

D I A L O G U E

THE CLEAN WATER ACT'S 50TH ANNIVERSARY

SUMMARY

October 18, 2022, marked the anniversary of the Clean Water Act (CWA), the primary federal law governing pollution control and quality of the waters of the United States. Though the Act has achieved vital successes, whether they can be sustained and how further progress can be made remain fundamental questions. On October 25, 2022, the Environmental Law Institute hosted a panel of experts at its 2022 Annual Policy Forum to evaluate the past 50 years of the CWA, while looking ahead to the next 50 years. Below, we present a transcript of that discussion, which has been edited for style, clarity, and space considerations.

Benjamin F. Wilson (moderator) is retired Chair of Beveridge & Diamond P.C.

Bruno Pigott is Deputy Assistant Administrator of the U.S. Environmental Protection Agency's Office of Water.

Ben Grumbles is Executive Director of the Environmental Council of the States.

Alexandra Dapolito Dunn is a Partner at Baker Botts LLP.

Julian Gonzalez is a Senior Legislative Counsel at Earthjustice.

Dianne Dillon-Ridgley is the former Director at Interface, Inc.

Marianne Engelman-Lado is Acting Principal Deputy Assistant Administrator at the U.S. Environmental Protection Agency's Office of Environmental Justice and External Civil Rights.

Benjamin Wilson: We have a remarkable panel today, and it's my privilege to introduce them to you. First, Dianne Dillon-Ridgley is chair of the board of trustees for the Center for International Environmental Law. She spent a decade as the United Nations representative for the World YWCA. She was president of the Association of Iowa Human Rights Agencies in the 1980s, chief executive officer of the Women's Environment and Development Organization, and was appointed to President Bill Clinton's PCSD-Council on Sustainable Development.

Next, is my friend Alex Dunn. She is a partner at Baker Botts, and a lecturer at the Columbus School of Law at Catholic University and at George Washington University Law School. She previously served as assistant administrator for the U.S. Environmental Protection Agency's (EPA's) Office of Chemical Safety and Pollution Prevention, and was the administrator for EPA Region 1. Alex has been executive director of the Environmental Council of the

States, and an executive director and general counsel of the Association of Clean Water Administrators.

Marianne Engelman-Lado is the acting principal deputy assistant administrator of EPA's newly launched Office of Environmental Justice and External Civil Rights. She joined EPA as a deputy general counsel for environmental initiatives. Previously, Marianne served as senior attorney at Earthjustice, general counsel of the New York Lawyers for the Public Interest, and assistant counsel at the NAACP Legal Defense & Educational Fund. Marianne also has wide-ranging teaching experience, including recently as director of Environmental and Climate Justice Clinics at Vermont Law School and Yale.

Julian Gonzalez is a senior legislative counsel for Earthjustice's Healthy Communities team. He is a lead lobbyist on water policy. Prior to joining Earthjustice, Julian worked for GreenLatinos handling water and oceans policy development, advocacy, and outreach to help ensure Latinx perspectives on water issues were reflected in Washington. Before that, with the Association of Clean Water Administrators, he served as a liaison between states and between state and federal agency leadership on Clean Water Act (CWA)¹ implementation issues.

Ben Grumbles is executive director of the Environmental Council of the States. Before holding this position, he was secretary of the Maryland Department of the Environment, and served as chair of the governor's Chesapeake Bay Cabinet and the Maryland Commission on Climate Change. Ben has served as president of the US Water Alliance, director of the Arizona Department of Environmental Quality, EPA administrator for water, and senior staff

1. 33 U.S.C. §§1251-1387, ELR STAT. FWPCA §§101-607.

and counsel for the Transportation and Infrastructure and Science Committees in the U.S. Congress.

Bruno Pigott is deputy assistant administrator for EPA's Office of Water. Prior to joining EPA, Bruno held multiple roles at the Indiana Department of Environmental Management, serving most recently as a commissioner, agency chief of staff, and assistant commissioner in the Office of Water Quality. He started his state service as chief of the State Revolving Fund Loan Program in Indiana.

We have two questions we are going to ask each of our panelists to address, and then we'd like to reserve time toward the end for audience questions. Our first question is, when looking back over the first 50 years of the CWA, how effective has it been, how effective have we been, and what are some of the notable successes?

Bruno Pigott: Over the past 50 years, we've witnessed a transformation in water quality. Remember cities, when they were first established, were built along our waterways. Then, during the height of the Industrial Revolution—in the '40s, the '50s, the '60s, as we really grew strength in our nation—we kind of turned our backs to our waterways. Instead of looking at our waterways as amenities, we looked at them as our disposal areas. The wastewater treatment facilities that we did have in place did almost nothing more than settle the solids and let the rest flow out of the areas.

The wastewater treatment plants were rudimentary in the industry. They were built along rivers so they could take in the water, use it up, and dump all the contents of their waste back into the rivers. Cities were established. They grew, but the focus was not on our rivers. Our cities turned their backs on our rivers.

As a result, rivers like the Cuyahoga caught fire. Rivers like the Grand Calumet in Indiana, which winds its way through steel mills and refineries and other industrial activities, turned different colors. If you were foolish enough to dip your hand in the water, it would emerge black—black with oil, black with grease. Areas like the Detroit River would empty their contents into Lake Erie, polluting one of our Great Lakes.

These problems changed with the inception of the CWA in 1972. As a result of the CWA, industries were forced to put in place treatment that would meet stringent water quality standards. Our municipalities were forced to move beyond the rudimentary treatment that they had in place at the beginning to put in place a secondary treatment. And now, when we are facing even greater challenges of water quality, wastewater treatment plants that are run by municipalities are putting in place tertiary treatment as well.

Because of these changes that were formed by the CWA, as well as the fact that communities are investing billions of dollars to dramatically reduce discharges from their combined sewer systems—systems that were deliberately built to empty waste into our rivers, creeks, and streams when treatment plants couldn't treat it any longer because of rain events—we have now focused on cleaning up our waters.

As a result, they are cleaner than ever. Water bodies like the Grand Calumet River are now able to support aquatic life. The Cuyahoga River, where we just celebrated the 50th anniversary of the CWA, is fishable and swimmable. And the Detroit River supports recreational fishing.

We've clearly made great gains in terms of protecting our waterways. As a result, we are turning back toward the waterfronts. Communities are once again engaged with their water bodies. Water bodies are seen as an amenity for individuals, a tool for economic development, for recreation, to ensure that we can drink the water, that we can recreate in the water, and fish in the water as the CWA envisioned us doing. It's been a transformational change in our water bodies.

Ben Grumbles: The first thing to say is that, when the nation is so divided, it's wonderful for the Environmental Law Institute and others to celebrate a unifying success like the bipartisan CWA of 1972 and the 1987 Amendments² that I was very much involved in. The biggest, most important point to convey when talking about the CWA is that in 1972, it really was a necessary implementation of top-down national standards, with neighborhood solutions that embraced cooperative federalism. It's an ongoing journey to fishable, swimmable, protected, and respected waters.

It has not been smooth sailing over the past 50 years, and there are still shoals and rough spots ahead for sure. But there has been put in place a very solid framework of cooperative federalism—where there are technology-based national standards, water quality-based criteria and standards, regulatory controls and enforcement, and significant federal infrastructure funding.

The states are in the lead, which is why I would say one of my greatest experiences when I worked on Capitol Hill was the 1987 comprehensive reauthorization of the CWA that took about four years to finally wind its way through Congress. And like the original Act, Congress triumphantly and on a bipartisan basis overrode two vetoes by President Ronald Reagan. It put in place a fundamental cooperative federalism approach, including the state revolving funds (SRFs) where the infrastructure programs in each state would really be managing the infrastructure financing.

So, from a CWA perspective, one of the most important points is that it started out incredibly bold. It has worked because it has embraced the role of the states and recognized—for environmental justice purposes back in 1987—tribes. That was a really important addition to the Act. The same basic approach regarding tribes and treatment as states (or more appropriately as sovereigns) was included in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)³ amendments and Safe Drinking Water Act (SDWA)⁴ amendments in 1986.

2. Water Quality Act of 1987, Pub. L. No. 100-4, 101 Stat. 7.

3. 42 U.S.C. §§9601-9675, ELR STAT. CERCLA §§101-405.

4. 42 U.S.C. §§300f to 300j-26, ELR STAT. SDWA §§1401-1465.

But there is still a lot to discuss on clean water equity and remaining challenges ahead.

Alexandra Dapolito Dunn: I am going to riff a bit off Bruno, and a little off Ben. One of the things that was incredible, as Ben mentioned, was the Construction Grants Program in and of itself—getting the country to secondary treatment for wastewater. In 1987, the program transitioned to a loan program, because there was an idea that if communities didn't have a stake in the money—if it was just a handout from the federal government—that perhaps they wouldn't maintain the infrastructure. It was a somewhat painful transition to the loan program, but we did it, and as Ben mentioned, as a country, that was viewed as a positive step forward.

While the transition to the SRFs was difficult, I think it was absolutely the right thing to do to bring communities into the discussion and to have the states running these revolving loan funds and receiving applications from their communities. I want to add that we went from just making it about treatment plants to making sure communities knew that there were many things that you could use the revolving loan funds for. You can use the funds for sustainability, for infrastructure, for resilience, for energy efficiency. I remember there was a brochure at EPA that listed all of the ways SRF money could be spent. And people were stunned by the project variety because they thought it was only for the pipes.

Related to that, I think the green infrastructure movement that took place in the 2000s has been an absolutely transformative piece of the CWA—and you can use revolving loan funds for that too. People live with this infrastructure. They live around it. It disrupts their lives. They have to cross it or navigate it literally in their communities. And we started to wonder, and then found out, that yes, we could build this big infrastructure in a way in which our cities would become more beautiful places to live, healthier places to live, and frankly cooler places to live—using green infrastructure to address stressors like the heat island effect.

Thus, both the transition to the broader use of the SRFs and the green infrastructure movement are two things over the past 50 years that I believe have taken the CWA to the next level.

Julian Gonzalez: Everybody has been discussing it, but what drew me to water work and to the CWA is how unifying it is as a topic. If I ask any one of you to close your eyes and tell me the first memory that comes to your mind about water, chances are it's something very personal or very special. You can go to anybody in any part of the country and that will work without fail.

In a really neat way, the CWA kind of reflects that in its structure. The citizen suit provision of the Act has been a huge tool and a big reason for its success. It's something that Earthjustice has taken advantage of as an organization for a really long time. Over the past six or seven years, around two-thirds of the citizen suits from the major environmental laws have been CWA suits, which shows you

what a powerful tool it is for communities to get in the game and have a say in what's going on in their waterways.

That, combined with really innovative provisions and structures and grant programs through the years, has created a perfect storm. We still have a way to go, and we'll talk about that, but it really created the circumstances for a lot of waterways to make a turnaround. We talked about the Cuyahoga River. There was a time when it wasn't that the fish were unhealthy there. There were literally no fish for whole swaths of the river. Now, you can fish there. That's insane. Even for decades of work, that's still a huge turnaround. That takes a lot of work. There are other places in the country where there are similar situations reflected.

I am biased. I am sure we are all biased. But I think the CWA has a pretty good claim as arguably the most powerful environmental statute or the most successful in its first 50 years.

Dianne Dillon-Ridgley: I remember the Cuyahoga burning, and that was crazy to me. It was really crazy to think that a river would be on fire. What have we done as a people? That's the part on hope. I appreciate the eloquence and the beauty with which you addressed the timeline, but I can still go to counties today where no one in their residence has running water.

How did we let our waters get to that point? In the 1800s, a community would put its waste into the waterways, just like cruise ships have done for far too long in the ocean. But when you get to a point where we reach two billion, three billion, five billion, now eight billion people on the planet, the sink capacity and the recovery capacity of our natural systems are exceeded. It took us a while to put together that we had done that. Therefore, we needed a federal program.

So, I don't think we should pat ourselves on the back too much that we did that because we were in absolute crisis, in the way we had abused our natural resources. I distinctly remember the first time, as a 12-year-old, reading Rachel Carson's *Silent Spring*, taking in the idea of dead rivers, of not having songbirds in the spring. I've lived in Iowa for the past 40 years, moving from Boston to Burlington, where my neighbor was Fred Leopold, Aldo's "baby brother", already in his 90s and a patient of my husband. We lived on the bluffs of the Mississippi River for 12 years; seeing that vista into Illinois everyday grounds you, connects you to the cycles, how the rivers are migratory highways, how in winter I could often count 20, 30, or even sometimes 40 bald eagles roosting on "Big Island" across the river from my home. We belong to the land as much or more than the land will ever belong to us.

I think we have lost our connection to understanding what it means to be part of an ecosystem. It wasn't just that cities turned their backs on the waterfront. It didn't even dawn on us that it was a mere commodity. What was the financial remuneration that was possible? What else could be drawn from it? I'm careful when I say "stewardship," but what is our *responsibility*? What is our *connection*? What do we owe to the resources that are there?

I remember being struck when I realized that there is no monetary value to a tree until it is cut. The U.S. Forest Service is in the U.S. Department of Agriculture (USDA). I can make an argument that that is too narrow, but the influence of the United States is such that almost all countries in the past hundred years have established their “Forest Services” in their agricultural departments, which means that the wood in the tree has value when it is board-feet of lumber. But it doesn’t have value as a standing tree. I don’t want to price it, but I know its value shouldn’t be zero. It has an intrinsic value, not just a market value.

I hope we realize that we have embarked on trying to rectify losing our sense of connectivity to the resource itself and its inherent value. They cut down the last tree on Easter Island even when they knew they should not. I live near the Ogallala Aquifer. We have known for at least five years that the draw exceeds the recharge capacity. And yet nobody’s willing to or has stopped their draw.

Marianne Engelman-Lado: I’m going to start with a couple of personal stories. A few years ago, I had the opportunity to walk the Onondaga Creek with some community residents who organized the Partnership for Onondaga Creek to try to restore the creek. This is just outside of Syracuse, New York. Onondaga Lake is a multiple Superfund site, and the creek has been, as Bruno described, a dumping ground for a long time. But it’s not just that people turned their backs or that it was a dumping ground. Literally, there are fences on either side of the creek, and you can’t get to the creek even after they’ve been cleaning it up. It’s like out of sight, out of mind. People can’t use the water. It’s really a state of mind that continues today.

As Julian said, we all have our own water story. I also have a personal connection to the impact of the CWA. It’s a story that demonstrates how our work to preserve, protect, and invest in our waters for the next generation is so vital.

When I was a child in the 1960s, my family moved to Rochester, New York. I can recall that my parents took me to Lake Ontario, and we were going to go to the beach. It was family lore for years later, and I can’t swear what happened that day. But in my childhood memory, all I remember is dead fish and the smell of dead fish, which is not super pleasant. We didn’t return to Lake Ontario for years, but I did participate in the annual Walk for Water events encouraging engagement around water.

The first point is that the CWA was part of a movement, and there was engagement around it. Yes, it made a difference. But it wasn’t only the legislation. It was all of what the legislation represents in terms of community involvement. In some ways, it’s top-down, but it’s also bottom-up because people—even me as a little kid—were walking for water. We were trying to make a difference.

In the years since, the CWA has had the transformational role in protecting people’s health and safeguarding our natural resources in the ways that everybody said. We have come a long way in the past 50 years. It is truly exciting right now to be part of this administration, an administration that moved the Infrastructure Investment

and Jobs Act,⁵ also known as the Bipartisan Infrastructure Law. That law makes the single largest investment in water infrastructure in U.S. history—more than \$50 billion to replace lead pipes, tackle emerging contaminants like per- and polyfluoroalkyl substances (PFAS), and build drinking water and wastewater systems.

I want to see the CWA and the successes of the Act first as a reflection of community movement and also as part of a number of different legislative changes that are transforming the way we interact with water. But delivering on the promise of the Bipartisan Infrastructure Law and the CWA means more than passing multibillion-dollar legislation. It means making sure that everyone has a seat at the table, especially communities like those around the Onondaga Creek who have historically failed to have their voices heard and concerns addressed. It means ensuring that solutions are coming from the bottom up.

I’ll share another personal story. I’m from New York City. The cleanup of the Hudson River has clearly had a monumental effect on the life of the city. I’ve taken my children kayaking on the Hudson, and people engage in all kinds of recreational activities, including swimming along the coast. We all benefit.

But communities of color and low-income communities also pay a disproportionate price. The North River Sewage Treatment Plant stretches from 137th Street to 145th Street, and it’s directly across from West Harlem. For those of you who don’t know New York, there’s the river west of Harlem. There’s the sewage treatment plant along the river. There’s sort of a dip where the West Side Highway is, and then people live on a hill across from the highway. The wind blows over from the stacks at the sewage treatment plant right into West Harlem, which happens to be an area that has had just about the highest asthma rate in the country.⁶

Ever since the plant’s construction, people living in the neighborhood have had to bear the noxious odors. Residents who already cope with the high asthma rate and higher incidents of illness experience shortness of breath and other respiratory symptoms from the particles, as well as the stench, coming over from the North River Sewage Treatment Plant. As we move forward, community voices need to be heard and their concerns taken seriously.

5. Pub. L. No. 117-58, 135 Stat. 429 (2021).

6. There were a number of studies conducted in the early 2000s on the high asthma rates, particularly pediatric asthma rates, in Harlem and northern Manhattan. See, e.g., Frederica P. Perera et al., *The Challenge of Preventing Environmentally Related Disease in Young Children: Community-Based Research in New York City*, 110 CHILDREN’S HEALTH REV. 197 (2002), <https://ehp.niehs.nih.gov/doi/epdf/10.1289/ehp.02110197>. See also Richard Pérez-Peña, *Study Finds Asthma in 25% of Children in Central Harlem*, N.Y. TIMES (Apr. 19, 2003), <https://www.nytimes.com/2003/04/19/nyregion/study-finds-asthma-in-25-of-children-in-central-harlem.html> (“This is certainly one of the highest rates attributed in the United States, if not the highest.”); Richard Pérez-Peña, *An Everyday Struggle for Breath; Childhood Asthma Project Reaches Out in Harlem*, N.Y. TIMES (May 1, 2003), <https://www.nytimes.com/2003/05/01/nyregion/an-everyday-struggle-for-breath-childhood-asthma-project-reaches-out-in-harlem.html> (“Among the findings has been that one in four school-age children in central Harlem have asthma, one of the highest rates ever documented in this country.”).

As I was thinking last night about the CWA at 50 and all we should celebrate, I looked at a website about the North River Sewage Treatment Plant to make sure I was up to date. It did say that the facility has new monitors and some of the worst problems have been addressed. That's good news. But it also said, "Problems related to asthma and the North River plant still need to be addressed."⁷

All of us—states, regulated sectors, localities, the federal government—know that we need to address local impacts at the front-end and to consider the cumulative impacts of multiple stressors on the community. So, we're no longer left trying to figure out how to address a pervasive asthma problem that we contributed to.

This administration is prioritizing justice and equity in every decision we make and every dollar we spend, because all people of this country—no matter the color of their skin, the community they live in, or the money in their pocket—deserve the opportunity to live a healthy life and to have access to clean water. The opportunity begins and ends with our ability to move forward with the opportunity to breathe clean air and to drink clean water. No child should be denied these fundamental rights.

Benjamin Wilson: We have a second question: where we are today, and looking ahead to the next 50 years, what do you see as the biggest challenges, most important areas for improvement, and, ideally, potential solutions?

Alexandra Dapolito Dunn: I think I took the assignment too clinically, to list specific things in the CWA's first 50 years that elevated the statute. So, I'm going to get more emotional as I reflect on the future of the Act because it is an emotional issue. I drove in this city for years with the license plate H2O ESQ. I almost brought one of my old plates in today as a demonstration.

I'm going to discuss three things that should get everyone excited about the future of the CWA. They're hard, but they're important. First, stormwater. We have to find ways to manage stormwater in creative, innovative ways. I mentioned green infrastructure, which will help, but finding and deploying big and transformative approaches to stormwater is going to be the challenge for us.

Look at what just happened in Florida with Hurricanes Nicole and Ian. Look at what is happening in our coastal areas. Look at what's happening along Dianne's beautiful river that she looks out over. You see those banks going higher and higher. We are facing a time of changing climate. And yet the CWA manages stormwater through a series of permits and paper documents that try to tell us how we're going to treat, control pollutants in, prevent the entry of pollutants to, and manage that stormwater flow—how we are going to manage a dynamic, ever-changing, and volatile natural system.

7. University of Michigan, *Environmental Justice Case Study: North River Sewage Treatment Plant*, <http://websites.umich.edu/~snre492/ny.html#:~:text=In%201985%2C%20the%20North%20River%20Sewage%20Treatment%20Plant%2C,Hudson%20River%20from%20137th%20street%20to%20145th%20street> (last visited Nov. 16, 2022).

I think one of the challenges is going to be taking the CWA, which Ben in his legislative drafting days helped to craft, and taking that very clinical road map in the statute and then exporting it to an environment that is changing before our very eyes in ways that we are struggling with, such as the presence of emerging contaminants within that stormwater. Not just PFAS, but we've got contaminants in stormwater that we have to find ways to manage. Stormwater goes everywhere.

Second, I'm going to put on my environmental justice professor's hat and say, we have to think about the cost of water—and I don't mean just drinking water, but also wastewater treatment services. This has been a struggle for our country in terms of not really being able to pass on the true cost of treatment to people because, frankly, it would be disproportionate to what their households could afford, and that would not be good public policy.

We have cities—like Jackson, Mississippi—that because of either intentional disregard or the inability to invest in the systems, there is a gap between the investment that needs to be made and the amount that can be passed on to citizens through a water bill. How many of you know what your water bill is quarterly? How many of you think it's less than you pay for your mobile phone?

I think we pay about \$250 a year for wastewater service where I live in Loudoun County, Virginia. Most people pay more than that for a phone, and they need a phone. Phones are important, and I'm not saying that people should be making those choices between phones and water. But the affordability of water is going to be a challenge for us in the future.

Third is the interface between the CWA and other statutes. For the first 50 years, each statute—the Clean Air Act (CAA),⁸ the Resource Conservation and Recovery Act (RCRA),⁹ and CERCLA—had such big mandates in and of themselves that we never had to think about putting them all in the same basket and figuring out how they work together. But I was at EPA when we were dealing with the Toxic Substances Control Act (TSCA)¹⁰ Amendments, and everyone was asking, well, how does TSCA work with the CWA?

I worked on the integration years ago between the SDWA and the CWA. How are we going to advance source water protection and watershed health and at the same time have surface water discharges? If we're permitting discharges, does that change our plans for watershed health? Assuming that the statutes are unlikely to change, unless we get miracle workers like Ben and others on the Hill to give us a whole new playbook, we're going to have to figure out how they work together. And I think that is going to be a challenge for the next 50 years.

Benjamin Wilson: Alex, you're the first one today to use the phrase "changing climate" in a sentence. The Missis-

8. 42 U.S.C. §§7401-7671q, ELR STAT. CAA §§101-618.

9. 42 U.S.C. §§6901-6992k, ELR STAT. RCRA §§1001-11011.

10. 15 U.S.C. §§2601-2692, ELR STAT. TSCA §§2-412.

Mississippi River was America's first great interstate highway, used to transport goods. Because of the impact of climate change and recent droughts, the water level of the river is approaching record lows and affecting the shipment of goods. Abraham Lincoln would be greatly disappointed to learn that the "Father of Waters" no longer "goes unvexed to the sea"¹¹ because of the impact of climate change. So, Ben and Dianne, talk to us about the impact of climate on water.

Ben Grumbles: Climate change is water change. I remember that one of my proudest days was when EPA issued its national program strategy on climate change.¹² This was at a time when the nation was wrapped up in battles over whether carbon dioxide was a pollutant under the CAA and how to move forward under the Act's programs. The water strategy laid out specific actions on water-related mitigation of greenhouse gases such as water conservation and energy efficiency, not just about adaptation and resiliency.

I agree that one of the big opportunities and necessities for the CWA, like any federal environmental statute that is implemented and actually enforced by the states, is to integrate approaches to climate change. Two prime examples: the Total Maximum Daily Load Program and the NPDES Stormwater Program.

The other thing is that we all want holistic water solutions, but sometimes the pursuit can be challenging and slow. After all, we are a nation of laws, jurisdictions, and property rights. That's an integral reason why the phrase "One Water" came about, which the US Water Alliance launched, to make incremental progress. Maybe the CWA won't be amended in the near future to regulate groundwater directly or water quantity directly. But when you have some regulatory and cultural drivers and thoughtful creative problem solvers, and you create enough regulatory space, you can come up with mechanisms that recognize the value of ecosystem services, carbon banks, wetland mitigation banks, and the like. You can make real progress for integrated water quality and water quantity, including reuse of water and wastewater.

It's going to be a really important strategy for climate resilience and figuring out how the CWA can be adapted with other federal, state, and local laws to embrace more resiliency. That's going to be one of the big challenges for us, and opportunities for the clean water warriors, to ensure that it does adapt and has a response not just to precipitation and flooding but to drought. One of the big ways to do that is to use the CWA people's and SDWA people's combined creativity to come up with reuse and source water protection strategies. That's a really important

and untapped, so to speak, component of the CWA that needs to change.

Dianne Dillon-Ridley: I want to be optimistic. I want to be positive. But why did it take us so long to not just recognize certain things, but to acknowledge that we have known them for longer than we have been willing to put them in the mix of what gets pushed out as policy and directives and what people are willing to do?

I'm a fifth-generation native Texan. My maternal grandfather finished medical school in 1917. I did not get to know him as a person, but he wrote profusely about his opinions on everything. I met him through his notebooks. Both of his grandparents were born during the time when the immoral institution of slavery was legal in this country. Emancipation happened in 1863, but it wasn't until June 19, 1865, that the "official word" arrived in Texas. Hence "Juneteenth" has become widely known and a national commemoration in recent years. Growing up in Texas, we referred to it as the promise that is never paid.

We have so many things that we have done as a country—frameworks and language we continue to use—that got us here, *not* acknowledging the wisdom of Albert Einstein's oft-paraphrased saying that the thinking that got us here is *not* going to be the thinking needed to create the needed change. The same for Audrey Lorde's saying that we will not dismantle the master's house using the master's tools.

I put in a pitch for education and the importance of language shifts, because if we continue to use the constructs/tools/words that assume what we now call "privilege" or a whole host of other structures, we'll continue to have results that reflect that input. We've got to unpack. I worked for a number of years on the Women's Network for a Sustainable Future. Some things are really different. Who comes to the table, who's in the room, or more importantly who's not yet in the room, matters. It doesn't just matter because it's nice; it's essential.

One of the things I did when I first became chair of River Network was to see a program officer of the Ford Foundation, Carl Anthony. He said, Dianne, what are you going to do with this position? Because I had been chairing some other things before. I realized our country depends on rivers. This country would not be what it is today if we had not had the rivers and access to freshwater resources that we've had. But do we talk about it that way to our children in schools? We've been naïve and negligent.

Benjamin Wilson: Oftentimes, we have taken those great blessings for granted. Several years ago, I was spending a great deal of time in Germany. I asked one of my German friends what he thought of America, and he talked about the rivers. And he talked about the other natural resources that don't exist in Europe the way they exist here.

I think this idea that the land will never end, we can never wear it out, we can move on is something that we have to get beyond. This tragedy of the commons is not an academic exercise, but a very real story.

11. Library of Congress, *Image 1 of Abraham Lincoln Papers: Series 1. General Correspondence. 1833-1916: Abraham Lincoln to James C. Conkling, Wednesday, August 26, 1863 (Draft of letter to be read at Union mass meeting in Springfield)*, <https://www.loc.gov/resource/mal.2584600/?sp=1&st=text&cr=-0.298,0.132,1.274,0.964,0> (last visited Dec. 1, 2022).

12. U.S. EPA, NATIONAL WATER PROGRAM STRATEGY: RESPONSE TO CLIMATE CHANGE (2008) (EPA 800-R-08-001).

Bruno Pigott: First of all, I agree wholeheartedly with Dianne’s comments about education and shifting our language and inclusion. I will say Administrator Michael Regan is committed to exactly that approach with the CWA and all the activities we do at EPA, and is wholly committed to ensuring that, whether it’s clean water or clean air or cleaning up our lands, it must benefit all of our communities.

As you mentioned earlier, across this country—whether it’s Indiana or Alabama—there are still communities discharging their wastewater through straight pipes that have not participated in many of the advances we’ve seen in other areas. It’s time, and I think we’re committed to ensuring that the benefits that come with the Bipartisan Infrastructure Law go to those communities.

And that’s why 49% of the dollars that have been allocated into the Bipartisan Infrastructure Law through the SRFs across the nation are to be used in forgivable loans or grants to ensure that we make progress across the nation for all communities. That also means that we’ll be working to provide the technical assistance that’s necessary to ensure that all communities can take advantage of these programs.

The education piece is critical as well. Alex talked about the cost of water. I can remember 30-some years ago I lived in Iowa, too. I was a city council member in Iowa City. We faced a decision about whether to invest in a brand new wastewater treatment plant and drinking water treatment plant at the same time. I heard from a great number of residents who were furious with us in our decision to invest in the plants. They were so angry they came to our city council meetings. When I went up for reelection, they decided maybe somebody else who wasn’t going to spend money on clean water improvements in our community could be sitting in my seat.

That was a tough lesson. What I realized in that process was it is really important to be able to communicate and educate people about the benefits as well as the costs of those improvements to our water bodies. It’s important whether you’re in Iowa City, a well-off community, or elsewhere, that residents in all of our communities realize the benefits associated with those programs.

It also occurs to me that our waters are dynamic systems. Some people think, wow, we’ve done so much. We’re done with our improvements to water. But there are so many challenges in the future. We could talk about PFAS as a contaminant of emerging concern; we’ve got challenges there. We’ve also got challenges, as Alex said, in stormwater and nonpoint pollution sources.

I’m grateful that through the Bipartisan Infrastructure Law and through the changes in the SRF program we can fund projects that help deal with nonpoint source issues as well. But we’re going to have to think creatively about how to deal with nonpoint source issues in a way that hasn’t been used in the past. Our partners in the agricultural community do not want to be regulated under the CWA. We have to be creative. We have to think of ways that we can address nonpoint sources in all the communities, whether it’s the agriculture communities or municipalities, that add pollutants to our waterways.

That’s going to be a challenge. I don’t have the answer, but I do know there are creative people. And we do have funding now to help propel improvements to our waterways. So, a nonpoint source of pollution is a challenge we’ve got to face. It’s a major issue. Our assistant administrator released a memorandum to talk about how to address nonpoint source pollution through our nutrient reduction memo¹³ that we issued.

Contaminants of emerging concern are another area that’s hugely problematic, especially in communities that have not been able to take advantage of some of the resources we have, especially in pockets in communities that are more well-off.

Lead and copper problems in our country are great, and we’re going to invest money to help replace all the lead service lines that exist. The president has set a goal to replace all the lead service lines in the country within 10 years. That’s not going to be easy, but we’ve got money to start that process, and there are communities that are making progress, from Madison, Wisconsin, to Benton Harbor, Michigan. The latter recently replaced all of its lead service lines, but only after it was identified as a community that’s been perpetually disadvantaged and not able to take advantage of the improvements under the CWA.

There are many areas for work. Cybersecurity is an area that we’ve got to work on in the future. As wastewater treatment plants are operated more remotely and using the latest technology, we become more vulnerable than ever before in terms of cyberattacks in our water systems throughout the country. It’s an area we’re going to work on as well.

Julian Gonzalez: There’s not just a water crisis; there’s water crises in this country. There are a lot of them. We’ve talked about a bunch, and we probably haven’t even covered half of them. In just access to clean drinking water or wastewater and sanitation, the strongest factor to predict who has access is race. That shouldn’t be surprising, but it probably is to a lot of us. That’s where we’re at despite the success of the CWA over the first 50 years.

What I’ve been thinking a lot about, thanks to the folks I work with in different communities all across the country dealing with lead or lack of sanitation, is how we can reframe a lot of these CWA issues as justice issues. On the drinking water side of things, it’s a little more obvious—like groundwater coming out of your faucet. That seems to be a justice issue, especially when it’s mostly communities that are lower-income or mostly African American who are dealing with it. That’s more obvious. But the CWA is still largely viewed, at least to me, as more “conservation-y” in

13. Memorandum from Radhika Fox, Assistant Administrator, U.S. EPA, to State Environmental Secretaries, Commissioners, and Directors, State Agriculture Secretaries, Commissioners, and Directors, and Tribal Environmental and Natural Resources Directors (Apr. 5, 2022), <https://www.epa.gov/system/files/documents/2022-04/accelerating-nutrient-reductions-4-2022.pdf>.

the traditional older environmental organization sense—like protect the rivers and streams and the ecosystems. You're doing that, but you're also protecting people's way of life.

You're protecting people's connections to these rivers and streams in tribal areas. Half of tribal homes don't have access to sanitation. That's an insane statistic in America in 2022. Whether you're in state government, local government, a nongovernmental organization, big, or small, we need to think about how we can reframe our work as justice work. The best way to do that is to talk to folks doing environmental justice work wherever you're at.

We've touched on a lot of things EPA is doing with the current administration, which is really great to see. There's a partnership between EPA and USDA on wastewater and sanitation, where they're working with 11 communities.¹⁴ On the one hand, why can't they work with 1,100 communities? But you have to build trust. A lot of these communities have been ignored by prior investment pushes by Congress.

I've talked so much about the SRFs with community groups in the past year. Every conference I go to, it is now the most popular session with community groups. It's 100 people from environmental justice groups talking about the SRF program, which would've been unheard of at any other point in history. That's thanks to the Bipartisan Infrastructure Law.

So, there's different ways you can approach it. The EPA Office of General Counsel (OGC) released Legal Tools to Advance Environmental Justice.¹⁵ It's about 200 pages, and there are 30 pages in there on the CWA and the SDWA, on existing authority identified by OGC and EPA that the Agency can lean into, that they may have not leaned into before to incorporate environmental justice principles into implementation of the Act. Even things that we think are really rote and sanitized, like technical assistance, are super important.

You're not just going into a community plugging in some equations, doing some mentoring, and getting out of there. You have to build trust with the communities. You're stepping into existing power dynamics. Not all community groups may agree with each other even if they're environmental justice groups.

There are a lot of landmines that we have to be aware of as we begin to reframe these issues. The conversations are really new for Earthjustice and for EPA and for our states, even though folks in these communities have been having these conversations for a zillion years. We all have to play catch-up here over the next 50 years.

I think it's going to be an exercise in imagination and commitment because some of those conversations are going to be hard. Sometimes people might yell at you. They might say you're wrong, and you have to think about why they're saying that in a really honest, reflective way. Institutions haven't always been good at doing that, so that's going to be a really hard change. But it's heartening to see folks from different sectors begin to identify that because that's step one.

Benjamin Wilson: Marianne, I know you cannot speak about any ongoing matters, but Bruno talked about the fact that there's money that's been set aside for some of the programs that were designed to address long-standing issues that underserved communities have not received. What, if anything, can we do when, for whatever reason, state governments stand in the schoolhouse door of environmental change?

Marianne Engelman-Lado: Clearly, that's an invitation to talk about our civil rights program. We've all said we're not there yet. But that's why, before we get to civil rights, this month we announced the creation of our new Office of Environmental Justice and External Civil Rights.

We created this new office by combining three offices: the Office of Environmental Justice, the Office of External Civil Rights Compliance, and our alternative dispute resolution office, the Conflict Prevention and Resolution Center. This new office will put more than 200 staff members not only in headquarters, but around the regions. Each region will have 10 to 12 staff members devoted to environmental justice and billions of dollars in resources devoted to solving some of our most vexing issues in the communities that have been underserved and overlooked for too long.

I don't need to spend a lot of time on challenges. I'm going to move right to the opportunities, including civil rights. But communities are left behind. We've probably all been to communities that rely on open cesspools as their form of wastewater treatment. Communities that have closed off wells and that can no longer drink from their fresh springs because of pollution from landfills, often at the top of ridges where the pollution is coming down and seeping into the ground. Communities that don't have access to water. Communities that complain about discharges to their government agencies to no avail. Communities whose residents feel that no one cares what happens to them and no one listens.

For example, in Flint, Michigan, it was as horrifying in its specificity as it was to see residents bring jars of dirty water from their taps to local hearings and then be discounted. In this sense, though, it is not unique. It was not an anomaly to many communities across the country bearing the brunt of pollution, who similarly feel discounted and devalued. That's why they yell at us. If you're frustrated that nobody's listening to you, thinking that your life doesn't count for other people, you want to get attention. So, we need to do things differently, and we have elevated environmental justice and civil rights.

14. Press Release, USDA, Biden Administration Launches USDA-EPA Partnership to Provide Wastewater Sanitation to Underserved Communities (Aug. 2, 2022), <https://www.usda.gov/media/press-releases/2022/08/02/biden-administration-launches-usda-epa-partnership-provide>.

15. OGC, U.S. EPA, EPA LEGAL TOOLS TO ADVANCE ENVIRONMENTAL JUSTICE (2022), <https://www.epa.gov/system/files/documents/2022-05/EJ%20Legal%20Tools%20May%202022%20FINAL.pdf>.

The civil rights law¹⁶ is not new. It's been around since 1964. The regulations are decades old. I didn't make up the disparate impact standard. It's been around for decades, and it's not an environmentally specific standard. Talk to state agencies that work with transportation or education. They are familiar with these laws.

The new thing is the commitment we have to enforcing civil rights. It's really important. We can do something about these disparities on the basis of race. We shouldn't wait around for a complaint to be filed. EPA is providing a tremendous amount of technical assistance and training so that agencies and others that receive federal funds can come into compliance. That's the goal: compliance.

So, civil rights is one opportunity for the next 50 years. I want to mention a couple of other opportunities. One is that we are integrating environmental justice and civil rights not just in civil rights enforcement, but in all of our work and actions. As part of our strategic plan, for the first time, we have a goal dedicated to advancing environmental justice and civil rights.

One of the things I want to share with you is a specific commitment to advance at least 10 indicators of disparities. The nation's report card on how our kids are doing in schools was just released.¹⁷ We normally know not only whether the length of life is going up or down. We also look at the disparities, both racial and economic. Are they broadening or are they narrowing? We can do something about the disparities once we track the data. We need to do that in the environmental sector. Not just universally asking, do we have more or fewer emissions, but we need indicators of disparities to hold ourselves accountable.

There is another opportunity. Communities across the country and agencies across the country are increasing and improving fenceline monitoring and other forms of water and other monitoring. This is a way in which we can focus our resources. We have this monitoring data. Sometimes, it goes online, and then we can use the trends we're seeing. Big data and new online tools provide another set of opportunities all across the country. States are using layers of data and developing mapping tools to help target resources to where they're needed most and to address the cumulative impacts or multiple layers of stressors.

Benjamin Wilson: But what do you do in a state where the state is not doing that? In other words, where the state is doing something completely opposite to what you're describing?

Dianne Dillon-Ridgley: You elect new people.

Marianne Engelman-Lado: Yes, and investigate.

Benjamin Wilson: That's one thing. But imagine that I'm 81 years old. I can't go to the Piggly Wiggly and buy

bottled water. I can't afford it. I cannot wait for 2024. I'm thinking about making it until tomorrow. So, I would submit to you that people are not simply frustrated because you're listening or not listening. They want to know what you're going to do.

The point is now that we have these funds, now that we have this initiative, what are we going to do? I would submit to you that there are people who we may not hear from, but who are living through a great challenging and trying time, and they're waiting for the cavalry to come. Not everyone is in a state where the state is pushing as aggressively and in line with the spirit of Washington.

Marianne Engelman-Lado: This is not a red state or blue state issue. There are plenty of states where some of this exciting stuff is happening, but communities are still left out. Moving forward with this, engaging people, and showing it can be done—those are really important steps. Providing funds and incentives are important steps. And yes, civil rights enforcement is also important. There is no one answer. There are a lot of exciting answers, and we need to use all of them.

Ben Grumbles: You're saying it's not a red state or a blue state issue, but you are implying that it's the states who are the issue. You've got the so-called federal cavalry at the top, and then you have the communities that are underserved or overburdened. It can't just be a federal solution that is then implemented around or through the states and into the community.

There are states that are leaning forward and doing a lot. There are other states that want to do more and then will not be able to do more if they are humiliated by and ostracized because of a federal initiative that makes it really hard for the state to have credibility in working to solve the problem, because more than 90% of environmental laws that are delegable are administered and run by the states.¹⁸ So, the basic message from the states, at least all 50 of the Environmental Council of the States members, is that they are committed to working with this new office and with EPA to increase access to environmental benefits and to do more to serve the needs of those who are overburdened by pollution.

I know there are situations where we're going to have a more durable solution if the federal government recognizes that the success of the CWA is that the "feds" set the national standards and the states customize and administer them. But there's got to be a strong partnership. And yes, I get it—there are going to be disagreements from time to time. But don't characterize it as the states being the ones

16. Title VI of the Civil Rights Act of 1964, Pub. L. No. 88-352, 78 Stat. 241.

17. See Nation's Report Card, *NAEP Report Card: 2022 NAEP Reading Assessment*, <https://www.nationsreportcard.gov/highlights/reading/2022/> (last visited Dec. 9, 2022). Results are broken down by race and ethnicity.

18. Testimony of Myra Reece, Director of Environmental Affairs, South Carolina Department of Health and Environmental Control, and President, Environmental Council of the States, to the U.S. Senate Appropriations Subcommittee on Interior, Environment, & Related Agencies Addressing the FY23 Budget Request for the U.S. Environmental Protection Agency (June 10, 2022), <https://www.ecos.org/wp-content/uploads/2022/06/ECOS-FY23-budget-testimony-Senate.pdf>.

who need the most to be listening to the feds and following their initiative.

Marianne Engelman-Lado: I did not intend to do that. In fact, I think I started with how exciting so much of the work at the state level is. And I think we agree on at least 90% of what I and you said.

I do think the states are in front. I think there are a number of different strategies, some of which come from the states. Even in the civil rights compliance, I went to great pains to say there's technical assistance, there's training, and what we need to do is get to compliance. So, I think we're mostly on the same page.

Dianne Dillon-Ridgley: My grandfather's comment that I remember is that we have on the whole vertical models. And he always said, take those vertical models of compliance and turn them on the sides where instead you have models of a continuum, which then affords all kinds of other people to bring value and solutions. It's not who's literally at the top, but that we all have a role to play.

Bruno Pigott: I think that the CWA inherently recognizes that. That's why over the past year, as we've worked through how to distribute dollars and how to ensure that states are able to distribute those dollars as grants, we've worked in partnership with states to say, let's look at our definitions of "disadvantaged communities." What are the ways that we can be more creative? And there are states that have provided really creative ways to think through those definitions to ensure that the resources we need to get out to communities get to everybody.

I agree with Ben that states have been at the forefront of that creative thinking, and we've been working alongside them. It's amazing how the definitions have changed in recognition of this great effort. After all, it was a bipartisan effort to ensure that we get these grant dollars out to communities around the state.

Alexandra Dapolito Dunn: I worked for Pace Law School for a number of years. I had the privilege and honor of working with John Cronin, who was the first Hudson Riverkeeper. He is an amazing man. He would come into my office periodically and say the CWA is a failed statute. I'd say, John, you can't just drop that and walk away; come in here, tell me what you're thinking. And I thought of him today when I was preparing, because he would quote to me Congress' goal in §101(a), which is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and to eliminate the discharge of pollutants by 1985.

John was right in that we haven't yet restored the waters or eliminated the discharge of pollutants, but we have accomplished much. As I've been listening to you all, I think if Congress wrote the purpose of the CWA today, in 2022, that it would go on to say "and to restore community health and empower communities for the betterment of communities, for the betterment of people." It's so interesting when we wrote it back in the day that there was just

a focus on cleaning it up, but not about what I'm hearing here—taking care of communities.

Benjamin Wilson: I spent a big part of my life representing cities across the country. And I always saw the CWA as a public health issue.

I agree there are states that are ahead or certainly stride-for-stride with Uncle Sam. There are states that want to do more and are. But I would submit to you that there are some situations where states are not doing that. I don't know about the Onondaga, but I know Maple Street in my hometown. I watched the local news the other night, and I saw a woman who was 90 years old. She was my nursery schoolteacher. Her husband, who was very close to me, died a year ago. There was water coming out onto the street. And the city said they would fix it in a day. It had been a week.

What I find frustrating is that, when money that has been set aside for the express purpose of addressing issues in underserved and underrepresented communities, it's either not spent or sent elsewhere. That bothers me.

In one of the great briefs that was written by the late Supreme Court Justice Ruth Bader Ginsburg, she said that when resources are limited, they should be allocated to the people that need them most. She had a dissenting vote in that particular opinion, but I still think she was right.

I believe that the government must work with its partners. The government can't be in direct confrontation with everyone. But where someone, or some entity, or some state or instrumentality thumbs its nose at the United States not because it matters how you or I may feel in Washington, but because someone who lives on Maple Street has no other alternative, then someone has to step in.

Dianne Dillon-Ridgley: Chief Bisi Ogunleye, who was one of the founders of the Country Women's Association of Nigeria, silenced the entire U.N. General Assembly. She said, if you do not figure out a way to share your wealth, I guarantee you we will share our poverty. That is a harbinger for the world to understand and for us to understand in this country as well.

Another Black woman, Norma Malone from Homer, Louisiana, said, look, I don't have a Ph.D. I don't have an M.D. In fact, I don't have no Ds. But I know right from wrong. We must not continue to do that which is wrong and brings harm to people.

We will continue to put in place laws, acts, and other things that have good structures. But they must be carried out by people who fundamentally understand that Ben's nursery schoolteacher at 90 has for far too long had to live in a place where her well-being is fundamentally not valued and understood as being absolutely as important as someone like Elon Musk. That level of equalization is what we must begin to achieve and respect for people.

Benjamin Wilson: A law means nothing unless there's someone willing to enforce it. That's all I'm saying. But there must be things that the audience is burning to say, issues that we hardly touched upon.

Audience Member #1: I'm with the Coastal States Organization. We also celebrate the 50th anniversary of the Coastal Zone Management Act (CZMA) in 2022, which, like the CWA, established a cooperative federalism where both states and the federal government had jurisdiction over coastal management.

My question relates to that—do there need to be changes in the state and federal dynamic in managing clean water? If so, does that need to be by statute? Are there policies that we need to change, or is it just a process for the way in which the federal and state governments interact in managing clean water?

Alexandra Dapolito Dunn: I don't think you need to change the cooperative federalism relationship because I think it is strong, and Coastal States Organization is a wonderful organization. But I do think that it's incumbent on all of us to help shore up the capacities of states.

There's public service. We're just not seeing people lining up to go work at the state departments of environmental protection to do engineering work on water permits, or coastal zone permits, or whatever else they need to do. And I think that is where our greatest risk is. It's not in what level of government is the best level to address a problem. We need capacity. We've got a lot of money now. But I've been in a lot of state conversations where we have to get human beings with heart and soul and vision into those positions.

Audience Member #2: I'm from Peru. I'm in charge of the secretariat for environmental enforcement matters of the Trade Promotion Agreement between the United States and Peru.

I've heard about a very interesting conversation regarding success in enforcing compliance of the CWA in the United States. I know that there are no recipes, but there might be a key for success of these 50 years of the CWA in the United States. Considering the important aspect for this successful compliance of the Act, what for you was the key for success in these 50 years? Was it enforcement, incentives, citizen participation, funding?

Bruno Pigott: I don't think there's one key. I think there's a variety of tools that have made the CWA successful. Julian talked about citizen suits, and how they help to give communities the ability to have a say in terms of the clean water in their communities.

Another tool is enforcement. Without enforcement, you lack the one thing that people will pay attention to. And it's my understanding that at the inception of EPA, businesses were less likely to take this new agency very seriously until enforcement came into the picture. And it is still the case. It's an important tool to ensure that people abide by the rules and the laws that are set.

Then, there is assistance. Not only do we need partnerships with states and localities. But if we are to truly reach out to those communities in need in our country, we need to walk the system with them to ensure that we provide them with the tools to make a difference to provide clean water to their communities.

There are a whole raft of other tools, but the ones I mentioned are really critical tools for success.

Julian Gonzalez: When the CWA was passed, it also spurred huge amounts of investment at all levels—federally, locally, at the state level. I'm sure somebody has done the math—if you translate 1972 dollars to today's dollars, it's going to be some gargantuan number.

We've talked a lot about the capacity problems at the state level at EPA. EPA had lots of staff cuts in the last administration. Everybody at the Office of Water is up to their eyes in work. It's hard without more investment like the Bipartisan Infrastructure Law provided. I mean, we can look under the couch cushions. We can try to find new legal authority in between the lines of different provisions of text, but I don't want to say that stuff is not important. It is important. We have to take everything we can get because every step forward that we take is more clean water for someone, but we really need more investment.

Most of the investment now is not at the federal level, even with that infusion of money. And this is just math. Like the cost of water, there is no way around it. These folks in communities around the country are not going to be able to afford their rising water bills. There are cities like Gary, Indiana, where one-third of the people can't afford their water. And there's literally more than 100 like that.

Ben Grumbles: The value of water is more than we're willing to pay. That's always the challenge in water sustainability. So, enforcement is important, and so is the capacity for tapping into the information age, which is truly amazing. You're going to get more data. You're going to be able to have more enforcement if the leadership is there at the state level, at the local level, and at the federal level, as well as through the use of citizen suits. That really is a hallmark of U.S. environmental law and the CWA—progress through enforcement and accountability, whether it's a state that's not doing its job, or a factory, or a municipal wastewater treatment plant.

Audience Member #3: I work with the Environmental Defense Fund on the confluence between energy and water and the reuse of hydraulic fracturing-produced water. We've talked a lot about emerging contaminants and a lot about seeing water as less of a resource. One of my assignments was to try to see if there were any serious regulations at the state or federal level that would cover the reuse of hydraulic fracturing-produced water. I'm curious if any of you have opinions on the lack of regulations.

Ben Grumbles: I would say in that area, not just hydraulic fracturing fluids and produced water, but other forms of water, that EPA has laid out a really strong framework. The National Water Reuse Action Plan¹⁹ is really important. There's also the work of the National Academy of Sci-

19. U.S. EPA, *Water Reuse Action Plan*, <https://www.epa.gov/waterreuse/water-reuse-action-plan> (last updated Nov. 7, 2022).

ences that has continued to probe the science and policy surrounding beneficial reuse of water in multiple contexts. Someone once said famously “there is no wastewater, just wasted water.” Of course, you have to have public health agencies and national standards because there are increasing risks and concerns even with the increasing opportunities and needs for reuse.

Dianne Dillon-Ridgley: And you have to have people who are willing to be honest and to tell the truth. In the private sector, I spent 18 years on a publicly traded board. One of the benchmarks that we had was that we always told the truth and had transparency. Right now, we still have too many other layers of incentives that go to people who have had other kinds of relationships with lobbyists, and as a result have pushed and put in place incentives that don't go to the communities.

Right now our lines—the old-fashioned switchboards—are not for the public interest as a whole. I go back to Chief Bisi: if you don't share your wealth, we will share our poverty. That's not just poverty in a financial sense, but a poverty of health, a poverty of abundance. We really have to break open these constructs.

Some of this is not the water laws at all. It's what happens in terms of what other structures are in place that became barriers to even being able to get frontline communities to have a voice at the table, to be believed. And then we need to address pricing structures for water bills, and so on. Because the poor around the world pay three to four to five times more for water than anybody else.

Marianne Engelman-Lado: One issue that Alex raised is getting out of our silos. One of the opportunities I was going to lay on the desk here is really thinking about the cumulative impacts of polluting sources and exposure to polluting sources. The Office of Research and Development at EPA has just put out a report on cumulative impacts.²⁰ The Office of General Counsel is about to release an addendum to legal tools on cumulative impacts. We've been doing a lot of work on cumulative impacts and applying it. I think in each of these areas, if we get out of our silos a little bit and think about how people are experiencing the pollution and how we think about this outside of any particular statutory construct, it leads to more creative solutions.

Dianne Dillon-Ridgley: And what's your responsibility for substance generation? What are you leaving behind?

Bruno Pigott: One final thing: EPA, and its Office of Water, is very concerned about this specific issue. We've been working on it, and our regions are working together because, as Ben said, this is a water reuse issue as well. So, our regions are gathering together out West in particular, where water reuse is really important. There are some struggles associated with it. Understanding the pollutants that are part of that discharge is really important. We are working on it. Our regions are taking the lead, and we look forward to more progress in the future.

20. U.S. EPA, CUMULATIVE IMPACTS RESEARCH: RECOMMENDATIONS FOR EPA'S OFFICE OF RESEARCH AND DEVELOPMENT (2022), https://www.epa.gov/system/files/documents/2022-09/Cumulative%20Impacts%20Research%20Final%20Report_FINAL-EPA%20600-R-22-014a.pdf.