

THE CLEAN WATER ACT

OVERVIEW

The quality of America's waterways has improved substantially in the past several decades. Many people give credit to the federal Clean Water Act (CWA), but the CWA's role in such improvements is less than clear. Water quality may have begun improving before the law passed, and there is no reason to assume that alternative approaches would not have done more to clean and protect America's waterways. It is clear that the act has produced many problems. In particular, the law focuses more on bureaucratic permitting processes and paperwork violations than on key pollution problems and remedies. Before the passage of the CWA, parties could sue pollution sources when such pollution harmed property or public welfare. But the CWA deters such suits when it provides permits for effluent discharges — essentially preempting cases even when such sources cause harm to individuals and the environment.¹ In addition, the law's mandates on states and localities prevent them from addressing pollution problems more effectively and divert resources from other serious public health and infrastructure needs.

Regulatory Scheme

Congress passed the Federal Water Pollution Control Act in 1948, which was eventually amended and replaced by the CWA of 1972. The CWA was amended in 1977 and 1987. Key elements include the following:

NPDES Permits Program. An important provision of the act is the National Pollution Discharge Elimination System (NPDES), through which states with delegated authority administer NPDES permits to industrial and municipal facilities ("point sources") that discharge treated wastewater effluents *directly* into waterways. Permits specify the amount or concentration of regulated "pollutant"² parameters that may be legally discharged. A maximum daily limit and a maximum monthly average limit are usually specified for each regulated parameter. State or federal agencies authorized to issue discharge permits employ two types of regulatory standards: technology-based standards and water quality standards (each discussed next).

¹ The Clean Water Act itself does not explicitly prohibit common law cases, but it makes them moot. See Roger E. Meiners and Bruce Yandle, "Common Law: How It Protects the Environment," *PERC Policy Series* (Bozeman, M.T.: PERC, May 1998), <http://www.perc.org/ps13.htm>.

² Section 502(6) of the CWA defines a "pollutant" so broadly as to include almost anything (even sand and rocks) that EPA might decide to regulate. Some commonly regulated parameters on discharge permits include: Biochemical Oxygen Demand (BOD); Total Suspended Solids (TSS); and pH (a measure of acidity). The term "toxic pollutant" originated from a requirement of Section 101(a) of the 1972 CWA, which stated in part that "it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." Pursuant to this policy, EPA was required to publish a list of chemicals that were to be designated as "toxic pollutants." The agency's failure to comply with this requirement to the satisfaction of several environmental groups resulted in a 1975 lawsuit. In settling the lawsuit, lawyers for EPA and its plaintiff allies negotiated a list of "65 compounds and classes of compounds," that were designated as "toxic pollutants." These are presently listed at 40 C.F.R. § 401.15.



Technology-Based Standards (CWA, Section 301). As the name implies, these standards are based on the reduced levels of regulated parameters that have been shown to be achievable through treatment with an appropriate control technology. There are standards that are based on the best practicable control technology (BPT) and standards that are based on the best available control technology that is economically achievable (BAT). There also are pretreatment standards for industrial sources that discharge to waterways *indirectly* via publicly owned treatment works (POTWs) with NPDES permits. Pretreatment standards generally reflect the BAT standards for selected parameters. The control technology is not prescribed in these standards, i.e., any control technology may be used to achieve compliance with either the NPDES permit limits or the pretreatment standards.

Water Quality Standards (CWA, Section 302). Water quality-based standards (WQS) are formulated by each state and consist of both numerical and narrative standards. Numerical standards are based on EPA's water quality criteria (WQC), which were developed for chemicals on the agency's "toxic pollutant" list. The WQC for each chemical reflects the concentration level at which aquatic organisms exposed to standardized laboratory test conditions exhibit acute toxic effects (over 24 hours), or chronic toxic effects over longer periods. The narrative standard consists primarily of a whole effluent toxicity (WET) test, in which more than half of the test organisms must survive exposure to a permittee's treated wastewater effluent over a 24-hour period, or suffer no loss of normal growth or reproduction over longer periods.

Section 302 of the CWA directs that a state's WQS are to be employed when the technology-based standards fail to achieve the water quality needed to meet state-designated uses within a segment of a waterway that receives permitted discharges. Designated uses include: Public water supply; agricultural and industrial; propagation of a balanced population of shellfish, fish and wildlife; and recreational activities both in and on the water. Public involvement is required in setting WQS for a particular segment of a waterway. Although there is a provision to waive WQS for any discharger able to prove that meeting a water quality-based permit limit is not worth the social and economic cost, such waivers are not easily achieved.

The numerical WQS are typically more stringent than the corresponding technology-based standard, particularly for metals. Thus the requirement to apply the more stringent of the two standards as a numerical limit in an NPDES permit allows the technology-based standards to be superseded by WQS and provides a regulatory justification for setting lower limits in a permit. There have also been a number of instances where a facility's treated effluent passes the WET test, but fails to meet the numerical WQS for one or more parameters. This disparity casts suspicion on the numerical standards as an accurate measure of toxicity to aquatic organisms.

Once a state sets a waterway's designated uses, it attempts to determine the quantity ("load") of each regulated parameter that the waterway segment can tolerate and still achieve its designated uses. Then the state allocates (divides) the total daily loading of each regulated parameter among the permitted sources that discharge to that waterway segment. Each source is allocated a so-called total daily maximum load (TMDL) that it is permitted to discharge into the waterway each day.

Storm Water Permits. In addition, the law includes a program to issue permits for "storm water discharges," i.e., effluents from municipal and industrial drains filled with rainwater that may contain regulated parameters leached from streets and other urban areas.

Nonpoint Source Regulation. The law includes a grant program for states to develop and implement plans to control nonpoint source (NPS) pollution, which includes water runoff from surface areas used for animal husbandry or other agricultural activities. This NPS planning process overlaps



with NPS programs under the Coastal Zone Protection Act, which the Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) jointly administer in coastal areas.

Wetlands. Broadly interpreted CWA provisions also affect the beneficial use of property, both private and public, that has been designated as a “wetland.” Using Section 404, which provides for permits controlling the discharge of dredged or fill material into navigable waters, EPA has extended its regulatory reach by assuming the authority to issue permits that restrict beneficial use of property on grounds that it fits one of the agency’s arbitrary definitions of a wetland. There has been a history of jurisdictional disputes between EPA and the U.S. Corps of Engineers over the authority to issue such permits.

Water Quality Trends

While it’s very difficult to accurately measure water quality trends, a 1974 *National Water Quality Inventory* report indicates that water quality in many waterways was improving even before the CWA took effect.³ The study showed that between 1963 and 1974 a majority (20 of 28) of the so-called contaminants tracked in the study declined in more than half of the waterways sampled. Hence, rather than being solely a result of the CWA, water quality was improving as we were “educated” by proponents of the environmental movement about the serious public health concerns that were likely to result from “toxic pollutants” in the nation’s waterways. Fortunately, during this period a growing economy could afford legislation that promised to improve the quality of life, which includes a healthy environment. The drive to reduce waste and promote efficiency within industry as well as common law legal challenges provided incentives to reduce the contamination of waterways.

In addition, politicians responded to what was by then a conditioned public demand to do something to clean up the nation’s waterways: state lawmakers implemented clean water laws, and the federal government funded the construction of municipal wastewater treatment plants. The growing awareness of the impacts of contaminated waterways on “the environment” and the orchestrated campaign to clean them up were indeed effective. At question is whether we could have channeled — or now can — that effort into more efficient and effective means to achieve water quality.

The Bureaucracy of Storm Water and Nonpoint Source Programs

In 1987, Congress passed amendments to the CWA, thereby establishing a program to regulate storm water discharges. The law demands that cities and others that discharge storm water obtain federal permits. These paperwork requirements for permits proved burdensome for cities.

- During congressional testimony, a representative of an association of local public officials testified that simply preparing paperwork for a permit application cost cities an average of \$625,000 each.⁴
- Such costs force cities to trade off other environmental projects to meet these paperwork burdens. In a 1994 Price Waterhouse study, cities said that the CWA mandate for storm water permits meant that they could not afford sewer upgrades to address overflow problems or to upgrade homes with septic tanks.⁵

³ U.S. Environmental Protection Agency, *National Water Quality Inventory: 1974 Report to Congress* (Washington, D.C.: U.S. EPA, 1974).

⁴ Prepared Statement of Doug Harrison on behalf of the National Association of Flood and Stormwater Management Agencies before the Senate Environment and Public Works Committee on the Water Regulation Improvement Act of 1999, 13 October 1999.

⁵ Price Waterhouse, *Impact of Unfunded Federal Mandates on U.S. Cities: A 314 City Survey* (Washington, D.C.: Price Waterhouse, 1994).



- Ironically, failure to make such upgrades could contribute to water quality problems.
- In addition, the General Accounting Office (GAO) recently reported that the agency has failed to determine if the program makes any significant improvement in water quality. “Although EPA and state agencies believe that the program will be effective in improving water quality, EPA has not made a systematic effort to evaluate the program. Without such an effort, EPA cannot tell what effect the program is having on water quality nationally.”⁶

Similarly, the federal nonpoint source program has achieved little, and it creates duplicative requirements for people living in coastal areas. It is time to reevaluate federal involvement in these areas and to look for ways to give states greater flexibility. To ensure that such discharges don’t harm water quality, federal law should make clear that common law applies to water from nonpoint sources.

Devolution and Common Law Remedies Are Better than Permitting

While most people assume that industry opposes most major environmental statutes, many industry groups support the CWA because it serves their interests. Once an industrial facility gains a permit to discharge wastewater and remains in compliance with the requirements of that permit, courts have held that other parties cannot hold the facility’s owner liable for damages should its permitted discharge harm property, public health, or “the environment” — thus limiting the liability of the firm. While this system has essentially eliminated suits that would punish firms for causing actual harm, the CWA allows citizens to bring suits for technical violations of the law, such as paperwork problems.

Water quality problems are largely local and regional issues. Localities, states, and regional bodies know better how to address these problems and are in fact engaged in many innovative environmental programs that are proving more effective than bureaucratic federal planning schemes. Given such realities, Congress should begin turning CWA programs back to state and local governments. With such reform, Congress should include provisions to make clear that common law suits offer valid remedies to ensure that affected parties have recourse under the new system. Some states and local governments may make mistakes under this system, and not all common law cases will produce the best results. However, this more dynamic approach will help identify the best solutions and promote a process that identifies and corrects actual water quality problems.

— CEI Staff

Key Experts

David W. Riggs, CEI, (202) 331-1010, driggs@cei.org.

Terry L. Anderson, PERC, (406) 587-9591, tla@perc.org

Recommended Readings

Meiners, Roger E. and Bruce Yandle. “Common Law: How it protects the Environment.” *PERC Policy Series*. Bozeman, Mont.: PERC, May 1998, <http://www.perc.org/ps13.htm>.

Riggs, David W. and Bruce Yandle. *Water Marketing: The Next Generation*. Edited by Terry L. Anderson and Peter J. Hill. Lanham, Md.: Rowman & Littlefield Publishers, Inc., 1997.

⁶Peter Guerrero, “Better Data and Evaluation of Urban Runoff Programs Needed to Assess Effectiveness,” GAO-01-679 (Washington, D.C.: U.S. GAO, 29 June 2001).



TOTAL MAXIMUM DAILY LOAD RULE

In July 2000, the Environmental Protection Agency (EPA) issued a rule — called the “TMDL rule” — that would greatly expand the scope of the Clean Water Act regulatory program. In the past, most regulations focused on direct discharges into waterways by private industry and government entities. The July 2000 TMDL rule expanded regulations on pollution from water runoff from farms and the like — so called nonpoint sources. While the desire to address these sources of pollution may make sense, this particular approach promises to be overly expensive and environmentally suspect. Congress should, instead move toward an approach that holds parties liable for actual water pollution rather than simply extending a bureaucratic paperwork mandate that offers only questionable benefit.

Regulatory Scheme

The main regulatory tool of the Clean Water Act is the National Pollution Discharge Elimination System (NPDES). Through this program, the states issue permits to “point sources.” Point sources are entities that discharge water wastes directly into bodies of water. They include facilities that discharge water wastes, publicly owned treatment works owned by cities that release treated wastewater, and cities that release storm water from drains. States operate the program subject to federal approval.¹

When states find that waterways don’t meet certain state-specified water quality goals, the law directs them to issue a second tier of regulation that employs “total daily maximum loads,” or TMDLs. A TMDL is the amount that each permitted “point source” may discharge into a specific body of water each day. The state is supposed to limit the total amounts of all TMDLs to ensure that the water quality goal can be achieved and maintained. In other words, the TMDL consists of the amount of a pollutant that the EPA says a stream, river, or other watershed can assimilate before the pollutants preclude beneficial uses of the water. Ostensibly, the regulations keep a water body within the “TMDL budget,” thus protecting water quality.

In July 2000, the EPA issued a final rule² creating a TMDL program for “nonpoint sources” of discharges, such as agricultural fields or silvicultural operations. Commonly called “the TMDL rule,” this regulation extends the regulator-directed NPDES program into a completely new area. In one sense the TMDL program takes a positive step because of its focus on pollution in water compared to the traditional NPDES process that focuses on technology mandates for regulated facilities.³ That is, the TMDL program is focused on water quality instead of focusing on the installation of expensive new technology to meet effluent limitations as a condition for obtaining an NPDES permit.

However, the impacts from implementing the TMDL program deserve scrutiny, and Congress required EPA to conduct a cost assessment of the TMDL rule in its fiscal year 2001 spending bill. In a January 3, 2001 letter, the U.S. Chamber of Commerce stated that EPA’s notice for comments on the costs of the TMDL rule did not provide adequate economic information. The chamber said the EPA’s December 2000 notice was not an assessment, as it should have been, but rather a “list of unresolved economic issues.”⁴

¹ For more details on this subject see “Clean Water Act Overview” in *The Environmental Source*.

² *Federal Register* 65, no. 135 (13 July 2000): 43,585-43,670.

³ Roger E. Meiners and Bruce Yandle, *Public Interest Comment on the Environmental Protection Agency’s Proposed Changes to the Total Maximum Daily Load Program and the National Pollution Discharge Elimination System and Water Quality Standards Regulations* (Arlington, Va.: Mercatus Center, May 2000).

⁴ “Chamber Says Economic Information on TMDL Program Inadequate for Comment,” *Daily Environment Report*, no. 4 (5 January 2001): A8.



Regulatory Scope and Cost

The TMDL rule will impact many property owners and prove costly. In the past, only agricultural operations larger than a specified size and certain silvicultural activities were required to obtain an NPDES permit. Smaller agricultural operations and most silvicultural activities have been exempt from permitting because these sources of discharge are diffuse and the NPDES permits were designed for discrete and easily identifiable sources. The new TMDL rule establishes a permitting process bringing the regulation of agricultural and silvicultural operations under EPA jurisdiction.

- To grasp how much this rule expands the scope of the Clean Water Act, consider the forestland that could be subject to the rule. According to the Society of American Foresters, there are 10 million nonindustrial forestland owners, and they own more than half of the productive forestlands in the United States.⁵ The National Association of State Foresters estimates that non-industrial private forestland approximates 307 million acres, or about 14 percent of the total U.S. landmass, including Alaska.⁶
- The number of other agricultural operations potentially affected by the proposed changes of the TMDL program also is substantial. According to the Economic Research Service's analysis of "1992 Census of Agriculture" data, there are about 450,000 operations nationwide with confined livestock and/or poultry operations in the United States. Of these, 6,600 are confined animal feeding operations (CAFOs) and of these, according to the EPA, 1,987 have permits.⁷
- The TMDL rule greatly extends the number of CAFO operations that will have to gain NPDES permits. According to EPA, many CAFOs obtain permits and many others do not because they don't produce enough nonpoint source pollution. However, EPA maintains that there also are many CAFOs that currently do not obtain permits because of inappropriate permit exemptions. The agency claims that they would require these operations to obtain permits if the agency had more resources to identify these operations. The proposed TMDL rule is designed to provide such resources, and EPA estimates that it will need to issue about 40,000 TMDLs.⁸
- The EPA estimates it will cost states \$25 million per year, based on an assumption that those states already have programs in place on which to build the TMDL program.⁹ However, a report by the General Accounting Office concluded that the agency's baseline assumptions for estimating TMDL costs were flawed.¹⁰ State officials have said the rule could cost up to \$1.2 billion annually.¹¹ The Edison Electric Institute estimated the cost to industrial and municipal dischargers of implementing the TMDL program at between \$20 billion and \$80 billion.¹²

⁵ Testimony of Michael Virga, *The Proposed Fiscal Year 2000 Forest Service Budget*, Subcommittee on Department Operations, Oversight, Nutrition, and Forestry, Committee on Agriculture, U.S. House of Representatives, 11 March 1999.

⁶ National Association of State Foresters, "Fiscal Year 1998 State Forestry Statistics" (Washington, D.C.: NASF, 2001) accessed August 6, 2001, http://www.stateforesters.org/statistics/FY98_Statistics/Resource%20Base.htm.

⁷ United States Department of Agriculture, "1992 Census of Agriculture" (Washington, D.C.: USDA, accessed 6 August 2001), <http://www.nass.usda.gov/census/census92/agrimenu.htm>.

⁸ Testimony of J. Charles Fox, Subcommittee on Department Operations, Oversight, Nutrition and Forestry of the Committee on Agriculture, U.S. House of Representatives, 28 June 2000, 9.

⁹ Testimony of J. Charles Fox, *The Environmental Protection Agency's Proposed Regulation Regarding Total Maximum Daily Loads, the National Pollutant Discharge Elimination System and the Federal Ant-Degradation Policy*, Subcommittee on Water Resources and Environment Committee on Transportation and Infrastructure, U.S. House of Representatives, 10 February 2000, http://commdocs.house.gov/committees/Trans/hpw106-66.000/hpw106-66_1.HTM.

¹⁰ U.S. General Accounting Office, *Clean Water Act: Proposed Revisions to EPA Regulations to Clean Up Polluted Waters*, T-RCED-00-233 (Washington, D.C.: GAO, 28 June 2000).

¹¹ "Chamber Says Economic Information on TMDL Program Inadequate for Comment" *Daily Environment Report*, no. 4 (5 January 2001), A-8.

¹² Susan Bruninga, "More Scientifically Valid Method Urged for Listing Impaired Waters, Setting TMDLs," *Daily Environment Report*, no. 18 (26 January 2001): A8.



- Small businesses and landowners will be hit the hardest under the TMDL rule. Small, private forest landowners and livestock operators work with purchasers and contractors. Eighty-five percent of these businesses are small and independent, according to the Department of Agriculture.¹³ Small businesses less able to absorb the high costs of environmental regulation than their larger competitors, will assume the highest costs of compliance. For example, according to Jamie Adams, Secretary of the Kansas Department of Agriculture, “with the average value of production per farm in [Nemaha] County at \$90,000, high priority TMDL implementation will cost 4 to 5 percent of the average farm’s gross income.”¹⁴

TMDL Rule: Benefits In Question

The benefits of implementing TMDLs are suspect given the poor state of water quality data:

- EPA estimates that a colossal 70 percent of water pollution in the United States is caused by agriculture.¹⁵ But significant questions remain about the true state of the nation’s water and whether agriculture is indeed as significant a contributor as the EPA contends. Despite spending hundreds of billions of dollars on water pollution control since the enactment of the 1972 Clean Water Act, the state of the nation’s water quality remains largely unknown. The pollution coming from pipes — point sources — associated with wastewater treatment and industrial processes is monitored and reported, but there is a lack of good information on runoff from farms.
- Nonpoint source pollution is difficult to measure for a number of reasons. First, it’s diffuse and can originate from different sources, such as farms, driveways, and rooftops. Second, the primary surface-runoff pollutants — phosphorous and nitrogen — occur naturally in the environment. Without sufficient monitoring, it’s difficult to tell whether these pollutants are coming from a farm or from another source.
- By law, states must report water quality conditions to Congress, resulting in the National Water Quality Inventory (NWQI). But the NWQI provides only a snapshot of water quality, because most of the nation’s water has not been tested. In 1996, the NWQI had tested only 19 percent of rivers and streams, 40 percent of lakes, ponds, and reservoirs, and 72 percent of estuaries.¹⁶ In June 2000, a General Accounting Office representative testified that only six out of the 50 states have the data needed to fully assess their waters.¹⁷
- For the waters that have been tested, less than 40 percent fall into the category of “impaired,” which means the water does not support at least one of nine different uses, such as a supply of drinking water.¹⁸ However, the data may not represent general conditions in the nation’s total waters because states often focus on monitoring water bodies with suspected pollution problems in order to direct scarce resources to areas that could pose the greatest risk. Consequently, water assessments give undue weight to hot spots where known water pollution occurs.

¹³ U.S. Department of Agriculture and U.S. Environmental Protection Agency. “Unified National Strategy for Animal Feeding Operations.” (Washington, D.C.: USDA), March 9, 1999.

¹⁴ James C. Adams, The National Association of State Departments of Agriculture, Subcommittee on Forests & Forest Health, House Resource Committee, 1 March 2000.

¹⁵ U.S. Environmental Protection Agency, Office of Water, *National Management Measures to Control Nonpoint Source Pollution from Agriculture* (Washington, D.C.: U.S. EPA, October 2000), <http://www.epa.gov/owow/nps/agmm/chap1.pdf>.

¹⁶ *Ibid.*

¹⁷ Peter F. Guerrero, *Clean Water Act: Proposed Revisions to EPA Regulations to Clean Up Polluted Waters*, Testimony before the Committee on Agriculture, House of Representatives, 28 June 2000.

¹⁸ U.S. Environmental Protection Agency, *National Management Measures to Control Nonpoint Source Pollution from Agriculture*.



- Estimates of water quality also are suspect because they are typically made according to “best professional judgment” (defined as using the best available information), watershed maps, and little or no actual monitoring. According to the latest NWQI, states deriving more than 50 percent of their data in this way reported that 46 percent of their stream miles have been impaired because of agriculture.¹⁹ By contrast, in states like Michigan, where all stream miles are directly monitored, only 13 percent of stream miles showed up as impaired because of agriculture.²⁰

Recommendations

Inadequate or scientifically flawed data is no ground upon which to build a regulatory system, especially one as expansive and expensive as the TMDL rule. Alternatives do exist for improving water quality while complying with existing federal law.

- Hold polluters liable for harms (and only those harms). People have a right not to be harmed by the pollution of others. As with NPDES permits, because a “violation” can result from infringing on nonenvironmentally related rules and requirements, there is a difference between reported violations and actual water quality damage. Instead of focusing on paperwork violations, it should hold polluters liable for the harm they cause to other persons or their property. The TMDL program should emphasize its outcome-based orientation.
- Provide states with more flexibility. Because the science of water pollution control is still evolving, and because each state and watershed has different needs and problems, each should be allowed flexibility in their approach to water quality management. Because the source and consequence of a water quality problem affect a limited geographic area and because knowledge about how best to address that problem is often location-specific, the TMDL program should allow for state and local decision-making.

— David Riggs

Key Experts

David W. Riggs, CEI, (202) 331-1010, driggs@cei.org.
 Allison Freeman, CEI (202) 331-1010, afreeman@cei.org.
 Roger E. Meiners, PERC, (406) 587-9591, meiners@uta.edu.
 Bruce Yandle, PERC, (406) 587-9591, yandle@clemson.edu.

Recommended Readings

Akobundu, Ebere and David W. Riggs. “Pervasive Permitting: The EPA’s Proposed TMDL Rule.” *Water Resources Impact*, no. 3 (May 2000), 4-6.

Meiners, Roger E. and Bruce Yandle. *Public Interest Comment on the Environmental Protection Agency’s Proposed Changes to the Total Maximum Daily Load Program and the National Pollution Discharge Elimination System and Water Quality Standards Regulations*. Arlington, Va: Mercatus Center, May 2000, <http://www.mercatus.org>.

Riggs, David W. and Bruce Yandle, “Environmental Quality, Biological Envelopes, and River Basin Markets for Water Quality” in *Water Marketing: The Next Generation*. Edited by Terry L. Anderson and Peter J. Hill. Lanham, Md.: Rowman & Littlefield Publishers, Inc., 1997.

¹⁹ United States Environmental Protection Agency, Office of Water, *National Water Quality Inventory: 1998 Report to Congress* (Washington, D.C.: U.S. EPA 1998), <http://www.epa.gov/305b/98report/factshts.html>.

²⁰ Jefferson G. Edgens, “EPA’s Bad Science Targets Michigan Farmers,” (Midland, Mich.: Mackinac Center for Public Policy, 6 December 1999).



WETLANDS

The federal government imposes regulations to prevent the destruction or alteration of America's wetlands. These regulations deny private landowners the productive use of their land without compensation. Wetlands regulations have bankrupted landowners and even sent Americans to jail for the "crime" of wetland modification without a federal permit. The cause of wetland protection is better served through state-based programs and private conservation efforts than through federal land-use controls on private land.

Regulatory Scheme

Section 404 of the Clean Water Act requires anyone to obtain a permit before discharging dredged or fill material into U.S. navigable waters.¹ Agencies implementing the law have interpreted this as a grant of authority for federal oversight over any activity that results in the deposit of any material into a wetland. The Environmental Protection Agency (EPA) provides the guidelines for permits, while the U.S. Army Corps of Engineers (the Corps) issues the actual permits, although EPA has the authority to veto the Corps' issuance of a permit. The U.S. Fish and Wildlife Service (under the Department of the Interior), the Soil Conservation Service (under the U.S. Department of Agriculture), and the National Marine Fisheries Service (under the Department of Commerce) all participate in the process.

Achieving "No Net Loss"

Recent evidence shows America is creating more wetlands than are being destroyed. Largely due to improvements in agricultural productivity, aggregate wetlands losses have slowed dramatically over the past several decades, from over 450,000 acres per year in the 1950's and 1960's to 150,000 acres in the 1990's.

Meanwhile, in 1994, for example, the top three voluntary government wetland restoration programs restored an estimated 195,000 acres of wetlands, substantially more than were converted to other uses. Add in the wetlands restoration by private conservation organizations, and the United State is certainly achieving no net loss of wetlands.

Source: Jonathan Tolman, *Swamped: How America Achieved 'No Net Loss'* (Washington, D.C.: Competitive Enterprise Institute, April 1997), <http://www.cei.org/MonoReader.asp?ID=117>.

Because of how the federal government defines "wetlands," there are more than 100 million acres of protected wetlands in the United States, nearly 80 percent of which are on private property. Wetlands have been interpreted to include everything from marshes and bogs to prairie potholes, former dumps, and lands that are barely wet at all. The Corps claims authority to regulate the use of all wetlands that could affect interstate commerce. Under their interpretation, even the most remote wetlands could affect interstate commerce because a migrating duck might stop to take a drink.

¹Clean Water Act, 33 U.S.C. §1251 et seq. (1977). Access online at <http://www4.law.cornell.edu/uscode/unframed/33/ch26.html>.



Wetlands, the Environment, and Property Rights

Some wetlands perform important water filtration, flood mitigation, and habitat enhancement functions.² Others are mere bogs and breeding grounds for pests. A rational wetland policy would account for such differences. However, current wetland policy attempts to protect wetlands based on the arbitrarily designed standards of the Army Corps of Engineers. These regulations have evolved over the years based on a slew of political negotiations and heated debates over how the Corps should define the term ‘wetland.’ As a result, federal wetland policy doesn’t offer the best environmental policy and it often places undue burdens on private property owners.

The impact on property owners is considerable, and they have remained the focus of reform efforts. In particular:

- Landowners are routinely denied permits from the Corps to modify wetlands, even when such activities have minimal environmental impact.
- Many people have been sent to jail for violating wetlands regulations.
- While the permitting process may sound reasonable on paper to some, it has been very onerous in practice. Under current law, the Corps must approve or reject a wetland modification permit application within 60 days. However, the average wait for a ruling on a permit application is currently more than a year.
- Many landowners claim that wetlands rules result in an uncompensated regulatory taking in violation of the Constitution’s Fifth Amendment prohibition against the taking of property “for public use without just compensation.”

Wetland Litigation

In recent years, courts have begun to question the Corps’ expansive assertion of regulatory authority:

- In 1997, a federal appeals court ruled that the Corps had to demonstrate an actual effect on interstate commerce before it could regulate private land.³
- In 1998, another federal appeals court held that the Corps of Engineers was limited to regulating the “filling” of wetlands and had to stop regulating other activities that affected wetlands that could not be characterized as “filling.”⁴ This case overturned the so-called Tullock rule, which prohibited dredging of wetlands. The Corps claimed that they could regulate “dredging” because some amount of dredged material might fallback into the wetlands. It required that property owners get

² To distinguish a wetland, the Corps considers the number of days it is wet, if it has hydric soil, and if it has at least one of approximately 7,000 “indicator” species of plants growing on it.

³ *United States v. Wilson*, 133 F.3d 251 (4th Cir. 1997).

⁴ *National Mining Association v. U.S. Army Corps of Engineers*, No. 97-5099 (D.C. Cir., 1998), 111 DEN-A-7, 6/22/98.



permits for such “incidental fallback.” But the Court noted: “Congress could not have contemplated that the attempted removal of 100 tons of [dredged material] could constitute an addition simply because 99 of it were actually taken away.”⁵ The Clinton administration proposed a new regulation to focus on dredged material that they could define as more than incidental and that settles beyond its original place of removal.⁶ The proposal seeks to provide the same type of regulation as the original Tulloch rule, while still meeting standards set by the court. After President Clinton finalized the rule in his final days in office, President Bush delayed the implementation date in order to review the regulation. On April 16, 2001, the Bush administration finalized the Clinton proposal. Two groups are pursuing a legal challenge to the new regulation — the National Association of Homebuilders and the National Stone, Sand and Gravel Association.

- In October 2000, the Supreme Court heard *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*.⁷ At issue was the Corps migratory bird rule, which claimed that, under the Commerce Clause, the Corps had authority to regulate wetlands used by migratory birds. The Court ruled in January 2001 against the Corps, rejecting their attempt to assert jurisdiction over isolated wetlands. The Court held that the underlying statute, the Clean Water Act, simply could not support such an interpretation and that the Corps’ reading of the act would raise constitutional problems of federalism and interstate commerce.
- In June 2001, the Supreme Court decided *Palazzolo v. Rhode Island*,⁸ which was argued the prior February. In its decision, the Court upheld and reaffirmed principles articulated in a number of other recent wetlands and property rights cases. First and foremost, the Court strengthened the doctrine of futility. That is, property owners need not exhaust all administrative remedies to claim that a case is ripe as long as they prove such attempts futile. Second, the Court ruled that property rights continue with transfer to a subsequent property owner. Finally, the court affirmed the possibility that if *even part* of the reasonable and productive use of the property is undermined by regulations, the courts may consider such a partial taking (important in wetlands cases).

Private Conservation and Incentives Versus the Federal “Hammer”

Wetland conservation does not necessarily entail regulatory efforts. While mandatory regulations are mired in controversy and litigation, the government’s voluntary incentive programs, seeking to work *with* landowners, have much greater success. The North American Waterfowl Management Plan, Partners for Fish and Wildlife Program, and Wetlands Reserve Program are less bureaucratic and more cost-effective.⁹ These programs typically cover the costs of restoration and the purchase of an easement to ensure the restored lands remain protected.

- The voluntary programs restored an estimated 160,000-plus acres of wetlands per year from 1992 to 1996 at a cost of \$1,000 or less per acre.

⁵ Ibid.

⁶ *Federal Register* 66, no. 11 (17 January 2001): 4,549.

⁷ Supreme Court of the United States, No. 99-1178. The opinion can be found at: <http://a257.g.akamaitech.net/7/257/2422/14mar20010800/www.supremecourtus.gov/opinions/00pdf/99-1178.pdf>.

⁸ Supreme Court of the United States, No. 99-2047, see <http://caselaw.lp.findlaw.com/cgi-bin/getcase.pl?court=US&navby=case&vol=000&invol=99-2047>.

⁹ The North American Waterfowl Management Plan is under the Division of Bird Habitat Conservation at the U.S. Fish & Wildlife Service, Department of the Interior (see <http://northamerican.fws.gov/>). The Partners for Fish & Wildlife Program also is under the U.S. Fish & Wildlife Service (see, <http://partners.fws.gov/>). The Wetlands Reserve Program is under the U.S. Department of Agriculture, Natural Resources Conservation Service (see <http://www.wl.fb-net.org/>).



- Conversely, regulatory programs' conservation of wetlands comes at a much greater cost. The government's cost of protecting and restoring wetlands under the 404 program is about \$3,980 per acre.¹⁰ But if one adds in the cost of mitigation, the average cost per acre is nearly \$34,000.¹¹

State, Local, and Private Efforts Versus Federal

Federal regulation of wetlands did not begin until the mid-1970s.¹² Before then, 11 inland states and every coastal state, save Texas, had wetlands protections in place.¹³ But even long before state regulations in the 1960s, private organizations like National Audubon Society, formed at the turn of the century, and Ducks Unlimited, founded in 1937, were working to protect wetlands.¹⁴

For many years, the federal government worked against these groups with active government policy to destroy wetlands. The Swampland Act of 1849 turned over swamplands into private hands on the condition that new owners would drain the properties. Government programs, agricultural subsidies, the Corps channelization projects, and a Supreme Court decree that wetlands were "the cause of malarial and malignant fevers ... police power is never more legitimately exercised than in removing such nuisances" all worked to remove wetlands.¹⁵ As a result, it is estimated that the United States lost over half of its wetlands,¹⁶ but cities like Washington, D.C., would not have been built otherwise.

In past years, the federal government caused rampant destruction of wetlands, but now many environmentalists see federal regulations as the only reliable source for saving wetlands. However, evidence points to the contrary. Not only did states and private groups enact wetlands protection prior to the federal government, but they also continue to be on the cutting edge of wetlands conservation. Groups like Ducks Unlimited, Delta Waterfowl, and Chesapeake Wildlife Heritage continue to fund wetlands conservation and creation. Ducks Unlimited restored or enhanced 50,000 acres of wetlands in 1994 alone.

Cost to Local Governments

By prohibiting development, wetlands regulations often depress land values and local government revenues from property taxes. For example, local governments in the state of Arkansas could lose up to \$180 million in revenue. Based on that figure, local governments nationwide could lose up to \$6.3 billion in property tax revenues.

¹⁰ Jonathan Tolman, *Swamped: How America Achieved 'No Net Loss'* (Washington, D.C.: Competitive Enterprise Institute, April 1997), <http://www.cei.org/MonoReader.asp?ID=117>.

¹¹ Dennis King and Curtis Bohlen, "Estimating the Costs of Restoration," *National Wetlands Newsletter*, Environmental Law Institute, May/June 1994, 4.

¹² Robert Beck, "The Movement in the United States to Restoration and Creation of Wetlands," *Natural Resources Journal* 34 (1994): 781-84.

¹³ *Ibid.*, 788-89.

¹⁴ Jonathan H. Adler, *Environmentalism at the Crossroads: Green Activism in America* (Washington, D.C.: Capital Research Center, 1995).

¹⁵ Jonathan H. Adler, "Wetlands, Waterfowl and the Menace of Mr. Wilson: Commerce Clause Jurisprudence and the Limits of Federal Wetland Regulation," *Nw. School of L. of Lewis and Clark College Envtl. L.* 29, no. 1 (1999): 10.

¹⁶ Oliver A. Houk and Michael Rolland, "Federalism in Wetlands Regulation: A Consideration of Delegation of Clean Water Act Section 404 and Related Programs to the States," 54 *Md. L. Rev.* 1243 (1995).



Recommendations

- Congress should replace the Section 404 regulatory program with a noncoercive, incentive-based program funded with the appropriations currently devoted to Section 404.
- If federal wetlands regulation continues, at a minimum, the federal government should provide financial compensation to property owners when reasonable use of their land is taken away by wetlands regulations.
- Wetlands policy should rely on the creativity and ingenuity of private individuals, organizations, and associations.

State efforts, nonregulatory federal programs, and private conservation would do a better job of protecting ecologically significant wetlands than the existing corrupt regulatory approach. These steps would enhance the protection of wetlands and private property without increasing the costs of conservation to taxpayers or landowners.

— David Riggs and Allison Freeman

Key Experts

David Riggs, CEI, (202) 331-1010, driggs@cei.org.

Jonathan Adler, Case Western Reserve University School of Law, (216) 368-6000, jhadler@earthlink.net.

Recommended Readings

Kazman, Sam. "SWANCC Won't Put Environmentalism in the Tank," *Endangered Species and Wetlands Report* (February 2001): 12, <http://www.federalismproject.org/library/swancc.pdf>.

Adler, Jonathan H. "Wetlands, Waterfowl and the Menace of Mr. Wilson: Commerce Clause Jurisprudence and the Limits of Federal Wetland Regulation," *Nw. School of L. of Lewis and Clark College Evt. L. Law* 29, no. 1 (1999).

Adler, Jonathan H. "Swamp Rules: The End of Federal Wetlands Regulation?" *Regulation* 22 no. 2 (1999): 11-16, <http://www.cato.org/pubs/regulation/regv22n2/swamprules.pdf>.

Tolman, Jonathan. *Swamped: How America Achieved "No Net Loss."* Washington, D.C.: Competitive Enterprise Institute, April 1997, <http://www.cei.org/MonoReader.asp?ID=117>.

Smith, Robert J. *Viansa Winery Wetlands.* Washington, D.C.: Competitive Enterprise Institute, Center for Private Conservation, June 1997, http://www.privateconservation.org/case_studies.php?article_id=11&print=yes.

