

**Escaping the Abdication Trap When Cooperative
Federalism Fails: Legal Reform After Flint**

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ABSTRACT

This article argues that, with respect to our federal regime for safe drinking water, what we observe is not cooperative federalism but rather a triple abdication—abdication of responsibility on the part of the federal, state, and local governments. As a result, some localities inadequately test and/or fail to address problems in drinking water, including problems with lead, as in Flint. The triple abdication of responsibility for addressing lead in water is in large part due to the lack of political will at the federal and state level to provide localities with the funding they realistically would need to upgrade their infrastructure to remove lead pipes. The relevant actors do not want to know, or do, anything, about problems because there is simply not enough political will to secure the funding to solve them. The best way to address the deficit in political will would be legal reforms in our safe drinking water regime that will provide those at risk of lead poisoning with salient, readily-understandable information regarding the risks they face. To that end, the article proposes making states (and not just local water authorities) legally responsible for testing water for lead and disclosing test results. In addition, the article argues that water test results and other relevant information be made available to residents in visually powerful, interactive, online maps. Making states legally responsible and new substantive requirements for testing and disclosure would help motivate and empower citizens to lobby for public funding and would make citizen suit litigation a more effective tool to combat abdication.

Escaping The Abdication Trap When Cooperative Federalism Fails: Legal Reform after Flint

Introduction

A great deal of health, safety, and environmental in the United States comports with a model that has been dubbed “cooperative federalism.” While much of the literature and the law of cooperative federalism focuses on federal-state relations, the reality that the key relationships often are not only between federal and state officials but also between state and local officials. Broadly speaking, the federal government delegates responsibility to the states, and the states delegate responsibility to a range of local entities. With each delegation, there is supposed to also be a commitment to ongoing supervision and, if need be, a re-assumption of authority by the delegator from the delegate in order to meet the aims of the relevant regulatory regime. Especially in the environmental context, citizen suits add another layer of complexity to governance.¹

This Article argues that, with respect to our federal regime for safe drinking water, what we observe is not cooperative federalism but rather a triple abdication - abdication of responsibility on the part of the federal, state and local governments.² As a result, some localities inadequately test and/or fail to address problems in drinking water, including problems with lead, as in Flint. The triple abdication of responsibility for addressing lead in water is in large part due to the lack of political will at the federal and state level to

¹ On cooperative federalism, generally, see Jessica Bulman-Pozen, *Federalism as a Safeguard of the Separation of Powers*, 112 COLUM L REV 459, 472-479 (2012).

² Scholars have largely ignored the question of how the Safe Drinking Water Act and other drinking water statutes fit within the larger framework of cooperative federalism. A notable exception is A. Daniel Tarlock, *Safe Drinking Water : A Federalism Perspective*, 21 WM. & MARY ENVTL & POLY REV 233 (1997) (arguing that the drinking water law embodies mixed, often conflicting conceptions of federalism).

provide localities with the funding they realistically would need to upgrade their infrastructure to remove lead pipes. The relevant actors do not want to know, or do, anything, about problems because there is simply not enough political will to secure the funding to solve them.

This Article argues that the best way to address the deficit in political will would be legal reforms in our safe drinking water regime that will provide those at risk of lead poisoning with salient, readily-understandable information regarding the risks they face. In particular, this Article proposes making States (and not just local water authorities) legally responsible for testing water for lead and disclosing test results. In addition, the Article argues that water test results and other relevant information be made available to residents in visually-powerful, interactive, on-line maps. Making states legally responsible and new substantive requirements for testing and disclosure would help motivate and empower citizens to lobby for public funding and would make citizen suit litigation a more effective tool to combat abdication. Prompted by the crisis in Flint, there have been calls for reform and some actual reform in Ohio, Michigan, Illinois, and California that suggest that the proposals in this Article, which would require legislation at the state level, might be politically achievable.

The Article first reviews the current legal regime, centered on the federal Safe Drinking Water Act (“SDWA”) and the Lead and Copper Rule (“LCR”), and the abundant evidence of abdication of responsibility within that regime. It then addresses the question of why we see abdication of responsibility at the federal, state and local levels, and focuses on the lack of political salience of lead contamination and hence the lack of political will as a primary explanation. The Article then explicates the case for increasing political salience by legal changes designed to more reliably and effectively produce and disseminate information about lead in water to those who face risk of lead poisoning. Finally, the Article takes

up some possible objections to its-State and information-focused approach to reform.

I. The Drinking Water Regime In Theory And In Practice

Although the federal Safe Drinking Water Act³ has been the subject of two Congressional revisions since its initial passage in 1974, the basic structure has remained the same. “The 1974 law established the current federal-state arrangement in which states may be delegated primary implementation and enforcement authority for the drinking water program.”⁴ Forty-nine states have assumed primary implementation and enforcement authority, and “[t]he state-administered Public Water Supply Supervision (PWSS) Program” has been and “remains the basic program for regulating the nation’s water systems, and 49 states have assumed this authority.”⁵

States thus are the primary enforcers of the SDWA, but to achieve and maintain primacy under SDWA Section 1413, “states must adopt regulations at least as stringent as national requirements, develop adequate procedures for enforcement (including conducting monitoring and inspections), adopt authority for administrative penalties, and maintain record and make reports as EPA requires.”⁶ As with all delegated authority arrangements, States as the delegated enforcers of SDWA are not legally responsible or liable for substantive violations of the Act; the only liable parties are the “owners” and “operators” of “public water systems [that must]

³ 42 U.S. C. Secs. 300f et seq.

⁴ Mary Tiemann, CRS Report (Feb 2014), *Safe Drinking Water Act (SDWA): A Summary of the Act and Its Major Requirements*, at 1.

⁵ *Id.* Note that the federal EPA has never withdrawn primacy from a State after granting it.

⁶ *Id.* at 6.

monitor their water supplies to ensure compliance with drinking water standards and to report monitoring to the states.”⁷ The State has obligations to the federal government as long as it remains the primary enforcer of SDWA pursuant to a federal delegation of authority, but a State need not continue to occupy that role.

SDWA not only gives a State authority to enforce the Act when the federal government has delegated primacy to it, but also allows for federal inspections and administrative and civil enforcement actions against owners or operators of local water authorities, after providing the prescribed notice to the appropriate State officials.⁸ In addition, SDWA includes a citizen suit provision whereby any citizen may sue “any person . . . who is alleged to be in violation of any requirement prescribed by or under this subchapter.”⁹

In theory, then, there is both delegation and accountability in the SDWA regime, as the model of cooperative federalism requires: localities must report testing data and noncompliance to the States, and the States must report such information to the federal EPA. Both the federal and state governments can bring informal or formal enforcement actions, and the federal EPA retains the right to cancel its delegation of primacy to a State and become the primary enforcer of federal drinking water law in a State. In theory, the involvement of three levels of government in the problem of drinking water contamination guards against failure at any one level of government. As a number of federalism scholars have argued, having multiple and even redundant sources of government regulation can help ensure that an objective is achieved, since failure by one or more

⁷ *Id.* at 7. See also Defendants State Treasurer and Members of the Flint Receivership Transition Advisory Board’s Reply Brief in Support of their Motion to Dismiss, *Concerned Pastors for Social Action et al. v. Khouri*, April 14, 2016 (explaining that “[t]he SDWA applies to ‘owners’ and ‘operators’ of a public water system.”).

⁸ *Id.* at 7 and 13 (discussing Sections 1444 and 1414 of SDWA).

⁹ 42 USC 300j-8.

sources can be checked by others.¹⁰ Redundancy has a strong theoretical appeal. And in an ideal world, the SDWA regime would work such that, if localities failed to meet their responsibilities, there would be two distinct checks – the States and, if the States failed to act as checks, the federal government. And if they all failed to act, citizen groups could enlist the courts aid via citizen suits.

But the SDWA regime, in practice, does not operate at all like that, even though of course some federal, state and local officials work hard to safeguard the quality of drinking water and real improvements have been made in many localities. In actuality, to lesser or greater degrees in different parts of the Unites States, the SDWA regime resembles an abdication, rather a cooperation, regime.¹¹ Indeed, as noted, the SDWA regime could be characterized as a triple abdication regime. The federal government abdicates its responsibility for safe drinking water, essentially

¹⁰ See, e.g., William Buzbee, *Contextual Environmental Federalism*, NYU ENVTL , Vol, 14, 108 (2005) (explicating the argument for redundant enforcement authorities). The flip side of redundancy, arguably, is a lack of accountability, as each level or source of government can blame another for unpopular action or inaction. See David A. Dana, *The Case for Unfunded Federal Mandates*, 69 S CAL L REV 1, 19 (1995-1996) (explaining the nonaccountability critique of blurring the roles of different levels of government, but also noting that “there is evidence that some voters do not carefully distinguish among federal, state and local governments,” but rather vote based on their general levels of satisfaction with “government”).

¹¹ For an argument that abdication by states of responsibilities to localities is a broad phenomenon crossing many areas of federal law, both constitutional and statutory, see Justin Weinstein-Tull, *Federalism and Abdication*, COLUMBIA L R (forthcoming, 2017) (“Much federal law regulates the conduct of states. States, in turn, delegate many of their federal responsibilities to local governments. This Article argues that states do more than delegate those responsibilities; they abdicate them. They do not monitor local compliance with those laws, they disclaim responsibility for the actions of their local governments, and they relinquish the legal capacity to bring their local governments into compliance.”). Weinstein-Tull is addressing contexts where the law is reasonably clear that States as States have primary obligations under federal constitutional or statutory law but nonetheless lean heavily on the argument that localities should be the subject of any litigation brought by advocacy groups or aggrieved citizens. In the SDWA context, however, States (at least arguably) lack any primary legal obligations under federal law, so the abdication problem is not one merely of rhetoric and political argument, but rather is a problem in the law itself.

leaving the States and localities on their own.¹² The States – or at least some of them – then abdicate their responsibility for safe drinking water, leaving the matter to the localities. And some localities abdicate their responsibility as owners and operators of water systems to provide truly safe water. As a result of this three-step abdication, some water consumers, especially in poor and rural communities, are deprived of something it would seem we all could agree they deserve as citizens of a comparatively wealthy nation, if not simply as human beings – water that is healthful.¹³ Nor (as discussed below) has there been effective citizen suit litigation to check abdication by federal, state and local actors. Thus, as shown in Figure One, the SDWA regime radically departs from the ideal-type of cooperative federalism.

¹² To be fair to the federal EPA, it repeatedly has threatened States with removal of their primacy under SDWA, but the threats are just that, as the federal EPA plainly lacks the resources to fulfill the role of the States as enforcers/regulators, however inadequate some States are in these roles. See, e.g., PA ENVIRONMENTAL DIGEST, *DEP Lacks Resources To Enforce Minimum Federal Safe Drinking Water Regulations*, Jan 31, 2017, available at <http://paenvironmentdaily.blogspot.com/2017/01/epa-dep-lacks-resources-to-enforce.html> (explaining repeated threats made by the federal EPA over time).

¹³ See generally Cara Cunningham Warren, *An American Reset – Safe Water & A Workable Model of Federalism*, Duke L & Evtl Policy Forum (forthcoming 2017 (documenting failures of SDWA regime)).

FIGURE ONE

| Cooperative Federalism | The Abdication Trap |
|---|---|
| Effective Federal Oversight of States as Regulators and Localities as Regulated Entities | Federal Abdication to States |
| Effective State Oversight of Localities as Regulated Entities | State Abdication to Localities |
| Localities as Compliant Regulated Entities | Localities' Failure to Comply With Regulation |
| NGOs/Citizen Group Checking Federal, State and/or Local Failures | NGOs Unable To Check Failures |

There is abundant evidence of abdication at all levels. Indeed, no one seems to contest the proposition that, at least as regards lead in water, the legal regime fails to fulfill its theoretical promise. One starting point for unpacking the pattern of abdication is the federal EPA's 1991 Lead and Copper Rule, which was intended to prescribe testing for and responses to lead in drinking water in approximately 68,000 public water systems nationwide. From the outset, however, the LCR has been criticized as setting too low an action level for lead in water; for providing for too little and too infrequent testing for lead; for leaving too much discretion to local water authorities as to how, when and where to test for lead; and for leaving too much

discretion to authorities regarding corrosion control treatment. Despite 25 years of intensive criticisms and near universal agreement among public health experts that is inadequate, EPA has been unable to revise the LCR.¹⁴ EPA itself has recognized the many flaws of the LCR, and has agreed that there is a need for “clear and robust sampling requirements, strengthened reporting, [and] transparency provisions that ensure customers have rapid access to relevant information and public education materials.”¹⁵

A recent report on lead in water by the Natural Defense Resource Council (“NRDC”) documents that, even within the terms of the LCR, there is gross non-enforcement.¹⁶ As the NRDC explains, based on EPA’s own violations and enforcement database, “in 2015, over 18 million people were served by 5,363 community water systems that violated the Lead and Copper Rule,” including failures to test for lead. In 2015, too, 1,110 community water systems serving 3.9 million showed lead levels in excess of 15 parts per billion (ppb)” - the federal action level – “in at least 10 percent of the homes tested.” The geographic scope of Lead and Copper Rule violations and lead level exceedances is “extraordinary.”¹⁷

Moreover, the EPA database very substantially understates the problem; as NRDC explains, “NRDC has documented underreporting problems in the EPA’s drinking water database for 25 years,” and “EPA itself admits that “audits and assessments have shown that violation data are substantially incomplete.”¹⁸ Even those violations that are documented are rarely the subject to formal

¹⁴ See Brady Dennis, *The EPA’s lead-in-water rule has been faulted for decades. Will Flint hasten a change?*, WASH POST, May 5, 2016 (summarizing and tracing history of criticisms of the Rule).

¹⁵ United States EPA, Office of Water, Washington DC, *Lead and Copper Rule Revision White Paper*, October 2016, at 4 [hereafter “EPA White Paper”]. Whether the EPA under the Trump Administration will continue to call for revisions to the LCR, however, is not yet clear.

¹⁶ See Erik Olson & Kristi Pullen Fedinick, *What’s In Your Water? Flint And Beyond*, Natural Resources Defense Council, June 2016 [hereafter “NRDC Report”].

¹⁷ *Id.* at 3.

¹⁸ *Id.* At 4

or informal enforcement actions, leading NRDC to conclude that there is a “lack of accountability [that] sends a clear message to water suppliers that violate the Lead and Copper Rule, with state and federal complicity.”¹⁹

A USA Today investigative report, also drawing on EPA’s database, identifies almost 2,000 water systems spanning all 50 states where testing has shown excessive levels of lead contamination over the past four years. The water systems, which reported lead levels exceeding federal EPA standards, collectively supply water to 6 million people. The investigation also found at least 180 of the water systems failed to notify consumers about the high lead levels, as federal rules require.²⁰ And it bears noting that the USA Today reporting, like the NRDC report, is based on EPA’s database of violations, but we know that localities sometimes do not test for compliance and/or report violations to the States, and States sometimes do not report to the federal EPA. Indeed, the State of Michigan apparently still has not officially reported to the EPA that Flint is in violation of the Lead and Copper Rule.²¹

Experts agree that local water authorities have many tools available to them to avoid effective testing. “[I]f [the utility] want[s] to be clever, [it] can test when [it is] pretty sure there’s not a problem and not find a problem.”²² The result is that the existing sampling protocol, even when it is nominally followed, can miss “high lead

¹⁹ *Id.* at [].

²⁰ Alison Young & Mark Nichols, *Beyond Flint: Excessive levels found in almost 2000 water supplies in all 50 states*,” USA Today, March 11, 2016.

²¹ NRDC Report, at 3 .

²² See Dennis, *supra* note 14 (quoting Erik Olson of NRDC). See also Garrett Ellison, *Why Michigan lead reforms don't call for even lower action level*, April 22, 2016, available at www.mlive.com/news/index.ssf/2016/04/michigan-lead-10ppb.

(quoting Virginia Tech’s Marc Edwards, to the effect that the EPA rule “has been diluted by . . . loopholes and utilities which ‘cheat’ and sample in a way that avoids” finding a violation of the federal standard). As Edwards explains, “[y]ou can focus on a number, but as we saw in Flint, the number is meaningless if you’re not sampling in the right places.” *Id.*

levels and potential human exposure.”²³ The methods used to avoid adequate testing are various, including intentionally testing at sites where lead contamination is least likely and running water or flushing toilets before testing.²⁴ In many small water authorities, which often lack anything like the staff or expertise to do testing, there is not even a pretense of undertaking testing.²⁵

The pattern of abdication is also evident in federal and state funding for localities seeking to upgrade infrastructure in order to improve water quality – or, to be the more precise, the absence of such funding. The text of SDWA could be read to suggest that the federal government will bear 75% of the cost of all necessary infrastructure for clean water, with the States making up the difference.²⁶ But Congressional appropriations have in fact have never been anything close to meeting that target for funding to the States. Neither the federal government nor (generally) the States

²³ See Dennis, *supra* note 14 (quoting Tom Nelnter of Environmental Defense).

²⁴ EPA addressed these various “cheating” methods in a recent memorandum, see Office of Water, *Clarification of Recommended Tap Sampling Procedures*, available at https://www.epa.gov/sites/production/files/2016-02/documents/epa_lcr_sampling_memo_dated_february_29_2016_508.pdf.

²⁵ As a recent USA Today investigative report showed, the federal and the state governments de facto allow very small local water authorities to ignore the SDWA altogether, apparently out of a recognition that these authorities simply lack the capacity to do much of anything. See Laura Ungar and Mark Nichols, *4 Million Americans Could Be Drinking Toxic Water And Never Know*, USA Today, Dec. 13, 2016 (reporting that “[s]ome 4 million Americans get water from small operators who skipped required tests or did not conduct the tests properly, violating a cornerstone of federal safe drinking water laws. The testing is required because, without it, utilities, regulators and people drinking the water can't know if it's safe. In more than 2,000 communities, lead tests were skipped more than once. Hundreds repeatedly failed to properly test for five or more years.”). It bears noting that HUD also has abdicated responsibility for lead in water as it impacts federally-funded housing, claiming that any responsibility rests with the federal EPA, which, as noted, has abdicated its oversight responsibilities to a substantial extent. See Emily A. Benfer, *Contaminated Childhood: The Chronic Lead Poisoning of Low-Income Children and Communities of Color in Federally Assisted Housing*, HARV ENVT L REV (forthcoming 2017).

²⁶ See Claudia Copeland, *Legislative Options for Financing Water Infrastructure*, Feb. 18, 2016, CRS 7-5700, at 3 (quoting SDWA).

have provided localities with anything like the funding they would need to address problems of lead.²⁷

II. Why Do We Observe Abdication?

Why would local water authorities not properly test for lead in drinking water, and even when they do, not report test results and take appropriate remedial action? As noted, at the local level, economies of scale are sometimes a problem, because some water authorities are so small it is not reasonable to believe that they ever will have the staff and sophistication to assess and address problems of lead in their water.²⁸ But for all local water authorities, there are strong incentives not to know about problems of lead in their water. Simply testing for lead can cause concern among water users, who otherwise might not ever raise the issue of lead in water.²⁹ Moreover, testing for lead can result in demands that the problem of lead be remediated, which can be very expensive - indeed, so expensive that imposing the costs of remediation on water users might seem

²⁷ See *id.* at 5 (“Perhaps the most critical concern is that federal capitalization grants [for water quality projects] are entirely subject to appropriations, which generally have been flat or declining for more than a decade “); NRDC Report, at [] (“Current congressional funding of \$2.37 billion for water infrastructure falls far short of the enormous need. This investment must be substantially increased, to at least approximately \$8 billion per year stipulated by the American Recovery and Reinvestment Act of 2009.”). The budget recently proposed by President Trump would entail no increase in annual funding to States to improve water infrastructure, and it calls for a reduction in funds for federal oversight. See <http://www.vox.com/policy-and-politics/2017/3/16/14640972/budget-epa-enforcement-bad-drinking-water-trump>.

²⁸ For an extended discussion of the great difficulties of small water authorities in meaningfully complying with federal and state drinking water regulations, see Denise Scheberle, *FEDERALISM AND ENVIRONMENTAL POLICY*, 2d ed. (2004), at 124-153. As Scheberle explains, an unquestionable problem with SDWA is that it seeks to apply the same regulatory regime to water authorities that vary dramatically in size. *Id.* at 136-138. EPA has taken some actions to encourage very small local water authorities to consolidate, but the agency plainly has no authority to require that.

²⁹ See Dennis, *supra* note 14 (quoting one Illinois water-operations manager as stating “[w]hen you do extensive sampling like this, you have to explain why, when in fact there might not be any problem No one wants to hide anything from anyone, but the PR factor is something that has to be dealt with.”).

practically impossible and at best extremely problematic³⁰ The local governments, of which local water authorities are a part or with which they are affiliated, have budgets that are already tapped out meeting basic needs like police and schools. There are no additional funds for a response to any identified water quality problems that would *not* also mean politically problematic reductions in other, extant funding. Thus, it is simply better for local authorities *not* to know.

But, of course, most managers of local water authorities – most local officials – likely do not want to think of themselves as exposing people in the communities for which they work to lead poisoning. That seems a reasonable assumption, given what we understand about human nature. Yet we also know that motivated reasoning is a powerful force: people believe what it is comfortable, psychologically-pleasing, and useful for them to believe. And given the strong incentives of local water authorities to believe that their water is safe, it is unsurprising that they can believe that avoiding testing (or avoiding accurate testing) is simply a pragmatic, harmless way to avoid needless entanglements with uncomprehending customers and officious state and federal bureaucrats.³¹

One possible way to understand abdication at the federal and state levels is as reflecting a normative view on the part of state

³⁰ See *id.* (“Utilities have no incentive to find the problem. That’s not a good rule”) (quoting Tom Neltner of Environmental Defense). See also Malcom Duncan and Aja Broan, *Commentary: Flint shows the need for innovate state-local partnerships*, Austin American Statesman, March 15, 2016, available at <http://www.mystatesman.com/news/opinion/commentary-flint-shows-need-for-innovative-city-state-partnerships/ouNGQlwdCCQytUGtesPI9O/> (explaining that poorer cities like Waco, Compton and Flint realistically need state assistance and partnership to address public health and other problems they face).

³¹ See Scheberle, at 140-147 (reporting the views of state water agency officials regarding the federal EPA). Scheberle’s interviews of water managers suggest that they believe that they are doing a fully adequate job protecting public health but that federal bureaucrats simply focus on non-existent problems and/or do not understand how water systems work in practice.

leaders that local water quality is simply an issue for localities, as well as a normative view on the part of federal leaders that local water quality is an issue for the States and localities. This “its-a-state” or “its-a-local” problem view runs contrary to the text of the federal SDWA: SDWA is an incomprehensible statute if in fact drinking water quality is not a subject of federal or national concern. So, too, state drinking water statutes and regulations are incomprehensible if drinking water is solely a matter of local concern. Nonetheless, these views that “its-a-state” or “its-a-local” problem do have some traction in political discourse, and may have some sway in the federal and/or state political process. For example, these views were expressed by some in Congress in explaining their opposition to additional funding for Flint.³² At the same time, even if one believes that basic human health and welfare is not a national concern, but rather something that should be left to the happenstance of the State and locality where any particular American lives, the social costs of lead poisoning do not stop at the boundaries of localities or States. Moreover, a belief in a limited role for the federal government or state government does not explain why federal and state abdication appears to be more marked in the context of lead in drinking water quality than in some other contexts.

Another possible normative force behind abdication could be the view that private property owners should be responsible for

³² See, e.g., Phillip Wegman, The Daily Signal, *Here’s Why Mike Lee Opposes Federal Aid For Flint*, March 7, 2016, available at <http://dailysignal.com/2016/03/07/heres-why-mike-lee-opposes-federal-aid-for-flint/>. See also Heritage Foundation Press release, Sept. 7, 2016, available at <http://heritageaction.com/press-releases/senate-wrda-bill-creates-new-programs-lacks-reforms-s2848/> (drinking water issues “best handled by state and local institutions”); Cato Handbook for Congress, at 184 (“Federal’ ‘one-size-fits-all’ regulations not only impose unnecessary costs on providers of drinking water; they also force localities to devote resources to minor problems, which leaves fewer resources for major ones. Localities, not Washington, should determine their own standards and how to meet them.”), available at <https://object.cato.org/sites/cato.org/files/serials/files/cato-handbook-policymakers/1995/9/104-19.pdf>.

problems connected to their own property. Many public service lines made of lead are connected to private service lines made of lead. To solve the problem of lead contamination, both public and private lead service lines need to be replaced, and partial replacement (of public lines only) could be even worse than no replacement, depending on how carefully the partial replacement is undertaken. There is a real issue as to how best to divide financial responsibility for infrastructure upgrades between public and private actors, and how to deal with the problem of private owners who simply lack the funds to finance private line replacement.

This private-property problem, however, cannot plausibly justify federal, state, and local abdication as to testing and disclosure, which would at least allow private owners to know if they had exposure to lead contamination. Moreover, there is a strong argument that the dividing lines between public and private service lines are largely arbitrary. And many residents, such as renters and the children and guests of owners, do not even own the residences with private lead service lines. As a normative matter, too, it is not clear why even adult owners should be subject to the risk of lead poisoning simply simply because they cannot readily afford to replace private service lines.³³

Federal and state abdication as to drinking water testing (and treatment), then, does not seemed to be readily explicable by normative conceptions regarding the proper boundaries between the

³³ EPA in fact has pointed to several cities that have successfully resolved the question of public-private responsibility in undertaking service line replacements. EPA White Paper, Oct. 2016, at 9 (“To the extent water systems rely on homeowners to pay for replacement of privately-owned portions of lines, there are concerns about consumer’s ability to pay and about the possibility that lower-income households will be unable to replace lines, resulting in disparate levels of protection. However, a number of cities and towns across the nation have successfully implemented full LSLR and have developed innovate approaches to addressing these challenges, including Lansing, Michigan; Madison, Wisconsin; and more recently, Boston, Massachusetts – and EPA is looking at this experience in the context of developing proposed revisions to the LCR.”).

federal and the state and the local, or between the public and the private. Rather, federal and state abdication seems most explicable by raw politics: it would cost a great deal of money for federal and state governments to meaningfully address lead in water, and there is insufficient political support for the appropriation of that sum of money. State officials do not press localities to test and report because they know localities will call upon States to pay for necessary responses, and state legislatures have not allocated the money. Likewise, federal officials do not press States to enforce or localities to test and comply because they know that States and localities will call on the federal government to pay for necessary responses, and Congress has not allocated the money. At the end of the day, federal and state abdication is a story of money – or the absence of it.

And the amount of money is not small. As already suggested, the greatest source of lead contamination in water is lead pipes, including public service lines and the private service lines that connect homes and other buildings to the public lines. The most comprehensive solution to the problem of lead in water would be the replacement of all public and private lead service lines, combined with special abatement and public health protections in place to guard against the contamination that can result during the replacement of the lines.³⁴ Short of wholesale replacement and until it is completed, rigorously maintaining road and sewer infrastructure, use of proper corrosion control chemicals in water, and public education are needed. Altogether, solving the problem of lead in water could cost upwards of \$300 billions of dollars.³⁵

³⁴ California has, in fact, at least adopted a goal of full replacement of lead service lines, although even there, the question remains whether there will be sufficient funding. See Tom Neltner, *California Requires Replacement of all lead service lines – but vigilance needed on implementation*, Jan 19, 2017, available at <http://blogs.edf.org/health/2017/01/19/california-sb1398-on-lsls/>.

³⁵ Estimates vary as to the costs of lead pipe replacement, but the sum involved would seem to be at least \$300 billion. Matthew Dolan, *U.S. could face a \$300B lead pipe overhaul, agency says*, Detroit Free Press, March 5, 2016.

Three hundred billion dollars is a great deal of money, no doubt, but Congress and state legislatures could appropriate something like that over a number of years to achieve lead abatement. They certainly could appropriate more than they have been willing to appropriate. Although there are many models and abundant scholarship regarding the appropriation process, there is no question that it is a highly political process. Legislators and political party leaderships, at least in part, support one funding item over another based on considerations as to the expected political gain and political costs of their decisions.³⁶ The pattern of low funding for water infrastructure at the federal and state level – a pattern that drives the triple abdication - reflects the fact that federal and state legislators do not see political gain in pushing for more funding.

And that political calculation makes sense because lead contamination in water does not seem to be a politically salient issue in general – an issue about which people organize, march, donate money and most important, vote. Until Flint and putting Flint aside, lead in water is not in the news; it is not invoked at party conventions; it is not the stuff of large protests and letter-writing campaigns. Lead has not even been prominent in academic discourse of environmental justice.³⁷

³⁶ See generally D. Roderick Kiewiet and Mathew D. McCubbins, *Congressional Appropriations and the Electoral Connection*, THE JOURNAL OF POLITICS 47, no. 1 (Feb., 1985): 59-82 (testing and supporting an instrumentalist view of legislative votes regarding funding).

³⁷ For example, I could not locate any article in the Westlaw secondary journals database addressing the federal Lead and Copper Rule as a problem of “environmental justice” prior to 2016. The most prominent environmental justice articles in the legal scholarship have focused on the siting of polluting facilities or waste disposal facilities in low-income, minority neighborhoods. See, e.g., Vicki Been, *What’s Fairness Got to Do With It? Environmental Justice and the Siting of Locally Undesirable Land Uses*, 78 CORNELL L REV 1001 (1993). Such facilities, unlike lead in drinking water, are highly visible to local populations.

But why is there not political agitation around – and hence political salience for – the problem of lead in water? There are at least two plausible reasons. First, the lack of political salience of lead in water may reflect in part the fact that lead in water is not salient in people’s everyday lives. The lead in water is not visible and is tasteless. Its effects may go unnoticed. And even when people do notice the effects, they may not attribute them to lead contamination. The water in Flint attracted residents’ attention not because of lead per se but because of other contaminants that made the water brown and seems to have caused rashes and other immediate effects.³⁸ Moreover, the populations most vulnerable to the effects of lead in water – poor, minority, and/or geographically isolated populations – tend to be less capable than other populations of garnering attention that translates into political salience, in part because of their lack of resources to invest in politics and in part because of classism, racism and other prejudices.³⁹

Flint is exceptional in how politically salient it made the problem of lead in drinking water. There may be localities with lead levels in water comparable to Flint’s (until recently) extremely high levels around the country. And we know there are many localities with far too much lead in their drinking water. But several aspects of the Flint story made it exceptionally gripping for the media: the

³⁸ See Abby Goodnough et al, *When the Water Turned Brown*, NY Times, Jan 23, 2016 (recounting reactions to brown tap water). See also Nives Dolsak and Aseem Prakash, *It’s Not Just Flint: Here’s Why We Ignore Water Pollution*, WASH POST, June 8, 2016 (“Of course, water is key to human existence. But one important insight is that water pollution is not visible and therefore is overlooked. Citizens tend to focus on problems they can see and experience.”).

³⁹ See Dolsak & Prakash, *supra* note 38 (“If you are disadvantaged and face pollution problems, you are in jeopardy twice over, as the vast literature on environmental justice makes clear. The Flint contamination problem in part reflects income and racial disparities; city and state-level officials didn’t have the incentives to respond sufficiently to complaints about water quality. This is a visibility issue, too — people may be invisible as well as problems.”). Lead in water is more likely to be found in poorer localities with poor populations; moreover, lead in water is also more dangerous to these populations because they are also disproportionately exposed to lead in indoor paint and dust and lead in outdoor dirt. See NRDC report, at 16-17; EPA White Paper, at 17.

State's unusual role under emergency powers; how Flint's water became contaminated despite the traditional use of and close proximity to a completely safe water source; the grotesque incompetence of the water managers who ignored the need for corrosion control; egregious lying on the part of government officials; the heroism of a local pediatrician in insisting that children were being poisoned; and the State's intransigence, dismissiveness and callousness even after the problem had come to light.⁴⁰ Flint garnered media attention press attention of a sort that one cannot imagine other localities receiving. And thanks in large part to this media attention, Flint in fact has led to some political mobilization to address lead contamination, in Michigan and elsewhere. But we cannot expect (and would not want) there to be more stories like Flint to keep pressure up for action on lead. And as the press turns away from Flint, and time passes, any Flint effect on the politics of lead is likely to dissipate.

III The Relationship (Or Lack Thereof) Between Information, Political Mobilization, and Law

As Luke Cole argued years ago during the first wave of environmental justice literature, the project of achieving environmental justice at the end of the day requires more than talk, and more than law on the books – it requires political mobilization and political pressure.⁴¹ Even if we had much better federal

⁴⁰ The Flint story is now being told and reflected upon by a number of sources, but the best and most detailed account so far is the Report of the Flint Water Advisory Task Force, March 21, 2016, available at http://flintwaterstudy.org/wp-content/uploads/2016/03/Flint-task-force-report_2438442_ver1.0.pdf. For accounts of the Flint story, see also Warren, *supra* note 13; Toni Massaro & Ellen Brooks, *Flint of Outrage*, Notre Dame L Rev (forthcoming 2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2927200.

⁴¹ See Luke W. Cole, *Empowerment as the Key to Environmental Protection: the Need for Environmental Poverty Law*, *Ecology Law Quarterly*, 619, 648 (1992); Luke W. Cole, *Environmental Justice Litigation: Another Stone in David's Sling*, 21 *FORDHAM URBAN L J* 523 (1994).

regulations – even if EPA’s famously inadequate Lead and Copper Rule finally were revised after years of talk about such a revision – there would still need to be the political will to support real enforcement and remediation of the problem. Hence, the question that deserves attention but cannot so readily be answered: how can the problem of lead in water be made and kept more politically salient, such that there will be the political will for sustained action?

As I discuss below, my argument is that better and more readily accessible, more vivid information about who is exposed to lead in water and where would make the problem of lead more salient to those affected and could help foster and sustain political mobilization to address reducing lead exposures through government-funded infrastructure projects and other initiatives.⁴² But to get better testing and more effective disclosure, there needs to be some political will in the first place to institute and enforce laws requiring better testing and more effective disclosure. For those concerned about the problem of lead in water, legal reform aimed at testing and disclosure may be more politically feasible than reform aimed at expensive, wholesale replacement of lead service lines. And the former kind of legal reform, in turn, ultimately may make it politically feasible to secure government funding for the latter (much more expensive) kind of reform.

The goal, then, is to create a kind of feedback loop on the way to full resolution of the problem of lead in water. Political mobilization, perhaps spurred by Flint, allows for reforms in law that result in the production of better information, which produces more political mobilization, which reinforces and even extends legal reform, which produces even better information, which produces more political mobilization, which ultimately is powerful enough to deliver the funding necessary for the infrastructure changes that are

⁴² And, even if that were not true, better information would allow families to take self-protective measures such as running taps or buying and using filters.

needed to safeguard public health. Admittedly, this scenario is theoretical, but this is a moment when, broadly speaking, legal reform regarding issues of lead in water seems plausible, as suggested by the Governor's proposed new drinking water regulations in Michigan and the recent passage of legislation in Ohio, Illinois, and California.⁴³ The question, then, is: what shape should this reform take?

IV Legal Reform As Institutional Re-Design: Moving Away From Cooperative Federalism

Whatever the substance of testing and disclosure rules for lead should be, the rules only matter if they are enforced, and we have seen a pattern of non-enforcement of the rules we already have. In the current regulatory regime, there are two sets of regulators/enforcers (the federal and state governments) and one set of regulated entities who are legally responsible for testing for and disclosure of lead and, if there is a violation, for treating drinking water (localities/local water authorities). Possible institutional re-designs could be effected to expand the role of the federal governments or state governments to make them primarily liable as regulated entities with respect to drinking water, as opposed to simply being regulators/enforcers. And the expansion of legal responsibility could be total in theory – to cover both

⁴³ See Jim Lynch & Michael Gerstein, Detroit News, *Snyder plans renewed push for stricter lead limit*, Feb. 13, 2017 available at <http://www.detroitnews.com/story/news/michigan/flint-water-crisis/2017/02/13/snyder-plans-renewed-push-strict-lead-water-limit/97828670/>; James F. McCarty, *New Ohio Law Requires Mapping of Lead Pipes*, Cleveland Plain Dealer, Oct. 12, 2016, available at http://www.cleveland.com/metro/index.ssf/2016/10/new_ohio_law_requires_mapping.html; Tom Neltner, *California Requires Replacement of all lead service lines – but vigilance needed on implementation*, Jan 19, 2017, available at <http://blogs.edf.org/health/2017/01/19/california-sb1398-on-lsls/>; Sophia Tareen, *Rauner Signs Lead testing Law for Schools*, Chicago Tribune, Jan 16, 2017, available at <http://www.chicagotribune.com/news/ct-rauner-school-lead-testing-law-20170116-story.html>.

testing/disclosure and treatment – or partial, to cover only testing/disclosure. Since no one would plausibly claim that localities should not be deeply involved with and responsible for testing and treatment, the question really is whether the federal government or state governments should share that responsibility as co-legally-responsible actors, and not whether sole responsibility should vest in the federal or state governments. Figure Two shows some options for institutional re-design.

FIGURE TWO

| Gvt. Entity | Legal Responsibility for Implementation: SDWA Regime | Legal Responsibility for Implementation: “Radical” Shift | Legal Responsibility for Implementation: “Moderate” Shift |
|--------------------------|---|---|--|
| Federal | Oversight | Oversight | Oversight |
| State | Oversight | Fully shared/joint with local | Shared/joint with local re testing and disclosure |
| Local | Sole Responsibility | Fully shared with state | Shared/joint with state re testing and disclosure |
| NGO/Citizen Group | Suits Against Local | Suits Against State and Local | Suits Against State and Local |

In theory, one could imagine a federal law that made the federal government directly responsible for testing for lead and disclosing risks at the local level, and perhaps even for treatment. But any proposal for such a statute would be greeted with claims that it represented a heavy-handed approach to a realm traditionally left to state and local governments. And, politics aside, direct testing for lead by the federal government may not be the most efficient approach, given the distance between the federal government and the tens of thousands of localities where testing should be done.

A more plausible approach would be changes at the state level, as a matter of state law, whereby States legally assume responsibility for drinking water testing and disclosure, alongside and jointly with local water authorities (in the moderate shift alternative) or whereby states legally assumed responsibility for drinking water testing and disclosure and treatment (in the radical shift). State legislatures almost would certainly flinch at the radical option for budgetary reasons alone, so, in the current political climate, the moderate shift option is really the only conceivable option.⁴⁴

One might ask, why would we expect state employees tasked to test for lead in water to act with any greater fidelity to law than local water authority employees? One reason, as already suggested, is that although States have a certain interest in avoiding testing

⁴⁴ At least in a different political climate, one might also achieve State responsibility for testing and disclosure by an amendment to SDWA that clearly would require States to conduct such testing in return for receiving infrastructure and/or other federal funding. While Congress may not commandeer States, see *New York v. United States*, 505 U.S. 144 (1992), has broad latitude in incentivizing States through conditional funding. However, we might imagine that the federal government would not enforce such a requirement, for essentially the same reasons other requirements of SDWA are not enforced – a lack of political will. A clear statutory provision that States must test and disclose in each locality as long as they receive federal funds, however, might facilitate citizen suits against States where there is a suspected lack of testing and disclosure, to the extent that provision could be read as making States subject to non-discretionary duties under SDWA. And as discussed below, those suits might be much more effective than suits against particular localities.

because localities will ask them for money to address any identified problems, localities have an even more immediate incentive to engage in avoidance, as they are now the only entity legally responsible for addressing the problem – and they are, in theory at least, legally responsible to address the problem regardless of whether they can obtain any federal or state funding. Moreover, criticism from consumers as a result of any identified problem will be directed immediately at the local water authority and, in the ordinary course, only secondarily, if at all, at the State.

In addition, making States legally liable for testing and disclosure may change the psychology of state legislatures to some degree. State legislators may feel that given that legal responsibility, they must at least appropriate adequate funds for testing and disclosure. Legal liability for testing also may change the psychology of state water or environmental agencies. The bureaucracies might feel more empowered, to the extent they already were inclined to act, to address possible lead problems, because the fact of state legal responsibility for testing and disclosure would provide them some measure of rhetorical protection against claims by local actors that they were being overbearing or unduly intrusive. And even for state bureaucracies that otherwise are disinclined to act to address problems of lead in water, the possibility that they will be criticized publically for failing to meet not just a regulatory oversight duty, but also a substantive legal duty to engage in testing and disclosure, might be enough to motivate them to devote resources to verifying any representations by local water authorities regarding testing and disclosure and to step in when local water authorities have not met applicable requirements.

This shift to shared responsibility by the State could be configured in a variety of ways, to fit the political, economic and physical circumstances in each State. The obligation by the State could be to actually test and disclose for all water authorities, to do

so only for small and low-income localities where the risk of inadequate testing seems highest, or to audit local testing and disclosure and report the audit results and then test in localities where audits showed local noncompliance.

In this reconfigured regime, local authorities still would be legally responsible for and hence empowered to test along with the State and thus able to determine that the testing proposed by the State was inadequate; localities could engage in more testing than the State on its own would deem adequate. The story of Flint illustrates why such local input is important, because in Flint, the State managed Flint's water under emergency powers in a way that sidelined local control, and the State acted with less regard for local welfare than local leaders might have had they retained effective control.⁴⁵ Failure to meet legal responsibilities is a risk with respect to both state and local officials, which is why making them co-responsible, as a legal matter, is an attractive option.

Cara Cunningham Warren has recently suggested that a more collaborative, mutually respectful, more “polyphonic” kind of federalism may be what is needed to address the problem of lead in water.⁴⁶ But it is unclear how calls for greater collaboration among different levels of government will lessen the problem of triple abdication. Re-configuring legal responsibility to make States liable for testing and disclosure may have more impact than attempts to boost collaborative attitudes within the current cooperative federalism design – a design that, in the context of drinking water, has not worked all that well.

⁴⁵ See Claire Groden, *How Michigan's Bureaucrats Created the Flint Water Crisis*, FORTUNE, Jan. 20, 2016, available at <http://fortune.com/flint-water-crisis/> (noting that “detractors of the [state emergency powers] law say that the lack of democracy in Flint prevented the city from making careful decisions, and quoting one NGO leader as arguing that “[when you remove all democracy, it's a system set up for failure, where they're not accountable to the people that they're serving . . .”]).

⁴⁶ See Warren, *supra* note 13, at [].

So far, none of the reforms proposed or adopted at the state level in the wake of Flint entail an acceptance of testing and disclosure responsibility on the part of a State, exclusively or shared with local water authorities – with one arguable exception. The Flint Task Force Report recommends that there be instituted “a school and daycare water quality testing program (which could serve as a model for the U.S.), administered collaboratively by [the Michigan Department of Environmental Quality] and [Michigan Department of Health and Human Services] that includes appropriate sampling and testing for lead contamination for all schools and daycare centers in the state and effective reporting of test results.”⁴⁷ It is unclear whether Michigan’s Governor’s proposed reform package includes this recommendation, or whether, even if it does, such a program actually will be instituted. But if it were, it would reflect a partial institutional re-design, making a State the legally responsible actor for the first time for testing the drinking water supplied by publically-owned local water authorities, albeit in a limited category of sites.⁴⁸

V The Role of Citizen Suits

One of the possible benefits of making States legally responsible or co-responsible for testing and disclosure is that doing so may make citizen suits more effective as a means of combatting abdication in our drinking water regime. There have been relatively few citizen suits under the Safe Drinking Water Act,⁴⁹ and unlike in

⁴⁷ See Flint Report, *supra* note 40, at R4-40.

⁴⁸ In addition, a bill has been introduced in the Indiana Legislature that would require that the State assume responsibility for testing for lead in drinking water in the City of East Chicago, a City where shocking levels of lead soil contamination and lead building materials contamination have been documented, in addition to lead contamination in the drinking water. See HB 1344 (Updated March 29, 2017), available at [].

⁴⁹ See Christine L. Rideout, *Where are All the Citizen Suits?: The Failure of Safe Drinking Water Enforcement in the United States*, 21 Health Matrix 655 (2011) (discussing paucity of citizen suit litigation).

other statutory areas of environmental law, SDWA law has not been notably shaped by the courts via citizen suit litigation. There may be many reasons for the lack of SDWA or related state litigation: drinking water, for example, may not be as compelling an issue for environmental NGOs and their memberships, which have traditionally been focused on preserving offshore water quality and water quality in lakes and streams and have been somewhat slow to turn their attention to the problem of poor, urban communities.

But citizen suit litigation also is a clumsy tool for citizen groups given the current allocation of responsibility in our drinking water regime. Under current law, citizen groups are more or less limited to suing local water authorities for noncompliance, but the local water authorities that are most noncompliant are also likely to be the ones that lack resources to improve compliance. These localities can argue to courts, powerfully, that they simply lack the staffing and funding to do much better. Moreover, a suit against a single local water authority by definition can only have an impact, if it has any, in the local area at question; that means, to have broad impact, citizen groups would have to sue many local water authorities, which would mean many lawsuits and/or sprawling, unwieldy, multi-defendant lawsuits. And such litigation would necessarily entail high transaction costs, and citizen groups themselves typically have very limited resources they must try to leverage to produce the most benefit.

Under the current legal regime, a citizen suit usually can be brought by residents only against the owner or operator of a local water authority where the resident lives. It is owners and operators that are the legally responsible actors under the Act, and implementing state law.⁵⁰ Although there are at least a few

⁵⁰ See *Pastors for Social Action et al. v. Khouri*, 194 F.Supp. 3d 589, 604-05 (E.D. Mich. 2016) (holding that state officials could be sued under SDWA in Flint because they had taken over control of the water system from local officials, but acknowledging that otherwise state officials could not be sued under SDWA, as “they [would be] immune

successful SDWA citizen suit against a State, these cases entailed unusual circumstances;⁵¹ citizens generally would face a standing and merits problem in suing a State under SDWA because it is local authorities that have primary obligations as regulated entities, whereas the State’s obligations are merely those of a regulator. As a regulator, a State presumptively has broad discretion to decide when and when not to take action regarding noncompliance on the part of local water authorities.

However, if as a matter of State law, the State were legally responsible for testing for lead and for disclosure of test results, the State could be regarded as an “operator” of local water authorities under SDWA, at least with respect to testing and disclosure operations.⁵² States also could be sued under state-version administrative procedure acts for failing to comply with non-discretionary duties to test and disclose.⁵³ (Figure Two, above,

from suit from the requirements of the SDWA because they are not responsible as a ‘supplier of water, since they do not ‘own[] or operate[] a public water system.’ See [42 U.S.C. § 300f\(5\)](#).”).

⁵¹ I searched Westlaw for published citizen suit decisions against a State under the SDWA citizen suit provision, and the only examples I found relate to 42 U.S.C. § 300j–24, which is unusual in imposing a direct obligation upon a State, to the effect “[e]ach State shall provide for the dissemination of information regarding lead to local educational agencies, private nonprofit elementary or secondary schools and to day care centers” See *Colorado Environmental Coalition v. Romer*, 796 F. Supp 457 (D. Colorado 1992) (upholding fee award to environmental plaintiffs in suit alleging violations of § 300j–24); *Acorn et al. v. Edwards*, 842 F.Supp. 227 (E.D. La. 1993) (holding that citizen groups had standing to sue the State for an alleged violation of § 300j–24).

⁵² See generally *United States v. Bestfoods*, 524 U.S. 51 (1998) (holding that a parent corporation can be held liable under CERCLA as operators of a facility owned by a subsidiary if the parent corporation directed waste management decisions at the facility).

⁵³ The Model State Administrative Procedure Act, which many States follow, provides for review of final agency action and further provides that “[a] court may compel an agency to take action that is unlawfully withheld or unreasonably delayed.” Section 501(d), at 90, available at http://www.uniformlaws.org/shared/docs/state%20administrative%20procedure/msapa_final_10.pdf.

shows the shift regarding citizen suits with a partial, moderate re-design of the SDWA regime.)

Suits against States could be very effective in checking any abdication by States with respect to testing and disclosure requirements. In such suits, citizen groups could collect a great deal of information in a highly efficient way through discovery, since the State that was sued by definition would have information about what testing and disclosure it undertook for all the local water authorities under its purview. As compared to a local water authority, a State could much less convincingly argue poverty and lack of resources to a court in response to a citizen suit. And such suits would create a forum in which citizen groups and the State could negotiate as to where it would be most rational for testing and disclosure resources to be invested. A single settlement agreement encompassing a State thus could yield much greater net public health benefits than a handful of suits against local water authorities.

Suits by citizen groups against States for failing to test children enrolled in the Medicaid program for lead poisoning provide something of a model for the kind of litigation citizen groups could bring against States for failing to test drinking water and provide disclosure. There is a history of Medicaid suits in which advocates pressed for a State to expand and improve its lead testing procedures (although the suits were generally aimed at other deficiencies in the State's Medicaid program as well).⁵⁴ A 1991 settlement of a suit against California required California to

⁵⁴ See, e.g., *Thompson v. Raiford*, No. 3:92-CV-1539-R, 1993 WL 497232 (N.D. Tex., Sept. 24, 1993); *New York City Coalition to End Lead Poisoning v. Giuliani*, 187 Misc. 425, 720 N.Y.S.2d 298 (S.Ct. N.Y. 2000); *Ellis v. Wetherbee*, No. S92-0529 (S.D. Miss., May 1994) (consent decree) (state agreed to provide assessments); *Addison County Community Action Group v. Celani*, No. 5:92cv22 (D. Vt., Mar. 9, 1993); *Matthews v. Coye*, No. C-90-3620-EFL (N.D. Cal., Oct. 17, 1992); *New York Coalition to End Lead Poisoning v. Koch*, 524 N.Y.S.2d 314, 138 Misc.2d 188 (Supp. 1987); *Memisovski v. Maram*, N.D. Ill., 2004 WL 1878332 (2004).

test at least 500,000 poor children for lead poisoning, after three years of failing to do so in its Medicaid clinics.⁵⁵ Most recently, under a settlement, all Washington children covered by Medicaid will be eligible for lead-poisoning testing if their parents request it, they live in old buildings, are recent immigrants or face other exposure risks. In addition, the State committed to make available a new online map that lets residents zoom in on their neighborhoods down to census tracts and see their relative risk of lead exposure ranked on a scale of one to 10, based on income levels and age of housing.⁵⁶

VI Making Lead Contamination Information Salient

There is a consensus among commentators that, whoever is responsible for testing for lead in water, there must be changes to the substance and procedures for testing. For one thing, the federal action level for finding “too much lead” must be lowered from 15 parts per billion to 10ppb or, preferably, 5ppb. Michigan’s Governor in fact has proposed lowering the standard to 10ppb, which apparently would be the lowest of any State.⁵⁷ Moreover, testing must be done more frequently and expansively in each locality, and

⁵⁵ See Philip J. Hilts, *California to Test for Lead Poisoning*, NY Times, Oct. 12, 1991, available at <http://www.nytimes.com/1991/10/12/us/california-to-test-children-for-lead-poisoning.html>

⁵⁶ Sandy Doughton, *More children will be tested for lead under settlement*, Seattle Times, Dec. 10, 2015, available at <http://www.seattletimes.com/seattle-news/health/more-children-will-be-tested-for-lead-under-lawsuit-settlement/>.

⁵⁷ See Chad Livengood, *Snyder proposes touch new regulations for lead in water*, Detroit Free Press, April 15, 2016 (The proposal appears to be “the lowest state standard in the country,” said Doug Farquhar, program director for environmental health at the National Conference of State Legislatures.”). See also Ellison, *supra* note 22 (quoting Virginia Tech’s Marc Edwards as explaining that advocates believe the standard ideally should be 5ppb, but acknowledge that the costs of achieving that standard would be too high given other demands for public funds).

with fewer possibilities for manipulation, if the data is to have any integrity.⁵⁸

For information about lead in water to matter, both in influencing people's personal behavior and in politics, it must be salient to people – it must be something they can readily access, understand and integrate. Dry, technical information available in a form letter or buried in a report on file with a government office will not be effective in communicating to people the need to take action. In other words, for testing and disclosure to increase political salience, the public disclosure itself must be salient to the intended audience – residents, community members, and the media.

It seems obvious that salience presupposes at least ready availability: the easier the information is to access, the more salient it may be, whatever its form. The available social science also suggests that salience of disclosure is enhanced when it takes the form of graphics or other visual representations, rather than simply numbers or text: a bright flashing warning light may be more effective than text stating that a test shows a contaminant level in exceedance of federal and state action levels.⁵⁹ Risk communication

⁵⁸ To this end, EPA's National Drinking Water Advisory Council has recommended that EPA replace "the current sampling requirements – which allow the local water authority to select residents at particular times and instruct them as to how to engage in testing - with ongoing testing based on ongoing, broad-based requests to consumers to submit lead test samples coupled with education materials broadly disseminates as to why such voluntary testing is required." EPA White Paper, at 7.

⁵⁹ As Severtson and Henriques explain:

Findings show moderately strong positive relationships between water test results, safety beliefs, and mitigation behavior. . . . a test result compared to a safety standard provides concrete evidence of an unseen risk and is therefore more powerful than abstract risk information. . . . Graphical representations can make abstract information more concrete and have been recommended for conveying environmental monitoring information as it relates to safety standards or benchmarks Typically used phrases such as "exceeds the standard" or "above the standard" were sometimes misunderstood Visualization can make information easier to understand. . . . The strategic use of evidence-based visual

is also more effective when the recipient of the information is offered a depiction that shows how close he or she lives and works to sites where tests have shown contamination.⁶⁰

Recent and proposed reforms in lead testing in water might enhance the salience of disclosures to some degree. But these reforms need to be actually implemented and also strengthened to ensure that better testing for lead produces not just more information, but more impact on the recipients of the information and, ultimately, greater political salience.

EPA's Lead and Copper Rule does not require any testing by a water authority at schools or day care centers. In the wake of the uproar over Flint, Michigan's Governor has proposed annual testing at schools and day care centers, and recently enacted legislation in Ohio and Illinois require such testing.⁶¹ Such testing, of course, is

features can address literacy and numeracy barriers by facilitating automatic comprehension. . . . Results suggest that images designed to convey the meaning of risk information can close the gap between the intended and imparted meaning of environmental health risk information.

Dolores J. Severtson & Jeffrey B. Henriques, *The Effect of Graphics on Environmental Health Risk Beliefs, Behavioral Intentions, and Recall*, *Risk Analysis*, Vol. 29, p. 1549-1565 (2009)

⁶⁰ See, e.g., Dolores J. Severtson & James E. Burt, *The Influence of Mapped Hazards on Risk Beliefs: A Proximity-Based Modelling Approach*, *Risk Analysis*, Vol. 32, pp 259-280 (2011) ("The use of maps to communicate environmental risk to the public is rapidly expanding. . . . Maps illustrate the geographic distribution of risk, a key advantage over other formats of risk information. Viewers can see how the location of their home or community is configurationally related to mapped information. . . . Participants' beliefs about risks associated with the hazard (risk beliefs) were strongly influenced by participant's perceived map locations relative to the distribution and magnitude of the mapped hazard.").

⁶¹ See Jim Lynch & Michael Gerstein, *Detroit News*, *Snyder plans renewed push for stricter lead limit*, Feb. 13, 2017, available at <http://www.detroitnews.com/story/news/michigan/flint-water-crisis/2017/02/13/snyder-plans-renewed-push-stricter-lead-water-limit/97828670/>; Ohio Legislative Service Commission, *Bill Analysis*, HB 512, at 5-6, available at

plainly sensible, as schools and day care centers are exposure sites for children. But the testing data from schools and day care centers is also notable because it is likely to be more salient in communities than data from selected individual homes. A letter regarding testing sent to your home regarding testing in a number of houses in the general community – but not at your house – is much more readily overlooked than a notice that the water at your child’s school has a level that violates the federal standard. Moreover, notices to parents about such data can and likely will spark conversations and mutual exchanges among parents and educators, so that even parents who might not understand or pay attention to notices will come to appreciate what they mean. Neighborhood schools, which often have established parents’ groups and large meeting spaces, are natural focal points for community organizing, including organizing for action regarding the problem of lead.

No jurisdiction has moved toward a highly salient way of depicting lead testing results, such as an interactive map that would show how close or far testing sites are from one’s own home and how much the results at each site exceeded the legal limit for lead. For its part, in its October 2016 White paper, EPA did report that it was considering “[r]equiring drinking water utilities to post all LCR results and sampling invalidation justifications on their publically accessible website in a form that protects the privacy of customers.”⁶² But EPA has not taken any action in this regard, and neither have the States.

EPA, however, has called on local water authorities to map what they know regarding the location of public and private lead service lines, and to make those maps available to the public. Ohio

<http://www.lsc.ohio.gov/analyses125/h0512-i-125.pdf>; Sophia Tareen, *Rauner Signs Lead testing Law for Schools*, *Chicago Tribune*, Jan 16, 2017, available at <http://www.chicagotribune.com/news/ct-rauner-school-lead-testing-law-20170116-story.html>.

⁶² EPA White paper, at 15.

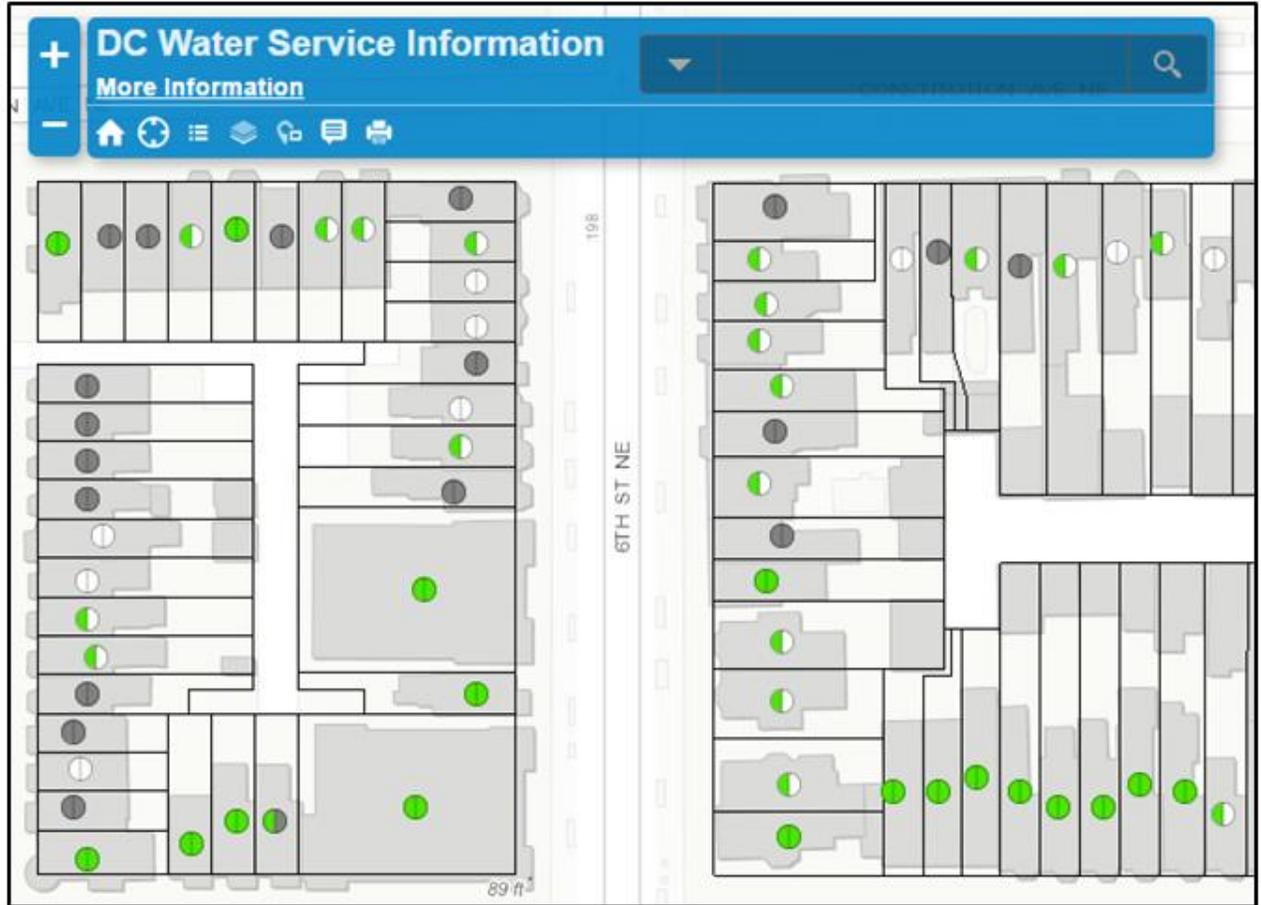
has taken the lead in this regard. A recent Ohio law, enacted in June 2016, requires that “every public water system in the state identify and map the locations of lead piping in their entire service areas.”⁶³ Public water authorities in Ohio have been given discretion as to how to achieve mapping, and at least one – Cincinnati – has undertaken it in a way that is well-designed to make the information as available and vivid and hence salient as possible. Cincinnati chose to follow the approach already in place in Washington, DC, which makes it easy for a resident to check whether his or her residence is connected to a public service line containing lead by using a detailed on-line map. The map also allows the resident to see whether there is information indicating that the private service line for his or her home also contains lead. All a resident needs to do is fill in his or her address. Cincinnati, again following the Washington DC approach, also invites customers to submit updated information to the utility by email. As one commentator notes, “[t]his level of detail allows any consumer to make informed choices whether they are buying or renting a home, picking a child-care facility, or deciding whether to use a filter.”⁶⁴ Figure Three below is a screen shot of the widely-praised interactive map used in Washington, D.C., in which a green dot signifies a lead-free service line; a grey dot signifies a lead service line; and a white dot indicates a lack of information as to whether the line contains lead.⁶⁵

⁶³ Peak Johnson, *Ohio Requires Mapping of Lead pipes in Water Systems*, Oct 24, 2016, Water Online, available at <https://www.wateronline.com/doc/ohio-s-requires-mapping-lead-pipes-water-systems-0001>.

⁶⁴ Tom Neltner, *Cincinnati and Ohio show leadership in identifying and disclosing lead service lines*, Jan 9, 2017, available at <http://blogs.edf.org/health/2017/01/09/cincinnati-and-ohio-show-leadership-on-lsls/>

⁶⁵ Figure Three is copied from Lyndsay McCormick, *Mapping lead service lines: DC water offers a model for utilities across the nation*, July 25, 2016, available at <http://blogs.edf.org/health/2016/07/25/mapping-lead-service-lines-dc-water-offers-a-model-for-utilities-across-the-nation/> (citing <https://geo.dcwater.com/Lead/> as the screenshot source).

FIGURE THREE



In sum, while there have been a few improvements in making information regarding lead testing more salient to affected residents and hence more likely to form the basis of meaningful personal and political action, there is much more that could be done. Most States do not have testing at schools at all or on a regular basis; test results are not communicated in accessible maps; and effective mapping regarding the location of public and private lead service lines is in place in some, but by no means most, jurisdictions. Even if States did accept greater legal responsibility for testing and testing were to improve, lead as an issue may not gain political salience unless there is more effective, more salient disclosure of test results.

VII Objections and Conclusion

The preceding analysis builds on a recognition that our regime for drinking water regulation entails a triple abdication – by the federal and state governments as regulators and by local authorities as regulated entities serving water consumers. A lack of political salience surrounding the problem of lead in water best explains this abdication, and I have proposed an institutional re-design (making States directly, legally responsible for testing and disclosure) as well as a change in testing disclosure (to make it more accessible and vivid) as a way to heighten the political salience of the lead problem and perhaps make possible the kind of federal and state funding needed to fully address it.

This approach depends on legislative and regulatory action at the state level, and the political climate in some States may make that impossible. However, while it is true that States sometimes engage in races to the bottom, they other times engage in races to the top – copying what are perceived as best practices adopted elsewhere. We could see such a phenomenon regarding lead in water.⁶⁶ If nothing else, if one or more States were to adopt a “model” state-based regime with effective testing and disclosure, advocates in other States could point to that model as part of their advocacy within their own States. Moreover, if a number of States adopted the proposal in this Article, that might change the political economy at the federal level to make it more likely that Congress would amend the SDWA to require States to share testing and

⁶⁶ See, e.g., Lincoln Davies, *State Renewable Portfolio Standards: Is There “A Race” And Is It “To The Top”?*, 3 San Diego J. Climate & Energy L. 3 (2011-12). In addition to the reforms noted in Michigan, Ohio, Illinois and California, there are bills being introduced in various state legislatures where lead in water is clearly a problem, such as Pennsylvania. See Paul Vigna, *Flint 'tragedy' to prompt Pa. legislation that requires more testing for lead*, Feb 11, 2016, available at http://www.pennlive.com/politics/index.ssf/2016/02/legislation_would_increase_lea.html

disclosure responsibilities with localities as long as the States received federal infrastructure funding.⁶⁷

My approach also relies heavily on the power of information, and informational approaches have their limits. Particularly for otherwise distressed communities, more information may simply be just that, and not something they have the wherewithal to fully absorb and act upon. Conversely, information about health risks can also prompt overreactions or non-adaptive reactions – such as not running one’s tap at home except when absolutely necessary because of a fear of lead, which has the effect of increasing lead concentrations in the water that one does use. Public education can address the problem of such reactions, and that too has to be part of the response to the problem of lead in water.⁶⁸

Continuing with our current regime is simply not a tenable option, because lead is one clear danger we can identify and eliminate. Too little has been done to address the problem of lead in water under our current institutional design, so a re-design, and not just a tweaking of current rules, is needed.

⁶⁷ Notably, State actors in States that already had assumed responsibility for testing at the local level may well not lobby their Congressional delegation against a federal mandate; indeed, they might feel that if they are accepting that responsibility, other State governments should too.

⁶⁸ Public education efforts are now underway in Flint, although there such efforts are impeded by the understandable lack of trust on the part of the public. *See, e.g.*, Sarah Stillman, *Can Behavioral Science Help In Flint*, New Yorker, Jan. 23, 2017, <http://www.newyorker.com/magazine/2017/01/23/can-behavioral-science-help-in-flint>.