

# AN EQUITABLE WATER FUTURE

## Pittsburgh





# ABOUT THE WATER EQUITY TASKFORCE

Water shapes economic growth, the environment, and the social fabric of communities. Ensuring that all people have access to safe, reliable, and affordable water and wastewater services is the cornerstone of a sustainable and prosperous nation. All have a role to play in forging progress.

The Water Equity Taskforce is a network of cities that work together to develop more equitable water policies and practices. Convened by the US Water Alliance—and composed of cross-sector teams in the cities of Atlanta, Buffalo, Camden, Cleveland, Louisville, Milwaukee, and Pittsburgh—this initiative is advancing the understanding of the challenges, opportunities, and promising interventions to promote equitable water management.

This roadmap was developed by the Pittsburgh Water Equity Learning Team to build a shared understanding of the challenges, opportunities, and priorities for action to secure an equitable water future for all Pittsburgh residents.

## Pittsburgh Water Equity Learning Team



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# PREFACE:

## PITTSBURGH WATER EQUITY LEARNING TEAM

Pittsburgh is a city forged by water. Located where the Allegheny and Monongahela Rivers form the Ohio River, the city is rich in water resources but complex and interlocking water inequities abound.

The city's hilly topography, increasing average annual rainfall, and severe weather events make stormwater management a pervasive challenge, and flash floods and landslides are a public safety concern. Record rainfalls cause thousands of basement sewage backups and lead to combined sewer overflows that affect rivers and residents alike. Increasing water rates to fund necessary infrastructure repairs and improvements makes water more unaffordable for some. While the water sector provides good-paying jobs, they are not equally available to everyone. The water-related challenges listed disproportionately affect low-income people and communities of color and have become worse with the economic and health ramifications of the COVID-19 pandemic, which have hit communities of color at much higher rates than white communities.

Now is the time to strive for equity in every sector, including water. Pittsburgh needs to build a future where *all residents* access safe, clean, affordable drinking and wastewater services and are resilient to floods and other water-related climate risks. In this future, residents would have a role in the water management decision-making process for their communities and share in the economic, social, and environmental benefits of water systems.

The Pittsburgh Water Equity Learning Team met regularly for two years to discuss and research challenges. As water equity became a concern across the nation, groups in Atlanta, Buffalo, Camden, Cleveland, Louisville, and Milwaukee also formed learning teams to address equity in their communities. Through peer sharing, the Pittsburgh team saw how other cities address topics like trust in drinking water, affordability, and workforce inclusion and learned that Pittsburgh shares many issues the other cities face.

Designed alongside Pittsburgh Water and Sewer Authority (PWSA), this roadmap builds from the sister cities' experiences, advice, and successes but accounts for the unique context in Pittsburgh. It focuses on inequities in Pittsburgh and among PWSA customers to spark a broader conversation about equitable water management in Southwestern Pennsylvania. This regional focus acknowledges that many of the water equity challenges are regional, and some residents are customers of another drinking water utility.

The Pittsburgh team made progress through collaboration and working together. Such progress includes changes to the PWSA budget and protocols that will make hiring and contracting practices more inclusive of Pittsburgh's Black and Brown residents who have historically been excluded. Publishing the Pittsburgh Water Equity Roadmap is not the end but the beginning of the next chapter.

# INTRODUCTION

Pittsburgh is a city of abundance but also stark disparities and inequities. It has more than 90 geographically divided and sometimes isolated neighborhoods, and there is inequitable access to the opportunities and resources that make the city a great place. Some reap the benefits of investment, while others suffer from systemic disinvestment. Income and life expectancy vary dramatically across neighborhoods, a legacy of redlining and zoning separates people of color from economic centers, and public transportation does not service every neighborhood equitably.

Prior to the COVID-19 pandemic, Pittsburgh's Black unemployment rate was more than triple the white unemployment rate. Now, mid-pandemic and across almost all occupations, people of color in Pittsburgh face wage disparities and greater economic risk from business closures and the inability to work remotely.<sup>1</sup> While Black people make up just 16 percent of the regional population, they account for 26 percent of COVID-19 cases.<sup>2</sup> Finally, water infrastructure—a cornerstone of public health at all times, especially now—serves and affects neighborhoods and residents differently.

Pittsburgh leaders have acknowledged the disparities and sought new policies and ideas to address rampant inequality. One such effort is the All-In Cities initiative, spearheaded by PolicyLink in partnership with Neighborhood Allies, Urban Innovation 21, UrbanKind Institute, and the City. Their 2016 report *Equitable Development: The Path to an All-In Pittsburgh* articulated a powerful agenda that public, nonprofit, and private sector stakeholders could undertake to ensure that all residents can:

- Live in healthy, safe, opportunity-rich neighborhoods that reflect their culture (and not displaced from them).
- Connect to economic and ownership opportunities.
- Have a voice and influence the decisions that shape their neighborhoods.<sup>3</sup>

The Pittsburgh Water and Sewer Authority (PWSA) has had its own challenges over the past several years, including water quality, trust with customers, and several leadership changes. PWSA has undergone a culture change in the last few years, committing to excellent service and being a strong community partner. In late 2018, PWSA articulated its values and a new vision for the future in a report, *Pittsburgh's Water Future 2030 and Beyond*.<sup>4</sup> The values include a commitment to equity, along with modern infrastructure, improved reliability, and environmentally friendly water management.

A Pittsburgh Water Equity Learning Team formed in 2019, building off foundational documents and ideas and with support from the US Water Alliance. The team joined as the seventh city in the Water Equity Taskforce—a two-year initiative to increase understanding and advance promising interventions to promote equitable outcomes through water management. The team includes Pittsburgh Water and Sewer Authority, UrbanKind Institute, Neighborhood Allies, Our Water Campaign convened by Pittsburgh United, Common Unity PGH, PolicyLink, University of Pittsburgh’s Center for Health Equity, and Pittsburgh residents passionate about access to clean, affordable water.

The team investigated how Pittsburgh can address systemic disparities and ensure all residents benefit from a sustainable, inclusive, and just water future. This roadmap reviews five priority areas to advance water equity in Pittsburgh. The sections in this report describe the key issues of concern and offer recommendations to forge progress:

- **Water Quality and Environmental Health** offers recommendations that address real and perceived water quality threats to rebuild trust in Pittsburgh’s water systems.
- **Sustainable Stormwater Management** addresses climate change and flooding by proposing opportunities to invest in stormwater projects—including green infrastructure—that deliver multiple benefits for communities and improve public health and safety across the city.
- **Affordability** considers how to bolster customer assistance programs and other measures to protect households from financial harm as utilities invest in water infrastructure across Pittsburgh.
- **Workforce Development** offers recommendations for building a water workforce representative of the city of Pittsburgh that engages communities with high un- and under-employment or that have been excluded from workforce opportunities in the past.
- **Water Democracy** offers recommendations for supporting Pittsburghers’ voice and shared power over water decision-making. Reaching equitable water outcomes requires transparency and public accountability, which is only possible if water resources and infrastructure are kept in the public domain.

# **PRIORITY:**

## WATER QUALITY AND ENVIRONMENTAL HEALTH

Safe treatment and delivery of water, in all forms, is a core public health issue. Too often, the complex systems that bring water to homes, schools, businesses—and then treat it and safely return it to the environment—are taken for granted. Any break in this cycle can lead to serious public health ramifications. Like many older urban areas, Pittsburgh has aging water and wastewater systems in need of modernization. PWSA is still working to replace all lead services lines, which are a major concern for residents. Additionally, separation and reconstruction of the countywide combined sewer and stormwater system will cost billions of dollars.

While PWSA-treated drinking water meets EPA standards and complies with proposed revisions to the Lead and Copper Rule, issues with lead pipes and fixtures, primarily on private property, caused drinking water to exceed lead levels in the past.<sup>5</sup> The Pittsburgh Public School District released water quality testing data from 2019, showing 18 schools with fixtures where samples tested above the EPA lead level limit, which they now plan to remove or replace.<sup>6</sup>

To prevent future lead contamination, PWSA is removing thousands of lead service lines across its service area and uses orthophosphate to reduce corrosion. PWSA also offers free private lead service line replacements to low-income residential customers and aims to remove all lead lines in its service area before 2026. Prior to the COVID-19 pandemic, which forced students into remote learning, PWSA partnered with the Pittsburgh Public School District to provide reusable water bottles to students. PWSA also established a Community Lead Response Advisory Group to provide valuable feedback on how to best serve customers while removing lead service lines from the water distribution system.

Despite robust measures to protect water quality, many PWSA customers distrust their drinking water. Distrust of tap water is especially prevalent among customers with low incomes and people of color.<sup>7</sup> Lack of trust is a water equity issue that exacerbates income inequality when these individuals and households spend significantly more on bottled water than white or more affluent water customers. This lack of trust also makes effective communication and partnership difficult.<sup>8</sup> Until the investments are made and systems rebuilt, lead pipes and frequent sewage backups into basements during rain events will continue to contribute to a lack of trust.



## Recommendations

### **Replace All Lead Lines by 2026 and Implement the Community Lead Response Advisory Committee Recommendations**

PWSA will meet the goal of replacing all publicly owned lead lines in PWSA's service territory and offer programs to reimburse customers who choose to replace their privately owned lines. Continuing its lead line replacement program across the city, PWSA follows a replacement prioritization plan suggested by the Community Lead Response Advisory Committee. The plan ranks at-risk populations as a priority for lead service line replacement.

### **Develop a Lead Replacement Strategy for the Region**

The state should encourage other municipalities in the region to map their lead lines proactively and prioritize replacement as PWSA is doing. This may require more state financial support, similar to the low-interest loans and limited grants PWSA received from PENNVEST.

### **Undertake Sustained Efforts to Rebuild Trust in Water Systems**

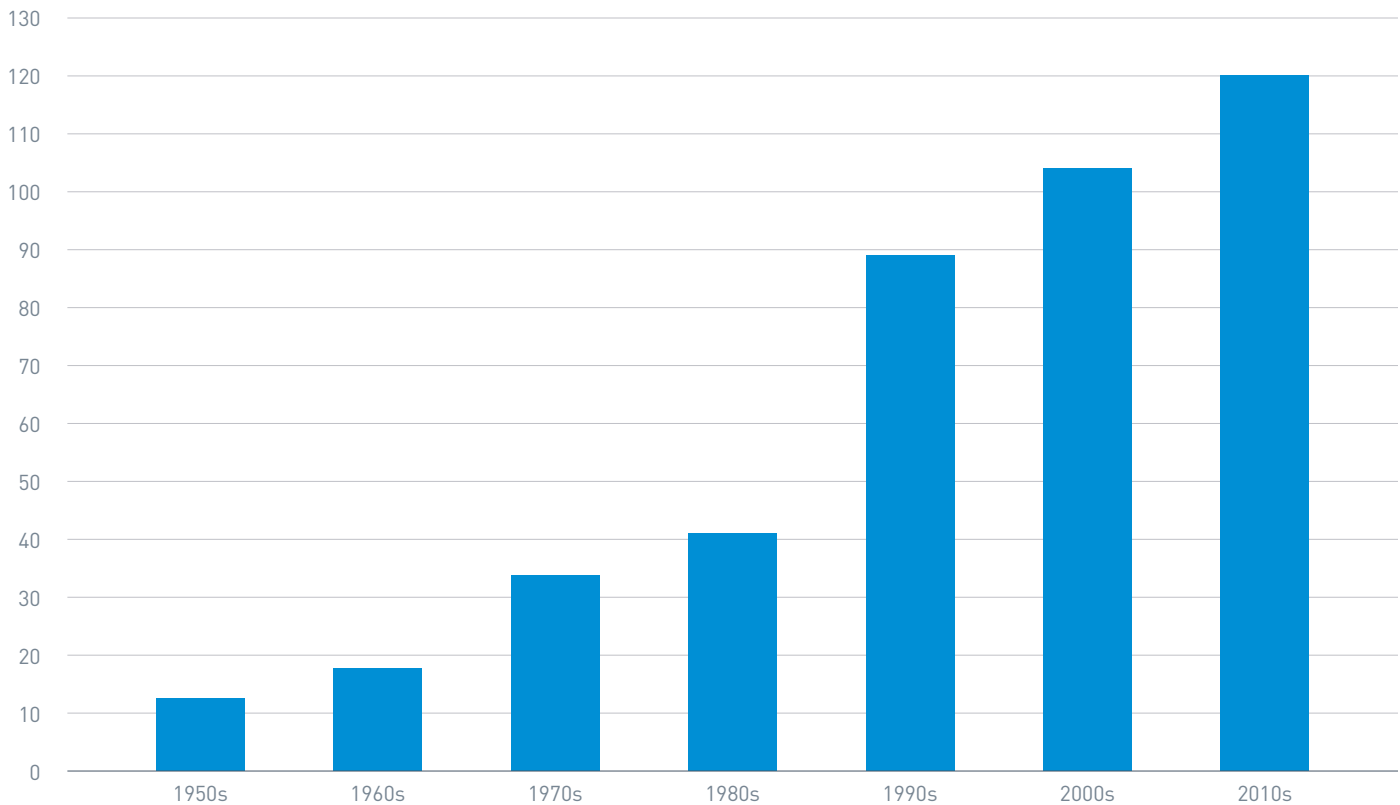
PWSA commits to surveying community members to understand their water concerns first, including sewage backups, trust in drinking water, lead concerns, and other issues responsible for eroding trust between community members and PWSA. Rebuilding trust is possible through education and restorative justice—stakeholders must come together, identify the harm and repercussions, and take steps to repair trust.<sup>9</sup> PWSA will establish more proactive outreach in communities where trust has eroded, including being present at established community meetings, using a multipronged approach to reach residents while social distancing is in effect, and planning for future educational events and reusable water bottle distribution.

# PRIORITY: SUSTAINABLE STORMWATER MANAGEMENT

Record rainfall is significantly affecting water quality and stormwater management infrastructure in Pittsburgh. Climate change is affecting the Northeast United States and specifically Pittsburgh through a few varying factors, including increased rainfall.<sup>10</sup> A century ago, the combined sanitary and stormwater system was considered cutting-edge engineering, but now—because of increased development, less green space, and hilly terrain—rain events that produce as little as a quarter of an inch in an hour overrun the system. Today, Pittsburgh sees a dramatically larger number of significant storms dumping more than an inch of rainfall in an hour.

The result is more frequent flash floods, sewer overflows, and sewage backups. In 2017, for example, 65 rain events produced overflows of raw sewage into Pittsburgh's rivers.<sup>11</sup> These events send raw sewage and untreated stormwater downstream into the Ohio River and eventually the Mississippi River. Ideally, that water should flow to the Allegheny County Sanitary Authority (ALCOSAN) plant for treatment.

**Severe storm events by number of days per decade, Allegheny County, PA, 1950s–2010s**



**Source:** [ncdc.noaa.gov/stormevent](https://ncdc.noaa.gov/stormevent) (for Allegheny County, PA). **Note:** Severe storm event defined as events with thunderstorm, wind, hail, or tornado.

The resulting problems are particularly evident in overburdened and under-resourced neighborhoods. PWSA estimates that thousands of homes suffer from sewage backups into their basements each year. Backups occur when a sewer system overflows with rainwater and sewage, filling basements with noxious, unsafe, and unhealthy contaminants. They are associated with poor in-home air quality and increased respiratory conditions like asthma.<sup>12</sup> Basement backups may be a driving factor in air quality and asthma rate disparities between affluent and low-income neighborhoods in Pittsburgh.<sup>13</sup>

Both PWSA and ALCOSAN, the regional wastewater utility, play a role in addressing stormwater management problems in Pittsburgh. In 2018, ALCOSAN entered a consent decree with the US Environmental Protection Agency to reduce combined sewer overflow in the rivers. ALCOSAN intends to move forward with a deep tunnel project to achieve that goal, but adaptive management approaches, including green infrastructure, are allowed within the parameters set in the consent decree.

PWSA's goal to use, improve, and invest in stormwater infrastructure will also reduce flooding and basement sewage backups. PWSA joined the City to develop a Citywide Green First Plan to address stormwater issues.<sup>14</sup> Primarily, the plan provided a coordinated watershed-level approach to tackle stormwater projects to address combined sewer overflows. Through several demonstration projects, PWSA used a mix of green infrastructure techniques, rain gardens, bioswales, retention ponds, traditional gray infrastructure, such as underground storage, to reduce the flow of water into sewers during rain events. In 2020, PWSA released a request for proposal to develop a stormwater master plan, and it will select a project team in 2021.<sup>15</sup> PWSA will continue assessing its Green First Plan and other stormwater initiatives, considering ALCOSAN's final consent decree and changing weather patterns. It plans to continue to advance projects to reduce flooding and basement sewage backups and help the City comply with combined sewer overflow regulatory requirements.

Solving the flooding, sewer overflow, and sewage backup issues is an opportunity to address disparities in air quality and green space access, which can be created in disinvested neighborhoods to help capture stormwater before it enters the sewer system. Cost-effective green infrastructure projects in disinvested and environmental justice communities would provide environmental benefits, including more green space, reduced urban temperatures, and cleaner air. Ongoing maintenance of green infrastructure projects can also create accessible jobs in neighborhoods of opportunity.

This more holistic approach to Pittsburgh's stormwater management can occur if PWSA, ALCOSAN, and the City coordinate and use the capital necessary for the massive infrastructure investments to water supply, stormwater management, and sewer systems and apply the principles of Equitable Development put forward by PolicyLink and All-in Cities that the City already adopted. As ALCOSAN and PWSA embark on water infrastructure and stormwater mitigation plans and significant capital investments that could total \$3–4 billion over the next two decades, rising rates and customer affordability will become an even more pressing concern for customers with a lower income. Coordinating ALCOSAN and PWSA efforts and other public investments from the city and county governments may lead to efficiencies that reduce overall costs and improve outcomes for residents. They can also address the equity and environmental concerns related to stormwater management in Pittsburgh.

## Recommendations

### Prioritize Equity in Infrastructure Investments

All investments and infrastructure upgrades must be equitable, so the affluent neighborhoods are not the only ones to find solutions to their challenges. PWSA will involve communities from the earliest stages of planning and developing stormwater projects, and other agencies should too. A collaborative approach that incorporates feedback from a variety of stakeholders is critical to producing equitable outcomes. Codes and ordinances can also foster equity in infrastructure investments. PWSA and the City are currently reviewing and modifying building codes and ordinances to address stormwater issues better. The City and PWSA will use a combination of regulations, fees, and incentives to reduce impervious surfaces and encourage construction designed to mitigate stormwater issues and change how customers are billed for stormwater.

### Coordinate Stormwater Investments to Maximize Community Benefit

Though ALCOSAN and PWSA chose different gray and green approaches to address stormwater issues, the plans must align and coordinate to achieve the best stormwater mitigation results and ease the burden on ratepayers who face steep rate increases from both utilities. Therefore, ALCOSAN should continue to financially support PWSA green infrastructure and other stormwater projects to show the effect of green stormwater infrastructure and allow the region to take advantage of the adaptive management in the regional consent decree.

### Base Stormwater on Parcels, Not Usage

The Pittsburgh Water Equity Learning Team recommends that the Pennsylvania Public Utility Commission (PUC) adopts PWSA's request to change how stormwater is billed to city parcels from the current model based on water usage measured by a meter to a new model based on the impervious surface area per parcel. This approach will more equitably distribute rates so that the billing is more accurate and adequate for the service fee. This fee should provide property owners with an incentive to invest in managing their own stormwater on-site while generating revenue for PWSA's critical stormwater projects. It should also extend credit or customer assistance programs for residential or non-residential customers potentially burdened by this fee structure, such as schools and places of worship.

### Prevent Sewer Overflows and Sewage Backups that Threaten Public Health

Addressing sewage backups into basements is critical to protecting public health. Public leaders and officials from the region need to collaborate and identify cross-jurisdiction and cross-sector ways to address the issue. Because the county has jurisdiction over indoor air quality and premise plumbing, county agencies should explore how to use funds from the Safe and Healthy Homes program to address hazards and causes of sewage backups in residences. County agencies can also consider partnerships with PWSA and others to reduce related risks.

### Advance Equity through City Code Updates

PWSA and the City are collaborating on updates to the Stormwater Chapter of the Pittsburgh City Code. PWSA commits to advancing equity through these code updates to ensure that the burden of addressing the consequences of climate change in the region is fairly and justly allocated.

# PRIORITY: AFFORDABILITY

Pittsburgh faces a growing water affordability challenge. The current median residential household uses about 3,000 gallons of water per month. The bill for those services, including ALCOSAN and PWSA charges, averages \$1,222 annually. Those using more than 5,000 gallons per month may pay over \$3,000 per year. In 2019, prior to the pandemic, PWSA commissioned a Household Affordability Analysis to understand how future costs might affect customers of different financial means. PWSA vetted the findings with members of the Low-Income Assistance Advisory Committee (LIAAC). The analysis found: “Pittsburgh is a diverse city with a wide range of incomes and poverty levels. The service area median household income is \$45,778, and the twentieth percentile income (lowest quintile income) is \$18,240. Approximately 34 percent of the population is estimated to live at or below 150 percent of the federal poverty level.”<sup>16</sup> The current average bill is a considerable expense for this quintile.

Affordability pressures will continue to rise as PWSA further increases rates to meet current and future needs. PWSA, like many water utilities, historically kept its water and wastewater rates artificially low, and it meant that the utility delayed necessary maintenance and repairs in years that the rates did not increase. PWSA is catching up on important capital expenditures, including lead line replacements. PWSA projects at least \$1.25 billion in capital investments over the next five years and will need more funding for stormwater management projects. PWSA raised rates and will continue to pursue rate increases to fund critical investments.<sup>17</sup> ALCOSAN also raised rates to fund two billion to three billion dollars in projects needed to comply with an EPA consent decree.<sup>18</sup>

PWSA recognizes the growing affordability crisis for lower-income people and can build on existing assistance programs and relief efforts. PWSA offers income-based payment arrangements through the Bill Discount Program and the Hardship Grant Program. On September 30, 2020, PWSA submitted a settlement to the PUC that updated proposed rates for 2021 and offered new customer

benefits. Now that it is approved, PWSA’s existing Bill Discount Program covers 100 percent of fixed monthly charges for eligible customers instead of 75 percent.

Prior to the pandemic, PWSA disconnected water service for unpaid accounts only as a last resort. To help prevent the spread of COVID-19, PWSA implemented a moratorium on service disconnection before the Pennsylvania Public Utility Commission (PUC) mandated one. PWSA also responded by restoring service to those disconnected. The September 2020 settlement with the PUC also changed the threshold for the Winter Shutoff Moratorium to 300 percent of the Federal Poverty Level (FPL) instead of 250 percent.

Both PWSA and ALCOSAN use the Dollar Energy Fund to administer their financial assistance programs. The enrollment rate of qualified customers who take advantage of the PWSA customer assistance programs, however, is lower than what PWSA’s affordability analysis predicted.

There needs to be a more comprehensive approach to affordability. For example, through the LIAAC, PWSA explores ways to increase engagement and expand current program offerings. The Household Affordability Analysis helped identify neighborhoods and clusters with a high number of customers who could qualify for the customer assistance programs. PWSA used this analysis to develop a targeted outreach strategy. That outreach strategy made progress but not enough, since so many customers who could take advantage of affordability programs based on their income are also renters. In many cases, bills are in property owners’ names and likely cover increasing utility costs by rent increases. Eligible tenants may have no clear opportunity to receive income qualifying assistance. Unless the owner and tenant agree to complete a form and file it with PWSA to send a copy of the bill, the utility has no direct communication with the tenant. The first indication to a renter that a property owner ceased to pay the PWSA bill may be a 30-day termination notice placed on the property.

A comprehensive approach to affordability would also improve customer service, which PWSA is working on with advocacy groups and stakeholders. PWSA is launching the PGH20 Cares Team to work with the community to promote good water conservation practices and help eligible customers enroll in available assistance programs.

With the COVID-19 pandemic heightening the need for new approaches to disconnections, bill assistance, and affordability, this challenge cannot be solved at the local level alone. There is a need for regional, state, and federal actions to address the fundamental structures driving affordability pressures. Affordability will remain a pipe dream if funding for massive but necessary infrastructure upgrades continues to come from a limited, localized population.

## Recommendations

### Codify the Winter Moratorium on Shutoffs

PWSA previously enacted a moratorium on shutting off customers' water during winter months, and in 2020, it extended that to all customers during the COVID-19 pandemic. PWSA will make the moratorium on shutoffs for low-income customers during winter months a permanent policy.

### Strengthen Bill Assistance for Customers

PWSA offers a customer assistance program but acknowledges that many eligible customers do not use it. While the water bill is typically in the name of the building owner, PWSA will increase engagement with renters who may miss out on the assistance they qualify to have. PWSA and local community groups can work together to increase account transparency among renters and renters' enrollment in assistance programs. PWSA will seek to establish a permanent funding source for customer assistance programs to have sufficient funds as enrollment increases.

### Target Conservation Efforts

Assistance programs may also include conservation measures that can lower individual household bills by reducing usage. In the introduction of the Household Affordability Analysis, Raftelis reiterates this strategy by stating that "utilities can provide non-monetary assistance to customers by providing conservation

assistance, leak detection and repair or water-wise education. These initiatives would be implemented to assist customers in lowering their monthly consumption and thus making their monthly bill more affordable."<sup>19</sup>

Focusing on the most vulnerable of PWSA customers, PWSA will work to identify where leak repair and conservation promotion would help the customer and PWSA. These two enterprises would reduce the water and/or wastewater charges that burden the customer and reduce non-revenue water for PWSA. Customers should be able to enroll in PWSA's free Customer Usage Portal automatically so they could take a proactive water use approach in their futures.

### Promote Equitable Utility Consolidation

Small municipalities in the Pittsburgh region also face deferred maintenance challenges and may find that consolidating water or wastewater services with PWSA would reduce these burdens and gain economies of scale. Consolidation with PWSA could allow small municipalities access to PWSA's operational ability and specialized staff. This would also help by spreading the cost of critical improvements over a larger customer base, tempering future rate increases. Any discussion of regional consolidation must be transparent and inclusive.

### Advocate for State and Federal Funding

The state and federal governments need to be stronger partners in water equity. Nationwide, the federal contribution to water infrastructure projects is merely four percent, leaving ratepayers and local municipalities to shoulder enormous costs. State funding for affordability programs is critical. Government partners at every level should contribute to the capital investments that are driving up rates.

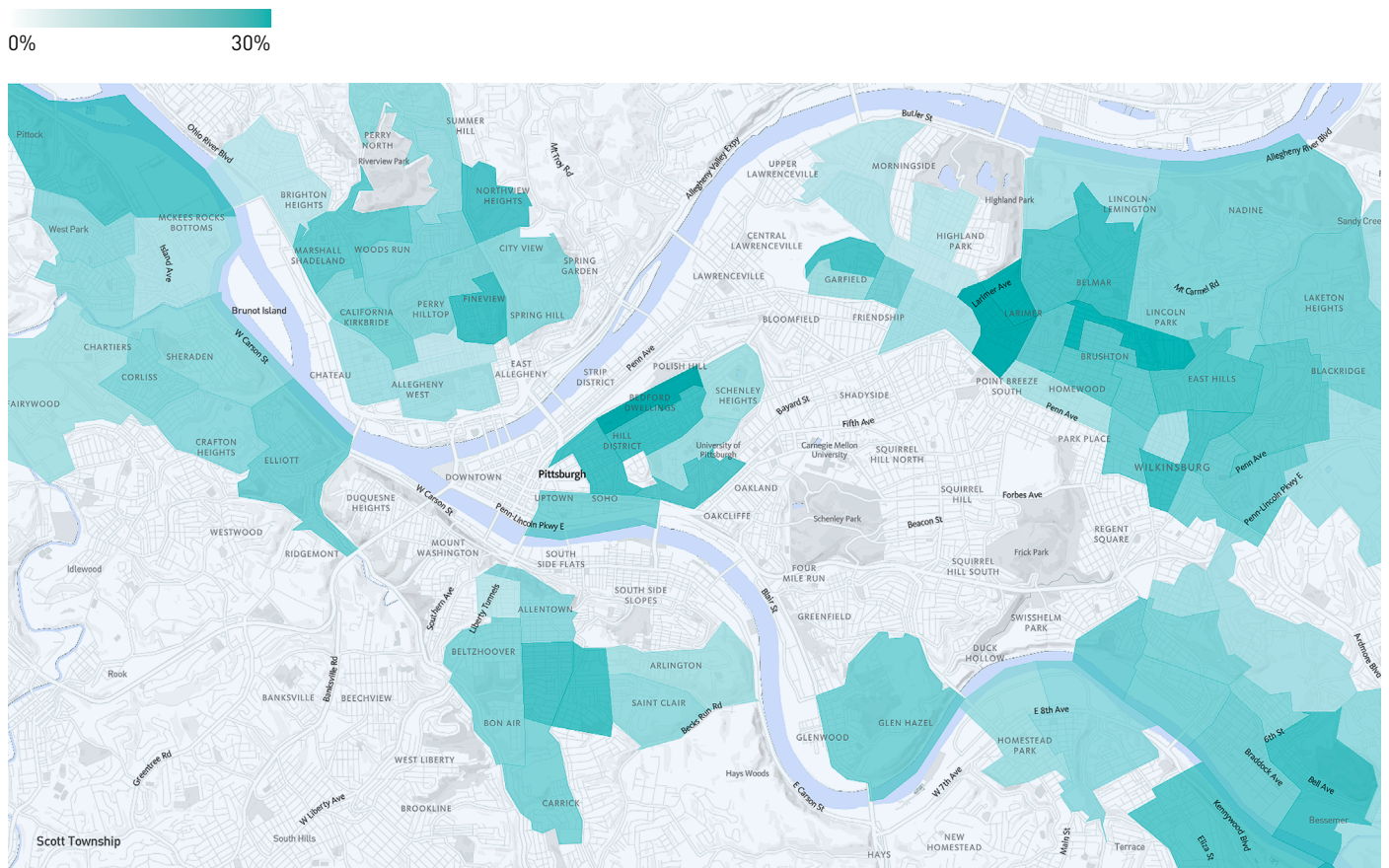
Through a consortium of local leaders, elected officials, and advocates, the Pittsburgh Water Equity Learning Team will lobby for the public funds necessary to repair and replace aging water and wastewater infrastructure. Even as PWSA identifies more equitable ways to bill for service, PWSA ratepayers should not bear this burden alone.

# PRIORITY: WORKFORCE DEVELOPMENT

The economic and industrial restructuring of the regional economy left indelible marks on Pittsburgh's workforce. After birthing the glass, steel, aluminum, and oil industries in the US, manufacturing in the region began to decline in the 1950s. The region's older facilities could not compete with the technology in more modern facilities.<sup>20</sup> Additionally, the heavy concentration of old industrial facilities took a heavy toll on the region's environment. To replace them, regional leaders invested in developing the education, medical, and finance sectors.<sup>21</sup> Those new sectors were built on a fragmented social and economic landscape. Pittsburgh's new economy struggled to include pathways to prosper for the region's Black population.

Not creating that intentional pathway for communities of color reinforces multiple disparities. Living wage is one of the social determinants of health, along with nutrition, housing, and education. Accordingly, lower levels of earning and higher levels of unemployment substantially affect the Black community in Pittsburgh. In April 2020, at the onset of the pandemic, unemployment in the state of Pennsylvania doubled to 15.1 percent.<sup>22</sup> Prior to the pandemic, Black unemployment was nearly triple that of white unemployment in Pittsburgh, and Black Pittsburghers were also more likely to work in occupations with higher exposure risk.<sup>23</sup>

**Unemployment rate in Pittsburgh by tract, 2017 (for areas with 20 percent or more Black residents)**



Source: American Community Survey; GeoLytics, Inc. | National Equity Atlas.

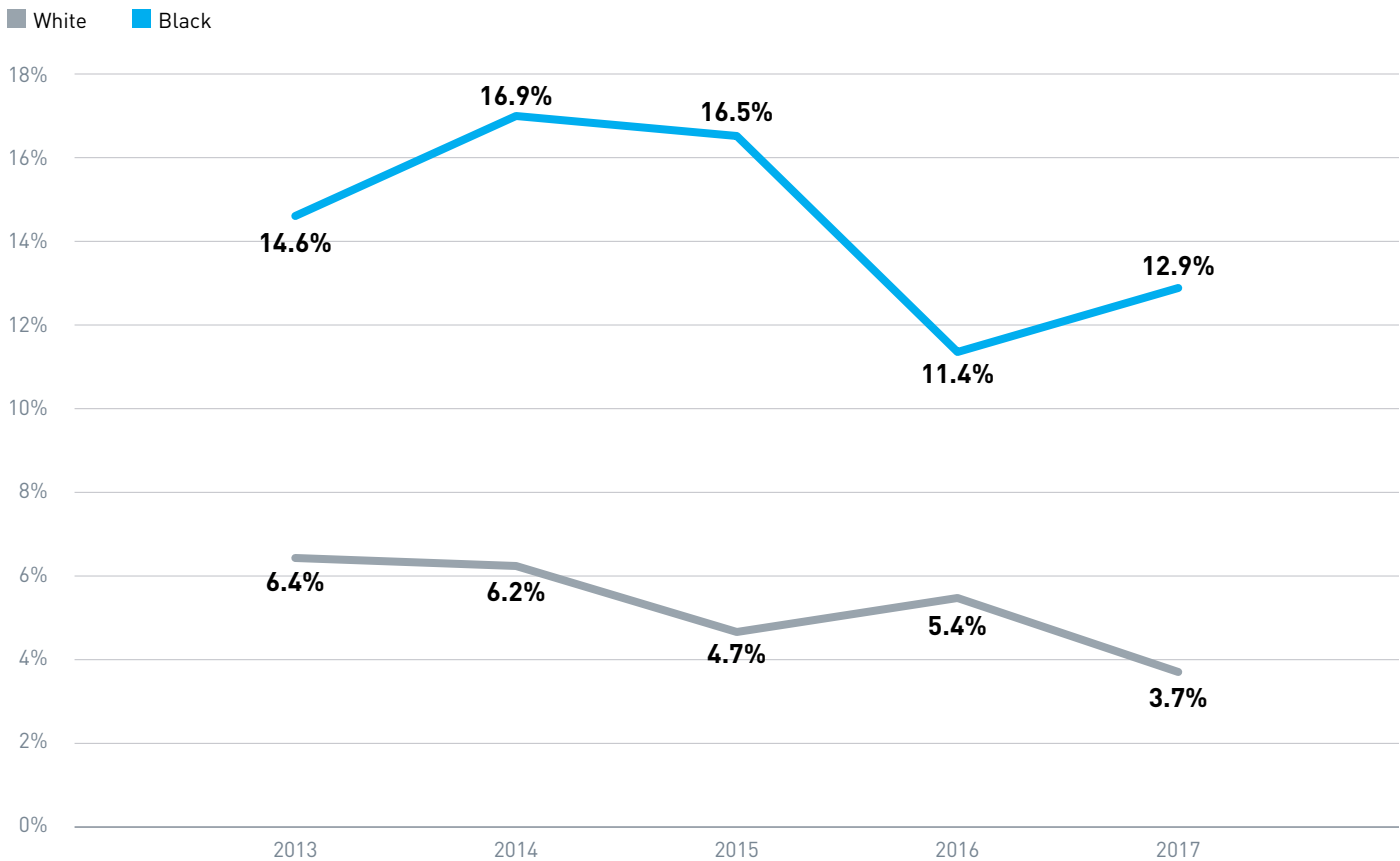
The median household income for Pittsburgh’s Black residents in 2018 was \$26,100. For white residents, it was \$51,100.<sup>24</sup> Among adult males in the city, 15.2 percent of Black men and 46.4 percent of white men held bachelor’s degrees.<sup>25</sup> While 74.1 percent of white Pittsburghers owned their homes, only 32.5 percent of Black Pittsburghers did.<sup>26</sup>

Water utilities can help combat these disparities through their hiring and spending policies. PWSA is assessing equity in its workforce, contracting, and procurement policies and practices. For example, an August 2019 assessment of its contractor workforce data for lead service line replacement found that 20 percent (or 21 employees) of the 105 summer employee workforce lived in Pittsburgh, where the majority of the region’s minorities live. In the work order areas for lead service line replacement, only two of the 105 employees among the three contractor firms lived in Pittsburgh.

Inequities mostly result from policy decisions that systematically disadvantage some populations over others. Addressing these disparities requires interventions focused on income and employment. PWSA can work with local stakeholders to challenge existing structures, practices, and policies that maintain inequity in hiring. This is a crucial moment to develop workforce policies and solutions that lead to a more diverse utility and contractor workforce.

These workforce development recommendations align with the region’s goals to create just and equitable economic opportunities for each resident by ensuring that the investments in modernizing water infrastructure provide pathways to prosperity for those previously denied.

**Percent unemployment in Pittsburgh, 2013–2017**<sup>27</sup>



Source: City of Pittsburgh | Pittsburgh Equity Indicators: Annual Report 2018.



## Recommendations

### Create a Workforce Development Vision Group at PWSA to Develop a Diversity and Inclusion Work Plan

PWSA will create a forum for internal discussion about the wage disparity across ethnic and social backgrounds and the barriers to hiring and promoting diverse candidates. This action plan would include targets that ensure that the workforce's demographics reflect the population of PWSA's service area from executives and management to call center workers and laborers. The plan and its objectives should be transparent and include accountability measures and consider PWSA's future workforce hiring needs. It should directly reflect the Pennsylvania Public Utility Commission's recent action that requires utilities to report workforce diversity and efforts to implement diversity programs regularly.<sup>28</sup>

### Recruit and Retain Diverse Talent at PWSA

PWSA will actively recruit talent from diverse pools and set internal workforce diversity goals based on racial demographics in the service area. For example, the proportion of Black residents in Pittsburgh should be the target proportion for Black professionals working at PWSA. They will also seek to abide by the Rooney Rule and ensure people of color represent 50 percent of the candidates for each open position. PWSA can improve diverse recruitment through activities like visiting job fairs that include Black or Hispanic engineers, among other tactics that make positions more visible to diverse candidates. Hiring managers will be mindful of geographic equity and ensure that the pool of employees represents PWSA's service area. PWSA will also assess how its workplace culture contributes to the retention of qualified diverse talent.

### Develop a Diverse Talent Pipeline for PWSA

PWSA and other utilities and authorities will work to support training programs, partnerships, and apprenticeships that connect young people to existing and emerging opportunities. The successful plan would likely include partnerships with high schools, residents returning from prison and military service, Community College of Allegheny County, and Partners4Work. Participants would learn skills they could apply directly to jobs with PWSA or transfer to jobs at other water reliant businesses or water industry companies. There are dozens of different positions at utilities and jobs they contract, including landscaping for green infrastructure projects, engineering, construction, customer service, and many more.

### Enhance Equitable Contracting

PWSA's existing Supplier Diversity Program aims to award 10 to 25 percent of all contracts to minorities, women, veterans, and business owners with disabilities, as well as small businesses. PWSA will continue to use these firms as much as possible with contracts in construction and maintenance and professional services. PWSA will explore adding city residency goals and criteria for construction and other related contracts. It will ensure that spending ratepayer dollars on developing historically excluded and underrepresented racial and ethnic groups and women-owned businesses keeps the money in the Pittsburgh region.

### Hold Contractors Accountable for Diversity Hiring and Employment Goals

As PWSA and other authorities rely on contractors for a range of services, they must hold a standard of employment that aligns with the recommendations set here. The pipeline initiatives described above should also consider future hiring needs in the contractor space and support the development and creation of MWBE firms. PWSA will also consider expanding local labor preference policies, implementing a Community Benefits procurement policy, and other methods to increase supplier diversity. PWSA will clearly communicate these expectations to those bidding on contracts, and the firms chosen will be held accountable for meeting diversity and employment goals.

# **PRIORITY:**

## **WATER DEMOCRACY**

Not every water utility is owned and operated under public control. Some are owned and operated by private companies, and privately owned companies have indicated an interest in acquiring PWSA's assets outright or through a long-term lease, including an overture from Peoples Gas in 2018. Some Pennsylvania state legislators have also expressed interest in privatizing PWSA.

As the public discourse about privatizing PWSA unfolded, public ownership of PWSA emerged as a high-priority area of alignment among stakeholders in the region who believe, as the Commonwealth of Pennsylvania's constitution states:

*The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.*<sup>29</sup>

Maintaining this public control over water is the best governing structure to achieve an equitable water future in Pittsburgh. As a public entity, PWSA operates with a high degree of transparency, accountability, and inclusivity. Mayor Peduto and several city council members have expressed support in preserving public ownership, so PWSA is taking proactive steps to include the public in decision-making through sincere and responsive engagement and honest collaboration. Passive ownership, public-private partnerships with public ownership but private operation, or private-sector control, will not result in equitable outcomes. To engage the public thoroughly, PWSA must ensure customers have the necessary knowledge, information, and resources to contribute meaningful and informed decisions about the future of shared water resources and infrastructure.

As the authority's governing body, the PWSA Board of Directors is a critical conduit for public feedback and accountability. Members of the community, appointed by elected leaders, will oversee the authority on behalf of residents. The board will carry the public's voice into the decision-making process. It is essential the board represents the community and remains transparent in its procedures and inclusive in its practices.

## **Recommendations**

### **Renew Commitments to Public Utility Ownership**

PWSA Board of Directors, along with Mayor Peduto and members of Pittsburgh City Council, pledged to preserve PWSA under public ownership and democratic control. This important commitment should be renewed and reinforced regularly, and current efforts to embed it in the utility's institutional culture should continue.

### **Institutionalize Representative, Independent Utility Governance**

PWSA, like many water utilities across the country, is governed by a board of directors. In the wake of PWSA's initial exceedance of the Federal Lead Action Level, the city's public demands for effective lead response and increased investment in water infrastructure resulted in significant improvements to board independence from day-to-day political decision-making. The PUC, the City, and PWSA should seek to institutionalize these gains. The independent and accountable governance of the authority should outlast the current period of heightened scrutiny.

It is important that the board represents the community's demographics, including a proportional number of Black board members, and focuses on municipal finances while considering public health, low-income customer needs, and other perspectives. It must maintain the board's accountability to the public through a mayoral nomination and council confirmation. Every entity involved in nominating and confirming PWSA board members should strive to select members who reflect the diversity of the community.

### **Continue and Expand Use of Advisory Bodies**

PWSA worked with stakeholders to create three successful advisory bodies, the Community Lead Response Advisory Committee (CLRAC), the Low-Income Assistance Advisory Committee (LIAAC), and the Stormwater Advisory Group (SWAG). By joining community representatives, subject experts, and PWSA staff to develop proposals that address PWSA's most pressing challenges, the advisory bodies have effectively built consensus and provided the board with valuable counsel. PWSA will continue to replicate these efforts.

### **Improve Transparency and Cultivate an Engaged, Educated Customer Base**

PWSA customers must understand the necessary information and context to contribute to meaningful decisions. PWSA community engagement activities will seek to empower customers with information regarding services and PWSA's structure, policies, and regulatory obligations. The information should include transparent billing practices and other materials that tell customers what rates pay for and how the billing calculates their balance. These measures will help customers meaningfully engage in their water system's governance.



# CONCLUSION

To support an equitable water future for all Pittsburgh residents, leaders across the city must work together to address the systems that generate disparities. They must act with intention and purpose and in ways that do not reproduce or perpetuate existing inequities. Working with vulnerable communities through culturally competent means could bring a truly equitable future to Pittsburgh's water sector.

The Pittsburgh Water Equity Learning Team developed this roadmap as a call to action to ensure all Pittsburgh residents participate and prosper. But the work should not end at the municipal borders of Pittsburgh. There is so much to do, and the wide-ranging support for water equity bolsters the team's commitment. The team believes the City and PWSA can adopt the recommendations from this roadmap and be catalysts for regional change and hopes to see other municipalities and water authorities adapt and adopt these policies themselves.

Water forged this region. Equitable water management is essential to Pittsburgh's future, health, and economy. The Pittsburgh Water Equity Learning Team invites you join this journey towards an equitable water future.

# INSPIRATION FROM THE COMMUNITY

The Pittsburgh Water Equity Learning Team sought grounding and inspiration from across the city. One such source was UrbanKind Institute's own artist-in-residence, Janel Young. Young's piece and description below reminded the group to center the experience of those bearing the weight of injustice and inequity.

## About the Artwork

"Avalanche" addresses the compound, layered challenges that local marginalized and under-resourced communities are facing during the pandemic, including COVID-19 complications globally, police brutality and social unrest on a national level, plus unhealthy environmental conditions for local water and air quality in Pittsburgh. The woman shown with her mask on, arms outstretched, tears rolling, represents Black people on the front lines and in everyday life who feel the emotion and weight of each compounded layer on their shoulders.

The physical weight of the pandemic is relayed by rocks and boulders that are piling up, spilling off the edge. As the rocks move down the piece, they take on other storylines, turning into coal that feeds the fire of social unrest, passing through the bloodshed, splashing into the water, and creating a rippling effect. They show how all the issues become interconnected for Black communities.

The sky at the very top is intentional in representing new beginnings arising. People are using the pandemic to shape new futures and new normals to make appropriate space for a liberated community. Details throughout the piece allude to a snowballing effect, hence the title: avalanche.

—Janel Young, @jy.originals



"Avalanche" by Janel Young

# NOTES

- 1 Fourth Economy, *Economic Impacts of the COVID-19 Crisis in the Pittsburgh MSA* (Fourth Economy, April 15, 2020).
- 2 Davis Kaplan, "Data Shows Pittsburgh Black Community is Disproportionately Impacted by COVID-19," Pittsburgh Action News, Pittsburgh, WTAE, July 16, 2020, <https://www.wtae.com/article/data-shows-pittsburghs-black-community-is-disproportionately-impacted-by-covid-19/33340435#>.
- 3 Sarah Treuhaft, *Equitable Development: The Path to All-In Pittsburgh* (Oakland, CA: PolicyLink, 2016), [http://www.allinpgh.org/wp-content/uploads/2018/03/Equitable-Development\\_The-Path-to-an-All-in-Pittsburgh\\_FINALReport\\_2016Sept-1.pdf](http://www.allinpgh.org/wp-content/uploads/2018/03/Equitable-Development_The-Path-to-an-All-in-Pittsburgh_FINALReport_2016Sept-1.pdf).
- 4 Pittsburgh Water and Sewer Authority, *Pittsburgh's Water Future: 2030 and Beyond* (Pittsburgh, PA: Pittsburgh Water and Sewer Authority, October 2018), <https://www.pgh2o.com/sites/default/files/2020-01/PGH2o2030Plan%20-%20Smaller.pdf>.
- 5 "PWSA Releases December 2019 Lead Compliance Test Results," PGH20, Pittsburgh Water and Sewer Authority, January 24, 2020, <https://www.pgh2o.com/news-events/news/press-release/2020-01-24-pwsa-releases-december-2019-lead-compliance-test-results>.
- 6 AGX Inc., *Lead in Drinking Water Sampling of Pittsburgh Public Schools* (Wexford, PA: AGX Inc., 2019), <https://www.pghschools.org/cms/lib/PA01000449/Centricity/Domain/1225/AGX%20Inc%20Environmental%20Consultants%20-%202019%20Lead%20in%20Drinking%20Water%20Sampling%20-%20Appendix%20A%20Only.pdf>.
- 7 Lori Merkel, Cara Bicking, and Deepa Sekhar, "Parents' Perceptions of Water Safety and Quality," *Journal of Community Health* 37, no. 1 (2012): 195-201, DOI: 10.1007/s10900-011-9436-9.
- 8 US Water Alliance, *An Equitable Water Future: A National Briefing Paper* (US Water Alliance, 2017), [http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa\\_waterequity\\_FINAL.pdf](http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa_waterequity_FINAL.pdf).
- 9 US Water Alliance, *An Equitable Water Future: A National Briefing Paper* (US Water Alliance, 2017), [http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa\\_waterequity\\_FINAL.pdf](http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa_waterequity_FINAL.pdf).
- 10 Doug Irving, "Resilience and Adaptation Strategies Can Address the Impacts of Climate Change," RAND, RAND Cooperation, February 26, 2019, [https://www.rand.org/blog/rand-review/2019/02/resilience-and-adaptation-strategies-can-address-the.html?adbsc=social\\_Facebook\\_Ads\\_FY19\\_RANDReview\\_Climate&fbclid=IwAR2aah9i1t2\\_FmynuFcCL7gh0DY0xqb33lcpTgPWCTxz8rBR1k8HSd4ZqrY](https://www.rand.org/blog/rand-review/2019/02/resilience-and-adaptation-strategies-can-address-the.html?adbsc=social_Facebook_Ads_FY19_RANDReview_Climate&fbclid=IwAR2aah9i1t2_FmynuFcCL7gh0DY0xqb33lcpTgPWCTxz8rBR1k8HSd4ZqrY).
- 11 Joy Frank-Collins, "Jump into the River: Open Waters Beckons Strong Swimmers," *Pittsburgh Magazine*, July 18, 2018, <https://www.pittsburghmagazine.com/Pittsburgh-Magazine/August-2018/Jump-Into-the-River-Open-Waters-Beckons-Strong-Swimmers/>.
- 12 US Environmental Protection Agency, *Moisture Control Guidance for Building Design, Construction and Maintenance* (US Environmental Agency, December 2013), <https://www.epa.gov/sites/production/files/2014-08/documents/moisture-control.pdf>.
- 13 LuAnn Brink, "Asthma in Pittsburgh and Allegheny County, Current Information and Future Directions" (presentation, University of Pittsburgh), <https://www.heinz.org/UserFiles/File/AirWeBreatheConference/Brink.pdf>.
- 14 "Stormwater," PGH20, Pittsburgh Water and Sewer Authority, 2021, <https://www.pgh2o.com/your-water/stormwater>.
- 15 "PWSA and City Release RFP for Stormwater Master Plan," PGH20, Pittsburgh Water and Sewer Authority, <https://www.pgh2o.com/news-events/events-meetings/2020-10-28-pwsa-and-city-release-rfp-stormwater-master-plan>.
- 16 Raftelis, *Pittsburgh Water and Sewer Authority: Household Affordability Analysis* (Raftelis, December 15, 2019).
- 17 Bob Bauder, "PUC Approves Nearly 14 Percent PWSA Water Rate Increase for Pittsburgh," *Trib Live* (Tarentum, PA), February 7, 2019, <https://triblive.com/local/pittsburgh-alleggheny/pittsburgh-water-rates-will-increase-by-nearly-14-percent-under-puc-vote/>.
- 18 Aaron Aupperlee, "Alcosan Sewer Rate Hikes Planned for Next 4 Years," *Trib Live* (Tarentum, PA), November 17, 2017, <https://archive.triblive.com/local/alleggheny/12963998-74/alcosan-sewer-rate-hikes-planned-for-next-4-years>.
- 19 Raftelis, *Pittsburgh Water and Sewer Authority: Household Affordability Analysis* (Raftelis, December 15, 2019).
- 20 Jan De Loecker and Allan Collard-Wexler, "The Productivity Impact of New Technology: Evidence from the US Steel Industry," *Microeconomic Insights*, Institute for Fiscal Studies, July 25, 2016, <https://microeconomicinsights.org/productivity-impact-new-technology-evidence-us-steel-industry/>.



- 21 Manuel Pastor and Chris Benner, "Been Down So Long: Weak-Market Cities and Regional Equity," in *Retooling for Growth: Building a 21st Century Economy in America's Older Industrial Areas*, eds. Richard McGahey and Jennifer Vey (Washington, DC: Brookings Institution Press, 2008): 89-118.
- 22 The Associated Press and Lauren Rosenblatt, "Pennsylvania Jobless Rate Hits 15.1% as Payrolls Collapse," *Pittsburgh Post-Gazette* (Pittsburgh, PA), May 22, 2020, <https://www.post-gazette.com/business/career-workplace/2020/05/22/Pennsylvania-jobless-unemployment-rate-coronavirus-pandemic/stories/202005220088>.
- 23 Fourth Economy, *Economic Impacts of the COVID-19 Crisis in the Pittsburgh MSA* (Fourth Economy, April 15, 2020).
- 24 Statistical Atlas, "Household Income in Pittsburgh, Pennsylvania," <https://statisticalatlas.com/place/Pennsylvania/Pittsburgh/Household-Income>.
- 25 "Educational Attainment in Pittsburgh, Pennsylvania," Statistical Atlas, Cedar Lake Ventures, Inc., <https://statisticalatlas.com/place/Pennsylvania/Pittsburgh/Educational-Attainment>.
- 26 Alanna McCargo and Sarah Strochak, "Mapping the Black Homeownership Gap," *Urban Wire :: Housing and Housing Finance* (blog), February 26, 2018, <https://www.urban.org/urban-wire/mapping-black-homeownership-gap>.
- 27 Office of Mayor William Peduto, *Pittsburgh Equity Indicators: A Baseline Measurement for Enhancing Equity in Pittsburgh*, by Linnea Warren May et al., Pittsburgh, PA: Office of Mayor William Peduto, 2018, [https://pittsburghpa.gov/equityindicators/documents/PGH\\_Equity\\_Indicators\\_2018.pdf](https://pittsburghpa.gov/equityindicators/documents/PGH_Equity_Indicators_2018.pdf) (accessed April 16, 2020).
- 28 "PUC Updates Policy Statement on Diversity at Utilities; Begins Rulemaking Process for Utility Reporting of Diversity Information," Pennsylvania Public Utilities Commission, PUC, February 6, 2020, [http://www.puc.pa.gov/about\\_puc/press\\_releases.aspx?ShowPR=4312](http://www.puc.pa.gov/about_puc/press_releases.aspx?ShowPR=4312).
- 29 Constitution of the Commonwealth of Pennsylvania, art. 1, § 27, <https://www.legis.state.pa.us/WU01/LI/LI/CT/HTM/00/00.HTM>.

# ABOUT THE US WATER ALLIANCE

The US Water Alliance advances policies and programs to secure a sustainable water future for all. Our membership includes water providers, public officials, business leaders, agricultural interests, environmental organizations, community leaders, policy organizations, and more. A nationally recognized nonprofit organization, the US Water Alliance brings together diverse interests to identify and advance common-ground, achievable solutions to our nation's most pressing water challenges. We:

**Educate the nation about the true value of water and the need for investment in water systems.** Our innovative approaches to building public and political will, best-in-class communications tools, high-impact events, media coverage, and publications are educating and inspiring the nation about how water is essential and in need of investment.

**Accelerate the adoption of One Water policies and programs that effectively manage water resources and advance a better quality of life for all.** As an honest broker and action catalyst, we convene diverse interests to identify and advance practical, achievable solutions to our nation's most pressing water challenges. We do this through our strategic initiatives and One Water Hub, which offers high-quality opportunities for knowledge building and peer exchange. We develop forward-looking and inclusive water policies and programs, and we build coalitions that will change the face of water management for decades to come.

**Celebrate what works in innovative water management.** We shine a light on groundbreaking work through storytelling, analysis of successful approaches, and special recognition programs that demonstrate how water leaders are building stronger communities and a stronger America.





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