1 Executive Summary

The Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA),[1] is the primary federal statute regulating water pollution, with the goal of protecting the water resources of the United States. The CWA is intended to protect the quality of lakes, streams, and other waters for recreational use, maintenance of aquatic life, and use as drinking water sources.[2]

Although, as discussed in Chapter 2, the Clean Water Act's beginnings are founded in 19th-century law, major revisions enacted in 1972 formed the basis of today's Clean Water Act. The CWA is comprehensive in its coverage of discharges of pollutants into the waters of the United States, its stated goal being to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[3] It is a complex statute that addresses various pathways by which pollutants are discharged into the nation's waters, covering municipal discharges of domestic wastewater, both treated and untreated, that contain biological and other pollution; the discharge by industry of process wastewater containing chemicals and other pollutants; discharges from livestock operations containing animal wastes; the direct and indirect discharge of polluted stormwater from all types of facilities; the filling of waters, especially wetlands, for development; and spills from vessels, pipelines, and industrial facilities.

As described in Chapter 3, the central provision of the Clean Water Act is the prohibition of the "discharge of any pollutant"

1. 33 U.S.C. §§ 1251 *et seq.*
2. Another federal statute, the Safe Drinking Water Act, 42 U.S.C. §§ 300f–300j-27, regulates entities that provide public drinking water.
3. CWA § 101(a), 33 U.S.C. § 1251(a).

into waters of the United States by any person without a permit. This prohibition, set forth in section 301, means that no one is allowed to "add" any "pollutants" (a broadly defined term including such things as solid waste, biological materials, and heat) from a "point source" (encompassing all manners of discrete conveyances) into "navigable waters" (defined as the "waters of the United States," a much debated and litigated term).

The CWA provides for four types of permits, two of which are most prevalent. The first, administered by the U.S. Environmental Protection Agency (EPA), is the National Pollutant Discharge Elimination System (NPDES) permit, which allows certain kinds of discharges of pollutants into the waters of the United States. The NPDES permit process is introduced in Chapter 4, and the standards used to determine limits in NPDES permits are discussed in Chapters 5, 6, and 7. Those standards are both technology-based and water quality-driven. Chapter 5 discusses technology-based standards that, in effect, make it so that a particular type of facility, be it a sewage treatment plant or a steel mill, would have the same discharge limitations wherever it is located. Chapter 6 discusses water quality-driven standards, including antidegradation policies and the concept of total maximum daily loads. Water quality-driven standards potentially effect stricter limitations for facilities that discharge to more polluted waters. Chapter 7 discusses the unique provisions applicable to publicly owned treatment works (POTWs), generally sewage systems owned by municipalities, including pretreatment requirements for industrial facilities that discharge to a POTW (rather than directly into navigable waters).

The second most common permit is for "dredge and fill" discharges. This permit, administered by the U.S. Army Corps of Engineers, is issued under section 404 of the CWA. The wetlands protection programs have been especially controversial because of the tension between protecting wetlands, which have enormous environmental benefits, and allowing the development and use of private property. The protection of wetlands and the issuance of section 404 permits are discussed in Chapter 8.

Oil and hazardous substances have the capacity to create such damaging effects, if discharged, that there are special provisions regulating their handling, reporting, and disposal. These are discussed in Chapter 9.

Chapters 10 and 11 address pollution transported to waters by rain and other wet-weather conditions. Controlling wet-weather discharges is an especially important issue in the protection of water bodies. Nationwide, there are thousands of cases of water quality impairment attributable to polluted stormwater, whether from farmland, streets, parking lots, construction sites, or other sources.[4] Chapter 10 discusses the regulation of wet-weather discharges from point sources, specifically from municipal and industrial sources. In the municipal context, some sanitary sewer systems that are separate from stormwater systems experience unwanted inflow of stormwater into the collection systems, causing the POTW to exceed treatment capacity. The resulting "sanitary sewer overflows" (SSOs) cause discharges of untreated sewage into receiving waters. Other sewer systems, typically in older cities, have combined sewer systems, in which sanitary sewage and stormwater are transported together. These combined systems often have wet-weather discharges of untreated sewage caused by the additional precipitation, referred to as "combined sewer overflows" (CSOs).

The CWA's program for addressing "nonpoint" source discharges, which include such things as agricultural and industrial runoff, is discussed in Chapter 11.

The methods available for ensuring compliance are key to achieving the CWA's water quality goals. The Clean Water Act is essentially a self-monitoring statute; permit holders are required to monitor their discharges and report them to the appropriate regulatory agency. Enforcement tools available to the federal and state governments include civil penalties, injunctive relief, and criminal sanctions. To a certain extent, these tools are also available to citizen plaintiffs seeking to enforce the CWA. The enforcement mechanisms provided for in the CWA are discussed in Chapter 12.

4. *See Impaired Waters and Stormwater*, EPA, https://www.epa.gov/tmdl/impaired-waters-and-stormwater (last updated Nov. 15, 2021).