



PGH₂O

Pittsburgh
Water & Sewer
Authority

2022

YEAR IN REVIEW

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A MESSAGE FROM OUR CHIEF EXECUTIVE OFFICER

FOLLOWING YET ANOTHER LANDMARK YEAR, we're confident that PWSA has never been in a better position to fulfill our mission: **to support our region by protecting public health and the environment through the delivery of safe and reliable water services.**

Our team of talented public servants and water professionals remains committed to rebuilding trust with those we serve and modeling transparency in our daily work. In the summer of 2022, we conducted a robust service-area-wide customer satisfaction survey to identify what our customers expect from a trusted publicly owned utility partner like PWSA.

Respondents were nearly unanimous in their conclusion that PWSA should be communicative and transparent about drinking water quality, our role protecting public health, and our responsibility to plan for future improvements in the water system. In addition, approximately 80 percent of respondents signaled their support for PWSA using ratepayer dollars to invest funds to maintain, improve, and modernize water infrastructure.

In 2022 alone, we made great strides in those key areas of communication, transparency, drinking water quality, and responsible infrastructure investment. Award-winning, nationally recognized initiatives like our Community Lead Response have moved the needle on getting the lead out of our drinking water system. In fact, since 2020, we've recorded some of the lowest lead levels in our history. In the years ahead, we'll continue those efforts to get the lead out, and efforts to prioritize transparency and proactive communication around the quality of your drinking water.

In the past year, we passed several key milestones in our slate of Water Reliability Plan projects, including the replacement of our Highland II Reservoir liner and cover, a massive undertaking, but one that showcases our commitment to the maintenance and improvement of our essential water distribution system now and into the future.

As a publicly owned and operated utility, every dollar we receive from ratepayers is reinvested back into our system, meaning that none of the above achievements could be realized without the responsible investment of ratepayer dollars. To complement that crucial funding source, PWSA continues to maximize ratepayer savings through the successful pursuit of state and federal funding.

The following full **YEAR IN REVIEW** provides a more comprehensive overview regarding the work we've undertaken in the past year to support our ongoing transformation to a trusted community utility partner of the future.

All of us on Team PGH2O are proud to share the following 2022 accomplishments with you, our valued stakeholders and customers. We're confident of the path we're on and are committed to continuous growth and evolution so we can best serve the communities that rely on us each day for safe and reliable water services.



Sincerely,

William J. Pickering

William J. Pickering
Chief Executive Officer

KEY ACCOMPLISHMENTS

WATER RELIABILITY PLAN PROGRESS

In 2021, we announced the **Water Reliability Plan**, a series of once-in-a-generation projects that will renew key components of our water production and distribution system. To date, we've made significant progress towards our end goal of finalizing this massive, multiyear effort to add decades of useful life to our most critical water infrastructure, including the completion of the following two projects within the past year.

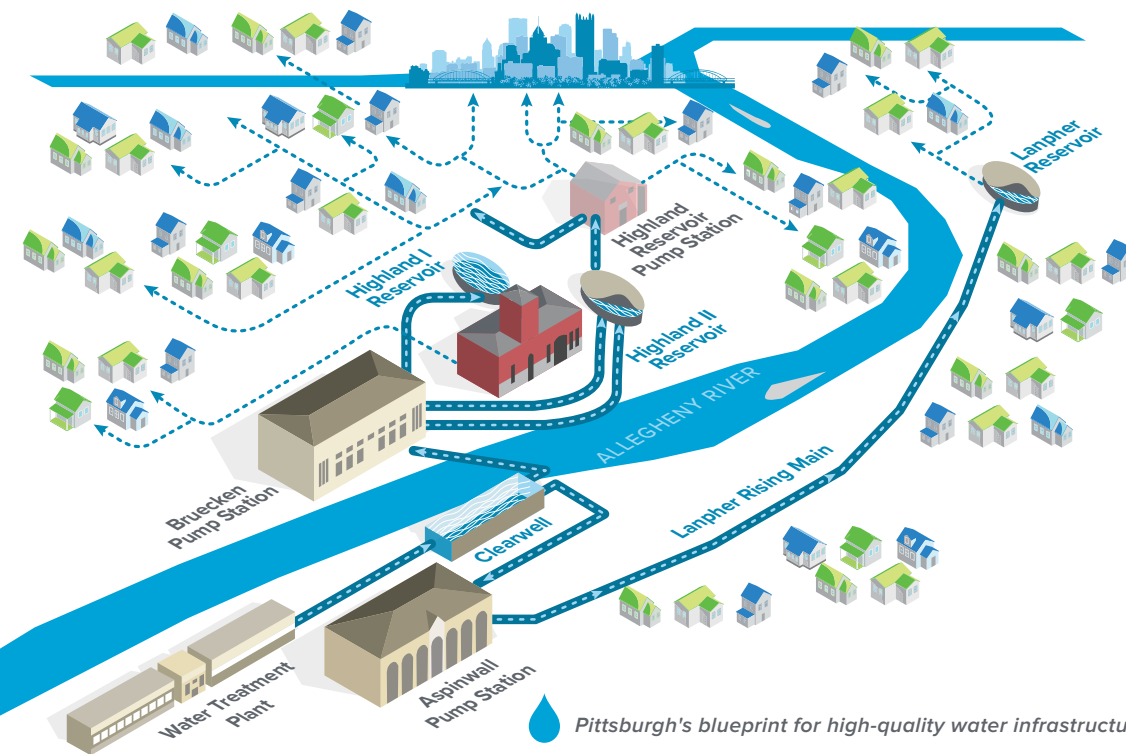
Our recently completed **Highland II Reservoir Liner and Cover Replacement** project, the largest of its kind in North America in 2022, will ensure the long-term reliability and security of this critical reservoir, which supplies water to portions of Squirrel Hill, Downtown, South Side, and West End.

As part of the project, PWSA drained the century-old reservoir, removed previous materials, and installed a new liner, floating cover, and supplemental equipment, like rainwater removal pumps. We estimate that this significant undertaking has extended the useful life of the reservoir by an additional 25 years and will act as an important redundancy as other Water Reliability Plan projects move forward.

Our **Rising Main 3 Rehabilitation** project involved the revitalization of this large-diameter pipe that moves water uphill from our Bruecken Pump Station into the Highland Park Reservoir system.

The project also includes a second phase to rehabilitate Rising Main 4, which serves a similar purpose to Rising Main 3, and is expected to be completed by the end of 2023.

In total, we will invest nearly \$470 million into our Water Reliability Plan over many years. To keep rates as low as possible, PWSA will continue to aggressively pursue grants and low-interest loans from state and federal funding partners. Last summer, PWSA was awarded \$209 million in low-interest loans from the Pennsylvania Infrastructure Investment Authority (PENNVEST) for Water Reliability Plan projects. This award will result in approximately \$156 million in ratepayer savings when compared to traditional municipal bond financing.



Pittsburgh's blueprint for high-quality water infrastructure.

PUBLIC HEALTH & ENVIRONMENTAL STEWARDSHIP

2022 was yet another banner year for PWSA when it comes to environmental stewardship and our role protecting public health.

Since 2020, lead levels have remained well below the U.S. Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Protection (DEP) lead action level of 15 parts per billion (ppb). This consistency in the quality of our drinking water has been made possible by improved water treatment methods and our commitment to remove all lead from our water distribution system by 2026.

In its sixth year of existence in 2022, our **Community Lead Response** executed a variety of targeted lead removal programs. In addition to water main replacement programs, focusing on areas with a high concentration of lead service lines, we launched the **Priority Service Lead Line Replacement Program**, a unique effort to replace lead service lines at all daycare facilities and any homes that submitted a lead test kit with elevated results. With help from a \$4.7 million PENNVEST funding package, we replaced 19 lead service lines at daycare facilities and 306 lead service lines at homes with elevated lead test kit results. Due to this hard work, we can confidently say that all daycare facilities within PWSA's service area are now free of lead service lines.

In total, we replaced 7.6 miles of lead pipe across all our lead removal program areas. As we continue this endeavor, PWSA is grateful for the continued recognition and support from local, state, and federal officials, including those representing the Biden Administration.

In June of 2022, Vice President Kamala Harris visited Pittsburgh and declared that our Community Lead Response is a model for communities nationwide to follow when it comes to the removal of dangerous lead service lines.

As stewards of an essential public resource, PWSA operates within the strict requirements of the law and with high ethical and professional standards. Our Environmental Compliance group is now made up of six professionals from a variety of backgrounds. This group is lead by **Frank Sidari**, Chief Environmental Compliance and Ethics Officer, who is responsible for the implementation of PWSA's Environmental Compliance and Ethics Program. **Kumar Navile**, Environmental Compliance Program Manager, along with the rest of the group, oversees day-to-day compliance with environmental rules, regulations, and permits associated with chemical management, waste management, storage tanks, air, stormwater, and wastewater.



KEY ACCOMPLISHMENTS

STRATEGIC STORMWATER MANAGEMENT

Our mission to protect public health and the environment also informs how we manage our region’s unique stormwater challenges. Throughout last year, we completed six stormwater projects in five Pittsburgh neighborhoods – helping to protect residents, our neighborhoods, and our rivers and streams from the impacts of too much rain.

These projects use green solutions like permeable pavers, vegetation, rocky stream beds, and underground storage to soak up, slow down, and hold back stormwater before it enters our sewer system.

- 
- 1 Maryland Avenue Stormwater Project, Shadyside**
Permeable paver parking lanes and new storm inlets now capture rainwater to be held in layers of gravel and storage pipe underground.
 - 2 Woodland Road Stormwater Project, Chatham University Shadyside Campus**
Stormwater runoff is slowed down and soaked up as it flows through landscaping, a rocky stream bed, and modular underground tanks. This project was a partnership between PWSA and Chatham University.
 - 3 Wightman Park Stormwater Project, Squirrel Hill**
Stormwater “bumpout” planters along nearby streets now carry rainwater to storage infrastructure in the recently renovated Wightman Park. This is the second phase of the Wightman Park project.
 - 4 Volunteers Field Drainage and Regrading Project, Carrick**
Field regrading, an underground field drainage system, and a new rain garden work together to decrease field flooding, improve playability, and reduce pollution into the Saw Mill Run stream. PWSA and the City of Pittsburgh entered into a cost-share agreement to construct these field and stormwater improvements.
 - 5 Lawn and Ophelia Parklet, South Oakland**
A rain garden, underground stormwater storage, landscaping, and street drainage improvements capture and store rainwater in this neighborhood green space.
 - 6 Thomas and McPherson Project, Point Breeze North**
An underground stormwater storage system constructed beneath permeable pavers, grass, and asphalt on several streets retain and direct stormwater to the sewer system.

Long-term Stormwater Strategic Planning

Released in December 2022, our **Stormwater Strategic Plan** will build upon past planning efforts by using climate data, previous regional studies, community input, and best practices by our peer utilities to provide recommendations that consider equity, the environment, priority sites, and water quality. For the sake of transparency and inclusion, the plan was made available for public review and comment through the end of June 2023. PWSA is also hosting a variety of community workshops where PWSA customers, the Pittsburgh community, and stormwater stakeholders will have an opportunity to share ideas, ask questions, and provide input into our ongoing stormwater planning and implementation.

PWSA also initiated its Wet Weather Plan – the second phase of our long-term planning, which you’ll hear more about over the next few years. One of its main goals is to improve water quality by reducing overflows into our waterways. When we’re finished, the Wet Weather Plan will provide an actionable pathway to ensure a more resilient sewer system and water quality improvements that can bring about quality of life improvements, enhanced recreational activities along local waterways, and ecological benefits for fish and wildlife.

IMPROVED CUSTOMER EXPERIENCE

In recent years, PWSA has made a concerted effort to improve the experience our customers have when paying their bills, starting or stopping service, tracking water usage, and updating contact information. Our hard work in streamlining these processes culminated in the launch of a new online Customer Advantage Portal in the summer of 2022.

Under one username and password, customers can now see their current and historical water usage and usage trends, receive alerts for higher-than-expected consumption, set communication preferences, view current and historical bills, and access online bill pay.

This customer engagement and self-service solution is part of PWSA's continued investment in technology to enhance customer service, expand self-service functionality, and streamline day-to-day operations. PWSA has made, and will continue to make, significant investments in new technology infrastructure, and this project is a key step on our journey to demonstrate investment in our customer experience.



Our new Customer Advantage Portal enhances customer engagement, provides more self-service features, and makes it easier for customers to manage their account.

OPERATIONS EFFICIENCY

PWSA's Operations team works around the clock to keep our essential water and sewer infrastructure in constant working order. Each day, they are in Pittsburgh's many neighborhoods to inspect, maintain, and repair water and sewer pipes and perform necessary, routine tasks that are essential for maintaining water quality and distributing safe drinking water to homes and businesses.

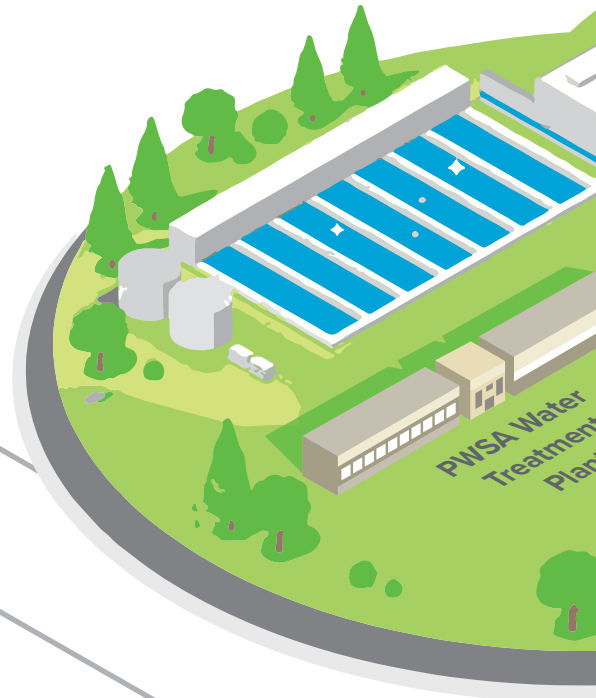
In 2022, our Operations team met its annual regulatory performance commitment to inspect and flush a third of our fire hydrants months ahead of schedule. This is important to maintain proper flow and pressure in our water distribution system while also helping to remove sediment to maintain water quality. Operations also exercised more than 5,000 valves across our service area.

In addition to scheduled maintenance, our field crews perform critical tasks such as repairing water main breaks and unclogging storm drains while those working at the Water Treatment Plant and in our accredited lab treat and monitor water as it moves through the treatment process, performing thousands of water quality tests each month.

If you see any of our crews in your neighborhood performing this essential work, please be sure to say hello or ask them more about the work they're doing. After all, we're here to serve you.



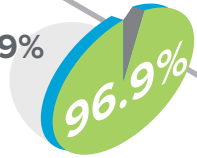
PERFORMANCE METRICS



ADMINISTRATION

CUSTOMER SERVICE

Water Meter Reading Rate **96.9%**
Responded to
15,176 Customer Calls And
8,566 Emails to our Lead Help group



163,121 Calls Handled
*an increase of 31,104 calls
compared to 2021*



HUMAN RESOURCES

86 Positions Filled

PUBLIC AFFAIRS

161 Meetings Hosted/Attended



SOCIAL MEDIA REQUEST RESPONSE

100% within 3 Business Days

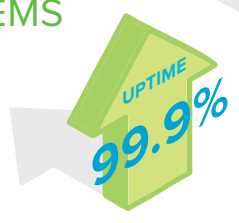
SOCIAL MEDIA & NEWSLETTER

13,918 Subscribers



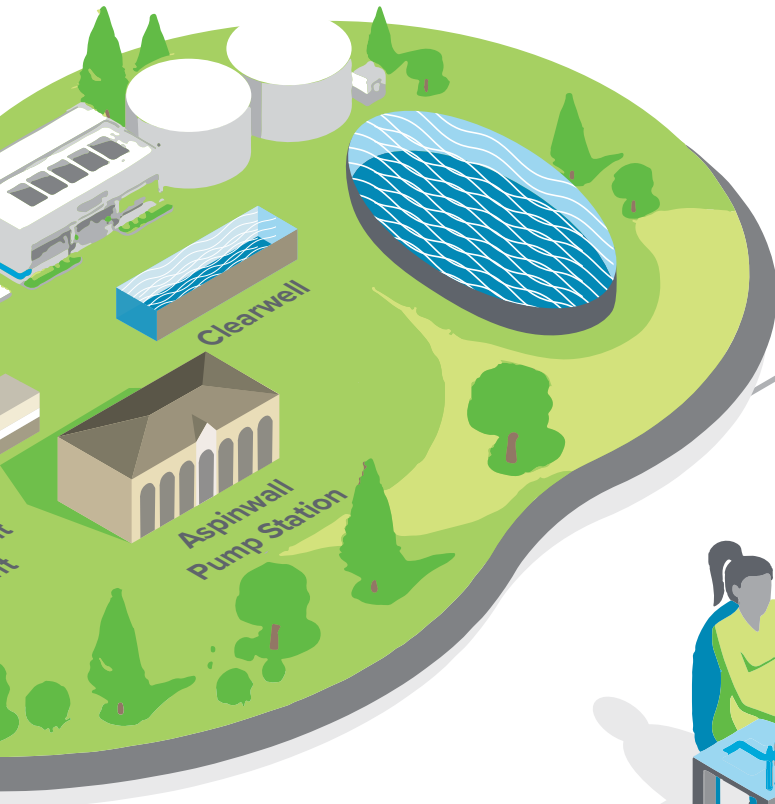
MANAGEMENT INFORMATION SYSTEMS

Average Network and System Uptime
99.9 Percent of the time



4,162 Support Requests Received





OPERATIONS

WATER

5,426 Water Meters
Repaired/Replaced



2,569 Hydrants
Flushed and Inspected

5,161 Valves Inspected



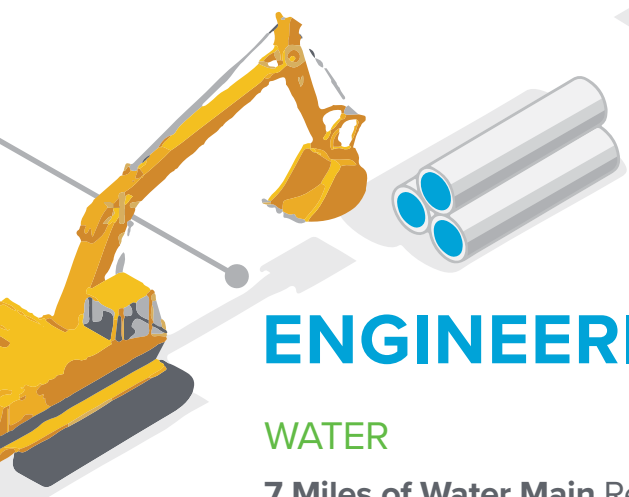
SEWER

2,233 Tons of Debris Removed
from Storm Drains

4.7 Miles of Sewer Main Inspected

WATER TREATMENT PLANT & LAB

65 Million Gallons Daily Average
of Finished Water Produced



ENGINEERING

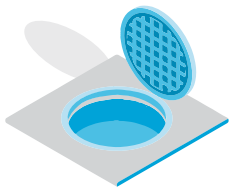
WATER

- 7 Miles of Water Main** Replaced
- 1,045 Public-Side Lead Service Lines** Replaced
- 943 Private-Side Lead Service Lines** Replaced
- 88 Hydrants** Replaced
- 478 Valves** Replaced



SEWER

- 18.6 Miles of Sewer Lined**
- 0.25 Miles of Sewer Reconstructed**
- 233 Storm Drains** Replaced



FINANCIAL HEALTH

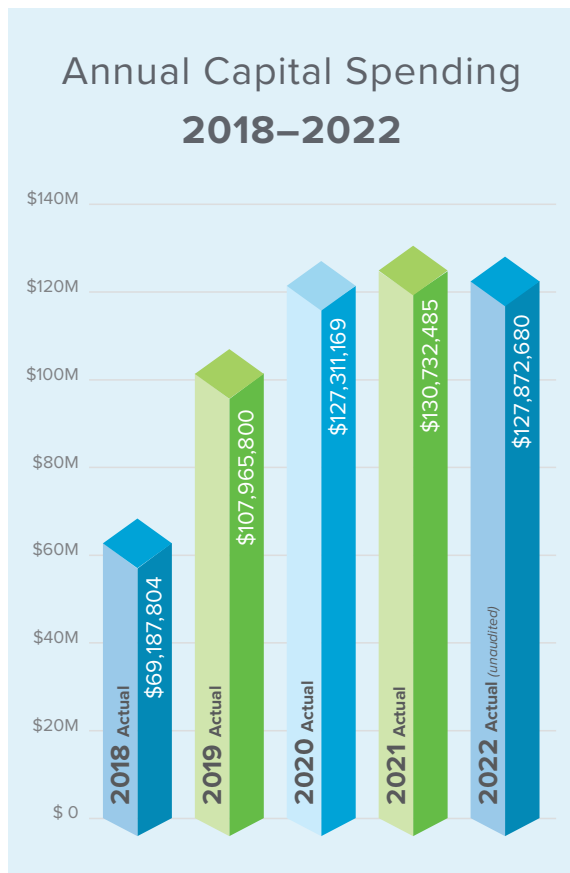
THE PITTSBURGH WATER AND SEWER AUTHORITY MAINTAINS A STRONG FINANCIAL OUTLOOK

Our cash balance continued an upward trajectory and is at its highest level in at least the last decade. Additionally, for the fourth consecutive year, capital spending has exceeded \$100,000,000. To ensure maximum financial flexibility, we continue to boost our reserve funding that in the long-term will help to reduce costs and create a more sustainable financial future for the Pittsburgh Water and Sewer Authority.

Our historic capital investment will significantly shape the water future of Pittsburgh for years to come. We are well poised to implement our ambitious 2023 – 2027 \$1.8 billion **Capital Improvement Plan**, which includes large, generational projects to rehabilitate critical components of our water pumping and distribution systems and funds our lead service line replacement, sewer rehabilitation, and stormwater improvements.

In 2022, S&P Global Rating upgraded our credit rating to A+, representing our first credit upgrade in over 10 years. We also maintained our investment-grade bond rating of A3, as ranked by Moody’s Investor Services. The investment grade rating results in lower interest rates that will, over time, save money for PWSA and its ratepayers.

PWSA continued its aggressive pursuit of state and federal funding throughout 2022, receiving \$348,403,807 from PENNVEST. Additionally, PWSA received several million dollars in grants that do not have to be repaid including \$6,486,969 from the Biden Infrastructure Bill and \$17 million from the American Rescue Plan Act granted to PWSA by the City of Pittsburgh. This funding supports our capital program and over time, is estimated to save ratepayers \$263,186,904.



CAPITAL INVESTMENT

MODERNIZATION PROGRAMS

PWSA continues to responsibly invest large sums of funding into critical water, sewer, and stormwater infrastructure improvements. Our ambitious \$1.8 billion capital program will, over the next several years, construct several projects that will modernize our water system, add needed redundancy, and meet our mission of protecting public health and the environment. Projects benefiting from this investment also include water main and lead service line replacements, sewer rehabilitation and reconstruction, storm drain replacement, and stormwater management projects.

Our strategy for capital investment is detailed in our **2023 – 2027 Capital Improvement Plan (CIP)**, which was approved on October 28, 2022.

Notable projects from the past year include:

The **Fuchsia Way Sewer Reconstruction** project started in 2022 and will continue throughout 2023. This project provides a community-focused solution to improve the reliability of water and wastewater services for residents along Race and Monticello streets in Homewood.

The **Priority Lead Service Line Replacement Project**, funded by a \$4.7 million funding package from PENNVEST, targeted lead service line removal at daycare facilities within our water service area as well as locations with elevated lead test results. This project verified the material makeup of service lines at all 180 daycares within our water service area, replaced 19 lead lines, and completed 306 replacements at residential properties with elevated water samples.

M-29 Outfall Improvement was focused between Second Avenue and the Monongahela River at Hazelwood Green. Project improvements will extend the useful life of the century-old outfall, reduce river flow entering the combined sewer system, and begin to mitigate backups into the lower Four Mile Run neighborhoods.



ONGOING IMPROVEMENTS

CUSTOMER ASSISTANCE PROGRAMS

In 2022, we continued to expand awareness of and increase enrollment in our slate of **Customer Assistance Programs**. These essential programs provide financial relief to income-qualified residential customers who are having difficulty paying water, sewer, or stormwater bills.

To support this critical effort, we further expanded our **PGH2O Cares team** – the group of education and outreach professionals responsible for working directly with our most vulnerable customers to bolster enrollment – by welcoming three new members to the team. Together they took to the community, participating in more than 80 in-person and virtual community events in 2022 to increase enrollment in these programs. The team also placed more than 6,000 outbound calls to promote our Customer Assistance Programs, an increase of more than 4,000 calls when compared to 2021.

As a result of their efforts, we increased enrollment in our Bill Discount Program to more than 6,000 households. This increase of about 1,000 households reflects the important nature of outreach and community engagement in increasing enrollment.

At PWSA, we believe that no one should have to choose between paying their water bill and other essential expenses. There are still many more people in our community who can benefit from these programs, and our PGH2O Cares team will continue their important work to reach qualifying customers. If you believe you could benefit from our Customer Assistance Programs, or know someone who could, please contact our PGH2O Cares team at 412-255-2457 or cares@pgh2o.com.

SUPPLIER DIVERSITY

Our Supplier Diversity Program encourages minority, women, veteran, and service-disabled veteran (MWDBE) businesses to participate in contracting opportunities.

To build awareness about these opportunities and facilitate relationships between MWDBE businesses, large contracting entities, and PWSA, we hosted an inaugural Prime Networking event to bring these groups together. Approximately 50 businesses participated and enjoyed an evening networking with PWSA staff and local contractors currently engaged with PWSA.

In 2022, we conducted business with 68 MWDBE businesses, which resulted in 21% or \$58,452,377 of our Board-approved contracts being paid to MWDBE businesses. Specifically, 43.1% of this total was awarded to veteran business enterprises, 31.7% to women business enterprises, 22.7% to minority business enterprises, and 2.5% to small business enterprises.

By providing contracting opportunities for a diversity of businesses, we can help to bolster the economic vitality of our local business community and the Pittsburgh region.



PWSA's PGH2O Cares team

BUILDING AWARENESS AND KEEPING CUSTOMERS INFORMED

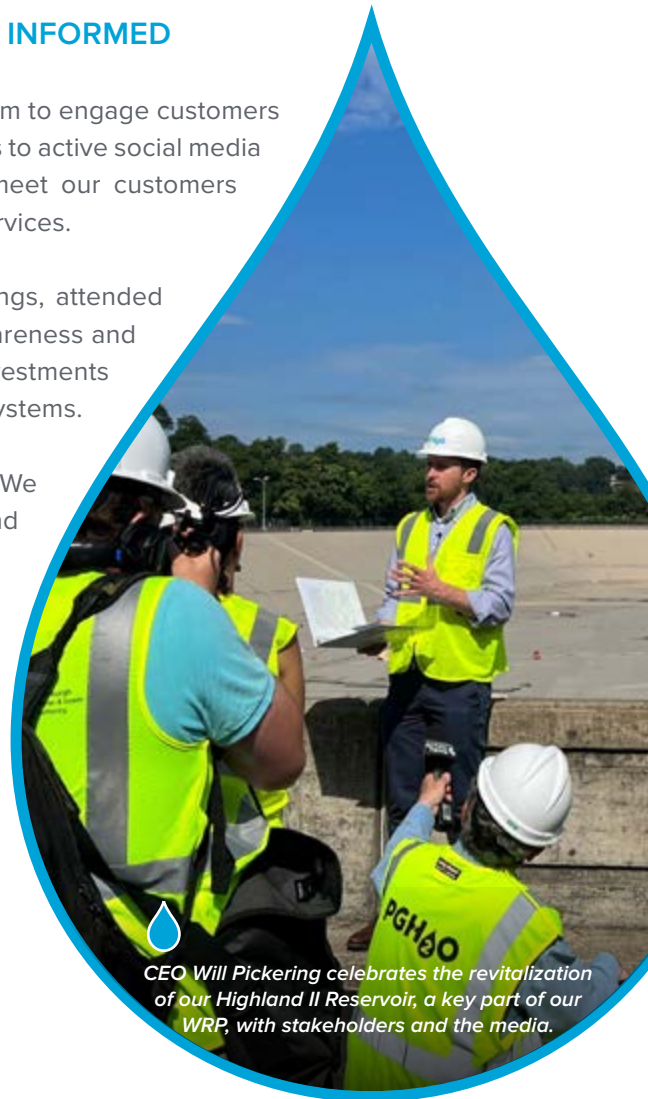
PWSA prides itself on having a proactive communications program to engage customers and community stakeholders in all we do. From community events to active social media channels to media engagement, we're working non-stop to meet our customers where they are and build awareness about our programs and services.

Throughout 2022, PWSA team members hosted project meetings, attended community events, and partnered with stakeholders to build awareness and educate customers about essential water services and the investments we're making to modernize our water, sewer, and stormwater systems.

Our media partners were also instrumental in telling our story. We hosted several media events to highlight project milestones and key accomplishments so local news outlets could learn more about our work and expand our reach to a broader audience. These events generated positive news coverage throughout our local market and led to more awareness about the investment we're making to improve water service for current and future generations of customers.

WORKFORCE DEVELOPMENT

PWSA is committed to a culture of diversity, equity, and inclusion (DEI) in order to build and maintain a diverse workforce and talent pipeline. In support of that goal, we announced our **Explore & Tour a Career in Water** program. Through this effort, PWSA partners with local



CEO Will Pickering celebrates the revitalization of our Highland II Reservoir, a key part of our WRP, with stakeholders and the media.



schools, like Propel Charter Schools, to increase comprehension of the water cycle and inspire young people to envision career prospects in the water sector.

As an agency that serves Pittsburgh, we're striving to create a workforce that represents the diversity of our communities and provides gainful employment opportunities to its residents. In 2022, we formed partnerships with local organizations like the Homewood YMCA, Manchester Bidwell, and Landforce PGH to create meaningful workforce development opportunities for the individuals they serve.

AWARDS AND RECOGNITIONS

THE PITTSBURGH WATER AND SEWER AUTHORITY WAS THE RECIPIENT OF SEVERAL AWARDS AND RECOGNITIONS IN 2022

U.S. Environmental Protection Agency
2022 AQUARIUS Recognition Program,
Excellence in Public Health Protection,
Lead Service Line Replacement Program

**Engineers' Society of
Western Pennsylvania (ESWP)**
2022 Water and Wastewater
Project of the Year:
M-29 Outfall Improvements project

Trenchless Technology
2022 Rehab Project of the Year,
Honorable Mention:
M-29 Outfall Improvements project

Water Environment Federation
Utility of the Future Today

**American Society of Civil Engineers
Pittsburgh Section (ASCE)**

2022 Government Civil Engineer of the Year:
*Director of Engineering and Construction,
Barry King*

**2022 Young Government
Civil Engineer of the Year:**
Engineering Project Manager, Ana Bennett

2022 Service to the People Award:
*Chief of Operations and Technical
Support, Rick Obermeier (Retired)*

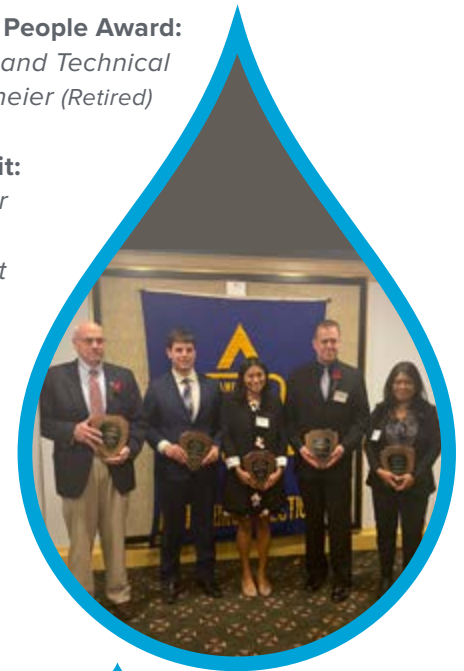
2022 Award of Merit:
*Highland II Reservoir
Liner and Cover
Replacement project*

2022 PWSA BOARD

Alex Sciulli, Chair
Erika Strassburger, Vice Chair
BJ Leber, Secretary & Treasurer
Michael Domach, Assistant Secretary & Treasurer
Audrey Murrell, Board Member
Rosamaria Cristello, Board Member
Mark Anthony Thomas, Board Member
Margaret (Peg) McCormick Barron, Board Member

EXECUTIVE LEADERSHIP

Will Pickering, Chief Executive Officer
Jennifer Presutti, Chief Operating Officer & Chief Financial Officer
Frank Sidari, Chief Environmental Compliance & Ethics Officer
Logan Carmichael, Chief People & Culture Officer
Lee Haller, Chief Information & Performance Officer
Monica Walaan, Chief Legal Officer



The winners of our slate of ASCE Awards are all smiles protecting public health and water quality in the region. Congratulations!





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