



The Clean Water Act at Year 50: What's Next for Water Protection?

By regulating pollutant discharges and setting water quality standards, the Clean Water Act has led to substantially cleaner streams and lakes since its passage. Yet many challenges remain for the future of water protection. Nonpoint source pollution, including agricultural runoff and erosion, has yet to be adequately managed under the law. Assuring no net loss of wetlands is an ongoing task. The CWA has also yet to address the impacts of climate change, which will significantly alter water landscapes.

In the coming years, regulators will need to refine the long-contended Waters of the United States defini-

tion. They will also need to address profound issues of environmental justice, as lower-income communities and communities of color face disproportionate levels of pollution.

We ask experts from a range of backgrounds: How can we update the CWA to address growing challenges in protecting our nation's waters in the next 50 years? What policies or practices should we prioritize to address the unique water issues faced in communities disproportionately affected by pollution, rural areas, and tribal nations? And how can the CWA use new digital tools and innovative policies to better enhance water protection?



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Ensuring Lasting Progress on Water Quality

By Fred Andes

OVER the last 50 years, the Clean Water Act has made great progress in addressing the nation's water quality challenges. We owe many of our achievements to that statute and the regulations that have followed. But we also know that many issues remain. Some are longstanding problems that have not yet been resolved, and some are new issues, such as climate change, that have arisen in the meantime. In some ways, these new issues pose the most difficult and complicated challenges faced yet under the Act. That is especially the case given the current political situation, as well as potential changes in the doctrines laid out by federal courts to govern the regulatory process. To make progress in this environment, we need to work together in creative ways to provide regulatory stability and involve all stakeholders.

In charting this path, we need to keep several key concepts in mind. The first, and perhaps the most important, is to focus on results, rather than simplistic measures that don't measure real improvements in water quality. We can look at numbers of permits or Total Maximum Daily Load levels or rules issued, and take those as signs of progress (or lack thereof), but those metrics don't really tell us much. We need to define our goals in terms of what really matters: Are we making dirty waters cleaner, and are we keeping the clean waters clean? To assess progress toward those goals, we need robust, solid data. Collecting and analyzing those data needs to be a priority—including making sure that EPA, states and other stakeholders have the resources needed to effectively

conduct these efforts.

We also need a renewed focus at the watershed level. Too often, our regulatory programs sit in silos—looking at specific facilities, certain reaches of rivers, or narrow parameters—and lose the bigger picture. There are many watersheds around the country where stakeholders *are* looking at the whole watershed and protecting its designated uses—and making real progress. But those efforts do not fit easily into our current regulatory structure. To promote and expand use of those watershed approaches, we need to find ways to encourage their use within CWA provisions and the regulations issued under the CWA.

When addressing issues at the watershed level, it's important to consider environmental justice concerns. To do so, we need to define what EJ means in practical terms. For regulated parties to factor EJ issues into compliance plans, policymakers should provide specific, concrete guidance on actions that need to be taken in order to be in compliance. The clearer those requirements are, the easier it will be for dischargers to plan and take necessary actions. And of course, the process of creating and implementing those requirements must involve the affected community. This approach is already being taken in some areas, and those examples can be used to provide guidance for implementing EJ concepts elsewhere in the country.

Climate change is another issue that needs to be addressed under the CWA, in a way that will facilitate effective compliance actions. Because climate change is a long-term issue, figuring out how it should be addressed by particular facilities can be challenging. It is particularly difficult when there are several ways in which climate change considerations can factor in—for example, if new CWA controls are required to address water quality issues, those control systems may increase energy use

at facilities, thereby increasing the facilities' carbon footprints. As with EJ, it will be important to develop clear guidance and/or requirements for facilities to consider climate change concerns. This will markedly increase the chances that real progress will be made in implementing needed actions.

A final concept to consider in developing CWA policies going forward is the need to balance two potentially conflicting priorities: promoting regulatory stability and encouraging adaptive management and cooperation. Shifting directions from regulatory agencies (and Congress) only create confusion and increase the potential for conflict. Putting requirements into effect, and then leaving them in place to be implemented over a period of time, will enable us to make progress—and will also help us figure out what is working and what is not. At the same time, we need to maintain enough flexibility in the regulatory structure so that when actions don't work, we can make the needed changes to move in a more productive direction. Improving the CWA therefore will entail steps toward implementing both of these priorities.

Fred Andes is partner at Barnes & Thornburg LLP and the leader of the firm's water team. Fred is involved in counseling and litigation on issues arising under various federal and state environmental laws, with a special emphasis on Clean Water Act matters.

Centering the People Most Impacted

By Chanté Coleman

THE Environmental Protection Agency's longstanding mission statement reads: "Federal laws **protecting human health** and the environment are administered and enforced fairly, effectively, and as Congress intended." Protecting human health is a basic function of the government, and in the 21st century, no one's health should be compromised due to environmental concerns.

Yet, low-income communities and communities of color are disproportionately impacted by climate change, pollution, and other environmental burdens. Decades of research point to this stark reality that we can no longer ignore. One way to address this is to make improvements to statutory or regulatory laws, such as the Clean Water Act. However, if we do not confront the underlying systems of oppression that continue to allow for some communities to be protected while our most vulnerable communities suffer, then we are not addressing the root cause of these issues. One way that racism and discrimination are upheld is through the disproportionate impact of laws, statutes, regulations, and policies, including the CWA. Indeed, race is the strongest factor in slow and ineffective enforcement of federal drinking water law in communities.

The CWA, as currently written, does not require communities of color and low-income communities to be prioritized in the implementation and enforcement of clean-up plans. Furthermore, while the CWA requires states to clean up impaired waterways, states have the autonomy to develop and prioritize clean-up plans in ways that often do not ac-

count for the overburden of pollution on low-income communities and communities of color. This disregard for unequal impacts will lead to increased pollutant discharges in these communities and a decline in overall health, widening the gap between the communities privileged enough to receive the benefits of these laws and those who are not.

To ensure the CWA truly protects the people most impacted by pollution, several key changes need to be made. First, states should be required to use all information available to prioritize clean-up plans in areas that are over-impacted, or even ban new pollution sources in these areas. EPA already collects relevant information through EJScreen, an environmental justice screening and mapping tool that combines environmental and demographic indicators in maps and reports. This data can be used to further target equitable implementation and enforcement of clean-up plans.

Governments should also expand this data on impacts to include climate change and emerging pollutants. The effects of climate change are increasing in severity and frequency, and low-income communities and communities of color are on the frontlines—especially when it comes to increased flooding and its associated surges in nonpoint source pollution. In addition to looking at past impacts of pollution, an update to the CWA should require states and EPA to address the degradation of water quality due to climate change in areas that are already overburdened from cumulative environmental impacts and systemic oppression. Another step to protect drinking water would be to remove exemptions in the Act that allow agriculture and many industries to pollute without safeguards.

Lastly, this data should be used to support funding for communities most in need. In the bipartisan Infrastructure Investment and Jobs Act, EPA is now required to un-

dertake an analysis of the Drinking Water State Revolving Fund and Clean Water State Revolving Fund "to identify historical distribution of funds to small and disadvantaged communities and identify new opportunities and methods to improve equitableness of funds to rural, low-income, minority, and tribal communities." This requirement, championed by the National Wildlife Federation, will ensure more funds go into the communities that are most impacted and least resourced to address infrastructure upgrades and other improvements. For the Clean Water SRF in particular, EPA should ensure that state implementation guidance includes equitable distribution of funding, such as allocating no less than half of funds toward communities identified through the holistic data measures outlined above.

While these proposed changes would strengthen the CWA and help prioritize affected communities, they are not enough. We must also directly address the issue of sacrifice zones. These are the marginalized, low-income communities, often communities of color, who we treat as less-than—and as a result, we over-pollute and over-extract these places to the point where community members are highly impacted and exposed to harms. Changing the CWA can only do so much to reduce the unjust concentration of pollution burden in these communities. We must understand and address the many systems, including unequal access to housing, education, and transportation, that perpetuate this harm and continue to hold us back from reaching our pollution-reduction goals.

I want to thank my colleagues who helped this article come to fruition, including Anna Brunner, Elizabeth Lillard, Glenn Watkins, Jim Murphy, Matt O'Malley, Dr. Mustafa Santiago Ali, and Peter Marx.

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Championing Clean Water Federalism

By Ben Grumbles

AS the nation celebrates the 50th anniversary of the Clean Water Act, a law rooted in the tenets of cooperative federalism, the 50 states, District of Columbia, and territories are leaning forward to strengthen partnerships, and modernize the delivery of environmental protection to meet ongoing and emerging challenges.

This partnership must continue to uphold principles such as science-based national standards and neighborhood solutions with state, tribal, regional, and private-sector leadership. As expectations for equity, climate resilience, and public transparency grow, there is new urgency for federal funding and technical assistance, as well as accountability and enforcement at all levels.

States stand on the front lines of implementing the nation's environmental laws, administering more than 90 percent of delegable programs. CWA permitting, water quality standards, infrastructure planning, financing, and prioritization all depend on states. In turn, the states know their success depends on federal and other partnerships. In the age of information, three areas for improvement present themselves.

The first is data management, information exchange, and new technologies for monitoring and compliance assurance. The CWA's noble goals for "fishable and swimmable" bodies and maintaining the "chemical, physical, and biological integrity" of the nation's waters put a premium on developing sharper and smarter science-based tools and methods to understand pollutants and track the status of waterways. Nowhere is this more relevant than with today's threat of PFAS chemicals, which threaten people and ecosystems in quantities as miniscule as parts-per-

trillion and quadrillion. Modernization of EPA's Integrated Compliance Information System and Safe Drinking Water Information System should be accelerated in close partnership with states and tribes. Drones and other unmanned aerial vehicles are increasingly essential for states to prevent and respond to environmental and public safety hazards, such as floods, spills, dam failures, and other infrastructure challenges from extreme weather and sea-level rise.

A silver-lining lesson from Covid lockdowns is that off-site, video-enhanced compliance monitoring can help supplement—but not replace—on-site inspections. Bio-monitoring for viruses in sewage to prevent outbreaks in congregate housing shows great promise for environmental protection. Another growing need is environmental justice screening and mapping tools to identify disproportionate impacts based on watershed stressors and health risks in overburdened and underserved communities lacking access to clean and affordable water.

Infrastructure and core program funding also merit attention. States and communities have historic opportunities with the new bipartisan infrastructure law's funding for CWA and Safe Drinking Water Act state revolving fund and grants programs. Congress and EPA must provide administrative flexibility to the states on cross-cutting requirements, avoid undermining the state revolving fund programs, and continue to embrace climate resilience, green infrastructure, and the energy-water nexus that helps reduce energy consumption and greenhouse gas emissions in the water sector.

Categorical grants for state administration of CWA programs are as essential as ever and should continue to rise. Now is also the time for Congress to revisit the old allotment formula for state nonpoint source program grants to address a growing need to prevent runoff, one of water's greatest remaining challenges. And a way to make real progress on the CWA's "no net loss of wetlands" goal is for EPA to

significantly boost state wetland program grants to support their capacity to protect wetlands and other waters that may not receive the same level of CWA regulation, given recent and upcoming court decisions citing the major questions doctrine.

Finally, policymakers should enhance innovation and collaboration. EPA, other federal agencies, and states can accelerate results with watershed-based permitting, pay-for-performance procurement, and private-sector conservation finance strategies. With proper safeguards in place to ensure the polluter pays and double-counting is avoided, why not make it easier for corporations and communities to advance their environmental, social, and governance goals by investing in green banks, blue infrastructure carbon sequestration, and other supplemental environmental projects? The water sector should continue to advance integrated "one water" strategies, such as the national Water Reuse Action Plan adopted by EPA and other federal agencies in 2020 and recognized in the bipartisan infrastructure law, with innovative partnerships and treatment technologies for this precious resource. Water program managers must work together, in close coordination with state and local leaders, to fight waste, recognizing every drop counts in the face of drought, wildfire, and other threats to water security.

As federal courts, agencies, and citizens turn increasingly to the states for environmental protection, it is clear that improved information, infrastructure, and innovation under the CWA programs will help deliver the promise of cleaner, healthier, and more resilient waters for the next 50 years and beyond.

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Innovating Within Existing Law Today

By Traci Iott

TO modernize the Clean Water Act, we need to reengage with the public and reevaluate how we implement existing law. Only then should we pursue focused legislative changes.

When the CWA was drafted, there was a robust national conversation about our impact on the environment, reflected in popular culture through songs like “Big Yellow Taxi” and “Mercy Mercy Me,” and children’s books like *The Lorax*. We listened to Woodsy Owl’s pollution prevention message and celebrated the first Earth Day. Public sentiment led to the drafting of the CWA and lent support for Congress to issue a bipartisan override of President Nixon’s veto to pass the Act.

The public still values the environment today, as seen by increased crowds at national and local parks, but national-level engagement is more limited. Present-day discussions are more effective on the local level, particularly for environmental justice. By working with local communities, we can identify issues and foster collaboration to support environmental protection, address local concerns, and fulfill CWA requirements. In Connecticut, we have seen progress made in identifying state and local environmental concerns through broad public engagement using the state’s Integrated Water Resource Management efforts, which are based on these principles.

Besides improving engagement, we need to review the CWA and its associated regulations to identify opportunities to improve implementation. Periodic introspection—focused on how practices are implemented to achieve goals—is needed for any long-term effort. This idea is embodied by the principle of *kaizen*, a Japanese term for “improvement” used by many

organizations to seek changes for the better. The challenge is identifying new approaches to implement the Act while staying within existing authorizations and avoiding the issues raised in *West Virginia v. EPA*.

In Kansas, the Water Quality Standards Program developed an innovative approach to use variance procedures to provide additional opportunities to address water quality challenges. The state worked with smaller communities through a multi-discharge variance for ammonia from wastewater lagoons, providing a framework for these communities to maintain the highest possible environmental quality. The process was supported by facility optimization and periodic evaluation of ways to improve over time. This effort recognized the challenges experienced by small communities and worked within the existing framework of the CWA to provide meaningful relief, while still working toward achieving the water quality goals of Kansas and the CWA.

Nationally, the CWA Section 303(d) Program sought to improve efficacy of water-quality planning through a Program Vision that focused on state and local water priorities, providing flexibility on planning approaches and increased engagement to improve plan implementation. 303(d) programs have implemented this new approach and are now working to address environmental equity and climate change, and achieve better collaboration with tribes and territories—all within existing law.

Examples from Connecticut, Kansas, and the 303(d) Program Vision show that innovating within existing laws can produce positive environmental outcomes.

The best path for addressing environmental inequities within current regulations is to equally implement existing environmental laws, including the CWA, across all communities and places. The CWA 303(d) planning program provides a mechanism for selecting watersheds for water quality-based plans called Total Maximum

Daily Load analyses (TMDLs). These plans link standards and monitoring with implementation through permitting and nonpoint source management. The TMDL planning process allows watersheds of local concern to be prioritized for any reason, including equity, ecology, and economy. Data is gathered and actions are implemented to address water quality in these communities when these areas are prioritized for plan development. Combining CWA-based planning and linked implementation with a local focus, innovative approaches, technological advances, and updated information systems can help address local environmental concerns.

Although changes to the CWA are also needed, the current legislative situation is not conducive to changing major laws. In time, especially with public support, change may be possible. Modifications that would improve the CWA include requirements to better address water-quality impacts from stormwater and nonpoint-source pollution, including agriculture; a modern definition of toxic chemicals; an update to technology requirements; and management of groundwater as an integral component of water resources. Until we can consider change at the national level, adjustments at the state and local levels can address some of these issues and improve the environment and economy for communities.

The CWA has weathered the test of time. Its objectives for restoration of the chemical, physical, and biological integrity of our nation’s waters, and its core programmatic components, remain relevant as we seek to address environmental equity, climate change, local concerns, and our economy. Focusing on engaging with the public, improving implementation of existing law, and, in time, enacting focused legislative updates will keep the CWA relevant today and into the future.

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