

“Building a Water Quality Trading Program: Options & Considerations”

Environmental Community Focus Summary by Environmental Law and Policy Center

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Photo of Rogue River courtesy of
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Introduction

The United States has made significant progress in cleaning its rivers, lakes, and oceans, yet there is still a long way to go to achieve the federal Clean Water Act’s vision of fishable, swimmable waters. More than half of the country’s waterways are not meeting the water quality standards established under the Clean Water Act to provide clean drinking water, recreation, fish and wildlife habitat, and other designated uses. Moreover, very few states have established water quality standards to control algae-fueling nitrogen and phosphorus pollution.

The work that lies ahead to achieve clean water will require more resources and all the additional tools we can muster. Regulators and stakeholders from diverse perspectives are turning their attention to water quality trading as one potential tool that, under the right conditions, can harness market forces to help reduce water pollution, while still maintaining clear, enforceable goals under the Clean Water Act.

What is Water Quality Trading?

Water quality trading is fundamentally based on the recognition that sources within a watershed often have significantly different costs to achieve comparable levels of pollution control. In theory, trading programs allow facilities facing higher pollution control costs to meet their regulatory obligations by purchasing environmentally equivalent (or superior) pollution reductions from another source at lower cost. When designed well and combined with other tools, trading can help communities deploy resources more effectively and efficiently to achieve water quality goals.

How does it work?

Although different programs can take different forms, in general water quality trading involves both a buyer and a seller of *water quality credits* that represent units of pollution reduction. For example, farmers may generate credits by implementing conservation practices—like planting cover crops during the winter—to reduce nutrients leaving their field. A permitted source such as a wastewater treatment plant could seek to purchase these credits if the price is lower than the plant’s costs for an equivalent level of pollution reduction. If designed well, this type of transaction could improve the overall health of the river at a lower overall cost,

freeing up societal resources to make additional water quality improvements over time.

Where is it happening?

While water quality trading has not yet become widespread, there are increasing numbers of individual trades and pilot trading programs that are emerging around the country. U.S. EPA and the U.S. Department of Agriculture have both announced support for trading in concept, as long as programs are designed to meet federal Clean Water Act standards. Some states are also exploring statewide trading programs and guidance documents for incorporating trading into state permitting programs.

WHY SHOULD THE ENVIRONMENTAL COMMUNITY CARE ABOUT TRADING?

It is essential for the environmental community to engage in national discussions about clean water, including the emerging national dialogue regarding water quality trading. Environmental groups play a key role in representing the public in the regulatory process and help promote accountability and enforcement of clean water goals. Local watershed groups and environmental professionals can help ensure that trading programs are designed with integrity and are used appropriately to meet Clean Water Act goals. Healthy dialogue and debate within the environmental community can help strengthen these positions and

contribute necessary perspective to the overall national conversation about how best to meet the Clean Water Act's important fishable and swimmable goals.

Core Issues for Environmental Engagement:

Trading is not a magical new source of funds or a cure-all for water quality problems. Trading programs must be designed with rigor and integrity to address several concerns and core issues that are often expressed by members of the environmental community. Some of the critical issues for environmental groups include:

- Ensuring consistency with the Clean Water Act and providing for the same or better level of public review, comment, and engagement;
- Promoting environmental equity and local water quality by prohibiting the creation of localized pollution problems, or “hotspots”;
- Establishing defensible and science-based metrics for credit calculation, permit compliance, and verification;
- Providing credits only for actions that meet or exceed expectations for pollution reduction already in place (i.e., exceeding “baselines”);
- Putting the systems in place to monitor, track, and communicate how much progress has been made and what needs to happen to achieve goals and on what timeline; and
- Establishing effective compliance and enforcement provisions to help ensure long-term success.

Getting involved:

DISCLAIMER:

The contributors to the National Network engaged in an extensive dialogue to develop this document, Building a Water Quality Trading Program. National Network contributors believe that it represents a comprehensive, contextual, balanced, and robust collection of information on different, representative water quality trading programs. Practitioners from new and evolving water quality trading programs may look to this document as an important source of information as they build and update their trading programs. This document does not represent a consensus opinion, endorsement, or particular recommendation from any one National Network contributor. It seeks to cover the broad range of topics related to water quality trading to assist local stakeholders to develop and implement trading programs that meet local needs and conditions. This document does not create any binding requirements or standards of practice. Ultimately, stakeholders, state regulators, and/or U.S. EPA will clarify those requirements that apply to any particular trading programs or trading program participants.

Environmental groups can get involved in shaping decisions about trading at several levels, including initial watershed discussions, the development of statewide policy and rulemaking, commenting on permits, and tracking and enforcing permit compliance. The earlier a group can articulate its hopes and concerns for a trading program, the easier it will be to incorporate those interests into trading program designs. While trading will not be a viable option for all watersheds, serious stakeholder engagement could lead to new partnerships between cities, industry, agriculture, and environmental groups that will ultimately be necessary to meet water quality goals.

THE NATIONAL NETWORK AND THE OPTIONS & CONSIDERATIONS GUIDE

The National Network on Water Quality Trading was established in 2013 to discuss challenges associated with water quality trading and to develop information resources for others interested in building trading programs that meet clean water goals. The Network's 18 initial participating organizations represent a diversity of agricultural operations, wastewater and stormwater utilities, environmental groups, regulatory agencies, and practitioners delivering trading programs. Over the past two years, the Network's dialogue has focused on identifying common trading issues and the options, considerations, and examples important to building a trading program.

The Network's initial publication, *Building a Water Quality Trading Program: Options and Considerations*, is the product of that dialogue. The document focuses on trades wherein permitted wastewater and/or stormwater facilities (point sources) purchase water quality benefits from nonpoint sources (often agriculture) that reduce pollution above and beyond what they are required to do. It provides some essential tools for new and evolving water quality trading programs. While a water quality trading program should be designed to be consistent with the 2003 U.S. EPA Trading Policy and the Clean Water Act, the document provides additional guiding principles for successful programs.

In addition, the Network has identified 11 elements common to many trading programs that should be considered when designing and implementing water quality trading programs. Regarding each of these

elements, there is no "one size fits all solution." Instead, there are considerations that make different options more or less viable under different conditions. In-depth presentation and discussion of these key elements along with references to existing trading programs make up the bulk of the *Building a Water Quality Trading Program* publication.

National Network participants immediately recognized that trading programs are built to fit the unique ecological, social, and other conditions of a watershed, and emphasized the importance of sensitivity to local needs. *Building a Water Quality Trading Program* therefore does not provide explicit recommendations. It provides options and considerations that are intended to facilitate easier and more consistent decision-making across a range of new and evolving trading programs. The document does not represent a consensus opinion, endorsement, or particular recommendation from any one National Network contributor. It instead seeks to cover the broad range of topics related to water quality trading to assist local stakeholders to develop and implement trading programs that meet local needs and the requirements of the Clean Water Act and other relevant laws and regulations.

The National Network recognizes that the success of water quality trading programs will depend on:

- Clear and consistent documentation of assumptions and decisions underlying trading program development and operations;
- Serious consideration of watershed science and goals in guiding the practical workings of trading programs;
- Incorporation of water quality trading, where appropriate, into a suite of water quality protection goals and tools that meet all state and federal regulatory requirements; and
- Regular, informative communications to the public to build confidence that progress is being made toward clean water goals in a timely way.

The Network and its participants will continue to build the tools and information resources needed to support water quality trading programs as they emerge and evolve, including information targeted for specific stakeholder groups, issues, and places.

HOW DOES THE OPTIONS AND CONSIDERATIONS GUIDE ADDRESS CORE ENVIRONMENTAL ISSUES?

Water quality trading has generated strong reactions from different corners of the environmental community. This debate is healthy and should result in more rigorous arguments and analysis that can be used to develop strong regulatory programs. Although the National Network's *Building a Water Quality Trading Program: Options and Considerations* publication does not represent a consensus opinion or endorsement from any one Network contributor, many of the core principles and conclusions in the document reflect the positions expressed by environmental stakeholders. The continued participation of the Environmental Law & Policy Center and other members of the Mississippi River Collaborative, the Chesapeake Bay Foundation, the Environmental Defense Fund, along with other environmental perspectives, will help ensure that the Network's ongoing discussions take place firmly in the context of broader watershed strategies to achieve water quality standards and thriving "fishable" and "swimmable" uses.

Network contributors recognize that:

#1: Trading must be consistent with the Clean Water Act

Section 1 of the National Network document provides information and options for how to incorporate trading into different levels of a state's regulatory authority—from statewide rule/policy to individual permits. Section 3 describes some of the eligibility conditions for buyers, such as meeting minimum technology-based limits (3.1.1), avoiding localized impacts (3.1.2), antibacksliding (3.1.3), and antidegradation (3.1.4).

What the Network discussed:

National Network participants uniformly recognize that trading programs must comply with the Clean Water Act, but there remains some ambiguity about how to translate some longstanding Clean Water Act concepts to emerging trading programs.

What environmental groups should look for or consider:

Sections 1-3 set the foundational elements for where trading might be appropriate, who can trade, and what conditions need to be met prior to trading. Environmental groups need to think about A) how these trading elements are applied for a given watershed, B) when you would expect these conditions to be met, and C) how or if to balance the opportunity for short-term water quality improvements against longer-term watershed goals.

#2: Trading must promote meaningful opportunities for public review and comment in a more complex and multi-faceted regulatory environment

Trading programs need to provide opportunity for public review and information as they are being formed and while they operate (Sections 1.1.2, 8.5.2, 8.6, and 11.4). Citizen review and enforcement are important parts of the Clean Water Act. The challenge is that trading often moves a compliance technology from a single permittee with one discharge pipe, to a pipe in combination with several nonpoint source pollution reduction locations. There needs to be a way to ensure that pollution reductions are occurring as promised in a much more complex regulatory environment.

What the Network discussed:

In Section 8.6., the Network document provides options for when public notice and comment might occur. In different scenarios, public comment might occur during permit approval, for each credit project approved, and for each trade. In others, public comment might only occur if trading deviates from the approved plan embedded within an approved permit.

What environmental groups should look for or consider:

Environmental groups need to make sure public comment is occurring on the elements of a watershed trading framework or a permit's trading plan that matter most to improving water quality and compliance with effluent limits. They also need to balance a trading program's inherent need for operational flexibility with the importance of clear goals and transparent program requirements.



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#3: Credits may only be generated for actions above a baseline.

One of the most important issues to many environmental groups is making sure credits are generated from actions that reduce pollution above and beyond a reasonable minimum level, or “baseline” (see Section 3.2.1). Stakeholder perspectives vary regarding the appropriate method for establishing baselines.

What the Network discussed:

The Network had several extensive conversations on nonpoint source baselines, and the document includes several options based on whether a TMDL or equivalent watershed plan is in place or not, and whether there are clear pollutant reduction expectations established for individual landowners (see Figure 3.2.1). Nonpoint source baselines need to be derived from TMDLs where they exist, but the Network struggled with the nuance of what is “required” of landowners, what is “expected”, and what is “information” needed to support TMDL goals.

What environmental groups should look for or consider:

There is a clear need to connect trading baselines to underlying TMDL assumptions—especially the nonpoint source load allocations—in order to ensure that water quality standards can eventually be met. Ultimately, this will require regulators to develop more

sophisticated TMDLs, which raises questions about how trading can or should proceed in the meantime. Sections 3.2.2–Section 3.2.5. discuss how baseline is expressed, which is often much less controversial than establishing the baseline level itself.

#4: Credits need to be verified with enough information and accountability to ensure compliance with the Clean Water Act

The performance of nonpoint source “best management practices,” or BMPs, can be variable—dependent on factors such as weather, site conditions, and land management. The ability to verify that projects are in place and maintained as promised is critical. Environmental groups also want to know that a credit-generating project is creating measurable improvements in water quality, which can be difficult for an individual project based on the factors above and variability in the watershed itself.

What the Network discussed:

Section 8 discusses a series of options for what gets reviewed, at what frequency, and what happens if a project is not meeting performance expectations (see Sections 8.1 and 8.2). Options are also included for how to track and make information available on credit-generating projects (see Sections 8.4 and

8.5). Section 4 discusses how credits are quantified, including a discussion on the pros and cons of direct monitoring (see Section 4.1.3), which can be a source of disagreement amongst stakeholders. Section 10.5 provides some ideas for evaluating a trading program's effectiveness, especially within the broader context of tracking TMDLs and watershed improvements more broadly.

What environmental groups should look for or consider:

Environmental groups should dig deep enough into the relevant watershed dynamics at play to understand the risk factors for any given trading program. Verification can be one of the costlier ongoing parts of a trading program, and there needs to be some balance between the resources devoted to information requirements and resources devoted to project implementation. Environmental groups should seek out opportunities to work with trading program developers to use the trading program's information needs to track broader watershed improvement goals.

#5: Trading, by itself, will not achieve fishable swimmable waters.

The National Network document is clear that trading is not a cure-all, and that trading cannot work without both clear water quality goals and expectations that communities in a watershed will work toward those goals. Environmental groups can help make the case that trading is good for some, but not all problems, and that a watershed needs to leverage multiple tools if we are going to meet water quality goals.

What the Network discussed:

The Introduction, Vision, Guiding Principles, and Conclusion sections of the document try to place trading within this broader context. Many of the Sections include considerations that are equally important for how states might track other Clean Water Act programs (such as Section 319 investments) as they do their permits with trading. Section 10 provides options around program improvement over time. Section 11 discusses how different roles can be played to deliver water quality.

What environmental groups should look for or consider:

The hard work to make trading viable often reveals gaps in other parts of Clean Water Act implementation. Unclear TMDLs can lead to debates over trading baselines. Gaps in watershed data can make it hard to see trending improvements from multiple nonpoint source improvements projects over time. Environmental groups can play an important role in helping trading program developers see the need to address these broader issues. On the flip side, trading cannot solve all of our systemic clean water problems and trading program stakeholders should take care not to let the "perfect be the enemy of the good" and risk missing important opportunities for incremental watershed improvement.

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Information on the National Network is available at: www.willamettepartnership.org/nn-wqt.

WEBSITE AVAILABILITY:

Building a Water Quality Trading Program: Options and Considerations is available for download at www.wri.org/nn-wqt.