool using the power of water. Use a spray bottle with cold water to spritz yourself. Wear wet towels or bandanas on your shoulders or head, or fill a bucket and soak your feet.
- Water smart. Water your plants or lawn in the morning or early evening. Use an automatic shut-off nozzle for your gardening hose to control the flow.
- Set sprinklers properly. Water the garden or lawn only not the street or sidewalk. Set sprinklers to water low to the ground or invest in drip irrigation, to avoid water evaporating before it hits the soil.
- Align your playtime and watering needs. When kids want to cool off, use the sprinkler in an area of the lawn that needs water or have them play when you're already watering.
- **Do not open fire hydrants.** It is illegal to open hydrants without permission. An open hydrant decreases water pressure and could present a safety issue if there were a fire nearby.
- **Cover the pool.** If you have a backyard pool, cover it when not in use to make sure the water stays in it instead of evaporating.

PGH2O CONNECT



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, Flexible Payment Plans, Hardship Grant, and Lead Line Reimbursements, please visit Pgh2o.com/CAP or call Dollar Energy Fund at 866.762.2348.

Neighbors Helping Neighbors

Donate to the Hardship Grant Program online at Pgh2o.com/give.

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 (Press 5) Visit our website: Pgh2o.com/update-contact-info

Enroll in eBilling

Use our paperless billing and payment portal to receive and pay your bill and manage your PGH2O account from your desktop or phone.

Visit Pgh2o.com/ebilling to enroll.

Stay in the know with PGH2O!

Join our email list to make sure you're getting the latest news and updates. Signing up is simple at **pgh2o.com/subscribe** or view online at **pgh2o.com/newsletters**.

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Will Pickering Chief Executive Officer

Rebecca Zito Senior Manager of Public Affairs

Julie Asciolla Industry Relations Manage

Rachel Rampa Senior Public Affairs Coordinato

Mora McLaughlin Construction Communications Project Manager

Jordan Treaster Development Coordinato

Elaine Hinrichs Education and Outreach Associate

Hali Hetz Public Affairs Associat

Nick Letzkus Public Affairs Associate

Penn Liberty Plaza 1 1200 Penn Avenue Pittsburgh, PA 15222

Customer Service T 412.255.2423 (Press 5) info@pgh2o.com

Emergency Dispatch 412.255.2423 (Press 1) Available 24/7