Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington DC 20515

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September 15, 2022

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Water Resources and Environment
FROM: Staff, Subcommittee on Water Resources and Environment
RE: Subcommittee Hearing on "The Clean Water Act at Fifty: Highlights and Lessons Learned from a Half Century of Transformative Legislation"

PURPOSE

The Subcommittee on Water Resources and Environment will meet on Tuesday, September 20, 2022, at 10:00 a.m. EDT in the Rayburn House Office Building, Room 2167, and via Zoom, to receive testimony on "The *Clean Water Act* at Fifty: Highlights and Lessons Learned from a Half Century of Transformative Legislation." The purpose of this hearing is to examine the *Clean Water Act* in its 50th year of enactment and how the United States is progressing towards its original intent and goals.

BACKGROUND: OVERVIEW OF THE CLEAN WATER ACT

The *Federal Water Pollution Control Act Amendments of 1972*, more commonly known as the *Clean Water Act* (CWA), is the federal government's primary statutory tool for protecting the quality of the nation's surface waters and wetlands.[1]

The basis of the law was enacted in 1948—then called the *Federal Water Pollution Control Act*—and established the first comprehensive statement of federal interest in clean water programs.[2] Yet, at the time, water pollution continued to be viewed as primarily a state and local problem and contemporaneous federal legislation contained "no federally required goals, objectives, limits or even guidelines [and] federal

[1] *Federal Water Pollution Control Act,* 33 U.S.C 1251 et seq.
[2] *See* Gatz, Laura, "Clean Water Act: A Summary of the Law," Congressional Research Service (RL 30030) *updated October 18, 2016*.

involvement was limited to matters involving interstate waters and only with the consent of the state in which the pollution originated."[3] However, even as the federal role expanded over time to include additional intrastate and interstate waters, there was "mounting frustration over the slow pace of pollution cleanup efforts,"[4] including time-consuming enforcement procedures, flawed approaches to determining water quality, and a lack of universal implementation of pollution control technologies, such as sewage treatment.[5]

Due to this limited progress and with bipartisan consensus on the importance of ensuring clean, reliable water, Congress significantly reorganized and expanded the federal clean water authority in 1972.[6] This overwhelmingly popular bill, enacted by a 10-to-1 bipartisan override of former President Nixon's veto, is now commonly referred to as the *Clean Water Act*.[7]

The 1972 CWA established two national goals: the elimination of discharge of pollutants into navigable waters by 1985; and, wherever attainable, the achievement of an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and provides for recreation in and on the water by July 1, 1983 (also known as "swimmable and fishable waters").[8] While the nation has made great progress towards these goals, neither has been met in all waters yet.[9]

To achieve its goals, the *Clean Water Act* has two large areas of emphasis. The first area of emphasis centers on regulatory provisions that impose progressively more stringent technology-based (or water quality-based) requirements on industries and municipalities to reduce or eliminate the discharge of pollutants and to regulate the discharge of dredged or fill materials into wetlands.[10] The second area focuses on funding provisions that authorize federal financial assistance for municipal wastewater treatment plant construction.[11] Planning and financial and technical assistance for various regions and issues are also addressed.[12]

Clean Water Act Permitting Programs

Regulation of Point Sources[13]

Industries must meet technology-based standards based on the type of pollutant discharged and the age of the facility (e.g., "best available technology achievable"). For municipalities, secondary treatment

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[3] *Id.*
[4] *Id.* at 2.
[5] *Id.* In the 1950s and 1960s, water pollution control programs that amended the 1948 statute extended the federal role and federal jurisdiction to include navigable intrastate and interstate waters, as well as established a program of water quality standards requiring states to set standards for interstates waters to determine actual pollution levels and control requirements.
[6] *Id.* According to the Congressional Research Service (CRS), the 1972 *Clean Water Act* did not continue the basic components of previous laws as much as it set up new ones. It set optimistic and ambitious goals, required all municipal and industrial wastewater to be treated before being discharged into waterways, increased federal assistance for municipal treatment plant construction, strengthened and streamlined enforcement, and expanded the federal role while retaining the responsibility of states for day-to-day implementation of the law.
[7] *See* https://www.senate.gov/legislative/vetoes/NixonR.htm. See also 33 U.S.C. §1251 et seq.
[8] *See* Gatz; *Clean Water Act*, Section 101.
[9] *See generally*, National Water Quality Inventory (https://www.epa.gov/waterdata/national-water-quality-inventory-report-congress).
[10] *See* Gatz.
[11] *Id.*
[12] *Id.*
[13] *See generally*, National Pollutant Discharge Elimination System (NPDES) Basics, https://www.epa.gov/npdes/npdes-permit-basics.

(defined in regulation as an 85 percent reduction in certain conventional pollutant concentrations as well as maintaining pH levels within a certain range) must be achieved.[14] Additional limitations may also be imposed on dischargers where pollution levels in receiving waters continue to be too high to protect the receiving water's designated uses; this is accomplished through water quality-based effluent limitations.[15]

The Environmental Protection Agency (EPA) is responsible for defining what the required level of treatment is for municipalities and for each type of industry to meet its standards.[16] EPA also must develop water quality criteria, specifying the maximum concentrations of pollutants permitted for different designated uses of waters.[17]

These requirements are implemented and enforced through permits. All point source dischargers that discharge pollutants directly into jurisdictional waters must obtain a permit for that discharge either from EPA or a state if the state has an EPA-approved permitting program.[18] Permits are based on both technology requirements and water quality impacts and set the concentration and amount of pollutants allowed to be discharged.[19]

A state may implement its own permit program in lieu of the federal program if it meets specified requirements and has EPA approval of the state's program.[20] Currently, 47 states have EPA-approved point source discharge permit programs under section 402 of the *Clean Water Act*.[21]

Indirect dischargers, those that discharge to publicly owned treatment works (POTWs) rather than directly into waters, must meet pre-treatment standards similar to those established for direct industrial discharges because POTWs traditionally are designed primarily for the treatment of domestic sewage.[22] Pre-treatment requirements are either enforced by the POTW or by state or federal authorities.[23]

The *Clean Water Act* also establishes a program for regulating stormwater dischargers and regulates discharges from concentrated animal feeding operations.[24] The law includes several enforcement provisions, authorizing administrative, civil, and criminal penalties, as well as citizen suits.[25]

Programs to Address Non-Point Sources of Pollution[26]

Section 319 of the act provides federal financial assistance, in the form of grants, to encourage and assist states in the control of nonpoint sources of water pollution. This provision requires states to identify areas not meeting water quality standards because of nonpoint sources of pollution and to develop programs, as necessary, if states are to receive implementation grants. Notwithstanding the expiration of the

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[14] Secondary Treatment Regulation, 40 CFR § 133.102 https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-133.
[15] Water Quality Standards, 40 CFR § 131.22 EPA promulgation of water quality standards.
[16] https://www.epa.gov/npdes/npdes-permit-basics.
[17] *Clean Water Act; See* Gatz.
[18] https://www.epa.gov/npdes/npdes-permit-basics.
[19] https://www.epa.gov/npdes/npdes-permit-basics.
[20] https://www.epa.gov/npdes/npdes-state-program-authorization-information.
[21] *See generally*, NPDES State Program Authority, https://www.epa.gov/npdes/npdes-state-program-authority.
[22] https://www.epa.gov/npdes/national-pretreatment-program-overview.
[23] https://www.epa.gov/npdes/national-pretreatment-program-overview.
[24] 40 CFR § 412, 68 FR 7269, Feb. 12, 2003 as amended.
[25] 33 USC § 1319.
[26] *See generally*, 319 Grant Program for States and Territories, https://www.epa.gov/nps/319-grant-program-states-and-territories.

authorization for grants, the nonpoint source program has continued to receive appropriations for state implementation efforts.

Regulation of Dredge and Fill Activities in Jurisdictional Waters[27]

Section 404 of the *Clean Water Act* requires a separate type of permit to dispose of dredged or fill materials in jurisdictional waters (including wetlands). Disposal activities in such waters is regulated under this program to include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities). An individual permit is required for potentially significant impacts.[28] Individual permits are reviewed by the U.S. Army Corps of Engineers (Corps) or an approved state or Tribal program, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines regulations promulgated by EPA.[29]

Wastewater Infrastructure Financing[30]

Titles II and VI of the *Clean Water Act* provide authority for grants to states and municipalities and the establishment of clean water state revolving loan funds, respectively, for the construction of treatment works. The Construction Grants program contained in Title II was phased out in favor of state revolving loan funds in *the Water Quality Act of 1987* (PL 100-4). For the Construction Grants program, Congress appropriated approximately $60 billion over the life of the program.[31]

Through the Clean Water State Revolving Fund ("CWSRF") program, each state and Puerto Rico maintain revolving loan funds to provide low-cost financing for approved water quality infrastructure projects. Funds to establish or capitalize the CWSRF programs are provided through federal capitalization grants and state matching funds (generally equal to 20 percent of federal grants). State revolving funds ("SRFs") are available to make low-interest loans, buy or refinance local debt, subsidize or insure local bonds, make loan guarantees, act as security or guarantee of state debt, earn interest, and pay administrative expenses. SRF monies may also be used to implement other water pollution control programs such as nonpoint source pollution management and the national estuary program.[32]

In 2021, Congress reauthorized federal appropriations for the Clean Water SRF program through enactment of the *Infrastructure Investment and Jobs Act (IIJA)*.[33] The *IIJA* provided $11.7 billion over five years for the Clean Water SRF program, and an additional $1 billion for the Clean Water SRF to specifically address "emerging contaminants".

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[27] *See* Gatz; *see also generally*, Permit Program under CWA Section 404, https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404.
[28] 33 U.S.C. § 1344(e)(2).
[29] *See id.* Today, only the states of Michigan, New Jersey, and Florida have approved section 404 programs. See also, Clean Water Act 404(b)(1) guidelines, located at 40 CFR 230.
[30] *See* Gatz; see also, Learn about the Clean Water State Revolving Fund (CWSRF), https://www.epa.gov/cwsrf/learn-about-clean-water-state-revolving-fund-cwsrf.
[31] *See* https://www.epa.gov/enviro/igms-construction-grants-overview.
[32] 33 U.S.C. § 1383.
[33] Pub. L. 117-58; *see also*, "Fact Sheet: EPA & The Bipartisan Infrastructure Law" (https://www.epa.gov/infrastructure/fact-sheet-epa-bipartisan-infrastructure-law).

Other Authorities

The *Clean Water Act* contains several targeted programs and authorities that were designed to improve water quality throughout the country.

The National Estuary Program authorizes federal financing for the development and implementation of comprehensive conservation and management plans for improving the overall ecological health of the nation's estuaries.[34]

In addition, the *CWA* authorizes several targeted programs for improving regional water quality in the areas of the Chesapeake Bay, Great Lakes, Long Island Sound, Lake Champlain, Lake Pontchartrain Basin, and for the management of wet weather discharges and stormwater best management practices.[35]

The *IIJA* provided renewed federal appropriations for several *Clean Water Act* authorities, including $1.7 billion for regional *CWA* programs and $132 million for the National Estuary Program.[36]

CURRENT ISSUES

The successes and future challenges of the *Clean Water Act* can be succinctly stated. In 1972, only one-third of the nation's waters met water quality goals. Today, while two-thirds of those waters do meet water quality goals, one-third still remain impaired.[37]

Much of the success of *the Clean Water Act* can be attributed to the increased number of municipal sewage treatment plants constructed to address point source pollution. From 1972 to the present, the federal government invested over $100 billion in construction of these systems, with the initial $60 billion provided by the initial *Clean Water Act* construction grant program, and an additional approximately $50 billion in federal capitalization grants through the Clean Water SRF program.[38] In addition, the *Clean Water Act*'s permit programs have substantially reduced pollution from municipalities and industrial dischargers, further improving water quality across the nation.

However, future challenges remain. First, according to EPA's most recent Clean Water Needs Survey, total capital wastewater and stormwater treatment and collection needs for the nation are $271 billion.[39] This includes capital needs for publicly owned wastewater pipes and treatment facilities ($197.8 billion), combined sewer overflow correction ($48.0 billion), stormwater management ($19.2 billion), and recycled water treatment and distribution ($6.1 billion).[40]

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[34] https://www.epa.gov/nep/overview-national-estuary-program.
[35] 33 U.S.C. § 1267 et seq.
[36] *See* Pub. L. 117-58. See also, "Fact Sheet: EPA & The Bipartisan Infrastructure Law" (https://www.epa.gov/infrastructure/fact-sheet-epa-bipartisan-infrastructure-law).
[37] *See generally*, National Water Quality Inventory (https://www.epa.gov/waterdata/national-water-quality-inventory-report-congress).
[38] *See* Ramseur, Jonathan, Federally Supported Projects and Programs for Wastewater, Drinking Water, and Water Supply Infrastructure, Congressional Research Service (R46471), *updated August 2, 2022*.
[39] *See* https://www.epa.gov/cwns/clean-watersheds-needs-survey-cwns-2012-report-and-data.
[40] *Id.*

In addition, nonpoint sources of pollution continue to be identified by states as a leading source of impairment to the nation's rivers, streams, and lakes.[41] Nonpoint source pollution comes from diffuse sources, rather than a more distinct point source like a discharge pipe.[42] Nonpoint pollution sources include agricultural and urban runoff, silviculture, and construction, transportation, and recreational activities.[43]

Further, there are ongoing questions regarding the jurisdictional scope of *the Clean Water Act* following two U.S. Supreme Court decisions, *Solid Waste Agency of Northern Cook County v. Corps of Engineers* ("*SWANCC*") (2001) and *Rapanos et ux., et. al. v. United States* ("*Rapanos*") (2006), as well as changes to agency regulations and guidance documents interpreting the scope of *Clean Water Act* jurisdiction.[44] The Supreme Court also decided to take up a case this term concerning what is considered the definition of "water of the United States" under *the Clean Water Act* and granted certiorari to *Michael Sackett, et ux., Petitioners v. Environmental Protection Agency, et al. ("Sackett").*[45] Oral arguments will be heard on October 3, 2022.

In addition, in the current Congress, the subcommittee has held several hearings and meetings related to other ongoing challenges to addressing local water quality including the issue of emerging contaminants, including PFAS-related chemicals[46] and the issue of harmful algal blooms.[47]

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[41] *See* https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution.
[42] *Id.*
[43] *Id.*
[44] *See generally*, Gatz, Laura, Redefining *Waters of the United States* (WOTUS): Recent Developments, Congressional Research Service (R42967), *updated July 8, 2022*.
[45] Sackett v. EPA, Case No. 21-454.
[46] *See generally*, Subcommittee hearing on "Emerging Contaminants, Forever Chemicals, and More: Challenges to Water Quality, Public Health, and Communities", October 6, 2021, https://transportation.house.gov/committee-activity/hearings/emerging-contaminants-forever-chemicals-and-more-challenges-to-water-quality-public-health-and-communities.
[47] *See generally*, Subcommittee roundtable on "Local Perspectives: Combating Harmful Algal Blooms in the Garden State", July 22, 2022, https://transportation.house.gov/committee-activity/hearings/local-perspectives-combating-harmful_algal-blooms-in-the-garden-state.

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