DRAFT – DO NOT CITE

"DON'T BLAME THE FLINT RIVER"

BY

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SINCE APPEARING IN MODERN FORM 50 YEARS AGO, THE CLEAN WATER ACT HAS PROVEN A POWERFUL FORCE FOR ENVIRONMENTAL JUSTICE, HELPING TO CLEAN UP URBAN WATERWAYS ACROSS THE COUNTRY. THROUGH ESTABLISHMENT OF WATER QUALITY STANDARDS AND ENFORCEMENT OF REGULATORY REQUIREMENTS, THE CLEAN WATER ACT HAS COMPELLED PUBLIC AUTHORITIES AND PRIVATE COMPANIES TO UPGRADE INFRASTRUCTURE AND CURTAIL DISCHARGE OF SEWAGE AND OTHER INDUSTRIAL EFFLUENT. AT THE SAME TIME, URBAN COMMUNITIES HAVE CONTINUED TO STRUGGLE WITH WATER POLLUTION BEYOND THE REACHES OF THE CLEAN WATER ACT. THIS ESSAY BRIEFLY EXAMINES THREE SUCH COMMUNITIES: THE ANACOSTIA AREA OF WASHINGTON, D.C.; THE NEIGHBORHOODS ALONG THE DUWAMISH WATERWAY OF SEATTLE, WASHINGTON; AND THE RESIDENTS AFFECTED BY THE FLINT WATER CRISIS IN FLINT, MICHIGAN. IN EACH CASE, LEGAL AUTHORITIES BEYOND THE CLEAN WATER ACT HAVE BEEN USED TO HELP IMPROVE WATER QUALITY AND QUALITY OF LIFE IN THESE COMMUNITIES. EQUALLY IMPORTANT MAY BE THE CHARACTER OF THE PEOPLE CHARGED WITH PROTECTING HUMAN HEALTH AND THE ENVIRONMENT, AS THE FAILURES LEADING TO THE FLINT WATER CRISIS CLEARLY DEMONSTRATE.

I. INTRODUCTION

Growing up in Albuquerque, New Mexico, I thought I knew rivers because I paddled a homemade raft down a stretch of the Rio Grande through town.[1] I had never seen a river that could sustain barge traffic or riverfront communities, but I had a vague sense that they did exist. I had read Mark Twain, at least.[2]

In college, I gradually became aware that some rivers were polluted, raising questions of what to do about it. In an undergraduate course in Environmental Economics at the University of New Mexico (UNM), a professor explained that if I wanted to stop a factory from polluting a river,

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[1] *See* Cliff Villa, *Rio Grande Raft Race Can Provide Students with Post-Finals Fun*, DAILY LOBO, May 8, 1989, at A18 (on file with author). The yearly Great Race Down the Rio Grande always included something of a foot race across sand bars. The annual "raft race" eventually ended as climate change diminished the already meager flows in the desert. *See, e.g.*, Henry Fountain, *In a Warming West, the Rio Grande Is Drying Up*, N.Y. TIMES, May 24, 2018.

[2] *See, e.g.*, MARK TWAIN, THE ADVENTURES OF HUCKLEBERRY FINN (1884).

I could pay them to stop. Barely able to afford car insurance then, this didn't seem like a practical option for me. And then the professor added that there was this thing called the "Clean Water Act," which actually made it illegal to pollute waters without a permit, *but it was rarely enforced*. In that moment, a cold dark winter day seen from the second floor of Mitchell Hall on the UNM campus, I swear a beam of light broke through the clouds and revealed my destiny: *you* shall enforce the Clean Water Act.

After entering Lewis & Clark Law School in 1990, I began to see how industrial activities that threatened rivers could also threaten people. The moment of crystallization happened one fall afternoon on a field trip led by Professor Craig Johnston. Boarding a Willamette Riverwatch boat, we motored from the Willamette River up the Columbia Slough through the industrial backwaters of Portland. It was a warm day and local kids were splashing in the water while older folks sat on folding chairs keeping a watchful eye on fishing rods. As we cruised up the Slough, our boat guide pointed out the "peanut butter" and hygiene products floating on the surface. Farther still, we began to see the old pipes poking out from overgrown riverbanks, discharging their loads of what we learned was raw sewage. We learned a new term: Combined Sewer Overflows (CSOs).[3] And we realized the kids splashing downstream were playing directly in it.

At the time, there seemed to be only one modest question: should the City of Portland post warning signs to discourage swimming in the Columbia Slough? Then one further question: if signs should be posted, should they be posted in more than one language? While we didn't then have the demographic data that we have now, the character of the community surrounding the Slough was clear: they were poor and what we would come to know as "people of color."[4]

[3] "Combined Sewer Overflows" are defined by the U.S. EPA as a "discharge from a [Combined Sewer System] at a point prior to" proper treatment. "Combined Sewer System" is defined, in turn, as a "wastewater collection system owned by a State or municipality … which conveys sanitary wastewaters … and storm water through a single-pipe system." U.S. EPA, Combined Sewer Overflow (CSO) Control Policy, 59 Fed. Reg. 18,688, April 19, 1994. Combining "domestic sewage, industrial and commercial wastewaters, and storm water runoff" in a single system, "CSOs often contain high levels of suspended solids, pathogenic microorganisms, toxic pollutants, floatables, nutrients, … oil and grease, and other pollutants." *Id.*

[4] Much the same community characteristics appear to remain today. According to the EPA's EJSCREEN GIS tool, the community within a half-mile of the former St. Johns Landfill along the Columbia Slough ranks in the 93rd

Around the same time, on the East Coast, EPA Administrator Bill Reilly formed a workgroup to investigate growing concerns for the disproportionate impacts of environmental pollution on poor and minority people. In 1992, the EPA workgroup released a report addressing what they briefly termed concerns for "environmental equity."[5] The EPA report largely agreed with community advocates about concerns for environmental inequities. Among other specific findings, the report concluded that "Racial minority and low-income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, contaminated fish[,] and agricultural pesticides in the workplace."[6] In 1994, the year after I graduated from Lewis & Clark, President Bill Clinton signed Executive Order 12898,[7] putting "environmental justice" on the national agenda.

With hindsight, it is easy to look back 30 years and see the Columbia Slough as presenting concerns for environmental justice. While subject to many conceptions over time,[8] the most common definition of "environmental justice," as maintained by the EPA, requires "the fair treatment and meaningful involvement of all people … with respect to the development, implementation, and enforcement of environmental law, regulations, and policies."[9] There was nothing "fair" about the City of Portland discharging raw sewage into the Columbia Slough,[10] thereby endangering the health of residents in immediate proximity. But the major response to these concerns was not necessarily pursuing notions of "environmental justice." It was simply

percentile state-wide for "People of Color Population," 89th percentile state-wide for "Linguistically Isolated," and 70th percentile state-wide for "Low Income Population."

[5] U.S. EPA, ENVIRONMENTAL EQUITY: REDUCING RISK FOR ALL COMMUNITIES (1992).

[6] *Id.* at 3.

[7] *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 16, 1994) [hereinafter, E.O. 12,898].

[8] For discussion of the various conceptions of "environmental justice," see Rachael E. Salcido, *Retooling Environmental Justice*, 39 UCLA J. ENVTL. L. & POL'Y 1, 8-11 (2021) (acknowledging "the elusive definition of environmental justice"); Clifford J. Villa, *Remaking Environmental Justice*, LOYOLA L. REV. 469, 489-93 (2020) (observing "To say we want 'environmental justice' … is not to say we agree what it means").

[9] U.S. EPA, ENVIRONMENTAL JUSTICE (2022), https://www.epa.gov/environmentaljustice.

[10] Craig N. Johnston, *Don't Go Near the Water: The Ninth Circuit Undermines Water Quality Enforcement*, 24 ENVTL. L. 1289, 1291 (1994).

enforcing a familiar federal statute, the Clean Water Act,[11] which in general prohibits the unpermitted discharge of pollutants into navigable waters like the Columbia Slough.[12]

Since appearing in modern form in 1972, now 50 years ago, the Clean Water Act has proven a powerful force for helping to clean up contaminated waterways across the country.[13] In the case of the Columbia Slough, Professor Johnston and other co-counsel, representing local organization Northwest Environmental Advocates (NWEA), filed a citizen suit against the City of Portland in April 1991 for alleged violations of the Clean Water Act.[14] After years of litigation[15] and an influential decision by the U.S. Supreme Court,[16] the Ninth Circuit Court of Appeals ruled in favor of the NWEA plaintiffs that CSO discharges causing exceedances of water quality standards could violate the City's permit under the Clean Water Act.[17] Subsequent settlements,[18] followed by massive construction, transformed Portland's antiquated sewer system and resulted in dramatic improvements in water quality.[19]

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[11] 33 U.S.C. §§ 1251 *et seq.*

[12] CWA § 301(a)(1), 33 U.S.C. § 1311(a) ("Except as in compliance with this section … the discharge of any pollutant by any person shall be unlawful").

[13] As one distinguished Clean Water Act scholar observed after the 30th anniversary of the statute, "The CWA, in fact, has been remarkably successful in doing what it was designed to do." William L. Andreen, *Water Quality Today – Has the Clean Water Act Been a Success?*, 55 ALABAMA L. REV. 537, 542 (2004). With specific relevance for the present paper, Andreen noted that "urban waters that were most severely impacted by discharges from industrial and municipal point sources have enjoyed the most improvement." *Id*. at 546. For Andreen's thorough examination of the history of the Clean Water Act and "what it was designed to do," see William L. Andreen, *The Evolution of Water Pollution Control in the United States – State, Local, and Federal Efforts, 1789-1972: Part I*, 22 STAN. ENVTL. L.J. 145 (2003); William L. Andreen, *The Evolution of Water Pollution Control in the United States – State, Local, and Federal Efforts, 1789-1972: Part II*, 22 STAN. ENVTL. L.J. 215 (2003).

[14] For background on the combined sewer system of Portland, Oregon, at that time, plus the litigation that followed on behalf of Northwest Environmental Advocates, see Craig N. Johnston, *Don't Go Near the Water: The Ninth Circuit Undermines Water Quality Enforcement*, 24 ENVTL. L. 1289 (1994). Among other concerns, Johnston reported that "Portland's system contains at least fifty-five CSO outfalls; twelve discharge into the Columbia Slough, a tributary of the Willamette River, and forty-three discharge directly into the Willamette River." *Id.* at 1292.

[15] Northwest Environmental Advocates v. City of Portland, 22 Envtl. L. Rep. (Envtl. L. Inst.) 21,347 (D.Or. Dec. 13, 1991); *aff'd*, 11 F.3d 900 (9th Cir. 1993).

[16] In the middle of the NWEA litigation, the U.S. Supreme Court decided PUD No. 1 of Jefferson County v. Washington Dept. of Ecology, 511 U.S. 700 (1994). Among other things, *PUD No. 1* emphasized the essential role of state water quality standards – even non-numeric "aesthetic values" determined by "sight, smell, touch, or taste" – in achieving the goals of the Clean Water Act. *Id.* at 716.

[17] Northwest Environmental Advocates v. City of Portland, 56 F.3d 979 (9th Cir. 1995).

[18] River Mile 11E Project Area within Portland Harbor Superfund Site (EPA April 15, 2013).

[19] According to the City, completion of Portland's $1.4 billion "Big Pipe" project in 2011 reduced CSO discharges to the Willamette River by 94 percent and to the Columbia Slough by 99 percent. See https://www.portland.gov/bes/about-big-pipe (Feb. 14, 2022).

Portland was not alone in its problems with CSO discharges. In 2001, EPA estimated there were 772 "CSO communities" across the United States.[20] Over the past two decades, in addition to Portland, remarkable transformations have occurred in other major cities,[21] improving water quality across the country.[22] But bringing urban waters into compliance with the Clean Water Act often cannot, by itself, secure environmental justice for local communities. In this Essay, I will explore how the Clean Water Act has been used to pursue environmental justice in three communities, in each case, resulting in significant gains, but also requiring implementation and enforcement of additional laws and practices. Part II will examine how the Clean Water Act has been used to address contamination in the Anacostia River watershed in Washington, D.C. Part III will consider Seattle's Duwamish River, the subject of continuing cleanup efforts under the federal Superfund statute. Part IV will investigate the roots of the Flint Water Crisis, perhaps erroneously blamed on the Flint River. Part V will conclude with some thoughts on what it may take, beyond Clean Water Act regulation, to help restore urban watersheds and the communities they should serve.

II. THE "FORGOTTEN" RIVER: ANACOSTIA.

In the early 1990s, Washington, D.C., carried the ignominious title of "murder capital"[23] of the United States. For a young lawyer at EPA Headquarters, the City of Washington was a new world for me. One day, folks in my office learned that one of our administrative assistants had lost his brother to a shooting. On the day of the funeral, we climbed into a taxi and handed the driver the address. After reading the address, he turned all the way around to advise us, "You don't want

[20] U.S. EPA, REPORT TO CONGRESS: IMPLEMENTATION AND ENFORCEMENT OF THE COMBINED SEWER OVERFLOW CONTROL POLICY (Dec. 2001) at ES-5 [hereinafter, EPA REPORT TO CONGRESS].

[21] The most well-known of these transformations may be Boston Harbor, with a comprehensive cleanup described as "one of America's greatest environmental success stories." Paul Bohannon & Patricia E. Lin, *Polluters and Protectors: Combined Sewer System Authorities and Urban Waterway Restorations*, 45 ENVTL. L. 539, 565 (2005). For background on Boston's struggles with sewage management and water quality, see Andrew Thomas Savage, *Boston Harbor: The Anatomy of a Court-Run Cleanup*, 22 B.C. ENVTL AFF. L. REV. 365 (1995).

[22] *See* David A. Keiser and Joseph S. Shapiro, *Consequences of the Clean Water Act and the Demand for Water Quality*, 134 Q. J. OF ECON. 349 (2018).

[23] *See, e.g.*, David Ashenfelter, *Washington Is Murder Capital for Second Year*, BALTIMORE SUN, April 29, 1991.

to go there." But with hesitation, the driver agreed to take us – across a bridge and into a community far removed from the white marble monuments of Our Nation's Capital.

After crossing the bridge, I remember rolling through empty streets, past boarded-up storefronts. I remember a sermon about "God's will" and a eulogy from a young Black man who had made it out of the neighborhood and returned to rail against the violence that had taken another Black life. I didn't know and would never know about all the circumstances that had led to this loss of life. But I began to see how different lives could be on the other side of a river.

My first glimpse of the Anacostia River in the early 1990s belied the rich cultural and natural history of the Anacostia area. In 1608, just a year after founding of the Jamestown colony, Captain John Smith sailed up the Potomac River and explored the Anacostia River.[24] Along the Anacostia, Capitan Smith encountered communities of indigenous peoples who became known as "Anacostans," for whom the river was named.[25] At first contact, Smith observed the Anacostan people enjoying ample supplies of corn, venison, and fish.[26] Despite this natural abundance, the Anacostan people would disappear within decades due to smallpox and other factors.[27]

In 1790, when the City of Washington was founded, lands to the east of the Anacostia River would be captured within a neat right angle on a map defining the eastern corner of the city. Within the northern corner, Rock Creek would wind its way south towards Georgetown. Both Rock Creek from the north and the Anacostia River from the east would eventually empty into the Potomac River, which would come to define the western boundary of "the District."[28]

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[24] JOHN R. WENNERSTEN, ANACOSTIA: THE DEATH & LIFE OF AN AMERICAN RIVER 9 (2008).

[25] By at least one telling, "Anacostan" derived from an indigenous name for "village trading center," recognizing that the Anacostan people had apparently engaged in trade with other indigenous groups far removed from the area. *Id.* at 8-10.

[26] *Id.* at 10.

[27] *Id.* at 13-14. *See also* Brett Williams, *A River Runs through Us*, 103 AM. ANTHROPOLOGIST 409, 412 (June 2001) (identifying "greed, competition, and treachery engendered by the beaver trade" as another factor in the demise of the Anacostia indigenous population).

[28] Uniquely among American cities, the formation of Washington, D.C. was specifically called for in the U.S. Constitution. *See* U.S. CONST. art. II, § 8 ("The Congress shall have Power … To exercise Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, … become the Seat of Government of the United States…").

Every morning, as a young EPA attorney, I crossed the Potomac River on the Yellow Line from Alexandria, Virginia. Every evening, on the way home, the Metro operator would welcome us back to "the Great Southern State of Virginia." On weekends, I learned to sail on the Potomac. And in the spring, I watched a pair of Bald Eagles raise their young in a nest near the Alexandria waterfront. Anacostia would remain a foreign land.[29]

It wasn't just me. For generations, the Anacostia was D.C.'s "forgotten river."[30] Across the river, communities would grow and lives would be lived unseen by the political hustle on Capitol Hill and the tourist bustle across the National Mall. After slavery was officially abolished, Anacostia flourished initially as a growing community of Black households, with advancements in property ownership, public education, transportation, and commerce.[31] Racial segregation, however, would confine Black residents to Anacostia neighborhoods, which would soon crumble with neglect. Anacostia parents fought segregation in public schools, ultimately prevailing in the case of *Bolling v. Sharpe*,[32] decided the same day as *Brown v. Board of Education*.[33] However, even as *de jure* discrimination was struck down, *de facto* discrimination prevailed.[34]

Perceiving limited futures in Anacostia, many young people escaped, including Marvin Gaye, destined to elevate social concerns within Motown music.[35] Other residents stayed and

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[29] In common usage, "Anacostia" refers to both the river of that name and the area of Washington, D.C. east of the river. *See* WENNERSTEN, *supra* note __, at 8 ("Throughout its history, the word 'Anacostia' has been used to describe a people, a river, a region, a town and a post office").

[30] *See, e.g.*, Donald Smith, *Forgotten River: Capital's Scenic Anacostia Takes Back Seats to Potomac*, L.A. TIMES, Oct. 8, 1989. *See also*, Fred A. Bernstein, *Revitalizing the Banks of Washington's "Forgotten River,"* N.Y. TIMES, Mar. 27, 2005 ("While the Potomac is known as the setting for many of Washington's most popular attractions, the Anacostia is actually omitted from most tourist maps"). In some cases, more than "omitted" or "forgotten," it appears that deliberate efforts have been made to erase the "Anacostia River" from history. *See, e.g.*, FERGUS M. BORDEWICH, WASHINGTON: THE MAKING OF THE AMERICAN CAPITAL 358 (2008) (index entry providing, "Anacostia River, *see* Potomac River, Eastern Branch of").

[31] WENNERSTEN, *supra* note __, at 123-124.

[32] 347 U.S. 497 (1954). For background on the Anacostia plaintiffs in *Bolling v. Sharpe*, *see* Sarah Shoenfeld, *The History and Evolution of Anacostia's Barry Farm*, D.C. POL'Y CTR. (July 9, 2019), https://perma.cc/62LS-3453.

[33] 347 U.S.C. 483 (1954).

[34] *See* Charles R. Lawrence III, *Forbidden Conversations: On Race, Privacy, and Community (A Continuing Conversation with John Ely on Racism and Democracy)*, 114 YALE L.J. 1353, 1357 (2005) (observing that 50 years after *Bolling v. Sharpe*, the public schools in Anacostia remained more than 99% Black).

[35] In addition to his extraordinary vocal talents, Marvin Gaye would bring to Motown a new courage and determination to address social issues of the day. *See, e.g.*, MARVIN GAYE, MERCY MERCY ME (THE ECOLOGY) (Tamla 1971) ("Woah, ah, mercy, mercy me / Ah, things ain't what they used to be / Where did all the blue skies go? / Poison is the

labored to improve local conditions. On May 18, 1966, crowds gathered along the Watts Branch, a tributary of the Anacostia River, to welcome Lady Bird Johnson to a park dedication. As recounted by a historical marker along the Watts Branch trail:

> "No one more than the residents of this area knows what magic has been wrought here at Watts Branch," observed the First Lady. Hundreds of volunteers had cleared tons of garbage, replacing it with flower beds, trees, and well-manicured grass…. Despite the attention to the Watts Branch, city officials ignored the blight of Kenilworth Dump…. Back in 1942, when they selected the dump's location, officials simply saw it as remote from downtown. They ignored how close it was to … surrounding communities. For decades, smoke from burning garbage polluted the air and land, and toxic run-off contaminated the landscape, Watts Branch, and the Anacostia.[36]

The siting of the noxious Kenilworth Dump within a Black community perfectly illustrates early concerns for environmental injustice. However, contamination of the Watts Branch and the Anacostia River reflects much more than the toxic run-off from one facility. In fact, the Watts Branch and Anacostia River have been impacted for decades by a host of pollution sources. Like the Columbia Slough in Portland, Oregon, the waters of Washington, D.C., including Rock Creek, the Potomac River, and the Anacostia River, have been severely impaired by decades of uncontrolled discharges from Combined Sewer Overflows (CSOs). With continuous discharges of raw sewage, swimming has been banned in D.C. waters since the 1970s,[37] despite the Clean Water Act goal announced in 1972 that all waters of the United States should be "fishable/swimmable" by 1983.[38] In the late 2010s, an average of 2 billion gallons of overflow were still flowing into the Anacostia River, making Anacostia the largest receiver of sewage of all three D.C. watersheds.[39]

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wind that blows / From the north and south and east"). Tragically, after a string of hits across the 1960s and 1970s, Marvin Gaye's life would be tragically cut short in 1984 at the age of 44 when he was shot and killed by his father in Los Angeles. *Marvin Gaye Is Shot and Killed; Pop Singer's Father Faces Charge*, N.Y. TIMES, April 2, 1984, at A1.

[36] Historical marker along Greater Deanwood Heritage Trail. For more on this historic trail through the Anacostia community, see the following link: https://www.culturaltourismdc.org/portal/820.

[37] ANACOSTIA RIVERKEEPER, DC CITIZEN SCIENCE WATER QUALITY MONITORING REPORT 5 (2020).

[38] Clean Water Act § 101(a)(2), 33 U.S.C. § 1251(a)(2) ("It is the national goal that wherever attainable, an interim goal of water quality which provides for … recreation in and on the water be achieved by July 1, 1983").

[39] *Id.*

The problem of sewage discharges into the Anacostia River and other D.C. waters did not go unnoticed. In 2000, citizen groups including the Anacostia Watershed Society and the Sierra Club filed a citizen suit against the District of Columbia Water and Sewer Authority ("DC Water") alleging violations of the Clean Water Act.[40] In 2002, the U.S. Department of Justice filed a similar complaint on behalf of the EPA.[41] The consolidated cases resulted in a consent decree entered in 2005, through which DC Water agreed to implement substantial updates to the D.C. sewer system.[42] The $2.6 billion DC Clean Rivers Project would involve massive installation of both "gray" and "green" infrastructure[43] designed to prevent 96 percent of all CSOs discharges to D.C. waters, including 98 percent of all CSO discharges to the Anacostia River.[44] The first phase of the project, construction of a new 2.4-mile Anacostia River tunnel, was completed in 2018 and, according to DC Water, is already reducing sewage discharges to the Anacostia River by 90 percent.[45]

In addition to raw sewage from CSOs, the Anacostia River has also been assaulted by toxic discharges from other industrial sources. One contaminant of greatest concern in the Anacostia River is polychlorinated biphenyls (PCBs), a synthetic chemical and human carcinogen banned from production in 1979.[46] PCBs are often found today in urban waters, particularly in river

[40] Anacostia Watershed Society, *et al.* v. District of Columbia Water and Sewer Authority, *et al*., Consolidated Civil Action No. 1:00CV00183TFH, Final and Executed Consent Decree (March 23, 2005) at 1 [hereinafter, 2005 Consent Decree].

[41] *Id*. at 2.

[42] Anacostia Watershed Society, *et al.* v. District of Columbia Water and Sewer Authority, *et al*., Consolidated Civil Action No. 1:00CV00183TFH, Final and Executed Consent Decree (March 23, 2005) at 1. The original plan contemplated "three or more underground storage tunnels to hold up to 193 million gallons of the combined wastewater and storm water during wet weather and to thereby reduce CSOs significantly." *Id.* at 3. The plan was later altered through an amendment to the 2005 Consent Decree in 2016. *See* Anacostia Watershed Society, *et al*., v. District of Columbia Water and Sewer Authority, *et al*., Consolidated Civil Action No. 1:00CV00183TFH, Amended Consent Decree (Jan. 14, 2016) [hereinafter, 2016 Amended CD].

[43] The 2016 CD Amended CD defines "gray" infrastructure to mean "structural facilities, including but not limited to combined sewer separation, pumping station, pipelines and conveyance and treatment facilities to control CSO discharges." By contrast, "green" infrastructure is defined to mean "design and techniques that store, infiltrate, evaporate and detain runoff, including, but not limited to, practices that mimic predevelopment site hydrology…." 2016 Amended CD at 10.

[44] *See* DC Water, https://www.dcwater.com/cleanrivers.

[45] *See* DC Water, https://www.dcwater.com/projects/anacostia-river-tunnel-project.

[46] *See* EPA, Learn About Polychlorinated Biphenyls (PCBs), https://www.epa.gov/pcbs/learn-about-polychlorinated-biphenyls-pcbs.

bottoms, where the contaminants get into the food chain and into resident fish that could be consumed by humans.[47] In the Anacostia River, fish consumption advisories due to PCBs contamination have been in place since at least 1993.[48] Additional contaminants of concern in the Anacostia River include an array of pesticides, including dieldrin and DDT, and metals, including arsenic and copper.[49] Under the authority of local law,[50] the D.C. Government is currently carrying out the "Anacostia River Sediment Project," a program of "CERCLA-patterned investigations, assessments, and evaluations" to address contamination in Anacostia sediments.[51] An Interim Record of Decision signed in 2020 provides for cleanup of 77 acres of "early action" areas through combinations of dredging and capping in place in contaminated sediments.

While perhaps not as toxic as sewage and PCBs, trash has also been a continuing problem for the Anacostia River.[52] In the Watts Branch, the largest tributary to the Anacostia River in the District, "Plastic bags accounted for more than 50 percent of the trash…"[53] Broken glass is also significant, impeding future use of Anacostia waters for recreational activities including wading.[54] To address continuing problems with trash, in 2010, under Clean Water Act section 303,[55] EPA,

[47] EPA, Toxics in the Food Web, https://www.epa.gov/salish-sea/toxics-food-web; EDF, PCBs in fish and shellfish, https://seafood.edf.org/pcbs-fish-and-shellfish.

[48] Anacostia River Sediment Project, Interim Record of Decision, Early Action Areas in the Main Stem, Kingman Lake, and Washington Channel 15 (Sept. 30, 2020) [hereafter, 2020 Interim ROD].

[49] *Id*. at 16.

[50] D.C. Brownfields Revitalization Amendment Act of 2000, D.C. Code §§ 8-631.01, *et seq*.

[51] 2020 Interim ROD at 2, 14.

[52] In the mainstem of the Anacostia River, surveys indicated that "trash composition" consisted of "25 percent food wrappers, 25 percent bottles and cans, more than 25 percent plastic bags, about 10 percent Styrofoam containers and pieces, and the remaining 20 percent [] paper, debris, and other items." EPA Region 3, Maryland Dept. of the Environment & D.C. Dept. of the Environment, Total Maximum Daily Loads of Trash for the Anacostia River Watershed, Montgomery and Prince George's Counties, Maryland and the District of Columbia, Final (Aug. 2010) [hereinafter, Anacostia Trash TMDL] at 6.

[53] *Id.*

[54] Surveys noted that the "Watts Branch had the most broken glass with as much as five pieces per square foot in the upper segments." *Id.* at 7.

[55] Clean Water Act § 303(d), 33 U.S.C. § 1313. For complete background and analysis on the TMDL program, see OLIVER A. HOUCK, CLEAN WATER ACT TMDL PROGRAM: LAW, POLICY, AND IMPLEMENTATION (2002). The Anacostia River has, in fact, also been the subject of protracted litigation over TMDLs. At one time, EPA argued that Total Maximum Daily Loads did *not* have to be set daily, but rather could be set seasonally or annually – an argument rejected by the D.C. Circuit Court of Appeals as flatly inconsistently with the statute. Friends of the Earth v. EPA 446 F.3d 140 (D.C. Cir. 2006). For discussion of this case, see Jason Malinsky, *Balancing the Pollution Budget After* Friends of the Earth v. EPA, 34 ECOLOGY L.Q. 861, 871 (2007). Litigation then continued for another decade-plus over the substantive requirements for the TMDLs for the Anacostia River. *See* Anacostia Riverkeeper, Inc., v.

state, and local agencies developed a unique Total Maximum Daily Load (TMDL) for trash in the Anacostia watershed.[56] Under the Anacostia Trash TMDL, agencies established a target of "100 percent removal or capture of the baseline load" of trash to the Anacostia River.[57] To meet this target, state and local agencies have engaged in a number of initiatives, to include enhanced street sweeping, fees for plastic bags, and bans on foam food containers.[58] The D.C. Government has also installed at least nine "trash traps" to capture garbage in tributaries before it enters the river.[59]

In 2019, 25 years after my first taxi ride across the bridge, I returned to Anacostia and went for a walk with Dennis Chestnut, a local resident and leader working to restore water quality and quality of life in his community.[60] Strolling along the Watts Branch on a spring afternoon, we stopped to observe a floating Bandalong Litter Trap in action,[61] capturing foam cups and plastic bottles, keeping trash out of the Anacostia River. Mr. Chestnut explained to me how high school kids were hired and trained to clean out the litter traps, providing technical skills and instilling pride in their communities.[62] Community pride was, in fact, on display throughout our stroll, from the historical markers[63] to the community gardens[64] to the mosaic depicting famous son Marvin Gaye. Marvin Gaye Park, like the Anacostia River, was also once "forgotten" and abandoned to social ills.[65] Today, after sustained efforts by engaged community members working with public

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Wheeler, 404 F.Supp. 3d 160 (D.D.C. 2019). For discussion and analysis of this latest decision, *see* Ryan S. Anderson, Anacostia Riverkeeper, Inc. v. Wheeler*: The D.C. District Court Deepens the Split Over Whether the Term "Total Maximum Daily Load" Is Ambiguous*, 34 TULANE ENVTL. L.J. 371 (2021).

[56] EPA Region 3, Maryland Dept. of the Environment & D.C. Dept. of the Environment, Total Maximum Daily Loads of Trash for the Anacostia River Watershed, Montgomery and Prince George's Counties, Maryland and the District of Columbia, Final (Aug. 2010).

[57] Anacostia Trash TMDL at 11.

[58] *See* EPA, *Steps Taken to Reduce Trash in Anacostia*, https://www.epa.gov/dc/steps-taken-reduce-trash-anacostia.

[59] *Id.*

[60] For a brief background and summary of his extraordinary record of community engagement, *see* Chesapeake Conservancy, *Dennis Chestnut – Champion of the Chesapeake*, https://www.chesapeakeconservancy.org/champions-of-the-chesapeake/champions-of-the-chesapeake-2020-nominations/champions-of-the-chesapeake-2020-voting/dennis-chestnut-champion-of-the-chesapeake/.

[61] For photos and descriptions of this litter trap installation, see https://stormwatersystems.com/bandalong-litter-trap-installations/.

[62] Interview with Dennis Chestnut (Mar. 12, 2019).

[63] *See supra* note __ and accompanying text (memorial of visit by Lady Bird Johnson on May 18, 1966).

[64] *See* Marvin Gaye Greening Center, https://washingtonparks.net/marvin-gaye-greening-center/.

[65] *See* Marvin Gaye Park, https://washingtonparks.net/parks/marvin-gaye/.

authorities, Marvin Gaye Park shines as "an example of the transformation that is possible when we listen to the real needs of our communities…."[66]

For more than two decades, the Clean Water Act helped compel change in the Anacostia community, curtailing sewage discharges and helping get a handle on other pollutants such as pesticides, metals, and trash. But the Clean Water Act could not do this job alone. Other legal authorities would be needed, along with new ways of engaging with communities. In part, the new ways would be reflected in the idea of environmental justice, requiring the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income. And in this case, fair treatment and meaningful involvement must extend to all people regardless of which side of a bridge they lived on.

III. THE LOWER DUWAMISH "WATERWAY."

Fast forward a decade or so after my start at EPA Headquarters and I'm now an attorney for EPA Region 10 in Seattle, Washington. The year is 2002, and I'm a new dad, enchanted by tiny fingers and bright eyes. I love my baby girl and love the baby backpack I use to take her out into the world. As a new dad, and EPA attorney, one of the first places I took Olivia outside our home was to a public meeting for the Lower Duwamish Waterway, newly listed as a site on the National Priorities List (NPL).[67]

Before European arrival, the Duwamish River used to meander north across a broad valley, carrying snowmelt from Mt. Rainier and the "good rain" of the Pacific Northwest[68] toward the tide flats around Elliott Bay and into the Puget Sound. Starting in 1913, however, early Seattle promoters began dredging operations to straighten and deepen the channel, transforming the Duwamish River into the "Duwamish Waterway" that now appears on maps.[69] Over time, small

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[66] *Id.*

[67] The "Lower Duwamish Waterway" was formally added to the NPL on September 13, 2001. 66 Fed. Reg. 47583 (Sept. 13, 2001). According to the EPA, the National Priorities List is "a list of national priorities among the known or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States." *Id.*

[68] For a moving introduction to the natural history and beauty of the Pacific Northwest, see TIMOTHY EGAN, THE GOOD RAIN: ACROSS TIME AND TERRAIN IN THE PACIFIC NORTHWEST (1991).

[69] BJ CUMMINGS, THE RIVER THAT MADE SEATTLE: A HUMAN AND NATURAL HISTORY OF THE DUWAMISH 78 (2020) [hereinafter, RIVER THAT MADE SEATTLE].

farms in the Duwamish Valley established by Japanese and Italian immigrants were displaced by the heavy industry that would fuel Seattle's economy.[70] These would include brick factories, cement plants, landfills, sawmills, steel mills, wood treaters, chemical production, petroleum storage, drum recycling, shipyards, and Boeing airplane manufacturing.[71] All this intensive and sustained industrial activity led to massive contamination of the Duwamish River, including its beds and banks, as well as its fish and wildlife.[72] According to one respected scientist involved in early investigations of the Duwamish, "The bottom line was that areas particularly near industrial activities and outflows had staggering amounts … of toxic materials, PCBs, aromatic hydrocarbons, toxic metals," and other contaminants.[73]

When the Lower Duwamish Waterway was listed as a Superfund site in 2001, I knew little about the contamination, but I felt a connection to the river. For most of my life in Seattle, I could see the Duwamish Waterway from my bathroom window. While I brushed my teeth, morning light danced across the ribbon of water between smoke stacks and cargo cranes. When the kids were young, I pulled them along the river in a bike trailer. When the kids were older, we got our hands dirty during Earth Day events, pulling invasive blackberry and planting native salal and dogwoods along the river banks. We launched our canoe from access points and scanned the river for otters.[74]

In that 2002 public meeting on the Lower Duwamish Waterway Superfund Site,[75] someone asked whether river otters would be at risk from the river contamination. At the time, I could imagine risks to river otters and to salmon migrating through the river. But I should have been more focused on the potential risks to people. There were many people, in fact, whose lives and

[70] *Id.* at 82.

[71] U.S. EPA, RECORD OF DECISION: LOWER DUWAMISH WATERWAY SUPERFUND SITE 2 (Nov. 2014) [hereinafter, DUWAMISH ROD].

[72] Early studies by the National Oceanic and Atmospheric Administration (NOAA) Northwest Fisheries Science Center indicated that PCBs were present in all of the Duwamish River's resident fish and wildlife, including migratory salmon. RIVER THAT MADE SEATTLE at 127.

[73] *Id.* at 122 (quoting NOAA scientist Don Malins).

[74] One of the most popular books in our household at the time, BARBARA HELEN BERGER, A LOT OF OTTERS (2000), eventually inspired a live theater production staged exclusively in our living room.

[75] The EPA describes the Lower Duwamish Waterway Superfund Site as "a five mile segment of Seattle's only river, the Duwamish." *See* EPA, Lower Duwamish Waterway, Seattle, WA, Cleanup Activities, Background, https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=1002020#bkground.

livelihoods were seriously threatened by contamination in the Duwamish River. The Duwamish watershed was the homeland of the Duwamish People,[76] including Chief Se'alth,[77] namesake of the City of Seattle. The Duwamish People remain a strong presence in the community today,[78] even as the Duwamish Tribe continues to seek federal recognition.[79] Other tribes with historical ties to the Duwamish watershed are federally recognized, including the Muckleshoot Indian Tribe and Suquamish Indian Tribe,[80] and retain treaty rights within the watershed, including rights to take fish.[81]

In addition to indigenous populations, the communities along the Duwamish River, including the South Park neighborhood west of the waterway and Georgetown east of the waterway, have always been among the most diverse in the Seattle area. Some 42 percent of the Duwamish Valley population is comprised of people of color, including Latinos (15 percent) and Asian/Pacific Islanders (14 percent).[82] In the South Park neighborhood in particular, approximately 25 percent of residents were born outside the United States and 83 percent of children enrolled in the local elementary school qualify for free or reduced lunch.[83] According to EPA's EJSCREEN GIS tool, the community within a mile of the center of South Park ranks in the

[76] By some accounts, "Duwamish" derives from *Doo-Ahbsh*, translated as "people of the inside," reflecting the indigenous villages established along tributaries inside the Duwamish watershed. RIVER THAT MADE SEATTLE at 23.

[77] Chief Se'alth, or "Chief Seattle," according to romanticized tellings of Seattle's history, once supposedly declared, "The earth does not belong to man; man belongs to the earth." Paul S. Wilson, *What Chief Seattle Said*, 22 ENVTL. L. 1451 (1992). As scholars have observed, however, Chief Seattle likely uttered no such words, although he did live long enough to observe the ecological decline that would accompany European settlement. *Id.*

[78] For exploration of the historical and continuing presence of the Duwamish People in the area, the Duwamish Longhouse and Cultural Center on the banks of the Duwamish River offers an unparalleled experience. For information on visiting, see https://www.duwamishtribe.org/.

[79] On federal recognition generally and the decades-long quest of the Duwamish Tribe for federal recognition, see Rebecca M. Mitchell, *People of the Outside: The Environmental Impact of Federal Recognition of American Indian Nations*, 42 B.C. ENVTL. AFF. L. REV. 507 (2015).

[80] 87 Fed. Reg. 4638-39 (Jan. 28, 2022).

[81] *See* United States v. Washington, 384 F.Supp. 312, 338 (1974), aff'd, 520 F.2d 676 (9th Cir. 1975) (finding that Pacific Northwest tribes, including Muckleshoot Indian Tribe, retained treaty rights to take fish "in common with" white settlers). *See also* Washington v. United States, 138 S.Ct. 1832 (2018), affirming duty of State of Washington to provide unobstructed passage for migratory salmon). For full analysis of the "Culverts Case," see JUDITH V. ROYSTER, MICHAEL C. BLUMM & ELIZABETH KRONK WARNER, NATIVE AMERICAN NATURAL RESOURCES 649-662 (2018).

[82] U.S. EPA, LOWER DUWAMISH WATERWAY SUPERFUND SITE, COMMUNITY INVOLVEMENT PLAN 15 (Oct. 2016).

[83] *Id.* at 17.

92nd percentile state-wide for "People of Color Population," 92nd percentile state-wide for "Linguistically Isolated," and 85th percentile state-wide for "Low Income Population."[84] In lay terms, as a low-income community with a large minority population suffering disproportionate impacts of pollution, the people of the Duwamish Valley represent a classic "EJ community."[85]

As in many other such communities across the country, diverse people were living in Duwamish Valley before the industry and pollution came to them. As in many other cities, choices were also made in Seattle to direct the industry and pollution specifically towards this diverse community. For example, in addition to all the other toxic materials from industry along the Duwamish Waterway, raw sewage from across the city was redirected to the Duwamish River after 1958, shifting this aesthetic and public health concern away from the affluent homeowners along Lake Washington.[86] As water quality deteriorated, the Duwamish River experienced a series of fish kills, leading one observer to predict "death for a tired old river."[87] And yet, sewage discharges to the Duwamish River continued for decades. According to one recent analysis, "[A]t the end of the 1990s, the Duwamish River still received effluent from seven combined sewer overflows that together released an average of six hundred million gallons of untreated sewage and stormwater into the river each year."[88]

As with the Columbia Slough and the Anacostia River, the CSO discharges to the Duwamish River appeared to violate the Clean Water Act. Additional Clean Water Act violations appeared to derive from many other industrial sources along the Duwamish. In 1995, for example, Puget Soundkeeper Alliance ("Soundkeeper") filed a citizen suit under the Clean Water Act to

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[84] EJSCREEN search: one-mile ring centered around intersection of 14th Ave. S. & S. Cloverdale St., South Park, Seattle, WA (last visited Feb. 13, 2022).

[85] EPA is careful to advise that EJSCREEN does not, by itself, identify "EJ communities." Instead, EPA describes EJSCREEN as a "screening tool" that provides "a useful first step in understanding or highlighting locations that may be candidates for further review." EPA, Purposes and Uses of EJSCREEN, https://www.epa.gov/ejscreen/purposes-and-uses-ejscreen.

[86] RIVER THAT MADE SEATTLE at 107. *See also id.* at 112 ("Water quality in the lake recovered at the expense of the river"). Among the affluent homeowners along Lake Washington has been Bill Gates, co-founder of Microsoft and one of the wealthiest men in the world. *See* Valeriya Safronova, *Who Gets Xanadu 2.0 in the Divorce?*, N.Y. TIMES, May 9, 2021.

[87] *Id.*, (quoting sport angler and conservationist Don Johnson from 1959).

[88] *Id.* at 112.

address unpermitted discharges from two cement plants at the mouth of the Duwamish Waterway.[89] In 2014, Soundkeeper filed a notice of intent to sue for alleged Clean Water Act violations relating to stormwater discharges from a petroleum storage facility.[90] In 2019, Soundkeeper entered a consent decree to resolve alleged Clean Water Act violations from a metals recycling facility along the Duwamish Waterway.[91] Each individual lawsuit and settlement helped reduce illegal discharges and improve water quality in the Duwamish.[92] The problem of CSO discharges to the Duwamish River, however, would require substantially more attention and investment.

Perhaps inevitably, as in Portland, Oregon, and Washington, D.C., a lawsuit was filed and consent decree entered with the City of Seattle to compel the massive infrastructure upgrades required to address the continuing CSO problems in the area. According to the civil complaint filed in 2013 by the United States and State of Washington, the City of Seattle maintained more than 1,400 miles of sewer lines throughout the area, with 968 miles of these lines "combined sewers."[93] The civil complaint noted that Seattle's Clean Water Act permit "authorized the discharge of pollutants from 90 combined sewer overflows ('CSO') outfall locations … subject to certain limitations and conditions."[94] The complaint also alleged that the City violated the Clean Water Act "by failing to meet the conditions contained in its … Permit … and by discharging pollutants without [a] permit."[95]

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[89] *See* Puget Soundkeeper All. v. Cadman (Seattle) Inc. & Tilbury Cement Co., Complaint (U.S. District Court, Western District of Wash.) C-95-0489, filed March 30, 1995.

[90] Puget Soundkeeper All. v. Rainier Petroleum Corp., Consent Decree, Case No. 14-00829, filed Jan. 8, 2016.

[91] Puget Soundkeeper All. v. Seattle Iron & Metals, Corp., Consent Decree, Case No. C12-1201 RSM, filed March 15, 2019.

[92] The settlement with Seattle Iron & Metals, for example, required the company to keep one of its docks "vacuum-swept" and to avoid storing materials on the dock if they could be carried by precipitation into the river. *Id.* at 4. Under the settlement, the company also agreed to "remove metal debris from the Duwamish River" along a defined segment and to "annually thereafter … conduct an underwater survey and remove all identified metal debris larger than six inches" and to "remove small metal debris from the same area using a magnet." *Id.* at 5.

[93] United States of America & State of Washington v. The City of Seattle, Washington, Complaint, Civil Action No. 2:13-cv-678 (United States District Court, Western District of Wash.), filed April 16, 2013 at 7.

[94] *Id.* at 9.

[95] *Id.* A similar complaint filed the same day alleged that King County, Washington, had been authorized to discharge pollutants from 42 CSOs, had failed to meet permit conditions, and had discharged pollutants without a permit. United

In resolution of these alleged violations, the settlement entered in 2013 established a "goal of eliminating Sewer Overflows."[96] To achieve this goal, the settlement required the City to "construct and implement the CSO Control Measures" as set forth in an approved Long Term Control Plan,[97] with "Construction Completion of all CSO Control Measures" required by December 31, 2025.[98] While the schedule may slip due to the COVID pandemic and other factors, construction appears to be making progress.[99] According to the City of Seattle, approximately $500 million has already been committed between 2020 and 2025 for capital improvements, which, when completed, will reduce all CSO discharges in the city by 95 percent.[100]

While the reduction in CSO discharges will certainly help improve water quality in the Duwamish Waterway, the industrial history and legacy contamination will require measures beyond those available under the Clean Water Act. This is one reason why listing of the Lower Duwamish Waterway on the National Priorities List in 2001 was so important. As an NPL site, the Lower Duwamish Waterway proceeded through a defined process under CERCLA for site investigation and remedy selection,[101] leading to a Record of Decision (ROD) signed by the EPA in November 2014.[102]

Investigation of sediments in the Lower Duwamish Waterway found risks to benthic invertebrates (including worms, snails, clams, and crabs)[103] from 41 different contaminants,

States of America & State of Washington v. King County, Washington, Complaint, Civil Action No. 2:13-cv-677 (United States District Court, Western District of Wash.), filed April 16, 2013 at 10.

[96] United States of America & State of Washington v. The City of Seattle, Washington, Consent Decree, Civil Action No. 2:13-cv-678 (United States District Court, Western District of Wash.), filed April 16, 2013, at 4.

[97] *Id.* at 12.

[98] *Id.* at 59.

[99] *See* Seattle Public Utilities, Wastewater Collection System: 2020 Annual Report 8 (March 24, 2021), https://www.seattle.gov/Documents/Departments/SPU/EnvironmentConservation/2020AnnualWastewaterCollectionSystemReport.pdf.

[100] Seattle Public Utilities, Combined Sewer Overflow Reports & Requirements, https://www.seattle.gov/utilities/about/reports/combined-sewer-overflows.

[101] *See generally* 40 C.F.R. § 300.430. For a quick review of the CERCLA remedy selection process, particularly in the context of environmental justice, see CLIFFORD VILLA, *ET AL.*, ENVIRONMENTAL JUSTICE: LAW, POLICY & REGULATION 291-293 (3rd ed. 2020).

[102] DUWAMISH ROD, *supra* note __.

[103] *Id.* at 58.

including arsenic, mercury, and butyl benzyl phthalate.[104] In answer to one of the original questions posed during the 2002 public meeting, contamination in the Lower Duwamish Waterway did pose a risk to river otters. Specifically, river otters were at risk of "reduced reproductive success from the ingestion of seafood contaminated with PCBs."[105] The same potential for consuming fish and shellfish contaminated with PCBs from the Duwamish Waterway would also pose a major risk to human health. While lower risks were associated with recreational exposures to contaminated sediments through activities such as beach play, [106] the majority of risks to human health were associated with consumption of contaminated seafood. Specifically, "The majority of risks for seafood consumption were from PCBs and inorganic arsenic in resident fish, crabs, and clams."[107]

In calculating these risks, EPA adopted assumptions that tribal members and members of the Asian/Pacific Islander community would have higher rates of fish consumption,[108] consistent with recommendations from environmental justice advocates.[109] As part of the CERCLA remedy selection process, EPA also conducted an EJ analysis to examine "the potential for disproportionate adverse impacts" from cleanup alternatives and to recommend "additional measures to mitigate disproportionate adverse impacts."[110] One of the additional recommended measures was a survey of local fishers to determine precisely "where, when, and what they are fishing for" in the Duwamish Waterway.[111] Completed in 2016, the Fishers Study surveyed 328

[104] *Id.* at 65-66 and Table 17. Butyl benzyl phthalate has many industrial uses, including adhesives, automotive car products, and paint. In humans, exposure can cause issues with reproduction and development. EPA, FINAL SCOPE OF THE RISK EVALUATION FOR BUTYL BENZYL PHTHALATE (Aug. 2020).

[105] *Id.*

[106] *Id.* at 57. Previous studies from 1999 indicated no significant risks to human health from swimming in the waterway. *Id.* at 44.

[107] *Id.* at 57.

[108] *Id.* at 43-44.

[109] *See, e.g.,* NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL, FISH CONSUMPTION AND ENVIRONMENTAL JUSTICE (2002); Catherine O'Neill, *Variable Justice: Environmental Standards, Contaminated Fish, and "Acceptable" Risk to Native Peoples*, 19 STAN. ENVTL. L. J. 3 (2000).

[110] DUWAMISH ROD at 113. While EJ analyses are becoming increasingly common in other environmental contexts, *see* VILLA, *supra* note __, at 213-226, the EJ analysis for the Lower Duwamish Waterway is believed to be the first of its kind in support of remedy selection under CERCLA. *Id.*, Part III: Responsiveness Summary, at 120 (identifying the EJ analysis for Duwamish cleanup as "the first in the country for a Superfund site").

[111] DUWAMISH ROD at 114.

local fishers and identified more than 25 different ethnicities among the people fishing in the Duwamish, to include large numbers of fishers from Vietnamese, Filipino, and Latino communities.[112]

To ensure the protection of "all people," consistent with EPA's definition of environmental justice,[113] the Record of Decision called for substantial action to address contaminated sediments in the Duwamish Waterway, to include extensive dredging (105 acres) and capping (72 acres), for a total estimated cost of $342 million.[114] While design work to implement the selected remedy continues, several "Early Action Areas" have already been cleaned up,[115] including Terminal 117, the former site of an asphalt plant. After the Port of Seattle and City of Seattle completed a $34 million cleanup in 2018, the property is now a public park.[116] Once full remedial construction for the Lower Duwamish Waterway Superfund Site begins, it is expected to be completed in seven years,[117] bringing substantial benefits to the diverse communities long burdened by this legacy of contamination.

Twenty years after that first public meeting on the Lower Duwamish Waterway Superfund Site, the baby I carried in a backpack is now off to college, and I no longer have a view of the Duwamish Waterway while brushing my teeth. But I still think of the Duwamish often and visit when I can. On March 30, 2019, along the banks of the Duwamish River, Olivia and I attended the grand unveiling of a new mural painted on an old building at Duwamish Waterway Park. The mural was painted by members of the Duwamish Valley Youth Corps, a project of the Duwamish River Cleanup Coalition.[118] The mural tells the story of first peoples, white settlement, industrial

[112] Fishers who reported catching the most resident seafood included Vietnamese, Cambodian, Filipino, Latino, and multi-racial ethnicities. LOWER DUWAMISH WATERWAY GROUP, LOWER DUWAMISH WATERWAY FISHERS STUDY, DATA REPORT, FINAL (Dec. 23, 2016) at ES-2, ES-3.

[113] *See supra* note __ and accompanying text (EPA definition requiring "fair treatment and meaningful involvement of all people…").

[114] DUWAMISH ROD at ii-iii.

[115] *See* EPA, Cleanup Currents: Lower Duwamish Waterway Superfund Site (Oct. 2020), https://semspub.epa.gov/work/10/100286590.pdf.

[116] For a complete overview of the T-117 project, see http://www.t117.com/default.aspx.

[117] DUWAMISH ROD at iii.

[118] For information on the Duwamish River Cleanup Coalition and the extraordinary history and achievements of this grassroots organization, see https://www.drcc.org/.

development, and the future we might realize together. The Clean Water Act is one important part of this story, supported by other statutes, programs, and the people who make use of them.

IV. "DON'T BLAME THE FLINT RIVER"

In 2015, I got called home to Albuquerque, joining the law faculty of the University of New Mexico (UNM). One morning in my first year of teaching at UNM, I caught a story on NPR about contamination of drinking water in Flint, Michigan.[119] I sat in the school parking lot while listening to the story conclude with details about lead poisoning in children and environmental regulators who knew but failed to act. In my EPA life, I had learned something about lead poisoning in mining towns.[120] I knew there was no safe level of lead in the human body and knew that childhood exposures to lead could lead to a lifetime of learning difficulties and behavioral problems.[121] Foreseeing a difficult future for these kids of Flint, I felt compelled to learn more about the "Flint Water Crisis,"[122] to see how this happened, perhaps to help prevent this kind of catastrophe from happening again.

The same week as the story on NPR, a gripping photo appeared on the cover of *Time Magazine*, followed by an article that began like this:

> The first thing many residents noticed after water from the Flint River began flowing through their taps was the color. Blue one day, tinted green the next, sometimes shades of beige, brown, and yellow. Then there was the smell. It was ripe and pungent – some likened it to gasoline, others to the inside of a fish market. After a couple of months, Melissa Mays, a 37-year-old mother of four, says her hair started to fall out in clumps, clogging the shower

[119] *See, e.g.*, Lindsey Smith, *Who's To Blame for Flint's Water Problem?,* ALL THINGS CONSIDERED, Jan. 17, 2016, https://www.npr.org/2016/01/17/463405757/whos-to-blame-for-flints-water-problem.

[120] *See, e.g.*, Clifford J. Villa, *Superfund vs. Mega-Sites: The Coeur d'Alene River Basin Study*, 28 COLUMBIA J. ENVTL. L. 255, 260 & n.29 (2003). Within the Coeur d'Alene Basin of northern Idaho, studies from the 1970s found that 99 percent of children near the lead smelter in Kellogg had extreme levels (> 40µg/dL) of blood-leads. Philip J. Landrigan & Edward L. Baker, *Exposure of Children to Heavy Metals from Smelters: Epidemiology and Toxic Consequences*, 25 ENVTL. RESEARCH 204 (1981).

[121] *See, e.g.*, Bruce P. Lanphear, *et al.*, *Environmental Lead Exposure and Children's Intellectual Function: An International Pooled Analysis*, 113 ENVTL. HEALTH PERSP. 894 (2005) (observing the "preponderance of experimental and human data indicates that there are persistent and deleterious effects of blood lead levels > 10 µg/dL on brain function, including lowered intelligence, behavioral problems, and diminished school performance").

[122] *See, e.g.*, Burgess v. U.S., 375 F.Supp. 3d 796, 800 (E.D. Mich. 2019) ("This is one of many cases emerging from what is now known infamously as the Flint Water Crisis").

drain. She broke out in rashes and developed a respiratory infection, coughing up phlegm that tasted like cleaning products.[123]

So, the problem was the Flint River? Flowing through the birthplace of General Motors,[124] in a city "virtually synonymous with automobile production,"[125] the Flint River certainly bore a legacy of contamination from the auto industry.[126] After the displacement of the original Ojibwa people,[127] but well before the invention of cars, the Flint River was polluted with industrial waste from lumber mills and paper mills.[128] As with every other urban waterway, human sewage was also discharged into the Flint River.[129] By the 1930s, with auto production in full swing, there were reports of "thousands of fish dying in this river."[130] There were also reports of fires on the Flint River,[131] predating by decades the infamous fires on Ohio's Cuyahoga River that help galvanize the environmental movement in the 1970s.[132]

As in so many other communities across the country, the passage of the Clean Water Act in 1972 began to help turn things around for the Flint River. One study showed that water quality above Flint, Michigan, had already begun to improve by 1974.[133] Closure of the Flint auto factories, so devastating for the local economy, probably helped improve water quality as well.[134]

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[123] For one stunning cover story about the same time, see Josh Sanburn, *The Poisoning of an American City*, TIME MAGAZINE, Jan. 21, 2016.

[124] ANNA CLARK, THE POISONED CITY 2 (2018).

[125] Andrew R. Highsmith, Demolition Means Progress: Race, Class, and Deconstruction of the American Dream in Flint, Michigan, Vol. 1 41 (2009) (unpublished Ph.D. dissertation, University of Michigan) (on file with author).

[126] *See, e.g.*, Ryan Felton, *What General Motors Did to Flint*, JALOPNIK (April 28, 2017) ("Years of dumping from the auto plants contributed to the pollution in the river"). *See also*, Tim Carmody, *How the Flint River Got So Toxic*, VERGE (Feb. 26, 2016), https://www.theverge.com/2016/2/26/11117022/flint-michigan-water-crisis-lead-pollution-history (noting, "General Motors did its part to pollute the Flint River watershed").

[127] "By 1820 the US government had acquired all of the Ojibiwa lands in southeastern Michigan through a mix of treaties, purchases, and raw violence. Flint's ascent as an urban and commercial hub coincided with this era of Native American dispossession and displacement." HIGHSMITH, *supra* note __, at 25. By some accounts, the City of Flint takes its name from the Ojibiwa word for "Flinty River." CLARK, *supra* note __, at 19.

[128] Felton, *supra* note __ ("Industrial waste was introduced into the Flint River with the first lumber mills in the 1830s").

[129] CLARK, *supra* note __, at 21.

[130] *Id.* (internal citations omitted).

[131] *Id.*

[132] *See* Jonathan J. Adler, *Fables of the Cuyahoga: Reconstructing a History of Environmental Protection*, 14 FORDHAM ENVTL. L.J. 89-93 (2002).

[133] Carmody, *supra* note ___.

[134] *See id.* (acknowledging, "the Flint River has been improving thanks to … the departure of heavy industry").

Unlike waterways in Anacostia, Portland, and Seattle, the Flint River has not required massive infrastructure upgrades to address problems with Combined Sewer Overflows.[135] While there have been occasional upsets,[136] it appears that water quality in the Flint River has improved substantially over time,[137] with the river currently meeting almost all applicable standards for water quality.[138] Today, you can bike along the river through town on the Flint River Trail,[139] volunteer to monitor local benthic invertebrates,[140] or paddle the 73-mile Flint River Water Trail.[141] Despite the bad rap of the Flint Water Crisis, people in Flint are proud of their river. You can see that pride in the hashtag established by one local community organization: #ItsNotTheRiver.[142] And on a visit to Flint in October 2020, I heard everywhere: "Don't blame the Flint River."[143]

If we can't blame the Flint River for the Flint Water Crisis, then who should we blame? In broadest terms, we can blame human action and inaction. The human action was frighteningly simple: on a Friday morning, April 25, 2014, Flint Mayor Dayne Walling, with ceremony before suited men, pushed a button and powered down a system that had delivered good drinking water

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[135] In 2001, EPA identified 52 CSOs in the State of Michigan, 36 of them in City of Saginaw. EPA REPORT TO CONGRESS at fig. ES.1 and ES-11. In 2020, the State of Michigan reported that "Michigan communities have eliminated more than 83 percent of the 613 uncontrolled CSO outfalls that existed in 1988…." Michigan Dept. of Environment, Great Lakes, and Energy, Combined Sewer Overflow (CSO), Sanitary Sewer Overflow (SCO), and Retention Treatment Basin (RTB) Discharge 2020 Annual Report at 4.

[136] Most notably, in 1999, a subcontractor digging a trench hit an unmarked sewer line, causing a spill of 22 million gallons of sewage into the Flint River. *See* Brie D. Sherwin, *Pride and Prejudice and Administrative Zombies: How Economic Woes, Outdated Environmental Regulations, and State Exceptionalism Failed Flint, Michigan*, 88 U. COLO. L. REV. 653, 659 (2017).

[137] Specifically, years of monitoring on the Flint River indicates either "fair," "good," or "excellent" water quality for all stream segments through the City of Flint. For a spreadsheet of water quality monitoring results maintained by the Flint River Watershed Coalition, reaching back to June 1999, see https://docs.google.com/spreadsheets/d/1GdXXXOKGnKPcgZFd2UdkLxFKUFTOdbV8W0_r4ePsGyk/edit#gid=288237675.

[138] The only water quality standard the Flint River appears to exceed today is for *E. coli*, which is subject to a TMDL that applies broadly for many waters across the state. *See*, Michigan's *E. coli* Pollution and Solution Mapper, https://egle.maps.arcgis.com/apps/MapSeries/index.html?appid=2a060da30e25451292220861632b2c99

[139] CLARK, *supra* note __, at 31.

[140] *See* http://flintriver.org/programs/water-monitoring/.

[141] For details, including a printable Flint River Access Site Map, see http://flintriver.org/watertrail/about-water-trails/.

[142] *See* http://flintriver.org/2017/03/31/itsnottheriver/

[143] Reflecting this popular sentiment, *see, e.g.*, Robert Pestronk, Opinion, *Don't Blame the Flint River for Flint's Water Crisis*, WASH. POST, Nov. 16, 2017 (protesting that "representation of the Flint River as 'notoriously polluted' … is wrong").

from Detroit for nearly 50 years.[144] In place of Detroit water, Flint residents would receive water from the Flint River while a new regional water system was being built, which would supposedly save money for the financially strapped city. In fact, by 2011, the City of Flint had fallen into such financial distress that the State of Michigan had taken over city management through a series of emergency managers. At the time of the water switch, Darnell Earley served as emergency manager for Flint and personally championed (and continued to defend) the change in water source.[145]

The problem, as now widely known,[146] was that the City of Flint was not prepared to properly treat the water from the Flint River before delivering it to the Flint residents. Many agency officials approving the switch had been expressly advised of this, including officials of the Michigan Department of Environmental Quality (MDEQ).[147] After state and local officials proceeded with the switch anyway, without proper treatment of the water with corrosion control, old city pipes began to rust.[148] The dark, smelly water that began to emerge from kitchen taps across Flint contained corroded iron. Many old city pipes were also made with lead, which began to leach into the drinking water as well.[149]

For nearly 18 months,[150] the toxic water flowed through the city plumbing, corroding an already weakened infrastructure and ultimately destroying many lives. Within three weeks of the switch, Flint residents began to complain about skin rashes from the new water.[151] In addition to

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[144] CLARK, *supra* note __, at 13-18. The fateful moment was captured on video and remains available for viewing on YouTube at https://www.youtube.com/watch?v=OBZE8XEJXoo.

[145] CLARK, *supra* note __, at 14 (noting that the roles of both the Flint mayor and city council were effectively "symbolic" at that time).

[146] As one commentator acknowledged, "You've probably heard [this] story. At this point it's hard not be at least somewhat familiar with the Flint water crisis." Felton, *supra* note __.

[147] For example, eight days before the watch switch, a Flint utilities administrator emailed MDEQ staff with an explicit warning: "If water is distributed from this plant in the next couple of weeks, it will be against my direction." *Id.* at 17-18 & n.17.

[148] *Id.* at 33-34.

[149] *Id.* at 110-11.

[150] *Id.* at 153.

[151] *Id.* at 33. In my visit to Flint in 2020, one Flint resident described in searing detail the rashes appearing on her young son born in December 2015. At three weeks of age, "easily 95 percent of his body was covered in a very severe rash." After eliminating all fragrances, dryer sheets, and "*everything*," the resident installed a reverse-osmosis system

rashes, residents complained about hair falling out.[152] In August, a series of "boil-water" notices went out to residents after fecal coliform bacteria (*E. coli*) was detected in the drinking water.[153] In addition to *E. coli*, a genus of bacteria known as *Legionella* in the Flint drinking water led to an outbreak of Legionnaire's disease which sent 91 area people to the hospital and resulted in 12 confirmed deaths.[154] And then, of course, the water switch led to an epidemic of lead poisoning across the city, with an estimated 8,657 children drinking the contaminated water and potentially beginning a life of struggle with neurological deficits.[155]

There are many agencies and individuals who can and should be blamed for this, and many became the targets of civil litigation and criminal prosecution. Darnell Earley, along with many other state and local officials and agencies, was a named defendant in a civil rights suit filed in federal court.[156] Former Michigan Governor Rick Snyder, along with other state officials and agencies, was a named defendant in a class action filed in state court.[157] After losses in both state[158] and federal courts,[159] the State of Michigan prudently chose to settle both the state and federal cases through an agreement signed in November 2020, requiring the State to pay $600 million into

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in her home and began bathing her son in filtered water, "and it started to get better." Interview with Mona Munroe-Younis (Oct. 2, 2020).

[152] CLARK, *supra* note __, at 40-41.

[153] *Id.* at 40-41.

[154] Nicholas J. Schroeck, *The Flint Water Crisis and Legionella: Harm to Public Health from Failure to Warn*, 18 J.L. & SOC'Y 155-56, 161 (2018). In a typical year, the county reported nine to eleven cases of the disease. *Id.*

[155] For the most cogent and accessible explanation of the neurological effects of lead poisoning on children and the potential population of children exposed to lead through the Flint Water Crisis, see MONA HANNA-ATISHA, WHAT THE EYES DON'T SEE (2019) at 41-42, 298. The author, a Flint pediatrician, played a central role in identifying and revealing the spike in lead poisoning after the Flint water switch, over the vociferous denials and personal attacks by state and local officials.

[156] Boler v. Earley, 865 F.3d 391 (6th Cir. 2017), *cert. denied*, 138 S.Ct. 1294 (2018). Other defendants in this case included former Flint Mayor Dayne Walling, individual MDEQ employees, and the MDEQ itself.

[157] Mays v. Governor of Michigan, 506 Mich. 157 (2020).

[158] Among other claims, plaintiffs in the state case alleged violation of their right to bodily integrity under the Due Process Clause of the Michigan Constitution. Rejecting challenges to this claim, the Supreme Court of Michigan concluded, "Plaintiffs' allegations, if true, are so egregious and outrageous that they shock the contemporary conscience and support a finding of defendants' deliberate indifference to plaintiffs' health and safety." *Mays v. Governor of Michigan* at 192-94.

[159] In the federal case, plaintiffs pursued claims under 42 U.S.C. § 1983, alleging violation of constitutional rights to contract, right to substantive and procedural due process, right to protection against state-created danger, right to equal protection, and right to just compensation for deprivation of property. *Boler v. Earley* at 399. Reversing the lower court's dismissal of the complaint, the Sixth Circuit concluded that the Safe Drinking Water Act "does not preclude § 1983 claims as pled" by the federal plaintiffs. *Id.* at 409.

a settlement fund that will distribute proceeds to injured claimants.[160] Following the civil settlement, in January 2021, both Snyder and Earley were among a group of nine current or former state officials indicted by a grand jury on a variety of criminal charges including perjury, misconduct in office, willful neglect of duty, and involuntary manslaughter.[161] At this time, the criminal cases remain pending.[162]

Whether or not anyone ever goes to jail for the Flint Water Crisis, and regardless of whatever payouts may come from the civil settlement, the families of those killed by Legionnaire's disease and the 8,657 children who may have sustained permanent neurological impairment from lead poisoning will never be adequately compensated. Beyond all the facts of the case, including potentially criminal conduct by certain individuals, I knew as a federal regulator for more than 20 years that one person or even one agency could not alone engineer this public health disaster. My original question after hearing the first story about Flint on the radio still stirred me: *how did this happen?*

There should have been a law that prevented this from happening and, in fact, there was. It was not the Clean Water Act, which succeeded in improving the quality of the Flint River, but the Safe Drinking Water Act,[163] which should have ensured that the people of Flint would be provided, well, *safe drinking water*.[164] Following the model of cooperative federalism reflected in the Clean Water Act and other federal environmental statutes,[165] the Safe Drinking Water Act

[160] *See* Amended Settlement Agreement, ¶ 2.1.1, *In re*: Flint Water Cases, No. 5:16-cv-10444 (E.D. Mich., Nov. 16, 2020) ("State Defendants shall pay $600,000,000"). For a quick overview of the settlement structure, see Michele P. Fuller, *Architecting the $600 Million Flint Water Settlement Process*, NAELA NEWS 21, Jan/Feb/Mar. 2022, https://www.naela.org/NewsJournalOnline/News_Articles/2022/JanFebMar2022/Flint_Water_settlement.aspx?subid=1246.

[161] Michigan Dept. of Attorney General, *Nine Indicted on Criminal Charges in Flint Water Crisis Investigation*, Jan. 14, 2021, https://www.michigan.gov/ag/0,4534,7-359-82917_97602_97604-549541--,00.html.

[162] *Year Later, Flint Water Criminal Cases Move Slowly in Court*, ASSOCIATED PRESS, Jan. 12, 2022, https://apnews.com/article/health-environment-and-nature-environment-michigan-rick-snyder-2c5a150deacc902e197d449999b88dc5.

[163] 42 U.S.C. §§ 300f-j-9.

[164] For discussion of the Safe Drinking Water Act, its historical success, and regulatory shortcomings in the particular context of the Flint Water Crisis, see Kayla Weiser-Burton, *Clean Drinking Water: A Stream of Success and Opportunity for Reform*, 2019 UTAH L. REV. 503 (2019).

[165] "Under the classic cooperative federalism model, the federal government sets overall program mandates and goals. States then have the option of leading program implementation. If they accept that option, the day-to-day work of

empowered the U.S. EPA to establish nationwide standards for drinking water.[166] The individual states could then be authorized to exercise "primacy" for ensuring compliance with these drinking water standards in their own state.[167] During the Flint Water Crisis, the State of Michigan, through the Michigan Department of Environmental Quality,[168] was authorized to exercise primary enforcement for the Safe Drinking Water Act standards in the State of Michigan.[169] MDEQ would be responsible for ensuring compliance with drinking water standards subject to oversight from EPA, specifically from EPA Region 5, based in Chicago, with jurisdiction over Great Lakes states including Michigan.[170] As such, the failures reflected in the Flint Water Crisis reflected failures by local government (including the City of Flint), by state government (including MDEQ and the state-appointed emergency managers), and by the federal government (including EPA Region 5). All along the chain, people made horrible choices that resulted in poisoning the city. But again, *why?*

Many answers have been offered. In a report commissioned by Governor Snyder, the Flint Water Advisory Task Force submitted, "The Flint water crisis is a story of government failure, intransigence, unpreparedness, delay, inaction, and environmental injustice."[171] Expanding on the theme of environmental injustice, a report issued the following year by the Michigan Civil Rights Commission emphasized the roots of the Flint Water Crisis in historical and systemic racism in the Flint community.[172] For many observers, Flint was and will remain a paradigm of

administering the program happens largely at the state level. But the federal government retains an oversight role…" Dave Owen, *Cooperative Subfederalism*, 9 U.C. IRVINE L. REV. 177, 178 (2018). For discussion of cooperative federalism in the particular context of the Clean Water Act, see Robin Kundis Craig, *Beyond SWANCC: The New Federalism and Clean Water Act Jurisdiction*, 33 ENVTL. L. 113 (2003).

[166] Safe Drinking Water Act § 1412, 42 U.S.C. § 300g-1. The nationwide standards are generally known as Maximum Contaminant Levels (MCLs), available at 40 C.F.R. Part 141. As defined by EPA regulations, "*Maximum contaminant level* means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system." 40 C.F.R. § 141.2.

[167] Perhaps as a consequence of failings by the MDEQ during the Flint Water Crisis, the state agency was reorganized and renamed the Michigan Department of Environment, Great Lakes, and Energy (EGLE) in February 2019. *See* Gov. Gretchen Whitmer, Exec. Order No. 2019-02 (Feb. 4, 2019).

[168] *Id.* § 1413, 42 U.S.C. § 300g-2. *See also*, 40 C.F.R. Part 142, Subpt. B (Primary Enforcement Responsibility).

[169] FLINT WATER ADVISORY TASK FORCE, FINAL REPORT (Mar. 21, 2016) at 22.

[170] *See generally*, https://www.epa.gov/aboutepa/epa-region-5.

[171] FLINT WATER ADVISORY TASK FORCE, FINAL REPORT (Mar. 21, 2016) at 1.

[172] MICHIGAN CIVIL RIGHTS COMM., SYSTEMIC RACISM THROUGH THE LENS OF FLINT 2 (Feb. 2017).

environmental racism.[173] Dr. Mona Hanna-Atisha, in her gripping personal narrative, *What the Eyes Don't See*, simply observed, "Many people stopped caring about Flint and Flint's kids."[174] Journalist Anna Clark, in her comprehensive account, *The Poisoned City*, adds to these factors a "moral cowardice"[175] among people who knew and failed to act to protect the people of Flint. Without any doubt, the Flint Water Crisis reflects a failure of environmental justice,[176] beginning with the fact that local residents are largely poor and people of color: as the Water Crisis began to unfold, Flint was 57 percent Black and 42 percent below the federal poverty line.[177]

The poverty in Flint is profound. From a local GM workforce of 80,000 in 1978, plant closures and automation have left less than 7,000 GM workers in "Vehicle City" today.[178] With mass layoffs, shuttered businesses, and depleted tax base, it is no surprise that Flint spiraled into financial distress. To drop a pin in the middle of Flint today produces an EJSCREEN index in the 96th percentile nationwide for unemployment.[179] On top of economic struggles, as indicated the Michigan Civil Rights Commission, Flint residents have long struggled with race discrimination. According to Flint scholar Andrew Highsmith, in the 1930s, Flint, Michigan, was the most segregated city in the United States north of Virginia, with Jim Crow rules permeating housing, education, employment, hotels, restaurants, movie theaters, and even cemeteries.[180] Continuing

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[173] John Eligon, Opinion, *A Question of Environmental Racism in Flint*, N.Y. TIMES, Jan. 21, 2016 (posing the rhetorical question, "If Flint were rich and mostly white, would Michigan's state government have responded more quickly and aggressively to complaints about its lead-polluted water?").

[174] HANNA-ATISHA, *supra* note __, at 13.

[175] CLARK, *supra* note __, at 9.

[176] *See, e.g.*, letter from National Environmental Justice Advisory Council to Scott Pruitt, EPA Administrator (July 31, 2017) ("What happened in Flint over three years ago was a national environmental justice disaster").

[177] CLARK, *supra* note __, at 15, 43. In addition to Black and white, Flint also has a large Latino population, including established families and perhaps 1,000 undocumented immigrants. *Id*. at 168. According to one community advocate, the state's response to the Flint Water Crisis "was absolutely pitiful, … only offering services in English. … There is very clear evidence that the Spanish-speaking community did not know for *months*," after the drinking water contamination came to light, "that there was anything wrong with their water." Interview with "Pastor Monica" Villarreal (Oct. 2, 2020).

[178] Felton, *supra* note __. The lucky few remaining GM workers in Flint may have helped assemble your new Chevy Volt, Chevrolet Silverado, or Cadillac Escalade. *Id.*

[179] EJSCREEN search: one-mile ring centered around intersection of Interstate 475 and Interstate 69, Flint, Michigan (last visited Feb. 20, 2022). The unemployment index is a new feature added to EJSCREEN 2.0, launched on February 18, 2022.

[180] ANDREW R. HIGHSMITH, DEMOLITION MEANS PROGRESS: FLINT, MICHIGAN, AND THE FATE OF THE AMERICAN METROPOLIS 34 (2016).

into the 21st century, Flint remained "one of the most racially segregated … regions in the nation."[181]

Whether or to what extent poverty and race factored into decisions leading to the Flint Water Crisis is difficult to know and would be difficult to prove.[182] And yet, the prospect cannot be ignored and may sometimes appear just beneath the surface. For example, in debating whether to offer financial assistance to Flint under the Drinking Water State Revolving Fund (DWSRF), one manager in EPA Region 5 shared with her colleagues this opinion: "I'm not so sure Flint is the community we want to go out on a limb for."[183] One wonders, why wouldn't EPA want to "go out on a limb" for Flint? In the middle of the Flint Water Crisis, with thousands of Flint residents potentially suffering from lead poisoning, was there another community that was more worth protecting? If so, what does that community look like?

Fortunately, EPA did decide to provide financial assistance to Flint.[184] But the question of whether EPA should "go out on a limb" for Flint, if not grounded in outright discrimination,[185] at the least reflected concern for what Anna Clark described as "moral cowardice." Why would EPA be afraid to help Flint?

To help answer this question, we must consider a least a few more details. In February 2015, Flint resident LeeAnne Walters, concerned about her entire family suffering rashes all over their bodies, had the city sample the water in her home.[186] The results indicated levels of lead seven times above EPA's standard.[187] Justifiably alarmed, Ms. Walters reached out to EPA Region 5 and

[181] *Id.* at 7.

[182] For one recent example of the difficulty in proving environmental discrimination, see Martinez v. City of Chicago, 534 F.Supp. 3d 936, 950-52 (N.D. Ill. 2021) (While recognizing the "historical pattern in Chicago of Black and Latinx communities being exposed to greater levels of pollution," the authorities cited by plaintiffs "do not support a finding of discriminatory intent in this case").

[183] Email from Debbie Baltazar to Timothy Henry (Sept. 24, 2015, 1:38 PM) (Subject: Flint), available at https://www.vox.com/2016/3/15/11239438/flint-epa.

[184] *See* Libby Nelson, *EPA Email: "I'm not so sure Flint is the community we want to go out on a limb for,"* VOX, May 15, 2016 (noting that EPA provided $80 million in aid to Flint in January 2016).

[185] In specific response to the Baltazar email, Dr. Hanna-Atisha observed, "Sometimes it is called racism. Sometimes it is called callousness." HANNA-ATISHA, *supra* note __, at 286.

[186] CLARK, *supra* note __, at 79-82.

[187] *Id.* at 82. Under EPA's Lead and Copper Rule, the federal action level for lead is 15 parts per billion (ppb). 40 C.F.R § 141.80(c). In Ms. Walters's home, the water tested at 104 ppb. CLARK, *supra* note __, at 82. Subsequent

contacted an EPA chemist, Miguel Del Toral.[188] Del Toral and another EPA colleague relayed the sampling results and potential concerns in an email to MDEQ on February 26, 2015.[189] The next day, MDEQ replied with an email expressing little concern and falsely claiming that the city treatment plant was using corrosion control.[190] Del Toral continued to investigate, traveling from Chicago to Flint, visiting the Walters home,[191] and eventually preparing a written report. Del Toral's five-page memo, dated June 24, 2015, documented the extremely high levels of lead in the Walters home and expressed "serious concern" for all Flint residents who may be connected to lead service lines, "which are common throughout the City of Flint."[192] Del Toral sent the memo to his EPA supervisor as well as counterparts at MDEQ.[193]

Instead of inspiring immediate action to protect public health in Flint, Del Toral was thrown under the metaphorical bus. When Flint Mayor Dayne Walling heard about the memo and requested a copy a week later, the head of the EPA Region 5 office, Regional Administrator Susan Hedman, refused to share it with him.[194] Instead, Hedman replied with an email on July 1, 2015, advising the Mayor, "[t]he preliminary draft report should not have been released outside the agency. When the report has been revised and fully vetted by EPA management, the findings and recommendations will be shared with the City and MDEQ and MDEQ will be responsible for following up with the City."[195] At the same time that Hedman refused to share urgent information

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tests in the Walters found lead even higher: at 707 ppb, an astonishing 47 times above the regulatory levels. *Id.* at 95.

[188] *Id.*

[189] The email from Del Toral's EPA colleague, Jennifer Crooks, identified "Big worries here." *Id.* at 93.

[190] *Id.* at 94. Indicating no sense of urgency, the email from MDEQ's Stephen Busch merely provided, "Thank you for this information, we will take it under consideration." *Id.* at 258, n.56.

[191] *Id.* at 94.

[192] Memorandum from Miguel Del Toral, Regulations Manager, Ground Water and Drinking Water Branch, to Thomas Poy, Chief, Ground Water and Drinking Water Branch (June 24, 2015) (on file with author) at 2.

[193] *Id.* at 5. Del Toral also sent the memo to Virginia Tech engineering professor Marc Edwards. For the essential role of Prof. Edwards in this saga, see CLARK, *supra* note __, at 101-10.

[194] CLARK, *supra* note __, at 116.

[195] Email from Susan Hedman to Dayne Walling (July 1, 2015, 6:46 PM) (on file with author). For Hedman's defense of the delay in warning Flint residents, see Jim Lynch, *EPA Stayed Silent on Flint's Tainted Water*, DETROIT NEWS, Jan. 12, 2016. On January 21, 2016, nine days after the *Detroit News* article was published, EPA announced Hedman's resignation as the head of EPA Region 5. *EPA Regional Director Resigns in Connection to Flint Water Crisis*, GUARDIAN, Jan. 21, 2016.

with Flint's mayor, MDEQ also refused to warn the public[196] and city officials falsely assured Flint residents that their water was safe.[197]

Why would they do this? I have now thought about these facts for six years and here is my conclusion. On some level, I can understand why some city officials may have felt a psychological need to maintain an official line, even when at least a few of them knew from the start that it was never true.[198] But MDEQ, as the state agency with primacy for Safe Drinking Water Act enforcement, should have done something sooner, and didn't. I have to wonder whether MDEQ's refusal to act reflected a matter of pride (we won't let the feds tell us what to do), patriarchy (we can't trust those Flint people to manage their own affairs), or racism (those people in Flint don't look like us in Lansing).[199] And finally, what of EPA? Why did the supposed checks and balances of cooperative federalism fail so badly here? When I dug into the facts, I could see it right away: moral cowardice. It's the same cowardice that let people die after Hurricane Katrina before FEMA

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[196] *See, e.g.*, Burgess v. U.S. at 807 (noting conference call on August 31, 2015, between EPA and MDEQ where "Region 5 discussed the need for outreach to Flint's citizens").

[197] City of Flint, Water Quality Update (July 1, 2015) (asserting, with remarkable mendacity, "Dear City of Flint Resident: We are pleased to report that City of Flint water is safe and meets U.S. Environmental Protection Agency guidelines").

[198] *See supra* note __ and accompanying text (email warning eight days before Flint water switch). For readers struggling to comprehend how government workers could knowingly engage in poisoning their own residents, the theory of system justification from social psychology may provide one answer. According to system justification theory, people are driven by ego and group interests "to defend, bolster, and justify existing social, economic, and political institutions and arrangements." Luca Caricati & Chuma K. Owuamalam, *System Justification Among the Disadvantaged: A Triadic Social Stratification Perspective*, 11 FRONTIERS PSYCHOL. 40, 41 (2020) (internal quotations omitted). After spiraling into financial despair and losing control of their affairs to a state-appointed emergency manager, city workers may have been able to "justify disadvantageous realities because [] such rationalization can help to soothe the pain associated with their discomforting internal struggle." *Id*. Of course, notwithstanding such psychological justifications, at least 12 Flint residents still died of Legionnaire's disease and 8,657 young people remain in danger of neurological impairment. As the Michigan Supreme Court concluded in the civil action against state defendants, "There is obviously no legitimate governmental objective in poisoning citizens." *Mays v. Governor of Michigan* at 159.

[199] According to the most recent Census data, Lansing, Michigan, is 61 percent white alone and 23 percent Black alone, while Flint, Michigan, is 54 percent Black alone and 39 percent white alone. US CENSUS BUREAU, QUICKFACTS LANSING CITY, MI (last accessed Feb. 24, 2022), https://www.census.gov/quickfacts/lansingcitymichigan. While charges of racism are certainly grave, the Flint Water Crisis would not be the first time that MDEQ was found to have engaged in race discrimination against the people of Flint. In opposition to a proposed industrial facility known as the Genesee Power Station, Flint residents led by a Catholic priest, Father Phil Schmitter, filed a civil rights complaint with the EPA Office of Civil Rights in 1992. 25 years later, EPA finally responded to the complaint in writing, concluding "that the preponderance of evidence supports a finding of discriminatory treatment of African Americans by MDEQ…." Letter from U.S. Environmental Protection Agency, External Civil Right Compliance Office, to Father Phil Schmitter (Jan. 19, 2017), *reprinted in* VILLA, *supra* note __, at 148-152.

received a proper invitation from state officials to respond.[200] It's the same timidity I witnessed regularly as an EPA attorney, from my first days in EPA Headquarters to my final days in Region 10. With important exceptions, I saw senior executives for EPA instinctively afraid to "go out on a limb," worried constantly about rubbing state officials the wrong way. I wondered, whatever happened to public service? Whatever happened to *courage*?

V. CONCLUSION.

On March 15, 2016, I went back to Seattle and gave a presentation to my former colleagues of EPA Region 10 to share what I had learned by then about what happened in Flint.[201] Among a standing-room-only crowd in a large meeting space, I saw a lot of EPA staff nodding with my assessment of the dynamics that led to the Flint Water Crisis.[202] There were, of course, a lot of regulatory experts in the room. There were people who had devoted their professional lives to enforcement of laws such as the Clean Water Act and Safe Drinking Water Act. They knew the power of these statutes, the good they could achieve with proper implementation. Through their hard work, combined with the efforts of so many public and private advocates, they knew they could bring watersheds back to life, returning the Columbia Slough, the Anacostia River, the Duwamish Waterway, back to the communities they should serve.

But they must also know that the environmental laws would never be enough. They would need to embrace principles of environmental justice, to include fair treatment and meaningful involvement of watershed communities. They may need to understand historical contexts, including legacies of indigenous displacement and racial segregation. They may need to understand pride, in both the sense of community spirit and the sense of arrogance. Before they

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[200] *See, e.g.*, Stephen M. Griffen, STOP FEDERALISM BEFORE IT KILLS AGAIN: REFLECTIONS ON HURRICANE KATRINA, 21 ST. JOHN'S J. LEGAL COMMENT 527, 532 (2007) (noting, "Because local governments and communications had been wiped out, state authorities did not know what to request" and "state officials were themselves overwhelmed and unable to cope").

[201] For a version of the PowerPoint presentation I gave on this occasion, see https://digitalrepository.unm.edu/law_facultyscholarship/441/.

[202] Many EPA managers, on the other hand, appeared more subdued.

blame others for their failings, before they blame the Flint River, they may need to look hard at themselves.

What I believe they will find there, what I trust my own students will find now, is their own innate sense of goodness, of compassion and courage.