The Case *For* Water Quality Trading

Across the United States, we face serious, recurring and seemingly intractable water quality problems. Over half of our Nation's waters have been identified as "impaired" (*i.e.*, not meeting applicable water quality standards), and in far too many communities, the "fishable/swimmable" goals of the Clean Water Act (CWA or The Act) are nowhere close to being realized.

Our water pollution problems are complex, involving myriad pollutants, sources and causes, not just piped discharges from wastewater treatment plants but diffuse runoff from urban areas, agricultural fields and even air deposition. In addition, although water pollution may seem "local" in terms of causes and effects, the far-field effects of multiple contributing sources have led to large-scale impairments in some of our Nation's most iconic watersheds, such as the Chesapeake Bay and the Mississippi River.

Congress enacted the Clean Water Act in 1972 in order to "restore and maintain the chemical, physical and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The Act contemplates a system of "cooperative federalism" between the Environmental Protection Agency (EPA) and the States "to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources." *Id.* at § 1251(g). And indeed, over the past 44 years, EPA and the States have invested substantial resources developing and implementing regulatory and permitting programs to restore and maintain water quality. Those programs have increasingly focused on the water quality continuum embodied in Section 303 of the Clean Water Act – first, adopting new and increasingly more stringent water quality standards; second, regularly assessing waters to determine if they are meeting those standards; third, establishing "total maximum daily loads" (TMDLs) for waters that are deemed to be impaired; and fourth, imposing water quality-based limits in National Pollutant Discharge Elimination System (NPDES) permits that are derived based on the applicable standards and any established TMDLs.

In response to these regulatory and permitting programs from EPA and the States, federal, state, and local governments invested heavily in technology upgrades at public facilities to restore water quality and comply with TMDL obligations. This so-called low hanging fruit, funded largely by federal government grants, has now largely been plucked, and the incremental costs of reducing pollutant discharges continues to increase, often resulting in rate structures impacting those least able to pay. Limited government resources are insufficient to address the restoration needs of our watersheds.

Water quality trading (WQT) brings in private capital to supplement the good start made by our federal, state, and local governments. Trading also has the ability to more efficiently and affordably improve water quality, reduce compliance pressures on existing facilities, and decrease the overall costs of water quality improvements. Of most importance is the fact that

most trading opportunities and practices are based on implementation of prioritized restoration projects on lands where there is limited regulatory obligation for addressing those conditions.

Without question, we need new and better tools to accelerate the pace and scale of water quality restoration, to bring other sectors into the effort, and to produce more affordable and efficient environmental return on investment. In some cases, those tools may complement regulatory programs already in place, such as new watershed-based permitting approaches that enable States to impose discharge limits on all contributing point sources at the same time or even in the same permit. In other cases, new tools may even obviate the need for additional regulatory actions, such as watershed strategies that lead to the attainment of applicable water quality standards within a reasonable period of time, thus averting the need for TMDLs.

WQT is an implementation tool that helps to restore water quality both before *and* after traditional regulatory programs are in place. EPA has defined WQT as "an innovative, market-based approach that if used in certain watersheds can achieve water quality standards more efficiently and at lower cost than traditional approaches." In simplest form, WQT involves two parties, a credit buyer and a credit seller. The buyer is typically facing a permit obligation (or expectation) to reduce its pollutant loading. The seller is typically in a position to achieve this reduction more cost-effectively than the buyer. So the buyer pays the seller for having taken the steps necessary to achieve this reduction (at lower cost than the buyer could do on its own), and the seller transfers the resulting "credits" (expressed in terms of the amount of pollutant loading that was reduced) to the buyer to apply toward the buyer's compliance obligation. Typically, there is an extra "environmental lift," or portion of each trade retired, resulting in even broader environmental improvement.

Over the past decade, this "simple" example has blossomed into a wide and diverse array of additional WQT scenarios, including:

- Trading between and among multiple buyers and sellers through different forms of "exchanges," "clearinghouses" or "marketplaces;"
- Trading between both point and nonpoint sources;
- Trading in advance of permit or regulatory obligations; and
- Trading motivated by sustainability (*e.g.*, corporate social responsibility metrics) as opposed to permit or regulatory compliance obligations.

Over this same period of time, WQT has also matured in terms of performance and compliance assurance. Whereas the "simple" example may rest solely on a private contract between a buyer and seller, it is far more prevalent these days for WQT to be backstopped by specific permit or regulatory conditions defining:

- Who may trade, including what minimum baseline requirements must be met in order to be eligible to trade;
- What pollutant loadings may be traded;

- How trades will be documented and tracked over time;
- Which pollutant reduction practices will generate a "tradable" credit and how the practices giving rise to pollutant reductions will be monitored and verified;
- What uncertainties exist (*e.g.*, how accurately are the parties able to quantify and confirm the amount of reductions to be achieved and their impact in the receiving water given ecological conditions in the water and the difference in location between buyer and seller), and how will those uncertainties be addressed (*e.g.*, using trading ratios that are greater than 1:1);
- What additional reductions will be reserved, set-aside or retired to ensure a greater environmental benefit;
- How will deficiencies be addressed;
- Who bears liability for noncompliance; and
- How and when will the public be given opportunities for input on proposed trades before they are authorized, as well as actual trades during the period of time that they are applied to compliance obligations *(e.g.*, for permit compliance tracking purposes).

Make no mistake, WQT is *not* appropriate everywhere. But under the right conditions, WQT has the potential to be more than simply a lower-cost compliance option for regulated point sources. It broadens the field of who is engaged and investing in water quality and can do so with much lower resistance. It can foster partnerships between disparate sources, accelerate restoration *in-fact* (rather than simply on paper), and produce additional environmental benefits (*e.g.*, riparian buffers, wildlife habitat, pollinators, land conservation, human health improvements, and carbon reductions).

Clean Water Services' Tualatin River trading program in Oregon is at the center of a watershed strategy that has enhanced over 100 miles of stream since 2005.[1] Over 5.7 million trees and shrubs have been planted in partnership with over 21,000 volunteers and contractors. Clean Water Services has quantified the carbon sequestration and human health benefits of those trees. Air quality is improving for over 142,000 people, generating $700,000 in reduced chronic respiratory disease (Portland State, 2014, unpublished analysis). In spring of 2016, Clean Water Services received its second NPDES permit that includes a water quality trading program.

The point about fostering partnerships bears special attention, since the Clean Water Act only directly regulates "point sources." By contrast, WQT has the potential to bring *all* affected sources to the table – not just regulated point sources but also unregulated nonpoint sources, who, together, and voluntarily, can achieve greater reductions at lower cost than simply point source controls alone. For example, the South Nation Conservation program outside Ottawa formed a Clean Water Committee of farmers, which has collectively invested more than $2 million in 720 projects - some funded with trading and others with funding from other sources. The farmer-led committee was instrumental in working through water quality concerns and other

[1] *See* http://www.jointreeforall.org/by-the-numbers/

benefits to the watershed.[2] At the same time, WQT can also provide additional environmental and watershed benefits beyond just at the "end of a pipe." For example, participants who collaborate on WQT have also carried these cooperative relationships forward to address other water issues (such as drinking water service, regionalism, and intergovernmental agreements).

Over a decade ago, EPA issued a National Water Quality Trading Policy "to encourage voluntary trading programs that facilitate implementation of TMDLs, reduce the costs of compliance with CWA regulations, establish incentives for voluntary reductions, and promote watershed-based initiatives." 68 Fed. Reg. 1608, 1610 (Jan. 13, 2003). Since then, EPA, USDA, other federal agencies, States and many other stakeholders have contributed time, money, energy and thought-leadership to promote on-the-ground WQT projects and initiatives that have helped to advance the development of WQT as a compliance and restoration tool. All these efforts are ongoing and continue the evolution and improvement of WQT. Prime examples include broad-based groups like the National Network on Water Quality Trading and the Mississippi River Collaborative development of guiding principles and significant documents on important trading options and considerations to help guide development of appropriate WQT programs.

WQT is not without detractors, and some groups, like Food & Water Watch (FWW), have been stubborn and vocal opponents, both in policy and practice. In the Fall 2015 issue of the American Bar Association's *Natural Resources & Environment* publication, FWW presented its case *against* WQT. FWW has also self-published reports criticizing WQT, sued EPA over its "authorization" of WQT in the Chesapeake Bay TMDL, and threatened to file other lawsuits against WQT-based permits if and when they are issued.

FWW professes to be a champion for clean water, and we certainly need more champions to address our Nation's serious water quality problems. But, with respect to its attack on WQT, we respectfully submit that FWW is misguided and, on some points, plain wrong.

FWW claims that the "biggest issue" with WQT "is that there is no language whatsoever in the Act authorizing [it]." But as the courts have long recognized, the explicit language of a statute is just the starting point. If Congress has spoken directly to the precise question at issue, then that is the end of the matter. However, if Congress is silent or its intent unclear, then the courts have looked to whether the implementing agency's interpretations of a statutory gap or ambiguity are reasonable. The agency's interpretations "are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute." *See Chevron v. NRDC*, 467 U.S. 837 (1984). The *Chevron* framework has been applied routinely to EPA interpretations under the Clean Water Act, including in a fairly recent challenge to EPA's TMDL for the Chesapeake Bay. In that case, upholding EPA's interpretations, the Third Circuit opined as follows:

> In this context, requiring another 'clear statement' of congressional intent for every ambiguous term in a highly technical statute, before accepting an

[2] *See* http://www.nation.on.ca/about/board-committees/clean-water-committee

> interpretation that could affect our federal structure, would defeat one of the central virtues of the *Chevron* framework: Congress may leave interstitial details to expert agencies and need not think through at the drafting stage every possible permutation of agencies' plausible future interpretations.

American Farm Bureau Federation et al. v. EPA, 792 F.3d 281, 302 (3rd Cir. 2015).

With respect to WQT, in particular, FWW is correct that Congress did not *explicitly* authorize it. But as noted below, a number of provisions of the statute clearly support EPA's favorable interpretation of WQT, and no provision clearly prohibits it.

- The overriding objective of the Clean Water Act is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). Under proper conditions, WQT helps to promote this objective.

- Congress stated an explicit policy to "recognize, preserve and protect the primary responsibilities and rights of States to prevent, reduce and eliminate pollution." 33 U.S.C. § 1251(b). WQT is not a federal function but rather a State one; States have authority to adopt and implement trading policies to help prevent, reduce and eliminate pollution, and doing so complements § 1251(b).

- On the water quality side of the statute, States are primarily responsible for adopting standards, assessing the condition of their waters against those standards, establishing TMDLs for waters that are not meeting standards, and implementing a "continuing planning process" for State water quality decisionmaking. *See* 33 U.S.C. § 1313(c), (d) and (e). WQT fits naturally into the continuing planning process as one of several tools for implementing water quality standards.

FWW's claim that silence is prohibitory flies in the face of relevant, comparable cases where courts have ruled just the opposite. For example, in the Chesapeake Bay TMDL lawsuit, the federal district court was pressed with various arguments as to why EPA acted unlawfully. One of those arguments focused on EPA's interpretation requiring "reasonable assurance" that the allocations assigned in a TMDL (including those to nonpoint sources) were reasonably likely to be achieved. Although Congress said nothing about "reasonable assurance" in the Act, the court had no difficulty concluding that it was a practical and rational interpretation grounded in § 1313(d). *See American Farm Bureau Federation et al. v. EPA*, 984 F. Supp.2d 289 (M.D. Pa. 2013). Another argument focused on EPA's decision to issue allocations not just in the States bordering the Bay, but in upstream States as well. The court concluded that "[a]lthough nothing in the CWA specifically authorizes EPA to take this holistic, or watershed approach, it is equally true that nothing in the CWA prohibits such an approach." *Id.*

WQT is grounded in this very same holistic, or watershed approach. Instead of focusing exclusively on one contributing source of pollution, WQT enables States to consider other

contributing sources, and to authorize a more cost-effective, equitable distribution of the burden of reducing pollutant loads. This kind of watershed approach is fundamental to achieving the objectives of the Clean Water Act, and it is well within the authority reserved to the States to prevent, reduce and eliminate pollution.

On this last point, FWW also overlooks the fact that many States involved in WQT have specific laws, rules and policies in place to govern WQT-based decisions. As illustrated in Table 1, implementation methods of WQT vary among states currently facilitating WQT. For example, the Virginia General Assembly enacted legislation in 2005 authorizing the implementation of a watershed general permit allowing for trading between and among approximately 125 significant point source dischargers within Virginia's five tidal tributaries to the Chesapeake Bay. *See* Va. Code. Ann. § 62.1-44.19:12. The permit terms and conditions are set forth in regulations that implement this legislation. *See* 9 Va. Admin. Code § 25-820. More recently, the Virginia General Assembly has, through a series of legislative enactments, authorized a nonpoint source offsets program for meeting permitting requirements associated with new development. Regulations governing the establishment of nonpoint source offsets through agricultural Best Management Practices (BMPs) and other practices are currently under development. Similarly, the Oregon legislature enacted legislation in 2001 authorizing the development of a trading program. ORS 468B.550 (2001). The Oregon Department of Environmental Quality (ODEQ) then developed an Internal Management directive for trading in December 2009. Most recently, ODEQ adopted the most comprehensive trading regulations in the county in December of 2015. OAR 340-039 (2015).

Implementing State Agency	**Form of statewide trading authority**				**Permits issued with trading**
	Statute	**Rule**	**Policy**	**Guidance**	
Colorado Department of Public Health and the Environment			X		X
Florida Department of Environmental Protection	X	X			X
Idaho Department of Environmental		X		X	X
Maryland Department of Agriculture and Maryland Department of the Environment	X		X	X	
Montana Department of Environmental Quality		X	X		
North Carolina Department of Environment		X			

and Natural Resources					
Ohio Environmental Protection Agency		X			X
Oregon Department of Environmental Quality	X	X		X	X
Pennsylvania Department of Environmental Protection		X		X	X
Virginia Department of Environmental Quality	X	X		X	X
Washington Department of Ecology				X	
Wisconsin Department of Natural Resources	X			X	

Table 1. States Implementing WQT.[3]

FWW also claims that WQT "ossifies" the technology-driver that Congress embedded in the Clean Water Act. FWW is absolutely correct that the Act imposes both technology *and* water quality-based requirements on regulated point sources. It is commonly understood that technology requirements serve as the floor (*i.e.*, the minimum requirements) and water quality-based requirements serve as the ceiling (*i.e.*, above-and-beyond any applicable technology limitations that may be necessary to protect water quality). But FWW seems to ignore the fact that WQT is never used – and has never been authorized for use – in meeting technology requirements. Instead, as the name implies, *water quality* trading is exclusively focused on meeting *water quality*-based requirements. Nothing about WQT prevents EPA or States from adopting, imposing or revising the technology requirements that apply to individual dischargers or groups of dischargers, and, in fact, EPA has separate statutory obligations to do so on a regular basis. *See* 33 U.S.C. §§ 1311, 1314 and 1316. Whenever a State issues an NPDES permit, it must determine the need for technology-based limits (whether derived from EPA's categorical effluent limitation guidelines or the "best professional judgment" of the State permit writer). And any such limits serve as the floor for WQT, meaning that trading may only occur above or beyond those limits. As a result, there is not – and cannot be – any ossification of the technology-driver as asserted by FWW. Further, and contrary to FWW assertions, WQT is frequently utilized in concert with technology upgrades. In fact, WQT can speed up the implementation of upgrades by providing a reliable option for regulatory compliance while often complex and costly technology upgrades, required to meet water-quality based requirements, are being constructed.

FWW's other concerns are similarly misplaced. FWW suggests that WQT enables regulated point sources to obtain relaxed limits or otherwise avoid compliance with more stringent limits. This cannot be. First, as a matter of law, no permit may be issued without an affirmative demonstration from the permitting agency that the permit is sufficiently stringent to "provide for

[3] National Network for Water Quality Trading, "Building a Water Quality Trading Program: Options and Considerations" *available at*: http://willamettepartnership.org/wp-content/uploads/2015/06/BuildingaWQTProgram-NNWQT.pdf

compliance with the applicable requirements of [the] CWA" and "ensure compliance with the applicable water quality requirements of all affected States." *See* 40 CFR § 122.4(a) and (d). Second, all of the limits and conditions in an NPDES permit are directly enforceable by the State, EPA and even interested citizens. *See* 33 U.S.C. §§ 1319 and 1365. No permitting agency has authority (let alone discretion) to issue more relaxed limits than needed to protect water quality or to otherwise waive the compliance obligations of a permittee on the basis of WQT. Instead, quite to the contrary, a permitting agency has the authority (but not the obligation) to allow a permittee to incorporate WQT as a compliance tool into the permit itself, subject to all of the compliance obligations of every other limit and condition in the permit.

FWW also suggests that WQT deprives the public of its right to public participation and transparency. We disagree. WQT for permit compliance will be reflected in the permit itself, even if simply by reference to an underlying state rule that outlines the procedures and substantive requirements for WQT. All NPDES permits come with public process safeguards that ensure meaningful opportunities for public review and comment on draft permit limits and conditions, as well as public access to all records submitted by a permittee to demonstrate compliance with those limits and conditions. WQT is thus on the same footing as all other NPDES permitting requirements in terms of both public participation and transparency. Moreover, as WQT has evolved in practice across the country, WQT projects have developed new and increasingly better ways to track and publicize WQT-based reductions and progress over time, including various forms of credit "registries" that are publicly accessible, transparent, and can be used to continually track a credit from inception to retirement. For example, the state of Pennsylvania and the City of Medford, Oregon's programs use a tracking system called Markit; the Ohio River Valley and Maryland use a tracking system called NutrienNet; and Great Miami and Virginia maintain a dedicated webpage to tracking and publicizing trades. Each of these resources includes significant amounts of public information relating to trades.

FWW raises the specter of "hot spots," a short-hand reference to localized exceedances of applicable water quality standards. We agree that hot spots must be prevented. But this is already assured by law. As noted above, an agency is "prohibit[ed]" from issuing an NPDES permit if the permit cannot assure compliance with applicable water quality standards. *See* 40 CFR § 122.4(a) and (d). As confirmed by EPA's Environmental Appeals Board and the courts, permitting agencies must make an affirmative demonstration that their permits, as drafted, in fact do comply with applicable water quality standards. So WQT would not, and could not, be authorized through a permitting action unless the permitting agency first affirmatively demonstrated that WQT would not result in hot spots. Moreover, if that determination ever proved to be wrong later, the permit would be immediately susceptible to modification or revocation, and the permittee would also face a risk of enforcement for any exceedances of water quality standards that violated other limits or conditions in the permit.

EPA took pains in its National Water Quality Trading Policy to confirm that the Agency does not support any use of credits or trading activity that would cause an impairment of applicable water quality standards (*i.e.*, hot spots). Our collective concern over preventing hot spots is indeed one

reason why contemporary WQT projects around the country have invested in robust ecological models, such as the Electric Power Research Institute's Watershed Analysis Risk Management Framework, that can help show how pollutants are assimilated into and transported through the receiving water environment, and where potential trades of pollutant loadings between one point and another would be problematic due to intervening water quality problems. In short, the better the data and modeling, the more equipped a project is to rule out the risk of hot spots.

FWW's final area of focus seems to be on "known and measurable" discharges in the traditional NPDES context versus "uncertain and estimated" discharges (or discharge reductions) in WQT projects involving nonpoint sources (*e.g.*, agricultural fields where farmers are willing to implement seasonal or structural "best management practices" to reduce nitrogen and phosphorus runoff to neighboring creeks). FWW argues that WQT is infirm because the reductions that are projected and sold as credits from nonpoint source practices are somehow less certain, and thus less real, than what is required under the Clean Water Act.

To be sure, demonstrating compliance with effluent limits is a bedrock principle under the NPDES permit program. Most often, this demonstration is made through monitoring or measurement. But the form of monitoring or measurement that is required is highly variable across the spectrum of NPDES permits.

For example, municipal and industrial wastewater treatment plants typically must meet a number of ***numeric*** permit limits that apply over different time cycles (*e.g.*, instantaneous minimum, daily maximum or monthly average). These strict quantitative limits often necessitate the installation and operation of treatment systems. To demonstrate compliance with their numeric limits, the plants must regularly monitor and measure discharge quality, after treatment, using EPA-approved analytical methods.

By contrast, regulated stormwater dischargers – industrial, construction and municipal – like many of the other permits developed by EPA, are generally subject to ***non-numeric*** permit limits. In other words, discharge limits in these permits tend to be narrative, rather than numeric, in form. These limits may be expressed as BMPs or other narrative control measures designed to minimize the level of pollutants in stormwater runoff. With rare exception, these types of permits do not require the same sort of analytical monitoring that is common for discharges from municipal and industrial wastewater treatment plants. Rather, to demonstrate compliance, in most cases stormwater dischargers need only conduct visual inspections to ensure that their BMPs and controls are implemented and functioning as designed, as well as visual or qualitative monitoring of their discharge points to detect any obvious signs of problems. In some cases, regulated stormwater dischargers are also required to monitor and measure their discharge quality. However, instead of comparing the monitored results to numeric limits for compliance purposes, the results are more commonly compared to "benchmark" values that are used to assess the effectiveness of the BMPs.

The NPDES permit program has grown and evolved considerably over the past 44 years and now encompasses more than 1,000,000 regulated dischargers engaged in a variety of different activities, including traditional municipal and industrial wastewater treatment plants, construction stormwater, industrial stormwater, municipal separate storm sewer systems, vessels, pesticide applicators and confined animal feeding operations. Each of these activities is subject to a different style of NPDES permit, with different types of limits and associated monitoring conditions. By comparing the different monitoring approaches in these permits, it is evident that not all regulated NPDES discharges are known and measurable; nor do they need to be in order to meet the letter, intent and goals of the Clean Water Act.

For WQT to be effective, sustainable and defensible, the "credits" that are generated and sold absolutely must be real, verifiable and lasting in effect (for at least as long as the permit to which they are being applied). But, traditional end-of-pipe monitoring and measurement may not always be feasible, appropriate or, for that matter, necessary. Moreover, the concept of traditional "fixed pipe" monitoring is already giving way to next generation technologies across all media (air, water and waste), and WQT offers a fertile landscape to apply these new and emerging technologies to provide real-time, ambient data and information on water quality. End-of-pipe measurements also miss the bigger picture question – is the water body's water quality improving? TMDLs are frequently based on modeling, a common, acceptable, and often more accurate way to assess complex ecological systems and watershed health.

Focusing on end of pipe measurements also discounts the technological advancements in measuring nonpoint source pollution reduction. Many States have developed data-rich, edge-of-field calculators to approximate the water quality reductions associated with different types of nonpoint source BMPs, and these calculators can be re-calibrated and confirmed over time with the benefit of additional data and experience. Similarly, many WQT projects have embraced sophisticated ecological models to help calculate and quantify not only the reductions associated with a given BMP, but also the discounted value of those reductions when applied further downstream (*e.g.*, after accounting for fate and transport within the water). And, to the authors' knowledge, all contemporary, credible WQT projects incorporate periodic verification audits to confirm that the credit-generating activities are in place and functioning as designed. For example, the City of Medford water quality trading program relies on a locally calibrated version of the "Shade-a-lator" model to estimate the thermal benefits of riparian buffer shade, and these projects are verified as consistent with ecological performance standards after implementation and on a continuing five-year cycle.

In the end, FWW's zeal for certainty motivates all of us, and we believe that WQT can only get better with more data and experience. But, to say that WQT is infirm because some projects rely on models rather than measurements ignores the fact that across the million permit universe, huge numbers of permits do *not* rely on measurements (or measurements alone). Increasingly, state and federal programs are embracing measuring and monitoring technologies that go beyond traditional means to, for example, pinpoint the types of BMPs and locations that will yield the greatest water quality improvements and thus serve as the best points of focus for WQT.

Furthermore, federal policy is encouraging the use of credits for offsetting impacts. On November 3, 2015, after 16 months of study by the White House Council on Environmental Quality (CEQ) and the White House Office on Management & Budget (OMB), the President issued a Presidential Memorandum that encouraged private investment in advance mitigation projects and openly endorsed mitigation banking as one tool for being certain that all environmental impacts are offset by the best possible form of mitigation possible. All federal agencies played a role in providing data and case studies to support the issuance of this memorandum.

There is no sinecure for water quality restoration in our country, and there is no single or simple solution to address our complex water quality problems. To achieve the goals of the Clean Water Act, States need a full complement of tools, not all of which may be needed or appropriate all of the time. WQT is one such tool. As the use of WQT continues to increase and to address a more diverse and challenging range of water quality problems, it is increasingly clear that this water quality tool offers unique and unparalleled opportunities to accelerate the pace and scale of water quality restoration, while at the same time reducing compliance costs and promoting additional environmental benefits.

About the National Water Quality Trading Alliance:
The National Water Quality Trading Alliance (NWQTA) is a national consortium of leaders from the business, governmental, non-profit and regulated community focused on enhancing and expanding market-based opportunities for improving water quality and accelerating the restoration of watersheds. The NWQTA works to support comprehensive and coherent government rules and policies on trading as well as the development of new and existing state and regional trading markets, while serving as a platform to advance the science and ecological effectiveness of water quality trading. See www.wqtalliance.com for more information.

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