



# **PUBLIC WATER WORKS**

**How public utilities are advancing solutions  
to today's water challenges**



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# PUBLIC WATER WORKS

## How public utilities are advancing solutions to today's water challenges

### INTRODUCTION

#### STRENGTHENING WATER SYSTEMS THROUGH INNOVATIVE, PUBLIC SOLUTIONS

When Philadelphia became the first U.S. city to create a public water system in 1800, it marked a turning point: for public health, economic growth, and the quality of people's lives. Since then, publicly owned and operated water systems have been fundamental to ensuring cities across the U.S., and their residents, thrive. In fact, the U.S. Conference of Mayors has reported that every dollar invested in water and sewer systems reaps over \$6 in the long term for the economy at large.<sup>1</sup>

Yet today, our public water systems face enormous challenges. Infrastructure is crumbling. Demand is increasing as cities grow. A changing climate places new stresses on systems. And the federal government is providing less and less funding.

In response, private water corporations like Veolia and Suez have attempted to position themselves as the solution to cities' water woes. However, city after city has learned the hard way that privatization by any name—whether packaged as “public-private partnerships” (PPPs), “performance-based contracts,” or other industry terms—is a raw deal: Time and again, these corporations have walked away with millions of dollars of taxpayer and ratepayer money, leaving crumbling infrastructure and frustrated residents in their wake.

The reality is that cities should not have to face their water system challenges alone—and many aren't. Across the U.S., mayors, water utility managers, and the communities they serve are leading the way: They're implementing tried-and-true best practices. They're developing innovative solutions to improve and invest

in their public water systems. They're building public-public partnerships to share expertise. And all toward the same critical end: To provide access to clean, public water at rates all people can afford.

The private water industry, has relied on—and even promoted—a narrative that says that public water systems don't work well, are inefficient and devoid of skilled workers, and can't innovate. But that narrative is simply untrue—and the examples herein prove it.

This white paper provides case studies illustrating how cities around the country have addressed some of the most common challenges our water systems face. Each case study outlines a key problem, shares the solution the city developed, and provides contact information for a local expert. Through these cases, as well as a final summary of key recommendations, we aim to provide mayors and public utility managers the resources you need to fulfill your mandate to provide drinking water and sanitation services to all residents, without turning to the private water industry's false solutions.



The city of Pittsburgh. Photo credit: Guido Coppa on Unsplash.

## SHARED CHALLENGES, SHARED SOLUTIONS

To learn what challenges cities are facing, Corporate Accountability went straight to the source, surveying several dozen mayors at the U.S. Conference of Mayors between June 2017 and July 2019. In discussion with these mayors, a handful of common themes emerged as key challenges for public water systems around the U.S. These include: **1)** Operating and improving the system amidst severe budget shortfalls; **2)** Rate-setting to ensure adequate revenue and affordability of service; **3)** Compliance with consent decrees; and **4)** Reducing contaminants in and ensuring safety of the water supply.

## FEDERAL FUNDING IS KEY

Federal investment in our water system has declined precipitously: Since its peak in 1977, federal funding for water infrastructure has declined by 74 percent in real dollars.<sup>2</sup> This decline has put pressure on cities and states to pick up the tab, leading to budget shortfalls and investment gaps. And it has forced cities to make hard decisions between investing in this essential service, and other critical city responsibilities like public transportation, housing, and more.

As a result, many cities have turned to “full-cost recovery,” an approach touted by the private water industry that pushes the full cost of water system operation and investment onto ratepayers. But cities are living with the realities of the difficult constraints this approach creates: Paying for infrastructure operation and investment exclusively by raising rates places an impossible burden on residents, especially low-income residents. And unaffordable rates don’t work for cities either, as the utility spends time and money on collection and shutoffs that could otherwise go toward improving service and ensuring access for all residents. Of course, it wasn’t always this way: for most of the history of our public water systems, the government has invested in public water as a public benefit essential to a healthy society and economy.

There’s no doubt that funding is a critical factor: there’s no substitute for robust public investment in our water systems. This systemic problem requires a systemic solution. That’s why one of the most important steps mayors and public utility managers can take to ensure

the long-term health of their and others’ water systems is to be active and vocal advocates for increasing funding at the federal level. That can include:

**Supporting federal bills** like the Water Accountability, Transparency, Equity, and Reliability (WATER) Act. The WATER Act would expand grants for communities to replace lead lines; increase technical assistance for small, rural, and indigenous communities; fund projects to tackle PFAS contamination; and much more—all while creating the potential for 700,000 to 945,000 jobs.<sup>3</sup>

**Advocating for increased investment in Drinking Water and Clean Water State Revolving Fund programs** (SRFs), the largest source of federal funding for water and wastewater infrastructure.<sup>4</sup>

**Supporting water-related pieces of the U.S. Conference of Mayors’ Infrastructure platform**, which includes a call for the federal government to:

- “Raise SRF grants substantially: Divide \$92 billion evenly between drinking water and sewer/wastewater; distributing all new funding through existing SRF formulas; provide 50 percent of the new funds as grants (or as much as 100 percent) to be targeted to disadvantaged communities for improvements including projects and programs addressing lead in drinking water; at least 30 percent of the new funds in the form of no-interest loans; and eliminate the current local/state matching fund requirement.”
- “Provide new funding for Technical Assistance for Cybersecurity and Resiliency: Direct \$12 billion in grants to local government to undertake planning/feasibility studies and capital investments to combat cybersecurity threats and to improve system resiliency from natural disasters.”<sup>5</sup>

**Encouraging other city agencies** to advocate for water funding.

Even in a difficult financing environment, there are many steps public water utilities can take to bolster water quality and access. Throughout each of the case studies, we highlight the ways these water and wastewater systems overcame their challenges—including finance—to implement robust solutions.



## PRIVATIZATION: A COSTLY FALSE SOLUTION

In the wake of declining federal funding for our water systems, corporations like Suez and Veolia have attempted to market water privatization as the solution. They approach cities with a variety of privatization models under different branding. These may include a corporation buying the water/wastewater system outright (traditional privatization), teaming up with a private equity firm to offer millions in upfront cash for handing over control of a city's system for decades, "performance-based contracts" that emphasize cost-cutting under the guise of efficiency, or other structures labeled as public-private partnerships (PPPs). PPPs are still a form of privatization as they result in the transfer of varying levels of decision-making power and control to a corporation.

But, whatever the label, in cities around the country, water privatization (including in the form of PPPs) has led to:

- Significant rate hikes that make bills increasingly unaffordable, threatening residents' access to water.
- Labor cuts and abuses.
- Serious health and safety violations.
- Dangerous cost-cutting that puts public health in jeopardy.
- Failure to invest in necessary infrastructure upgrades.<sup>6</sup>

What's more, communities of color, low-income communities, and non-English-speaking communities are frequently left out of decision-making around water system governance under these arrangements, exacerbating existing inequities. As water systems are privatized, transparency and accountability to residents in decision-making decline. While residents may have a direct line to government officials charged with running public water systems, residents don't have a voice at the shareholders' meetings or headquarters of private water corporations. Moreover, residents do not have the power to vote out a private operator if their needs are not being met.

To most, a "partnership" implies shared goals, but a so-called "public-private partnership" makes

clear the diverging goals of the public and private "partner." While a city's goal is to ensure access and the long-term sustainability of the system, a private water corporation's goal is to maximize its profit. This creates an inherent conflict between decisions that are in the best interest of the community and those in the best interest of corporate shareholders. Privatization schemes have all too often left low-income communities and communities of color behind, or worse off.

## THE REALITIES OF PPPS

It's no surprise, then, that the private water industry's disastrous track record in cities like Flint, Michigan; Pittsburgh, Pennsylvania; and Bayonne, New Jersey has generated widespread public opposition to water privatization and PPP contracts across the U.S. You can see two examples of the long-term impact in the stories below. For more information and resources on the private water industry's track record of failure, find a list of resources on page 15.

### BAYONNE, NEW JERSEY

In Bayonne, a PPP deal involving Suez and a private equity firm has left residents with skyrocketing rates. The \$150 million upfront payment the city received has come at a very high price to ratepayers who are not only paying back that massive sum, but also paying the added cost of investment returns the private sector demands. Some residents who are struggling to pay their water bills—with rates already increased by more than 50 percent<sup>7</sup>—have even had liens placed on their homes, which could lead to foreclosure. It's no surprise that this contract model, which Suez is widely marketing, was the subject of a scathing New York Times investigation.<sup>8</sup>

## FLINT, MICHIGAN

In 2015, at the height of the Flint water crisis, Veolia was hired to study the city's drinking water quality. A joint investigation by The Guardian and MLive revealed internal emails showing Veolia executives discussing as far back as February 2015 the potential for lead in Flint's water. The article quotes an email from Veolia's vice president of development Rob Nicholas saying, **"Yep. Lead seems to be a problem."** Veolia's final report to the city—submitted more than one month later—"did not disclose the possibility for lead contamination..."<sup>9</sup> The Michigan attorney general alleges that Veolia was more concerned about the potential for a future \$15 to 30 million contract than it was in providing the best service during its water quality assessment. Veolia also recommended chemical changes that worsened the crisis, according to attorney general.<sup>10</sup>

## PUBLIC PARTNERSHIPS, LASTING BREAKTHROUGHS

Rather than turning to privatization, a growing number of utilities are turning to public-public partnerships, known as PUPs. Through PUPs, cities can share knowledge and best practices, collaborate to save money, and more.

PUPs may include collaborations with fellow municipal water providers, unions, and/or non-governmental organizations that exchange experience and mutually develop capacity across institutions and municipalities. PUPs can lead to:

- **Bulk purchasing:** Through purchasing cooperatives or joint agreements, utilities can reduce costs and increase efficiency by purchasing chemicals, fuel, equipment, and other materials in bulk and then distributing the supplies amongst themselves.
- **Shared services:** Public water utilities can save money by collaborating on joint capital projects and shared service agreements that help lower total investment costs for the utilities involved.<sup>11</sup>

One example of a successful PUP is in Massachusetts, where four towns—Fairhaven, Marion, Rochester, and Mattapoisett—saved \$4.9 million in costs (or 23%) by building and sharing a water treatment facility.<sup>12</sup>



South Bend, Indiana's 1914 Leeper Bridge over the St. Joseph River. Photo credit: Carol Highsmith.

# Case studies: Leaders on public water solutions

## Philadelphia: Ensuring affordability of public water

### THE CHALLENGE

In 2014, constituents began filling up the office of Philadelphia City Councilwoman Quiñones-Sánchez because they could not afford their water bills. They were concerned about having their water shut off and, in some cases, their homes being foreclosed on because of water bill-related liens. This foreclosure crisis also meant that property value decreased in entire neighborhoods.<sup>13</sup>

Water affordability was a priority for the councilwoman because, when she was elected, 20% of the water debt owed by Philadelphia residents was concentrated in her district.<sup>14</sup> This district— just one of ten in the city—has a high concentration of Latinx families.<sup>15</sup>

In addition to its serious racial and economic justice implications, this issue was affecting the financial wellbeing of the water utility: The fact that people literally could not pay meant that the utility was not collecting any revenue from tens of thousands of low-income ratepayers.<sup>16</sup>

The city's own consultants found that as debts owed by customers got older and older, they became less likely to be settled. Billings that were two years old or older had approximately a 2% chance of being paid.<sup>17</sup>

At that time, the city had a Water Revenue Assistance Program (WRAP), providing small, fixed amounts of assistance toward current water bills (\$200 per year) and debt (\$300).<sup>18</sup> This customer assistance program, like that of many other cities, was proving to be merely a Band-Aid that did not address the root of the problem. In fact, in spite of the money the city was spending on WRAP, water debt still affected 40 percent

of Philadelphia households between April 2012 and January 2018.<sup>19</sup>

What's worse, during this time period, 20 percent of household accounts had their water shut off at least once<sup>20</sup>—a serious violation of the human right to water.

### THE SOLUTION

The city established an income-based Tiered Assistance Program (TAP). The first of its kind in the water sector in the U.S.,<sup>21</sup> TAP groups ratepayers into tiers based on their income level, and charges them only a small percentage of adult household income, based on recommendations by the United Nations:

- 1 Residents at up to 50 percent of the federal poverty level (FPL) have their bill capped at two percent of their monthly income.
- 2 Residents at 51 to 100 percent of the FPL have their bill capped at 2.5 percent of their monthly income.
- 3 Residents at 101 to 150 percent of the FPL have their bill capped at 3 percent of their monthly income.
- 4 Customers at 151 to 250 percent of the FPL and who demonstrate a "special hardship" (e.g., an increase in dependents or serious illness) can have their bills capped at 4% of their monthly income.

Residents between 151 and 250 percent of the FPL who do not demonstrate a "special hardship" are nonetheless entitled to affordable payment agreements if they have unpaid water bills even though they cannot participate in TAP. They may receive long term repayment agreements which are calculated to result in a total bill (current charges plus a fixed amount toward unpaid bills) not in excess of approximately 4 percent of monthly income.<sup>22</sup>

The TAP program currently forgives past penalties





Philadelphia. Photo credit: Gibson Hurst™ on Unsplash.

if residents pay their TAP bills in full and on time for 24 months.<sup>23</sup> And the city recognizes that while this provision is a good start, it does not go far enough. In December 2019, the Water Department filed proposed regulations which would expand this to include forgiveness of principal debt for TAP participants who pay in full for 24 months.<sup>24</sup>

This groundbreaking affordability initiative means that customers no longer have to choose which bills to pay, and most importantly—continue to receive the water service they need. And it means Philadelphia need not focus on collecting unaffordable water bills from low-income ratepayers, and can spend more of its resources on investing in the water system.

### HOW DID THEY DO IT?

In order to address this critical need Councilwoman Quiñones-Sánchez first proposed an ordinance to update the city code to allow changes to the rate structure for the utility.<sup>25</sup> The city council passed it unanimously in 2015.<sup>26</sup>

Once the ordinance was passed, the Philadelphia Water Department and the city's public advocate, Community Legal Services (CLS), proposed different options for how to structure the program through formal rate case proceedings with the city's Water Rate Board. CLS worked with utility affordability expert Roger Colton to come up with the tiered, income-based rate structure that was ultimately adopted.<sup>27</sup>

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## Baltimore: Increasing affordability, prioritizing people

### THE CHALLENGE

The city of Baltimore was caught between private water and a public movement.

Its challenges will resonate with many older U.S. cities: A century-old water and sewer system with billions of dollars in deferred maintenance costs. A consent decree for the sewer system.<sup>28</sup> Increasingly unaffordable rates. All leading to a growing public outcry.

Against this backdrop, private water corporations—first Veolia, then Suez—swooped in, sensing an easy sales pitch and promising lots of cost savings, and quick cash, respectively.<sup>29</sup> But there was also a massive public movement demanding the system stay public, leaving the city in a quandary: Accept a private water deal and get some short-term gains, but at the expense of the best interest of city residents? Or respect the will of city residents to address maintenance and affordability while keeping the system public, and find another way to finance its urgent needs?



Coty Montag of the NAACP Legal Defense Fund calls for the passage of the Water Accountability and Equity Act alongside activists and city councilmembers. Photo credit: Food & Water Watch.

## THE SOLUTION

The voices of the people prevailed. In 2018, the city of Baltimore passed a groundbreaking charter amendment. This was followed in 2019 with legislation from the city and the state of Maryland. Together, the charter amendment and then legislation did three important things for the city:

- 1 Banned water privatization pre-emptively, making Baltimore the first major U.S. city to codify its public water system as a public resource in perpetuity.<sup>30</sup>
- 2 Established a moratorium on water lien-related tax sales for residential properties and places of worship.<sup>31</sup>
- 3 Created a water affordability program to ensure low-income families have access to the water they need.<sup>32</sup>

In early 2019, Maryland's state legislature unanimously approved legislation making a moratorium on water lien-related housing tax sales permanent, and expanding it to protect places of worship and all residential properties.<sup>33</sup> This ensures residents at the highest risk are protected from losing their homes while the city reconfigures its affordability plan. At the time, a staggering one in 10 Baltimore households faced the threat of a water lien-related tax sale.<sup>34</sup> Before the passage, the city could bring owner-

occupied homes and places of worship to tax sale if they had at least \$750 in unpaid water or sewer bills and were at least nine months past due.<sup>35</sup>

The new law keeps those residents in their homes as the city continues to work on keeping water service affordable for all.

Following this moratorium, Baltimore took another step forward: The city passed the Water Accountability and Equity Act, a program based on Philadelphia's pioneering system, which will provide income-based bill credits for residents at or below 200 percent of the FPL to help ensure that water is accessible to all residents.<sup>36</sup>

The act will also give residents a more accessible way to dispute improper billing by creating a new office for customer advocacy and appeals within the Department of Public Works.<sup>37</sup> This Office of Water-Customer Advocacy and Appeals will also recommend improvements to the Department of Public Works regarding policies and procedures.

Finally, the act allows renters to access water billing information directly rather than rely on landlords to act as an intermediary. Given Baltimore's renter population of 53 percent, this is critical for ensuring that residents do not have to wait for landlords to manage their water bills.<sup>38</sup>

It's a win for all: A recent study found that, under an affordable bill plan like Baltimore's, "even though a portion of the bill is discounted, the extent to which payments increase is such that total revenue goes up. This increase in revenue is accompanied by a decrease in the cost of collecting that revenue." Moreover, the study found that such programs can increase utility staff satisfaction and decrease staff stress.<sup>39</sup>

## HOW DID THEY DO IT?

Baltimore's charter amendment was championed by then-City Council President Jack Young, with the support of the entire city council. It was first proposed and then signed by then-Mayor Catherine Pugh, and then went forward to a public referendum.

Crucially, both the charter amendment and the ensuing Water Affordability and Equity Act were boosted by a city partnership with dedicated advocates and grassroots organizing throughout the city, led by the

Keep Baltimore's Water Public committee.

This coalition, led by Food & Water Watch, the American Federation of Teachers-Maryland, Jews United for Justice, and many more worked for months to help educate voters on the language of the proposed charter amendment to ensure transparency before it went to the polls.<sup>40</sup>

The coalition also worked in lockstep with city council members, held frequent press conferences featuring both elected officials and the public, actively engaged the media to cover the amendment and act process, and told the stories of residents most impacted by the city's billing and water access issues. They ensured both voters and key decision-makers had opportunities to provide input on the process, building collective buy-in.<sup>41</sup>

Thanks to these efforts, in November 2018, 77 percent of voters approved the amendment, in a landslide affirmation of the importance of keeping water public.<sup>42</sup>

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## South Bend, Indiana: Addressing a consent decree with money-saving solutions and community ideas

### THE CHALLENGE

South Bend, Indiana is a city of 101,000 people near the southernmost bend of the St. Joseph River, from

which it derives its name. Like many post-industrial Midwestern cities, its population has declined nearly 25 percent since its peak in 1960.<sup>43</sup>

By 2004, South Bend's wastewater system faced a few major problems: Its combined sewer system was aging and increasingly expensive to upgrade and maintain, frequent staff turnover had resulted in a knowledge gap for incoming utility workers,<sup>44</sup> and these newer staff members were managing an average of two billion gallons of sewage entering the river during 80 combined sewer overflow (CSO) events yearly.<sup>45</sup>

In response, federal and state agencies issued a costly consent decree in 2011 with a long-term, two-part plan to address these issues, which the city determined would total nearly \$1 billion.<sup>46</sup> All the while, local flooding events grew more frequent and severe each year.<sup>47</sup>

Not only were two billion gallons of raw sewage dangerous to public health and the environment (as well as damaging to the local economy); the astronomical cost to comply with the consent decree was prohibitive. It looked like South Bend might have to significantly raise wastewater rates—in a city where the median household income hovers at \$34,000, or 35 percent below the national median household income.<sup>48</sup> The nearly \$1 billion price tag would have equaled nearly \$10,000 per individual in the city.<sup>49</sup> Clearly, another solution was necessary.

### THE SOLUTION

Prior to receiving its consent decree, the city of South Bend was already exploring and adopting a "smart sewer approach" for its wastewater system. This approach would prove key to addressing the consent decree.

In 2004, in partnership with local start-up and university engineers, the city began developing its original smart sewer system. Called CSOnet, the system created a "wireless sensor actuator network" attached to manhole covers, which detects rising water levels and calculates available sewer storage space to better understand and prevent sewage overflow during storms. By 2008, South Bend had installed 110 CSOnet sensors over 40 square miles of the city.<sup>50</sup>

In 2011, the city added a control system of “intelligent gates and valves” that allowed workers to monitor and direct sewer water to specific pipes, avoiding congestion and getting more water to the treatment plant instead of into the river.<sup>51</sup> The same year, South Bend entered its consent decree with federal and state regulators to modify its combined sewer system and reduce overflows.<sup>52</sup> The city was able to use the real-world data on CSO management from its years of CSOnet work to reduce the amount of sewage flowing into the river by nearly 75 percent by 2018 (approximately 1.5 billion gallons per typical year) compared to 2006 levels—despite 42 percent more rainfall.<sup>53</sup>

As of February 2019, South Bend’s system has expanded to include over 190 sensors at 129 locations to ensure continued management of peak wet weather sewer and watershed flows.<sup>54</sup>

This success has motivated the city to get even more creative in complying with federal regulators while cutting down costs. In 2017, the city began negotiations with state and federal regulators to modify its 2011 consent decree. It has put forward a plan, supported by CSOnet data, called the Smarter Alternative for a Greener Environment (SAGE) plan.<sup>55</sup> The SAGE plan includes:

- Upgrading the wastewater treatment plant to eliminate bottlenecks, reduce energy costs, and increase ease of operation and maintenance. This reduces the need for costly new construction.<sup>56</sup> For example, the city determined it could build three new wet weather storage facilities, rather than the seven outlined in the original consent decree, while still improving wet weather capture, through targeted system improvements.<sup>57</sup>
- A reliance on green stormwater infrastructure (GSI) solutions in key locations to reduce the need for conventional gray infrastructure, while achieving reductions in storm runoff rates and volume.<sup>58</sup>

A long-term planning approach to system improvements is critical to ensure affordability. To minimize the burden on low-income ratepayers, the city proposes to apply for low-interest state revolving fund loans and supplement this by issuing municipal

bonds. The city has recently introduced an income-based stormwater management fee and anticipates piloting a tiered-assistance program.<sup>59</sup>

The city believes it can meet its CSO reduction goal through this smarter, more affordable, and greener plan, while potentially saving over \$500 million from the consent decree’s initial cost estimates.<sup>60</sup>

### HOW DID THEY DO IT?

An integral piece of the SAGE plan is the importance of community consultation and support. In the SAGE plan’s development, the city created a Citizens Advisory Committee as one of many ways to engage the general public, city staff, project staff, and city council members on the project. The committee held 19 publicly advertised open meetings with these stakeholders over a four-year period.<sup>61</sup>

In addition, project staff gathered letters of support from South Bend residents, a range of environmental groups large and small, area universities, and business groups to get their input and approval on the city’s plan to change from the old consent decree plan to the SAGE plan.<sup>62</sup> The final plan the city proposed to federal regulators therefore clearly showed the community’s support; the data supported the plan’s intended outcomes; and analysis by the city showed that the SAGE plan is in the best interest of the community.<sup>63</sup>

As South Bend waits for approval from federal regulators, Kieran Fahey, the director of the city’s long-term control plan, remains optimistic about the clear public, economic, and environmental benefits of the SAGE plan. “Our program is truly a model for dozens-if-not-hundreds of communities nationwide in their efforts to manage peak wet weather sewer and watershed flows while delivering the greatest community benefits.”<sup>64</sup>

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# Pittsburgh: Overcoming a contamination crisis with strong community engagement

## THE CHALLENGE

In 2012, the Pittsburgh Water and Sewer Authority (PWSA) was in rough shape. It was plagued with mounting problems, from aging infrastructure to growing outcry over poor customer service and rate hikes. And to top it off, it was hundreds of millions of dollars in debt.<sup>65</sup>

Looking for a quick fix, the city first turned to private water corporation Veolia. Veolia offered privatization through a contract that installed Veolia employees in three top PWSA management positions, including Interim Executive Director.<sup>66</sup> The arrangement included a dangerous stipulation: It allowed Veolia to keep roughly half of every dollar the authority saved as a result of implementing its suggestions. This created a perverse incentive for Veolia to prioritize cost-cutting to maximize its profits above all else.<sup>67</sup> And that's exactly what happened.

By 2015, things had changed—and not for the better. The PWSA had laid off or fired 23 people—including safety and water quality managers and cutting the lab staff responsible for testing water quality in half.<sup>68</sup> Unfortunately, that wasn't the worst of Pittsburgh's problems.

Under Veolia's management, a corrosion control chemical was switched to a cheaper alternative, without proper approval from the state Department of Environmental Protection.<sup>69</sup> Just months after Veolia's contract ended and the corporation walked away with millions of dollars,<sup>70</sup> the city learned of its burgeoning lead crisis. In the summer of 2016, PWSA lead levels were found to exceed federal standards for the first time in its history.<sup>71</sup> The PWSA faced more problems than ever before—with a devastating lead crisis now topping the list.<sup>72</sup>

As the public outcry grew, it emerged that the city was

considering entering into another privatization deal.<sup>73</sup> Clearly, the city of Pittsburgh urgently needed a new path forward for the PWSA.

## THE SOLUTION

In 2019, following years of advocacy by community groups (see below), the city of Pittsburgh chose to restructure the PWSA rather than privatize it,<sup>74</sup> and to implement a number of groundbreaking measures.

As a short-term response to the affordability challenges residents faced, the city instituted and strengthened various Customer Assistance Programs,<sup>75</sup> including passing a moratorium on water shut-offs during winter months for low-income residents,<sup>76</sup> and creating a water bill discount program.<sup>77</sup>

The city and PWSA also:

- 1 Developed a comprehensive plan for its priorities through 2030, including green infrastructure development.<sup>78</sup>
- 2 Established a new cooperation agreement between the city and the PWSA that affirms its public ownership, updates outdated payment structures, and invests money in employee pensions.<sup>79</sup>
- 3 Made progress in replacing both public and private lead lines in the city, with private line replacement done at no cost to homeowner.<sup>80</sup> (This is ongoing.)

The tide had turned completely: Mayor Bill Peduto committed to keeping the water system public<sup>81</sup> and, most importantly, the water system was undergoing its long-overdue transformation to provide clean, safe water to all city residents at rates they can afford.

A key piece of this transformation is ongoing community engagement. So the PWSA launched an online interactive map that shows residents where lead service lines are located in the city, which lead service lines have been replaced, and which are slated for replacement through June 2020.<sup>82</sup> To reach residents who may not have access to the online maps, the PWSA also sent employees door to door to speak about the utility's plan to replace lead service lines for free, and to get permission from residents to begin line replacement.<sup>83</sup> Workers also left door hangers, hosted



Mayor Peduto with members of the Our Water, Our Rivers Campaign after signing pledge supporting a ban on water privatization in Pittsburgh. Photo credit: Grant Gittlen.

community meetings,<sup>84</sup> and posterized 250 locations across the city with information on where lead service lines are located and replacement steps.<sup>85</sup> As of September 2019, 1,932 public service line replacements have been completed, in addition to 1,575 private replacements.<sup>86</sup>

### HOW DID THEY DO IT?

Pittsburgh's path was not easy, but it was thorough, transparent, and—crucially—democratic, involving the voices of many stakeholders to ultimately arrive at the strongest possible outcomes for the water system, and for the many people's lives affected by it.

As the city was considering another privatization deal, they hired a consultant to make recommendations on a path forward for the system. That consultant ultimately recommended the city develop a public trust to run the system—while also exploring various types of privatization.<sup>87</sup>

A coalition of community groups called the Our Water, Our Rivers Campaign was rightfully concerned about the prospect of another privatization deal, citing Veolia's past failures and the many benefits of publicly owned and operated systems. They engaged an organization called the Mayors Innovation Project (MIP) to make recommendations on how to address the water system's challenges—while keeping it in public hands.<sup>88</sup>

Pittsburgh's mayor formed a panel of eight public officials and local experts, who reviewed both the consultant's recommendations and the report MIP prepared. The panel held several public meetings to gather input directly from the community as well. And in December 2017, the panel recommended the system not be privatized, and be reorganized in a way to ensure it is "accountable to and trusted by the public."<sup>89</sup>

That was just the beginning. There was still much work to do to ensure residents' needs were met, the lead crisis was addressed, and water was accessible to all. Over the next few months, representatives from the PWSA—right on up to the PWSA's board chair—went to dozens of community meetings and met with representatives of the Our Water, Our Rivers Campaign.<sup>90</sup>

Thanks to that strong community engagement, the PWSA arrived at the groundbreaking solutions outlined above—providing a model for how a public water authority can overcome grave challenges to fulfill its mandate via public input, community buy-in, and democratic participation.

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# Additional ideas and actionable solutions for cities

## REDUCING WATER WASTE

The Southern Nevada Water Authority (encompassing **Las Vegas**) has implemented a Water Smart Landscapes Rebate program to reduce the number of water-intensive lawns. The program offers residents rebates of \$3 per square foot to remove grass and replace it with desert landscaping. It's been enormously successful: Since its inception, it has spurred the conversion of 185 million square feet of grass to water-efficient landscaping.<sup>91</sup>

## PUBLIC TRANSPARENCY

In August 2014, the city of **Toldeo, Ohio** detected harmful levels of microcystin in Lake Erie following a large algal bloom. After the detection, the city warned over 400,000 residents (including those in surrounding communities) who rely on water treated from the lake for their water supply to stop drinking from their tap. Following this water crisis, the city's utility – in addition to daily testing for microcystin during harmful algal bloom season—set up water quality monitoring buoys around water intake sites on the lake that send hourly reports of changing water conditions.<sup>92</sup> The city then launched a "Water Quality Dashboard" on their city website to communicate the results of these tests to residents.<sup>93</sup> Following consistent safe drinking water quality results, attributed to major updates of the water treatment plant since 2014, the mayor has proposed retiring the online dashboard. However, recognizing the need to "continue to test the water and be transparent," the city is committed to continuing to share water test results with the EPA and residents.<sup>94</sup>

## BILLING HIGH WATER USERS ADEQUATELY

An agreement between the city of **Pittsburgh, PA** and its water and sewer authority, the PWSA (see above), had allowed the city to use up to 600 million gallons of water each year at no cost—placing an immense financial burden on the water utility and ratepayers. This meant that high water users like the Pittsburgh

Zoo and Phipps Conservatory were not paying for the water they used while residents were continuing to pay. A new cooperation agreement between the city and authority—created with robust community input—ended that arrangement, bringing much-needed revenue to the authority which can be used to improve service for all.<sup>95</sup>

## ACCESSIBILITY FOR ALL RESIDENTS

In **Tucson, Arizona**, the water utility recognized that roughly 10 percent of the city's general population are Spanish-speaking residents with limited English proficiency (known as LEP) and that "as a public utility, it is necessary to recognize this segment of the general population." To better serve this population, the Tucson Water Department developed a comprehensive LEP plan. This plan included ensuring that bilingual staff are readily available to communicate with residents at open houses, public meetings (especially where public input is requested), and in customer service interactions. It also ensures that vital Tucson Water written communications like automated bill payment applications, the low-income assistance program, and utility service bill payments are available in both English and Spanish. The city's LEP plan also provide comprehensive training for Tucson Water staff that includes how to contact translation services, what language services the utility offers, and how to use language identification flashcards. As an added measure, the LEP plan also indicates on customer service lines, in public information offices, on the Tucson Water website, and on water bills that Spanish-language services are available.<sup>96</sup>

## EMPLOYMENT PROGRAMS

The **Pittsburgh** Water and Sewer Authority (PWSA) has partnered with Landforce, a local community development program that employs people who face barriers to entering or re-entering the workforce, such as refugees, veterans, formerly-incarcerated people, and low-income people.<sup>97</sup> Landforce participants engage in a range of workforce development trainings, in addition to on-the-job experience, which empower them to hone their skills and connect to long-term employment opportunities.<sup>98</sup> And through this partnership, the PWSA receives ongoing green

infrastructure maintenance from skilled workers, allowing it to make the most of the upgraded stormwater management system.<sup>99</sup>

### **SURPLUS RENEWABLE ENERGY**

The **Portland, Oregon** Water Bureau (PWB) generates enough energy to power 150 homes through several

turbines installed in a water line that turn as water flows. The company that installed and maintains the turbines sells the energy to Portland's electric utility and a portion of this revenue goes back to the city to offset water system operating costs.<sup>100</sup>

## **Key takeaways and recommendations**

As these case studies illustrate, cities hold the answers to their water challenges: Mayors and public utility managers have many solutions, beyond the private water industry's false promises, for building robust water systems to take pride in.

### **These solutions include the following:**

- 1** Implement affordability programs when overhauling water systems. This keeps low-income residents and residents who are vulnerable to shut-offs, such as communities of color and the elderly, from being detrimentally impacted. This also ensures money continues to flow into the system. (For more, see Philadelphia case study on p. 6.)
- 2** Create opportunities for active community engagement, recognizing that democratic control of water systems, and strong buy-in from community stakeholders, have long been crucial to the success of public water in the U.S. This can include online and offline transparency tools like Pittsburgh's lead line replacement resources, holding public forums and meetings, connecting OR collaborating
- with community groups led by and accountable to city residents, and hiring bilingual staff who can communicate with monolingual non-English-speaking residents. (See Tucson on p. 13.)
- 3** Avoid the "quick fixes" promoted by the private water industry, as Baltimore did (see p. 7), recognizing that cities already hold the answers they need, and that privatization is deeply politically unpopular. Above all, it's critical that water systems must keep money within the system, not flowing to pad corporate executives' compensation packages.
- 4** Implement smart technology and other creative measures like those in South Bend to cut down on the cost of consent decrees and improve methods for monitoring the health and safety of systems and the surrounding environment. (More on p. 9.)
- 5** Establish public-public partnerships (PUPs) to formalize learning and knowledge sharing between utilities and collaborate to save money. (See section on PUPs on p. 5.)
- 6** Advocate for public water investment at the federal level. (See "federal funding" section on p. 3.)



# More information and resources

## **A guide to understanding and evaluating infrastructure public-private partnerships in the water sector**

(In the Public Interest, 2019)

This guide is a resource for advocates, policymakers, and stakeholders to better understand and analyze private water infrastructure proposals, contracts, and related legislation with helpful questions policymakers can ask in the process.

## **Backgrounder: The Hidden Costs of Privatization**

(In the Public Interest, 2011)

This background paper gives top lines on the ways in which water privatization can impact city budgets, ratepayers, and more.

## **Baltimore's Conundrum: Charging for Water/Wastewater Services that Community Residents Cannot Afford to Pay**

(Roger Colton, 2017)

This report delves into Baltimore's water affordability crisis, analyzes the most effective ways for it to bring in revenue while ensuring residents' access, and provides recommendations for Baltimore to address its affordability crisis. While the report focuses on Baltimore, its lessons can be applied to cities across the country.

## **Baltimore Question E language and primer**

(Food & Water Watch, 2018)

This primer provides the language of Baltimore's forward-thinking charter amendment described on page 8.

## **Baltimore's Water Accountability and Equity Act**

(November 2019)

This bill can serve as a model for other cities considering implementing an income-based rate affordability program.

## **Cooperation Agreement between the PWSA and City of Pittsburgh**

(October 2019)

This agreement, built on robust community participation, affirms public ownership and can be used to inform cities

whose water systems are run by a municipal authority.

## **Dirty Deals: How Wall Street's Predatory Deals Hurt Taxpayers and What We Can Do About It**

(The Refund America Project, 2014)

While not explicitly focused on water infrastructure, this report explores the hidden costs on local governments and taxpayers associated with predatory financing deals introduced by large corporations and Wall Street.

## **Double Trouble**

(Corporate Accountability, 2019)

This handy one-pager provides short case studies of water privatization gone awry in the U.S.

## **Pittsburgh Water and Sewer Authority 2030 plan**

(November 2018)

A 12-year plan for Pittsburgh's drinking water, stormwater projects, and sewer system. Includes projects on accelerating lead line replacements, enhancing customer assistance programs, and more while maintaining public ownership of the system.

## **Troubled Waters: Misleading industry PR and the case for public water**

(Corporate Accountability, 2014)

This report provides a comprehensive look at water industry trends across the globe, examples of political interference by the private water industry, and public alternatives for cities to explore.

## **Water/Color: A study of race & the water affordability crisis in America's cities**

(NAACP Legal Defense and Educational Fund, Inc. May 2019)

This report shares a historical overview of U.S. urban water systems, explains how the current water affordability crisis is disproportionately impacting Black communities.

# Endnotes

- 1 Richard A. Krop, Charles Hernick, and Christopher Frantz, "Local Government Investment in Municipal Water and Sewer Infrastructure: Adding Value to the National Economy" (The U.S. Conference of Mayors, August 14, 2008), 10.
- 2 "Water. Jobs. Justice." (Food and Water Watch, February 2019), [https://www.foodandwaterwatch.org/sites/default/files/fs\\_1902\\_waterjobsjustice-wateractupd2-web.pdf](https://www.foodandwaterwatch.org/sites/default/files/fs_1902_waterjobsjustice-wateractupd2-web.pdf).
- 3 "Invest in Water, Jobs, Health, and Our Economy" (Corporate Accountability, April 2019), <https://www.corporateaccountability.org/resources/the-water-act-invest-in-water-jobs-health-and-our-economy/>.
- 4 J. Alfredo Gómez, "Water Infrastructure: Approaches and Issues for Financing Drinking Water and Wastewater Infrastructure" (United States Government Accountability Office, March 13, 2013), 4, <https://www.gao.gov/assets/660/652976.pdf>.
- 5 "Mayors' Infrastructure Priorities for the 116th Congress," The United States Conference of Mayors, <https://www.usmayors.org/issues/infrastructure/>.
- 6 "Double Trouble: Veolia, Suez, and the Risks of Water Privatization" (Corporate Accountability, 2019), <https://www.corporateaccountability.org/resources/double-trouble-veolia-suez-and-the-risks-of-water-privatization/>.
- 7 Corey W. McDonald, Bayonne Hit with 9 Percent Water Rate Hike Second Highest Increase since 2012 Contract, The Jersey Journal, February 13, 2019, <https://www.nj.com/hudson/2019/02/bayonne-hit-with-9-percent-water-ratehike-second-highest-increase-since-2012-contract.html>.
- 8 Danielle Ivory, Ben Protess, and Griff Palmer, In American Towns, Private Profits From Public Works, The New York Times, December 24, 2016, <http://www.nytimes.com/2016/12/24/business/dealbook/private-equity-water.html>.
- 9 Emily Holden, Ron Fonger, and Jessica GlENZA, Revealed: Water Company and City Officials Knew about Flint Poison Risk, The Guardian, December 10, 2019, <https://www.theguardian.com/us-news/2019/dec/10/water-company-cityofficials-knew-flint-lead-risk-emails-michigan-tap-water>.
- 10 Attorney General Dana Nessel, First Amended Complaint for Damages and Demand for Jury Trial (State of Michigan, Circuit Court for the 7th Judicial Circuit, Genesee County, April 12, 2019), 4345; Attorney General Dana Nessel, Plaintiff Attorney General Dana Nessel on Behalf of the People of the State of Michigan's Response and Brief in Opposition to Veolia's Motion for Summary Disposition Under MCR 2.116(C)(8) (State of Michigan, Circuit Court for the 7th Judicial Circuit, Genesee County, July 12, 2019), 9.
- 11 "Public-Public Partnerships: An Alternative Model to Leverage the Capacity of Municipal Water Utilities" (Food and Water Watch, Cornell University ILR School Global Labor Institute, January 2012), <https://www.foodandwaterwatch.org/sites/default/files/Public%20Public%20Partnerships%20Report%20Feb%202012.pdf>.
- 12 Margaret Finn and Jennifer Olivier, "In The Main" (Commonwealth of Massachusetts, Department of Environmental Protection, Division of Watershed Management, Drinking Water Program, September 2008), 1, <https://archives.lib.state.ma.us/bitstream/handle/2452/43306/ocm37869201-2008-09.pdf?sequence=1>.
- 13 Eric Bodzin, Interview by Corporate Accountability, December 16, 2019.
- 14 "Transcript of Committee on Finance Public Hearing" (Council of the City of Philadelphia, April 9, 2015), 17–18, <https://council-transcript-rooms.s3.amazonaws.com/Public%20Hearings/finance/2015/fi040915.pdf>.
- 15 Robert Ballenger, Interview by Corporate Accountability, December 16, 2019.
- 16 Robert Ballenger.
- 17 "2015 Rate Case Assumptions" (Philadelphia Water Department, December 8, 2015), 2, <https://www.phila.gov/water/rateboard/PDF/PWDEXhibit5.pdf>.
- 18 "Water Affordability Based on Income: The Tiered Assistance Program in Philadelphia" (University of Michigan, Graham Sustainability Institute, Water Center, June 2018), 1, [http://graham.umich.edu/media/pubs/Water-CS-Philidelphia-Tiered-Assistant-Program\\_0.pdf](http://graham.umich.edu/media/pubs/Water-CS-Philidelphia-Tiered-Assistant-Program_0.pdf).
- 19 "Water Affordability Based on Income: The Tiered Assistance Program in Philadelphia," 1.
- 20 "Water Affordability Based on Income: The Tiered Assistance Program in Philadelphia," 1.
- 21 "Water Affordability Based on Income: The Tiered Assistance Program in Philadelphia," 2.
- 22 "Philadelphia Water Department Regulations" (Philadelphia Water Department, September 1, 2019), 14–15, [https://www.phila.gov/water/PDF/PWD\\_FullRegs\\_revised-9.1.2019.pdf](https://www.phila.gov/water/PDF/PWD_FullRegs_revised-9.1.2019.pdf); Robert Ballenger, interview.
- 23 "Water Affordability Based on Income: The Tiered Assistance Program in Philadelphia," 2.
- 24 Amendment to the Income-Based Water Rate Assistance Program Regulations" (Philadelphia Water Department, December 6, 2019), 2, <http://regulations.phila-records.com/pdfs/Amendment%20to%20the%20IncomeBased%20Water%20Rate%20Assistance%20Program%20Regulations.pdf>.
- 25 "Bill No. 140607-AA" (City of Philadelphia, December 1, 2015), <https://phila.legistar.com/LegislationDetail.aspx?ID=1821444&GUID=EE8B7A07-A75F-4EBD-A0BF-4D71FEB5919B>.
- 26 "Bill No. 140607-AA."
- 27 "Water Affordability Based on Income: The Tiered Assistance Program in Philadelphia," 1–2.
- 28 "Sanitary Sewer Consent Decree Program," Baltimore City Department of Public Works, <https://publicworks.baltimorecity.gov/sewer-consent-decree>.
- 29 Yvonne Wenger, "Protesters Question City Water System Study," The Baltimore Sun, August 13, 2014, <http://www.baltimoresun.com/news/maryland/bs-md-city-water-consulting-20140813-story.html>; Luke Broadwater, "French Company Pitches to Take Control of Baltimore's Water System, Lobbyists Join Push," The Baltimore Sun, December 19, 2017, <https://www.baltimoresun.com/maryland/baltimore-city-bs-md-ci-water-privatization-20171219-story.html>.
- 30 Carey L. Biron, "Baltimore Votes to Become First Large U.S. City to Ban Water Privatization," Reuters, November 7, 2018, <https://www.reuters.com/article/us-usa-water-cities-idUSKCN1NC2O4>.
- 31 Luke Broadwater, "Maryland General Assembly Passes Legislation barring the Seizure of Baltimore Homes over Water Bills," The Baltimore Sun, April 3, 2019, <https://www.baltimoresun.com/politics/bs-md-ci-water-liens-passes-20190403-story.html>; "Water Taxpayer Protection Act of 2019," Maryland General Assembly, April 30, 2019, <http://mgaleg.maryland.gov/mgawebsite/Legislation/Details/sb0096?ys=2019RS>.
- 32 "Water Accountability and Equity Act," Baltimore City Council, November 18, 2019, <https://baltimore.legistar.com/LegislationDetail.aspx?ID=3769175&GUID=4A3F24AF-7CC7-442B-86C5-B01AF0A148F7>.
- 33 "Water Taxpayer Protection Act of 2019."
- 34 Ethan McLeod, "Md. Senate Approves Legislation Banning Tax Sales of Baltimore Homes, Churches for Unpaid Water Bills," Baltimore Fishbowl, March 15, 2019, <https://baltimorefishbowl.com/stories/md-senate-approves-legislation-banning-tax-sales-of-homes-churches-for-unpaid-water-bills/>.
- 35 Luke Broadwater, "Maryland General Assembly Passes Legislation barring the Seizure of Baltimore Homes over Water Bills."
- 36 Scott Dance, "'Radical' Reforms to Make Baltimore Water Billing More Affordable Are Poised for City Council Approval," The Baltimore Sun, October 28, 2019, <https://www.baltimoresun.com/politics/bs-md-ci-water-reform-20191028-ub7n52clf5cq7h7u6hssgi5k6m-story.html>.
- 37 Talia Richman, "Baltimore's Water Equity, Plastic Bag Bills Heading to Mayor's Desk," The Baltimore Sun, November 18, 2019, <https://www.baltimoresun.com/politics/bs-md-pol-city-council-roundup-20191118-q4vbtbxs5ve6bc5hgokqrstsm-story.html>.
- 38 "Baltimore City Passes Groundbreaking Affordability and Equity Bill," Food and Water Action, November 18, 2019, <https://www.foodandwateraction.org/food/baltimore-city-passes-groundbreaking-affordability-and-equity-bill/>.
- 39 Roger Colton, "Baltimore's Conundrum: Charging for Water/Wastewater Services That Community Residents Cannot Afford to Pay," November 2017, 47, 60–61, [https://www.foodandwaterwatch.org/sites/default/files/baltimore\\_water\\_study-final\\_report-2017.pdf](https://www.foodandwaterwatch.org/sites/default/files/baltimore_water_study-final_report-2017.pdf).
- 40 Rianna Eckel, "Baltimore Becomes First Big U.S. City to Ban Water Privatization," Food and Water Watch, November 8, 2018, <https://www.foodandwaterwatch.org/news/baltimore-becomes-first-big-us-city-ban-water-privatization>.
- 41 Rianna Eckel, Interview by Corporate Accountability, December 28, 2019.
- 42 Carey L. Biron, "Baltimore Votes to Become First Large U.S. City to Ban Water Privatization."
- 43 "South Bend, Indiana Population 2020," World Population Review, <http://worldpopulationreview.com/us-cities/south-bend-population/>.
- 44 Kieran Fahey, Interview by Corporate Accountability, December 5, 2019.
- 45 "Sewer System Improvements to Reduce CSOs in South Bend," WaterWorld, December 31, 2011, <https://www.waterworld.com/urban-stormwater/stormwater-management/article/16209698/sewer-system-improvements-to-reduce-csos-in-south-bend>.
- 46 "Written Testimony of Mayor Pete Buttigieg" (The United States Conference of Mayors, May 18, 2017), 2–3, <http://www.usmayors.org/wp-content/uploads/2017/05/Buttigieg-Testimony.pdf>.
- 47 Jeff Parrott, Joe Dits, and Mary Beth Spalding, "A Year after Historic South Bend Area Floods, Damage Remains, Preventive Measures Planned," South Bend Tribune, February 16, 2019, [https://www.southbendtribune.com/news/local/a-year-after-historic-south-bend-area-floods-damage-remains/article\\_38db74dd-b1df-5062-ad7b-6acb91694ef7.html](https://www.southbendtribune.com/news/local/a-year-after-historic-south-bend-area-floods-damage-remains/article_38db74dd-b1df-5062-ad7b-6acb91694ef7.html).
- 48 Jeff Parrott, "South Bend Hopes to Spend Hundreds of Millions Less to Reduce River Pollution," South Bend Tribune, September 3, 2019, [https://www.southbendtribune.com/news/local/south-bend-hopes-to-spend-hundreds-of-millions-less-to/article\\_8c491336-e691-597f-84ca-605f5b62f4d5.html](https://www.southbendtribune.com/news/local/south-bend-hopes-to-spend-hundreds-of-millions-less-to/article_8c491336-e691-597f-84ca-605f5b62f4d5.html).
- 49 "Written Testimony of Mayor Pete Buttigieg," 2.
- 50 Jessica Hughes, "Wireless Sensors Reduce Flooding in Indiana City," Government Technology, October 1, 2008, <https://www.govtech.com/public-safety/Wireless-Sensors-Reduce-Flooding-in-Indiana.html>.
- 51 "Written Testimony of Mayor Pete Buttigieg," 3; Jennifer Weingart, "These Smart Sewers Are Part Of A Growing Trend Connecting Infrastructure To The Internet," NPR, May 8, 2018, <https://www.npr.org/2018/05/08/609493403/these-smart-sewers-are-part-of-a-growing-trend-connecting-infrastructure-to-the->.
- 52 "Written Testimony of Mayor Pete Buttigieg," 2.
- 53 Jeff Parrott, "South Bend Hopes to Spend Hundreds of Millions Less to Reduce River Pollution"; Kieran Fahey, "Response to USEPA's Request for Additional Information- South Bend CSO LTCP," February 12, 2019, 4.
- 54 Kieran Fahey, "Response to USEPA's Request for Additional Information- South Bend CSO LTCP," February 12, 2019, 4–5.
- 55 Kieran Fahey, interview.
- 56 Kieran Fahey, "Response to USEPA's Request for Additional Information- South Bend CSO LTCP," February 12, 2019, 5.
- 57 Kieran Fahey, 5.
- 58 Kieran Fahey, 6–7.
- 59 Kieran Fahey, interview.
- 60 "Written Testimony of Mayor Pete Buttigieg," 4.
- 61 Kieran Fahey, "Response to USEPA's Request for Additional Information- South Bend CSO LTCP," February 12, 2019, 8.
- 62 Kieran Fahey, 9.
- 63 Kieran Fahey, "Response to USEPA's Request for Additional Information- South Bend CSO LTCP," February 12, 2019.
- 64 Kieran Fahey, 4–5.
- 65 Julia Lurie, "This Major City's Drinking Water Was Fine. Then Came the Private Water Company," Mother Jones, October 26, 2016, <http://www.motherjones.com/environment/2016/10/private-water-pittsburgh-veolia>.
- 66 Auditor General Eugene A. DePasquale, "Performance Audit Report: The Pittsburgh Water and Sewer Authority, Governance" (Commonwealth of Pennsylvania, Department of the Auditor General, November 2017), 23–24, <http://www.paauditor.gov/Media/Default/Reports/PWSA-Audit%20Report%2011-01-17.pdf>.
- 67 City Controller Michael E. Lamb et al., "Performance Audit: Pittsburgh Water and Sewer Authority" (City of Pittsburgh, Office of City Controller, June 2017), 11–15, [http://apps.pittsburghpa.gov/co/Pittsburgh\\_Water\\_and\\_Sewer\\_Authority\\_June\\_2017.pdf](http://apps.pittsburghpa.gov/co/Pittsburgh_Water_and_Sewer_Authority_June_2017.pdf).
- 68 Julia Lurie, "This Major City's Drinking Water Was Fine. Then Came the Private Water Company."
- 69 City Controller Michael E. Lamb et al., "Performance Audit: Pittsburgh Water and Sewer Authority," 60–61.

- 70 City Controller Michael E. Lamb et al., 11.
- 71 "PWSA 2016 Lead Test Results," Pittsburgh Water and Sewer Authority, July 22, 2016, <http://www.pgh2o.com/release?id=6278>; "Actions Related to Pittsburgh Water and Sewer Authority" (Pennsylvania Department of Environmental Protection, April 25, 2016), 6, <http://files.dep.state.pa.us/RegionalResources/SWRO/SWROPortalFiles/PWSA/DEP%20Cites%20PWSA%20Webinar%2004252016%201200.pdf>.
- 72 Jessica Glenza, "Pittsburgh Water: Expensive, Rust-Colored, Corrosive, and High in Lead," *The Guardian*, September 12, 2016, <https://www.theguardian.com/environment/2016/sep/12/pittsburgh-water-expensive-rust-colored-corrosive>.
- 73 Adam Smeltz, Anya Litvak, and Rich Lord, "Peoples Natural Gas Sought \$1 Billion-plus Agreement with PWSA," *Pittsburgh Post-Gazette*, February 22, 2018, <https://www.post-gazette.com/local/city/2018/02/22/Peoples-Natural-Gas-PWSA-Bill-Peduto-Kevin-Acklin-Deborah-Gross-privatization-Infrastructure-Management-Group/stories/201802210203>.
- 74 Margaret J. Krauss, "The First Step In Restructuring PWSA Could Be Presented To City Council Next Week," 90.5 WESA, March 15, 2018, <https://www.wesa.fm/post/first-step-restructuring-pwsa-could-be-presented-city-council-next-week>; "City and PWSA Introduce New Cooperation Agreement," *City of Pittsburgh*, June 7, 2019, <http://pittsburghpa.gov/press-releases/press-releases/2999>.
- 75 "Customer Assistance Programs," Pittsburgh Water and Sewer Authority, <https://www.pgh2o.com/residential-commercial-customers/billing-community-assistance-programs/customer-assistance-programs>.
- 76 Kathleen J. Davis, "PWSA Approves Shutoff Moratorium, Plans Policy To Assist Low-Income Residents," October 26, 2017, <https://www.wesa.fm/post/pwsa-approves-shutoff-moratorium-plans-policy-assist-low-income-residents>.
- 77 "Bill Discount Program Frequently Asked Questions," Pittsburgh Water and Sewer Authority, [https://apps.pittsburghpa.gov/redtail/images/1477\\_Bill\\_Discount\\_Program\\_FINAL.pdf](https://apps.pittsburghpa.gov/redtail/images/1477_Bill_Discount_Program_FINAL.pdf).
- 78 "Pittsburgh's Water Future 2030 and Beyond" (Pittsburgh Water and Sewer Authority, October 2018), 16–18, [https://apps.pittsburghpa.gov/redtail/images/4200\\_PGH2o2030Plan.pdf](https://apps.pittsburghpa.gov/redtail/images/4200_PGH2o2030Plan.pdf).
- 79 "Cooperation Agreement Between the City of Pittsburgh and the Pittsburgh Water and Sewer Authority" (City of Pittsburgh, October 3, 2019), <https://pittsburgh.legistar.com/LegislationDetail.aspx?ID=3976907&GUID=9CE9FEE2-5C49-4F6C-A1E3-FEE805A4D01F>; "City and PWSA Introduce New Cooperation Agreement."
- 80 "2019 Lead Service Line Replacement Program Reaches Early Milestones," Pittsburgh Water and Sewer Authority, May 21, 2019, <http://lead.pgh2o.com/2019-lead-service-line-replacement-program-reaches-early-milestones/>.
- 81 Mayor William Peduto, "Mayor William Peduto to Chairman Brown Dutrieuille," May 28, 2019, [https://www.wesa.fm/sites/wesa/files/201906/puc\\_peduto\\_letter.pdf](https://www.wesa.fm/sites/wesa/files/201906/puc_peduto_letter.pdf).
- 82 "Lead Map," Pittsburgh Water and Sewer Authority, <http://lead.pgh2o.com/your-water-service-line/planned-water-service-line-replacement-map/>.
- 83 "PWSA Workers Go Door-to-Door Speaking to Customers about Lead Service Lines," WPXI, February 28, 2019, <https://www.wpxi.com/news/top-stories/pittsburgh-lead-water-pwsa-workers-go-door-to-door-speaking-to-customers-about-lead-service-lines/926330248/>.
- 84 "Community Lead Response Advisory Committee Meeting Agenda" (Pittsburgh Water and Sewer Authority, April 24, 2019), <http://lead.pgh2o.com/wp-content/uploads/2019/05/CLRAC-4-meeting-minutes-FINAL.pdf>.
- 85 "Community Lead Response Advisory Committee Meeting Minutes" (Pittsburgh Water and Sewer Authority, March 4, 2019), 3, <http://lead.pgh2o.com/wp-content/uploads/2019/03/CLRAC3MinutesFINAL.pdf>.
- 86 "Community Lead Response Advisory Committee Meeting Minutes" (Pittsburgh Water and Sewer Authority, September 24, 2019), 2, <http://lead.pgh2o.com/wp-content/uploads/2019/09/092419-CLRAC-Meeting-Minutes.pdf>.
- 87 Kathleen J. Davis, "IMG's Plan To Fix PWSA Could Be Approved Next Month, But Actually Fixing It Will Take A Lot Longer," 90.5 WESA, November 27, 2017, <http://www.wesa.fm/post/imgs-plan-fix-pwsa-could-be-approved-next-month-actually-fixing-it-will-take-lot-longer>.
- 88 Bob Bauder, "Pittsburgh Could Spend \$900K to Restructure PWSA," *TribLIVE*, April 25, 2019, <https://archive.triblive.com/local/pittsburgh-allegheeny/pittsburgh-could-spend-900k-to-restructure-pwsa/>.
- 89 "Restructuring the Pittsburgh Water and Sewer Authority" (Mayor's Blue Ribbon Panel, December 28, 2017), 2, [https://apps.pittsburghpa.gov/redtail/images/1279\\_PWSAfinal.pdf](https://apps.pittsburghpa.gov/redtail/images/1279_PWSAfinal.pdf).
- 90 Aly Shaw, Interview by Corporate Accountability, November 13, 2019.
- 91 "Water Smart Landscapes Rebate," Southern Nevada Water Authority, <https://www.snwa.com/rebates/wsl/index.html>.
- 92 Tracy Samilton, "Toledo Works to Restore Trust in Its Water after 2014 Microcystin Scare," *Michigan Radio*, September 6, 2018, <https://www.michiganradio.org/post/toledo-works-restore-trust-its-water-after-2014-microcystin-scare>.
- 93 "Drinking Water Quality Dashboard," City of Toledo, <https://toledo.oh.gov/services/public-utilities/water-treatment/water-quality/>.
- 94 "Mayor Says Toledo Will Never Have a Problem with Drinking Water Again," 13abc WTVG, August 2, 2019, <https://www.13abc.com/content/news/Toledo-to-retire-water-quality-dashboard-next-year-514131461.html>.
- 95 Jon Delano, "PWSA Wants To Stop Providing Free Water To City-Owned Facilities," *CBS Pittsburgh*, August 30, 2018, <https://pittsburgh.cbslocal.com/2018/08/30/pwsa-free-water-city-owned-facilities/>; "City and PWSA Introduce New Cooperation Agreement."
- 96 "Tucson Water Department Limited English Proficiency Plan" (Tucson Water, April 2009), 4–7, <https://www.tucsonaz.gov/files/water/docs/twlepp.pdf>.
- 97 "About Landforce," Landforce, <https://www.landforcepgh.org/about-landforce/>.
- 98 Johanna Bozuma, "Building Resiliency Through Green Infrastructure: A Community Wealth Building Approach" (Democracy Collaborative, March 2019), 61, [https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/GreenInfrastructure\\_Web.pdf](https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/GreenInfrastructure_Web.pdf).
- 99 "Currents" (Pittsburgh Water and Sewer Authority, June 2019), 9, [https://www.pgh2o.com/sites/default/files/2019-12/6361\\_PWSACurrentsNewsletterJune2019\\_FINAL.pdf](https://www.pgh2o.com/sites/default/files/2019-12/6361_PWSACurrentsNewsletterJune2019_FINAL.pdf).
- 100 Cassandra Profita, "Portland Now Generating Hydropower In Its Water Pipes," *Oregon Public Broadcasting*, January 20, 2015, <https://www.opb.org/news/article/portland-now-generating-hydropower-in-its-water-pipes/>.

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