



A National Association of Clean Water Agencies White Paper

Clean Water Act Enforcement: Challenges and Opportunities in the 21st Century

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Over the past 37 years, the Clean Water Act (CWA) has played a vital role in improving the health of our nation's waters. Today, our rivers, streams, lakes, and oceans are, on the whole, cleaner, healthier, and more vibrant than they were just a few decades ago, thanks in large part to the tremendous efforts made under the Clean Water Act by federal, state, and local governments. The members of the National Association of Clean Water Agencies (NACWA), a national trade association representing nearly 300 of the nation's publicly owned treatment works (POTWs), have contributed significantly to the success of the Clean Water Act, investing billions of dollars over the past four decades to construct, improve, and upgrade wastewater collection and treatment systems in every corner of the country that protect both the environment and public health and ensure economic prosperity. NACWA members are proud of the investments they have made and the progress they have helped achieve. Yet, as true environmental stewards on the front lines of clean water protection, NACWA members also understand much work remains to meet the goals of the Clean Water Act and solve our nation's water quality problems.

A significant area of concern for NACWA members and others dedicated to protecting water resources is the current state of clean water enforcement. A recent series of articles in the *New York Times* highlighted many of the flaws in the current clean water enforcement program and detailed shortcomings by state environmental enforcement agencies and by the U.S. Environmental Protection Agency (EPA). Congress has also expressed concern over problems with clean water enforcement, and the House Transportation and Infrastructure Committee held recent hearings to examine how EPA can do a better job in the enforcement arena. In response to these concerns, EPA released a *Clean Water Enforcement Action Plan* in October outlining the Agency's plans to improve the effectiveness and the transparency of clean water enforcement. NACWA engaged with EPA during development of the *Action Plan*, providing both oral and written comments detailing the concerns of the municipal wastewater community over the current enforcement program and suggesting new ways of thinking to address the country's continuing water quality issues.

NACWA is committed to improving water quality across the nation and to exploring innovative ideas that will achieve the original goals of the CWA. Unfortunately, we believe the recent EPA *Enforcement Action Plan* lacks both an understanding of the true causes of current water quality impairment and the new thinking needed to meet the water quality challenges of the 21st century. Continuing to do things the way they have always been done simply will not work anymore. Instead, NACWA believes the current emphasis on CWA enforcement issues presents a valuable opportunity to examine the CWA as a whole, including the current enforcement paradigm, and to realize that traditional enforcement efforts will only get us so far. Emerging issues such as climate change and green infrastructure are already showing the limitations of existing enforcement models. And long-time problems such as funding and affordability have not been adequately addressed under the current enforcement program. **New tools, new approaches, and a new way of thinking about water quality issues are needed.**

This white paper will present some key observations and recommendations from a POTW perspective that NACWA believes must be part of the current discussion over how to best achieve the CWA's goals. It will do so by first discussing some of the shortcomings of the existing clean water enforcement approach. It will then focus on ways to move beyond current enforcement efforts, focusing on the importance of addressing all sources of water impairment through a holistic watershed approach. This paper will argue it is only by looking at all pollution sources in a watershed through a watershed approach that we will be able to achieve the full goals of the

CWA. Additionally, this paper will discuss the importance of the federal government partnering with local governments and POTWs to improve water quality through increased federal funding for water infrastructure and revised affordability guidelines for communities facing enforcement mandates.

Shortcomings of Current Enforcement Efforts

NACWA members are true environmental stewards dedicated to improving the health and quality of our nation's waters. We have played a significant role in improving water quality and are committed to continued efforts to reduce water quality impairment. However, NACWA is concerned by the current trend in federal and state CWA enforcement that emphasizes the number of enforcement actions taken over the actual water quality benefits attained by such actions. This approach stresses the quantity of enforcement actions and the dollar value of fines and consent decree obligations as the benchmark of success, rather than determining if the resulting consent decrees and court orders actually translate into water quality improvements. This approach is counterproductive, not only for the environment but also for the communities that are oftentimes forced to spend limited public resources on enforcement requirements that result in no measurable environmental improvement. Moreover, this approach fails to recognize that a voluntary return to compliance is the most effective action possible and lacks measures to help permit holders return to compliance before initiation of expensive enforcement proceedings.

The current focus on the quantity and expense of enforcement actions has created a “one-size-fits-all” approach to dealing with CWA violations that assumes the same enforcement paradigm will work in all parts of the country. It also presumes that if a community spends a certain amount of money or constructs a specific type of infrastructure project, all of the existing water quality problems will be addressed. This is simply not the case. Moreover, this misguided nationwide approach fails to account for the unique environmental needs of a given community, as well as for the resources a community may have available to address its water quality problems. It often also stifles innovative, green techniques that do not fit into the traditional enforcement methodology. **The existing enforcement model is not sustainable and will not address our nation's continuing water quality problems.**

Another significant flaw with current enforcement strategy is its failure to take into account the sizeable contribution from nonpoint sources such as stormwater, agriculture, and air deposition. Agricultural runoff and pollution from other nonpoint sources are the leading causes of water quality impairment in the vast majority of assessed waters across the nation but are not currently targeted under the existing enforcement regime. POTWs are often the easiest targets for enforcement along these impaired water bodies and typically bear the brunt of enforcement actions. However, more often than not, the money these utilities spend on complying with consent decrees and enforcement actions does not result in significant environmental benefit or water quality improvement because other, more serious pollution sources are ignored. While NACWA is pleased the recent EPA *Clean Water Enforcement Action Plan* specifically mentions a greater enforcement emphasis on concentrated animal feeding operations (CAFO), the plan does not include any specific efforts to target agricultural sources of water pollution on a broad scale. This is primarily because the current structure of the CWA does not provide EPA the authority to regulate agricultural nonpoint sources in any meaningful way. This omission in the CWA speaks

to the need for new approaches that can provide EPA with the necessary tools to control nonpoint sources of water pollution.

Consistency and Coordination Lacking Under Current Enforcement Approach

A particular area of concern for NACWA regarding current enforcement efforts is the lack of consistency and coordination between EPA regions and states in how certain treatment technologies or practices at POTWs are regulated. These discrepancies often mean that a particular treatment technology or practice is approved for use in one part of the country but, unpredictably, can be deemed unacceptable or illegal in a different part of the country. Nowhere is this more apparent for the clean water community than in enforcement actions surrounding sanitary sewer overflows (SSOs). The lack of a national SSO rule creates a tremendous amount of uncertainty and has forced communities to make costly infrastructure investment decisions to deal with SSO issues, oftentimes with EPA or state approval, only to later face the possibility of enforcement action because EPA has suddenly reversed its position and determined a particular technology or practice to be illegal.

A perfect example of this problem is the current uncertainty faced by many sanitary sewer systems that treat peak wet weather flows through a well established process called blending. Many municipalities with sanitary sewer systems have installed parallel treatment facilities at their POTW to treat additional flows during wet weather events that exceed the capacity of their main treatment facilities. The flows from these parallel systems are then recombined with the primary plant flow prior to discharge and the combined plant effluent meets all applicable discharge permit standards. The parallel treatment systems often cost tens of millions of dollars to build and have been installed to ensure the highest level of treatment possible, particularly during wet weather events. In many cases these parallel treatment systems were also approved for use by EPA. However, utilities in certain parts of the country have recently been informed that these parallel treatment systems are now considered illegal and that POTWs utilizing them will be subject to CWA enforcement action. This new enforcement position is being unfairly applied in select parts of the country and seeks to punish POTWs that have acted in good faith to provide wet weather flows with the highest level of treatment possible. It is also an excellent example of how the current clean water enforcement paradigm creates inconsistent policies that result in uneven and disproportionate impacts on municipal utilities.

The simple reality is that the old “business as usual” enforcement model will no longer work. A new paradigm is needed which starts with the basic understanding that public clean water utilities are dedicated to delivering quality of life enhancement for their communities and that every dollar spent by a community as a result of an enforcement action must go to projects based on sound science that will result in measurable water quality improvements. More importantly, **we must move beyond current enforcement policies and instead develop a new approach for achieving improved water quality.** This approach must require a greater emphasis on reducing the contributions of agriculture, stormwater, and other nonpoint sources to water quality impairments. It must also be flexible enough to take in account the likely impacts of climate change, particularly with regard to how changing precipitation patterns may affect multi-million dollar infrastructure projects now being mandated through consent decrees, and innovative enough to encourage the use of green infrastructure and other low impact development

techniques that can both improve water quality and provide a host of other ancillary environmental and community benefits. In short, we must reorient our water programs to look at permitting and enforcement issues from a watershed approach.

Value of a Watershed Approach

A vital component to achieving better water quality is addressing the current shortcomings of the CWA in controlling all sources of pollution. The CWA has facilitated vast improvements in water quality since it was enacted in 1972, primarily through reductions in point source discharges. However, the incremental rate of improvement has slowed significantly in recent years because we have squeezed about as much as we can from point source dischargers. **The CWA must be updated and refocused to address today's water quality problems on a holistic, watershed basis that includes controls on all sources of pollution and consideration of the overall health of the watershed on a chemical, biological, and physical basis.**

This type of watershed approach can provide an important tool for improving water quality by allowing for a more complete understanding of pollution sources within a watershed. Enforcement actions can then be better targeted toward the dischargers that have the most significant impact on water quality. In some cases, the largest contributors to water quality impairment in a given watershed may be POTWs, and necessary corrective action could be taken once the problem is identified. But in other cases, the largest contributors may be agriculture, stormwater or construction site runoff, air deposition, or other nonpoint sources. These nonpoint dischargers are not regulated under the current CWA and therefore are outside of the existing clean water enforcement program. With modifications to the CWA that allow a watershed approach to permitting and enforcement, EPA would be able to focus on nonpoint sources when necessary to achieve significant water quality improvements.

A watershed approach would encourage expanded use of green infrastructure and low impact development as a way to better control wet weather flows that affect water quality. NACWA strongly supports green infrastructure and was an original signatory with EPA on the *Green Infrastructure Statement of Intent*, which calls for the increased use of green infrastructure to address water quality problems. Unfortunately, the use of these technologies, which provide other environmental and health benefits as well, have been impeded under the CWA's regulatory structure. As a result, consent decrees and other enforcement actions have focused instead on more traditional, grey infrastructure technologies. **A watershed approach would help to remove the existing barriers to green infrastructure implementation and allow communities to take advantage of its full spectrum of environmental, economic, and social benefits.**

A watershed approach would also be more effective in addressing the potential impacts of climate change on water quality. **NACWA has long argued that climate change is fundamentally about water.** With climate change impacts expected to include more flooding in some areas, longer and more frequent droughts in other areas, and changes to water temperatures and chemistry, more flexibility and creativity in developing solutions to water quality issues will be needed. The regulatory structures of the current CWA are very limited in how they can address climate change, but a watershed approach would allow water resource managers to prioritize problems and solutions other than end-of-pipe controls. Many of the current enforcement practices that focus on point sources result in construction projects and treatment technologies

that dramatically increase the carbon footprint of wastewater treatment systems. A watershed approach, by contrast, would help to facilitate water quality improvement while at the same time avoiding unnecessary increases in greenhouse gas emissions from POTWs, particularly with regard to the control of nutrients.

In the early 1990s, EPA began exploring the concept of a watershed-based approach as a way to fully meet the CWA's goal to "restore and maintain the physical, chemical, and biological integrity of the nation's waters." NACWA has also been active in advocating for a watershed approach, including publication in 2007 of a report, *Recommendations for a Viable and Vital 21st Century Clean Water Policy*. Over the past year, NACWA has worked on draft watershed legislation that would modify specific sections of the CWA to focus environmental protection efforts on a watershed basis, incorporating the successful regulatory framework of the Clean Air Act to establish a comprehensive, holistic watershed management approach. NACWA believes this approach to permitting and enforcement is critical for moving beyond the one-dimensional, pollutant-specific approach that has prevailed over the last several decades. NACWA is committed to continued advocacy on this issue and looks forward to working with stakeholders and Congress to bring the CWA into the 21st century through implementation of a watershed approach.

However, even with a watershed approach, further water quality improvements cannot be made without a renewed federal commitment to help communities afford the massive cost of federal CWA mandates by providing increased funding for water infrastructure.

Federal Funding Critical to Improving Water Quality

It is impossible to discuss clean water enforcement and efforts to improve water quality without also considering a community's ability to pay for the necessary infrastructure and corrective actions. A key element of municipal CWA enforcement actions are consent decrees and mandated construction projects that call for hundreds of millions, even billions, of dollars of infrastructure investment by individual local communities.

Separate and apart from the issue of whether an enforcement action will bring with it the greatest environmental benefit or sufficient benefit to justify the cost, **many communities – urban and rural – simply do not have the funds to make the kinds of investment needed to address the increasingly stringent objectives that EPA and States are pursuing in the clean water arena.** As EPA, the Congressional Budget Office, and the Government Accountability Office all agree, there is an estimated funding gap for wastewater and water infrastructure of approximately \$300-500 billion over the next twenty years.

At the outset, the CWA was designed as a partnership between federal, state, and local governments to improve water quality. The Act called for the federal government to provide significant funds to create a network of publicly owned treatment plants across the country – the largest federal environmental public works program in our nation's history. Sadly, this partnership has withered, with the federal contribution dropping from about 78 percent in the 1970s to a paltry 3 percent today of the nation's overall water and wastewater investment.

This year witnessed a renewed commitment from the federal government via the American Recovery and Reinvestment Act (ARRA), which provided \$6 billion for water and wastewater

infrastructure projects, and increased funding levels for the State Revolving Funds (SRFs) in fiscal year 2010 amounting to nearly \$4 billion. This is a great first step, but it is only a down payment on the significant investments by the federal government that are still needed. Water infrastructure projects not only serve a critical role in environmental and public health protection at the local level but can also provide tremendous opportunities for job creation in the urban centers of the country suffering from high unemployment rates. It is critical that the federal government maintain the momentum for infrastructure funding created through the ARRA.

Municipalities will continue to do their share, however. Water and wastewater infrastructure is the second largest budget expenditure for municipalities, coming only after education. For the past decade, sewer rates have been going up at nearly double the national rate of inflation — exploding the myth that municipalities are not raising their sewer rates to cover the cost of service. In fact, as a percentage, municipal sewer charges have been rising at a faster rate than cable television or cell-phone rates. These rate increases are driven by a variety of factors, including expensive investments in wastewater infrastructure, expanding federal regulations and enforcement requirements, and rising costs of energy and chemicals used in the treatment process, just to name a few.

In short, any efforts to improve water quality through enforcement efforts will be unsuccessful without a return of the federal government to its proper role as an investment partner in clean water with local governments. Such funding will help communities upgrade aging water infrastructure to stay in compliance with existing permits and consent decrees and to avoid future enforcement actions by further controlling sources of water quality impairment such as combined sewer overflows and sanitary sewer overflows. Indeed, it is clear that clean water is a national priority — the federal regulatory focus on nutrients and emerging contaminants through upgrades to the treatment process provide a clear example of this. If clean water is sufficiently important for the federal government to regulate, then it must also be sufficiently important for the federal government to fund.

NACWA has long supported increased federal funding for water infrastructure through reauthorization of the SRF program and through the recent stimulus package. Nevertheless, NACWA believes the best way to ensure continued federal support for water infrastructure is through a dedicated national clean water trust fund. The *Water Protection and Reinvestment Act of 2009* (H.R. 3202) was introduced in July 2009 as a vehicle to establish a national trust fund for water and wastewater infrastructure projects. NACWA strongly supports the bill and is committed to working with Congress to move it forward.

Communities Struggling with Current Affordability Approach

While NACWA believes increased federal funding is critical to achieving national water quality objectives, the issue of how communities pay their share is also paramount. To this end, **EPA must revisit its affordability criteria and how it determines what a community can or cannot afford under the CWA.** Specifically, EPA's 1997 document, *Combined Sewer Overflows—Guidance for Financial Capability Assessment and Schedule Development*, is woefully out of date. NACWA has long argued that EPA must begin to look at the affordability issue more broadly and holistically. It is not reasonable to assume that communities can afford to pay 2 percent of their median household

income to combined sewer overflow control while the enforcement office then steps in and mandates additional controls for sanitary sewer overflows, total maximum daily loads, stormwater control, nutrient control, emerging contaminants, climate change mitigation and adaptation, and the many other environmental concerns municipalities must contend with in addition to other local priorities (education, hospitals, police and law enforcement, etc.).

The current EPA affordability approach leads to an indefensible position that everything and anything is affordable – a situation that the recent economic downturn has made clear is not and cannot be the case. Moreover, the issue of affordability must be looked at within the context of what environmental benefit local communities are deriving from their investment. Is it appropriate to pay billions of dollars for nutrient control if this results in a greatly increased carbon footprint? Is it worth putting in billions of dollars of nutrient technology at treatment plants if the nutrient impairment is caused primarily by agriculture?

Significantly, legislation in the Senate calling for a thorough review of EPA's affordability guidance has garnered bipartisan support. The Senate Environment & Public Works Committee included a call for such a review in the *Water Infrastructure Financing Act of 2009* (S. 1005), a bill to reauthorize the Clean Water and Drinking Water State Revolving Funds, and directs EPA to consider changes to the guidance. NACWA strongly supports this legislation not only for the additional funding it provides but also because it mandates a review of the affordability guidance.

NACWA Prepared to Lead on Clean Water Issues

In 1972, as Congress stood on the verge of passing the Clean Water Act, the nation was at a crossroads as to how it would protect one of its most precious national resources – its waterways. Significant challenges loomed, but significant opportunities also beckoned. Today in 2009, at the dawn of the 21st century, the nation finds itself again at a crossroads for protecting its water resources, with both challenges and opportunities on the horizon. As the Clean Water Act approaches 40, it can claim dramatic success through clean water enforcement but also suffers from continued enforcement failures. The nation's clean water utilities have played a critical role in many of the Act's successes, but also bear a disproportionate burden from its enforcement shortcomings. **If we as a nation are to continuing improving water quality over the next 40 years, NACWA and its POTW members believe we must move beyond the current enforcement paradigm and focus on new approaches, as outlined in this white paper, to improving water quality.** NACWA is committed to working with EPA, Congress, and other stakeholders to achieve these goals through creation of a holistic watershed approach to clean water permitting and enforcement that addresses water quality impairment on a watershed level, increased federal funding for water infrastructure, and improved affordability guidelines for communities implementing enforcement mandates. NACWA and its member utilities stand ready to continue their important role in improving water quality, leading the Clean Water Act into the 21st century, and ensuring that our nation's water resources are protected for future generations.