Realigning the Clean Water Act: Comprehensive Treatment of Nonpoint Source Pollution

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Nonpoint source pollution is the biggest threat to water quality in the United States today. This Article argues for stronger federal controls over nonpoint source pollution. It begins by examining the history of water quality regulation in the United States, including the passage and amendment of the Clean Water Act and the evolving definition of "navigable waters" over time. The Article then discusses recent rulemaking and litigation developments, including the Clean Water Rule, the Navigable Waters Protection Rule, and the County of Maui, Hawaii v. Hawaii Wildlife Fund *case. It offers three recommendations. First, the Article calls for a congressional amendment to the Clean Water Act to require binding controls on nonpoint source pollution. Second, recognizing that an amendment to the Clean Water Act may not be politically viable, it offers an approach for controlling nonpoint source pollution through an amendment to the Safe Drinking Water Act. Finally, it identifies tools that interested states, local governments, and citizens' groups can utilize to take action on nonpoint source pollution under existing law. This Article concludes that reductions in nonpoint source pollution will lead to significant improvements in the water quality of our nation's lakes, rivers, wetlands, and coastal areas, to the benefit of human and environmental health.*

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INTRODUCTION

As we approach the fiftieth anniversary of the passage of the Clean Water Act,[1] the majority of waterbodies in the United States fail to meet the Act's water quality standards.[2] Certainly, there are many Clean Water Act success stories—cleanups of the *Cuyahoga* River in Ohio, the Charles River in Massachusetts, and Lake Erie are notable examples—and more waterbodies are safe for

1. 33 U.S.C. §§ 1251–1387.

2. According to the U.S. Environmental Protection Agency (EPA), 53 percent of rivers and streams (in miles), 71 percent of lakes and ponds (in acres), 79 percent of bays and estuaries (in square miles), and 72 percent of coastal shoreline (in miles) in the United States are currently impaired. *See National Summary of State Information*, EPA, https://iaspub.epa.gov/waters10/attains_nation_cy.control (last visited Apr. 26, 2021).

swimming and fishing than ever before. In fact, the Clean Water Act is often regarded as one of the most effective federal environmental laws.[3]

Much of its success can be attributed to the Clean Water Act's relatively strong control over point source pollution, such as effluent from factories and wastewater treatment plants. But the Clean Water Act has always been limited in its ability to address nonpoint source pollution, such as agricultural stormwater discharges and return flows from irrigated agriculture. States are largely left to regulate, or not regulate, nonpoint pollution as they see fit, and few have implemented robust controls over nonpoint sources. As a result, nonpoint source pollution is the leading cause of water quality problems in the United States today.[4]

The Clean Water Act regulates discharges of pollution into "navigable waters," which it also refers to as "waters of the United States."[5] As discussed in detail below, this regulatory scope is derived from the federal government's authority to oversee interstate commerce pursuant to the Commerce Clause of the U.S. Constitution. The U.S. Environmental Protection Agency (EPA) is the lead federal agency charged with implementing the Clean Water Act; the U.S. Army Corps of Engineers (ACE) also plays a role in issuing some permits. Because it has been politically impossible to amend the Clean Water Act to give it additional "teeth" to address nonpoint source pollution directly,[6] EPA and ACE have at times attempted to do so in an indirect manner, by expanding the definition of "navigable waters" to, in essence, capture some nonpoint source discharges. Courts have mostly played along, perhaps recognizing the many environmental benefits that result from this imperfect, and arguably overreaching, approach.

Most recently, this strategy was seen in the Obama administration's Clean Water Rule, which amended the Code of Federal Regulations to broaden the definition of "navigable waters."[7] Upon taking office, President Trump instituted a series of actions to repeal the Clean Water Rule and replace it with the much narrower Navigable Waters Protection Rule.[8] Both rulemakings generated

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3. *See* James Salzman, *Why Rivers No Longer Burn*, SLATE (Dec. 10, 2012), https://slate.com/technology/2012/12/clean-water-act-40th-anniversary-the-greatest-success-in-environmental-law-made-rivers-stop-burning.html.

4. *See generally* Sisi Li et al., *Worldwide Performance and Trends in Nonpoint Source Pollution Modeling Research from 1994 to 2013 A Review Based on Bibliometrics*, 69 J. SOIL & WATER CONVERSATION 121, 121–26; *see also Polluted Runoff Nonpoint Source (NPS) Pollution*, EPA, https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution (last visited Apr. 26, 2021) ("States report that nonpoint source pollution is the leading remaining cause of water quality problems.").

5. Clean Water Act, 33 U.S.C. § 1362(7) (2018); 33 C.F.R. § 328.3(a) (2018).

6. *See* William L. Andreen, *Success and Backlash The Remarkable (Continuing) Story of the Clean Water Act*, 4 GEO. WASH. J. ENERGY & ENV'T L. 25, 26–27 (2013).

7. Clean Water Rule, 80 Fed. Reg. 37,054 (June 29, 2015) (Final Rule).

8. Navigable Waters Protection Rule, 84 Fed. Reg. 56,626 (Oct. 22, 2019) (repealing the Clean Water Rule and re-codifying the regulation that was in place prior to issuance of the Clean Water Rule, effective as of December 23, 2019); 85 Fed. Reg. 22,250 (Apr. 21, 2020) (finalizing a new definition of

hundreds of thousands of public comments[9] and numerous lawsuits from stakeholders on all sides of the issue.[10] Some of these lawsuits are pending today, despite efforts by the Biden administration to stay the proceedings so that it can develop its own regulatory proposal[11] (which will, almost certainly, also end up in federal court).

In parallel with these developments regarding the definition of "navigable water," federal and state courts have also begun to revisit the definitions of "point source" and "nonpoint source" pollution, somewhat blurring the lines between the two. In April 2020, the Supreme Court held in *County of Maui, Hawaii v. Hawaii Wildlife Fund* that when a nonpoint discharge is the "functional equivalent" of a point source discharge, it must be regulated as a point source under the Clean Water Act.[12] While a major win for environmental quality, *County of Maui*'s vague "functional equivalent" standard will no doubt lead to more uncertainty and confusion among regulators and industry.

This Article offers recommendations for closing the nonpoint source regulatory gap. Part I examines the history of water quality regulation in the United States, including the passage and amendment of the Clean Water Act and the evolving definition of "navigable waters" over time. Part II discusses recent rulemaking and litigation, including the Clean Water Rule, the Navigable Waters Protection Rule, and the *County of Maui* case. Part III offers three recommendations: (1) Congress should amend the Clean Water Act to require binding controls on nonpoint source pollution, (2) if a Clean Water Act amendment is not politically viable, Congress should address nonpoint source pollution through an amendment to the Safe Drinking Water Act, and (3) interested states, local governments, and citizens' groups should continue to take action on nonpoint source pollution using tools available under existing law. This Article concludes that reductions in nonpoint source pollution will lead to significant improvements in the water quality of our nation's lakes, rivers, wetlands, and coastal areas, to the benefit of human and environmental health.

"waters of the United States," effective as of June 22, 2020). *See Navigational Waters Protection Rule Rulemaking Process*, EPA, https://www.epa.gov/nwpr/rulemaking-process (last visited Apr. 26, 2021).

9. *See generally* Alan Neuhauser, *EPA Broadens Clean Water Regulations*, US NEWS (May 27, 2015), https://www.usnews.com/news/articles/2015/05/27/epa-expands-clean-water-regulations ("EPA held more than 400 meetings with outside groups and received more than 1 million public comments about the [Clean Water Rule]"); Kelsey Brugger, *White House Spills Red Ink on Secret Science' Rule*, E&E NEWS (Mar. 10, 2020), https://www.eenews.net/stories/1062568573 (noting that more than 600,000 public comments had been filed regarding EPA's repeal of the Clean Water Rule).

10. *See generally* Timothy Cama, *27 States Challenge Obama Water Rule in Court*, THE HILL (June 30, 2015), https://thehill.com/policy/energy-environment/246539-27-states-challenge-obama-water-rule-in-court; Pamela King & Hannah Northey, *Who's Suing over Trump's WOTUS Rule?*, E&E NEWS (June 24, 2020), https://www.eenews.net/stories/1063446011.

11. *See* Jeremy P. Jacobs & Pamela King, *Biden Races Courts for Chance to Torpedo Trump Water Rule*, GREENWIRE (Apr. 28, 2021), https://www.eenews.net/greenwire/stories/1063731207; Jeremy P. Jacobs & Pamela King, *10th Circuit Rejects Biden Bid to Stop WOTUS Case*, GREENWIRE (Mar. 2, 2021), https://www.eenews.net/greenwire/stories/1063726399.

12. Cnty. of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020).

I. THE HISTORY OF WATER QUALITY REGULATION IN THE UNITED STATES

This Part chronicles the development of water quality regulations in the United States and includes a comprehensive review of case law and legislation, including the Clean Water Act. The evolving meaning and importance of the term "navigable waters" is analyzed throughout this narrative. This Part offers insights into the historical underpinnings of some of the challenges faced in water regulation today.

A. Navigability and the Commerce Clause

Although the public today thinks of water quality regulation as relating to discharges of pollutants, the first statutes and public law cases dealing with water quality pertained to dumping of debris that could impair navigability. Those legal origins have had a profound effect on the nature of water quality regulation in the United States, which continues to manifest in the present day.

The 1824 case of *Gibbons v. Ogden* first established the jurisdiction of the federal government over U.S. waterbodies. The State of New York had granted two steamship operators sole rights to serve certain passenger routes between New York and New Jersey, and rival steamship operators sued. The Supreme Court held that the federal government has the exclusive power to regulate interstate commerce pursuant to the Commerce Clause of the U.S. Constitution.[13] The Commerce Clause authorizes Congress "to regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes."[14] The Court found that, because many goods and services in interstate commerce are transported or performed by vessel, Congress can regulate the waterbodies where vessels may travel.[15]

In the 1865 case of *Gilman v. City of Philadelphia*,[16] the Supreme Court affirmed that Congress has the power to regulate navigable waters under the Commerce Clause. In this case, the Commonwealth of Pennsylvania had planned to build a bridge across the Schuylkill River. The plaintiff, Gilman, owned a wharf upstream of the proposed bridge. He argued that the bridge would impede navigability and would prevent larger vessels from reaching his business. Gilman sought an injunction from the federal court.[17] In setting forth the legal principles underlying the case, the Supreme Court observed that "[c]ommerce includes navigation" and that navigable waters are the "public property of the nation, and

13. Gibbons v. Ogden, 22 U.S. 1 (1824).

14. U.S. CONST. art. I, § 8.

15. *Gibbons*, 22 U.S. at 67 ("These [state] laws were also void, because they interfere with the power given to Congress, to regulate commerce with foreign nations and among the several States. This nullity of the State laws would be supported, first, upon the ground of the power being exclusive in Congress; and, secondly, that if concurrent, these laws directly interfered with those of Congress on the same subject.").

16. Gilman v. City of Philadelphia, 70 U.S. 713 (1865).

17. *Id.* at 719–20.

subject to all the requisite legislation by Congress."[18] It stated that Congress has the "power to keep [navigable waters] open and free from any obstruction to their navigation, interposed by the States or otherwise . . . ."[19] The Court, however, found that Congress had not actually enacted any legislation that would have prohibited construction of the bridge and therefore would not enjoin its construction.[20]

Although *Gibbons* and *Gilman* both emphasized federal jurisdiction over navigable waters, neither actually defined the term "navigable waters."

The first case that specified criteria for navigability was *The Daniel Ball*, in 1870.[21] The owner of the steamship Daniel Ball argued that the Grand River in Michigan was "not a navigable water"[22] and that therefore his vessel was not subject to federal licensing or inspection requirements when travelling on it. The Supreme Court established a test for navigability of waterbodies that focuses on navigability-in-fact:

> Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.[23]

The Court found that the Grand River was navigable-in-fact and therefore the Daniel Ball needed to comply with federal licensing and inspection requirements.[24]

While it may have seemed in the 1800s that the rationale of invoking the Commerce Clause to address navigability was a "stretch" of federal authority, over the past two hundred years it has become evident that the federal government's ability to regulate water quality is in fact limited by the grounding of this ability to regulate in the Commerce Clause and navigability. As public concerns have grown to include not only navigability, but also the quality and integrity of the nation's waters and ecosystems, legislation and regulation have at times struggled to address these issues through their rooting in the Commerce Clause.

B. Early Statutory and Regulatory Developments

The Rivers and Harbors Act of 1899 is often considered to be the nation's first federal environmental law.[25] This Act, which came to be known as the

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18. *Id.* at 724–25.
19. *Id.* at 725.
20. *Id.* at 732.
21. The Daniel Ball (*Daniel Ball*), 77 U.S. 557 (1871).
22. *Id.* at 559.
23. *Id.* at 564.
24. *Id.* at 564–66.
25. *See* Avi Samuel Garbow, *The Federal Environmental Crimes Program The Lorax and Economics 101*, 20 VA. ENV'T L.J. 47 (2001), https://www.jstor.org/stable/24787276?seq=1.

"Refuse Act," made it illegal to deposit refuse into navigable waters without a permit.[26] Although the Act's primary goal was to ensure that navigation was not impeded, it laid the statutory foundation for future regulation of water pollution by introducing permitting requirements for refuse discharges into waterbodies.

It was not until the mid-twentieth century that Congress enacted legislation to address water pollution explicitly. During World War II, water pollution intensified due to increased industrial activity and reduced expenditures on wastewater treatment.[27] In 1948, Congress passed the Federal Water Pollution Control Act, which provided technical assistance to municipal utilities and much-needed funding for upgrades and expansions of municipal wastewater treatment plants.[28] The Act empowered states to set water quality standards for navigable waters. Although groundbreaking in its day, the Federal Water Pollution Control Act had virtually no teeth and was highly deferential to states; there was no requirement for states to set water quality standards, no minimum criteria for water quality standards that were adopted by states, no required limits on pollution discharges, and no real enforcement mechanisms.[29] The Act empowered the surgeon general to investigate reports of interstate water pollution and to take legal action to enjoin discharges that were endangering public health—but only with the consent of the state where the pollution originated.[30] The main significance of the Act was to pave the way for future statutory advances.

To address the burgeoning problem of water pollution, in 1965 Congress passed the Water Quality Act.[31] The Water Quality Act was the first piece of legislation that required states to take action to attempt to limit pollution and improve water quality. It ordered states to identify the intended uses (which the Clean Water Act later termed "designated uses")[32] of all navigable waters within their borders—for example, use for drinking water supply, swimming, or fishing.[33] It further required states to develop water quality standards corresponding to each of the designated uses.[34] Water quality standards could be described with numerical criteria such as maximum concentrations in milligrams per liter or narrative criteria such as free from scum or floating debris. Under the

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26. 33 U.S.C. § 407 (1899) ("It shall not be lawful to throw, discharge or deposit . . . any refuse matter . . . into any navigable water of the United States.").

27. *See Pollution of Navigable Waters Hearings on H.R. 519, H.R. 587, and H.R. 4070 Before the House Comm. on Rivers and Harbors*, 79th Cong. 12 (1945) (testimony of Dr. Thomas Parran, U.S. Surgeon General).

28. Water Pollution Control Act of 1948, Pub. L. No. 80-845, 62 Stat. 1155 (1948) (amended and redesignated as the "Federal Water Pollution Control Act" in 1956); *see also* William L. Andreen, *The Evolution of Water Pollution Control in the United States — State, Local, and Federal Efforts, 1789-1972*, 22 STAN. ENV'T L.J. 215, 241 (2003).

29. *See* Andreen, *supra* note 28, at 236–41.

30. *See id.* at 237.

31. Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 903 (1965).

32. 33 U.S.C. § 1313(c)(2)(A) (2018).

33. Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 908 § 6 (1965).

34. *Id.* at 903 § 5(a).

Act, states were directed to submit their proposed standards to the Federal Water Pollution Control Administration (which the Act established within the Department of Health, Education, and Welfare) for approval.[35] Once a state's water quality standards were approved, the Water Quality Act required the state to develop a plan to abate pollution in order to meet the standards.[36] States were given broad discretion to determine which sources of water pollution would be regulated and to what extent; the Act did not differentiate between point and nonpoint sources.[37]

The Water Quality Act sounded better on paper than it worked in practice.[38] Less than half of the states ended up enacting water quality standards, and the Act did not provide the Federal Water Pollution Control Administration with an effective mechanism to compel states to do so.[39] For the states that did propose standards, the Federal Water Pollution Control Administration's review was largely an exercise in rubber stamping: The Act offered only vague guidance as to the approval criteria, and the Federal Water Pollution Control Administration was quick to sign off on proposed state standards even if they were not stringent enough to support the designated uses.[40] Although a few states did adopt ambitious standards, they struggled to develop and implement plans for reducing pollution and meeting the standards due to a lack of scientific and technical expertise.[41]

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35. *Id.* at 903 § 2.

36. *Id.* at 903 § 5(a).

37. Although the Water Quality Act of 1965 refers generally to "sewage," "storm water," and "other wastes," it defines neither point nor nonpoint sources. *See id*. at 905–06 §§ 6(a)–(b). *See also* Robert D. Fentress, *Nonpoint Source Pollution, Groundwater, and the 1987 Water Quality Act Section 208 Revisited?*, 19 ENV'T L. 807, 816 (1988) ("Indeed, until passage of the Federal Water Pollution Control Act Amendments of 1972 (the Clean Water Act) Congress did not address nonpoint sources at all.").

38. *See generally* H. Edward Dunkelberger, *The Federal Government's Role in Regulating Water Pollution under the Federal Water Quality Act of 1965*, 3 NAT. RES. L. 3, 12–13 (1970) (describing the federal government's limited enforcement powers under the Act); William F. Pederson Jr., *Turning the Tide on Water Quality,* 15 ECOLOGY L.Q. 68, 72 (1988) (same).

39. EPA, NPDES PERMIT WRITERS' MANUAL 2 (1996), *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=20004BM3.PDF ("In 1965, Congress enacted legislation requiring states to develop water quality standards for all interstate waters by 1967. However, despite increasing public concern and increased Federal spending, only about 50 percent of the States had established water quality standards by 1971."); *see also* Andreen, *supra* note 28, at 241.

40. The Water Quality Act specified that:

> standards of water quality . . . shall be such as to protect the public health of welfare, enhance the quality of water and serve the purposes of this Act . . . [taking] into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes and agricultural, industrial, and other legitimate uses.

Water Quality Act of 1965, Pub. L. No. 89-234 § 5(a), 79 Stat. 903, 908 (1965); Pederson, *supra* note 38, at 74 n.23 ("[T]he legal tests these standards had to pass were extremely vague.").

41. A 1971 Senate report explained the technological difficulties experienced associated with implementation of the Water Quality Act of 1965:

> [There is] great difficulty associated with establishing reliable and enforceable precise effluent limitations on the basis of a given stream quality. Water quality standards . . . often cannot be translated into effluent limitations defendable in court tests, because of the imprecision of models for water quality and the effects of effluents in most waters . . . .

While the Water Quality Act was failing to bring about any material improvement to water quality, public awareness of water quality problems continued to grow, perhaps sparked by the Cuyahoga River and Lake Erie fires and the Santa Barbara oil spill, which all took place in 1969.[42] In response to public outcry, Congress passed, by a sweeping majority, the Federal Water Pollution Control Act of 1972, which has come to be known as the Clean Water Act.[43]

C. The Clean Water Act

The Clean Water Act pronounced two ambitious goals: to eliminate pollution discharges in navigable waters by 1985 and for waters to be clean enough "for the protection and propagation of fish, shellfish, and wildlife and . . . for recreation" by 1983.[44] The Clean Water Act is primarily implemented by EPA, with certain sections administered by ACE, as discussed in detail below.

1. Overview of the Clean Water Act

In many ways, the Clean Water Act incorporates the core elements of the Water Quality Act, but it gives them more "teeth" by allowing EPA greater oversight of state and tribal activities related to water quality. The Act is often referred to as a classic example of cooperative federalism, and rightfully so.[45] It sets forth clear(ish) requirements for states to obtain and maintain delegated authority to implement various components of the Act (for example, setting water quality standards and issuing permits), subject to EPA oversight. At present, all states have some form of delegated authority for water quality standard setting (state standards must be at least as strict as the federal minimum

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S. REP. NO. 92-414 (1971).

42. *See* Salzman, *supra* note 3; Keith C. Clarke & Jeffrey J. Hemphill, *The Santa Barbara Oil Spill A Retrospective*, 64 YEARBOOK ASS'N PAC. COAST GEOGRAPHERS 157 (2002).

43. Pub. L. No. 92-500, 86 Stat. 816, 886 (1972) (codified as amended at 33 U.S.C. §§ 1251–1387).

44. *See* 33 U.S.C. § 1251(a)(1)–(2) (2018).

45. *See* Bonnie A. Malloy, *Testing Cooperative Federalism Water Quality Standards under the Clean Water Act*, 6 ENV'T & ENERGY L. & POL'Y J. 63, 74 (2011) ("The historical foundation and operating features of [water quality standards] illustrate the cooperative relationship between the states and EPA, with the states carrying out specified duties under EPA oversight . . . . [Congress's] intent to establish collaborative management of [water quality standards] unmistakable . . . ."); Robin Kundis Craig, *Adapting Water Federalism to Climate Change Impacts Energy Policy, Food Security, and the Allocation of Water Resources*, 5 ENV'T & ENERGY L. & POL'Y J. 183, 207 (2010) ("The Clean Water Act's structured cooperative federalism thus represents a conscious and deliberate federal intervention in an area of water-related law that was traditionally deemed the states'."); Robert L. Fischman, *Cooperative Federalism and Natural Resources Law*, 14 N.Y.U. ENV'T L.J. 179, 189 (2005) ("[C]ooperative federalism involves programs where federal monies are made available to each state contingent on its creation of a regulatory scheme that is at least as stringent as the federal floor. States may tailor federal standards (*e.g.*, water quality criteria under the CWA), . . . implement permit programs (*e.g.*, state pollutant discharge elimination systems under the CWA), and enforce rules (*e.g.*, state administrative and judicial procedures).").

criteria, and often are no stricter)[46] and forty-seven states, one territory, and seventy-three federally recognized Indian tribes have delegated authority to administer one or more Clean Water Act permitting programs.[47]

The Clean Water Act aims to improve the quality of receiving waters by establishing water quality standards through the triad of designated uses, water quality criteria, and anti-degradation provisions.[48] Like the Water Quality Act, the Clean Water Act requires states with delegated authority to establish designated uses for all navigable waters and to set water quality criteria corresponding to the designated uses—and, critically, it directs EPA to set minimum standards which all states must meet or exceed.[49] The Clean Water Act also directs states to control water pollution discharges in order to meet the applicable standards, largely through the issuance of permits.[50] EPA has authority under the Clean Water Act to enforce compliance with the terms of the Act.[51] EPA can issue administrative orders to individual polluters and to states that do not properly implement the Act.[52] It can refer civil enforcement cases to the U.S. Department of Justice (DOJ) for penalties and injunctive relief, and refer criminal cases to DOJ prosecution.[53] The Clean Water Act also empowers members of the public to file citizen suits against alleged violators to seek injunctive relief and recovery of attorney's fees.[54]

2. Point Source Pollution

The Clean Water Act was the first federal water quality law to differentiate between point and nonpoint sources. Point sources are defined under the Act as:

> Any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term

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46. *See State-Specific Water Quality Standards Effective under the Clean Water Act (CWA)*, EPA, https://www.epa.gov/wqs-tech/state-specific-water-quality-standards-effective-under-clean-water-act-cwa (last visited Apr. 26, 2021).

47. *See NPDES State Program Information*, EPA, https://www.epa.gov/npdes/npdes-state-program-information (last visited Apr. 26, 2021); *Tribes Approved for Treatment as State*, EPA, https://www.epa.gov/tribal/tribes-approved-treatment-state-tas (last visited Apr. 26, 2021).

48. *See What Are Water Quality Standards?*, EPA, https://www.epa.gov/standards-water-body-health/what-are-water-quality-standards (last visited Apr. 26, 2021).

49. 33 U.S.C. § 1313 (2018).

50. *Id.* § 1342(b).

51. *Id.* §§ 1319(a), 1319(b), 1319(c), 1319(g).

52. *Id.* § 1319(a).

53. William L. Andreen, *Motivating Enforcement Institutional Culture and the Clean Water Act*, 24 PACE ENV'T L. REV. 67, 69 (2007) ("In addition to setting water quality standards, states may obtain permission to administer and enforce the Act's permit program within their borders. Such state enforcement power, however, is not exclusive. In states with authorized permit programs, EPA's enforcement is concurrent with that of the states."); *see also* 33 U.S.C. § 1319(b) (2018).

54. 33 U.S.C. § 1365 (2018); *see also* Andreen, *supra* note 53, at 84.

> does not include agricultural stormwater discharges and return flows from irrigated agriculture.[55]

The point source definition encompasses most pollution that is discharged through a pipe, such as discharges from wastewater treatment plants and industrial facilities, and discharges of urban stormwater collected through municipal separate storm sewer systems (MS4s).[56] As stated in the definition of point source, and as discussed further below, there are notable exceptions for agriculture. Nonpoint sources, on the other hand, are simply defined as any source of water pollution that is not a point source.[57]

Pursuant to section 402 of the Act, point sources are subject to the National Pollution Discharge Elimination System (NPDES) program and must obtain an NPDES permit before discharging into a "navigable water."[58] The Act states that "navigable water" means the "waters of the United States, including the territorial seas"—without further defining exactly which waters are intended to be subject to federal jurisdiction under the statute.[59] Many have referred to this ambiguity as the "original sin" of the Clean Water Act.[60]

For most point sources, an NPDES permit contains numerical limitations for various pollutants calculated based on factors including the nature and effectiveness of the best available pollution control technology existing at the time, the practicability of implementing pollution controls, and the assimilative capacity of the receiving waters.[61] For municipal wastewater treatment plants, an NPDES permit specifies the level of treatment (primary, secondary, or tertiary) that is required.[62] To begin the process of obtaining a permit, a facility owner or operator applies to the state NPDES permitting authority (or to EPA if the state does not have a delegated NPDES permit program).[63] The permitting authority publishes a notice of preparation of the permit and invites public

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55. 33 U.S.C. § 1362(14) (2018).

56. *See* 40 C.F.R pts. 122–24, 503 (2021); *see also* National Pollution Discharge Elimination System Permit Application Regulations for Storm Water Discharges, 53 Fed. Reg. 49,416 (1988).

57. *See Basic Information about Nonpoint Source Pollution*, EPA, www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution (last visited Apr. 26, 2021) ("The term 'nonpoint source' is defined to mean any source of water pollution that does not meet the legal definition of 'point source' . . . ."); *Ecological Rts. Found. v. Pac. Gas & Elec. Co.*, 713 F.3d 502, 508 (9th Cir. 2013) (citations omitted) (nonpoint source pollution is pollution that "arises from many dispersed activities over large areas," "is not traceable to any single discrete source," and due to its "diffuse" nature, "is very difficult to regulate through individual permits"); s*ee also* Robin Kundis Craig, *Urban Runoff and Ocean Water Quality in Southern California What Tools Does the Clean Water Act Provide*, 9 CHAP. L. REV. 313, 319 (2006) ("By negative implication, any source of water pollution that is not a point source is a nonpoint source.").

58. 33 U.S.C. §§ 1342, 1362(12) (2018).

59. *Id.* § 1362(7).

60. Andrea Driggs et al., *Just Add Water Permitting, State Sovereignty, and the Marble Cake Debacle*, 35 NAT. RES. & ENV'T 45 (2020); *see also* Robert W. Adler & Brian House, *Atomizing the Clean Water Act Ignoring the Whole Statute and Asking the Wrong Questions*, 50 ENV'T L. 45, 47–48 (2020).

61. 33 U.S.C. § 1311(b) (2018).

62. *Id.*

63. 40 C.F.R. §§ 122.21, 124.3 (2021).

comments; the final permit also becomes a public record.[64] In the permitting process, the regulatory agency considers conditions specific to the facility as well as the possible downstream impacts from effluent discharges.[65] If an NPDES permit could affect water quality in a downstream state, the Clean Water Act requires the permitting agency to notify the downstream state before issuing the permit.[66]

3. Nonpoint Source Pollution

Unlike point source pollution, nonpoint source pollution stems from diffuse and numerous sources, making identification and regulation of discharges much harder.

a. Section 208: Areawide Waste Treatment Management Plans

Requirements pertaining to nonpoint source pollution controls were first included in section 208 of the Clean Water Act, which was intended to be a counterpart to the NPDES program.[67] Section 208 called for states to designate agencies to lead water pollution control efforts and ordered these agencies to create Areawide Waste Treatment Management Plans.[68] These plans were to include provisions for controlling nonpoint source pollution, such as that from agriculture, silviculture, mining, and construction, "to the extent feasible."[69] Critically, however, the Clean Water Act did not actually require states to implement their Areawide Waste Treatment Management Plans.[70] Accordingly, some states did not do so.[71] Although section 208 remains in effect, and a few states still utilize section 208 plans,[72] congressional appropriations for this program were depleted by the 1980s, and for most states it is of little relevance today.[73]

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64. *Id.* §§ 124.10–124.13, 124.57.

65. *Id.* §§ 122.41–45.

66. 33 U.S.C. §§ 1341(a)(2), 1342(b)(5) (2018).

67. *Id.* § 1288.

68. *Id.* § 1288(a)–(c).

69. *Id.* § 1288(b)(2)(F).

70. *See* Fentress, *supra* note 37, at 818–19 ("[Section 208] gave EPA no authority to enforce the NPS control provisions required to be included in areawide waste treatment plans.").

71. *Id.* at 825. "Congress gave EPA virtually no power under section 208 to enforce the central element of the Clean Water Act's nonpoint source program: the Areawide Waste Treatment Management Plan." *Id.* at 618.

72. *See, e.g.*, *Section 208 Area Wide Water Quality Management Plan*, CAPE COD COMM'N, www.capecodcommission.org/our-work/208/ (last visited Apr. 26, 2021); *Continuing Planning Process Element 2 – Strategic Planning for Future Development*, MO. DEP'T NAT. RES., https://dnr.mo.gov/env/wpp/cpp/e2-strategy.htm (last visited Apr. 26, 2021); *Water Quality Management Plans (CWA Sections 208 and 303)*, OHIO EPA, https://epa.ohio.gov/dsw/mgmtplans/208index (last visited Apr. 26, 2021).

73. Jan G. Laitos & Heidi Ruckriegle, *The Clean Water Act and the Challenge of Agricultural Pollution*, 37 VT. L. REV. 1033, 1042 (2013) (" . . . the EPA and Congress largely abandoned Section 208 in the 1980s. Although Section 208 remains 'on the books,' all federal funding for the program ended in 1981.").

b. Section 303(d): Total Maximum Daily Load Plans

Section 303(d) of the Clean Water Act also attempts to address nonpoint source pollution by considering all of the factors that affect water quality. Section 303(d) is grounded in the notion that the ultimate goal of the Act is for navigable waters to meet water quality standards; this section acts as a kind of safety net for waters that repeatedly fail to meet their water quality standards even after application of NPDES requirements and section 208 Areawide Waste Treatment Management Plans.[74] Section 303(d) requires states to identify such waters (called a "303(d) list" or "impaired waters list") and prescribe a total maximum daily load (TMDL) of pollutants that these waterbodies can receive and still meet their water quality standards.[75] A TMDL can be thought of as a pollution budget. EPA reviews and approves each state's section 303(d) impaired waters list and its corresponding TMDL plans—or, if a state fails to develop TMDL plans, EPA will prescribe them.[76]

A TMDL plan typically contains limits on point source pollution (called the "wasteload allocation") and nonpoint source pollution (called the "load allocation").[77] If a waterbody is impaired primarily due to point source discharges, the TMDL plan typically calls for existing NPDES permits to be revised and new NPDES permits to be issued sparingly.[78] For waters that are primarily impaired by nonpoint source pollution, TMDL plans often call for other measures, such as financial incentive programs to encourage farmers and ranchers to utilize riparian buffers that reduce fertilizer and pesticide runoff.[79] Yet, EPA is severely limited in its ability to force states to implement TMDL plans, particularly when those plans envision significant efforts to control nonpoint source pollution.[80] It should also be noted that waterbodies can be impaired due to factors other than contaminants—such as water flow or

74. *See* Sarah Birkeland, Note, *EPA's TMDL Program*, 28 ECOLOGY L.Q. 297, 303 (2001).

75. *See* 33 U.S.C. § 1313(d)(1) (2018).

76. *See id.* § 1313(d)(2).

77. *See* 40 C.F.R. § 130.7 (a) (2019).

78. *See* CLAUDIA COPELAND, CONG. RSCH. SERV., R42752, CLEAN WATER ACT AND POLLUTANT TOTAL MAXIMUM DAILY LOADS (TMDLS) 1–2 (2012).

79. *See id*. There are many federal, state, and local cost-share programs that aim to improve water quality by working with agriculture. For example, the U.S. Department of Agriculture Natural Resources Conservation Service's programs, *e.g.*, *Environmental Quality Incentive Program*, U.S. DEP'T OF AGRIC., https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/eqip/ (last visited Apr. 26, 2021), state soil and water conservation programs, *e.g.*, *Cost Share Programs – Agriculture Cost Share Program (ACSP)*, N.C. DEP'T AGRIC. & CONSUMER SERVS., www.ncagr.gov/SWC/costshareprograms/ACSP/ (last visited Apr. 26, 2021), and local initiatives, *e.g.*, *Water Quality Cost Share Program,* SOUTH WASH. WATERSHED DIST., www.swwdmn.org/programs/water-quality-cost-share-program/ (last visited Apr. 26, 2021).

80. Jocelyn B. Garovoy, Note, *"A Breathtaking Assertion of Power"? Not Quite.* Pronsolino v. Nastri *and the Still Limited Role of Federal Regulation of Nonpoint Source Pollution*, 30 ECOLOGY L.Q. 543, 553–54 (2003).

temperature—and these factors can be incorporated into a TMDL plan.[81] In fact, sometimes there is insufficient scientific data regarding the cause of the water quality impairment, in which case the waterbody can be assigned a TMDL for unknown causes and a "collaborative adaptive management" process prescribed for ascertaining and remediating the problem.[82]

Despite section 303(d)'s seemingly critical function, EPA largely overlooked the provision for decades.[83] Perhaps one reason for this is that EPA and state agencies lacked the scientific and technical understanding to effectively establish and implement TMDLs. But another reason is that, ineffectual as it is in its current form, section 303(d) has a hint of directing states to implement nonpoint source controls for impaired waters, and EPA was reluctant to face the potential backlash from states and agricultural interests that took the position that even this was federal overreach.[84]

Citizen suits in the 1990s and early 2000s forced EPA to begin developing TMDL plans for impaired waters when the states had not done so.[85] Most notably, in 2002, the Ninth Circuit ruled in *Pronsolino v. Nastri* that states are required to establish TMDLs for impaired waters listed on the section 303(d) list, even in cases where the water is impaired strictly by nonpoint sources; if the state does not establish a TMDL, then EPA must do so.[86] *Pronsolino* affirmed EPA's ability to enforce the development of TMDL plans—that is, to mandate states to list impaired waters and develop a TMDL plan for each impaired waterbody, irrespective of whether the cause of noncompliance is point source pollution or

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81. *See TMDL Support Documents*, EPA, https://www.epa.gov/tmdl/tmdl-support-documents (last visited Apr. 26, 2021) (listing "[t]emperature" and "[t]urbidity" among examples of pollutants covered by TMDLs).

82. For example, Hinkson Creek in Columbia, Missouri is subject to a TMDL for unknown causes. *See* Jason A. Hubbart et al., *A Case-Study Application of the Experimental Watershed Study Design to Advance Adaptive Management of Contemporary Watersheds*, 11 WATER 2355 (2019).

83. *See* COPELAND, *supra* note 78, at Summary ("Implementation of section 303(d) was dormant until states and the Environmental Protection Agency (EPA) were prodded by lawsuits.") & at 2 ("EPA has both been reluctant to intervene in the states and also lacked resources to do so itself. Thus, there was little initial implementation of the provision enacted in 1972. Only in 1992 did EPA issue regulations requiring states, every two years, to list waters that do not attain water quality standards and establish TMDLs to restore water quality."); *see also* Erin Tobin, Pronsolino v. Nastri *Are TMDLs for Nonpoint Sources the Key to Controlling the "Unregulated" Half of Water Pollution?*, 33 ENV'T L. 807, 809 (2003) (referring to the US EPA's "historical failure to implement the TMDL program").

84. *See* COPELAND, *supra* note 78, at Summary ("The program has been controversial, in part because of requirements and costs faced by states . . . ") & at 6 ("Farming and forestry groups have long been concerned about how their activities might be addressed in TMDLs . . . Section 303(d) does not specify whether TMDLs should cover nonpoint sources, but EPA's long-standing interpretation has been that nonpoint sources of polluted runoff should be addressed, along with point sources, where they contribute to water quality impairment.").

85. *See* Tobin, *supra* note 83, at 814 ("Litigation proved to be an important tool for citizens to force EPA to take the TMDL program seriously, which the agency did not do until well into the 1990s."); *see also* Am. Canoe Ass'n v. EPA, 138 F. Supp. 2d 722 (E.D. Va. 2001); COPELAND, *supra* note 78, at 2 ("Responding to the failure of states and EPA to meet these (Section 303(d)) requirements, however, environmental groups filed lawsuits in more than three dozen states to compel compliance with the law's requirements.").

86. Pronsolino v. Nastri, 291 F.3d 1123, 1125–26 (9th Cir. 2002).

nonpoint source pollution.[87] But *Pronsolino* did not expressly require the *implementation* of TMDL plans—and neither does the text of section 303(d) itself.

Because EPA does not require states to implement TMDL plans, states have taken a variety of approaches. A few states have adopted state laws requiring a state agency to ensure that TMDL plans are implemented, while others simply encourage residents to voluntarily adopt practices that are consistent with the TMDL plans.[88] Although some believed *Pronsolino* would usher in wider adoption of nonpoint source controls, nonpoint source pollution remains a major problem. The fatal flaws in the TMDL program—and most programs related to nonpoint source pollution—are scientific and political challenges surrounding implementation and enforcement. Despite some progress in the last two decades, thousands of waterbodies remain on the impaired waters list.[89]

c. Section 319: Nonpoint Source Management Program

In addition to Areawide Waste Treatment Management Plans under section 208 and TMDLs under section 303(d), the Clean Water Act provides a third mechanism for addressing nonpoint source pollution—section 319,[90] which was introduced in the Clean Water Act Amendments of 1987. Section 319 signaled a renewed effort by Congress to address nonpoint source pollution.[91]

87. *Id*. at 1140–41 ("For all the reasons we have surveyed, the CWA is best read to include in the §303(d)(1) listing and TMDLs requirements waters impaired only by nonpoint sources of pollution.").

88. For example, Texas requires TMDL implementation and has a unique approach in executing the program. Once the Texas Commission on Environmental Quality develops a TMDL, it recruits stakeholders who live or work near the impaired waterbody to develop an implementation plan, or "I-plan." The I-Plan explains how the TMDL will be implemented, who in the community will be responsible for taking action, and how progress will be measured. *See TMDLs and Their Implementation*, TEX. COMM'N ON ENV'T QUALITY (last modified Feb. 2, 2020), https://www.tceq.texas.gov/waterquality/tmdl/tmdlprogram.html. In contrast, Maryland does not require TMDL implementation and describes its program as "committed to working toward the implementation of TMDLs," with the Chesapeake Bay TMDL being a top priority. *See Total Maximum Daily Load (TMDL) Implementation*, MD. DEP'T ENV'T, https://mde.maryland.gov/programs/Water/TMDL/TMDLImplementation/Pages/implementation.aspx (last visited Apr. 26, 2021). Other states, such as North Dakota, treat TMDL implementation as a voluntary program to be carried out through public/state partnerships. *See TMDL Development Process*, N.D. ENV'T Q., https://deq.nd.gov/wq/3_Watershed_Mgmt/2_TMDLs/TMDLs_Process.aspx (last visited Apr. 26, 2021); *see also* COPELAND, *supra* note 78, at Summary.

89. For example, Lake Michigan is listed as impaired in every state it borders, the majorities of the Mississippi River and the Ohio River (in miles) are listed as impaired, and significant reaches of the Missouri River and Colorado River are listed as impaired. *See Water Quality Assessment and TMDL Information*, EPA, https://ofmpub.epa.gov/waters10/attains_index.home (last visited Apr. 26, 2021) (providing maps and lists of impaired waterbodies across the United States).

90. 33 U.S.C. § 1329 (2018).

91. *See* 133 CONG. REC. S733 (daily ed. Jan 14, 1987) (statement of S. Baucus) ("[T]he real value" of the Water Quality Act of 1987 "is the new provision representing a renewed commitment to the cleanup of nonpoint sources of pollution and establishing a national policy that programs for the control of nonpoint sources of pollution to be implemented . . . . The problem of nonpoint source pollution is a national problem requiring a national solution.").

Unfortunately, section 319 suffers from some of the same issues as sections 208 and 303(d).

Section 319 requires states to identify nonpoint sources that are contributing to a failure to meet applicable water quality standards and to develop a "Nonpoint Source Management Program" to facilitate the implementation of "Best Management Practices" (for example, use of riparian buffers and porous pavement) for curbing that pollution as soon as practicable.[92] But Congress did not provide EPA any enforcement mechanism to compel states to take these actions. If a state fails to identify sources of nonpoint source pollution or to develop a Nonpoint Source Management Program, section 319 directs EPA to do so, but it does not give EPA authority to actually implement the program.[93]

The main incentive for states to comply with section 319 is eligibility for a grant program offered by EPA, which provides financial assistance, technical assistance, training, and technology transfer to states and tribes to control nonpoint source pollution.[94] To qualify for the grant program, states and tribes must make "satisfactory progress" in controlling nonpoint source pollution, as determined by EPA.[95]

Similar to section 303(d), section 319 gives states broad discretion on whether and how to address nonpoint source pollution. As a result, a patchwork of regulatory and voluntary measures have evolved.[96] Some states, such as California, have implemented a command-and-control approach to addressing nonpoint source pollution under section 319, and these have generally proven to be fairly effective.[97] Other states have focused more on ever-politically popular voluntary measures, such as agricultural practices cost share, with varying results.[98] In total, 671 waterbodies had been partially or fully remediated through

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92. 33 U.S.C. § 1329(a)–(b) (2018).

93. *Id.* § 1329(d)(3).

94. 33 U.S.C. § 1329(h) (2018); *see also 319 Grant Programs for States and Territories*, EPA, https://www.epa.gov/nps/319-grant-program-states-and-territories (last visited Apr. 26, 2021).

95. 33 U.S.C. § 1329(h)(8) (2018); *see also* Douglas R. Williams, *When Voluntary, Incentive-Based Controls Fail Structuring a Regulatory Response to Agricultural Nonpoint Source Water Pollution*, 9 WASH. U.J.L. & POL'Y 21, 73–76 (2002) (discussing the vagaries of the "satisfactory progress" standard).

96. *See* Williams, *supra* note 95, at 77; CLAUDIA COPELAND, CONG. RSCH. SERV., RL33466, WATER QUALITY: IMPLEMENTING THE CLEAN WATER ACT 11–12 (2006).

97. California's Nonpoint Source Implementation Plan outlines a nine-step plan, which identifies the causes of nonpoint source pollution, selects management measures based on anticipated load reductions, develops implementation schedules, and conducts ongoing monitoring. *See* STATE WATER RES. CONTROL BDS. ET AL., CALIFORNIA NONPOINT SOURCE PROGRAM IMPLEMENTATION PLAN 2014–2020 (2015), https://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/sip_2014to2020.pdf.

98. For example, Oklahoma's section 319 program focuses on "education, assessment, planning and cost-share" to implement voluntary projects. *See Oklahoma Nonpoint Source Program*, OKLA. CONSERVATION COMM'N (July 12, 2013), https://www.ok.gov/conservation/Agency_Divisions/Water_Quality_Division/WQ_Oklahoma_Nonpoint_Source_Program.html; *see also* Williams, *supra* note 95, at 27–28 ("Billions of dollars have been poured into incentive-based programs, and the results have not been encouraging . . . . Voluntary incentives may also fail because farmers may resist changing longstanding practices or perceive such programs as the product of intrusive intermeddlers.").

section 319 programs as of January 2017 (the most recent data available).[99] While not insignificant, this is a small fraction of impaired waters.[100]

4. Dredge and Fill

In addition to regulating point source, and to a much lesser extent, nonpoint source discharges, the Clean Water Act also governs the discharge of dredged or fill materials into "navigable waters." Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into navigable waters without a permit from ACE, unless the activity is exempt from section 404 regulation (for instance, certain agricultural and forestry activities).[101] Generally speaking, an applicant must take steps to avoid or mitigate impacts to waterways and to provide compensation for all remaining unavoidable impacts, such as through mitigation banking.[102] As discussed below, section 404 is at the center of litigation regarding the definition of "navigable waters."

D. Litigation Regarding the Definition of "Waters of the United States"

The jurisdictional scope of the Clean Water Act has been a subject of uncertainty and debate for decades. Like the Rivers and Harbors Act of 1899 and its progeny, the Clean Water Act applies to "navigable waters"—again, defined as the "waters of the United States." Initially, permitting agencies such as ACE construed "navigable waters" as applying only to waters that are navigable-in-fact.[103] But in 1975, ACE issued interim final regulations redefining "the waters of the United States" to include not only navigable waters but also tributaries of such waters, all freshwater wetlands adjacent to navigable waters, all interstate waters and their tributaries regardless of navigability, and non-navigable intrastate waters if their use could affect interstate commerce.[104]

The definition of "navigable waters" adopted by ACE in 1975 was put to the test in the Supreme Court case *United States v. Riverside Bayview Homes*.[105] In this case, ACE sought to enjoin a developer, Riverside Bayview Homes, Inc., from filling wetlands at a property in Michigan without a section 404 permit. ACE argued that a section 404 permit was required because the wetlands were

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99. *Nonpoint Source Success Stories About*, EPA, https://19january2017snapshot.epa.gov/nps/nonpoint-source-success-stories_.html (last updated Jan. 19, 2017) (this information is from a snapshot of the EPA website which was taken down in January 2017).

100. To put this number into perspective, California's section 303(d) list, last updated in 2016, includes thousands of impaired waters. *Impaired Water Bodies*, CAL. EPA (Apr. 2, 2019), https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml (last visited Apr. 26, 2021).

101. 33 U.S.C. § 1344 (2018).

102. *See* 40 C.F.R. pt. 230 (2019).

103. *See* 40 Fed. Reg. 31,320, 31,324 (July 25, 1975) (noting that prior to issuing interim final regulations, ACE regulated navigable waters up to the high water mark if these waters were used in interstate commerce).

104. *Id.*

105. *See* United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985).

adjacent to navigable-in-fact waters and thus were included in ACE's definition of "navigable waters."[106] The District Court for the Eastern District of Michigan agreed with ACE.[107] The Sixth Circuit reversed, holding that ACE's definition of "navigable waters" was overbroad and exceeded its authority under the Clean Water Act.[108]

In a unanimous decision, the Supreme Court held that ACE's definition of "navigable waters" was within the scope of its authority under the Clean Water Act. The Court reviewed the purpose and legislative history of the Clean Water Act, finding that "Congress chose to define the waters covered by the Act broadly."[109] It noted that the Act's definition of "navigable waters" as "the waters of the United States" indicates that "the term 'navigable' as used in the Act is of limited import."[110] The Court observed that, in adopting this definition of "navigable waters," Congress "evidently intended to repudiate limits that had been placed on federal regulation by earlier water pollution control statutes and to exercise its powers under the Commerce Clause to regulate at least some waters that would not be deemed 'navigable' under the classical understanding of that term."[111]

As to exactly which not-navigable-in-fact waters are properly within the scope of the Clean Water Act, the Court determined that ACE's assertion of jurisdiction over adjacent wetlands was not unreasonable.[112] Therefore, the Court determined that the developer was required to get a section 404 permit from ACE before filling in wetlands on the property.[113]

Despite the unanimous Supreme Court ruling, *Riverside Bayview Homes* did not settle the question of which waters constitute "waters of the United States." The case made clear that wetlands adjacent to navigable-in-fact waters were properly included in the definition of "navigable waters," but it did not set forth a clear test for "adjacency." In 1986, one year after the *Riverside Bayview Homes* decision, ACE and EPA further "clarified" (read: broadened) the definition of "navigable waters" to include isolated intrastate waters that provide

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106. *See id.* at 124.

107. *Id.* at 125.

108. United States v. Riverside Bayview Homes, Inc., 729 F.2d 391, 398 (6th Cir. 1984), *rev'd*, 474 U.S. 121 (1985).

109. *Riverside Bayview Homes*, 474 U.S. at 133.

110. *Id.*

111. *Id.*

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> We cannot say that the Corps' conclusion that adjacent wetlands are inseparably bound up with the 'waters' of the United States—based as it is on the Corps' and EPA's technical expertise—is unreasonable. In view of the breadth of federal regulatory authority contemplated by the Act itself and the inherent difficulties of defining precise bounds to regulable waters, the Corps' ecological judgment about the relationship between waters and their adjacent wetlands provides an adequate basis for a legal judgment that adjacent wetlands may be defined as waters under the Act.

Id. at 134.

113. *Id.* at 139.

habitat for migratory birds that travel across state lines or are protected by international migratory bird treaties.[114] This has come to be known as the "Migratory Bird Rule."

While the *Riverside Bayview Homes* decision and the Migratory Bird Rule raised concerns among some farmers and developers, who continued to assert that ACE was overstepping its regulatory authority, the public at large and Congress were generally in favor of expanding the reach of the Clean Water Act during this time.[115] The 1987 amendments to the Clean Water Act did not address the definition of "navigable waters," but they did contain other provisions to strengthen the Act and broaden its scope—most notably by adding section 319 for controlling nonpoint source pollution, as discussed above. President Reagan vetoed the bill, but Democrats controlled both houses and were able to override the veto.[116]

By the mid-1990s, the political tide had turned in the wake of a mild recession. There was a general effort by the 104th Congress to lessen the environmental regulatory burden faced by American companies. Several of the proposals focused on the Clean Water Act, including a proposed rollback of the federal minimum water quality standards.[117] These efforts by the 104th Congress to curtail federal environmental laws and rulemaking were largely disrupted by the Clinton administration and never saw enactment.[118] But the political pendulum had already begun to swing back towards more conservative interpretations of the federal government's authority under the Clean Water Act.

The definition of "navigable waters" came before the Supreme Court again in 2001, in the case of *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (*SWANCC*).[119] In this case, a consortium of suburban Chicago municipalities had planned to use an abandoned sand and gravel pit as a solid waste landfill. Because water frequently pooled in the abandoned pit, and

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114. 51 Fed. Reg. 41,217 (Nov. 13, 1986) ("EPA has clarified that waters of the United States at 40 C.F.R. 328.3(a)(3) [now 33 C.F.R. 328(a)(3)] also include the following waters: a. Which are or would be used as habitat by birds protected by Migratory Bird Treaties; or b. Which are or would be used as habitat by other migratory birds which cross state lines; or c. Which are or would be used as habitat for endangered species; or d. Used to irrigate crops sold in interstate commerce.").

115. *See* Donald L. Rheem, *Banner Year for Environmental Legislation. Grass-Roots Support, Bipartisan Effort Credited with Turnaround*, CHRISTIAN SCI. MONITOR (Oct. 22, 1986), https://www.csmonitor.com/1986/1022/aviro.html ("Environmental issues are faring better in Washington because of several trends: growing support by mainstream Americans, a bipartisan approach to environmental issues in Congress, and greater political sophistication by environmental groups.").

116. *See* Dorothy Collin, *It's Reagan vs. Congress in Standoff*, CHI. TRIB. (Aug. 2, 1987) ("The first veto, of legislation authorizing projects to help clean up the nation's water, was overridden with ease.").

117. *See* Andreen, *supra* note 6, at 34. One proposed bill, H.R. 961, contained multiple components that aimed to diminish the federal role overseeing water quality. *See* Zygmunt J.B. Plater, *Environmental Law as a Mirror of the Future Civic Values Confronting Market Force Dynamics in a Time of Counter-Revolution*, 23 B.C. ENV'T AFF. L. REV. 733, 745–48 (1996). H.R. 961 sought to limit TMDL development for impaired waters only to cases in which states deemed it "necessary," and additionally sought to cut CWA wetland protections. *See id.* at 748–53.

118. Andreen, *supra* note 6, at 34.

119. Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs (*SWANCC*), 531 U.S. 159 (2001).

migratory birds had been observed at the site, ACE asserted that the pit was a "navigable water" under the Migratory Bird Rule and that, as such, a section 404 permit would be needed for the landfill.[120] When the consortium applied for the permit, ACE denied the request.[121]

The consortium challenged ACE's assertion of jurisdiction over the site pursuant to the Migratory Bird Rule and also challenged the merits of the section 404 permit denial. The District Court for the Northern District of Illinois granted summary judgment for ACE on the jurisdictional issue,[122] and the consortium voluntarily dismissed the remainder of its claims.[123] The consortium appealed, and the Seventh Circuit affirmed, holding that Congress had authority under the Commerce Clause to regulate intrastate waters and that the Migratory Bird Rule was a reasonable interpretation of the Clean Water Act.[124]

In a five to four decision, the Supreme Court reversed, holding that the Migratory Bird Rule exceeded the authority of ACE and EPA under the Clean Water Act.[125] The Court acknowledged that its *Riverside Bayview Homes* decision had "noted that the term 'navigable' is of 'limited import'" and that Congress evidenced its intent to "regulate at least some waters that would not be deemed 'navigable' under the classical understanding of that term."[126] But the Court remarked that, with regard to navigability, it is "one thing to give a word a limited effect, and quite another to give it no effect whatever."[127] The majority opinion in *SWANCC* stated that the Court's decision in *Riverside Bayview Homes* was grounded in the "significant nexus" between the wetlands and navigable-in-fact waters.[128] The Court refused to uphold the determination of ACE and EPA to apply Clean Water Act requirements to intrastate ponds that are not adjacent to navigable waters, characterizing this as agency overreach.[129]

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120. *Id.* at 164–65.

121. *Id.* at 165.

122. Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs, 998 F. Supp. 946, 948–49, 957 (N.D. Ill. 1998), *aff'd*, 191 F.3d 845 (7th Cir. 1999), *rev'd*, 531 U.S. 159 (2001).

123. Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs, 191 F.3d 845, 847 (7th Cir. 1999), *rev'd*, 531 U.S. 159 (2001).

124. *Id.* at 853 ("We conclude that the decision to regulate isolated waters based on their actual use as habitat by migratory birds is within Congress' power under the Commerce Clause, and that it was reasonable for the Corps to interpret the Act as authorizing this regulation.").

125. *SWANCC*, 531 U.S. at 174.

126. *Id.* at 167.

127. *Id.* at 172.

128. *Id.* at 167 ("It was the significant nexus between the wetlands and 'navigable waters' that informed our reading of the CWA in *Riverside Bayview Homes*.").

129. *Id.* at 174 ("[W]e find nothing approaching a clear statement from Congress that it intended § 404(a) to reach an abandoned sand and gravel pit such as we have here. Permitting respondents to claim federal jurisdiction over ponds and mudflats falling within the 'Migratory Bird Rule' would result in a significant impingement of the States' traditional and primary power over land and water use . . . . Rather than expressing a desire to readjust the federal-state balance in this manner, Congress chose to 'recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use . . . of land and water resources . . . .' 33 U.S.C. § 1251(b). We thus read the statute as written to avoid the significant constitutional and federalism questions raised by respondents' interpretation, and therefore reject the request for administrative deference.").

The dissent in *SWANCC* bemoaned the majority's emphasis on navigability and argued that a modern approach to water quality would focus less on navigation and more on preventing environmental degradation holistically.[130] The dissent rejected the majority's view that federal regulation of isolated, intrastate waters would raise federalism concerns.[131]

The *SWANCC* decision had rippling effects in both the lower courts and the executive agencies, which attempted to make sense of the implications of its holding and emphasis on the "significant nexus" requirement. In January 2003, ACE and EPA issued an Advanced Notice of Proposed Rulemaking (ANPRM) regarding the definition of "waters of the United States."[132] The ANPRM instructed agency field staff that they could no longer consider intrastate, non-navigable waters as "navigable waters" under the Clean Water Act if the primary basis for asserting connectivity was the presence of migratory birds.[133] There was no Notice of Proposed Rulemaking or Final Rule to follow from the ANPRM.

In 2006, while the ANPRM was still purportedly controlling, the definition of "waters of the United States" again came before the Supreme Court in *Rapanos v. United States*.[134] This case involved two separate proceedings that were consolidated by the Court. In one case, landowner John Rapanos sought to develop his Michigan property that contained wetlands located near ditches and man-made drains that eventually emptied into navigable-in-fact waters. Mr. Rapanos filled these wetland areas, ignoring multiple cease-and-desist orders issued by ACE and EPA. The federal agencies contended that the wetlands fell under the jurisdiction of section 404 of the Clean Water Act because they drained into man-made drainage areas that ultimately emptied into navigable waters.[135] Mr. Rapanos disagreed.[136] The District Court for the Eastern District of Michigan entered judgment in favor of ACE and EPA.[137] The Sixth Circuit affirmed.[138] In a separate action, other Michigan property owners, June and

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130. *Id.* at 178–79 ("During the middle of the 20th century, the goals of federal water regulation began to shift away from an exclusive focus on protecting navigability and toward a concern for preventing environmental degradation.").

131. *Id.* at 192 (Stevens, J., dissenting) ("It is particularly ironic for the Court to raise the specter of federalism while construing a statute that makes explicit efforts to foster local control over water regulation. . . . Because Illinois could have taken advantage of the opportunities offered to it through [Clean Water Act] § 404(g), the federalism concerns to which the majority adverts are misplaced.").

132. 68 Fed. Reg. 1991 (Jan. 15, 2003).

133. *Id.* at 1997 ("In light of *SWANCC,* field staff should not assert CWA jurisdiction over isolated waters that are both intrastate and non-navigable, where the sole basis available for asserting CWA jurisdiction rests on any of the factors listed in the 'Migratory Bird Rule.'").

134. Rapanos v. United States, 547 U.S. 715 (2006).

135. *Id.* at 729.

136. *Id.* at 730 ("The Rapanos petitioners contend that the terms 'navigable waters' and 'waters of the United States' in the Act must be limited to the traditional definition of *The Daniel Ball,* which required that the 'waters' be navigable in fact, or susceptible of being rendered so.").

137. *See* United States v. Rapanos, 376 F.3d 629, 631 (6th Cir. 2004), *vacated sub nom* Rapanos v. United States, 547 U.S. 715 (2006).

138. *Id.*

Keith Carabell, had applied for a section 404 permit to fill wetlands on their property, and when the permit was denied, they sought review under the Administrative Procedure Act, arguing that their property was not subject to Clean Water Act jurisdiction.[139] The District Court for the Eastern District of Michigan granted summary judgment for government, and the Sixth Circuit affirmed.[140] The Supreme Court granted certiorari and consolidated the cases.

In a four to one to four decision, the Supreme Court narrowly ruled in favor of Rapanos. The plurality opinion, authored by Justice Scalia and joined by Justices Roberts, Thomas, and Alito, began by observing that the enforcement proceedings against Mr. Rapanos were "a small part of the immense expansion of federal regulation of land use that has occurred under the Clean Water Act—without any change in the governing statute—during the past five Presidential administrations."[141] After discussing relevant precedent and legislative history, the Court held that the term "navigable waters" includes only "relatively permanent," standing or flowing bodies of water, and not "intermittent" or "ephemeral" flows of water[142]—though it did not go so far as to adopt Rapanos's argument that *only* traditionally navigable waters can be regulated by the Clean Water Act.[143] With respect to the wetlands at issue in the case, the plurality departed from the "hydrological connection" test set forth in *Riverside Bayview Homes*; the *Rapanos* plurality concluded that only wetlands with a "continuous surface connection" to navigable waters are themselves navigable waters under the Clean Water Act.[144]

Ultimately, it was Justice Kennedy's concurring vote that led the Court to rule in favor of Rapanos; however, Justice Kennedy's rationale differed significantly from that of the plurality. While Justice Scalia's plurality opinion held that the "navigable waters" definition applied to navigable-in-fact waters and waters directly adjacent to them, Justice Kennedy reasoned that wetlands and other not-navigable-in-fact waters may fall under Clean Water Act jurisdiction if they have a "significant nexus" to a navigable water, irrespective of

139. Carabell v. U.S. Army Corps of Eng'rs, 257 F. Supp. 2d 917, 927 (E.D. Mich. 2003), *aff'd*, 391 F.3d 704 (6th Cir. 2004), *vacated sub nom* Rapanos v. United States, 547 U.S. 715 (2006) ("Plaintiff contends that the [ACE] has no jurisdiction over the property because it is an isolated wetland that is unconnected to any navigable waters of the United States or to any tributary or watershed of such waters.").

140. *Id.*; Carabell v. U.S. Army Corps of Eng'rs, 391 F.3rd 704 (6th Cir. 2004).

141. *Rapanos*, 547 U.S. at 722.

142. *Id.* at 739 ("[I]n sum, on its only plausible interpretation, the phrase 'the waters of the United States' includes only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic features' that are described in ordinary parlance as 'streams[,] . . . oceans, rivers, [and] lakes.' See Webster's Second 2882. The phrase does not include channels through which water flows intermittently or ephemerally, or channels that periodically provide drainage for rainfall.").

143. *Id.* at 716.

144. *Id.* at 742 ("Therefore, *only* those wetlands with a continuous surface connection to bodies that are 'waters of the United States' in their own right . . . are 'adjacent to' such waters and covered by the Act.").

adjacency.[145] Justice Kennedy sided with the landowners and agreed to remand the cases for consideration of whether the specific wetlands at issue possessed a significant nexus with navigable waters.[146]

This division in the Supreme Court's ruling paved the way for further regulatory uncertainty in the years following *Rapanos*. Without a clear definition of what constitutes a "water of the United States," ACE and EPA found enforcement of the Clean Water Act difficult. In 2008, the agencies issued a joint legal memorandum regarding Clean Water Act jurisdiction.[147] The memo, which was styled as a guidance document, attempted to marry aspects of the *SWANCC* ruling (focusing on navigability-in-fact), Scalia's plurality in *Rapanos* (by excluding infrequent, impermanent flows from the definition of "navigable water"), and the Kennedy concurrence in *Rapanos* (by incorporating a "significant nexus" test). [148] In the year following the case, EPA dropped seventy-seven enforcement cases that it had been pursuing under section 404 because it was "uncertain it could establish jurisdiction" over the wetlands in question.[149]

II. RECENT DEVELOPMENTS

This Part discusses recent developments regarding the scope of federal authority under the Clean Water Act, focusing on the differing approaches of the Obama administration and the Trump administration. It also discusses the recent decision in *County of Maui, Hawaii v. Hawaii Wildlife Fund*.[150] This Part reflects on the current state of affairs for clean water permitting and enforcement.

A. The Clean Water Rule and the Navigable Waters Protection Rule

In 2009, shortly after President Obama took office, EPA issued the Clean Water Act Action Plan, announcing the agency's intent to work collaboratively with states to address the permitting and enforcement "confusion" generated by

145. *Id.* at 779 ("Consistent with *SWANCC* and *Riverside Bayview* and with the need to give the term 'navigable' some meaning, the Corps' jurisdiction over wetlands depends upon the existence of a significant nexus between the wetlands in question and navigable waters in the traditional sense.").

146. *Id.* at 787.

147. EPA, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT'S DECISION IN *RAPANOS V. UNITED STATES* & *CARABELL V. UNITED STATES* (2008), https://www.epa.gov/sites/production/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf.

148. *Id.* at 4–12.

149. EPA, EVALUATION REPORT: EPA NEEDS A BETTER STRATEGY TO IDENTIFY VIOLATIONS OF SECTION 404 OF THE CLEAN WATER ACT at 10 (2009), https://www.epa.gov/sites/production/files/2015-11/documents/20091026-10-p-0009.pdf ("The limits of CWA jurisdiction became more uncertain in 2006 after the Court's split decision in the *Rapanos* case. In a March 2008 memo, EPA reported that it dropped 77 potential CWA §404 enforcement actions between July 2006 and December 2007 because it was uncertain it could establish jurisdiction under the CWA. In some cases, the jurisdictional uncertainty that resulted from the *Rapanos* and *SWANCC* cases makes it unclear whether a §404 violation has even occurred. In response to our draft report, EPA maintained that the effect of the *Rapanos* and *SWANCC* decisions on its §404 enforcement program cannot be overstated.").

150. Cnty. of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020).

SWANCC and *Rapanos*.[151] The plan emphasized the risks posed by "diffuse" sources of water pollution, while acknowledging that many nonpoint sources were not regulated under the Clean Water Act.[152] In retrospect, it appears that the plan was a precursor to the Clean Water Rule finalized by EPA in 2015.[153]

The Clean Water Rule, sometimes called the Waters of the United States Rule, is perhaps the most significant rulemaking ever to be conducted under the Clean Water Act, and it was one of the most noteworthy regulatory actions by the Obama administration. It was promulgated jointly by EPA and ACE. The Clean Water Rule sought both to clarify the definition of "navigable waters" and to improve water quality throughout the United States.[154] It quickly proved controversial.

The Clean Water Rule proposed, and ultimately adopted, six categories of waters that would be considered "navigable waters" (also called "Waters of the United States") subject to the Clean Water Act: traditionally navigable waters, interstate waters, territorial seas, impoundments of jurisdictional waters, tributaries of navigable waters, and waters adjacent to navigable waters.[155] The Clean Water Rule also provided that a waterbody that is not jurisdictional by rule, for instance a vernal pool, could be deemed a navigable water if a case-specific analysis demonstrated that it had a significant nexus to a navigable water.[156] Although the Clean Water Rule stated that its definition of "navigable water" was narrower than that in preexisting regulation,[157] many commenters were quick to point out that the rule actually appeared to expand the definition of "navigable water."[158]

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151. EPA, CLEAN WATER ACT ACTION PLAN 4 (2009), https://www.epa.gov/sites/production/files/documents/actionplan101409.pdf. Prior to February 22, 2010, the plan was titled the "Clean Water Act Enforcement Action Plan."

152. *Id.* at 1.

153. Clean Water Rule, 79 Fed. Reg. 22,188 (Apr. 21, 2014) (Notice of Proposed Rulemaking); 80 Fed. Reg. 37,054 (June 29, 2015) (Final Rule).

154. 79 Fed. Reg. at 22,188; 80 Fed. Reg. at 37,054 ("This proposal would enhance protection for the nation's public health and aquatic resources, and increase CWA program predictability and consistency by increasing clarity as to the scope of 'waters of the United States' protected under the Act.").

155. 79 Fed. Reg. at 22,198–22,211; 80 Fed. Reg. at 37,057–37,059.

156. 79 Fed. Reg. at 22,211–22,219; 80 Fed. Reg. at 37,059.

157. 79 Fed. Reg. at 22,189 ("[T]he scope of regulatory jurisdiction in this proposed rule is narrower than that under the existing regulations"); 80 Fed. Reg. 37,054 ("[T]he scope of jurisdiction in this rule is narrower than that under existing regulation.").

158. *See* Dennis Sims, Secretary & Bd. Member of Catoosa Cnty. Farm Bureau, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (June 10, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-2813 ("The proposed rule would significantly expand the scope of navigable waters subject to [the] Clean Water Act."); E. Mun. Water Dist. in Riverside Cnty. (EMWD), Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 14, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-15544 ("EMWD and other organizations representing the regulated community believe . . . the proposed rule would inappropriately expand the facilities defined as Waters of the U.S."); Iowa Corn Growers Ass'n, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 14, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-13269 ("While many of the elements of [the Waters of the United States (WOTUS)] remain unchanged under the proposed rule, including T[raditionally] N[avigable] W[aters], interstate

The proposed Clean Water Rule captured public attention.[159] EPA and ACE reported conducting more than 400 stakeholder meetings to seek public comment on the proposed Clean Water Rule, in particular on the scope of the definition of "navigable water."[160] More than one million written public comments were filed on the proposed rule, submitted by states, Native American tribes, industry and trade associations, agricultural interests, environmental groups, private citizens, and other stakeholders.[161] Not surprisingly, comments ran the gamut from strongly in favor of the proposed Clean Water Rule to strongly against it; EPA and ACE reported, without elaboration, that the "substantial majority" of comments supported the proposed Clean Water Rule.[162]

Environmental groups and some private citizens praised the Clean Water Rule as an important step to improving water quality nationwide.[163] For the most part, scientists concluded that an expanded definition of "navigable waters" would reduce pollution loading to waterways, including problematic nonpoint sources, such as excess nutrients.[164] On the other hand, industry, agricultural groups, and some private citizens voiced concerns about the perceived expansion of the definition of "navigable waters," and in particular about potential uncertainties and inconsistencies in the case-specific application of the "significant nexus" test for waters that are not jurisdictional by rule.[165]

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waters, and territorial seas, many of the other features described in the proposed rule as WOTUS, do in fact, expand the [Clean Water Act's] jurisdiction.").

159. For examples of widespread media coverage, see *The War Over the Waters of the United States,'* N.Y. TIMES (May 18, 2015), https://www.nytimes.com/interactive/2015/05/19/us/document-epa.html; Reagan Waskom & David J. Cooper, *Why Farmers and Ranchers Think the EPA Clean Water Rule Goes Too Far*, PBS NEWSHOUR (Mar. 4, 2017), https://www.pbs.org/newshour/nation/farmers-ranchers-think-epa-clean-water-rule-goes-far.

160. 80 Fed. Reg. at 37,057.

161. *Id.*

162. *Id.*

163. *See, e.g.*, Nat'l Wildlife Fed'n, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 14, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-15020; Earthjustice, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 13, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-14564; Nat. Res. Def. Council, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 14, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-15437.

164. Laurie C. Alexander, *Science at the Boundaries Scientific Support for the Clean Water Rule,* 34 FRESHWATER SCI. 1588, 1591 (2015) ("Riparian/floodplain wetlands and open waters improve water quality via assimilation, transformation, or sequestration of point-source and nonpoint-source pollutants, such as excess nutrients and chemical contaminants.").

165. *See, e.g.*, Nat'l Corn Growers Ass'n, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 14, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-14968 ("The Agencies state that they intend to create more certainty and less confusion with this proposal. We respectfully submit that in the case of agriculture, the exact opposite has been the result . . . ."); U.S. Chamber of Commerce, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (June 5, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-2607 ("Many of the Chamber's members believe they will be adversely impacted by the revised definition of 'Waters of the United States.'"); Dow Chem. Co., Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act at 3 (Nov. 24, 2014), https://www.regulations.gov/document?D=EPA-

The reception by states, Native American tribes, and local governments was mixed. Governmental bodies supporting the Clean Water Rule praised its enhanced water quality protections; tribal governments in particular celebrated that the Clean Water Rule would better protect reservation waters used for hunting, fishing, or ceremonial purposes.[166] But state, tribal, and local governments also expressed concern that the Clean Water Rule would bring certain agricultural and land development practices—and the mostly nonpoint source pollution they generate—under the reach of the Clean Water Act for the first time, potentially harming local economies.[167] Like industry opponents, some state and tribal governments found the "significant nexus" test for waters that are not jurisdictional by rule to be ambiguous and expressed confusion over how their environmental regulatory agencies, operating with delegated authority, would actually implement the case-by-case analysis.[168] Further, some state and local governments characterized the expanded "navigable waters" definition as a power grab by EPA and a purposeful enlargement of federal powers by the Obama administration.[169]

HQ-OW-2011-0880-15408 ("If EPA/USACE indeed intended to clarify jurisdiction in this proposal, the Agencies could have proposed . . . definitions that clarify issues such as what represents a true 'tributary' or a 'significant nexus.'").

166. EPA, FINAL SUMMARY OF TRIBAL CONSULTATION FOR THE CLEAN WATER RULE: DEFINITION OF "WATERS OF THE UNITED STATES" UNDER THE CLEAN WATER ACT; FINAL RULE (2015), https://archive.epa.gov/epa/production/files/2015-05/documents/clean_water_rule_tribal_summary.pdf.

167. *See, e.g.*, Marion Cnty., Fla. Bd. of Cnty. Comm'rs, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 13, 2014), https://www regulations.gov/document?D=EPA-HQ-OW-2011-0880-14979 ("Before moving forward on the proposed rulemaking, Marion County recommends that both agencies evaluate further the consequences of this rule and work with states individually to further quantify the impacts economically . . . ."); Humboldt Cnty., Nev., Bd. of Comm'rs, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Oct. 28, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-17382 ("We feel this rule could impact both agriculture and also the mining industry.").

168. *See, e.g.*, S. Ute Indian Tribe Growth Fund, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act 3 (Nov. 14, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-15386 (remarking that "'significant nexus' is a legal term, not a scientific term" and the rule does not define it).

169. *See, e.g.*, Cal. State Ass'n of Cntys., Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Oct. 21, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-9692 ("New definitions . . . leave ambiguity about what . . . is beyond the reach of federal regulators under the [Clean Water Act]."); Kan. House of Representatives Comm. on Energy & the Env't, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act 24 (2014), https://www.epa.gov/sites/production/files/2015-06/documents/cwr_response_to_comments_1_general.pdf ("Perhaps [EPA] has forgotten its place as an Agency under the executive branch . . . which is to carry out . . . Congressional actions that should yield net benefit for the American people."); Bd. of Comm'rs of Carbon Cnty., Utah, Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 11, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-12738 ("This is entirely bogus; it's evident to us that EPA is attempting to use these court decisions to extend their jurisdiction assuring future jobs at EPA."); Associated Gov'ts of Nw. Colo., Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 12, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-16434 ("This proposed rule . . . would be among the most invasive encroachments of federal control over privately and locally owned property ever conceived.").

Some opponents went so far in their comments on the proposed Clean Water Rule as to assert that it was an amendment to the Clean Water Act masquerading as a rulemaking. Attorneys general for states opposing the Clean Water Rule argued that in promulgating the Clean Water Rule, EPA and ACE would be exceeding the *Chevron* deference[170] to which they were entitled, improperly bypassing Congress in performing a legislative function.[171]

The Clean Water Rule was finalized on June 29, 2015 and was set to take effect on August 28, 2015. Thirteen states filed requests for a preliminary injunction to stop the rule from going into force, arguing that EPA and ACE had exceeded their authority under the Clean Water Act. These actions were consolidated before the District Court for the District of North Dakota. On August 27, 2015, that court issued a preliminary injunction staying the implementation of the Clean Water Rule in the thirteen states that had challenged it, finding that the petitioners were likely to succeed on the merits.[172] On August 28, 2015, the Clean Water Rule went into effect in the states and territories that had not challenged it, creating a patchwork of different Clean Water Act standards across the nation—but not for long.[173]

Just weeks after the ruling in *North Dakota v. EPA*, another case involving the Clean Water Rule, *Ohio v. U.S. Army Corps of Engineers*, resulted in a nationwide stay.[174] Due to uncertainties over whether the appropriate forum for challenging the Clean Water Rule was the federal district courts or the federal appellate courts, states who opposed the Clean Water Rule filed petitions for review at the appellate level in addition to the district court proceedings addressed in *North Dakota v. EPA*. These petitions were consolidated before the Sixth Circuit. The court justified the nationwide stay on grounds that it "honor(ed) the policy of cooperative federalism that informs the Clean Water Act" and would "restore uniformity of regulation under the familiar, if imperfect, pre-Rule regime, pending judicial review."[175] Yet, it was unclear whether a federal appellate court had authority to issue a nationwide stay.

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170. *Chevron U.S.A. v. Natural Resources Defense Council*, 467 U.S. 837 (1984), was a landmark case that set forth the test for determining whether and to what extent a court must grant deference to a federal agency to interpret a statute that it administers. The test has two parts: (1) if Congress has directly spoken to the issue in question, the agency must follow congressional intent, and (2) if Congress has not squarely addressed the issue, the agency is entitled to discretion in interpreting the statute or filling in the gaps, and a court must defer to the agency's interpretation unless it is arbitrary, capricious, or manifestly contrary to the statute. *Id.* at 842–43.

171. *See, e.g.*, Ohio Att'y Gen., Comment Letter on Proposed Rule Regarding Definition of "Waters of the U.S." Under the Clean Water Act (Nov. 13, 2014), https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-15243 ("[I]n its current form, the Proposed Regulation aggressively seeks to expand federal jurisdiction . . . . The deference owed to the Corps' interpretation of the statute does not extend so far.").

172. North Dakota v. EPA, 127 F. Supp. 3d 1047, 1055 (D.N.D. 2015).

173. *Id.* at 1060.

174. *In re* EPA, 803 F.3d 804, 809 (6th Cir. 2015).

175. *Id.* at 808.

The National Association of Manufacturers, which joined the litigation below opposing the rule, petitioned for certiorari on the question of whether the federal district courts or the federal appellate courts had jurisdiction to review the Clean Water Rule.[176] On January 22, 2018, the Supreme Court issued a unanimous opinion holding that challenges to the Clean Water Rule must be filed in federal district courts rather than appellate courts.[177] It vacated the nationwide stay issued by the Sixth Circuit and directed courts of appeals to dismiss petitions for review of the Clean Water Rule due to lack of jurisdiction.[178]

As a result of the Supreme Court decision in *National Association of Manufacturers*, the collage of Clean Water Act jurisdiction returned. The *North Dakota* stay remained in effect in thirteen states, and later in 2018 two more federal district courts issued preliminary injunctions staying the effectiveness of the Clean Water Rule in additional states that had challenged it.[179]

While the Supreme Court proceedings in *National Association of Manufacturers* were ongoing, President Trump took office and soon announced plans to rescind the Clean Water Rule. In February 2017, he issued Executive Order 13778, "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States' Rule."[180] The executive order directed EPA and ACE to rescind the Clean Water Rule and replace it with a new rule which interpreted the term "navigable waters" in a manner consistent with Justice Scalia's plurality opinion in *Rapanos*.[181] As discussed above, Justice Scalia's opinion had emphasized navigability-in-fact, while also asserting federal jurisdiction over some waterbodies adjacent to navigable-in-fact waters.[182] Although the executive order did not create a new policy in and of itself, it explained how the Trump administration and its executive agencies would approach the definition of "navigable waters" and the Clean Water Rule going forward. On March 6, 2017, EPA and ACE issued a notice of "Intention to Review and Rescind or Revise the Clean Water Rule," in accordance with the executive order.[183]

The "Repeal and Replace" process to supplant the Clean Water Rule consisted of two steps. In the first step, "repeal," EPA and ACE rescinded the definition of "navigable waters" contained in the Clean Water Rule, and as a stopgap measure, "re-codified" the definition of "navigable waters" that was in

176. Nat'l Ass'n of Mfrs. v. Dep't of Def., 138 S. Ct. 617, 627 (2018).

177. *Id.* at 623.

178. *Id.* at 634.

179. Georgia v. Pruitt, 326 F. Supp. 3d 1356 (S.D. Ga. 2018); Am. Farm Bureau Fed'n v. EPA, No. 3:15-CV-00165 (S.D. Tex. Sept. 12, 2018).

180. Exec. Order No. 13,778, 82 Fed. Reg. 12,497 (Feb. 28, 2017) (entitled "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States Rule'").

181. *Id.* at § 1.

182. *See generally* Rapanos v. United States, 547 U.S. 715 (2006).

183. Intention to Review and Rescind or Revise the Clean Water Rule, 82 Fed. Reg. 12,532 (Mar. 6, 2017).

effect prior to promulgation of the Clean Water Rule.[184] EPA and ACE issued the final rule regarding the repeal on October 22, 2019; at that time, the Clean Water Rule was in effect in the twenty-two states that had not challenged it, and in the twenty-eight that had, it was stayed and the agencies instead relied on regulations defining "navigable waters" that they had promulgated in the 1980s.[185] In the second step, "replace" (later termed "revise"), EPA and ACE issued the Navigable Waters Protection Rule on April 21, 2020 in order to codify a definition of "navigable waters" consistent with Justice Scalia's plurality opinion in *Rapanos*.[186]

The Navigable Waters Protection Rule significantly narrowed the definition of "navigable waters" and purported to resolve the ambiguity in classifying wetlands and ephemeral waterbodies that plagued the Clean Water Rule.[187] It expressly excluded certain waters from the definition of "navigable waters"—for example, groundwater (perhaps in a nod to *County of Maui, Hawaii v. Hawaii Wildlife Fund*, then pending before the Supreme Court), diffuse stormwater runoff, certain stormwater control devices, ditches, and artificially irrigated areas.[188] The Navigable Waters Protection Rule emphasized consistency of water flow and relative permanence as criteria for classification as a "navigable water," although some intermittent streams remain jurisdictional under the Navigable Waters Protection Rule.[189] The Navigable Waters Protection Rule abolished the case-specific application of the "significant nexus" test for waters that are not jurisdictional by rule.[190] Despite all the changes that narrowed the definition of a "navigable water," the Navigable Waters Protection Rule maintained that states and tribes would retain the ability to regulate now-"non-jurisdictional" waters within their territories, should they decide it appropriate to do so.[191]

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184. Definition of "Waters of the United States"—Recodification of Pre-Existing Rules, 82 Fed. Reg. 34,899 (proposed July 27, 2017); Definition of "Waters of the United States"—Recodification of Pre-Existing Rule, 83 Fed. Reg. 32,228 (proposed July 12, 2018) (Supplemental Notice); Definition of "Waters of the United States"—Recodification of Pre-Existing Rules, 84 Fed. Reg. 56,626 (Oct. 22, 2019) (Final Rule).

185. *See* LAURA GATZ, CONG. RESEARCH SERV., R45424, WATERS OF THE UNITED STATES (WOTUS): CURRENT STATUS OF THE 2015 CLEAN WATER RULE 76 (2018); *see also* Amanda Reilly, *Judge Blocks WOTUS in 11 States*, GREENWIRE (June 11, 2018), https://www.eenews.net/greenwire/2018/06/11/stories/1060084087; Ellen M. Gilmer & Ariel Wittenberg, *Judge Puts WOTUS on Ice in Texas, La., Miss.*, GREENWIRE (Sept. 12, 2018), https://www.eenews.net/greenwire/stories/1060096687?t.

186. Navigable Waters Protection Rule, 85 Fed. Reg. 22,250 (Apr. 21, 2020) (Final Rule). Comments on the Navigable Waters Protection Rule were directed to be filed in the "Repeal" docket.

187. *Id.* at 22,251–54; *see also* Spencer H. Newman, *It's All Downhill from Here How the Nation's Dispute with Clean Water Act Jurisdiction Is Resolved*, 7 ENV'T & EARTH L.J. 5, 21 (2017) ("The most common objection to the [Clean Water] Rule, and essentially what Scalia's *Rapanos* opinion warned, is that the Clean Water Act may now regulate "dry" lands.").

188. 85 Fed. Reg. at 22,251–52.

189. *Id.* at 22,319.

190. *Id.* at 22,273.

191. *Id.* at 22,334 ("Another potential outcome of the change in [Clean Water Act] jurisdiction is that State governments may be able to find more efficient ways of managing local resources than the Federal government, consistent with the theory of 'environmental federalism' . . . . Depending on the value of a

Not surprisingly, the repeal of the Clean Water Rule and its replacement with the Navigable Waters Protection Rule drew significant public attention, just as the promulgation of the Clean Water Rule had done previously.[192] Approximately 770,000 comments were filed in the "Repeal and Replace" proceeding.[193] Many of the public comments were predictable follow-ons from positions articulated in the Clean Water Rule rulemaking. Farmers and developers generally supported the Navigable Waters Protection Rule.[194] Environmental groups generally opposed it, questioning the scientific basis and practicality of classifying waterbodies based on their flow.[195] The elimination of the case-specific application of the "significant nexus" test was particularly a blow for water quality advocates because that test would have enabled EPA to assert wider jurisdiction over agricultural drainage and the nonpoint source pollution it conveys.[196] Ranchers also opposed the Navigable Waters Protection Rule, but on contrary grounds, arguing that although the Navigable Waters Protection Rule was narrower than the Clean Water Rule, it was still overbroad in its allowance for federal regulation of not-navigable-in-fact waters such as ponds and wetlands.[197]

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newly characterized non-jurisdictional water, States may or may not choose to regulate that water and the compliance costs and environmental benefits of its regulation could increase or decrease.").

192. *See, e.g.*, Jerry Zremski, *Trump's Clean-Water Rollback Is Latest Flashpoint in Urban-Rural Divide*, BUFFALO NEWS (Sept. 23, 2019), https://buffalonews.com/news/local/trumps-clean-water-rollback-is-latest-flashpoint-in-urban-rural-divide/article_5dd3903b-9cba-57a7-ac75-318f83a5f44c.html; Ellen Knickmeyer, *Trump Rollback Could Leave Waterways Vulnerable to Pollution*, ASSOCIATED PRESS (Jan. 24, 2020), https://apnews.com/article/2386f9f4af34d81ae32629dead464af3.

193. 85 Fed. Reg. at 22,260.

194. *See* Am. Farm Bureau Fed'n et al., Comment on Revised Definition of "Waters of the United States" 1 (May 15, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-11394 ("We believe the Proposed Rule will bring an end to the decades-long regulatory creep . . . ."); Fla. H2O Coal. & Associated Indus. of Fla., Comment on the Revised Definition of "Waters of the United States" 1 (Apr. 23, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-5095 ("We support the revised definition in its entirety."); Tex. Builders Ass'n, Comment on Revised Definition of "Waters of the United States" 1 (Apr. 28, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-6924 ("By all accounts, the Agencies have proposed a vastly improved WOTUS definition . . . ."); *see also* Carol Ryan Dumas, *Agriculture Applauds New WOTUS Rule*, CAP. PRESS (Jan. 23, 2020), https://www.capitalpress.com/nation_world/agriculture-applauds-new-wotus-rule/article_408287cc-3e32-11ea-ab4b-8ba892778b6f.html.

195. Earthjustice, Comment on Revised Definition of "Waters of the United States" 1 (Apr. 16, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-4343 (characterizing the "Dirty Water Rule" "as contrary to law, contrary to science, and contrary to the overwhelming evidence in the record" and asserting "that this rule will leave America's waters unprotected from pollution, and subject to destruction and degradation.").

196. *See* EPA Sci. Advisory Bd., Commentary on the Proposed Rule Defining the Scope of Waters Federally Regulated Under the Clean Water Act 2 (Oct. 16, 2019) (stating that the proposed revised definition "decreases protection for our Nation's waters"); Jeremy P. Jacobs, *Science Advisory Board Slams Trumps WOTUS Rewrites,* GREENWIRE (Mar. 20, 2020), https://www.eenews.net/greenwire/stories/1062516311.

197. Kendra Chamberlain, *Ranchers, Conservation Groups Unhappy with the New Clean Water Rule, but for Different Reasons*, NM POL. REP. (May 15, 2020), https://nmpoliticalreport.com/2020/05/15/ranchers-conservation-groups-unhappy-with-the-new-clean-water-rule-but-for-different-reasons/.

States, tribes, and local governments expressed a range of viewpoints on the Navigable Waters Protection Rule. The majority of tribes opposed the Navigable Waters Protection Rule, on grounds that the rollback in regulatory control would negatively impact water quality on Indian reservations and interfere with tribes' treaty-protected rights.[198] States and local governments were more split on the issue. Many progressive states opposed the Navigable Waters Protection Rule for lessening water protections and potentially affecting the quality of precipitation-dependent drinking water sources, which are vulnerable to stormwater runoff and other diffuse source pollution.[199] Conservative states generally supported the Navigable Waters Protection Rule for providing clarity and rolling back what they deemed as unnecessary regulation.[200]

Colorado, a "purple" state that historically has not been a leader on water quality issues, led the charge against the Navigable Waters Protection Rule. Colorado Attorney General Phil Weiser and Colorado Water Quality Control Division Director Patrick Pfaltzgraff raised concerns about the removal of protections for ephemeral waterbodies, which the arid state relies on heavily for drinking water and other uses.[201] In an interesting litigation strategy, however,

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198. *See, e.g.*, Chippewa Ottawa Res. Auth., Comment on Revised Definition of "Waters of the United States" (Apr. 15, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-4252 ("The proposed changes to WOTUS would eliminate protection to our rivers' headwaters . . . . [We] urge[] the [EPA] and [ACE] to maintain the 2015 definition of WOTUS"); Snoqualmie Indian Tribe, Comment on Revised Definition of "Waters of the United States" (Apr. 28, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-6823 ("The proposed changes to the WOTUS rule . . . will allow the degradation of waters and other aquatic resources that are necessary for the Snoqualmie Indian Tribe to exercise its treaty protected activities . . . .").

199. *See, e.g.*, Att'ys Gen. of N.Y., Cal., Conn., Me., Md., Mass., Mich., N.J., N.M., Or., R.I., Vt., Va., Wash., & D.C., Comment on Revised Definition of "Waters of the United States" 2–3 (Apr. 24, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-5467 ("The proposed rule's adverse effect on water quality is contrary to the Act's [CWA] objective . . . . States including California and New Mexico rely—for drinking water, wildlife habitat, agriculture, and recreation—on ephemeral waterways that are precipitation- dependent and would be altogether excluded from federal protections in the proposed rule."); City of Goleta, Cal., Comment on Revised Definition of "Waters of the United States" 2 (Apr. 4, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-3089 ("Current science overwhelmingly supports retaining the existing definitions included in Clean Water Rule."); Members of N.J. State Legislature, Comment on Revised Definition of "Waters of the United States" 1 (May 6, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-9890 ("We urge the Agencies to withdraw this dangerous Dirty Water Rule proposal, which is expected to eliminate Clean Water Act protections for more than half of the nation's wetlands and thousands of miles of streams, including sources of drinking water.").

200. *See* Brad Little, Comment on Revised Definition of "Waters of the United States" (Apr. 16, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-4382 ("This straightforward approach—clearly stating what is included as well as what is excluded from federal jurisdiction—has Idaho's support"); Att'ys Gen. of Tex., Ariz., & Utah, Comment on Revised Definition of "Waters of the United States" 1 (Apr. 23, 2019), https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-5322 ("AGs support the Revised Definition because it restores the cooperative federalism that has historically been the hallmark of our federal pollution control laws.").

201. *See, e.g.*, Jerd Smith, *Colorado AG, Top Water Quality Regulator Vow to Challenge New Clean Water Act Rule*, COLO. INDEP. (May 8, 2020), https://www.coloradoindependent.com/2020/05/08/colorado-challenge-clean-water-act-rule-wotus/ ("Under the new rule . . . thousands of miles of streams in Colorado and other Western states would no longer be protected under the law.").

the state's petition for preliminary injunction did not raise those concerns and instead emphasized that the Navigable Waters Protection Rule could lead to delays in infrastructure project permitting under section 404 of the Clean Water Act.[202] District Court Judge William J. Martinez found the state's argument to be "unusual and partly self-contradictory," but nevertheless, he granted the stay on June 19, 2020, three days before the Navigable Waters Protection Rule went into effect everywhere else in the nation.[203] For the period from June 19, 2020 to March 2, 2021, the Navigable Waters Protection Rule was in effect in all states other than Colorado; in Colorado, the "Repeal" rule—that is, the reversion to the pre-Clean Water Rule definition of "navigable waters"—was in effect during that period.[204] However, on March 2, 2021, the U.S. Court of Appeals for the Tenth Circuit lifted the stay in Colorado, making the Navigable Waters Protection Rule effective nationwide.[205] Briefs in the district court litigation are due this summer.

Several other lawsuits against the Navigable Waters Protection Rule are still pending, filed by other states, tribes, and environmental advocacy groups.[206] In addition to challenging the merits of the Navigable Waters Protection Rule, some lawsuits also allege that the "Repeal and Replace" rulemaking process violated the Administrative Procedure Act by denying meaningful opportunities for public participation.[207] In parallel to these challenges to the Navigable Waters Protection Rule, some state legislators have introduced proposed bills that would offer state law protection to waters that would be subject to Clean Water Act requirements pursuant to the Clean Water Rule but not under the Navigable Waters Protection Rule.[208]

In 2020, as litigation regarding the Navigable Waters Protection Rule continued to mount, cases that were still pending regarding the Clean Water Rule were being dismissed. On August 5, 2020, the Sixth Circuit dismissed as moot a challenge to the Clean Water Rule originally brought by Ohio and Tennessee in

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202. Amended Motion for Preliminary Injunction at 8, Colorado v. EPA, 445 F. Supp. 3d (D. Colo. 2020) (No. 20-cv-01461-WJM).

203. Colorado v. EPA, 445 F. Supp. 3d (D. Colo. 2020) (order granting as-construed motion for stay of agency action).

204. *See About Waters of the United States*, EPA, https://www.epa.gov/nwpr/about-waters-united-states (last updated Sept. 22, 2020).

205. Colorado v. EPA, 989 F.3d 874, 879, 890 (10th Cir. 2021).

206. *See, e.g.*, Env't Integrity Project v. Wheeler, No. 1:20-cv-01734 (D D.C. filed June 25, 2020); Navajo Nation v. Wheeler, No. 2:20-cv-00602 (D.N.M. filed June 22, 2020); Pascua Yaqui Tribe v. EPA, 4:20-cv-00266 (D. Ariz. filed June 22, 2020); Puget Soundkeeper All. v. EPA, No. 2:20-cv-00950 (W.D. Wash. filed June 22, 2020); California v. Wheeler, No. 3:20-cv-03005 (N.D. Cal. filed May 1, 2020); Conservation Law Found. v. EPA, No, 1:20-cv-10820 (D. Mass. filed Apr. 29, 2020); Chesapeake Bay Found. v. Wheeler, No. 1:20-cv-01064 (D. Md. filed Apr. 22, 2020).

207. *See, e.g.*, Complaint at 41–48, S.C. Coastal Conservation League v. Wheeler, No. 2:20-cv-01687 (D.S.C. 2020), *available at* https://www.southernenvironment.org/uploads/words_docs/2020.04.29_-_KFM_-_Replacement_Rule_Complaint_FINAL.pdf.

208. For instance, Arizona's H.B. 2691 "would establish a new state surface regulatory program." Hannah Northey, *States Face Quagmire in Wake of Trump Rule*, GREENWIRE (Apr. 26, 2021), https://www.eenews.net/greenwire/stories/1063730963. For more information about state efforts to protect such waters, see generally *id.*

2015. The states argued to keep the case alive, on grounds that the Clean Water Rule could again become effective if a nationwide stay of the Navigable Waters Protection Rule is ordered, but the court found that scenario unlikely in the near future.[209]

Following the election of President Biden in November 2020, EPA attempted to stay pending litigation regarding the Navigable Waters Protection Rule in order to have the opportunity to propose its own navigable rule without the constraints of additional judicial determinations regarding the meaning of "navigable waters."[210] These efforts have been unsuccessful; on March 1, 2021, the Tenth Circuit denied an EPA motion to hold appeals in abeyance.[211]

In his confirmation hearing in February 2021, EPA Administrator Michael Regan articulated his vision for a "navigable waters" rule that is: clear, protective of environmental quality, not overly burdensome to the regulated community, and the product of broad stakeholder input. He stated:

> What I'm hopeful for is that . . . we can look for a common ground where we give the farming community and the environmental community some certainty that as we move forward that we're going to follow the science, follow the law, look at a pragmatic approach that doesn't overburden the farmer.[212]

B. County of Maui*: Nonpoint Source Pollution Can Be the "Functional Equivalent" of Point Source Pollution and Require an NPDES Permit*

At the same time that the Trump administration was repealing the Clean Water Rule and replacing it with the Navigable Waters Protection Rule, a seminal case regarding the meaning of a "point source" under the Clean Water Act, *County of Maui, Hawaii v. Hawaii Wildlife Fund*, was working its way through the courts.[213] In April 2020, the Supreme Court held in this case that when pollutants originating from nonpoint sources can be traced to reach navigable waters through a conduit such as groundwater transport, they are the "functional equivalent" of a point source discharge and therefore require an NPDES permit under the Clean Water Act.[214] In this six to three decision, the Court expanded the reach of the Clean Water Act, just as EPA was fighting to narrow it in the Navigable Waters Protection Rule rulemaking.

The case focused on the County of Maui, Hawaii,[215] and its Lahaina Wastewater Reclamation Facility. Since the early 1980s, the Lahaina facility has

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209. Ohio v. EPA, 969 F.3d 306 (6th Cir. 2020).

210. *See supra* note 11.

211. Order at 2, Colorado v. EPA, Nos. 20-1238, 20-1262, 20-1263 (10th Cir. Mar. 1, 2021).

212. Hannah Northey, *EPA Nominee Offers Congress a Peek at Plans for WOTUS*, GREENWIRE (Feb. 4, 2021), https://www.eenews.net/greenwire/stories/1063724397.

213. Cnty. of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020).

214. *Id.* at 1468.

215. This Article spells the state name as "Hawaii," in accordance with the Hawaii Admission Act of 1959 and as used in the judicial opinions discussed in this Article. A traditional spelling is "Hawai'i." *See* Bobby Camara, *Appendix F Geographic Names* 3, *in* LESLIE HAYSMITH ET AL., U.S. DEP'T OF

collected sewage from the surrounding area, treated and disinfected it, and pumped the treated water several hundred feet underground through four injection wells.[216] The effluent, which averages four million gallons per day, travels one-half of a mile through groundwater before discharging to the Pacific Ocean.[217] "In August 2001, the County of Maui and EPA entered a consent decree regarding the injection wells and compliance with the Safe Drinking Water Act;" the "consent decree did not discuss whether an NPDES permit was needed for the injection wells under the Clean Water Act."[218]

In 2012, a number of environmental groups, including the Hawaii Wildlife Fund, the Surfrider Foundation, the Sierra Club, and the West Maui Preservation Association, collectively represented by Earthjustice, brought a Clean Water Act citizen suit against the County for discharging a wastewater to "navigable waters" (that is, the Pacific Ocean) without an NPDES permit, in violation of the Clean Water Act.[219] The District Court for the District of Hawaii examined a dye tracer study conducted by EPA in 2013, which found that considerable amount of effluent from the wells—approximately 64 percent of the total volume of treated wastewater injected—ended up in the Pacific Ocean.[220] Based on this study and other data, the court concluded that the discharge from the Lahaina facility was "a *de facto* discharge into the ocean," because "pollutants can be directly traced from the injection wells to the ocean" via the groundwater.[221] The district court reasoned that "it would make no sense to exempt a polluter from regulation simply because its pollution passes through a conduit."[222]

The district court granted summary judgment for the environmental groups and found the County of Maui liable under the Clean Water Act.[223] It did not make a determination regarding any civil penalties.[224] Following the district court decision, the parties entered a conditional settlement to take effect if the County were unsuccessful on appeal. Under the conditional settlement agreement, the County must make a good-faith effort to obtain and comply with an NPDES permit for the Lahaina facility; pay $100,000 in civil penalties; pay nearly $1 million in attorney's fees and other litigation expenses incurred by the plaintiff environmental groups; and spend $2.5 million on a supplemental environmental project on the Island of Maui.[225]

INTERIOR, PACIFIC ISLAND NETWORK VITAL SIGNS MONITORING PLAN, NATURAL RESOURCE REPORT NPS/PACN/NRR—2006/003 (2006).

216. Haw. Wildlife Fund v. Cnty. of Maui, 24 F. Supp. 3d 980, 983–84 (D. Haw. 2014), *vacated*, 140 S. Ct. 1462 (2020).

217. *Id.* at 984.

218. *Id.* at 985 (referencing 42 U.S.C. §§ 300h–2(c), 300j–4(a)).

219. *Id.* at 986.

220. *Id.* at 984.

221. *Id.* at 998.

222. *Id.*

223. *Id.* at 1005.

224. *Id.*

225. *Id.* at 1484 n.2 (Alito, J., dissenting).

The Ninth Circuit affirmed, but it described the relevant statutory standard a bit differently.[226] Instead of relying on the "significant effects" test adopted by the district court, it held that an NPDES permit is required when "the pollutants are *fairly traceable* from the point source to a navigable water such that the discharge is the functional equivalent of a discharge into the navigable water."[227] The Ninth Circuit left "for another day the task of determining when, if ever, the connection between a point source and a navigable water is too tenuous to support liability . . . ." [228] The Ninth Circuit was not persuaded by the County's argument that it did not have "fair notice" that an NPDES permit was required. The court held that even though the Hawaii Department of Health (the state agency with delegated authority to administer the NPDES program) had not solidified its position on whether an NPDES permit was necessary for the Lahaina facility and its injection wells, enforcement of the Clean Water Act would not infringe the County's due process rights because a reasonable person would have understood the statute as requiring permits for these discharges.[229]

Following the Ninth Circuit ruling, municipalities across the country scrambled to evaluate whether their wastewater disposal practices might also violate the Clean Water Act.[230] In August 2018, the County of Maui petitioned the Supreme Court for certiorari, asserting that the Ninth Circuit decision had "swept into the NPDES permitting program millions of sources long regulated as nonpoint sources of pollution," including other municipal wastewater treatment facilities.[231] Nearly twenty states filed a joint amicus brief in support of the County, arguing that the "fairly traceable" test from the Ninth Circuit decision would "extend the reach of the [CWA] to virtually *all* of the nation's waters - and to any *land* capable of absorbing water as well."[232] Interestingly, in parallel to these proceedings, the Clean Water Rule litigation was playing out in the federal district and appellate courts, and the Navigable Waters Protection Rule rulemaking was proceeding through the notice-and-comment process.

In February 2019, the Supreme Court granted certiorari on one question presented by the County: "whether the [Clean Water Act] requires a permit when pollutants originate from a point source but are conveyed to navigable waters by

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226. Haw. Wildlife Fund v. Cnty. of Maui, 886 F.3d 737 (9th Cir. 2018).

227. *Id.* at 749. Neither side disputed that the Lahaina wells were point sources withing the meaning of the Clean Water Act. *Id.* at 744.

228. *Id.* at 749.

229. *Id.* at 752.

230. On the Big Island of Hawaii, the Ninth Circuit ruling hit close to home. At a public meeting to discuss next steps following the decision, Hawaii County Environmental Management Commission Chairman Richard Bennett noted that: "This ruling, in my estimation, will have a profound influence on wastewater discharges into the ground for the state and perhaps the United States." Nancy Cook Lauer, *Maui Case Leads Big Island to Mull Wastewater Discharge*, WEST HAW. TODAY (Mar. 1, 2018), https://www.westhawaiitoday.com/2018/03/01/hawaii-news/maui-case-leads-big-island-to-mull-wastewater-discharge/.

231. Petition for Writ of Certiorari at 4, *County of Maui*, 886 F.3d at 737 (No. 18-260).

232. Brief for State of West Virginia et al. as Amici Curiae Supporting Petitioner, *County of Maui*, 886 F.3d at 737 (No. 18-260).

a nonpoint source, such as groundwater."[233] The Court explained that it had granted the petition due to a circuit split; various courts of appeals had adopted different tests for the "discharge" of a "pollutant" to "navigable waters" under the Clean Water Act.[234]

Ultimately, the Supreme Court adopted a "functional equivalent" test similar to the "significant effects" test articulated by the district court. It held that an NPDES permit is required for the Lahaina facility "if the addition of the pollutants through groundwater is the functional equivalent of a direct discharge from the point source into navigable waters."[235] The Supreme Court found that the "fairly traceable" test applied by the Ninth Circuit was overbroad and "inconsistent with major congressional objectives, as revealed by the [Clean Water Act's] language, structure, and purposes," and therefore vacated the opinion of the Ninth Circuit and remanded for further proceedings utilizing the "functional equivalent" test.[236]

The majority opinion, authored by Justice Breyer, centered on the meaning of the word "from" in the Clean Water Act's provision requiring an NPDES permit for "any addition of any pollutant to navigable waters from any point source."[237] The parties did not dispute that the pollutants originated at a point source (the Lahaina facility) and ended up in a navigable water (the Pacific Ocean); the Court framed the question as whether the pollutants came "from" the Lahaina facility even though they traveled through groundwater before reaching the ocean.[238] The Court noted that the meaning of the word "from" should be drawn from its context in congressional intent and legislative history.[239] The Court observed that Congress's basic aim in the Clean Water Act was to "provide federal regulation of identifiable sources of pollutants entering navigable waters without undermining the States' longstanding regulatory authority over land and groundwater."[240]

While the majority found the Ninth Circuit's "fairly traceable" standard to be overly broad, it also recognized that regulating only direct point source discharges would create a "massive loophole" through which point source dischargers may release pollutants into waters of the United States by first transmitting the pollutant through a nonpoint source.[241] The majority found that

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233. Petition for Writ of Certiorari at i, *County of Maui*, 140 S. Ct. 1462 (2020) (No. 18-260).

234. Cnty. of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462, 1469–70 (comparing the "fairly traceable" standard specified by the Ninth Circuit in this case with the "direct hydrological connection" test identified by the Fourth Circuit in *Upstate Forever v. Kinder Morgan Energy Partners, L. P.*, 887 F.3d 637, 651 (4th Cir. 2018), and the Sixth Circuit determination in *Ky. Waterways Alliance v. Ky. Utility Co.*, 905 F.3d 925, 932–938 (6th Cir. 2018), that discharges through groundwater are excluded from NPDES permitting requirements).

235. *County of Maui*, 140 S. Ct. at 1468.

236. *Id.* at 1477.

237. *Id.* at 1470–73 (referencing 33 U.S.C. § 1362(12)(A)).

238. *Id.* at 1470.

239. *Id.* at 1473.

240. *Id.* at 1476.

241. *Id.* at 1476; *see also id.* at 1474.

the "functional equivalent test" struck the right balance between these objectives, characterizing it as a "middle ground" approach.[242] Justice Kavanaugh concurred in full, emphasizing the consistency between this decision and Justice Scalia's plurality opinion in *Rapanos*.[243]

In terms of implementing the "functional equivalent" test, the Court remarked that "time and distance are obviously important" factors, and in most cases, will be the most important factors, in determining whether a release of pollutants is the functional equivalent of a direct discharge from the point source into navigable waters.[244] Beyond that, the Court admitted that the test is not a bright-line determination, but rather requires a case-by-case analysis that may be challenging for regulatory bodies and the lower courts to implement: "The difficulty with this approach, we recognize, is that it does not, on its own, clearly explain how to deal with middle instances."[245] It observed that "there are too many potentially relevant factors applicable to factually different cases for this Court now to use more specific language."[246] The Court called on EPA to provide further administrative guidance consistent with the Clean Water Act.[247]

Two dissenting opinions were filed. Justice Alito would have held that an NPDES permit is required only when a pollutant is discharged directly from a point source to navigable waters.[248] He expressed concern that the majority was essentially allowing EPA to impose permitting requirements on nonpoint sources, encroaching on states' authority.[249] Additionally, Justice Alito bemoaned the vagaries of the "functional equivalent" test, criticizing the majority for "mak[ing] up a rule that provides no clear guidance and invites arbitrary and inconsistent application . . . [and] has no clear meaning."[250]

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242. *Id.* at 1476.

243. *Id.* at 1478 (Kavanaugh, J., concurring) ("[U]nder Justice Scalia's interpretation in *Rapanos*, the fact that the pollutants from Maui's wastewater facility reach the ocean via an indirect route does not itself exempt Maui's facility from the Clean Water Act's permitting requirement for point sources. The Court today adheres to Justice Scalia's analysis in *Rapanos* on that issue.").

244. *Id.* at 1476–77. The Court noted that other relevant factors may include "the nature of the material through which the pollutant travels," "the extent to which the pollutant is diluted or chemically changed as it travels," "the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source," "the manner by or area in which the pollutant enters the navigable waters," and "the degree to which the pollution (at that point) has maintained its specific identity." *Id.*

245. *Id.* at 1476.

246. *Id.* at 1476–77.

247. *Id.* at 1477.

248. *Id.* at 1486 (Alito, J., dissenting).

249. *Id.* at 1488–91 (Alito, J., dissenting) ("The States have the authority to regulate the discharge of pollutants by non-point sources. See 33 U.S.C. §§ 1285(j), 1314(f), 1329(i), 1329(b)(1), (h). They are entrusted with a vital role under the Clean Water Act, and there is no reason to believe that they would tolerate cases of abuse . . . Point sources are readily identifiable and therefore more susceptible to uniform nationwide regulation. Non-point source pollution, on the other hand, often presents more complicated issues that are better suited to individualized local solutions.").

250. *Id.* at 1483 (Alito, J., dissenting) ("Just what is the 'functional equivalent' of a 'direct discharge'? The Court provides no real answer . . . Entities like water treatment authorities that need to know whether they must get a permit are left to guess how this nebulous standard will be applied. Regulators are given the discretion, at least in the first instance, to make of this standard what they will.

Justice Thomas, joined by Justice Gorsuch, made many of the same points. He too would have held that an NPDES permit is required only when a point source discharges pollutants directly into navigable waters.[251] Justice Thomas characterized the "functional equivalent" test as a departure from the text of the Clean Water Act.[252] He remarked that the Court is "not a superlegislature (or super-EPA) tasked with making good policy" but rather that its job is to "follow the text even if doing so will supposedly undercut a basic objective of the statute."[253] Like Justice Alito, Justice Thomas raised concerns regarding EPA's purported infringement of states' rights. He observed that section 1251(b) of the Clean Water Act expresses Congress's policy to preserve the rights of states when it comes to regulating water pollution, and he argued that allowing EPA "to regulate nonpoint sources and groundwater is in serious tension with Congress' design" and beyond the scope of the Commerce Clause of the U.S. Constitution.[254]

In our view, the majority should be applauded for adopting a test that closes a significant loophole and reflects the scientific reality that an indirect discharge to navigable waters can have the same impact on water quality as a direct discharge. It is telling to note that, in nearly a decade of litigation and in the tens of thousands of pages of documents filed with the federal courts in the *County of Maui* case, there has been relatively little dispute regarding the impacts of the Lahaina discharges on the environment.[255] No doubt, the coming years will be rife with administrative determinations and lower court decisions that struggle to apply the "functional equivalent" test. And municipalities, industry, and landowners will be left guessing as to whether they require an NPDES permit; some may face stiff fines under the Clean Water Act if they guess wrong. Unfortunate, of course. But perhaps these are the inevitable growing pains as the Clean Water Act matures and begins to address in earnest the biggest threat to water quality today: nonpoint source pollution.

And the lower courts? The Court's advice, in essence, is: 'That's your problem. Muddle through as best you can.'").

251. *Id.* at 1479 (Thomas, J., dissenting).

252. *Id.*

253. *Id.* at 1482 (Thomas, J., dissenting) (quoting Baker Botts LLP v. ASARCO LLC, 576 U.S. 121, 135 (2015)).

254. *Id.* at 1478 (Thomas, J., dissenting) (referencing 33 U.S.C. § 1251(b), the policy of Congress "to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution").

255. *See* Transcript of Oral Argument at 2, Haw. Wildlife Fund v. Cnty. of Maui, 886 F.3d 737 (9th Cir. 2018) (No. 15-17447), 2017 WL 9512904 (Counsel for the County of Maui noting that "[t]he answer to that question does not depend, of course, on what we might think in 2017 is good public policy, or how we would have written the Clean Water Act had we been in Congress"); *see* also Haw. Wildlife Fund v. Cnty. of Maui, 886 F.3d 737, 745 (9th Cir. 2018) (observing that "the County knew of these effects well before the LWRF's inception, the record further establishes it 'constructed [the wells] for the express purpose of storing pollutants and moving them from [the Lahaina Facility] to [the Pacific Ocean]'").

III. RECOMMENDATIONS FOR COMPREHENSIVE TREATMENT OF NONPOINT SOURCE POLLUTION UNDER THE CLEAN WATER ACT

Those like Justice Thomas, who in the name of textualism read the Clean Water Act narrowly, should begin with a close read of section 1251(a), which proclaims that Congress's goal in passing the Clean Water Act was to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[256] This provision provides that,

> [i]n order to achieve this objective, it is hereby declared that . . . it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this chapter to be met through the control of both point and nonpoint sources of pollution.[257]

Yet today, nearly fifty years after the passage of the Act, nonpoint source pollution control is still largely left up to the states to implement, or not implement, in response to local political pressures. The *County of Maui* case is an important step forward in closing the nonpoint source regulatory gap, but much work remains to be done.

This Part offers three recommendations. First, it calls for a congressional amendment to the Clean Water Act to require binding controls on nonpoint source pollution. Second, recognizing that an amendment to the Clean Water Act may not be politically viable, it offers an approach for controlling nonpoint source pollution through an amendment to the Safe Drinking Water Act. Finally, it identifies tools that interested states, local governments, and citizens' groups can utilize to take action on nonpoint source pollution under existing law.

A. Congress Can and Should Amend the Clean Water Act to Require Binding Controls on Nonpoint Source Pollution

To comprehensively address nonpoint source pollution, Congress should amend the Clean Water Act to require the adoption of nonpoint source controls. While opponents are quick to raise Commerce Clause concerns, those arguments are overstated. The Supreme Court has identified three broad categories of activities that Congress may regulate under its Commerce Clause power: (1) the use of channels of interstate commerce, (2) the instrumentalities of interstate commerce and persons and things in interstate commerce, and (3) activities that substantially affect interstate commerce.[258]

As explained in Part I of this Article, the earliest water quality regulations in the United States were aimed at restricting the dumping of debris into navigable waters—in other words, at protecting the use of rivers and other waterbodies as channels of interstate commerce. This emphasis on navigability

256. 33 U.S.C. § 1251(a) (2018).
257. *Id.*
258. United States v. Lopez, 514 U.S. 549, 558–59 (1995) (internal citations omitted).

may have seemed sensible when *The Daniel Ball* was decided in 1870, but modern science[259] and economics[260] have demonstrated that water quality can substantially affect interstate (and international) commerce well beyond the function of waterbodies as channels of interstate commerce—for example, driving up costs of drinking water treatment or causing fish kills in the Gulf of Mexico hypoxic zone.[261] This is true for water quality impairments caused by point source discharges or by nonpoint source discharges.

Consider for a moment the Clean Air Act of 1970, which also draws its power from the Commerce Clause and regulates outdoor air quality and air pollution.[262] Pursuant to the Clean Air Act, EPA promulgates National Ambient Air Quality Standards for criteria pollutants that apply to all outdoor air across the country.[263] The Act and its implementing regulations do not differentiate between "airs of the United States" and outdoor air that is subject to only state or local regulation. Indeed, the concept is laughable. The Clean Air Act recognizes that air moves and that the emission of air pollution in one location can affect air quality, and commercial activities, in other areas. Consistent with the principles of cooperative federalism, the Clean Air Act's permitting and enforcement processes allow states flexibility in implementation, while ensuring that a uniform air quality standard is applied across the country.[264]

In our view, and that of some others before us, the main problem that Congress faces in amending the Clean Water Act to include binding controls on nonpoint source pollution is political, not legal, in nature.[265] Regulations

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259. *See, e.g.*, Carlos J. Ocampo et al., Hydrological Connectivity of Upland-Riparian Zones in Agricultural Catchments: Implications for Runoff Generation and Nitrate Transport, 331 J. HYDROLOGY 643 (2006); Josefin Thorslund et al., *Solute Evidence for Hydrological Connectivity of Geographically Isolated Wetlands*, 29 LAND DEGRADATION & DEV. 3954 (2018).

260. *See, e.g.*, Avi Garbow & Ken Kopocis, *Clean Water Act Protects Essential Benefits and It Must Not Be Weakened*, THE HILL (Feb. 22, 2020), https://thehill.com/opinion/energy-environment/484205-clean-water-act-protects-essential-benefits-and-it-must-not-be ("About 40 million anglers spend $45B annually to fish in U.S. waters; the beverage industry uses more than 12B gallons of water annually to produce products valued at $58B; manufacturing companies use nine trillion gallons of freshwater every year."); AM. SUSTAINABLE BUS. COUNCIL, THE BUSINESS CASE FOR EPA ACTION ON CLEAN WATER 2, https://www.asbcouncil.org/sites/main/files/file-attachments/asbc_business_case_for_clean_water_for_website.pdf?1544561858 (presenting their survey data that "67% of small business owners are concerned that water pollution could hurt their business operations" and that "[m]ore than 70% of small business owners — including majorities of self-identified Republicans, Democrats, and Independents — believe clean water protections help spur economic growth, compared to only six percent who believe they are too burdensome").

261. *See* David Dearmont, *Costs of Water Treatment Due to Diminished Water Quality A Case Study in Texas*, 34 WATER RESOURCES RES. 849 (1998); Nancy N. Rabalais & R. Eugene Turner, *Gulf of Mexico Hypoxia Past, Present, and Future*, 28 BULL. LIMNOLOGY & OCEANOGRAPHY 117 (2019).

262. 42 U.S.C. §§ 7401–7431 (2018).

263. *Id.* §§ 7408–7409; 40 C.F.R. pt. 50 (2020).

264. 42 U.S.C. § 7401–7431.

265. *See* David Zaring, Note, *Agriculture, Nonpoint Source Pollution, and Regulatory Control The Clean Water Act's Bleak Present and Future*, 20 HARV. ENV'T L. REV. 515, 527–28 (1996) (noting that federal efforts to encourage states to address nonpoint source pollution under the Clean Water Act have failed in part due to the "the political costs of imposing burdensome regulations on powerful agricultural interests").

governing nonpoint source pollution affect individual farmers, ranchers, and property developers, many of whom have a strong ideological opposition to federal regulation of activities occurring on their land.[266] Associations representing these individuals are well organized, well funded, and well represented by lobbyists in Washington, D.C. and in the state capitals.[267] To illustrate this point: A House resolution to uphold the Trump-era Navigable Waters Protection Rule introduced by Republican Representative Mariannette Miller-Meeks of Iowa in April 2021 had 120 cosponsors (all Republican); a companion resolution introduced in the Senate by Republican Senator Joni Ernst of Iowa had twenty-seven cosponsors (all Republican).[268]

It is politically popular to offer voluntary programs for nonpoint source control, particularly ones like the Conservation Reserve Program that offer landowners significant cost-share.[269] While these programs have significantly improved water quality in some areas, the fact remains that the majority of waterbodies in the United States are still impaired.[270] Voluntary measures to reduce nonpoint source pollution have only gotten us so far. If Congress remains committed to the Clean Water Act's stated goal of "restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation's waters,"[271] it is time to amend the Act to give its nonpoint source provisions more teeth—specifically sections 303(d) and 319.[272] It is essential that the regulation of nonpoint source pollutants be established as a legitimate responsibility to further the goals of the Clean Water Act. This would start with defining "nonpoint source pollutant" in the statute and expanding subsequent regulatory language to include both point and nonpoint source pollutants.

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266. *See* Mary E. Christopher, *Time to Bite the Bullet A Look at State Implementation of Total Maximum Daily Loads (TMDLs) under Section 303(d) of the Clean Water Act*, 40 WASHBURN L.J. 480, 486 (2001) ("The parties who traditionally enjoyed exemption from regulation strongly oppose the new program. Additionally, property rights advocates fear the imposition of new social responsibilities in an area traditionally free of federal regulation.").

267. *See id.* at 485 ("Agriculture often receives protection from states, and has in the past received exemption from both state and federal water pollution regulation. Agricultural interest groups bear considerable influence in Congress, and have been treated favorably under past water pollution laws. This favored status directly conflicts with the fact that traditional farming practices are the cause of many of our national water quality problems.").

268. H.R. Res. 318, 117th Cong. (2021); S. Res. 17, 117th Cong. (2021); *see also Cosponsors H. Res. 318 — 117th Congress (2021-2022)*, LIBRARY OF CONGRESS, https://www.congress.gov/bill/117th-congress/house-resolution/318/cosponsors (last visited Apr. 26, 2021); *Cosponsors S. Res. 17 — 117th Congress (2021-2022)*, LIBRARY OF CONGRESS, https://www.congress.gov/bill/117th-congress/senate-resolution/17/cosponsors (last visited Apr. 26, 2021).

269. *See Conservation Reserve Program*, U.S. DEP'T OF AGRIC., https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/ (last visited Apr. 26, 2021).

270. *See supra* notes 2 and 89.

271. 33 U.S.C. § 1251(a) (2018).

272. In comparison, we do not believe that an amendment to Clean Water Act section 208, or an influx of appropriations, is a preferred avenue for congressional action. We believe those resources could be used more efficiently under sections 303(d) or 319.

To date, section 303(d) has not achieved material reductions in nonpoint source pollution.[273] It does not provide EPA a mechanism to coordinate state TMDL plans; each state submits its own TMDL plans without regard to the plans of upstream or downstream states.[274] Further, while EPA can require states to develop TMDL plans (and develop them itself if a state refuses to comply), it cannot require states to actually implement their TMDL plans, and as a result, some have not done so.[275] Because EPA cannot regulate nonpoint source pollution, the only tool at its disposal to protect waters in downstream states is the NPDES permitting process.[276]

We recommend that Congress amend the Clean Water Act so that EPA can require states to not only develop but, critically, implement, TMDL plans. The Government Accountability Office likewise has recommended that Congress consider "revising the Act's largely voluntary approach" to TMDLs, and specifically that Congress "consider ways to address factors, such as limited authority, which currently impede attainment of water quality standards, particularly the designated uses of fishing, swimming, and drinking."[277] We further recommend that Congress direct EPA to evaluate state TMDL plans in a coordinated manner to better address water quality at the catchment level. Other experts in the field have made similar recommendations.[278]

With respect to section 319, we likewise recommend that Congress amend this section to allow for greater control by EPA and less state discretion. Today, the section 319 program basically is optional for the states; EPA can do little to intervene if a state does not submit or implement a Nonpoint Source

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273. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-14-80, CLEAN WATER ACT: CHANGES NEEDED IF KEY EPA PROGRAM IS TO HELP FULFILL THE NATION'S WATER QUALITY GOALS 62–63 (2013) ("The [Clean Water Act's] approach for abating nonpoint source pollution . . . has not shown much progress toward achieving the goals of the act and likely will not do so in the foreseeable future.").

274. Oliver A. Houck, *TMDLs IV The Final Frontier*, 29 ENV'T L. REP. 10,469, 10,473 (1999) (indicating that EPA had initially envisioned a "watershed planning" approach to TMDL implementation but that this never materialized in the regulations).

275. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 273, at 35 (according to state TMDL coordinators, actions related to nonpoint source pollution controls called for in TMDLs either have not been implemented or have been implemented to a limited extent); *see also* K.A. McConnell, *Limits of* American Farm Bureau Federation v. EPA *and the Clean Water Act's TMDL Provision in the Mississippi River Basin*, 44 ECOLOGY L.Q. 469, 477 (2017) ("The TMDL program—designed to address nonpoint source pollution—is inherently flawed, as it leaves the federal government no way to hold a state's nonpoint source polluters accountable for their respective contribution to an interstate water's water quality violations. The program relies on the states to hold their nonpoint source polluters accountable, which they have little political incentive to do.").

276. 40 C.F.R. § 122.4(d) (2016) ("No permit may be issued . . . [w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States.").

277. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 273, at 65.

278. *See* Jamison E. Colburn, *Coercing Collaboration The Chesapeake Bay Experience*, 40 WM. & MARY ENV'T L. & POL'Y REV. 677, 731 (2016) (identifying gaps in the TMDL regime and celebrating the 2009 Chesapeake Bay TMDL for creatively spanning these gaps); Christopher, *supra* note 267, at 530–31 ("While municipalities and industry are made to shoulder the responsibility for their pollution-producing activities, nonpoint source dischargers succeed in shirking their responsibilities. Principles of good stewardship demand more of the agricultural community, especially when simple changes in land-use practices can benefit so many.").

Management Plan.[279] Further, plans are not required to contain any enforceable measures for reducing agricultural runoff or other forms of nonpoint source pollution.[280] We believe that Congress should compel states to develop and implement section 319 plans that regulate nonpoint sources.

The section 319 program, if sufficiently funded, has the potential to facilitate the implementation of nonpoint source pollution control measures. Indeed, as enforcement mechanisms to "push" states to control nonpoint source pollution have remained absent, monetary incentives in the form of federal grants have emerged as a potential means to "pull" states towards implementing nonpoint source management plans.[281] But because section 319 has been chronically underfunded, it has not lived up to its potential.[282] Section 319 grants help to mitigate nonpoint source pollution by both providing funding to a state's nonpoint source management program and by funding more localized initiatives such as establishing Best Management Practices (BMPs) and/or supporting research and education initiatives.[283]

For example, stormwater BMPs rely heavily on infiltration (so that less water is available to transport pollutants to streams) and sedimentation (so that pollutants settle out of the stormwater before it reaches a waterbody) as the means to improve water quality.[284] However, pollutants dissolved in stormwater runoff (such as chloride from road salt application) that are not attached to soil particles are not removed through sedimentation. Communities may be hesitant to approve the use of innovative water quality improvement technologies without extensive in situ use results. Section 319 funds could be used to create a system of technology demonstrations to expand the portfolio of viable water quality treatment alternatives.

Additional appropriations are needed to enable state participation and support EPA in its oversight of nonpoint source pollution.[285] The U.S.

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279. *See* Jan G. Laitos & Heidi Ruckriegle, *The Clean Water Act and the Challenge of Agricultural Pollution*, 37 VT. L. REV. 1033, 1044 (2013).

280. *Id.* at 1044–45.

281. *Id.* at 1046 ("Since money is the primary incentive for states to adopt an effective BMP program for agricultural sources, and since federal funds have been absent or limited, neither the Section 208 nor 319 programs has made progress in reducing NPS pollution.").

282. *See* CLAUDIA COPELAND, *supra* note 96, at 8 ("Without adequate funding to implement state management plans, it is doubtful that much will be achieved under Section 319 to control nonpoint source pollution.").

283. *See 319 Grant Current Guidance*, EPA, https://www.epa.gov/nps/319-grant-current-guidance (last visited Apr. 26, 2021).

284. *See, e.g.*, METRO. ST. LOUIS SEWER DIST., RULES & REGULS. & ENG'G DESIGN REQUIREMENTS FOR SANITARY SEWER & STORMWATER DRAINAGE FACILITIES § 4.060.05 (2018), *available at* https://portal.laserfiche.com/Portal/DocView.aspx?id=448068&repo=r-a96260ce.

285. *See* Laitos, *supra* note 279, at 1045–47; *see also* Williams, *supra* note 95, at 75 ("Because the EPA lacks any authority to threaten regulatory action to correct state program deficiencies, the only effective way to achieve greater gains through section 319 is to increase funding for the program substantially."); GEN. ACCOUNTING OFFICE, WATER POLLUTION: GREATER EPA LEADERSHIP NEEDED TO REDUCE NONPOINT SOURCE POLLUTION 29–30 (1990). "States . . . 'pass on' a substantial fraction of the [section] 319 funds they receive from EPA to support local nonpoint source pollution management

agricultural sector receives significant taxpayer subsidies—over $22 billion from the federal government in 2019.[286] A viable section 319 program is a reasonable quid pro quo. At the same time, Congress should require EPA to provide more guidance to the states on how to implement effective section 319 programs to help ensure that expenditures achieve a real water quality benefit.[287]

B. Congress Could Amend the Safe Drinking Water Act to Strengthen EPA's Authority to Protect Drinking Water Sources from Nonpoint Source Pollution

Recognizing that an amendment to the Clean Water Act to require binding controls on nonpoint source pollution may not be politically viable in the near term, an alternative route could be a congressional amendment to the Safe Drinking Water Act[288] to better protect source waters from nonpoint source pollution. The Act already provides EPA with authority to issue regulations governing some water pollution discharges that could impact drinking water sources, and this authority could be expanded to encompass discharges from both point sources and nonpoint sources to surface waters or groundwater.

The Safe Drinking Water Act contains provisions in two major areas. First is the protection of drinking water at the point-of-use, afforded by compliance with enforceable national primary drinking water standards.[289] These standards take two forms: drinking water treatment technique requirements and Maximum Contaminant Levels (MCLs) for water distributed through public water systems.[290] Under the Safe Drinking Water Act and its implementing regulations, the primary drinking water regulations apply to contaminants that are known to cause health problems, while the secondary drinking water regulations apply to contaminants with aesthetic impacts. Both the Safe Drinking Water Act and its implementing regulations also require ongoing evaluation of unregulated contaminants for possible inclusion on the Contaminant Candidate List developed by EPA every five years.[291] If a contaminant of emerging concern

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efforts." *Introduction to the Clean Water Federal "319" Grants*, EPA, https://cfpub.epa.gov/watertrain/moduleFrame. cfm? parent_object_id=2168 (last visited Apr. 26, 2021).

286. U.S. DEP'T OF AGRIC., ECON. RSCH. SERV., FEDERAL GOVERNMENT DIRECT FARM PAYMENTS https://data.ers.usda.gov/reports.aspx?ID=17833&AspxAutoDetectCookieSupport=1 (last visited Apr. 26, 2021).

287. GOV'T ACCOUNTABILITY OFFICE, NONPOINT SOURCE WATER POLLUTION 11, 20 (2012) ("Under EPA's section 319 program . . . states have [] funded projects that have encountered significant challenges" such as failure to obtain landowner cooperation); *see also* Laitos, *supra* note 279, at 1045 ("EPA struggles to ensure that states use Section 319 funds effectively because the statutory 'satisfactory progress' condition for a state's continuing participation in the program has proven to be a hopelessly vague standard."); Williams, *supra* note 95, at 75 ("Even with increased funding, however, the absence of clear performance standards for state management plans makes it difficult to ensure that section 319 funds are used effectively.").

288. 42 U.S.C. §§ 300j–21–300j–27 (2018).

289. *Id.* § 1412(b)(1).

290. 40 C.F.R. §§ 141.60–141.66 (2021).

291. 42 U.S.C. § 1412(b)(1)(B)(i); 40 C.F.R. § 141.40.

is found to cause human health effects that can be reduced through regulation, EPA shall develop an MCL for that contaminant.[292]

There are currently eighty-seven contaminants (and one treatment process effectiveness indicator) for which an MCL or a treatment technology has been established, and nineteen of these are commonly associated with agricultural activities—seventeen organic pesticides and two inorganics associated with runoff from fertilizer (nitrates and nitrites)—as documented by EPA.[293] This demonstrates that substances commonly found in nonpoint source pollution can render water unfit for consumption, or even, in the case of nitrite or nitrate pollution, potentially deadly for infants.[294] Some states (such as Iowa) set the water quality standards for nitrates and nitrites at the MCL levels—implicitly recognizing that ambient waters used for drinking water supply need to be free of contaminants that cannot be removed with conventional drinking water treatment processes.[295] Other states (such as Arkansas) only regulate nitrogen (in the form of ammonia) for the designated uses related to aquatic life, but not for drinking water supply—and in so doing, overlook the critical connection between ambient water quality and the costs of drinking water treatment.[296] And other states (such as Georgia) are completely silent with respect to limits on ammonia, nitrite, or nitrate, and only indicate that drinking water must meet the MCLs after treatment, potentially putting a large burden on water treatment facilities and their ratepayers.[297]

The second major focus of the Safe Drinking Water Act is the regulation of injection activities that could endanger the quality of underground sources of drinking water.[298] Such protection is necessary because it can be very difficult and expensive to treat contaminated groundwater.

In theory, the Clean Water Act and the Safe Drinking Water Act should work together. Surface waters that are a source for public drinking water supply should be designated for this use under the Clean Water Act. Then, water quality criteria should be established to ensure that the ambient water quality is sufficiently good such that a conventional drinking water treatment facility can treat the water at a reasonable cost to render it compliant with the MCLs. This

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292. 42 U.S.C. § 1412(b)(1)(B)(ii).

293. 40 C.F.R. pt. 141; *see also* NATIONAL PRIMARY DRINKING WATER REGULATIONS, EPA (2009), *available at* https://cfpub.epa.gov/watertrain/moduleFrame.cfm?parent_object_id=2168.

294. *See* MCL Promulgation for Nitrate / Nitrite, 56 Fed. Reg. 3538 (Jan. 30, 1991) ("methemoglobinemia is the most sensitive toxic endpoint in infants"); *National Primary Drinking Water Regulations*, EPA, https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations (last visited Apr. 26, 2021) (where EPA publishes the MCL table); *Drinking Water Requirements for States and Public Water Systems*, EPA, https://www.epa.gov/dwreginfo/chemical-contaminant-rules (last visited Apr. 26, 2021).

295. 567 IOWA ADMIN. CODE 61.3(455B) (2021).

296. ARK. POLLUTION CONTROL & ECOLOGY COMM'N 2.512 (2007).

297. *See* Rules of the Dep't of Nat. Res. Env't Prot. Div. Relating to Water Quality Control, Chapter 391-3-6-.03 (6)(a)(iv) (approved by EPA Jan. 20, 2021), *available at* https://epd.georgia.gov/watershed-protection-branch/georgia-water-quality-standards.

298. The Underground Injection Control Program is found at 40 C.F.R. § 144.14.

does not always happen, however; agricultural runoff and other diffuse pollution can cause drinking water sources to become contaminated to the point that only advanced treatment processes can render the water compliant with the MCLs and safe for human consumption.[299] Requiring drinking water utilities to install advanced treatment technologies is problematic in causing additional expense to drinking water customers who were not responsible for the pollutant discharges.

This issue came to a head in Des Moines, Iowa, when Iowa's largest municipal water utility, Des Moines Water Works, had to install a costly reverse osmosis drinking water treatment system due to high levels of nitrate in source waters.[300] Both nitrites and nitrates are serious pollutants that can cause death if ingested in sufficient quantities by infants less than six months of age.[301] Nitrates may be added as fertilizer, but they may also be present from the microbial conversion of other forms of nitrogen fertilizer to nitrites and then to nitrates, which is called nitrification.[302] In 2015, the Des Moines Water Works sued upstream drainage districts under the Clean Water Act's citizen suit provision, claiming that the nitrates were coming from agricultural runoff conveyed through

299. The issue of nitrite and nitrate pollution coming from agricultural activities is particularly problematic in its scope and the potential investments that may be necessary to solve it. Consistent with the requirements of the Harmful Algal Bloom and Hypoxia Research and Control Act and its Amendments, the EPA administrator submitted the latest biennial report to Congress in 2017, which included the retention of the goal of reducing the areal extent of the Gulf of Mexico hypoxic zone to less than 5,000 km^2 by 2035. EPA, MISSISSIPPI RIVER/GULF OF MEXICO WATERSHED NUTRIENT TASK FORCE 2017 REPORT TO CONGRESS 1, 10 (2017). However, despite the investment of $6.7 billion by the U.S. Department of Agriculture's Natural Resources Conservation Service for the implementation of voluntary agricultural practices to reduce nutrient loads during the period from fiscal year 2009 to fiscal year 2015, the Hypoxic Task Force in 2015 agreed to an interim goal of reducing the areal extent by 20 percent by 2025. *Id.* at 10, 90. In 1998, Congress recognized the severity of these threats and authorized the Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA), Pub. L. No. 105–383, 112 Stat. 3447 (1998). The Harmful Algal Bloom and Hypoxia Amendments Act of 2004 and The Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014 reaffirmed and expanded the mandate for the National Oceanic and Atmospheric Administration to advance the scientific understanding and ability to detect, monitor, assess, and predict harmful algal bloom and hypoxia events. Pub. L. No. 108–456, 118 Stat. 3630 (2004); Pub. L. No. 113–124, 128 Stat. 1379 (2014). Congress most recently reauthorized the Harmful Algal Bloom and Hypoxia Research and Control Act through the National Integrated Drought Information System. Pub. L. No. 115–423, 131 Stat. 91 (2019). While the Gulf of Mexico hypoxia has received significant public attention, hypoxia in the Great Lakes is also a problem, and has been linked to nonpoint source pollution from agriculture. *See* U.S. DEP'T OF COM., HARMFUL ALGAL BLOOMS AND HYPOXIA IN THE GREAT LAKES: AN INTERAGENCY PROGRESS AND IMPLEMENTATION REPORT 7 (Nov. 2020) ("Since the mid-1990s, there has been an increase in the size, duration, and prevalence of these scientifically-complex events in the Great Lakes region due to increased nutrient runoffs, mainly from nonpoint agricultural sources.").

300. Complaint of Bd. of Water Works Trustees of City of Des Moines at ¶ 95, 2015 WL 1191173 (N.D. Iowa 2015) (Trial Pleading). The system cost $4.1 million to install and up to $7,000 per day to operate. *Id.*

301. 40 C.F.R. § 141.11 (2021). The MCL for nitrates is 10 milligrams per liter and for nitrites it is one milligram per liter. As indicated in the regulations, babies can die from exposure to greater concentrations. *National Primary Drinking Water Regulations*, EPA, https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic (last visited Apr. 26 2021) (including a table of contaminants under "Inorganic Chemicals").

302. STEVEN C. CHAPRA, SURFACE WATER-QUALITY MODELING 419–23 (McGraw-Hill ed., 1st ed. 1997).

the districts' tile drain systems to the Raccoon River, which is one of the two primary drinking water sources for the Des Moines Water Works.[303] The Racoon River TMDL establishes a 9.5 mg/l nitrate limit, and the Water Works alleged that drainage from the tile system had nitrate levels up to 37.67 mg/l.[304] The Water Works argued that these tile drain systems should be regulated as point sources under the NPDES program,[305] and it also raised other state statutory and common law tort claims. District Court Judge Mark W. Bennett certified four questions to the Iowa Supreme Court, related to the status of drainage districts under the Iowa Constitution.[306]

The Iowa Supreme Court determined that drainage districts are immune from suit under the Iowa Constitution for the claims at issue in the case.[307] Furthermore, the district court found that the drainage districts have no ability under Iowa law to require farmers to use less fertilizers or otherwise change their practices with respect to fertilizer application or runoff management to limit nitrate or nitrite loading from that runoff.[308] Additionally, the court held that the drainage districts are not required under Iowa law to filter out nitrates from the tile drain systems before they discharge into the Racoon River, nor do they have any ability to charge farmers for filtering them out, notwithstanding that the river is designated for public water supply under the Clean Water Act.[309] Although *Des Moines Water Works* was decided narrowly on Iowa law grounds, it was celebrated as a win for agriculture, emphasizing that farmers are not responsible for the financial and human health costs of pollution from agricultural runoff.[310]

A similar case with potential nationwide implications, *Pacific Coast Federation of Fishermen's Associations v. Glaser,* is now pending in the federal courts. In this case, commercial fishermen, recreationists, and environmental groups sued the U.S. Bureau of Reclamation under the citizen suit provision of the Clean Water Act. The plaintiffs argued that the Bureau's Grasslands Bypass Project, a tile drainage system in central California, needs an NPDES permit to discharge selenium and other pollutants to the Pacific Ocean.[311] The District

303. Bd. of Water Works Trustees of City of Des Moines v. Sac Cnty. Bd. of Supervisors, No. C15-4020-LTS, 2017 WL 1042072,*3 (N.D. Iowa Mar. 17, 2017).

304. Complaint of Bd. of Water Works Trustees of City of Des Moines, 2015 WL 1191173, ¶ 139 (N.D. Iowa 2015) (Trial Pleading).

305. *Bd. of Water Works Trustees of City of Des Moines*, 2017 WL 1042072, at *3.

306. *Id.* at *2.

307. *See id.* ("Drainage districts have a limited, targeted role—to facilitate the drainage of farmland in order to make it more productive. Accordingly, Iowa law has immunized drainage districts from damages claims for over a century. This immunity was reaffirmed unanimously by our court just over four years ago . . . drainage districts are immune from injunctive relief claims other than mandamus.").

308. *Id.* at *5.

309. *Id.*

310. *See, e.g.*, Matt Hopkins, *Big Win for Agriculture in Des Moines Water Works Case*, CROPLIFE (Jan. 30, 2017), https://www.croplife.com/management/legislation/big-win-for-agriculture-in-des-moines-water-works-case/; Ben Nuelle, *Judge Tosses Iowa Water Works Case*, AGRI-PULSE (Mar. 18, 2017), https://www.agri-pulse.com/articles/9060-judge-tosses-des-moines-water-works-case.

311. Pac. Coast Fed'n of Fishermen's Ass'ns v. Glaser, No. CIV S-2:11-2980-KJM, 2013 WL 5230266, *1 (E.D. Cal. Sept. 16, 2013).

Court for the Eastern District of California ruled that, if the discharge from the tile drains consists entirely of return flows from irrigated agriculture, then the drains are excluded from the definition of point source and are exempt from the NPDES requirements.[312] The Ninth Circuit agreed on the merits[313] but remanded the case because the district court had erroneously placed the burden of proof on the plaintiffs to show that the flows did not entirely consist of agricultural return flows; rather, the Ninth Circuit held that the Bureau of Reclamation should bear the burden of showing that the discharge is entirely composed of return flows from irrigated agriculture and thus entitled to the exemption.[314]

These exemptions for agriculture stand in sharp contrast to the way that industrial water pollution is treated under the Clean Water Act. Industrial facilities discharging to a public sewer are subject to pretreatment standards that prohibit the discharge of materials and quantities that could inhibit the proper operation of the publicly owned treatment works.[315] The objective of these pretreatment standards is to prevent *interference* with the operation of a publicly owned treatment works (with the discharge of toxic materials that would result in the death of the microorganisms responsible for treatment being such an example) and to prevent *pass through* of pollutants (as exemplified by discharges of organics in such concentrations that would exceed the capacity of the treatment works to remove them and result in incomplete treatment of the wastes).[316] In other words, it is the responsibility of industrial facilities to treat their own waste; that expense is not, and should not be, imposed on the publicly owned treatment works or its ratepayer base. Industrial facilities may also obtain NPDES permits to discharge directly to receiving waters, and those permits limit discharges to ensure that the receiving waters meet water quality standards, including, if applicable, standards to support drinking water as a designated use.[317] In our view, agriculture is an industry, and it too should be responsible for pretreating (or otherwise limiting) discharges to remove harmful constituents that cannot be removed by conventional drinking water or wastewater treatment plants.

EPA has established drinking water standards to protect public health and regulates underground injection activities that may render groundwater sources unusable for drinking water.[318] Congress should focus on its responsibilities for

312. *Id.* at *13.

313. Pac. Coast Fed'n of Fishermen's Ass'ns v. Glaser, 945 F.3d 1076, 1084–85 (9th Cir. 2019) ("[Legislative] history supports the view that Congress intended for 'irrigated agriculture,' as used in 33 U.S.C. § 1342(l)(1), to be defined broadly and include discharges from all activities related to crop production.").

314. *Id.* at 1083.

315. 40 C.F.R. pt. 403 (2021).

316. For the definition of interference, *see id.* § 403.3(k). For the definition of pass-through, *see id.* § 403.3(p).

317. *See* 33 U.S.C. § 1317 (2018).

318. 42 U.S.C. §§ 300g–300h–8 (2018).

public health and welfare and extend the provisions of the Safe Drinking Water Act so that EPA can regulate all discharges, to surface waters or groundwater, that may endanger drinking water sources. It is in the public interest to protect drinking water sources based on sound science and not put the safety of Americans at risk by treating the pollutants in agricultural discharges differently than pollutants from other sources.

Provisions of the Safe Drinking Water Act provide the structure to identify and address public health threats from drinking water supplies. Section 1453 of the Safe Drinking Water Act established a framework for a Source Water Quality Assessment that is intended to identify regulated contaminants in sources of drinking water that may represent a threat to public health, as well as the sources of such contaminants.[319] The Act further created the Source Water Petition Program under section 1454 that allows for the establishment of "voluntary, incentive-based partnerships" to attempt to address the origins of such contaminants.[320] Congress thus recognized that the safety of drinking water supplies may be impaired by contaminant sources that could be addressed through financial or technical assistance. However, in deciding that any programs must be voluntary in nature and be funded by parties other than the responsible parties, Congress has ultimately left safety up to water utilities that have not created the potential health risk. Within the existing structure, Congress could improve public safety through the appropriation of additional funds to further engage voluntary participation and implement protective strategies, or simply through the funding of treatment processes that would remove the burden from water utility rate payers.

Alternatively, Congress could remedy this situation by mandating in a revised section 1454 that if a voluntary program is not established in a reasonable period of time (for instance, two years), then a state would be required to create and implement a mandatory control program. Further, in cases such as Iowa, where the state constitution prohibits the regulation of agricultural return flows, the Safe Drinking Water Act could mandate that the EPA administrator undertake the creation and implementation of such a program. Additionally, because section 1454(f) currently specifies that the petition program creates no new authority for any new regulatory measure,[321] that provision would also need to be deleted.

C. Interested States, Local Governments, and Citizens' Groups Can Continue to Address Nonpoint Source Pollution Using Tools Available under Existing Law

The plausibility of amendments to the Clean Water Act or the Safe Drinking Water Act depends on political factors. The 2020 elections resulted in the

319. 42 U.S.C. § 300j-13 (2018).
320. *Id.* § 300j-14.
321. *Id.* § 300j-14(f)(1)(A).

Democratic party gaining unified control of Congress and the presidency, making the possibility of amendment more likely. Yet, the Democrats do not have a filibuster-proof margin, and the COVID-19 pandemic has directed attention to other national priorities. In the absence of a federal legislative amendment, there are a number of tools available under existing law for interested states, local governments, and citizens' groups to use in addressing nonpoint source pollution.

States have a critical role to play. While this Article discusses the reluctance of some states, particularly in regions where agriculture is the dominant industry, to impose binding controls on nonpoint source pollution, other states have proactively taken measures to address the problem. A few states with delegated authority have adopted water quality standards for wetlands, and others are in development.[322] EPA's technical assistance to states in this area appears to have waned following the repeal of the Clean Water Rule,[323] but EPA continues to offer research funding through its Wetland Program Development Grants, which can be used to support the development of wetland water quality standards to protect these important ecosystems.[324]

To achieve improvements in ambient water quality, water quality standards need to be backstopped by robust inspection and enforcement activities. States are increasingly in the lead when it comes to Clean Water Act enforcement. In March 2020, the EPA Office of Inspector General released a report examining the impact of reduced congressional appropriations on EPA's enforcement program generally. It noted that between fiscal year 2006 and fiscal year 2018, funding for enforcement decreased by 18 percent, and enforcement staffing levels declined by 21 percent, while remaining a consistent percentage of EPA's dwindling overall budget.[325] Not surprisingly, this period was marked by a major decline in EPA enforcement activity.[326]

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322. *See, e.g.*, 117 NEB. ADMIN. CODE 7; Env-Wq N.H. CODE OF ADMIN. R. 1700; 15A N.C. ADMIN. CODE SUBCHAPTER 02B; WIS. ADMIN. CODE, Ch. NR 103. New Mexico and Utah are actively working to develop wetland water quality standards. *Wetlands Program*, N.M. ENV'T DEP'T, https://www.env.nm.gov/surface-water-quality/wetlands/ (last visited Apr. 26, 2021); *Wetland Water Quality Standards*, UTAH DEP'T ENV'T QUALITY, https://deq.utah.gov/water-quality/wetland-water-quality-standards (last visited Apr. 26, 2021).

323. The EPA website for wetland water quality standards does not show any updates since 2016. *Templates for Developing Wetland Water Quality Standards*, EPA, https://www.epa.gov/wqs-tech/templates-developing-wetland-water-quality-standards (last visited Apr. 26, 2021).

324. *See Wetland Program Development Grants and EPA Wetlands Grant Coordinators*, EPA, https://www.epa.gov/wetlands/wetland-program-development-grants-and-epa-wetlands-grant-coordinators (last visited Apr. 26, 2021).

325. EPA, OFFICE OF THE INSPECTOR GENERAL, EPA'S COMPLIANCE MONITORING ACTIVITIES, ENFORCEMENT ACTIONS, AND ENFORCEMENT RESULTS GENERALLY DECLINED FROM FISCAL YEARS 2006 THROUGH 2018, REPORT NO. 20-P-0131 22–23 (Mar. 31, 2020).

326. *Id.* The report compared activities in Fiscal Year (FY) 2007 and FY 2018. It found: a 33 percent reduction in inspections conducted by EPA, a 52 percent reduction in enforcement cases initiated by EPA, a 58 percent reduction in enforcement cases that yielded injunctive relief (among the years studied, FY 2018 had the lowest estimated injunctive relief value at $3.9 billion, and FY 2011 had the highest at $21.0 billion), a 53 percent reduction in enforcement actions that yielded penalties (among the years studied, FY 2018 had the lowest penalty total at $69 million and FY 2016 had the highest at $6.1 billion), and a 48

The Trump administration called on states to play a greater role in Clean Water Act enforcement specifically. In a July 27, 2020 memorandum regarding "enforcement discretion," DOJ's top environmental attorney indicated that DOJ will "strongly disfavor" pursuing federal civil enforcement actions for violations of the Clean Water Act if a state has already initiated a civil or administrative proceeding. The memo touts the principals of federalism, state sovereignty, and due process, and cites concerns about "over-enforcement" and the potential for "double recovery" from polluters.[327] This hands-off federal approach underscores the importance of state inspection and enforcement activities, even as states themselves are facing budget shortfalls in the wake of COVID-19.

Local governments oversee most aspects of land use regulation and therefore are also involved in nonpoint source pollution reduction. As noted above, urban stormwater is collected in municipal separate storm sewer systems. As part of the MS4 NPDES permitting process, municipal governments are required to develop, implement, and enforce Stormwater Management Plans.[328] Each plan must identify BMPs from six required categories (such as illicit discharge detection and elimination and construction site runoff management).[329] BMPs are implemented through municipal ordinances, sometimes in concert with state land disturbance permit requirements. Examples of BMPs commonly mandated by, or incentivized by, municipal ordinances to reduce nonpoint source pollution include use of porous pavements, construction of stormwater retention ponds, and installation of rain gardens.

The authors' hometown of Columbia, Missouri offers some examples. The Boone County, Missouri stormwater ordinance mandates the replication of pre-development hydrology, which can be achieved through the use of various vegetative covers to promote infiltration and, where necessary, engineering structures such as detention ponds to release stormwater runoff more slowly.[330] Recognizing that climate change can exacerbate stormwater runoff problems, the City of Columbia's Climate Adaptation and Action Plan specifically calls for the increased use of permeable pavement to reduce runoff.[331]

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percent reduction in the number of supplemental environmental projects (among the years studied, FY 2017 had the lowest estimated value of supplemental projects at $18 million and FY 2009 had the highest at $53 million). *Id.* at 7–8, 11, 13, 15. The report noted that while the audit was being conducted, EPA released its FY 2019 annual enforcement measures, which showed that, compared to FY 2018, four of the fifteen enforcement measures increased, while eleven continued to decrease. *Id.* at 23–24.

327. Memorandum from Jeffrey Bossert Clark, Assistant Att'y Gen., to Section Chiefs & Deputy Section Chiefs of the Env't Crimes Section, Env't Enf't Section, & the Env't Def. Section, Civil Enforcement Discretion in Certain Clean Water Act Matters Involving Prior State Proceedings (July 27, 2020).

328. 40 C.F.R. § 122.26 (2021).

329. *See* EPA, STORMWATER PHASE II FINAL RULE FACT SHEET 1.0 (Dec. 2005), https://www.epa.gov/sites/production/files/2015-11/documents/fact1-0.pdf.

330. Boone Cnty., Mo., Stormwater Ordinance Section 4.2: Engineered Systems (effective Apr. 19, 2010), https://www.showmeboone.com/stormwater/documents/Approved_SW_Ordinance.pdf#page=17.

331. City of Columbia Climate Action & Adaptation Plan, Council Bill No. PR 89-19 A (adopted June 17, 2019), https://www.como.gov/sustainability/wp-content/uploads/sites/24/2019/06/ADOPTED_CAAP.pdf.

As discussed above, public opinion and involvement have been a driving force behind the development of water quality regulations in the United States. Citizen suits under the Clean Water Act compel EPA to take some action on nonpoint source pollution through the section 303(d) process. Even when a citizen suit is not successful, such as in *Des Moines Water Works*, it can serve to raise awareness of the problem and lay the foundation for future legal or political actions. For example, the citizen suit of *Pronsolino v. Nastri,* discussed in Part I, raised awareness of problems with the TMDL process, and while it did not result in a court order requiring implementation of TMDLs, it served as a focal point for further citizen organizing and legislative advocacy. Individuals are also able to contribute to efforts on nonpoint source pollution through citizen science programs.[332] Trained volunteers collect water samples and monitor water quality, producing data that can be used by EPA, state agencies, universities, and clean water advocacy groups.[333] Volunteers provide a service to the community in greatly extending the reach of water quality monitoring efforts, while at the same time learning about the impact of nonpoint source pollution on water quality and the importance of addressing this problem.

CONCLUSION

For decades, there have been attempts to stretch the definitions of "navigable water" and "point source" to near-meaninglessness in order to address the very real water quality problems caused by nonpoint source pollution, simply because there are no other regulatory tools available. There is something of a cycle: The definitions are interpreted broadly by agencies and courts in order to capture some nonpoint sources, on the understanding that they are now the primary threat to water quality in the United States, and then the definitions are later narrowed amidst cries of vagueness, agency overreach, and Commerce Clause limitations. Each reimagined rule has been similar to the last in terms of the broad range of possible interpretations, which only perpetuates the problems of ambiguity and inconsistent application that bring challenges to the courts in the first place.

Attempts to regulate nonpoint source pollution by expanding, and then often later contracting, the definition of "navigable waters" or "point source" are not long-term solutions.[334] This Article offered three recommendations to better

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332. *See Nonpoint Source Volunteer Monitoring*, EPA, https://www.epa.gov/nps/nonpoint-source-volunteer-monitoring (last visited Apr. 26, 2021).

333. *See, e.g.*, MISSOURI STREAM TEAM PROGRAM, www.mostreamteam.org (last visited Apr. 26, 2021); *Surface Water Ambient Monitoring Program*, CAL. WATER BD., https://www.waterboards.ca.gov/water_issues/programs/swamp/cwt_volunteer.html (last visited Apr. 26, 2021).

334. *See* Adler, *supra* note 60, at 96 (observing, with respect to the Clean Water Act, "[u]ndue focus on specific statutory words and phrases has led courts to different results and even different formulations of the issues to be decided. Considering the issue to be decided through the lens of the whole statute, and how individual words and phrases fit into the statutory structure and regulatory scheme, leads to a far more consistent and logical set of results").

address the issue of nonpoint source pollution. First, it called for a congressional amendment to the Clean Water Act to require binding controls on nonpoint source pollution. Second, recognizing that an amendment to the Clean Water Act may not be politically viable, it offered an approach for controlling nonpoint source pollution through an amendment to the Safe Drinking Water Act. Finally, it identified tools that interested states, local governments, and citizens' groups can utilize to take action on nonpoint source pollution under existing law. If nonpoint source pollution controls were federally enforced, perhaps the endless litigation and rulemaking tug-of-war would begin to subside, and we would see real improvement in the water quality of our nation's lakes, rivers, wetlands, and coastal areas, to the benefit of human and environmental health.