2 The History of the Clean Water Act

2.1 Foundations of the Modern Act

The modern-day Clean Water Act originated more than a century ago, with the oldest federal pollution law in the United States: the 1899 Rivers and Harbors Act, often referred to as the “Refuse Act.” Although primarily enacted to ensure the free and open navigability of U.S. waters, the Refuse Act also prohibited the discharge of “refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States,” while granting authority to the Secretary of the Army to permit such discharges under prescribed conditions. The Refuse Act thus became an early tool for controlling water pollution; indeed, in 1959, the Supreme Court held in United States v. Republic Steel Corp. that the Refuse Act could be utilized to address wastewater discharges to the Calumet River in Illinois from a steel mill. Importantly, however, the Court grounded its holding on the issue of navigability, rather than pollution, finding that the discharges had reduced the depth of the river’s channel, which in turn obstructed its “navigable capacity.”

Historically, a major concern of the federal government was the spread of communicable diseases by the inappropriate discharge of sewage containing human waste near drinking water intakes, and thus the federal government long has been involved with funding the construction of publicly owned sewage

2. Id. § 407.
4. Id. at 489–90.
treatment works. With an increase in industrialization, however, the goal of protecting the nation’s waters from chemical contamination received greater attention, culminating in the enactment of the 1948 Federal Water Pollution Control Act. While Congress designed the 1948 Act to control water pollution, implementation was through state-led, water quality–based efforts, with the federal role mainly confined to supporting research and financing of treatment plants. Congress tasked state governors to enforce the Act by using a cumbersome conference procedure, which consisted of (1) a conference of all affected state and interstate water pollution control agencies, with or without the polluter; (2) a recommendation by the Federal Water Pollution Control Administration (FWPCA) (a predecessor to the U.S. Environmental Protection Agency (EPA)) to the state agency to take a specific action within six months; and (3) a formal hearing before a board appointed by the FWPCA administrator, with the polluter called to the hearing, in the event that the problem was not resolved by the state. Thereafter, the Act left enforcement to the discretion of the FWPCA administrator: if the polluter declined to take abatement measures, the administrator could, but was not required to, request that the attorney general bring a suit for abatement on behalf of the United States. The attorney general similarly had discretion as to whether to proceed with the action. As of 1971, only 50 informal conferences had been held nationwide, only four matters proceeded through the conference procedure to the administrative hearing stage, and only one case went to court. Congress attempted to bolster the 1948 Act with the Water Quality Act of 1965, which required each state and territory to develop standards for water quality within its state boundaries by July 1, 1967. More than four years after that deadline, however, only half of the jurisdictions had fully approved standards. Without water pollution control standards for these jurisdictions, no adequate federal enforcement was possible.

By 1970, however, an environmental consciousness had begun to emerge in the United States: the percentage of citizens who cited “cleaning up air and water” as one of their top three political priorities rose from 17 percent in 1965 to 53 percent

In 1970, a shift that was symbolized by the first Earth Day in 1970. The movement derived in part from a number of significant national pollution events, including the January 1969 oil spill off the coast of Santa Barbara, California, and the June 1969 fire in the heavily polluted Cuyahoga River in Ohio. Many of the nation’s waterways had become severely polluted, with those near urban areas unfit for most purposes, and rivers, lakes, and streams were being used for waste disposal rather than to support human life and health. In response to these developments, the Subcommittee on Air and Water Pollution (under the Senate Committee on Public Works) held hearings in 1970 and 1971. The Committee found that “the national effort to abate and control water pollution has been inadequate in every vital aspect.” Based on these findings, Congress in 1972 implemented a major overhaul of the 1948 Act, known as the Clean Water Act. In urging President Nixon—whose veto of the legislation ultimately was overridden—to approve the amendments, then-EPA Administrator William Ruckelshaus wrote: “More so than any other, water is our most important resource. It sustains our industry, our farms, our commerce, our enjoyment, and our lives. It is also most unforgiving if it is abused. The effects linger and, if continued, multiply.”

2.2 The 1972 Amendments: The New Clean Water Act

Congress’s stated objective in enacting the new Clean Water Act was to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” The legislation represented a shift in regulatory philosophy from a focus on water quality standards established by states to a focus on nationwide “clean waters” approach through institution of uniform technology-based...
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standards as a function of industrial categories and classes. The Act established a number of goals and benchmarks, including the elimination of all discharges of pollutants into waters by the year 1985. More specifically, the 1972 Amendments endeavored to

- obtain a level of water quality that was protective of fish, wildlife, and recreational use of water by July 1, 1983;
- provide increased federal financial assistance to construct publicly owned treatment works;
- develop and implement waste treatment management planning processes in each state;
- provide funds for research and development for technology to eliminate the discharge of pollutants; and
- develop and implement programs for the control of non-point sources of pollution.

The amendments included three key features to achieve these goals. First, the Act included a prohibition against discharges of any pollutant into the waters of the United States absent specific authorization, which primarily came through the National Pollutant Discharge Elimination System (NPDES). As discussed further in chapter 3, NPDES provides for the issuance of permits for the discharge of allowable pollutants subject to certain effluent limits. NPDES permits are primarily issued to industrial dischargers and publicly owned treatment works (POTWs). Second, the 1972 amendments outlined pretreatment standards for “indirect dischargers,” or those who discharge to a POTW rather than directly into navigable waters. Third, the Act became federally enforceable, and shifted both the determination of the level of allowable discharges and the permitting process from states to EPA.

15. See Frank P. Grad, Treatise on Environmental Law ch. 3, § 3.03, at 3-100.1 to 3-101 (2001 ed.) [hereinafter Grad Treatise].
20. States can be authorized to take over the permitting process only where the state has satisfied prescribed conditions. As of January 2012, only four states—Idaho, Massachusetts, New Hampshire, and New Mexico—lack NPDES permitting authority. Moreover, American Samoa, the District of Columbia, Guam, Johnston Atoll, Midway Island, the Northern Mariana Islands, Puerto Rico, and Wake Island do not have NPDES permitting authority. See EPA, NPDES: State Program Status, http://cfpub.epa.gov/npdes/statestats.cfm.
2.2.1 Effluent Limitations

In conjunction with the NPDES process, the 1972 amendments provided for uniform, technology-based effluent limitations to all discharges of pollutants, to be determined by the EPA administrator for various classes and categories dischargers. The amendments contemplated implementation of these effluent limits in two stages: by 1977, effluent limits for industrial dischargers would be based on the best practicable control technology currently available (BPT); and by 1983, they would be based on a more stringent standard known as best available technology economically achievable (BAT). Congress similarly bifurcated implementation of the effluent limits for POTWs, calling for “secondary treatment” by 1977\(^2\) and for limits based on “best practicable waste treatment technology” by 1983. The 1972 amendments also authorized EPA to require more stringent limits where specific water bodies could not otherwise achieve desired water quality standards.

2.2.2 Water Quality–Based Program

In addition to the technology-based requirements described in section 2.2.1, the 1972 Amendments created a comprehensive, complementary water quality–based program. This program included the establishment of national water quality standards, procedures for establishing total daily maximum loads for impaired waters, and a continuous state planning process for protection of water quality.

2.2.3 Monitoring and Enforcement of the Clean Water Act

Another significant change from the 1948 Act was the authorization of states, the federal government, and citizens to enforce the prohibitions in the Act. The Clean Water Act’s auditing mechanisms, which are mainly self-reporting requirements but which can also include site inspections by regulatory agencies, provide

\(^2\) Primary treatment refers to the physical treatment through settling, filtration, and other means. Secondary treatment is more advanced and usually includes biological treatment of sewage.
the basis for enforcement actions that can be brought to obtain civil and criminal penalties as well as injunctive relief.

2.2.4 Construction Grant Programs

The 1972 Amendments also established a grant program to fund up to 75 percent of the costs of construction of sewage treatment plants around the country.

2.3 The 1977 Amendments

Congress amended the Clean Water Act in 1977. The amended Act required that BAT limitations for toxic pollutants and best available conventional pollutant control technology (BCT) limitations for conventional pollutants be achieved by July 1, 1984. The 1977 Amendments also added provisions for best management practices, removal credits for pretreatment standards, and modifications of BAT requirements for nontoxic pollutants. Finally, the 1977 Amendments emphasized that the states bear the initial responsibility for management and enforcement, with EPA having ultimate enforcement authority.22

2.4 The 1987 Amendments and the Clean Water Action Plan

The 1987 Amendments phased out the construction grants program and introduced the State Revolving Fund (SRF), designed to finance not only municipal wastewater collection and treatment facilities but also improvements in urban stormwater and nonpoint source management practices, estuarine, and groundwater protection programs and sanitary sewer overflow control projects. Since its inception, the SRF has extended assistance in the form of more than 24,000 low-interest loans, aggregating over $74 billion.23

22. See Grad Treatise, supra note 15, ch. 3, § 3.03, at 3-103.
Another significant component of the 1987 Amendments was the enactment of the Water Quality Act of 1987, which strengthened the regulation of point source stormwater discharges, an area that had not been adequately addressed in the Clean Water Act. The Water Quality Act created a two-phase approach to regulating stormwater. The first phase, for which EPA issued regulations in 1990, regulated stormwater discharged from point sources relating to industrial activity, large municipal sources, or other sources that are significant contributors of pollution. The second phase required regulation of all other stormwater discharges no earlier than October 1, 1994. EPA promulgated these regulations in December 1999.

In 1998, President Clinton announced the Clean Water Action Plan, intended to create a coordinated effort among federal, state, tribal, and local communities and individuals and businesses to focus on water quality standards and protections. The plan’s objective was to view water quality from a watershed approach and to emphasize “the function and condition of watersheds; the incorporation of watershed goals in federal agency planning and programs; the enhancement of pollution prevention; the improvement of monitoring; the restoration of watersheds; the identification of waters of exceptional value; and the expanding collaboration among federal agencies, states, tribes, and interested stakeholders.” The plan was, for the most part, not implemented.

26. The original moratorium on permitting stormwater discharge for phase two point sources was to end October 31, 1992; this was extended to October 1, 1994.
29. See GRAD TREATISE, supra note 15, ch. 3, § 3.03[2][a-2], at 3-112.
2.5  The Oil Pollution Act of 1990

In response to the March 24, 1989, Exxon Valdez spill, during which over 11 million gallons of crude oil were released into Alaska’s Prince William Sound, Congress began to evaluate the adequacy of the Clean Water Act to address releases of oil from vessels and offshore facilities. The Senate Committee on Environment and Public Works determined that, under pre-Valdez law, costs associated with releases of oil were relatively low, and the oil industry treated such expenditures as an accepted cost of doing business. Thus, Congress lacked an effective statutory tool to encourage greater industry efforts to prevent spills.\(^{31}\) In recognition of this circumstance, Congress enacted the Oil Pollution Act of 1990 (OPA) to provide authority for the determination of liability, cleanup, and penalties for oil pollution. Congress also created the Oil Spill Liability Trust Fund\(^{32}\) to pay for spill cleanup and to compensate injured parties. While OPA legislatively is distinct from the Clean Water Act, it represents a significant development in the history of water pollution regulation and, as discussed in chapter 9, is closely related to section 311 of the Clean Water Act, which also addresses oil spills.

2.6  The Clean Water Act at 40

In 1969, Ohio’s Cuyahoga River was so filled with oily waste and industrial pollution that it caught fire; Time magazine described it as the river that “oozes rather than flows.” Today, the Cuyahoga is known as the “river of recovery” due to restoration efforts over the last four decades.\(^{33}\) As the Clean Water Act has passed its fortieth anniversary, the improvements to the quality of American waterways are both significant and measurable. For example, 60 percent more Americans were served by POTW facilities in 2008 than in

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32. The Oil Spill Liability Trust Fund was established by 26 U.S.C. § 9509 and is funded in large part by revenue received under 26 U.S.C. § 4611, which taxes certain refiners of crude oil and distributors of petroleum products. See 26 U.S.C. § 9509(b)(1).
33. See Christopher Maug, From the Ashes of ’69, a River Reborn, N.Y. TIMES, June 20, 2009, at A18.
1968. Moreover, in a study of U.S. lakes from the 1970s to 2007, half the surveyed lakes featured reductions in nutrient concentrations, while 25 percent showed improved trophic status.

When the Clean Water Act was enacted, the Potomac River was too dirty to swim in, Lake Erie was dying, and the Cuyahoga River was so polluted it burst into flames. Many rivers and beaches were little more than open sewers. Enactment of the CWA dramatically improved the health of rivers, lakes, and coastal waters. It stopped billions of pounds of pollution from fouling the water and doubled the number of waterways safe for fishing and swimming. Today, many rivers, lakes, and coasts are thriving centers of healthy communities.

Despite these achievements, deteriorated conditions remain in many waterways. Section 305 of the Clean Water Act requires states to report the quality and characteristics of navigable waters within their boundaries to EPA every two years. EPA compiles the information into the National Water Quality Inventory. In its report for 2010, EPA determined that 378,504 miles of streams and rivers, more than 10.3 million acres of lakes, reservoirs, and ponds, and 18,564 square miles of bays and estuaries were “impaired,” or incapable of supporting one or more of their designated uses due to pollution. The leading causes of this impairment included bacteria, nutrients, polychlorinated biphenyls, metals (primarily mercury), and oxygen depletion. The primary sources of these impairments were agricultural runoff, atmospheric deposition, municipal discharges and sewage, and urban runoff.

Thus, while the Clean Water Act has played a pivotal role in reducing water pollution in the United States, continued implementation and enforcement of the requirements of the Act will be essential for further progress to be made.

35. See id.
38. See National Summary of State Information, Reporting Year 2010, http://www.epa.gov/waters/ir/ (under “Search for Water Quality Information,” choose 2010 from “Reporting Year” pull-down box). These data are available for less than 30 percent of the nation’s waters (37 percent in the case of bays and estuaries). Even greater impairment is likely among the waters not monitored.
39. See id.