

# NATURAL RESOURCES & ENVIRONMENT

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## RESILIENCE



- RESILIENCE IN ENVIRONMENTAL LAW, FISHERIES MANAGEMENT
- UTILITY INFRASTRUCTURE, SUSQUEHANNA RIVER BASIN

- CHEMICAL AND PRODUCT REGULATIONS, GREEN BOND MARKET
- FLOOD RISK MANAGEMENT, LIVING SHORELINES





to developing a substantive cumulative impacts policy.

**Next Steps.** EPA continues to develop and improve a number of tools to further the Agency's understanding and assessment of cumulative impacts issues. In the Environmental Justice Strategic Plan 2016–2020 (EJ 2020), *supra*, EPA focuses on initiatives to develop “a stronger scientific basis for action to address environmental justice and cumulative impact issues.” EJ 2020 at iii. This includes developing methods and data to assess cumulative risk, which is a quantitative approach to evaluating environmental health disparities that may be used to set future standards for toxics. The results of these initiatives, as well as what EPA learns from consultation with states that are currently developing cumulative impacts policies, are likely to determine whether and how quickly EPA will move forward on developing a substantive policy to reduce adverse health effects from cumulative exposures. 🌳

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## Water Quality Trading: Setting the Record Straight

*Brooks Smith, Shannon Varner, and Patrick Fanning*

The United States has made great strides toward improving the quality of our nation's waters, but much work remains to be done. Although the Clean Water Act (CWA or the Act) has been successful in driving many water quality improvements, meeting the “fishable/swimmable” goals of the Act remains elusive and will require new and innovative tools. Water quality trading (WQT) is one such tool that more efficiently and affordably improves water quality, while also attracting new stakeholders and private capital to supplement the good start made by existing stakeholders such as our federal, state, and local governments and the regulated community. Despite the many benefits and increasing use of this tool, some continue to swim against the tide when it comes to WQT. The Fall 2015 issue of *Natural Resources & Environment* (NR&E) featured an article by Zach Corrigan of Food and Water Watch (FWW) titled “The Case Against Water Quality Trading.” We take this opportunity to briefly address concerns raised in that article and provide the other side of the coin on WQT.

WQT is an implementation tool that helps accelerate the restoration of water quality. In its simplest form, WQT involves a transaction between a credit buyer and a credit seller, wherein the buyer faces a permit obligation to reduce its pollutant loading, which the seller is able to meet by achieving 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 a lower cost than the buyer could obtain 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, the transaction also includes an extra “environmental lift,” or portion of each trade retired (i.e., not used to meet permit obligations), resulting in even broader environmental improvement.

Over a decade ago, the Environmental Protection Agency (EPA) issued a National Water Quality Trading Policy “to encourage voluntary trading programs that facilitate implementation of TDMLs [total maximum daily loads], 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, the U.S. Department of Agriculture (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 advance the development of WQT. More recently, EPA and USDA pledged additional support for growing WQT markets. See Ann Mills (USDA deputy undersecretary for Natural Resources and Environment) and Ellen Gilinsky (senior policy advisor, EPA Office of Water), *EPA and USDA Pledge Actions to Support America's Growing Water Quality Trading Markets*, EPA Connect (Aug. 1, 2016), <https://blog.epa.gov/blog/2016/08/epa-and-usda-pledge-actions-to-support-americas-growing-water-quality-trading-markets/> (last visited Nov. 9, 2016). All of these efforts are ongoing and continue the evolution and improvement of WQT. Prime examples include broad-based groups such as the National Water Quality Trading Alliance, the National Network on Water Quality Trading, and the Mississippi River Collaborative.

Rather than engage these many stakeholders and attempt to address its issues of concern with WQT directly, FWW launches its attacks and criticism from outside the arena. In addition to the attack on WQT in this publication, FWW also has self-published reports criticizing WQT, unsuccessfully 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. To address our nation's serious water quality problems, we need as many tools as possible to improve water quality. To date, however, FWW has refused to step into the arena to help continue the evolution of this critical tool for improving water quality.

In his NR&E article, Mr. Corrigan claimed 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. If Congress is silent or its intent is unclear, however, 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 CWA, including in a fairly recent challenge to EPA's TMDL for the Chesapeake Bay. In that case, upholding EPA's interpretations, the U.S. Court of Appeals for 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 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.

*Am. Farm Bureau Fed’n v. EPA*, 792 F.3d 281, 302 (3d Cir. 2015).

Although Congress did not explicitly authorize WQT, a number of provisions in the Act support EPA’s favorable interpretation of WQT, and no provision clearly prohibits it. For example, the overriding objective of the CWA 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. Additionally, WQT is not a federal function but rather a state one, and the Act provides states with authority to reduce and eliminate pollution. 33 U.S.C. § 1251(b). Finally, states are primarily responsible for adopting standards, assessing water conditions against those standards, establishing TMDLs for waters that are not meeting standards, and implementing a “continuing planning process” for state water quality decision making. 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 non-point 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 *Am. Farm Bureau Fed’n 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 Chesapeake 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 CWA, and it is well within the authority reserved to the states to prevent, reduce and eliminate pollution.

Mr. Corrigan raises several additional concerns about WQT in his article, all of which are unwarranted or are currently being addressed in WQT programs across the country. For example, he claims that WQT “ossifies” the technology-driver

that Congress embedded in the CWA. While the Act certainly imposes both technology and water quality-based requirements on regulated point sources, technology requirements serve as the floor establishing minimum requirements to be met, whereas water quality-based requirements serve as the ceiling. WQT is never used to meet technology requirements. Instead, as the name implies, *water quality* trading is exclusively focused on meeting *water quality*-based requirements of the CWA.

Opponents of WQT have suggested that WQT enables regulated point sources to obtain relaxed limits or otherwise avoid compliance with more stringent limits. This cannot be, because the CWA prohibits a permit from being issued without an affirmative demonstration from the permitting agency that the permit is sufficiently stringent to “provide for compliance with the applicable requirements of [the] CWA” and “ensure compliance with the applicable water quality requirements of all affected States.” See 40 C.F.R. § 122.4(a) and (d). Second, all of the limits and conditions in a National Pollutant Discharge Elimination System (NPDES) permit are directly enforceable by the applicable state, EPA, and even interested citizens. See 33 U.S.C. §§ 1319 and 1365. WQT opponents also have suggested 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. Further, tracking programs for WQT are used across the country (such as Pennsylvania’s Markit or Maryland’s NutrientNet system).

Finally, Mr. Corrigan raises the specter of “hot spots,” a shorthand 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 C.F.R. § 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. 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).

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 CWA, 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 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. 🌳



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## ESA Listings Pose New Issues in the Northwest

David O. Bechtold

In the 1980s and 1990s, the Pacific Northwest was at the center of the nation's debate over the Endangered Species Act (ESA). Brendon Swedlow, *Scientists, Judges, and Spotted Owls: Policymakers in the Pacific Northwest*, 13 Duke Env'tl. L. & Pol'y F. 187, 189 (2003). The spotted owl and Pacific salmon became polarizing symbols of what was right or wrong with the ESA. Over the past two decades, the Northwest's heavily impacted timber, shipping, and hydropower industries learned to adapt to the ESA's strict requirements. This was accomplished largely by establishing habitat buffers between human activity and terrestrial species like the owl, and screening water intakes and establishing in-water work windows in regard to the salmon. While the impacts of these species are still felt by industry, equilibrium of sorts has been reached, and regulated entities now typically know how and when they can act. As the immediate economic shocks of those listings faded, the national focus on the ESA shifted away from the Pacific Northwest and to the Rocky Mountain states where wolf reintroductions and the proposed sage grouse listing stirred controversy.

In the past few years, a string of less-publicized listings and petitions has once again left the Pacific Northwest's business community facing uncertainty. While not making the front page news of the spotted owl controversy, these new listings and petitions pose potentially large problems for the regulated community, because the species live in urban environments and have evolved to inhabit ecological niches that are very difficult to accommodate. As a result they pose far more difficult problems than the keystone "wilderness" species that historically have been protected by the ESA in the Pacific Northwest. This article discusses two listed species that exemplify the problems posed by the new and pending listings.

**Eulachon.** The Eulachon, commonly known as smelt, is a small baitfish that spawns in coastal rivers but spends the majority of its life in the ocean. It was listed as threatened by the National Marine Fisheries Service (NMFS) in 2010. The regulatory challenges posed by the Eulachon arise from its spawning behavior. Unlike salmon, smelt do not directly deposit their eggs into protective nests dug into a river bottom. Instead, smelt broadcast spawn by releasing eggs directly

into the water column. Fertilized eggs later settle to the bottom where they attach to substrate. Once smelt larvae emerge from their eggs, they float passively downriver into an estuary, and then into the ocean. These larvae, as with the eggs, are immobile passengers on the river's current and are extremely vulnerable to municipal, industrial, and agricultural water intakes. Further complicating the situation is the sheer number of eggs and larvae produced by the Eulachon, which is a baitfish that has evolved to survive with an extremely high mortality rate. Data provided by NMFS during a recent consultation suggests that the annual number of Eulachon larvae in the lower Columbia River can approach three trillion.

The Eulachon is a prime example of the new ESA issues facing the Pacific Northwest. First, Eulachon populations depend on urban, working rivers. While salmon often momentarily travel through industrial river corridors, they generally spawn far upstream in more pristine and protected areas. Eulachon do not travel far upriver, but instead their prime spawning areas are located in the lower reaches of rivers, which tend to be more industrial. Indeed, the Eulachon's most significant spawning ground is the lowest stretch of the Columbia River and a handful of the river's furthest downstream tributaries—areas that are relatively urban and dotted with heavy industry. The result is that during the spring, many billions of pinhead sized protected species float passively in a working river. It is simply not possible for many water users to avoid interaction with the vulnerable Eulachon larvae.

Second, no meaningful way exists for water users to retrofit or design their operations to protect the Eulachon. Water users across the Northwest have taken substantial and successful action to prevent out-migrating salmon and steelhead from becoming entrained in water intakes, but the technologies that protect salmon do not work for the Eulachon. The reason for this is that salmon generally spend at least a year in protected upstream tributaries where they develop into smolts before heading to the sea, and consequently past water intakes. Unlike Eulachon larvae, salmon smolts are generally four- to ten-inch fish that can actively avoid hazards such as water intakes. Thus, by screening intakes and reducing the pull of an intake, users can protect smolts from becoming entrained. There is no screening technology for Eulachon larvae, however, and given their pinhead size and inability to swim, it is unlikely any screening technology will be developed. Simply put, there is very little a water user can do to avoid entraining Eulachon larvae, absent a complete shutdown.

To date the Eulachon listing has had little substantive impact on water users, largely because the ESA's take provisions currently do not apply to this baitfish because it is only listed as "threatened," and the NMFS has not yet promulgated "protective regulations" under ESA section 4(d). See 16 U.S.C. § 1533(d). NMFS has not ruled out extending to the Eulachon the ESA's take provisions under section 4(d), which has created uncertainty among water users. If the take provisions are extended to the Eulachon, every water user on the lower Columbia River will face the problem of protecting a species for which the only known protective measure is a shutdown. Certainly solutions will be developed and incidental take permits issued if the take provisions are applied, but in the meantime, water users face substantial uncertainty as to how their operations may be affected.

**Streaked Horned Lark.** The Streaked Horned Lark is a small ground-dwelling bird that once ranged across the