

# FEDERALISM'S BLIND SPOTS: THE CRISIS OF SMALL DRINKING WATER SYSTEMS

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## SUMMARY

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Drinking water contamination in Flint, Michigan, has garnered much-needed nationwide attention, but such contamination is neither isolated, nor a primarily urban problem. A hidden water crisis is straining thousands of smaller communities that share Flint's risk factors—shrinking populations, social marginalization, and deficient funds. This Article posits that the Safe Drinking Water Act's increasingly decentralized monitoring and funding scheme has drained communities of the capacity to deliver safe water. It examines the federal government's deliberate and inadvertent blindness to small systems' needs, which has left them in disrepair and unable to access assistance. Finally, it proposes a series of solutions to restore small systems' viability and visibility, including (1) smart pricing, (2) renewed federal investment, (3) capacity development, (4) consolidation, (5) community engagement, and (6) enforcement.

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*Newark's water crisis, like Flint's and even Washington's, is an obvious case of environmental racism, a case of blindness to the people, places and problems we choose not to see.*

—Dr. Mona Hanna-Attisha, Flint, Michigan<sup>1</sup>

On September 24, 2015, Flint pediatrician Dr. Mona Hanna-Attisha publicly announced what Flint residents had long suspected, and state officials had long denied: Flint's water supply suffered a series of preventable deficiencies and was dangerously contaminated.<sup>2</sup> Several factors primed Flint for a public health crisis. Flint is shrinking: declines in auto manufacturing reduced its population by half between 1960 and 2015.<sup>3</sup> Flint is marginalized: about 41% of the city's 100,000 residents, the majority of whom are black, live below the federal

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poverty line.<sup>4</sup> Flint is broke: tens of millions of dollars in accumulated deficits had forced the city into receivership.<sup>5</sup>

Facing economic and demographic decline, Flint attempted to save costs by treating and distributing its own water supply in April 2014.<sup>6</sup> By August of that year, however, Flint's water supply was contaminated with bacteria in excess of Safe Drinking Water Act (SDWA)<sup>7</sup> limits. By December, Flint's misguided treatment of the bacteria had generated unlawful levels of trihalomethanes, a disinfection byproduct. By February 2015, Flint consumers reported lead levels far exceeding regulatory limits, a result of Flint's failure to use corrosion control.

This Article challenges the notion that Flint's water contamination was isolated, or representative of a primarily urban problem. It argues that a hidden water crisis is impacting thousands of smaller communities that share that city's risk factors—shrinking populations, social marginalization, and deficient funds. Part I posits that the SDWA's increasingly decentralized monitoring and fund-

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1. *I Helped Expose the Lead Crisis in Flint. Here's What Other Cities Should Do.*, N.Y. TIMES, Aug. 27, 2019, <https://www.nytimes.com/2019/08/27/opinion/lead-water-flint.html>.  
2. See Robin Erb, *Flint Doctor Makes State See Light About Lead in Water*, DETROIT FREE PRESS, Oct. 12, 2015, <https://www.freep.com/story/news/local/michigan/2015/10/10/hanna-attisha-profile/73600120/>.  
3. FLINT WATER ADVISORY TASK FORCE, FINAL REPORT 1, 15 (2016), available at [https://www.michigan.gov/documents/snyder/FWATF\\_FINAL\\_REPORT\\_21March2016\\_517805\\_7.pdf](https://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21March2016_517805_7.pdf).

4. *Id.*  
5. See Jennifer Dixon, *How Flint's Water Crisis Unfolded*, DETROIT FREE PRESS, Feb. 2016, <https://www.freep.com/pages/interactives/flint-water-crisis-timeline/>.  
6. OFFICE OF INSPECTOR GENERAL (OIG), U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), MANAGEMENT WEAKNESSES DELAYED RESPONSE TO FLINT WATER CRISIS (2018), available at [https://www.epa.gov/sites/production/files/2018-07/documents/\\_epaig\\_20180719-18-p-0221.pdf](https://www.epa.gov/sites/production/files/2018-07/documents/_epaig_20180719-18-p-0221.pdf).  
7. 42 U.S.C. §§300f to 300j-26, ELR STAT. SDWA §§1401-1465.

ing scheme have drained communities of the capacity to deliver safe water—and President Donald Trump’s policies and proposals will likely entrench this problem further. Part II examines how these dynamics of federal neglect have left small systems in disrepair and unable to access assistance. Part III concludes by proposing a series of solutions addressing small systems’ insolvency and the root cause: our blindness to their needs.

## I. Leaving Water Systems High and Dry: Decentralized Monitoring and Financing

*Certain forms of knowledge and control require a narrowing of vision. The great advantage of such tunnel vision is that it brings into sharp focus certain limited aspects of an otherwise far more complex and unwieldy reality.*

—James C. Scott, Ph.D., *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*<sup>8</sup>

The SDWA of 1974 is the fountainhead of clean drinking water policy and financing in the United States.<sup>9</sup> Enacted to address alarming deficiencies in America’s water infrastructure and management, the SDWA gives the U.S. Environmental Protection Agency (EPA) broad authority to develop regulations protecting public drinking water quality, and to ensure that they are implemented.<sup>10</sup> But to fulfill this vast mandate, which today extends to some 50,000 public community water systems supplying more than 300 million consumers with water year-round,<sup>11</sup> requires what sociologist James C. Scott has called “a narrowing of vision.”<sup>12</sup> EPA accomplishes this narrowing through (1) “state primacy” (delegated oversight and enforcement), and (2) “fiscal federalism” (relying on states to distribute federal funds, and on state and local authorities to contribute toward assessed need). These ostensibly practical decentralization strategies have endangered water systems generally, and small systems particularly.

### A. State Primacy and Deficient Oversight

Delegation has frustrated EPA’s mandate and undermined SDWA compliance. To understand how, one must first understand how delegation was intended to work. To make

oversight and enforcement of its drinking water regulations practicable, EPA relies on a system of “state primacy,” or delegation to states, authorized by SDWA §1413.<sup>13</sup> Under this system, EPA retains responsibility for developing standards and collecting national data, and it deputizes enforcement and monitoring to state and tribal authorities (herein “primacy states” or “states”), so long as they meet other minimum requirements and maintain standards at least as stringent as the federal government’s.<sup>14</sup>

State primacy requires four layers of actors to ensure the integrity of water quality data: the regulated public water systems, the primacy agency, the regional authority overseeing primacy agencies, and EPA. Community water systems are publicly or privately owned entities that distribute treated tap water to the public year-round.<sup>15</sup> These systems must comply with regulations, test water, and report all compliance data to the primacy state.<sup>16</sup> The state must monitor the data,<sup>17</sup> and “implement a strategy to assist” all new and existing water systems in acquiring the “technical, managerial, and financial capacity to comply with every regulation in effect.”<sup>18</sup> Regional administrators must oversee primacy agencies in 10 geographic zones and report water quality data to EPA’s national database,<sup>19</sup> so that EPA can oversee the whole system and intervene in water emergencies.<sup>20</sup>

The reality is far from this ideal. Delegation has been plagued by reporting and enforcement failures at every level, which leave the full extent of America’s water problems invisible and unchecked. The problem begins with community water systems’ data, which for three decades have suffered known deficiencies. In 1990, a U.S. Government Accountability Office (GAO) report concluded that “many water systems are not complying with monitoring and contaminant level requirements,”<sup>21</sup> and a 1994 EPA audit concluded that about 18% of community water sys-

8. JAMES C. SCOTT, *SEEING LIKE A STATE: HOW CERTAIN SCHEMES TO IMPROVE THE HUMAN CONDITION HAVE FAILED* 11 (1998).  
 9. See MARY TIEMANN, CONG. RESEARCH SERV., *SAFE DRINKING WATER ACT (SDWA): A SUMMARY OF THE ACT AND ITS MAJOR REQUIREMENTS* (2017), available at <https://fas.org/sgp/crs/misc/RL31243.pdf>.  
 10. See JONATHAN L. RAMSEUR & MARY TIEMANN, CONG. RESEARCH SERV., *WATER INFRASTRUCTURE FINANCING: HISTORY OF EPA APPROPRIATIONS 6* (2019), available at <https://fas.org/sgp/crs/misc/96-647.pdf>.  
 11. See OIG, U.S. EPA, *EPA MUST IMPROVE OVERSIGHT OF NOTICE TO THE PUBLIC ON DRINKING WATER RISKS TO BETTER PROTECT HUMAN HEALTH* (2019), available at [https://www.epa.gov/sites/production/files/2019-09/documents/\\_epaig\\_20190925-19-p-0318.pdf](https://www.epa.gov/sites/production/files/2019-09/documents/_epaig_20190925-19-p-0318.pdf). In fact, EPA’s mandate extends to 140,000 water systems, but only 50,000 of these are public systems delivering water to consumers year-round. *Id.*  
 12. See *supra* note 8 and accompanying quote.

13. See 42 U.S.C. §300g-2.

14. *Id.* Primary agencies’ requirements include, inter alia, adopting regulations that are at least as stringent as EPA’s; adopting adequate procedures for enforcing those regulations; keeping records as required by EPA; adopting emergency plans; and adopting penalties for violations. *Id.*

15. See U.S. EPA, *Information About Public Water Systems*, <https://www.epa.gov/dwreginfo/information-about-public-water-systems> (last updated Mar. 8, 2017).

16. See 40 C.F.R. §§142.10-.19 (2019).

17. See *id.* §142.10. Public water systems (PWS) must test their water supply for various contaminants and report the results to their states. Generally, the larger the population a system serves, the more often that system is required to test and report. The type of PWS (community or noncommunity) and the water source (surface or groundwater) determine what contaminants must be monitored. The four basic contaminant groups PWS must test for and report on are (1) inorganic chemicals, (2) organic chemicals, (3) radionuclides, and (4) microbiological contaminants. *Id.*

18. See U.S. EPA, *Learn About Small Drinking Water Systems*, <https://www.epa.gov/dwcapacity/learn-about-small-drinking-water-systems> (last updated Sept. 30, 2016).

19. See generally OIG, *EPA MUST IMPROVE OVERSIGHT*, *supra* note 11.

20. See U.S. GOVERNMENT ACCOUNTABILITY OFFICE (GAO), *UNRELIABLE STATE DATA LIMIT EPA’S ABILITY TO TARGET ENFORCEMENT PRIORITIES AND COMMUNICATE WATER SYSTEMS’ PERFORMANCE* (2011), available at <https://www.gao.gov/assets/gao-11-381.pdf>.

21. See GAO, *COMPLIANCE PROBLEMS UNDERMINE EPA PROGRAM AS NEW CHALLENGES EMERGE* 13 (1990), available at <https://www.gao.gov/assets/rced-90-127.pdf>.

tems, and 70% of small systems, reported erroneous data.<sup>22</sup> More recently, between 2016 and 2019, EPA logged more than 35,000 *reported* violations of public water quality notification rules alone.<sup>23</sup>

Primacy states and regions, in turn, have failed to share accurate water data with EPA. As early as 1990, GAO warned that states' water quality surveys were "known to be inadequate"<sup>24</sup>; in 2011, states were found to have still inaccurately reported 84% of monitoring violations and 26% of health-based violations (i.e., excess contaminant levels) to EPA each year.<sup>25</sup> EPA's Office of Inspector General (OIG) has recently published near-annual reports on this problem, stressing that EPA cannot perform its role without visibility into state-level water issues.<sup>26</sup> Indeed, inaccurate state data contributed to EPA's inaction in Flint.<sup>27</sup>

What is worse, EPA and states fail even to act on the limited data they have.<sup>28</sup> In 2015, nearly nine in 10 of the 80,000 *known* SDWA violations received no formal enforcement action by states or EPA, and three in four systems' issues lasted more than one year.<sup>29</sup> This represents just the tip of the noncompliance iceberg, given that many violations are never reported in the first place. Unchecked, chronic noncompliance increases the risk of Flint-like disasters, in which contaminated water is distributed without any intervention from enforcement agencies.<sup>30</sup>

Yet, in the face of this breakdown in reporting and oversight, authorities at every level explain that resource scarcity prevents further action.<sup>31</sup> Water systems struggle to afford the staff and equipment they need to meet regulatory requirements.<sup>32</sup> States, too, are chronically underfunded, as federal funding sources are steady or decreasing, while

new regulatory demands and inflation have driven up their costs.<sup>33</sup> EPA, for its part, explains it lacks "the resources to effectively administer all of its responsibilities," and so it "relies heavily on local, State, and tribal agencies for compliance and enforcement."<sup>34</sup> Thus, even as improved oversight of these agencies has ranked among EPA's top priorities each year since 2008,<sup>35</sup> EPA's commitments tend toward communication with the states and regions, rather than direct intervention.<sup>36</sup>

As will be discussed in the following section, this regulatory buck-passing is intimately linked to broader financial divestment from water. Both represent government turning a blind eye to water systems in great need of attention.

## B. Fiscal Federalism and Inadequate Financing

The abandonment of our water infrastructure is the product of an unkept promise. In the 1970s, the U.S. Congress packaged the SDWA's stringent requirements with massive federal support to rebuild community water systems and equip states as watchdogs. But in the ensuing decades, that support unraveled. Congress has wound down federal grants in favor of "fiscal federalism," making states and localities responsible for the majority of infrastructure funding. The result of this burden-shifting is a widening funding gap, particularly in the neediest areas.

Until the 1990s, Congress accomplished water infrastructure projects through federal grants under the SDWA and the Clean Water Act (CWA).<sup>37</sup> But these grants came under fire during the Ronald Reagan Administration, which argued that most high-priority projects had been completed, and those outstanding—especially small, rural projects—were the responsibility of the states rather than the federal government.<sup>38</sup> Some states also opposed grants, which came with "what they viewed as burdensome rules and regulations."<sup>39</sup> In response, Congress phased out water infrastructure grants, replacing them with loans that local water systems must repay.<sup>40</sup>

22. See OIG, U.S. EPA, EPA PROCEDURES TO ENSURE DRINKING WATER INTEGRITY (1995), available at [https://www.epa.gov/sites/production/files/2015-10/documents/report5\\_0.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/report5_0.pdf). For example, a medium sized public water system in North Carolina reported three years of invalid data due to "improper testing procedures and poor equipment," which included "operators read[ing] their results by holding the color wheel up to a window with evergreen trees in the background. Because the color wheel used varying shades of green to measure pH values, light filtered through the green background of the trees would have made it difficult to obtain accurate readings." *Id.*

23. See KRISTI PULLEN FEDINICK ET AL., WATERED DOWN JUSTICE 43 (2019), available at <https://www.nrdc.org/sites/default/files/watered-down-justice-report.pdf> (noting 12,606 violations of the consumer confidence rule and 22,481 violations of the public notice rule reported in the Safe Drinking Water Information System).

24. See GAO, COMPLIANCE PROGRAMS *supra* note 21, at 4.

25. See GAO, UNRELIABLE STATE DATA *supra* note 20, at 13, 16.

26. See, e.g., OIG, EPA MUST IMPROVE OVERSIGHT, *supra* note 11; see also OIG, U.S. EPA, EPA IS TAKING STEPS TO IMPROVE STATE DRINKING WATER PROGRAM REVIEWS AND PUBLIC WATER SYSTEMS COMPLIANCE DATA (2017), available at [https://www.epa.gov/sites/production/files/2017-07/documents/\\_epa\\_oig\\_20170718-17-p-0326.pdf](https://www.epa.gov/sites/production/files/2017-07/documents/_epa_oig_20170718-17-p-0326.pdf).

27. Indeed, even after Flint's crisis was known, the EPA safe drinking water database included no lead violations for Flint as of 2017. See KRISTI PULLEN FEDINICK ET AL., NATURAL RESOURCES DEFENSE COUNCIL, THREATS ON TAP 7 (2017), available at <https://www.nrdc.org/sites/default/files/threats-on-tap-water-infrastructure-protections-report.pdf>.

28. See generally *supra* note 23.

29. See FEDINICK ET AL., THREATS ON TAP 7, *supra* note 27, at 20.

30. See OIG, MANAGEMENT WEAKNESSES *supra* note 6.

31. See, e.g., GAO, *supra* note 20, UNRELIABLE STATE DATA, at 21 (finding state officials claim small staffs are to blame for their failure to reliably report data to EPA); see also OIG, EPA PROCEDURES, *supra* note 22, at 4 (noting that state and federal officials claimed they were too resource-constrained to improve the surveys).

32. See *infra* notes 108-11 and accompanying text.

33. Federal funding sources provide the majority of states' water regulation budgets. See ASSOCIATION OF STATE DRINKING WATER ADMINISTRATORS, BEYOND TIGHT BUDGETS 1-2 (2018), available at <https://www.asdwa.org/wp-content/uploads/2018/12/Beyond-Tight-Budgets-2018.pdf>.

34. See Memorandum from Bill A. Roderick, Acting Inspector General, OIG, to Lisa P. Jackson, Administrator, U.S. EPA 6 (May 11, 2010), available at [https://www.epa.gov/sites/production/files/2015-09/documents/epa\\_fy2010\\_managementchallenges.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/epa_fy2010_managementchallenges.pdf) (EPA's Fiscal Year 2010 Management Challenges).

35. See U.S. EPA, OIG, EPA Key Management Challenges, <https://www.epa.gov/office-inspector-general/key-management-challenges-epa-and-csb#EPA> (last updated July 15, 2019).

36. For example, in 2019, President Trump's EPA Administrator declined an OIG suggestion to improve direct oversight of states, instead pledging to issue a "clarifying memorandum" and conduct training. See OIG, EPA MUST IMPROVE OVERSIGHT, *supra* note 11, at 30-33. OIG concluded that recommendations 1, 2, and 9 were unresolved. *Id.*

37. See RAMSEUR & TIEMANN, *supra* note 10, at 1; 33 U.S.C. §§1251-1387, ELR STAT. FWPCA §§101-607.

38. *Id.*

39. *Id.*

40. *Id.* The drinking water loan program, known as the Drinking Water State Revolving Fund, was modeled after a similar program for wastewater infrastructure, the Clean Water State Revolving Fund. That program, too, saw a gradual burden-shift from the government to local utilities. While initially the federal government provided 75% of funding and the state and

Today, states administer “revolving loan funds,” which Congress capitalizes annually if states provide a 20% match.<sup>41</sup> Water systems planning upgrades and repairs are only eligible to borrow from these funds if they meet certain criteria, including adequate creditworthiness and project planning capacity.<sup>42</sup> States receive a small annual administration grant,<sup>43</sup> and may use part of their federal funding to subsidize loan principal and interest rates,<sup>44</sup> but they have limited means to help struggling systems that cannot afford repayment. As a result, the vast majority of federal funds are out of reach for the neediest systems.<sup>45</sup>

The shift from grant aid to loans was gradual. In the early days of the federal loan program, Congress carved out large, earmarked appropriations for priority projects every year,<sup>46</sup> with states contributing a 45% match.<sup>47</sup> In 1998, for example, about two-thirds of drinking water funding was distributed via loans, while 18 water infrastructure projects received the remainder as grants.<sup>48</sup> By 2011, however, President Barack Obama secured a moratorium on earmarks amid concerns that they undermined political accountability.<sup>49</sup> Only a few special allocations survived, including small amounts for Alaska native villages and United States-Mexico border communities,<sup>50</sup> and occasional set-asides for large, visible emergencies.<sup>51</sup>

local governments made up the rest, the federal government’s default cost share was reduced to 55% in 1981, and then reduced to zero with the 1987 amendments to the Clean Water Act. *Id.*

41. *See* CONG. RESEARCH SERV., DRINKING WATER STATE REVOLVING FUND (DWSRF): OVERVIEW, ISSUES, AND LEGISLATION (2018), available at [https://www.everycrsreport.com/files/20181002\\_R45304\\_6b5dfef9d4cfa51bb96d460e6d65ce3672581c6e.pdf](https://www.everycrsreport.com/files/20181002_R45304_6b5dfef9d4cfa51bb96d460e6d65ce3672581c6e.pdf).

42. *Id.*

43. Each state receives an average \$2 million annually from the federal government for this purpose. *See* U.S. EPA, *Public Water System Supervision (PWSS) Grant Program*, <https://www.epa.gov/dwreginfo/public-water-system-supervision-pwss-grant-program> (last updated May 28, 2019); *see also* 42 U.S.C. §300j-12. They may also use some revolving loan funding for technical assistance and capacity development, provided they match dollar for dollar. *See* TIEMANN, *supra* note 9, at 7 n.17.

44. As of 2018, states must use between 6% and 35% of their funding for this purpose. *See* RAMSEUR & TIEMANN, *supra* note 10, at 9.

45. *See infra* note 112 and accompanying text.

46. *See* RAMSEUR & TIEMANN, *supra* note 10, at 6.

47. *Id.* at 7-8.

48. Congress allocated approximately \$3.2 billion total for water and environmental aid, of which 23% went to loans and 12% went to earmarks for 18 water infrastructure projects. *See* CLAUDIA COPELAND, CONG. RESEARCH SERV., RL32201, WATER INFRASTRUCTURE PROJECTS DESIGNATED IN EPA APPROPRIATIONS: TRENDS AND POLICY IMPLICATIONS (2014), available at <https://www.everycrsreport.com/reports/RL32201.html>. The remaining funding was allocated toward clean water loans and state environmental block grants. *Id.*

49. *See* RAMSEUR & TIEMANN, *supra* note 10, at 9. That year, Congress reduced funding for special projects to 4% of the overall allocation, or \$187 million for 319 special projects. *Id.*

50. *Id.* at 8-9. During fiscal years 2012-2015, Congress allocated approximately \$10 million to the Alaska projects and \$5 million to the border. These allocations were doubled during fiscal years 2016-2018. In fiscal year 2019, Alaska received \$25 million in funding, while the border received \$15 million. *Id.*

51. For example, Flint received \$100 million following its crisis, and the Water Infrastructure Finance and Innovation Act of 2017 also authorized \$30 to \$68 million per year in new state revolving fund (SRF) funding for large, “creditworthy” infrastructure projects, contingent on a state match; critics of the bill expressed concern that it could cannibalize DWSRF assistance, resulting in decreased SRF funding available for small systems. *See* CONG. RESEARCH SERV., WATER INFRASTRUCTURE FINANCING: THE WATER INFRASTRUCTURE FINANCE AND INNOVATION ACT (WIFIA) PROGRAM (2019), available at <https://fas.org/spp/crs/misc/R43315.pdf>.

Unfortunately, our contemporary loan-dominant regime is poorly funded, inadequate to meet mounting infrastructure needs, and likely to dwindle further if fiscally conservative proposals are realized. Recent water utility funding has reached its lowest point since the passage of the SDWA in 1974. In 2017, about \$4 billion was allocated to wastewater and drinking water infrastructure, most of it as loans, compared to an average \$17 billion in annual grants in the decade after the SDWA was passed.<sup>52</sup> President Trump’s recent budget proposals would slash drinking water loan funding by one-quarter (or about \$300 million), reduce states’ administration support by one-third, and eliminate allocations for lead reduction, United States-Mexico border communities, and small and disadvantaged communities.<sup>53</sup>

The attack on drinking water allocations contrasts sharply with the exponential growth in unmet need. Regulatory demands today are higher than ever, due to our increased knowledge of contaminants and their adverse health effects.<sup>54</sup> At the same time, the gradual deterioration of existing infrastructure has caused investment needs to accumulate, amounting to an estimated one-half trillion<sup>55</sup> to one trillion dollars in needed upgrades over the next 20 years.<sup>56</sup> Water contamination has also peaked: reported health-based violations of the SDWA, which have doubled since the 1980s, currently affect more than 20 million people annually.<sup>57</sup>

Endemic water contamination is the inevitable outcome of our chronically underfunded infrastructure model. With it, we can expect mounting public health problems—including increased rates of major organ damage, cancer, and death—among affected populations.<sup>58</sup> As Part

52. *See* CONGRESSIONAL BUDGET OFFICE, PUBLIC SPENDING ON TRANSPORTATION AND WATER INFRASTRUCTURE, 1956 TO 2017 (2018), available at <https://www.cbo.gov/system/files/2018-10/54539-Infrastructure.pdf>.

53. *See* U.S. EPA, FY 2020 BUDGET IN BRIEF 78 (2019), available at <https://www.epa.gov/sites/production/files/2019-03/documents/fy-2020-epa-bib.pdf>; *see also* Environmental Defense Fund, *Deep EPA Cuts Put Public Health at Risk*, <https://www.edf.org/deep-epa-cuts-put-public-health-risk> (last visited Feb. 20, 2020).

54. *See, e.g.*, Christine L. Jocoy, *Who Gets Clean Water? Aid Allocation to Small Water Systems in Pennsylvania*, 36 J. AM. WATER RESOURCES ASS’N 811, 814 (2007), available at [https://www.researchgate.net/publication/230262459\\_Who\\_Gets\\_Clean\\_Water\\_Aid\\_Allocation\\_to\\_Small\\_Water\\_Systems\\_in\\_Pennsylvania](https://www.researchgate.net/publication/230262459_Who_Gets_Clean_Water_Aid_Allocation_to_Small_Water_Systems_in_Pennsylvania).

55. EPA’s most recent projections fall between \$473 billion and \$660 billion in needed investments over the next 20 years. *See* U.S. EPA, DRINKING WATER INFRASTRUCTURE NEEDS SURVEY AND ASSESSMENT: SIXTH REPORT TO CONGRESS (2018) [hereinafter EPA SIXTH REPORT TO CONGRESS], available at [https://www.epa.gov/sites/production/files/2018-10/documents/corrected\\_sixth\\_drinking\\_water\\_infrastructure\\_needs\\_survey\\_and\\_assessment.pdf](https://www.epa.gov/sites/production/files/2018-10/documents/corrected_sixth_drinking_water_infrastructure_needs_survey_and_assessment.pdf); *see also* U.S. EPA, DRINKING WATER INFRASTRUCTURE NEEDS SURVEY AND ASSESSMENT: FIFTH REPORT TO CONGRESS (2013), available at <https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf>; *see also* U.S. EPA, CLEAN WATERSHEDS NEEDS SURVEY 2012: REPORT TO CONGRESS (2016), available at [https://www.epa.gov/sites/production/files/2015-12/documents/cwns\\_2012\\_report\\_to\\_congress-508-opt.pdf](https://www.epa.gov/sites/production/files/2015-12/documents/cwns_2012_report_to_congress-508-opt.pdf).

56. *See* AMERICAN WATER WORKS ASSOCIATION, BURIED NO LONGER: CONFRONTING AMERICA’S WATER INFRASTRUCTURE CHALLENGE (2014), <http://www.climateneeds.umd.edu/reports/American-Water-Works.pdf>.

57. *See* Maura Allaire et al., *National Trends in Drinking Water Quality Violations*, 115 PNAS 2078 (2018), available at <https://doi.org/10.1073/pnas.1719805115>.

58. *See* OIG, U.S. EPA, DRINKING WATER: EPA NEEDS TO TAKE ADDITIONAL STEPS TO ENSURE SMALL COMMUNITY WATER SYSTEMS DESIGNATED AS SERIOUS VIOLATORS ACHIEVE COMPLIANCE 1 (2016), available at <https://www.epa.gov/sites/production/files/2016-03/documents/20160322-16-p-0108.pdf>.

II explores, the detriments of invisibility and underinvestment are hitting our smallest communities hardest, portending a nationwide wave of small-scale, Flint-like crises.

## II. Up a Creek: Decentralization and Small Systems

On March 13, 2018, Louisiana Gov. John Bel Edwards joined State Health Officer Jimmy Guidry in unveiling a new water distribution system for the rural, impoverished, majority-black town of St. Joseph, Louisiana.<sup>59</sup> Officials praised the \$8 million upgrade as an “excellent example” of “immediately . . . working with all homeowners” to achieve “momentum . . . to build a better future.”<sup>60</sup> Those virtues were hardly apparent to the residents of St. Joseph, who had suffered a decade of contaminated water.<sup>61</sup> “Getting anyone to do anything about it was impossible until Flint’s situation was in the news,” said one resident.<sup>62</sup>

State officials had long denied St. Joseph had a water problem; in a move reminiscent of Michigan’s denial in Flint, Officer Guidry refused to drink a glass of St. Joseph’s water, but insisted it was safe for residents.<sup>63</sup> That conclusion was soon upended. Tests conducted by Dr. Wilma Subra, environmental scientist and technical director of the Louisiana Environmental Action Network, found lead contamination in St. Joseph in 2016.<sup>64</sup> Yielding to activists’ pressure, Governor Edwards declared a health emergency and agreed to build St. Joseph a new water system.<sup>65</sup> All involved agreed on one thing, however: the \$8 million overhaul was not scalable. “The simple fact of the matter is we can’t replicate this effort around the state because we don’t have enough money,” Governor Edwards warned.<sup>66</sup>

Concern over long-term sustainability spurred Louisiana’s government to action. The state appointed David Greer, a retired Louisiana legislative auditor, to overhaul fiscal management in St. Joseph and other small towns.<sup>67</sup> It established the Louisiana Rural Water Infrastructure Committee, a task force that has identified Louisiana’s

“most troubled” water systems.<sup>68</sup> Yet, some closest to the problem remained skeptical of these steps. “So they’re troubled,” Mr. Greer said. “Where should the funding come from? That’s the basic question.”<sup>69</sup>

### A. The Problem of Visibility: Blindness to Small Systems

St. Joseph’s water contamination issue is not isolated. On the contrary, many communities operating small water systems—those serving 3,300 people or fewer—possess the same risk factors that obscured Flint’s crisis: they are shrinking, they are marginalized, and they are broke. And, caught in America’s growing chasm between infrastructure needs and available resources, these communities experience drinking water dysfunction: between 2016 and 2019, small systems were responsible for more than 80% of health-related violations of EPA standards, and 50% of them had at least one violation, compared to just 11% of systems overall.<sup>70</sup> These statistics are even worse for historically marginalized communities. The Natural Resources Defense Council (NRDC) has found that a county’s proportion of racial minorities, low-income people, and non-native English speakers correlates to more violations, greater time out of compliance, and more contaminants.<sup>71</sup>

Divestment from our rapidly deteriorating small systems must be understood, in part, as a visibility problem. For most of the 20th century, community water systems sprang up as diffuse, unregulated utilities.<sup>72</sup> Burdened with few (if any) regulations, and possessed of limited expertise to monitor their own structural integrity, small systems remained under the radar.<sup>73</sup> The SDWA attempted to bring small systems’ infrastructure needs into the government’s field of vision, but several factors have kept them functionally invisible.<sup>74</sup>

Small systems’ quality issues have remained unknown, in part, because they are unreliable self-reporters.<sup>75</sup> Small systems generate 300 times more monitoring and reporting violations per customer than larger systems.<sup>76</sup> These report-

59. See Julie Dermansky, *While One Louisiana Town’s Lead-Tainted Water System Is Replaced, Dozens of Others Deteriorate*, DESMOG, Mar. 18, 2017, <https://www.desmogblog.com/2017/03/18/st-joseph-louisiana-lead-tainted-water-system-replaced-dozens-deteriorate>.

60. See Press Release, Office of the Governor, Gov. Edwards Announces Completion of New Water Plant in Town of St. Joseph, Lifts Public Health Emergency (Mar. 13, 2018), <http://gov.louisiana.gov/news/gov-edwards-announces-completion-of-new-water-plant-in-town-of-st-joseph-lifts-public-health-emergency>.

61. See Jeff Matthews, *Your Rural Water System May Be Close to a Flint-Like Crisis*, TOWN TALK, Aug. 13, 2018, <https://www.thetowntalk.com/story/news/local/2018/06/14/central-louisiana-water-system-contamination-crisis-public-health-issue/677924002/>.

62. See *supra* note 59.

63. See Holly Yan & Tessa Carletta, *Would You Drink This? When Brown Tap Water Is Deemed Legal and Safe*, CNN, Feb. 25, 2016, <https://www.cnn.com/2016/02/23/health/louisiana-st-joseph-dirty-water/>.

64. See Wilma Subra, *Lead in the Community Drinking Water in the Town of St. Joseph, LA*, LA. ENVTL. ACTION NETWORK, Feb. 23, 2017, <https://leanweb.org/public-health/lead-community-drinking-water-town-st-joseph-la/>.

65. See *supra* note 59.

66. *Id.*

67. See Press Release, Office of the Governor, Court Appoints Fiscal Administrator to Stabilize St. Joseph Finances; Brings Town One Step Closer to Clean Water (June 6, 2016), <http://gov.louisiana.gov/news/court-appoints-fiscal-administrator-to-stabilize-st-joseph-finances>.

68. Mark Ballard, *Gov’s Emergency Response Team Seeks Help After 11 Months Warding Off a Drinking Water Disaster*, ADVOCATE, Feb. 3, 2019, [https://www.theadvocate.com/baton\\_rouge/news/politics/legislature/article\\_9f45bd50-240d-11e9-bc9c-07f0f6ea2f6b.html](https://www.theadvocate.com/baton_rouge/news/politics/legislature/article_9f45bd50-240d-11e9-bc9c-07f0f6ea2f6b.html).

69. Telephone Interview with David Greer, Certified Public Accountant (Oct. 10, 2019).

70. See FEDINICK ET AL., WATERED DOWN JUSTICE, *supra* note 23, at 9.

71. See *id.* at 24.

72. See Jocoy, *supra* note 54, at 811.

73. *Id.*

74. For example, a 2011 OIG study concluded that the federal drinking water loan program was “not taking full advantage of the data and tools that are available to identify noncompliant systems” despite requirements that states, regions, and EPA coordinate to do so. See OIG, U.S. EPA, ENHANCED COORDINATION NEEDED TO ENSURE DRINKING WATER STATE REVOLVING FUNDS ARE USED TO HELP COMMUNITIES NOT MEETING STANDARDS 9 (2011), available at <https://www.epa.gov/sites/production/files/2017-09/documents/20111201-12-p-0102.pdf>.

75. See *supra* note 22. For example, a 1995 GAO audit found one small public water system in Oregon used the operator’s hot tub equipment to test water quality, reported invalid data, and had not been audited by the region in more than five years. *Id.*

76. See *infra* note 95, at 36. Very small systems have nearly 14,000 monitoring and reporting violations for every one million people served, whereas large systems only have 42. *Ibid.*

ing flaws are a reflection of powerful, perverse incentives, not just technical incompetence.<sup>77</sup> Noncompliant water operators might face tort liability,<sup>78</sup> citizen suits under the SDWA,<sup>79</sup> forced compliance with consent decrees or receivership,<sup>80</sup> and even federal criminal penalties, in the event that they knowingly submit erroneous water quality data.<sup>81</sup> And officials may simply fear losing control; St. Joseph's mayor, like Flint's, was replaced when knowledge of the town's crisis became public.<sup>82</sup>

Unfortunately, the fallibility of small systems' self-reported data has far-reaching consequences. Water quality data is passed both to states and to consumers via mandatory consumer confidence reports.<sup>83</sup> When data falsely downplays risks, it hampers top-down enforcement and bottom-up efforts to raise alarm about water contamination. The citizens of St. Joseph, for instance, were unable to hold their water system accountable during the many years that the state deemed it safe.<sup>84</sup> Bad data also keeps small systems underfunded: EPA's current funding recommendations are based upon a self-reported survey of 600 communities that took place in 2007, and it likely does not capture the needs that small systems have concealed.<sup>85</sup>

Independent of this, states' failure to fulfill their SDWA-envisioned role as the "cop on the beat"<sup>86</sup> keeps small systems' violations unknown and unaddressed.<sup>87</sup> Primacy states are required to take formal enforcement actions against violators, beginning with an administrative order, and escalating to include financial penalties, receivership proceedings, or even prosecution if the situation does not improve.<sup>88</sup> Yet OIG's 2016 study of small systems in severe violation of SDWA health standards found that 90% did not receive a timely formal enforcement action, 33% received none at all, and "few" if any were subjected to escalating sanctions.<sup>89</sup> As a result, 86%

of small utilities studied were still noncompliant more than three years later.<sup>90</sup>

State officials avoid enforcement not only because they may fear the political consequences, as seen in both Flint and St. Joseph,<sup>91</sup> but also because punishing small systems is ineffective—or worse, counterproductive. A 2019 NRDC study found that enforcement did not solve chronic non-compliance, especially among small systems and racially and economically marginalized communities.<sup>92</sup> "Some of the systems with persistent violations have many financial challenges, including very small customer bases," said Stephanie Showalter-Otts, director of the National Sea Grant Law Center in Oxford, Mississippi, "so what good is a fine going to do if they can't afford to pay it, or to address the issues?"<sup>93</sup>

Inaccurate reporting and lost faith in enforcement have conspired to trap many small water systems in self-perpetuating dysfunction. Yet, faced with these intractable problems, government too often turns away. These are the places, as Dr. Hanna-Attisha has said, that America chooses not to see.<sup>94</sup>

## B. *The Problem of Viability: Small Systems' Costly Catch-22*

With their needs obscured by poor monitoring and enforcement, small systems are trapped in a cycle of non-compliance. They escape or actively evade government oversight—but without federal support, they are too underfunded to comply. Small systems' financial distress is a matter of basic arithmetic: they are the costliest to maintain, but have the least funding. Despite having seven times greater unmet infrastructure needs than their larger counterparts,<sup>95</sup> small systems underinvest, spending on average just 7% of their budget on infrastructure.<sup>96</sup>

Several factors underpin small systems' limited means. First, American towns are experiencing fiscal crisis. Like Flint's, their tax bases have long been winnowed by receding populations, entrenched poverty, and the hollowing out of American "Main Streets" by Walmart and Amazon.<sup>97</sup> This means many municipal governments are struggling to make ends meet even before water distribution challenges arise.<sup>98</sup> Further, many small-town utilities are run by poor

77. See FEDINICK ET AL., *WATERED DOWN JUSTICE*, *supra* note 23, at 28 (noting that "water utilities can intentionally or unintentionally test water in ways that would decrease the likelihood of finding a regulated contaminant," yet EPA "has not insisted states implement programs that can determine the integrity of the data submitted").

78. For instance, Louisiana courts certified a class action suit against Cecilia Water Corp., whose roughly 3,774 customers testified that Cecilia distributed "discolored water, excessive water sediments, and foul-smelling water," and frequently had low water pressure, such that customers "could not bathe, flush toilets, and had to purchase bottled water." See *Cajuns for Clean Water, LLC v. Cecelia Water Corp.*, 257 So. 3d 706, 711 (La. Ct. App. 2018).

79. See 42 U.S.C. §300j-8.

80. See, e.g., Consent Decree, *United States v. City of Jackson*, No. 3:12-cv-790 TSL-MTP (S.D. Miss. Nov. 20, 2012), available at [https://www.epa.gov/sites/production/files/documents/jacksonmississippi-cd\\_0.pdf](https://www.epa.gov/sites/production/files/documents/jacksonmississippi-cd_0.pdf).

81. See *supra* note 21.

82. CNN Wire Service, *Public Health Emergency Declared in St. Joseph, Louisiana; Water Being Tested for Lead*, FOX6, Dec. 20, 2016, <https://fox6now.com/2016/12/20/public-health-emergency-declared-in-st-joseph-louisiana-water-being-tested-for-lead/>.

83. See U.S. EPA, *CCR Information for Consumers*, <https://www.epa.gov/ccr/ccr-information-consumers> (last updated Sept. 27, 2019).

84. See *supra* notes 63-64 and accompanying text.

85. See EPA SIXTH REPORT TO CONGRESS, *supra* note 55, at 54.

86. See 40 C.F.R. §142.10 (2019) (requiring states to maintain "[s]tatutory or regulatory enforcement authority adequate to compel compliance" with regulations).

87. See *supra* notes 28-30 and accompanying text.

88. See OIG, *supra* note 58, at 4.

89. *Id.* at 21. The study concerned the most severe, "Tier 1" violations of the SDWA, which require systems to notify consumers within 24 hours of the

violation. These typically involve signs of fecal bacteria or nitrate contamination. *Id.*

90. *Id.* at 7.

91. See *supra* note 82 and accompanying text.

92. See FEDINICK ET AL., *WATERED DOWN JUSTICE*, *supra* note 23, at 4.

93. E-mail from Stephanie Showalter-Otts, Director, National Sea Grant Law Center (Oct. 21, 2019).

94. See *supra* note 1 and accompanying text.

95. See U.S. EPA, *NATIONAL CHARACTERISTICS OF DRINKING WATER SYSTEMS SERVING 10,000 OR FEWER PEOPLE 22* (2011), available at <http://dnrc.mt.gov/divisions/cadd/docs/resource-development/w2asact-docs/REVFINALNatCharacteJuly2011508compliant.pdf>.

96. *Id.* In contrast, larger systems spend 15% of their (larger) budgets on infrastructure. *Id.*

97. Telephone Interview with Lt. Gen. Russel Honoré (Oct. 7, 2019); Telephone Interview with John J. Green, Professor of Sociology, University of Mississippi (Oct. 7, 2019).

98. See U.S. EPA, *supra* note 95, at 1 (noting that "small customer bases and declining populations, which result in limited revenue" plague smaller systems).

financial managers.<sup>99</sup> The mayor of St. Joseph, for example, had funneled water revenue toward unrelated expenses; he was eventually investigated for gross mismanagement and stripped of his fiscal authority,<sup>100</sup> further delaying desperately needed repairs.<sup>101</sup>

Second, diseconomies of scale undercut small systems' finances.<sup>102</sup> For instance, many smaller-scale systems are too stretched to pay full-time, competent operators, and instead rely on part-time employees receiving substantially lower wages.<sup>103</sup> But this ultimately causes costs to snowball, as poorly compensated, underqualified operators may make costly managerial and financial missteps.<sup>104</sup> St. Joseph's operator, for example, was inadequately trained and neglected maintenance tasks, including failing to grease valves to prevent freezing, Mr. Greer said, explaining that the local government "didn't support him, but he didn't perform the upkeep that was needed."<sup>105</sup> Such patterns drive a vicious cycle of insufficient operating revenue, premature asset failure,<sup>106</sup> and noncompliance.<sup>107</sup>

Third, water bill payments do not provide struggling small systems with sufficient revenue to cover operating costs, let alone set-asides for infrastructure investment.<sup>108</sup> Up to half of water utilities in certain states do not charge enough to break even.<sup>109</sup> But rate hikes are often infeasible and ineffective. Political pressure to keep rates low is a significant barrier in some communities,<sup>110</sup> and moreover, rate hikes would be pointless in poor communities where their likeliest result is greater nonpayment, not greater revenue.<sup>111</sup>

Finally, as federal grants have been largely replaced with loans, subsidized financing is out of reach for many small systems. Small systems are largely ineligible for loans,

because they fail to meet creditworthiness, project planning, and other requirements.<sup>112</sup> The resulting picture is bleak. Many small utilities, unable to subsist and unseen by government, are simply left to rot.

### III. Reenvisioning Small Water Systems: Recommended Strategies

*All water problems are solvable, just like the leak in the roof of your house is solvable. They aren't solvable if you close your eyes. They aren't solvable if you ignore them.*

—Charles Fishman, Author, *The Big Thirst*<sup>113</sup>

The United States faces crumbling access to the most basic of human needs: water. As this Article has established, our most troubled water systems are tiny, atomized, and tucked away in left-behind places. Their insolvency and long-standing neglect are intimately related. To reverse the degradation of our drinking water, therefore, we must support small systems' viability *and* their visibility. This will require a multipronged strategy that includes (1) smart pricing, (2) renewed federal investment, (3) capacity development, (4) consolidation, (5) community engagement, and (6) enforcement.

**1. Smart pricing.** The first order of business must be to restore the viability of small systems so that they can operate sustainably. To this end, charging adequate, affordable, and fair water rates is critical.<sup>114</sup> Rates are the main source of operating revenue,<sup>115</sup> yet frequently do not cover the full cost of adequate treatment, maintenance, and staffing.<sup>116</sup> However, blindly increasing rates will not fix the problem.<sup>117</sup> Passing historically disadvantaged systems' snowballing costs onto customers is inequitable—and ineffective.<sup>118</sup> Customers who cannot afford to pay may face water shutoffs, which already affect more than half a million households each year,<sup>119</sup> or even criminal arrests, a harsh result that some St. Joseph residents reportedly endured for failure to pay for their contaminated tap

99. *Id.* (noting a lack of financial management "may lead to increases in operating costs," the failure to "identify[ ] future infrastructure needs," and insufficient "resources needed to make capital improvements"); see also Jo-coy, *supra* note 54, at 813-14.

100. See Katie Moore, *St. Joseph Mayor Stripped of Financial Authority After Audit Slams Mayor's Management*, 4WVWL, June 7, 2016, <https://www.wvltv.com/article/news/st-joseph-mayor-stripped-of-financial-authority-after-audit-slams-mayors-management/234431886>.

101. See Mark Ballard, *Lead Found in Saint Joseph Drinking Water in 20-Plus Percent of Homes, Businesses*, ADVOCATE, Dec. 30, 2016, [https://www.theadvocate.com/baton\\_rouge/news/politics/article\\_40b6dfea-cc2d-11e6-a1f1-a73640428e2e.html](https://www.theadvocate.com/baton_rouge/news/politics/article_40b6dfea-cc2d-11e6-a1f1-a73640428e2e.html).

102. See U.S. EPA, *supra* note 95, at 31.

103. *Id.* at 20 (noting that in small systems "employees work an average of 20 hours or less per week," creating additional challenges for effective management).

104. See NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL (NEJAC), EPA'S ROLE IN ADDRESSING THE URGENT WATER INFRASTRUCTURE NEEDS OF ENVIRONMENTAL JUSTICE COMMUNITIES 17 (2018), available at [https://www.epa.gov/sites/production/files/2019-05/documents/nejac\\_white\\_paper\\_water-final-3-1-19.pdf](https://www.epa.gov/sites/production/files/2019-05/documents/nejac_white_paper_water-final-3-1-19.pdf); see also *supra* note 22 (finding that systems lacked adequate funds for trained operators, and one audited system's operator was consistently found "asleep or watching television").

105. See *supra* note 69.

106. See NEJAC, *supra* note 104, at 26.

107. See RAMSEUR & TIEMANN, *supra* note 10, at 7-8 ("[U]ntil the 1980s, the number of drinking water regulations was fairly small, and public water systems often did not need to make large investments in treatment technologies to meet those regulations.").

108. See *supra* note 69.

109. See WATER TASK FORCE, BIPARTISAN POLICY CENTER, SAFEGUARDING WATER AFFORDABILITY (2017), available at <https://www.mayorsinnovation.org/images/uploads/pdf/BPC-Infrastructure-Safeguarding-Water-Affordability.pdf>.

110. *Id.*

111. See NEJAC, *supra* note 104, at 14.

112. See Carolina L. Balazs & Isha Ray, *The Drinking Water Disparities Framework: On the Origins and Persistence of Inequities in Exposure*, 104 AM. J. PUB. HEALTH 603 (2014), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4025716/>; Telephone Interview with Dr. Wilma Subra (Oct. 21, 2019) ("They cannot borrow because they cannot demonstrate they could pay the loan back.").

113. *If a Water Main Isn't Broke, Don't Fix It (For 300 Years?)*, NPR, Aug. 8, 2014, <https://www.npr.org/2014/08/08/338851111/if-a-water-main-isnt-broke-dont-fix-it-for-300-years>.

114. See generally U.S. EPA, *Pricing and Affordability of Water Services*, <https://www.epa.gov/sustainable-water-infrastructure/pricing-and-affordability-water-services> (last updated Jan. 28, 2019).

115. See, e.g., AMERICAN WATER WORKS ASSOCIATION, PRINCIPLES OF WATER RATES, FEES, AND CHARGES (6th ed. 2012), available at [http://arco-hvac.ir/wp-content/uploads/2018/04/AWWA\\_M1\\_Principles\\_of\\_Water\\_Rates.pdf](http://arco-hvac.ir/wp-content/uploads/2018/04/AWWA_M1_Principles_of_Water_Rates.pdf).

116. See OFFICE OF WASTEWATER MANAGEMENT, U.S. EPA, WATER AND WASTEWATER PRICING: AN INFORMATIONAL OVERVIEW 2, available at <https://nepis.epa.gov/Exe/ZyPDF.cgi/901U1200.PDF?Dockey=901U1200.PDF>.

117. See NEJAC, *supra* note 104, at 23.

118. See *supra* note 104 and accompanying text.

119. See Ken Miller & Adam Kealoha Causey, *Report: More Than 500,000 Households Had Water Cut Off*, AP, Oct. 24, 2018, <https://www.apnews.com/3374e977ec01412da0fb8a023db248c>.

water.<sup>120</sup> Thus, charging unrealistic rates may undermine both drinking water access *and* revenue collection. Communities need pricing equity strategies that improve solvency without punishing the poor.<sup>121</sup>

**2. Renewed federal investment.** Rates alone cannot restore the viability of all our struggling water systems; the federal government must increase allocations for capital investments.<sup>122</sup> This cannot be accomplished through the revolving loan funds, as is often proposed,<sup>123</sup> because loans are of no use to strapped communities with no prospect of repaying the principle.<sup>124</sup> Private investors, which would offer more stringent terms, are similarly unhelpful to these communities—despite the Trump Administration’s claims to the contrary.<sup>125</sup> Most states cannot compensate for decades of unmet infrastructure needs.<sup>126</sup> There is simply no substitute for federal investment, on the order of 1970s-level allocations, to prevent further deterioration of small and disadvantaged water systems.<sup>127</sup>

**3. Capacity development.** Pouring unqualified funding into a dysfunctional system is unwise, which is why grants must be packaged with capacity development.<sup>128</sup> (Indeed, some water activists in St. Joseph *disapproved* of the state’s \$8 million outlay for a new system, believing that a windfall would multiply the town’s financial mismanagement, lack of accountability, and hapless operations.)<sup>129</sup> To avoid such issues, equipping operators to treat, maintain, and monitor their water systems is central to restoring their visibility and viability. Currently, EPA’s Office of Water offers an array of financial tools and programs to help small systems, but these are voluntary.<sup>130</sup> States must fulfill their SDWA mandate by ensuring that small systems adopt these best practices.<sup>131</sup> Doing so will cost money, and so

Congress must reallocate funding for state-level administration, rather than decreasing support as President Trump has proposed.<sup>132</sup>

**4. Consolidation and regionalization.** Additional promise for viability and visibility may be found through consolidation (the physical merger of a smaller system into a larger system nearby),<sup>133</sup> and regionalization (the sharing of management and technical resources across multiple systems).<sup>134</sup> Joining smaller systems together is a theoretical win-win; it can create economies of scale,<sup>135</sup> leading to enhanced monitoring and improved services<sup>136</sup> by reducing the number of discrete utilities.<sup>137</sup> However, certain political obstacles must be overcome for this to work. Larger water systems may be resistant to absorb a smaller system they view as a liability<sup>138</sup>; conversely, activists said St. Joseph’s officials opposed linking to a larger, neighboring system because they were reluctant to cede control over their water.<sup>139</sup> Consolidation efforts have also failed at the state level in Mississippi, perhaps reflecting similar concerns.<sup>140</sup> States facing resistance may consider enacting mandatory consolidation for repeat SDWA violators, as California has,<sup>141</sup> incentivizing consolidation projects with priority funding access, as Alaska has,<sup>142</sup> or reigning in new small water systems, as Alabama has.<sup>143</sup>

**5. Community engagement.** These changes must be accompanied by community buy-in, to ensure small systems’ needs are seen and prioritized in the future.<sup>144</sup> “Water is about control,” Matt Holmes, deputy chief executive offi-

*water systems in acquiring and maintaining technical, managerial, and financial capacity”.*

120. See *supra* note 97.

121. See U.S. EPA, DRINKING WATER AND WASTEWATER UTILITY CUSTOMER ASSISTANCE PROGRAMS (2016), available at [https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww\\_utilities\\_cap\\_combined\\_508.pdf](https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww_utilities_cap_combined_508.pdf).

122. See FEDINICK ET AL., WATERED DOWN JUSTICE, *supra* note 23, at 11.

123. See, e.g., OFFICE OF WATER, EPA, DRINKING WATER ACTION PLAN 3 (2016), available at [https://www.epa.gov/sites/production/files/2016-11/documents/508.final\\_usepa\\_drinking\\_water\\_action\\_plan\\_11.30.16.v0.pdf](https://www.epa.gov/sites/production/files/2016-11/documents/508.final_usepa_drinking_water_action_plan_11.30.16.v0.pdf) (acknowledging that small systems need more funding, yet pointing to the revolving fund as the solution).

124. See NEJAC, *supra* note 104, at 19.

125. See U.S. EPA, *supra* note 53, at 2 (proposing reduced revolving funds so that communities may be “empowered” to “leverage” “non-federal dollars”).

126. See *supra* note 33 and accompanying text; cf. Press Release, California Climate Investments, State Water Board Authorizes Nearly Quarter Billion Dollars to Provide Safe and Affordable Drinking Water (Aug. 20, 2019), <http://www.caclimateinvestments.ca.gov/press-releases/2019/8/20/state-water-board-authorizes-nearly-quarter-billion-dollars-to-provide-safe-and-affordable-drinking-water> (describing California’s efforts to close the funding gap using cap-and-trade revenues).

127. See *supra* notes 47-53 and accompanying text.

128. See FEDINICK ET AL., WATERED DOWN JUSTICE, *supra* note 23, at 11.

129. See *supra* note 97.

130. See NEJAC, ENVIRONMENTAL JUSTICE AND WATER INFRASTRUCTURE FINANCE AND CAPACITY CHARGE 9-11 (2016), available at [https://19january2017snapshot.epa.gov/sites/production/files/2016-12/documents/nejac\\_environmental\\_justice\\_and\\_water\\_infrastructure\\_finance\\_and\\_capacity\\_final\\_charge.pdf](https://19january2017snapshot.epa.gov/sites/production/files/2016-12/documents/nejac_environmental_justice_and_water_infrastructure_finance_and_capacity_final_charge.pdf) (describing financial tools); see also U.S. EPA, *Technical, Managerial, and Financial (TMF) Capacity Resources for Small Drinking Water Systems*, <https://www.epa.gov/dwcapacity/technical-managerial-and-financial-tmf-capacity-resources-small-drinking-water-systems> (last updated Feb. 6, 2020) (describing programs).

131. See 42 U.S.C. §1420(c) (stating that, under penalty of state revolving fund withholding, the state must develop and implement a “strategy to assist public

132. See *supra* note 53 and accompanying text.

133. See FEDINICK ET AL., WATERED DOWN JUSTICE, *supra* note 23, at 23.

134. See FEDINICK ET AL., THREATS ON TAP 7, *supra* note 27, at 23.

135. See *When Rural Water Systems Combine*, RURAL WATER, First Quarter 2018, at 13, available at <http://www.nxtbook.com/naylor/NRWQ/NRWQ0118/index.php?startid=12#14>.

136. See, e.g., OFFICE OF ENVIRONMENTAL JUSTICE, TRIBAL, AND INTERNATIONAL AFFAIRS, U.S. EPA, THE MERGER OF SMALL WATER SYSTEMS: LOWER RIO GRANDE PUBLIC WATER WORKS AUTHORITY IN DONA ANA COUNTY, NEW MEXICO (2018), available at [https://www.epa.gov/sites/production/files/2019-03/documents/the\\_merger\\_of\\_small\\_water\\_systems\\_final.pdf](https://www.epa.gov/sites/production/files/2019-03/documents/the_merger_of_small_water_systems_final.pdf).

137. Small systems comprise the vast majority of water systems, but serve just 12% of U.S. consumers. See U.S. EPA, *National Public Water Systems Compliance Report 7* (2013), available at <https://www.epa.gov/sites/production/files/2015-06/documents/sdwacom2013.pdf>.

138. See NEJAC, *supra* note 104, at 57. For example, the city of Dallas refused to extend a few miles of piping to the struggling, primarily black town of Sandbranch, forcing that community to rebuild a discrete treatment plant. *Id.*

139. See *supra* note 97.

140. See *supra* note 93; see also H.B. 1743, 2019 Reg. Sess. (Miss. 2019), available at <https://www.billtrack50.com/BillDetail/1103652> (detailing the legislative history of a failed water system consolidation bill in Mississippi).

141. See California Water Boards, *Mandatory Consolidation or Extension of Service for Disadvantaged Communities*, [https://www.waterboards.ca.gov/drinking\\_water/programs/compliance/](https://www.waterboards.ca.gov/drinking_water/programs/compliance/) (last visited Feb. 20, 2020).

142. See OFFICE OF WATER, U.S. EPA, WATER SYSTEM PARTNERSHIPS: STATE PROGRAMS AND POLICIES SUPPORTING COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS (2017), available at [https://www.epa.gov/sites/production/files/2017-08/documents/water\\_system\\_partnerships\\_guide\\_0.pdf](https://www.epa.gov/sites/production/files/2017-08/documents/water_system_partnerships_guide_0.pdf).

143. See U.S. EPA, *supra* note 95, at 3 (stating that Alabama reduced its inventory of water systems by half since 1976 by “encouraging” consolidation and prohibiting construction of new small systems).

144. See FEDINICK ET AL., WATERED DOWN JUSTICE, *supra* note 23, at 30 (finding “community members must be engaged as active participants in setting agendas and priorities that affect their lives and communities”).

cer of the National Rural Water Association, has stated: “it’s important for people to have a say in how it’s handled.”<sup>145</sup> Moreover, locals are best positioned to maintain vigilance over their water quality—a fact made abundantly clear by local activism in Flint and St. Joseph. To ensure activists are not ignored, EPA should lead the way in engaging environmental justice groups.<sup>146</sup> President Obama’s EPA began this effort,<sup>147</sup> but the pendulum has since swung back: President Trump’s EPA has opposed funding small and disadvantaged communities’ water,<sup>148</sup> proposed to close the EPA Office of Environmental Justice,<sup>149</sup> and all but ignored the recommendations of EPA’s environmental justice working group.<sup>150</sup> Consulting the most disadvantaged communities should be front-and-center as government cures its blindness toward struggling systems.

**6. Enforcement.** Lastly, the effectiveness of all these solutions hinges on enhanced transparency and enforcement. Penalizing small systems will not work,<sup>151</sup> and so EPA must take a stronger role in holding states accountable to the SDWA’s requirements.<sup>152</sup> Confronted with this

imperative, however, EPA has too often settled for more outreach to states and regions.<sup>153</sup> Given our historic violation levels, discussions alone will not suffice.<sup>154</sup> EPA must withhold funding from states that permit chronic noncompliance or inaccurate data,<sup>155</sup> as the SDWA requires.<sup>156</sup> EPA must also independently audit water quality and threaten intervention where states are failing.<sup>157</sup> The SDWA already provides the legal framework for this. Only through aggressive funding for EPA, states, and water systems can that framework function as originally intended.

Coming to terms with our drinking water issues will require an orientation toward the possible. To restore small systems’ visibility, we cannot be daunted by their sheer number, but instead must harness the ingenuity and community pride it took for past generations to build them. As we tackle viability, we cannot balk at our funding needs, but rather should emphasize the health, employment, and economic dividends our infrastructure investments will yield.<sup>158</sup> Only then might our most challenged water systems be viewed as assets, rather than liabilities, once more.

145. See *supra* note 135, at 14.

146. See NEJAC, *supra* note 104, at 32-43 (providing detailed recommendations for community engagement).

147. See FEDINICK ET AL., WATERED DOWN JUSTICE, *supra* note 23, at 27.

148. See *supra* note 53.

149. See *Cut Environmental Justice at the EPA, and We All Lose*, NRDC, Mar. 17, 2017, <https://www.nrdc.org/stories/cut-environmental-justice-epa-and-we-all-lose>.

150. For example, President Trump’s EPA Administrator took nearly one year to respond to the most recent NEJAC report, see NEJAC, *supra* note 104, and his reply consisted of just three paragraphs of cursory language, devoid of any commitments, see Letter from Andrew R. Wheeler, Administrator, U.S. EPA, to Richard Moore, Chair, NEJAC (Apr. 18, 2019) (Response to NEJAC August 2018 Report), [https://www.epa.gov/sites/production/files/2019-05/documents/signed\\_letter\\_-\\_op-19-000-3222.pdf](https://www.epa.gov/sites/production/files/2019-05/documents/signed_letter_-_op-19-000-3222.pdf).

151. See *supra* notes 78-82 and accompanying text.

152. See *supra* notes 35-36 and accompanying text.

153. For example, EPA responded to an OIG report on the breakdown of state oversight by agreeing to surface these issues in meetings with states and asking regions to “explain deviations” from enforcement requirements. See OIG, *supra* note 58, at 36.

154. See *supra* note 57 and accompanying text.

155. See NEJAC, *supra* note 104, at 49.

156. See 42 U.S.C. §1420(a) (stating that, under penalty of revolving fund withholding, states must ensure all systems are capable of meeting all regulations).

157. See FEDINICK ET AL., WATERED DOWN JUSTICE, *supra* note 23, at 33.

158. See, e.g., Jay Greene, *E2 Report: Investing in Water Infrastructure Can Boost Economy, Jobs, Improve Health*, CRAINS, Nov. 14, 2019, <https://www.crain-detroit.com/environment/e2-report-investing-water-infrastructure-can-boost-economy-jobs-improve-health>.