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A Unified Theory of Clean Water Act Jurisdiction

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A UNIFIED THEORY OF CLEAN WATER ACT JURISDICTION

Robert W. Adler[†]

“ . . . the most valuable of all talents, that of never using two words when one will do.”

—Thomas Jefferson¹

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INTRODUCTION

As it reaches its half-century mark, the modern version of the federal Clean Water Act (CWA or the Act)² remains a definitional quagmire. The U.S. Supreme Court, lower courts, and the two federal agencies charged with implementing the law³ have struggled to interpret its scope ever since its 1972 enactment. As a result, we still lack clarity regarding the most basic questions about the law’s reach. That causes massive uncertainty for regulated businesses and landowners, the federal and state agencies⁴ that implement the law, and members of the public Congress intended to protect. This Article proposes a unified interpretive approach (a “unified theory”) that focuses on the statutory text and its stated goals,⁵ considering the whole statute in context, rather than individual terms construed in isolation.⁶

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2. 33 U.S.C. §§ 1251–1389. The “modern” version is typically considered the 1972 amendments to the Federal Water Pollution Control Act, Pub. L. 92-500, 86 Stat. 816 (Oct. 18, 1972), as amended, commonly known as the “Clean Water Act.” *See* Clean Water Act of 1977, Pub. L. No. 95-217, § 1, 91 Stat. 1566 (providing that “this Act may be cited as the ‘Clean Water Act of 1977’”). For a statutory history of the earlier enactments, see WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW 252–54 (2d ed. 1994); William Hines, *Nor Any Drop to Drink: Public Regulation of Water Quality*, 52 IOWA L. REV. 186, 219–23 (1966).
 3. The principal federal agency charged with CWA implementation is the U.S. Environmental Protection Agency (EPA). *See* 33 U.S.C. § 1251(d) (providing that “[e]xcept as otherwise expressly provided . . . the Administrator of the Environmental Protection Agency . . . shall administer this [Act]”). The EPA shares responsibility for implementing the statute, however, particularly in several definitional respects addressed in this Article, with the U.S. Army Corps of Engineers (ACE) through the Secretary of the Army. *See, e.g., id.* § 1344.
 4. Like it has done in many federal environmental statutes, Congress embraced the strategy of cooperative federalism in the CWA, with shared responsibility between the federal government and the states. *See, e.g., id.* § 1313 (providing for shared responsibility for adoption and implementation of water quality standards); *id.* § 1342 (providing for shared responsibility for implementation of the National Pollutant Discharge Elimination System (NPDES) permitting program).
 5. *See* ANTONIN SCALIA & BRYAN A. GARNER, READING LAW 56–58 (2012) (presenting canon that the words of a governing text are paramount).
 6. *See id.* at 167–69 (explaining the whole-text canon of statutory construction).

Part of the blame for the CWA's definitional confusion lies with Congress, which failed to heed Jefferson's counsel to avoid two words (or in this case, phrases) when one will do. Congress gave the term "navigable waters" a central place in the statutory scheme, but then redefined it as "the waters of the United States, including the territorial seas" (WOTUS).⁷ This reformulation was confusing, because by 1972, "navigable waters" had four separate but well-established legal meanings under U.S. Supreme Court jurisprudence,⁸ while WOTUS had no similar legal pedigree.⁹ Yet Congress did not define "waters of the United States." Moreover, in some CWA provisions Congress combined the terms into the "navigable waters of the United States."¹⁰ Elsewhere in the CWA Congress used the terms "water,"¹¹ "waters,"¹² "the Nation's waters,"¹³ and an array of other water body descriptors.¹⁴ Because each term often delineates the scope of various statutory programs, this Article refers to them as "scope terms."

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7. 33 U.S.C. § 1362(7).
 8. See Robert W. Adler, *The Ancient Mariner of Constitutional Law: The Historical, Yet Declining Role of Navigability*, 90 WASH. U. L. REV. 1643, 1651–53, 1656–61 (2013).
 9. Both Congress and courts had used the term "waters of the United States" in numerous previous contexts, but as a geographic descriptor without a clear body of defining case law. See, e.g., Federal Boating Act of 1958, Pub. L. No. 85-911, 72 Stat. 1754 (providing for boating safety on the navigable waters of the United States); *The Merino*, 22 U.S. (9 Wheat.) 391, 392 (1824) (addressing seizure of vessels on waters of the United States).
 10. E.g., 33 U.S.C. § 1321(b)(1).
 11. E.g., *id.* § 1362(19) (defining "pollution" as the "man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of *water*") (emphasis added).
 12. E.g., *id.* § 1252(a) (authorizing joint EPA-state investigations of "any waters in any State"); *id.* § 1313(c)(3) (providing that state water quality standards apply to the "applicable waters" of each state).
 13. E.g., *id.* § 1251(a) (articulating the main statutory objective to "restore and maintain the chemical, physical, and biological integrity of the Nation's *waters*" (emphasis added)).
 14. See *infra* Part I. Thus, it is a misnomer to assert that the CWA applies only to WOTUS. See Martin A. McRory & Anjanette H. Raymond, *Navigating Murky Waters: The Rise and Fall of Clean Water Protection in the United States*, 29 S. CAL. REV. L. & SOC. JUST. 143, 165–67 (2020); STEPHEN P. MULLIGAN, CONG. RSCH. SERV., R44585, EVOLUTION OF THE MEANING OF "WATERS OF THE UNITED STATES" IN THE CLEAN WATER ACT 3 (2019). As explained in this Article, that is true only for some portions of the Act.

This proliferation of CWA scope terms¹⁵ has resulted in a decades-long debate about the range of water bodies subject to the permitting and other regulatory provisions of the Act.¹⁶ Those disputes have bounced back and forth between presidential administrations, and continue to do so.¹⁷ The Supreme Court has issued three major decisions

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15. This is not the only example of confusing definitional distinctions in the CWA. For example, Congress distinguished between “pollution” and “pollutants.” *Compare* 33 U.S.C. § 1362(19), *with id.* § 1362(6). Congress also distinguished “discharge” and “discharge of a pollutant.” *Compare id.* § 1362(16), *with id.* § 1362(12). It also distinguished “point source” and nonpoint source pollution. *See also id.* § 1362(14) (defining “point source” and leaving nonpoint source to negative implication). One explanation is that Congress was not suitably careful in drafting the CWA, which has been amended multiple times, *see supra* note 2 and accompanying text, and subsequent members of Congress may not have appreciated reasons for earlier textual choices. Courts cannot, however, assume drafting errors and “correct” those mistakes unilaterally. Rather, a standard canon of statutory construction is to presume that legislatures intend different meanings when choosing different words or phrases in different statutory provisions and contexts, such that every word in the statute is given effect. *See* SCALIA & GARNER, *supra* note 5, at 174–79 (explaining statutory surplusage canon).
 16. *See* MULLIGAN, *supra* note 14, at 1 (noting all three branches of the federal government had struggled with the meaning of WOTUS for forty-five years); Gregory T. Broderick, *From Migratory Birds to Migratory Molecules: The Continuing Battle over the Scope of Federal Jurisdiction Under the Clean Water Act*, 30 COLUM. J. ENV'T L. 473, 481, 522–23 (2005). The definition of WOTUS dictates which activities are subject to the conditional discharge ban in section 301(a) of the Act, 33 U.S.C. § 1311(a), the related permitting provisions in sections 402 and 404, *id.* §§ 1342, 1344, and all associated substantive controls required by those permits.
 17. *See* MULLIGAN, *supra* note 14, at 6–12, 23–28; Lisa Friedman & Coral Davenport, *Trump Administration Rolls Back Clean Water Protections*, N.Y. TIMES, <https://www.nytimes.com/2019/09/12/climate/trump-administration-rolls-back-clean-water-protections.html> [<https://perma.cc/Y568-RCCB>] (Sept. 19, 2019); Coral Davenport, *Obama Announces New Rule Limiting Water Pollution*, N.Y. TIMES (May 27, 2015), <https://www.nytimes.com/2015/05/28/us/obama-epa-clean-water-pollution.html> [<https://perma.cc/FD7B-G925>]. Briefly, the scope of CWA regulation had been defined for nearly three decades by regulations adopted by EPA and ACE. *See* Final Rule for Regulatory Programs of the Corps of Engineers, 51 Fed. Reg. 41206 (Nov. 13, 1986) (to be codified at 33 C.F.R. pts 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, & 330) (1986 Corps Rule); Clean Water Act Section 404 Program Definitions and Permit Exemptions; Section 404 State Program Regulations, 53 Fed. Reg. 20764 (June 6, 1988) (to be codified 40 C.F.R pt. 232, 233) (1988 EPA Rule). In 2015, the Obama Administration adopted new rules seeking to address confusion generated by Supreme Court cases discussed *infra*. *See* Clean Water Rule: Definition of “Waters of the United States,” 80 Fed. Reg. 37,054 (June 29, 2015) (to be codified at 33 C.F.R pt. 328; 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, & 401) [hereinafter 2015

on the WOTUS issue,¹⁸ and is poised to decide another case¹⁹ regarding the CWA's applicability to wetlands and sloughs in the vicinity of a fen wetland ecosystem that drains via tributary streams into Priest Lake, one of the largest lakes in Idaho.²⁰

The public intensity of the WOTUS debate has overshadowed other important disputes over the meaning of related CWA definitions. All center on the meaning and scope of the core operative provision of the statute, section 301(a),²¹ which provides: "Except as in compliance with

Clean Water Rule]. President Obama vetoed a congressional effort to repeal this new rule. *See* Gregory Korte, *Obama Vetoes Attempt to Kill Clean Water Rule*, USA TODAY (Jan. 19, 2016, 8:48 PM), <https://www.usatoday.com/story/news/politics/2016/01/19/obama-vetoes-attempt-kill-clean-water-rule/79033958/> [<https://perma.cc/K2QQ-BL6F>]. However, the Trump Administration later repealed the Obama rule, Exec. Order No. 13,778, 82 Fed. Reg. 12,497 (Mar. 3, 2017), and replaced it with the preexisting rule pending further rulemaking. *See* Definition of "Waters of United States"—Recodification of Pre-Existing Rules, 84 Fed. Reg. 56,626, 56,630 (Oct. 22, 2019) (codified at 33 C.F.R. pt. 328; 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, & 401). The Trump Administration adopted a narrower set of CWA-scope decisions in 2020. The Navigable Waters Protection Rule: Definition of "Waters of the United States," 85 Fed. Reg. 22,250 (Apr. 21, 2020) (codified at 33 CFR pt. 328; 40 C.F.R. pts. 110, 112, 116, 117, 120, 122, 230, 232, 300, 302, & 401). Upon taking office, President Biden issued an executive order which, inter alia, directed EPA and ACE to revisit the issue, Exec. Order No. 13,990, 86 Fed. Reg. 7037–7043 (Jan. 20, 2021). The Agencies proposed new rules generally consistent with the pre-2015 regulations but with some modifications. Revised Definition of "Waters of the United States," 86 Fed. Reg. 69,372–69,373 (Dec. 7, 2021) (to be codified at 33 C.F.R. pt. 328, 40 C.F.R. pt. 120). The Agencies published the final rule approximately a year later. Revised Definition of "Waters of the United States," 88 Fed. Reg. 3,004–3,144 (Jan. 18, 2023) (to be codified at 33 C.F.R. pt. 328, 40 C.F.R. pt. 120).

18. *Rapanos v. United States*, 547 U.S. 715, 755–57 (2006); *Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs (SWANCC)*, 531 U.S. 159, 171–73 (2001); *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 138–39 (1985).
19. *Sackett v. Env't. Prot. Agency*, 142 S. Ct. 896, 896 (2022).
20. The facts are explained in the two lower court decisions. *See Sackett v. U.S. Env't Prot. Agency*, 8 F.4th 1075, 1081, 1094–95 (9th Cir. 2021); *Sackett v. United States Env't Prot. Agency*, No. 2:08-CV-00185-EJL, 2019 WL 13026870, at *9–11 (D. Idaho Mar. 31, 2019).
21. Although the CWA is a complex statute with a wide range of water pollution control programs, section 301(a) is the core operative provision because most other enforceable aspects of the statute, such as technology-based pollution controls, water quality standards, and the protection of wetlands and other aquatic ecosystems, are implemented through this provision. *See Coeur Alaska Inc. v. Se. Alaska Conservation Council*, 557 U.S. 261, 298 (2009) (Ginsburg, J., dissenting) (referring to section 301(a) as the CWA's "core command"); Robert W. Adler & Brian D. House,

[CWA permitting and pollution control requirements], the discharge of any pollutant by any person shall be unlawful.”²² The scope of this qualified discharge ban²³ turns on the meaning of “discharge of any pollutant.” If one inserts the relevant statutory definitions into section 301(a), that provision would read: “Except as in compliance with [CWA permitting and pollution control requirements], the addition of any pollutant to the waters of the United States from any point source by any person shall be unlawful.”²⁴

Because of this multifaceted framing of the Act’s central prohibition, WOTUS is just one of several definitions that delineate what conduct the statute prohibits or regulates, by whom, where, and how.²⁵ Parties have litigated disputes regarding the meaning and applicability

Atomizing the Clean Water Act: Ignoring the Whole Statute and Asking the Wrong Questions, 50 ENV’T L. 45, 69 (2020) (explaining why section 301(a) is the CWA’s “central . . . regulatory provision”).

22. 33 U.S.C. § 1311(a).
23. Section 301(a) is a qualified discharge ban because, unlike prior water pollution law, it prohibits any discharge of pollutants from point sources into waters covered by the ban *unless* the discharger obtains a valid permit imposing various pollution controls. *See Env’t Prot. Agency v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 204–06 (1976) (explaining role of NPDES permits in implementing and enforcing effluent limitations).
24. 33 U.S.C. § 1311(a), substituting “any addition of any pollutant to navigable waters from any point source” for “the discharge of any pollutant,” *see id.* § 1362(12), and then substituting “the waters of the United States” for “navigable waters,” *see id.* § 1362(7). The definition of “navigable waters” also includes “the territorial seas,” *see id.*, and the definition of “discharge of a pollutant” also includes the addition of pollutants to “waters of the contiguous zone or the ocean” from point sources or vessels. *See id.* § 1362(12). Because applicability of the CWA’s discharge ban to coastal waters has not been challenged, this Article focuses on discharges to inland waters.
25. Professor Jeffrey Miller did a masterful job of cataloguing and analyzing cases addressing challenges to all elements of a section 301(a) offense in a series of articles. *See* Jeffrey G. Miller, *Plain Meaning, Precedent, and Metaphysics: Interpreting the “Navigable Waters” Element of the Clean Water Act Offense*, 45 ENV’T L. REP. NEWS & ANALYSIS 10548, 10558–63 (2015) [hereinafter *Navigable Waters*]; Jeffrey G. Miller, *Plain Meaning, Precedent, and Metaphysics: Interpreting the Point Source Element of the Clean Water Act Offense*, 45 ENV’T L. REP. NEWS & ANALYSIS 11129, 11137–39 (2015) [hereinafter *Point Source*]; Jeffrey G. Miller, *Plain Meaning, Precedent, and Metaphysics: Interpreting the Pollutant Element of the Clean Water Act Offense*, 44 ENV’T L. REP. NEWS & ANALYSIS 10960, 10963–66 (2014); Jeffrey G. Miller, *Plain Meaning, Precedent, and Metaphysics: Interpreting the Addition Element of the Clean Water Act Offense*, 44 ENV’T L. REP. NEWS & ANALYSIS 10770, 10774–75 (2015).

of the terms “addition” (or “‘addition’ of a pollutant”),²⁶ “point source” (as distinct from “nonpoint source”),²⁷ “pollutant,”²⁸ and “person,”²⁹ and even the meaning and importance of the associated prepositions “from” and “to.”³⁰

To compound the complex and confusing nature of CWA definitions, several related errors in administrative and judicial interpretive approaches contribute to ongoing confusion about the scope of the CWA. First, as a co-author and I suggested in the context of the “conduit” cases that led to the Supreme Court’s decision in *County of Maui v. Hawaii Wildlife Fund*,³¹ some courts have decided CWA-scope cases by construing discrete statutory terms in isolation from the full statutory text, a tendency we called statutory “atomization.”³² In doing so, those courts ignored or minimized the overall structure and purpose of the statute. To paraphrase the common metaphor, they miss the watershed for the creeks.

Second, some CWA decisions do not heed key distinctions the U.S. Supreme Court has made between the “navigable in fact” test established in *The Daniel Ball*³³ and the broader Commerce Clause test the Court articulated in *United States v. Appalachian Electric Power*.³⁴ In the latter case, the Court upheld federal regulation of waterways and their tributaries for purposes other than navigability, such as flood control, watershed development, and electric power production, so long as those purposes had a sufficient impact on interstate commerce.³⁵ In

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26. See 33 U.S.C. § 1362(12) (defining “discharge of a pollutant” to mean “any addition of any pollutant to navigable waters from any point source”); Adler & House, *supra* note 21, at 61–64; *Point Source*, *supra* note 25, at 11129.
 27. See 33 U.S.C. § 1362(14) (defining “point source”); Adler & House, *supra* note 21, at 57–60; *Point Source*, *supra* note 25, at 11133–35.
 28. See 33 U.S.C. § 1362(6) (defining “pollutant”); *Point Source*, *supra* note 25, at 11129.
 29. See 33 U.S.C. § 1362(5) (defining “person”); *United States v. Brittain*, 931 F.2d 1413, 1419 (10th Cir. 1991) (finding a public utility director was a “person” for purposes of section 301 liability).
 30. See *id.* § 1362(12) (defining “discharge of a pollutant” to mean “any addition of any pollutant to navigable waters from any point source” (emphasis added)); Adler & House, *supra* note 21, at 64–65.
 31. 140 S. Ct. 1462, 1469–70 (2020).
 32. Adler & House, *supra* note 21, at 48–50.
 33. 77 U.S. (10 Wall.) 557, 563 (1870).
 34. 311 U.S. 377, 404–05 (1940).
 35. *Id.* at 426–27; see also *Oklahoma ex rel. Phillips v. Guy F. Atkinson Co.*, 313 U.S. 508, 523, 525 (1941) (upholding federal Commerce Clause authority to protect commerce through watershed-wide flood control); *Navigable Waters*, *supra* note 25, at 10549–50.

reaching this result, the Court rejected the notion that cases like *Gibbons v. Ogden*³⁶ restrictively anchored federal authority over waterways to navigability. Instead, it clarified that *Gibbons* recognized navigability as one of many possible links to interstate commerce sufficient to support federal waterway legislation.³⁷ In the CWA, Congress likewise identified navigability as one of many diverse statutory purposes,³⁸ all of which justify Commerce Clause regulation.

The WOTUS issue and each of the other lines of jurisdictional analysis with which the agencies and the courts have struggled for nearly a half century can be better explained by considering the full set of statutory terms in context, with attention to how they fit together. Part I establishes a baseline for this analysis by identifying multiple existing approaches to the WOTUS problem adopted by different Supreme Court Justices. Part II proffers a more cohesive theory of how the different pieces of the CWA fit together into an integrated statutory scheme. Part III tests this unified theory in two ways. Part III.A analyzes the unified theory by reference to the CWA's stated objectives, goals, and structure, including its core operative provisions and programs. Part III.B tests the theory in the context of two related lines of CWA jurisdictional cases and explains how more sensible and consistent analysis is possible using this uniform approach to CWA jurisdiction. The Article concludes by explaining how that understanding could guide future statutory clarifications and agency rulemakings, and how it might help inform future judicial interpretations of the statute in a more consistent and workable way.

I. PAST SUPREME COURT APPROACHES TO INTERPRETING WOTUS

As a baseline to constructing a more integrative analysis of the CWA's scope terms and how they fit together consistent with the full statutory text and structure, it is useful to review the interpretive approaches various U.S. Supreme Court Justices have taken to this issue. As argued below, a combination of methodologies used by several

36. 22 U.S. (9 Wheat.) 1, 22 (1824).

37. *Appalachian Elec. Power Co.*, 311 U.S. at 426.

38. *See, e.g.*, 33 U.S.C. § 1251(a)(2) (“protection and propagation of fish, shellfish, and wildlife”); *id.* § 1312(a) (providing for water quality-based effluent limitations to protect public health, public water supplies, and agricultural and industrial uses of water); *id.* § 1313(c)(2)(A) (providing for water quality standards “taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, *and also taking into consideration their use and value for navigation*” (emphasis added)); *id.* § 1322(p) (control of aquatic nuisance species that impair commercial, agricultural, or recreational activity).

Justices could help reconcile the disparate approaches consistent with the full statutory text and other factors.

A. Deference to Agency Scientific Expertise

United States v. Riverside Bayview Homes,³⁹ the first major case in which the Supreme Court construed the scope of WOTUS, tested CWA regulatory jurisdiction over wetlands adjacent to Black Creek, a navigable tributary to a navigable lake (Lake St. Clair in Michigan).⁴⁰ Importantly to later cases, at issue was the Sixth Circuit's ruling that the Army Corps of Engineers (ACE) regulations only applied to wetlands regularly flooded by adjacent surface waters as their source of water to support wetlands vegetation; otherwise, according to the Sixth Circuit, they might constitute an unlawful taking of property.⁴¹ In upholding ACE's regulatory jurisdiction, the Court found it sufficient under the plain text of the ACE regulations that the wetlands in question were inundated by groundwater at a sufficient frequency and magnitude to support wetlands vegetation.⁴²

In a unanimous opinion upholding the ACE regulation and CWA jurisdiction over wetlands adjacent to navigable waters,⁴³ Justice White reiterated that an agency's construction of statutes it is charged to administer is entitled to deference if "reasonable and not in conflict with the expressed intent of Congress."⁴⁴ Moreover, the opinion noted that the line between land and water was a scientific question for which courts should defer to agency expertise:

In determining the limits of its power to regulate discharges . . . the Corps must necessarily choose some point at which water ends and land begins. Our common experience tells us that this is often no easy task: the transition from water to solid ground is not

39. 474 U.S. 121, 123–24 (1985).

40. *See id.* at 131. Lake St. Clair connects to Lake Erie via the Detroit River. *See* Map of Lake St. Clair and Lake Erie, GOOGLE MAPS, <https://www.google.com/maps/place/Black+Creek+Group/@42.275279,-83.1536023,10.11z/data=!4m5!3m4!1s0x876c78d6e620e84d:0x129023763dfc65b!8m2!3d39.744793!4d-104.989748> [<https://perma.cc/QP3X-BPL4>] (last visited Nov. 1, 2022).

41. *See Riverside Bayview Homes*, 474 U.S. at 125.

42. *See id.* at 129–30.

43. The Court in *Riverside Bayview Homes* did not need to decide, and hence reserved judgment on, applicability of the CWA to nonadjacent wetlands. *See id.* at 131 n.8.

44. *Id.* at 131 (first citing *Chem. Mfrs. Assn. v. Nat. Res. Def. Council, Inc.*, 470 U.S. 116, 125 (1985); and then citing *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842–45 (1984)).

necessarily or even typically an abrupt one. . . . Where on this continuum to find the limit of “waters” is far from obvious.⁴⁵

Justice White found that CWA regulation of wetlands—regardless of the source of water supporting those wetlands—was important to fulfill the statutory goals of restoring and protecting aquatic ecosystem integrity, which “incorporated a broad, systemic view” and a recognition that water moves in hydrologic cycles.⁴⁶

Justice Stevens and the other three dissenting Justices in *Rapanos v. United States*,⁴⁷ discussed further below,⁴⁸ later endorsed Justice White’s approach of viewing the WOTUS issue as primarily a scientific inquiry for which courts should defer to the expert agencies charged with administering the statute.⁴⁹ It is appropriate to defer to agencies on matters of science and policy within the scope of authority delegated to them by Congress, particularly with respect to undefined statutory terms. In doing so, however, courts and agencies must heed the applicable statutory text, as discussed in the following Subpart.

B. Statutory Text and Constitutional Avoidance

In *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers (SWANCC)*,⁵⁰ the Supreme Court addressed the issue left open in *Riverside Bayview Homes*: whether WOTUS includes wetlands that are not adjacent to navigable waters.⁵¹ The case involved abandoned gravel pits that, once filled with precipitation, created habitat for interstate migratory birds.⁵² ACE asserted regulatory jurisdiction based on the “migratory bird rule,” which was actually not

45. *Id.* at 132. Although not essential to the result, Justice White also noted that the ACE position was supported by the legislative history of the CWA, including Congress’s rejection of subsequent legislative efforts to narrow the statutory scope. *See id.* at 132–39.

46. *Id.* at 132–33.

47. 547 U.S. 715, 787–810 (2006) (Stevens, J., dissenting). The same four Justices similarly dissented in *SWANCC*, discussed in the following Part. *See* 531 U.S. 159, 174 (2001).

48. *See infra* Parts II.C–D.

49. *See Rapanos*, 547 U.S. at 788 (noting that the deference shown in the unanimous decision in *Riverside Bayview Homes* “was faithful to our duty to respect the work product of the Legislative and Executive Branches of our Government”). Others argue that the issue is a mixed question of policy—not science. *See* Jonathan H. Adler, *Redefining “Waters of the United States,”* 42 REGUL. 16, 18 (2019). I agree the issue involves some policy determinations, but those policy decisions must be informed by the applicable science.

50. 531 U.S. 159, 167–68 (2001).

51. *See Riverside Bayview Homes*, 474 U.S. at 124 n.2.

52. *SWANCC*, 531 U.S. at 163–64.

a separately promulgated rule but an agency interpretation in the regulatory preamble that the statute and promulgated regulation extend, *inter alia*, to intrastate waters used as habitat for birds protected by migratory bird treaties, or to waters used as habitat for other interstate migratory birds.⁵³ The rule interpreted by this preamble language, in turn, defined WOTUS to include “isolated wetlands and lakes, intermittent streams, prairie potholes, and other waters that are not part of a tributary system to interstate waters or to navigable waters of the United States, the degradation or destruction of which could affect interstate commerce.”⁵⁴

In rejecting the Agency’s assertion of CWA jurisdiction over waters on these grounds, Chief Justice Rehnquist shifted the analytical framework from science and deference to agency expertise to perceived limitations on the scope of federal Commerce Clause authority over water bodies and a narrower reading of the statutory text. With respect to the constitutional issue, the opinion declined to extend *Chevron* deference to the agency interpretation in this case⁵⁵ because of the majority’s view that the agency outcome would invoke “the outer limits of Congress’ power” and potentially intrude on traditional areas of state authority, thus requiring a “clear indication that Congress intended that result.”⁵⁶

With respect to the statutory text, Chief Justice Rehnquist acknowledged Justice White’s admonition that the word navigable in the CWA had “limited import” given its redefinition as WOTUS and that Congress intended to regulate some waters that were not navigable in the traditional sense.⁵⁷ He declined, however, to write the word “navigable” out of the statute entirely:

We cannot agree that Congress’ separate definitional use of the phrase “waters of the United States” constitutes a basis for reading the term “navigable waters” out of the statute. We said in *Riverside Bayview Homes* that the word “navigable” in the statute was of “limited import,” . . . [b]ut it is one thing to give a word limited effect and quite another to give it no effect whatever. The term “navigable” has at least the import of showing us what Congress had in mind as its authority for

53. *See id.* at 164 (citing Final Rule Regulatory Programs of the Corps of Engineers, 51 Fed. Reg. 41206, 41217 (Nov. 13, 1986) (to be codified at 33 C.F.R. § 328.3)).

54. *Id.* at 168–69 (quoting Regulatory Program of the Corps of Engineers, 42 Fed. Reg. 37122, 37127 (July 19, 1977)).

55. *See id.* at 172–73.

56. *Id.* at 172 (citing *Edward J. DeBartolo Corp. v. Fla. Gulf Coast Bldg. Trades Council*, 485 U.S. 568, 575 (1988)).

57. *See id.* (citing *United States v. Riverside Bayview Homes*, 474 U.S. 121, 133 (1985)).

enacting the CWA: its traditional jurisdiction over waters that were or had been navigable in fact⁵⁸

This focus on the “navigable waters” portion of the statutory definition is somewhat curious, because if Congress intended to limit CWA jurisdiction to navigability, why would it have added the apparently broader term (WOTUS)? In the guise of avoiding an interpretation that renders the word navigable superfluous, Justice Rehnquist’s position renders the new term WOTUS superfluous, in violation of the canon of construction that all words in a statute must be given independent meaning.⁵⁹

Even accepting the Chief Justice’s view of the continued import of the term “navigable waters,” his use of constitutional avoidance to interpret that term narrowly is questionable in two respects. First, he indicated that the Court should interpret “navigable waters” in a way that avoided the need to decide whether assertion of federal power over the subject waters might exceed constitutional limits.⁶⁰ As a result, the opinion does not analyze whether this assertion of CWA jurisdiction would exceed Commerce Clause power. Rather, it adopted a narrow reading of the statute to avoid the constitutional analysis altogether. Had the Court conducted the constitutional analysis, it might have been apparent that Congress has authority to regulate pollution of water as an article of interstate commerce⁶¹ independent of its authority to regulate navigable waters as channels of commerce.

Second, even if one accepts this broader approach to constitutional avoidance, Chief Justice Rehnquist improperly applied the wrong meaning of the term “navigable waters.” He pegged his analysis to waters “that were or had been navigable in fact or which could reasonably be made so,”⁶² the traditional standard of navigability the Court established in the late nineteenth century in *The Daniel Ball*.⁶³

58. *Id.*

59. *See* SCALIA & GARNER, *supra* note 5, at 174–79 (explaining the surplusage canon of construction).

60. *See supra* notes 55–56 and accompanying text.

61. *See Sporhase v. Nebraska ex rel. Douglas*, 458 U.S. 941, 949–54 (1982). Not only is water traded widely in interstate and foreign commerce as a product itself, but it is also among the most important agricultural, industrial, and commercial inputs for virtually everything else traded in interstate and foreign commerce. *See generally* Katherine L. Thalman, *Water Use*, in *THE WATER ENCYCLOPEDIA, HYDROLOGIC DATA AND INTERNET RESOURCES 7-1* (Pedro Fierro, Jr. & Evan K. Nyer eds., 3d ed. 2007) (extensively documenting U.S. and global use of water for public water supply, bottled water, industrial and commercial use, irrigation, livestock watering, navigation and commerce, water-based recreation, fisheries, and food production).

62. *See SWANCC*, 531 U.S. at 172.

63. 77 U.S. (1 Wall.) 557, 564 (1870).

That test delineated which waters Congress could control *for purposes of navigation*. As discussed earlier, however,⁶⁴ three-quarters of a century after *The Daniel Ball*, the Court clarified that navigation is only one of many aspects of interstate commerce for which Congress may regulate and protect navigable waters. In *United States v. Appalachian Electric Power Co.*,⁶⁵ the Court found that

it cannot properly be said that the constitutional power of the United States over its waters is limited to control for navigation [T]he authority of the United States is the regulation of commerce on its waters Flood protection, watershed development[, and] . . . [hydro-electric] power are likewise parts of commerce control.⁶⁶

As such, the Court held that Commerce Clause power applies not only to waters that are or were navigable-in-fact, but also non-navigable waters that may adversely affect interstate or international commerce.⁶⁷ Thus, Commerce Clause authority may be asserted not only to protect navigability per se, but also to protect other uses and values of water bodies, including the ecological purposes that are central to the CWA.

Nothing in the CWA purports to invoke the Court's more limited nineteenth-century notion of "traditional" navigability. Given that the broader Supreme Court scope of Commerce Clause navigability had been established four decades before the 1972 Act, and absent any textual indication to the contrary, the logical presumption is that Congress invoked the prevailing test. Despite its focus on statutory text and constitutional avoidance, however, nothing in Chief Justice Rehnquist's majority opinion in *SWANCC* contradicted Justice White's holding that courts should defer to expert agencies in delineating the type and boundaries of water bodies so long as they meet the statutory definitions. One opinion in the Court's third major WOTUS decision, however, challenged even that premise, as discussed in the following Subpart.

64. See *supra* notes 33–38 and accompanying text.

65. 311 U.S. 377 (1940).

66. *Id.* at 426.

67. See Adler, *supra* note 8, at 1674 (citing *Appalachian Electric Power Co.*, 311 U.S. at 398, 400); *Navigable Waters*, *supra* note 25, at 10549–51. Chief Justice Rehnquist cited *Appalachian Electric Power* in his opinion, but only for the first holding in that case, that navigability can be based on artificial improvements to a waterway rather than waterways in their natural condition. See *SWANCC*, 531 U.S. at 172 (citing *Appalachian Electric Power Co.*, 311 U.S. at 407–08).

C. Plain Meaning

The Court revisited the issue of nonadjacent wetlands and other nonadjacent waters in *Rapanos v. United States*,⁶⁸ a consolidated series of cases regarding discharges into channels and other waters that eventually—but not immediately—flowed into navigable waters.⁶⁹ In his plurality opinion,⁷⁰ Justice Scalia took Justice Rehnquist’s legalistic and linguistic focus a giant step further, expressing the view that the proper analysis rests on nothing more than the plain meaning of the statutory text. Citing the 1954 edition of Webster’s dictionary, Justice Scalia would have held that

“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.” The phrase does not include channels through which water flows intermittently or ephemerally, or channels that periodically provide drainage for rainfall.⁷¹

Moreover, the plurality would reject CWA jurisdiction over all nonadjacent wetlands or other waters, and narrow the “adjacency” test significantly:

[O]nly those wetlands with a continuous surface connection to bodies that are “waters of the United States” in their own right, so that there is no clear demarcation between “waters” and wetlands, are “adjacent to” such waters and covered by the Act. Wetlands with only an intermittent, physically remote hydrologic connection to “waters of the United States” . . . lack the necessary connection to covered waters that we described as a “significant nexus” in *SWANCC*.⁷²

Using this lay understanding of “waters,” and exclusively focusing on surface hydrologic connections, Scalia’s plurality opinion would

68. 547 U.S. 715 (2006).

69. *Id.* at 729. The authors of different opinions in the 4–1–4 decision characterized the subject areas remarkably differently. Justice Scalia, for example, referred to them as land with “sometimes-saturated soils” that were distant from any navigable water body, *id.* at 720, whereas Justice Kennedy described them as “wetlands that do not contain and are not adjacent to waters that are navigable in fact.” *Id.* at 759 (Kennedy, J., concurring).

70. Chief Justice Roberts and Justices Thomas and Alito joined the plurality opinion. *Id.* at 719. Chief Justice Roberts also filed a short concurring opinion. *Id.* at 757–58 (Roberts, J., concurring).

71. *Id.* at 739.

72. *Id.* at 742 (citing *SWANCC*, 531 U.S. at 167).

exclude a wide range of water bodies from the CWA's regulatory reach. Those include so-called isolated waters even if they are hydrologically connected via groundwater, as well as all intermittent and ephemeral streams that form a huge percentage of water bodies in the arid West.⁷³

The Scalia opinion in *Rapanos* is an extreme example of atomization in statutory interpretation. Not only does it construe a statutory term of art ("waters of the United States") in isolation from the rest of the statutory text, structure, and purposes;⁷⁴ it interprets the word "waters" in isolation from the full statutory term "waters of the United States."⁷⁵ Moreover, in the CWA, Congress used the term "waters" in a complex statutory scheme with goals articulated in a scientific context. Lay dictionary definitions can lead to very different readings when construing terms with scientific connotations and implications, which often have nuanced technical meanings developed and understood by scientists in a field.⁷⁶

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73. See Letter from Jennifer Tank, President, Soc'y for Freshwater Sci., to Andrew R. Wheeler, Adm'r, U.S. EPA and R.D. James, Assistant Sec'y of the Army for Civ. Works, at 5 (Apr. 29, 2019) (on file with author) [hereinafter *SFS Letter*] (noting that ephemeral streams comprise 60–80 percent of the streams in many parts of the United States) (first citing Tracie-Lynn Nadeau & Mark Cable Rains, *Hydrological Connectivity Between Headwater Streams and Downstream Waters: How Science Can Inform Policy*, 43 J. AM. WATER RES. ASS'N 118, 122 (2007); and then citing U.S. ENV'T PROTECTION AGENCY, EPA/600/R-08/134, THE ECOLOGICAL AND HYDROLOGICAL SIGNIFICANCE OF EPHEMERAL AND INTERMITTENT STREAMS IN THE ARID AND SEMI-ARID AMERICAN SOUTHWEST (2008)); Letter from eleven former members of EPA Sci. Advisory Panel, to Andrew R. Wheeler, Administrator, U.S. EPA and R.D. James, Assistant Sec'y of the Army for Civ. Works, at 4 (Apr. 5, 2019) (on file with author) [hereinafter *Former SAB Letter*] (noting that ephemeral and intermittent streams comprise 59 percent of all streams in the conterminous United States, and 81 percent of all streams in the arid and semi-arid Southwest); see also McCrory & Raymond, *supra* note 14, at 169 (discussing *Rapanos*, 547 U.S. at 730–34, 739, 757).
74. Like Chief Justice Rehnquist, Justice Scalia did cite the statutory objective in section 101(a) and the competing congressional goal in section 101(b) of respecting states' rights in areas of land and water use, but only to note how the latter tempers the former. See *Rapanos*, 547 U.S. at 722–23 (quoting 33 U.S.C. § 1251(a)–(b)); see also *infra* Part III for a discussion on the relationship between these provisions.
75. Indeed, Justice Scalia did so quite intentionally, asserting expressly that it was only necessary to ascertain the dictionary meaning of the word "waters" to decide the case, without reference to the meaning of the qualifying terms. *Rapanos*, 547 U.S. at 731. He did note correctly, however, that the statute uses the term "waters of the United States," not "water of the United States," indicating that "water" means water within specific water bodies. *Id.* at 732.
76. See *SFS Letter*, *supra* note 73, at 2–4; *Former SAB Letter*, *supra* note 73, at 2–6 (both critiquing the disconnect between proposed Trump

Justice Scalia’s opinion is a particularly telling example of the dangers of substituting lay judicial understanding of scientific terms for informed scientific analysis by agencies delegated authority to implement a complex technical statute. It acknowledges Chief Justice Rehnquist’s “significant nexus” concept from *SWANCC* but applies it purely from the perspective of surface water hydrology. Even if one considers hydrology alone, it is inappropriate to ignore groundwater and other subsurface linkages to traditional navigable waters. That would contravene the large body of science EPA compiled to analyze what other water bodies should be included in WOTUS to protect traditional navigable waters.⁷⁷ Indeed, the Supreme Court later recognized this hydrologic reality in *County of Maui*, holding that some discharges of pollutants into navigable waters through groundwater require permits to protect the navigable water.⁷⁸

More importantly, Justice Scalia’s purely hydrologic focus—rooted in his atomized construction of the word “waters” in isolation from the rest of the statutory text—ignores the broader watershed and ecosystem protection and restoration goals articulated in the CWA.⁷⁹ As explained in the following Subpart, Justice Kennedy’s opinion concurring in the judgment in *Rapanos* moved beyond an unduly narrow focus on isolated statutory words and terms to consider how they related to the statute’s stated objective.

Administration WOTUS rule and large body of scientific evidence and analysis on watershed connectivity). Justice Kennedy also criticized Justice Scalia’s unscientific description of wetlands as “simply moist patches of earth” rather than acknowledging the agencies’ scientifically derived definitions. *See Rapanos*, 547 U.S. at 761–62 (Kennedy, J., concurring); *see also* Patrick Parenteau, *The Clean Water Rule: Not Dead Yet*, 48 ENV’T L. 377, 405 (2018) (critiquing Justice Scalia’s focus on “waters”).

77. U.S. ENV’T PROTECTION AGENCY, EPA/600/R-14/475F, CONNECTIVITY OF STREAMS & WETLANDS TO DOWNSTREAM WATERS: A REVIEW & SYNTHESIS OF THE SCIENTIFIC EVIDENCE (2015) [hereinafter *EPA Synthesis Report*]. EPA’s Science Advisory Board agreed with these conclusions in its review of the Obama Administration Clean Water Rule, finding that smaller-order streams, wetlands, open waters in riparian zones, and floodplains connect with downstream navigable waters in ways that affect downstream water quality, and should be cumulative. Clean Water Rule: Definition of “Waters of the United States,” 80 Fed. Reg. 37,054, 37,063–37,064 (June 29, 2015), (to be codified at 33 C.F.R. pt. 328; 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401).

78. *Cnty. of Maui, Haw. v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1476 (2020). This issue is distinct from the question of whether groundwater can be a jurisdictional water, or whether other waters connected to navigable waters through subsurface hydrologic connections can be subject to CWA regulation.

79. *See* 33 U.S.C. § 1251(a).

D. Statutory Text and Purposes

Justice Kennedy's opinion concurring in the judgment in *Rapanos*,⁸⁰ although joined by no other Justice, has effectively become the controlling opinion in most circuits on the interpretation of "waters of the United States."⁸¹ The Kennedy test reflects the most comprehensive synthesis of earlier interpretive approaches because it is not only rooted in the statutory text and purposes rather than isolated statutory terms, but also relies on agency scientific judgment in cases in which jurisdiction is unclear. According to Justice Kennedy, "[J]urisdiction over wetlands depends on the existence of a *significant nexus* between the wetlands in question and navigable waters in the traditional sense."⁸² Justice Kennedy's approach draws linguistically on the same term ("significant nexus") used first by Chief Justice Rehnquist in *SWANCC*,⁸³ and then by Justice Scalia in the plurality opinion in *Rapanos*.⁸⁴ Both of those opinions, however, used the term to describe a hydrologic nexus. Justice Kennedy's approach recognizes that aquatic ecosystems are connected in ways beyond direct surface hydrological connections. Moreover, Justice Kennedy linked his "significant nexus" test to the statutory objective,⁸⁵ recognizing the need to interpret the Act's scope relative to those purposes. In other words, Justice Kennedy's opinion suggests that the WOTUS issue is a matter of statutory text and expressed purposes.

Although more integrative than the Rehnquist and Scalia approaches, Justice Kennedy's analysis retains some of the flaws in both of those opinions. First, Justice Kennedy repeats Justice Rehnquist's

80. *See Rapanos*, 547 U.S. at 759–87 (Kennedy, J., concurring).

81. Under the test established in *Marks v. United States*, 430 U.S. 188, 193 (1977) (citing *Gregg v. Georgia*, 428 U.S. 153, 169 n.15 (1976)), the opinion with the narrowest reasoning sufficient to sustain the court's holding is considered the controlling opinion absent a majority opinion. Most circuits that have considered the issue have found that to be true of Kennedy's opinion. Accordingly, the Seventh, Ninth, and Eleventh Circuits have held that only Justice Kennedy's test is appropriate to analyze whether a water is a WOTUS. *See United States v. Robinson*, 505 F.3d 1208, 1219–21 (11th Cir. 2007); *N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 999–1000 (9th Cir. 2007); *United States v. Gerke Excavating Inc.*, 464 F.3d 723, 724–25 (7th Cir. 2006). Other circuits find CWA jurisdiction if either Justice Scalia's or Justice Kennedy's test is used. *See United States v. Donovan*, 661 F.3d 174, 180–84 (3d Cir. 2011); *United States v. Bailey*, 571 F.3d 791, 799 (8th Cir. 2009); *United States v. Johnson*, 467 F.3d 56, 64–66 (1st Cir. 2006); *see also MULLIGAN*, *supra* note 14, at 22–23; *Parenteau*, *supra* note 76, at 398–400.

82. *Rapanos*, 547 U.S. at 779 (emphasis added).

83. *See SWANCC*, 531 U.S. 159, 167 (2001).

84. *See Rapanos*, 547 U.S. at 726 (citing *SWANCC*, 531 U.S. at 167).

85. *See id.* at 779–80 (Kennedy, J., concurring).

error in linking his significant nexus test to traditional navigable waters rather than the broader scope of waters subject to the Commerce Clause.⁸⁶ At a minimum, this appears to eliminate an important link in the chain of waters subject to CWA jurisdiction. According to Justice Kennedy, a potentially jurisdictional water must have a significant nexus to a “traditional” navigable water, rather than a tributary to a navigable water or other water—the use or degradation of which might adversely affect interstate commerce within the scope of the *Appalachian Electric Power* test.

Second, although Justice Kennedy implicitly recognized the authority of EPA and ACE to exercise scientific judgment to ascertain when the requisite significant nexus exists to assert CWA regulatory jurisdiction, by creating a non-statutory judicial test his opinion treads on delegated agency authority in a different way. The phrase “significant nexus” appears nowhere in the CWA. As noted above, it was created first by Chief Justice Rehnquist in *SWANCC*⁸⁷ and adopted by Justice Kennedy as the principal test in his *Rapanos* opinion. Although the agencies later embraced the test because they had little choice given its place in the controlling Supreme Court opinion,⁸⁸ the word “significant” injected a value-laden, unscientific concept into the analysis. At bottom, it is not appropriate for non-scientifically trained judges to make up a scientific test. It is better for judges to allow or even direct the expert agencies to do so, and then to review the test for consistency with the statutory text, with appropriate deference under established principles of administrative law.

E. Proposed Reconciliation

Based on the above analysis, none of the Supreme Court approaches to interpreting the term “waters of the United States” meets all appropriate tenets of sound statutory construction. The analysis below constructs an approach that does so by reading the full statutory text rather than atomizing the statute by viewing individual words or phrases in isolation. Based on a full statutory word search and textual analysis, it evaluates how all scope terms in the statute fit together most logically. The analysis then tests the resulting synthesis against the expressed goals and purposes of the Act. Finally, it analyzes the degree to which the resulting interpretation aids in the multiple overlapping lines of cases involving CWA scope.

86. *See id.* at 779 (Kennedy, J., concurring); *supra* notes 57–58 and accompanying text (referring to “navigable waters in the traditional sense”).

87. *See supra* notes 80–84 and accompanying text.

88. *See* Clean Water Rule: Definition of “Waters of the United States,” 80 Fed. Reg. 37,060, 37,061 (June 29, 2015) (to be codified at 33 C.F.R. pt. 328; 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401).

II. SYNTHESIZING CWA SCOPE TERMS

Each line of CWA-scope cases focuses on the words that are directly relevant to that analysis. Of course, courts must construe the words Congress chose to address a specific statutory issue. However, when Congress uses different words or phrases to describe multiple statutory terms, there is also a logical presumption that those differences have statutory significance.⁸⁹ Moreover, the meanings courts ascribe to each term must fit together in a logical way and should not be evaluated in isolation.

The CWA contains at least forty-three separate words or phrases referring to either specific types of water bodies or categories of water bodies subject to various statutory provisions. The full set is included in Figure 1, organized into four separate categories: (1) “the Nation’s waters,” an umbrella term encompassing all others in the statute;⁹⁰ (2) “water,” including variations such as fresh water, surface water, groundwater, seawater, “the” water, and water resources;⁹¹ (3) “waters,” including an even larger range of subsidiary terms;⁹² and (4) various kinds of water bodies, including the ocean, territorial seas, the contiguous zone, estuaries, groundwaters (aquifers), rivers (and streams), lakes (and publicly owned lakes), bays, harbors, lagoons, wetlands and salt marshes, and channels.⁹³

89. *See supra* note 16.

90. *See infra* Part III.A.

91. *See infra* Figure 1.

92. Those include navigable waters, waters of the United States, navigable waters of the United States, groundwaters, interstate waters, intrastate waters, receiving waters, inland waters, inshore waters, surface waters, underground waters, and coastal recreation waters. *See infra* Figure 1.

93. *See infra* Figure 1.

The Nation's Waters		
Water	Waters	Water Bodies
Fresh water	Navigable waters	Ocean
Sea water	Waters of the U.S.	Territorial seas
Ground water	Navigable waters of the U.S.	Contiguous zone
The water	Ground waters	Estuaries
Water resources	Interstate waters	Ground waters (aquifers)
	Intrastate waters	Rivers (and streams)
	Receiving waters	Lakes (and publicly owned lakes)
	Inland waters	Bays
	Inshore waters	Harbors
	Surface waters	Lagoons
	Underground waters	Wetlands, salt marshes
	Coastal recreation waters	Channels
Note: Also references to ecological and hydrological regions: watersheds, estuarine zones, etc.		

Figure 1

By including these distinct terms, clearly Congress intended to afford them specific meaning in the statutory scheme, to distinguish between different terms of scope, and to subject them to different statutory programs and treatment. The challenge is to ascertain which regulatory programs attach to which scope terms to make the best sense of such a wide range of terms. The following analysis focuses most heavily on the scope terms that either have been most heavily disputed, or those that are most illuminating in solving the CWA's jurisdictional puzzle. Those include "the Nation's waters," "waters" (including WOTUS), "navigable waters," "navigable" WOTUS, "water," and "groundwater."

A. “The Nation’s Waters”

Congress used the scope term “the Nation’s waters” only once in the CWA,⁹⁴ choosing other terms to define the scope of specific CWA programs. It did so, however, in the pivotal first sentence of the Act’s opening provision, in the context of establishing the statute’s overarching objective “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”⁹⁵ The difference in terminology between “the waters of the United States” and “the Nation’s waters” might be accidental, but as noted above, courts presume that legislatures intend different meanings when they use different words in the same statute.⁹⁶

As distinct from “navigable waters,” redefined as “the waters of the United States,”⁹⁷ Congress did not define “the Nation’s waters.” Given that the term modifies the overall statutory objective, it is logically the broadest of the Act’s statutory targets. The key interpretive question, however, is what Congress meant by “the Nation” as a modifier of “waters.” If it meant the nation as a political entity, “the Nation’s waters” would mean waters within the federal government’s legal control—under its Commerce Clause authority, the federal navigational servitude, or otherwise. This reading seems implausible, because it would then be difficult to distinguish “the Nation’s waters” from “waters of the United States.”

Alternatively, Congress could have meant “the Nation” in its geographic sense—that is, all waters within the geographic boundaries of the United States of America. This reading makes far more sense given the term’s position as the statutory umbrella term, with all other statutory scope terms nested within it. That leaves room for Congress to determine which subsets of waters should be subject to federal (as opposed to state or local) regulation or other programmatic attention. As a useful example, groundwater is part of “the Nation’s waters” if that term geographically encompasses all waters in the nation. At various places in the statute, Congress indicated that groundwater needed protective measures,⁹⁸ thus bringing it within the broadest term

94. This was verified by a word search conducted by Professor Suzanne Darais, then a law librarian and now Library Director at the University of Utah S.J. Quinney College of Law, of the Westlaw database containing the text of the CWA.

95. 33 U.S.C. § 1251(a).

96. *See supra* note 16 and accompanying text.

97. 33 U.S.C. § 1362(7).

98. *E.g., id.* § 1254(a)(5) (providing for monitoring of groundwater as well as navigable waters, the contiguous zone, and the oceans); *id.* § 1329(i)(1) (providing grants for groundwater programs); *id.* § 1274(a)(4) (providing for watershed pilot projects to include coordinated protection of “surface water, ground water, and stormwater resources”); *id.* § 1288(b)(2)(K)

of statutory scope. That does not mean, however, that Congress presumptively included groundwater in all CWA regulatory programs. In this context, the most logical distinction between “waters of the United States” and “the Nation’s waters” is that the former refers to waters over which the United States as a political entity (i.e., the federal government) may exercise statutory jurisdiction, whereas the latter refers to “waters” within the whole nation, whether Congress intended any control actions to be within the purview of the federal government, state and local governments, or both.

B. “Water” Versus “Waters”

In its CWA scope terms, Congress also appears to have distinguished between “water” and “waters,” although it is challenging to make sense of some of those distinctions. The commonsense distinction is that the term “waters” refers to water bodies or waterways, whereas “water” refers to the water that forms—or is one component part of—those waters.

For example, section 101(a)(2) established an interim goal to protect “recreation in and on the water.”⁹⁹ Section 303(c) provides that state-adopted water quality standards (WQS) “shall . . . enhance the quality of water.”¹⁰⁰ Section 303(b) requires state reports on the “quality of water.”¹⁰¹ Section 502(6) defines pollutants as materials discharged into water.¹⁰² Clearly, these provisions refer to water as a substance to be protected from pollutants and other sources of harm as one way to meet the statutory objective to restore and protect the “waters” of the United States.

By contrast, other statutory provisions use the term “waters.” Section 302(a) requires water quality-based effluent limitations¹⁰³ in “a

(requiring state comprehensive plans to include protection of groundwater as well as surface water quality); *id.* § 1314(a)(1) (requiring EPA to establish water quality criteria addressing groundwater as well as surface water); *id.* § 1314(f)(E) (requiring EPA to identify means to address nonpoint source pollution, including pollution of groundwater); *id.* § 1329(b)(2)(A) (requiring state best management practices for nonpoint source pollution control to consider impact on groundwater quality); *id.* § 1329(h)–(i) (providing grants for groundwater quality protection as part of state nonpoint source pollution control programs).

99. *Id.* § 1251(a)(2).

100. *Id.* § 1313(c)(2)(A).

101. *Id.* § 1315(b)(1)(A).

102. *Id.* § 1362(6).

103. An effluent limitation is a limit on the amount and composition of pollutants released from individual point sources, hence the key mechanism by which the Act controls water pollution from discrete sources. *See id.* § 1311(a). A water quality-based effluent limitation is an effluent limit designed to ensure attainment of a water quality standard,

specific portion of the navigable waters.”¹⁰⁴ Section 303(d) requires states or EPA to calculate total maximum daily loads (TMDLs)¹⁰⁵ for “waters within [a state’s] boundaries” that do not meet WQS.¹⁰⁶ Sections 304(l) and 319(a) similarly require states to identify specific waters not meeting WQS.¹⁰⁷ Section 304(a) requires EPA, in adopting water quality criteria guidelines, to consider toxicity effects “in any . . . water[s].”¹⁰⁸ These usages make sense only if “waters” refers to bodies of water, which are hydrological and ecological entities comprised of water and a range of other physical and biological components.

One implication of this understanding of the term “waters” is that the so-called “unitary waters” theory proffered by EPA and others to ascertain when there is an “addition” of pollutants to the waters of the United States makes little sense, as discussed further in Part III.B.1. Congress clearly intended states and the federal agencies to treat water bodies or segments of water bodies individually based on the degree to which they meet WQS or attain other statutory objectives.

The most perplexing aspect of the distinction between “water” and “waters,” however, is the juxtaposition of the CWA’s statutory objective as applied to “the Nation’s waters” with the nearly identical statutory definition of “pollution” as “the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.”¹⁰⁹ Aside from the addition of “radiological” to the triad of alterations cited in the statutory objective, the key difference between the statutory objective and the definition of “pollution” is that the former applies to “waters” while the latter applies to “water.”

Given the statutory structure described above, the logical explanation for this distinction is that redressing pollution is one approach to meeting the Act’s aquatic ecosystem integrity objective. Congress intended the whole statute, with its diverse regulatory and other programs, to restore and maintain the chemical, physical, and biological integrity of various types of water bodies; that is, aquatic ecosystems or ecosystem segments. Pollution of *water* is one of many barriers to attaining that objective, although a very important one. Thus, one needs to reduce or eliminate “the man-made or man-induced

see id. §§ 1311(b)(1)(C), 1312(a), as opposed to an effluent limit defined by the best technology to control the discharge. *See, e.g., id.* § 1311(b)(1)(A), (b)(2)(A).

104. *Id.* § 1312(a).

105. A TMDL is the maximum aggregate pollutant load from all sources a water body can receive without violating a water quality standard. *See* 40 C.F.R. § 130.7 (2014).

106. 33 U.S.C. § 1313(d)(1)(A).

107. *Id.* §§ 1314(a)(l), 1329(a).

108. *Id.* § 1314(a)(1).

109. *Id.* § 1362(19).

alteration of the chemical, physical, biological, and radiological integrity of water” as one strategy towards restoring and maintaining the chemical, physical, and biological integrity of the Nation’s waters.¹¹⁰

Notably in this regard, the definition of “pollution” is relevant to another key statutory distinction between “pollution” and the “discharge of a pollutant” (or pollutants). The term “pollution” encompasses all forms of alteration of the chemical, physical, biological, and radiological integrity of water, as necessary to meet the statutory objective, and includes such alteration from both point and nonpoint sources.¹¹¹ A “discharge of pollutants,” by contrast, applies to the addition of pollutants to WOTUS.¹¹² This distinction, therefore, is central to the debate over the scope and meaning of WOTUS, discussed in the next Subpart.

C. WOTUS Versus “Navigable” WOTUS

As suggested at the outset and as explained above in Part II, the most controversial unresolved debate about the CWA’s scope terms involves the meaning of WOTUS. The relationships between the term WOTUS and other CWA scope terms can aid this analysis in three ways, none of which were used in any of the Supreme Court’s interpretive approaches to the WOTUS issue discussed above.¹¹³

First, Congress distinguished between WOTUS and “navigable” WOTUS in the statute and in closely related and contemporaneous statutory provisions. For example, CWA section 311(b)(1) governs discharges of oil or hazardous substances “into or upon the navigable waters of the United States.”¹¹⁴ Similarly, two years before adopting the 1972 CWA, Congress established an experimental dredged spoil program for all “navigable waters, connecting channels, tributary streams [and] *other waters of the United States . . .*”¹¹⁵ Although codified along with the CWA, this provision was not part of the 1972 Act. With this juxtaposition of scope terms, however, Congress distinguished between “navigable” waters of the United States and other waters of the United States, meaning that the term WOTUS is broader than “navigable” WOTUS. That understanding was consistent with the existing legal distinction between traditional navigable waters

110. *Id.*

111. *See supra* note 110 and accompanying text.

112. *See* 33 U.S.C. § 1362(12).

113. *See supra* Part II.

114. 33 U.S.C. § 1321(b)(1); *see also id.* § 1321(a)(11) (defining “offshore facility” as “located in, on, or under any of the navigable waters of the United States”); *id.* § 1322 (regulating marine sanitation devices discharging to the “navigable waters” of the United States).

115. *Id.* § 1293a(i) (emphasis added).

under *The Daniel Ball* test and the broader Commerce Clause test established in *Appalachian Electric Power*.¹¹⁶

Second, any notion that the CWA is limited to traditional navigable waters is belied by the statute's attention to groundwater. The comprehensive water pollution–planning program in section 208, for example, required states to protect groundwater as well as surface water.¹¹⁷ Moreover, the WQS program includes groundwater as well as surface water. EPA is required to adopt water quality criteria for pollutants in “any body of water, including ground water,”¹¹⁸ and to identify the “factors necessary to restore . . . chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone and the oceans.”¹¹⁹ Pursuant to those criteria, states, although not EPA, may adopt WQS for groundwater as well as surface water.¹²⁰ This allocation of authority indicates that Congress considered groundwater to be part of “the Nation's waters” for purposes of the scope of the entire CWA but not necessarily as part of WOTUS for purposes of all CWA programs.¹²¹

Third, various statutory provisions using multiple scope terms together support the conclusion that WOTUS extends beyond traditional “navigable waters.” For example, section 102 calls for “comprehensive programs for preventing, reducing, or eliminating the pollution of the navigable waters and ground waters”¹²² Section 104 requires water quality–monitoring programs covering navigable waters and groundwater, the contiguous zone, and the oceans.¹²³ Section 122 requires integrated water resource plans for coordinated protection of surface water, groundwater, and stormwater resources.¹²⁴ This juxtaposition of CWA scope terms is telling in

116. *See supra* notes 63–67 and accompanying text.

117. *See* 33 U.S.C. § 1288(b)(2)(K); *see also supra* note 98 (citing other CWA groundwater protection provisions).

118. 33 U.S.C. § 1314(a)(1).

119. *Id.* § 1314(a)(2).

120. *See id.* § 1313(c).

121. Some analysts suggest that at least some groundwater is included in WOTUS. *See* Michael C. Blumm & Steven M. Thiel, *(Ground)Waters of the United States: Unlawfully Excluding Tributary Groundwater from Clean Water Act Jurisdiction*, 46 ENV'T L. 333, 335–36 (2016). Others disagree strongly. *See* Damien M. Schiff & Glenn E. Roper, *The Hallmarks of a Good Test: A Proposal for Applying the “Functional Equivalent” Rule from County of Maui v. Haw. Wildlife Fund*, 38 PACE ENV'T L. REV. 1, 47–49 (2020). This issue is discussed more extensively in the following Subpart.

122. 33 U.S.C. § 1252(a).

123. *Id.* § 1254(a)(5).

124. *Id.* § 1274(a)(4).

deciding whether WOTUS is constrained by navigability. If the Act’s comprehensive water resources planning, monitoring, and protection programs include groundwater and even stormwater, it makes little sense for Congress to have used “navigable waters” in the same context as limited by the traditional test of navigability in *The Daniel Ball*. It makes far more sense under the broader prevailing Commerce Clause test that had characterized congressional authority over water for three decades prior to the 1972 Act.

D. Synthesis: Toward a Unified Theory of CWA Jurisdiction

Viewing all the CWA scope terms depicted in Figure 1 in the context of the above analysis produces the following synthesis, which is also depicted visually in the Venn diagram in Figure 2. This synthesis alone does not resolve all outstanding legal issues regarding the proper scope of specific CWA programs or provisions, but it goes a long way in aiding that analysis.

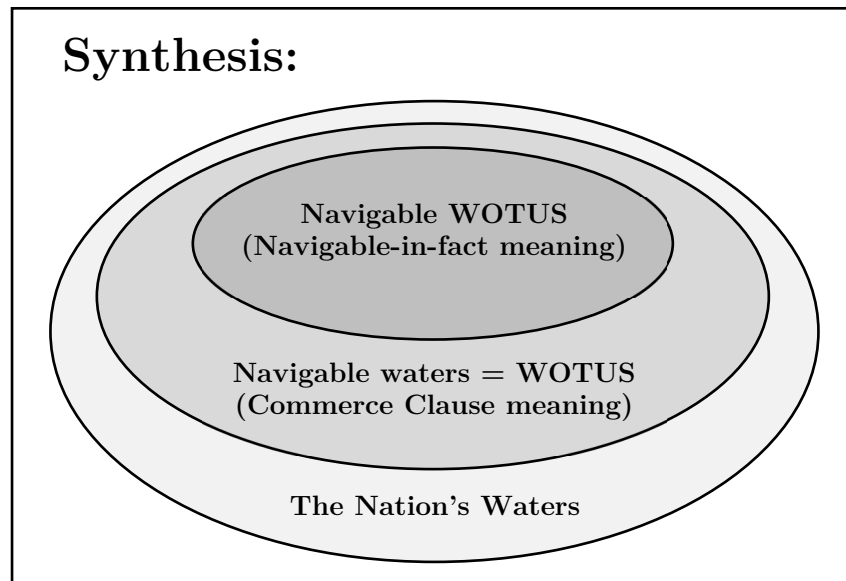


Figure 2

Having been used only once in the opening provision of the statute to define the overall statutory objective, “the Nation’s waters” is logically the broadest scope term in the statute. It is an umbrella term within which all other scope terms fit. Read in context, it appears to refer to all “waters” within the geographic and political reach of the United States, through either federal authority, state and local authority, or both. That is a very broad statutory scope. For purposes of the political and constitutional debate about the appropriate extent of federal water regulation, however, Congress did not presumptively assert *regulatory* authority over all those waters. The statute includes

a broad mix of programs that include measures such as federal regulation,¹²⁵ state regulation,¹²⁶ planning,¹²⁷ funding,¹²⁸ research,¹²⁹ and collaboration,¹³⁰ not all of which implicate potential issues of federal authority.

All subsidiary CWA scope terms thus fall within the umbrella of “the Nation’s waters.” Although it is conceivable for any of them to be coextensive with the umbrella term, that would mean that Congress illogically used two terms to cover the same scope of waters. Therefore, we presume that each of the other scope terms occupies part, but not all, of the jurisdictional space defined by “the Nation’s waters” and that different subsidiary scope terms do so in different ways. Otherwise, Congress would not have used so many scope terms in the statute.

From the perspective of the CWA’s challenging jurisprudence, the most important scope terms to situate in this framework are “navigable waters,” which Congress redefined as WOTUS, and “navigable” WOTUS. As explained above,¹³¹ the fact that Congress distinguished between WOTUS and “navigable” WOTUS, and that it sometimes listed in the same sentence “navigable waters” and “other waters of the United States,” clearly means that WOTUS is broader than “navigable” WOTUS. Both nest within “the Nation’s waters,” and this logically means that “navigable” WOTUS are a subset of WOTUS, as depicted in Figure 2.

Also as explained above, this relationship between “the Nation’s waters,” WOTUS, and “navigable” WOTUS is logical in several ways. Congress would not have redefined “navigable waters” as WOTUS if it intended the two terms to be synonymous. The fact that “navigable” modifies WOTUS in the term “navigable” WOTUS suggests that navigable WOTUS is a subset of WOTUS. Most importantly, we must assume that Congress, as it drafted the CWA, understood the Supreme Court’s longstanding distinction between traditional navigable waters under *The Daniel Ball* test and the broader definition it established in *Appalachian Electric Power* to delineate the potential reach of Commerce Clause regulation involving waters. Although legislative

125. *Id.* § 1314(b) (authorizing EPA to establish nationally applicable, enforceable, technology-based effluent limitations for point sources).

126. *Id.* § 1313(c) (authorizing states to adopt enforceable water quality standards).

127. *Id.* § 1329 (providing for state nonpoint source pollution control plans).

128. *Id.* § 1256 (providing federal grants for state and interstate pollution control programs).

129. *Id.* § 1254(a) (establishing research, investigation, training, and information programs).

130. *Id.* § 1267 (establishing multijurisdictional collaboration program for the Chesapeake Bay).

131. *See supra* Part II.C.

history is not necessary to this analysis, the conclusion is fully consistent with statements in the CWA's legislative history by the Act's principle architects that by using the new term WOTUS, Congress intended the statute's regulatory apparatus to extend as far as possible under the Commerce Clause.¹³²

The final task in this analysis is to place the other CWA scope terms within this framework. This is facially no small task given the large number of terms identified in Figure 1, but the effort is simplified if approached in several groups. Moreover, just as it seems clear that Congress intended WOTUS to include more than "navigable" WOTUS for purposes of the Act's regulatory jurisdiction, the distinction between "the Nation's waters" and WOTUS suggests that some scope terms describe "water" or "waters" that are subject to less than the CWA's full regulatory apparatus in one of two ways. Congress could have intended to include some waters in the nonregulatory but not the regulatory statutory provisions (such as planning, research, monitoring, or voluntary programs). It also could have intended some waters to be subject to state but not federal regulation, even if the CWA establishes the details of that regulation and encourages state participation through Spending Clause or other authority rather than statutory commands.¹³³

Some CWA scope terms are trivial for purposes of this analysis because they define types of water bodies subject to special statutory attention regardless of any issue of statutory or constitutional scope. For example, it was logical for Congress to single out estuaries as subject to specified remediation and protection programs under the National Estuary Program,¹³⁴ lakes to be subject to the Clean Lakes Program,¹³⁵ or coastal recreation waters to be subject to the special protections appropriate to those waters.¹³⁶ Moreover, Congress sometimes used scope terms to identify types of water or waters

132. See H.R. REP. NO. 92-911, at 131 (1972) (expressing committee intent that "the term 'navigable waters' be given the broadest possible constitutional interpretation"); S. REP. NO. 92-1236, at 144 (1972) (Conf. Rep.), reprinted in *Water Pollution Control*, Pub. L. 92-500, 1972 U.S.C.C.A.N. 3822 (1972) [hereinafter 1972 S. CONF. REP.] (noting statement by bill sponsor and committee chair Senator Muskie to same effect); see also MULLIGAN, *supra* note 14, at 5 (mentioning the same intent); *Navigable Waters*, *supra* note 25, at 10552.

133. See *New York v. United States*, 505 U.S. 144, 167 (1992) (citations omitted) (acknowledging broader federal authority through spending incentives than through direct Commerce Clause regulation).

134. See 33 U.S.C. § 1330(a).

135. *Id.* § 1324.

136. *Id.* § 1346. In addition, Congress identified several specific water bodies (or groups of water bodies) for special remedial action, including the: Hudson River, *id.* § 1266; Chesapeake Bay, *id.* § 1267; Great Lakes, *id.* §§ 1268, 1268a; Long Island Sound, *id.* § 1269; Lake Champlain, *id.* § 1270; Lake Pontchartrain, *id.* § 1273; and Columbia River Basin, *id.* § 1275.

relevant to these special categories, including “fresh water” and “sea water.”¹³⁷ There is no logical inconsistency if those terms nest within the broader term WOTUS, making them subject to the Act’s full regulatory apparatus in addition to other requirements appropriate to those waters.

Similarly, the distinction between interstate and intrastate waters is relatively insignificant for purposes of delineating the regulatory jurisdiction of the post-1972 CWA. Prior to that time, Congress had limited its statutory mandates to interstate waters—for example, by requiring states to adopt WQS for those waters¹³⁸ and providing for enforcement and dispute resolution procedures for interstate water pollution.¹³⁹ Congress retained the distinction in the 1972 Act only for purposes of the timing of its expanded requirement that states must adopt WQS for intrastate waters as well as interstate waters.¹⁴⁰

Importantly, however, the scope term distinctions in the WQS provisions are significant in another respect relative to the Act’s federalism approach. Congress authorized state WQS for all “intrastate waters” or “applicable waters of [the] state.”¹⁴¹ For this purpose, the meaning of “waters of the state” appears analogous to “the Nation’s waters;” that is, all “waters” within the geographic boundaries of that state.¹⁴² This allows states, for example, to adopt federally enforceable WQS for groundwater as well as surface water.¹⁴³ Where a state fails to adopt approvable WQS for *navigable* waters, however, EPA is authorized to adopt standards for those waters,¹⁴⁴ but not for other waters of the state.¹⁴⁵

137. *See, e.g., id.* § 1254(n) (addressing the relationship between sea water and fresh water in estuaries).

138. *See* RODGERS, *supra* note 2, at 252–53; *Navigable Waters*, *supra* note 25, at 10551–52; McCrory & Raymond, *supra* note 14, at 159–62.

139. RODGERS, *supra* note 2, at 253.

140. *Compare* 33 U.S.C. § 1313(a)(1) (requiring existing WQS for interstate waters to remain in effect), *with id.* § 1313(a)(2)–(3) (requiring existing intrastate WQS to remain in effect and requiring states to adopt such standards if not previously in effect).

141. *Id.* § 1313(a)(3), (c)(1), (c)(3).

142. *See supra* Part II.A.

143. *See supra* notes 118–20 and accompanying text.

144. 33 U.S.C. § 1313(c)(4).

145. Curiously, Congress did not adopt the same federalism-based distinction of authority in the following subsection governing TMDL calculations for waters within a state’s boundaries that do not meet applicable WQS. *See id.* § 1313(d)(2) (authorizing EPA Administrator’s adoption of TMDLs, where states fail to do so adequately, “for such waters as he determines necessary to implement the water quality standards applicable to such waters”). This could have been an oversight. Alternatively, Congress may

Consistent with the above analysis, with respect to WQS, the most logical group of scope terms that Congress intended to fall within “the Nation’s waters” but not WOTUS are those related to groundwater.¹⁴⁶ Those waters could fit within the rubric in one of three ways. All groundwater could be included both in WOTUS and in “the Nation’s waters.” The chief problem with this view is that it becomes difficult to see what scope terms would be included in “the Nation’s waters” but not within WOTUS, rendering those terms problematically synonymous.

The other extreme would include groundwater(s) within “the Nation’s waters” but not within WOTUS. That would subject them to some CWA programs, such as discretionary state authority to adopt WQS for groundwater as well as surface water, and comprehensive planning programs exhorting states to manage all water sources holistically,¹⁴⁷ but not to the qualified discharge ban that lies at the heart of the CWA’s regulatory apparatus.¹⁴⁸ Although this interpretation could jeopardize protection of surface waters from pollutant discharges through groundwater, that problem can be avoided through the conduit theory prohibiting discharges to surface waters through another medium such as air or groundwater,¹⁴⁹ or through the similar functional equivalent test adopted by the Supreme Court in *County of Maui*.¹⁵⁰

The intermediate view, which seems most consistent with the overall structure presented in this analysis and which others have suggested, is that all groundwater is part of “the Nation’s waters,” and some—but not all—of that groundwater is also included in WOTUS.¹⁵¹ This result makes sense in the context of the scope of federal Commerce Clause authority over water bodies under *Appalachian Electric Power*, which includes waters that are tributary to navigable-in-fact waters or

have given EPA more authority to adopt TMDLs than the WQS underlying TMDLs because WQS are enforceable. *See id.* §§ 1311(b)(1)(C), 1312. TMDLs taken alone are not—they can only be enforced against individual dischargers through NPDES or other permits, and EPA’s authority to issue permits is limited to discharges to WOTUS. *Id.* § 1342.

146. As discussed above, this does not necessarily mean that Congress lacks the constitutional authority to protect all groundwater as an article of interstate commerce. *See supra* note 61 and accompanying text. The statutory question, however, is whether it intended to do so and did so in the statutory text.

147. *See, e.g.*, 33 U.S.C. § 1288.

148. *See supra* note 26 and accompanying text.

149. *See generally* Adler & House, *supra* note 21.

150. *See generally* Schiff & Roper, *supra* note 121.

151. *See* Blumm & Thiel, *supra* note 121, at 366–68.

that otherwise affect the use of water in interstate commerce.¹⁵² To protect surface waters, there is no reason why Congress would include discharges to smaller surface waters that are hydrologically or ecologically connected to larger surface waters but not groundwaters with similar degrees of hydrological or ecological connection.¹⁵³

This interpretation raises the question, however, of whether some surface waters similarly fall within “the Nation’s waters” but not WOTUS. Perhaps some degree of hydrological attenuation can break the necessary jurisdictional chain with respect to isolated surface waters, or surface waters that are very remote hydrologically from the nearest downstream traditional navigable water, just as it might for groundwater. Perhaps a ditch or swale removed from any navigable water by many miles and several links in a hydrological chain is insufficiently connected to support CWA regulatory jurisdiction. Some interconnections relevant to CWA jurisdiction, however, can be ecological as well as hydrological—a point distinctly missed in the approaches to the WOTUS analysis used by Justices Rehnquist and Scalia. For example, migratory birds or other water-dependent fish and wildlife may move between isolated wetlands and nearby—or even distant—surface waters as part of their habitat.

This part of the interpretive challenge invokes Justice White’s acknowledgement in *Riverside Bayview Homes* that “[w]here on this continuum to find the limit of ‘waters’ is far from obvious.”¹⁵⁴ It supports the wisdom of deferring to agency scientific expertise in deciding the Act’s jurisdictional limits within that difficult middle ground; that is, for waters included in “the Nation’s waters” and that might or might not properly fall within WOTUS. Historically, the agencies have done so either by regulation or through case-by-case analysis, identifying the kinds of hydrological and ecological connections deemed sufficient to support CWA jurisdiction.¹⁵⁵ That process allowed informed judgments about which waters should be included in the Act’s regulatory scope by category, which required case-by-case analysis, and which should be excluded.¹⁵⁶

152. *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 382 (1940).

153. There may be few situations in which there is a practical difference between this theory and the conduit theory or the functional equivalent test, but this approach may make more sense in the context of the statutory scheme and its nested series of scope terms.

154. *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 132 (1985).

155. *See EPA Synthesis Report*, *supra* note 77, at ES-4, ES-15.

156. *See* 2015 Clean Water Rule, *supra* note 17 at 37057–58, 37104–05 (explaining categories in the 2015 Clean Water Rule). Others have carefully analyzed the regulatory distinctions made in various versions of the applicable regulations. *See, e.g.*, Parenteau, *supra* note 76, at 387–95; MULLIGAN, *supra* note 14, at 6–10, 23–25; Erin Ryan, *Federalism*,

III. TESTING THE UNIFIED THEORY

The unified theory of CWA jurisdiction presented above makes sense based solely on the text of the Act's assorted scope terms and how they most logically fit together. The theory can be tested further, however, in two other ways. First, to determine whether it matches and helps to effectuate the Act's multiple goals and objectives. Second, to ascertain whether it makes sense in the context of related lines of CWA jurisdictional cases and helps to identify problems with some resolutions of those issues. The unified theory also allows us to revisit the approaches the Supreme Court has taken to the WOTUS issue in the past and to suggest implications for *Sackett* and future cases.

A. Statutory Objective, Goals, and Structure

As a co-author and I argued in *Atomizing the Clean Water Act*, the key to making sense of the statute's jurisdictional maze is to construe its definitional terms and the legal tests Congress formulated with those definitions relative to the Act's overall text, structure, and expressed purposes.¹⁵⁷ The CWA is a long and complicated statute.¹⁵⁸ It includes an array of seemingly unrelated or disjointed provisions that address, for example, research and development programs, planning programs, grant programs, and individual water bodies or categories of water bodies.¹⁵⁹ The Act's pivotal implementing provisions are buried in the middle of the statute,¹⁶⁰ and key legal principles are interspersed with provisions that prescribe implementation details.¹⁶¹ Making sense of this hodgepodge of provisions that mix regulatory and nonregulatory approaches to water pollution control can be daunting. It can also tempt courts to adopt an atomized approach to interpreting individual statutory provisions.

Despite this apparent statutory chaos, the CWA has an intentional (if complex) architecture, in which several overriding themes can guide more consistent statutory interpretation. Seven core principles

Regulatory Architecture, and the Clean Water Rule: Seeking Consensus on Waters of the United States, 46 ENV'T L. 277, 280–81, 284, 288–90, 299–300 (2016).

157. See Adler & House, *supra* note 21, at 68–78.

158. See *Am. Petroleum Inst. v. U.S. Env't Prot. Agency*, 540 F.2d 1023, 1027–28 (10th Cir. 1976) (bemoaning the complexity and lack of clarity in the complex statute).

159. See *supra* notes 125–30 and accompanying text.

160. See *supra* note 21 and accompanying text (identifying section 301(a) of the Act, 33 U.S.C. § 1311(a), as the central operative provision).

161. While section 301(a) articulates the central principle of the Act's qualified discharge ban, the remainder of section 301 and other provisions delineate detailed distinctions between the obligations of numerous categories of discharger. See 33 U.S.C. §§ 1311, 1314, 1316, 1317.

embedded in the objective, goals, and policies in the Act's opening provision, as implemented through the statute's programmatic architecture, can guide agencies and courts in construing and implementing the statute, including its pivotal definitions. Moreover, each core principle either explains, or is explained by, what otherwise seem to be inconsistent statutory scope terms. Each principle is discussed in the context of its associated scope terms to help explain why Congress chose different definitional targets to match differing statutory goals, and the degree to which the principle is consistent with the unified theory presented in this Article.

1. Aquatic Ecosystem Integrity Objective

The CWA begins with an ambitious aspiration:¹⁶² “The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”¹⁶³ Three related aspects of this statutory objective, referred to hereafter as the “aquatic ecosystem integrity objective,” are relevant to the unified theory.

First, by describing chemical, physical, and biological integrity in the statute's opening sentence as the “objective of this chapter,” Congress clearly intended the aquatic ecosystem integrity objective to guide implementation and interpretation of the entire statute.¹⁶⁴ It transcends all CWA programs and its many definitional distinctions.

Second, although the short statutory title *Clean Water Act* might imply a more limited focus on the release of chemical wastes and other noxious substances into water bodies, Congress sought a much broader goal of aquatic ecosystem integrity. Through this goal Congress aspired to restore “something approximating natural aquatic ecosystem structure and function.”¹⁶⁵ That includes efforts to curtail the release of chemical and other water pollutants, but it also embraces actions to prevent, reduce, or eliminate other environmental changes that impair aquatic ecosystem integrity, and to restore aquatic ecosystems from past impairments of all kinds and from all sources.¹⁶⁶

162. For a discussion of the aspirational nature of the CWA, see Robert W. Adler, *The Decline and (Possible) Renewal of Aspiration in the Clean Water Act*, 88 WASH. L. REV. 759, 762 (2013).

163. 33 U.S.C. § 1251(a).

164. *Id.*

165. Adler, *supra* note 162, at 763; *see also*, Robert W. Adler, *The Two Lost Books in the Water Quality Trilogy: The Elusive Objectives of Physical and Biological Integrity*, 33 ENV'T L. 29, 44–46 (2003) [hereinafter *Physical and Biological Integrity*].

166. Those include, for example, disturbances from human structural alterations such as dams and water diversions, stream channelization and streambank armoring, and levees; introduction of exotic species and other changes to the biotic composition of water bodies; changes to land use in floodplains,

Third, this broad statutory objective applies not only to WOTUS, the scope term that has commanded so much time and attention and political focus, but to “the Nation’s waters.”¹⁶⁷ The aquatic ecosystem integrity objective, therefore, articulates the broadest statutory aspiration in the CWA. It is logically matched by the broadest term of statutory scope, “the Nation’s waters.” Thus, this overarching statutory goal is relevant in construing the entire statute, including both regulatory and nonregulatory programs, and whether it is implemented by the federal government or states.

2. Zero-Discharge Goal

In section 101(a) of the CWA, Congress articulated two subsidiary national goals and five subsidiary national policies. The national goals specify the ends the CWA seeks to achieve and help implement the aquatic ecosystem integrity objective, thereby guiding the statute’s major implementing programs. The accompanying five national policies focus more on how the two end policy goals should be achieved.¹⁶⁸

riparian zones, and other areas that alter hydrological flows and other attributes of aquatic ecosystems; and surface water diversions and groundwater pumping that reduce water levels or change water quality in streams and other water bodies. *See Physical and Biological Integrity*, *supra* note 165, at 31, 36.

167. 33 U.S.C. § 1251(a).

168. *See* 1972 S. CONF. REP., *supra* note 132, at 100 (indicating that the two national goals are designed to achieve the statutory objective). The seven national statutory goals and policies, some of which are discussed below, are:

- (1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;
- (2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;
- (3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;
- (4) it is the national policy that Federal financial assistance be provided to construct publicly owned treatment works;
- (5) it is the national policy that areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;
- (6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans; and

The first subsidiary national goal is “that the discharge of pollutants into the navigable waters be eliminated by 1985” (the “zero-discharge goal”).¹⁶⁹ The zero-discharge goal signaled an intent not merely to regulate the amount and concentration of pollutants released, but to eliminate the use of waters as pollutant dumping grounds. Unlike statutory goals that are purely aspirational, the zero-discharge goal is accompanied by parallel, mandatory implementing provisions. Most notably, provisions defining “best technology” standards governing discharges of pollutants from point sources demand a zero-discharge standard wherever possible.¹⁷⁰

Distinct from the statute-wide aquatic ecosystem integrity objective discussed in the previous subsection as applicable to “the Nation’s waters,” Congress applied the zero-discharge goal to “the discharge of pollutants into the navigable waters.”¹⁷¹ This limits the scope of the zero-discharge goal in two related ways. First, Congress defined “discharge of a pollutant” as “any addition of any pollutant from any *point source*.”¹⁷² Thus, this statutory prohibition does not include pollutants reaching water bodies from nonpoint sources.

Second, narrower applicability of the zero-discharge goal (to WOTUS) relative to the aquatic ecosystem integrity objective (to “the Nation’s waters”) comports with the text and structure of other portions of the Act. The conditional discharge ban in section 301(a) also applies to “the discharge of any pollutant,”¹⁷³ and thus is limited in the same two ways (to discharges from point sources into navigable waters). The regulatory apparatus to achieve zero discharge from point sources is implemented through permits required by section 301(a) and issued pursuant to sections 402 and 404, both of which apply to discharges to the navigable waters, or WOTUS.¹⁷⁴

Those limitations, however, suggest more difficult questions. How much smaller is the universe of “waters” in “the navigable waters” than

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- (7) it is the national policy that programs for the control of nonpoint sources of pollutants 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.

33 U.S.C. § 1251(a)(1)–(7).

169. *Id.* § 1251(a)(1).

170. *E.g., id.* § 1311(b)(2)(A) (requiring effluent limitations regulations requiring elimination of discharges where technologically and economically achievable for a category or class of point sources).

171. *Id.* § 1251(a)(1).

172. *Id.* § 1362(12) (emphasis added).

173. *Id.* § 1311(a).

174. *Id.* §§ 1342, 1344; *see also id.* § 1341 (requiring state water quality certifications for any discharge into the navigable waters).

in the broader scope term “the Nation’s waters?” That is the main subject of the ongoing WOTUS controversy and will be discussed below.

Similarly, why did Congress choose an apparently narrower subset of waters for the zero-discharge goal and for the related permitting and regulatory mechanisms in the Act? As discussed above, it is inaccurate to explain the difference due to a perceived constitutional limit to federal authority to protect only navigable waters from water pollution. The Supreme Court has ruled that water is an article of commerce for purposes of Commerce Clause authority,¹⁷⁵ and other federal legislation permissibly regulates pollution of groundwater and other land and water.¹⁷⁶

The most obvious reason Congress anchored the CWA’s regulatory apparatus to navigable waters is historical. It had a long history of using Commerce Clause authority to regulate navigable waters for purposes other than pollution control, such as protecting channels of commerce and ensuring that waterways were available for national defense.¹⁷⁷ When Congress entered what would become the field of water pollution control in the Rivers and Harbors Act of 1899 to keep waterways free from refuse and other obstructions to shipping and military traffic,¹⁷⁸ it logically relied on its power over traditional navigable waters. At the time, the scope of this authority was defined by the “navigable in fact” test articulated by the Supreme Court in *The Daniel Ball*.¹⁷⁹ Later federal statutory predecessors to the CWA followed this tradition, and the CWA’s point source permitting program had origins in the federal permitting program developed under the Rivers and Harbors Act.¹⁸⁰ By that time, however, in *Appalachian Electric Power* and progeny, the Supreme Court had expanded the scope of waters subject to Commerce Clause regulation.¹⁸¹

175. See Adler, *supra* note 8, at 1652.

176. *E.g.*, Safe Drinking Water Act of 1996, 42 U.S.C. § 300f; Solid Waste Disposal Act of 1965, 42 U.S.C. § 6901; Comprehensive Environmental Response, Compensation, and Liability Act of 1981, 42 U.S.C. § 9601.

177. See, *e.g.*, Okla. *ex rel.* Phillips v. Guy F. Atkinson Co., 313 U.S. 508, 516–35 (1941) (upholding federal dam as part of program to improve navigability); Ashwander v. Tenn. Valley Auth., 297 U.S. 288, 326–30 (1936) (upholding federal authority to build dam to improve navigation for national defense and power production).

178. 33 U.S.C. § 403.

179. 77 U.S. (10 Wall.) 557, 563 (1870).

180. See RODGERS, *supra* note 2, at 252–54.

181. See *supra* notes 63–67 and accompanying text. Others have noted this historical progression. See, *e.g.*, McCrory & Raymond, *supra* note 14, at 159–63; MULLIGAN, *supra* note 14, at 5–6.

Nevertheless, Congress adopted the 1972 CWA both to restore and protect aquatic ecosystem integrity and to promote commerce and national defense. Thus, for example, in requiring WQS for “the navigable waters,” Congress directed states (or EPA in the event of state default) to establish standards “taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, *and also taking into consideration their use and value for navigation.*”¹⁸² Accordingly, it redefined “the navigable waters” as “the waters of the United States,”¹⁸³ with accompanying explanations in the legislative history that it did so to assert federal jurisdiction to the maximum extent permissible under the Constitution.¹⁸⁴

It is unfortunate that Congress chose this awkward redefinition of one term as another to delineate the scope of the CWA’s pivotal regulatory apparatus. Had Congress simply replaced the term “navigable waters” with “the waters of the United States” and defined the new term separately, much of the confusion of the past fifty years would have been avoided. Read considering the Act’s full textual purposes, however, Congress intended to extend the Act’s reach beyond traditional navigable waters, to include aquatic ecosystems consistent with those purposes.

3. Fishable and Swimmable Waters Goal

The CWA’s second subsidiary national goal is that “wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983” (the “fishable and swimmable waters” goal).¹⁸⁵

Whereas the zero-discharge goal was an innovation in 1972, the interim national goal of “fishable and swimmable waters” was a holdover from the WQS approach in the earlier Federal Water Pollution Control Act.¹⁸⁶ Ambient WQS define “acceptable” levels of pollution in water bodies to support and protect various uses.¹⁸⁷ Congress described this goal as water quality sufficient to support “the protection and propagation of fish, shellfish, and wildlife” (the “fishable” waters part

182. 33 U.S.C. § 1313(c)(2)(A) (emphasis added).

183. *Id.* § 1362(7).

184. *See supra* note 132.

185. 33 U.S.C. § 1251(a)(2).

186. *See* Federal Water Pollution Act, Pub. L. 92-500, 86 Stat. 816 (Oct. 18, 1972); *supra* notes 138–40 and accompanying text.

187. *See* 33 U.S.C. §§ 1313(c)(2)(A), 1314(a); PUD No. 1 of Jefferson Cnty. v. Wash. Dep’t of Ecology, 511 U.S. 700, 704–05 (1994).

of the goal) and water quality sufficient to support “recreation in and on the water” (the “swimmable waters” part of the goal).¹⁸⁸

As with zero-discharge, the goal of fishable and swimmable waters is not mere aspiration. It is implemented through WQS adopted pursuant to section 303(c) of the Act¹⁸⁹ and a range of enforceable statutory implementation requirements.¹⁹⁰ Section 303(c) requires WQS to, among other things, “serve the purposes of this chapter,”¹⁹¹ which EPA has interpreted by regulation as incorporating by reference the statutory objective, goals, and policies set forth in section 101(a).¹⁹² Courts have identified these water quality goals as the “guiding star” of the statute, through which all of its other provisions should be interpreted.¹⁹³ Thus, CWA scope terms should be construed to effectuate the Act’s water quality goals.

Unlike the zero-discharge goal, however, which as explained above is tied expressly to “the navigable waters,”¹⁹⁴ the “fishable and swimmable” goal does not reference any statutory scope term. Rather, it applies to “water quality” generally and to “recreation in and on *the water*.”¹⁹⁵ This suggests that the Act’s water quality goals apply more broadly than the zero-discharge goal. Read literally, given the absence of any qualifying language, it applies to “water quality” everywhere and any “water.” Reading the national goal in section 101(a)(2) in concert with various implementing provisions in the Act, however, reveals a more complex set of statutory targets. The resulting focus of the Act’s ambient water quality goals is unfortunately complex, and at times arguably inconsistent. It is unquestionably broader, however, than the “navigable waters” identified as the target of the zero-discharge goal.

Under CWA section 304(a), EPA publishes recommended water quality criteria for states to use in adopting enforceable WQS.¹⁹⁶ Section 304(a) requires these water quality criteria to reflect the impacts of pollutants on “any body of water, including ground water,”

188. 33 U.S.C. § 1251(a)(2). The goal articulated is broader than the convenient shorthand version suggests. A water body can be fishable if it is periodically restocked with hatchery fish, but the more ambitious goal in the actual text is water quality sufficient for “protection and propagation” of fish, shellfish, and wildlife. *Id.*

189. *Id.* § 1313(c)(2)(A).

190. *See, e.g., id.* §§ 1311(b)(1)(C), 1312(a), 1313(d)–(e).

191. *Id.* § 1313(c)(2)(A).

192. 40 C.F.R. § 131.2 (2021).

193. *See, e.g.,* *Kennecott Copper Corp. v. U.S. Env’t Prot. Agency*, 612 F.2d 1232, 1236 (10th Cir. 1979) (quoting *Am. Petrol. Inst. v. U.S. Env’t Prot. Agency*, 540 F.2d 1023, 1028 (10th Cir. 1976)).

194. *See supra* Part III.A.2.

195. 33 U.S.C. § 1251(a)(2) (emphasis added).

196. *Id.* § 1314(a).

and likewise to reflect the biological effects of pollutants on “varying types of receiving waters.”¹⁹⁷ Under section 304(a)(2), EPA develops and publishes information on the factors necessary to achieve both the aquatic ecosystem integrity objective and the fishable and swimmable waters goal.¹⁹⁸ The jurisdictional target for criteria to achieve the aquatic ecosystem integrity objective is “all navigable waters, ground waters, waters of the contiguous zone, and the oceans,”¹⁹⁹ confirming that the integrity objective applies beyond navigable waters. The jurisdictional target for criteria to achieve the goal of fishable and swimmable waters is “classes and categories of receiving waters,”²⁰⁰ again without limitation to navigable waters.

CWA section 303(c) directs states to adopt enforceable standards for ambient water quality,²⁰¹ with a backup requirement for EPA to do so if a state fails to implement this requirement properly.²⁰² This provision, however, applies to three categories of “waters”: “interstate waters,”²⁰³ “intrastate waters,”²⁰⁴ and the “navigable waters.”²⁰⁵ Although these differences might appear to be accidental, they make sense when understood in the context of timing and statutory goals and policy.

Section 303(a)(1) applies to WQS for interstate waters that predated the 1972 Act. The 1965 act had required states to adopt standards for that category of waters, leaving each state to decide whether to adopt standards for intrastate waters as well.²⁰⁶ Any pre-1972 standards applicable to purely intrastate waters, however, were incorporated into the federal statutory program—with required EPA approval—as an initial step toward the broader geographic coverage of the 1972 Act. Although the distinction between interstate and intrastate is obvious, ambiguity lies in the fact that both terms could refer to groundwater as well as surface water, and to wetlands or

197. *Id.* § 1314(a)(1).

198. *Id.* § 1314(a)(2)(A)–(B) (requiring information “on the factors necessary to restore and maintain the chemical, physical, and biological integrity” (the aquatic ecosystem integrity objective) of defined waters and information on “the factors necessary for the protection and propagation of shellfish, fish, and wildlife . . . and to allow recreational activities in and on the water” (the fishable and swimmable goal)).

199. *Id.* § 1314(a)(2)(A).

200. *Id.* § 1314(a)(2)(B).

201. *Id.* § 1313(a), (c)(1)–(c)(2).

202. *Id.* § 1313(a)–(b), (c)(3)–(c)(4).

203. *Id.* § 1313(a)(1).

204. *Id.* § 1313(a)(2)–(a)(3).

205. *Id.* § 1313(c), (e)(3).

206. *Id.* § 1313(a)(2).

other waters not historically regulated under federal law up to that point, as distinct from navigable waterways. The water quality criteria Congress directed EPA to adopt to guide the state-standard process applies to groundwater and *any* other water,²⁰⁷ envisioning that states might apply WQS beyond rivers and other surface waters.

Congress then redefined the scope of the post-1972 WQS requirement to apply to “the navigable waters,” whether adopted by a state²⁰⁸ or by EPA, due to any deficiency in a state’s standards.²⁰⁹ Recall, however, that Congress redefined “navigable waters” more broadly as WOTUS.²¹⁰ Thus, Congress may have retained the statutory reference to navigable waters, even construed as broadly as constitutionally permissible, to retain the historical balance between waters over which the federal and state governments exercise water pollution control authority. Congress authorized states to adopt WQS for all waters in that state but retained federal authority to do so for “navigable waters,” redefined as WOTUS, for states that failed to do so adequately. That concern for cooperative federalism in water pollution control programs is discussed in the following Subpart.

4. Federalism Policies

In addition to the seven subsidiary policies Congress included in section 101(a),²¹¹ Congress added several other policy statements to section 101, including policies related to international pollution control,²¹² public participation,²¹³ and paperwork reduction.²¹⁴ Two of the additional statutory policies, however, one in the 1972 Act and the other added in the 1977 amendments, expressly address the federalism philosophy Congress established to guide statutory implementation. Those policies help to explain some of the scope-term distinctions in the Act, but not in as limiting a way as some might argue.

In section 101(b) of the 1972 Act, Congress articulated a policy “to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the

207. *See supra* notes 196–98 and accompanying text.

208. 33 U.S.C. § 1313(c)(2).

209. *Id.* § 1313(c)(3)–(c)(4).

210. *Id.* § 1362(7).

211. *Id.* § 1251(a).

212. *Id.* § 1251(c).

213. *See id.* § 1251(e).

214. *See id.* § 1251(f). Section 101(d) simply delegates statutory administration to the Administrator of EPA. *Id.* § 1251(d).

Administrator in the exercise of his authority under this [Act].”²¹⁵ In section 101(g), added in the 1977 CWA amendments,²¹⁶ Congress further expressed a policy “that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this [Act],” or that the Act not “be construed to supersede or abrogate rights to quantities of water which have been established by any State.”²¹⁷ These policies are reinforced in section 510, which directs that the Act not be construed as “impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States.”²¹⁸

Some commentators have cited these federalism policies to argue for a narrower meaning of the scope term WOTUS, arguing in part that interpretation of the CWA cannot rely solely on the objective, goals, and policies in section 101(a) without considering the federalism policy Congress added in section 101(b) as well.²¹⁹ That argument is not compelling for several reasons.

First, although it is clearly correct that courts must consider the text of sections 101(b) and 101(g) along with section 101(a), Congress articulated a hierarchy of statutory guides, beginning with the overarching statutory *objective* establishing the ultimate purpose of the Act;²²⁰ two *national goals* with enforceable accompanying provisions to implement them, both designed to help achieve the statutory objective;²²¹ and a long list of *policies* expressing Congress’s choices and preferences regarding the manner in which the statutory objective and goals should be achieved.²²² Both section 101(b) and 101(g) fall into the third tier in this structure. As with other distinctions in statutory text, courts should assume that Congress used different words in section 101 (“objective,” “goals,” and “policies”) to serve different functions.

215. *Id.* § 1251(b). Congress added to that provision the policy that states manage the sewage treatment construction grants program, implement permitting programs under CWA sections 402 and 404, and provide federal support for research and technical services to states and localities regarding the “prevention, reduction, and elimination of pollution.” *Id.*

216. *See* Pub. L. No. 95-217, § 5, 91 Stat. 1566, 1567 (1977).

217. 33 U.S.C. § 1251(g).

218. *Id.* § 1370(2).

219. *See, e.g.,* Damien Schiff, *Keeping the Clean Water Act Cooperatively Federal—or, Why the Clean Water Act Does Not Directly Regulate Groundwater Pollution*, 42 WM. & MARY ENV’T L. & POL’Y REV. 447, 452–59 (2018); *see also* Adler, *supra* note 49, at 20–22.

220. 33 U.S.C. § 1251(a).

221. *Id.* § 1251(a)(1)–(2); *see* 1972 S. CONF. REP., *supra* note 132, at 142 (specifying that the two national goals are included to “achieve this objective”).

222. *See supra* Part III.A.

Moreover, the policy Congress articulated in sections 101(b) and 101(g) addresses the “who does what” aspect of federalism and does nothing to define or limit any of the Act’s scope terms or the breadth of the Act’s ambitious pollution control objective or subsidiary goals. On its face, section 101(b) expresses a policy to recognize, preserve and protect the *primary* responsibilities and rights of states in water pollution control, not the *exclusive* responsibilities and rights of states.²²³ This is consistent with core implementing provisions of the Act, in which Congress authorized and encouraged state implementation, but left federal backstops if a state declined or failed to do so.²²⁴ As such, it reflects a congressional *preference* for state implementation of many of the programs that affect states and localities most significantly, with an accompanying *insistence* that state inaction be filled through federal action if necessary.

Congress added the policy reserving state authority in section 101(g) to distinguish between the law of water use and allocation—which Congress traditionally ceded to the states²²⁵—and the law of water pollution control. Thus, the first policy in section 101(g) simply states that nothing in the CWA can affect state authority to allocate water as an economic resource.²²⁶ The second policy similarly protects recipients of existing water use and allocation rights granted or recognized by states.²²⁷ Neither policy affects the CWA’s principal focus on restoration and protection of waters, water bodies, or any of the other CWA scope terms.

To be sure, in section 101(b) Congress recognized traditional state authority over land and water use and recognized the potential impact of water pollution control programs on land and water resources. That

223. 33 U.S.C. § 1251(b).

224. *See, e.g., id.* § 1313(c) (giving states primary responsibility for adopting WQS but authorizing EPA to do so if state action is inadequate); *id.* § 1313(d) (giving states primary responsibility to implement TMDL program, with residual EPA authority if a state fails to do so properly); *id.* § 1342(a)–(b) (authorizing EPA to implement NPDES permitting program, but authorizing states to assume such authority subject to EPA program approval and authority to veto state-issued permits); *id.* § 1344(a), (g)(1) (authorizing ACE to implement dredge and fill permitting program, but authorizing states to assume such authority subject to federal program approval). The most notable exception to this general pattern is the nonpoint source pollution program in section 319, discussed further below.

225. *See California v. United States*, 438 U.S. 645, 663–70 (1978).

226. “It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter.” 33 U.S.C. § 1251(g).

227. “It is the further policy of Congress that nothing in this chapter shall be construed to supersede or abrogate rights to quantities of water which have been established by any State.” *Id.*

explains Congress's preference for states to implement the Act's provisions pursuant to their *primary* responsibilities in those arenas. If anything, however, congressional concern for the potential impact of the CWA on land and water use underscores the breadth of the Act rather than any jurisdictional limitations. If the Act were limited largely or entirely to control of point source discharges of pollutants into traditional navigable waters, there would have been little or no need for Congress to articulate a policy about the rights and responsibilities of states to control land and water resources. States have overwhelmingly chosen to exercise CWA authority over National Pollutant Discharge Elimination System (NPDES) permitting governing pollutant discharges from municipal and industrial point sources.²²⁸ Ironically, however, given congressional concern for the CWA's land use implications, few states have implemented the section 404 permitting program,²²⁹ which has generated most of the controversy regarding the scope of WOTUS due to potential infringement on land use and private property rights.

5. Comprehensive Watershed Focus and Planning

As noted above, earlier federal water pollution control law focused on navigable waters, in part due to its historical roots in the Rivers and Harbors Act and the congressional goals of earlier times to protect water bodies for commercial and military navigation.²³⁰ The 1972 CWA, by contrast, focused on the watersheds that support the Act's aquatic ecosystem integrity objective.²³¹ In concert with its statutory objective and goals, Congress articulated a national policy that "areawide waste treatment and management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State."²³² This policy reflected a new strategy to focus on the sources

228. See *NPDES State Program Authority*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/npdes/npdes-state-program-authority> [<https://perma.cc/ELJ4-F6TK>] (May 17, 2022) (table depicting delegation of NPDES program to majority of states).

229. See *State and Tribal Assumption of Section 404 of the Clean Water Act*, U.S. ENV'T PROTEC. AGENCY, <https://www.epa.gov/cwa404g/us-interactive-map-state-and-tribal-assumption-under-cwa-section-404> [<https://perma.cc/B4U6-PHA8>] (Mar. 10, 2022) (indicating that only Michigan, New Jersey, and Florida have assumed administration of the section 404 program).

230. See *supra* notes 177–80 and accompanying text.

231. See Robert W. Adler, *Addressing Barriers to Watershed Protection*, 25 ENV'T L. 973, 1038–49 (1995); McCrory & Raymond, *supra* note 14, at 173 (discussing cumulative watershed impacts).

232. 33 U.S.C. § 1251(a)(5).

rather than the effects of pollution,²³³ and to consider the cumulative effects of all sources of pollutants within a watershed.²³⁴

This policy was not, however, merely hortatory. Congress adopted multiple provisions to implement watershed-based pollution control and aquatic ecosystem restoration that apply beyond traditional navigable waters, for purposes that transcend protecting navigability. Section 102(a) requires EPA, in cooperation with other federal, interstate, and state and local agencies, to “prepare or develop comprehensive programs for preventing, reducing, or eliminating the pollution of the navigable waters *and ground waters* and improving the sanitary condition of *surface and underground* waters.”²³⁵ Section 102(c) provides for federal grants to states for comprehensive pollution control plans on a basin-wide or sub-basin scale, to help implement the water quality and source control provisions of the Act.²³⁶ Notably, for purposes of this provision Congress provided that “‘basin’ includes, *but is not limited to*, rivers and their tributaries, streams, coastal waters, sounds, estuaries, bays, lakes, and portions thereof *as well as the lands drained thereby*.”²³⁷

The comprehensive, state-managed areawide waste treatment management program Congress established in section 208 focused on addressing all sources of waste and pollution on an areawide basis rather than on specific waterways.²³⁸ Those include both point source and nonpoint source pollution,²³⁹ as well as pollution from mines, construction activities, saltwater intrusion, residual waste, and pollutant

233. See U.S. Env’t Prot. Agency v. Cal. *ex rel.* State Water Res. Control Bd., 426 U.S. 200, 202 (1976).

234. See, e.g., 33 U.S.C. § 1313(d)(1), discussed *infra*.

235. *Id.* § 1252(a) (emphasis added). This provision also indicates that the purposes of comprehensive planning include the fishable and swimmable waters goal as well as public water supply, agricultural, industrial, and other purposes, i.e., not merely navigability; and calls for joint federal/state investigations of “any waters in any State or States.” *Id.*

236. *Id.* § 1252(c).

237. *Id.* § 1252(c)(3) (emphasis added).

238. See *id.* § 1288(a) (providing for “areawide waste treatment management plans” defining “each area” with “substantial water quality control problems” and requiring states to designate the “boundaries of each such area”); *id.* § 1288(b)(1)(A) (requiring for designated areas an “areawide waste treatment management planning process . . . applicable to all wastes generated within the area involved”); see also *id.* § 1254(a) (providing for research, investigation, and training applicable to a wide range of “waters”); *id.* § 1255(a)(1) (supporting demonstration projects of pollutants into “any waters” from combined sewer overflows).

239. See *id.* § 1288(b)(2)(A), (F).

disposal on land and in subsurface excavations.²⁴⁰ Authority to manage such comprehensive watershed-based programs was to be designated by state governors to local, regional, or statewide entities.²⁴¹ This reflected the federalism concerns discussed above,²⁴² because the comprehensive focus on all sources of water pollution, whether via direct discharges to waters or indirect routes through land and water, might affect land use issues traditionally governed by states and localities. This reinforces the conclusion that Congress inserted the federalism policy in section 101(b) to preserve state and local authority over pollution control programs that affect land and water use, not to constrain the meaning of WOTUS. Notably, the portion of section 208 addressing disposal of pollutants on land and in subsurface excavations is designed to protect “ground and surface water quality.”²⁴³

In 1987, Congress established a new state-led nonpoint source (NPS) pollution control program,²⁴⁴ given the widespread state failure to address that issue through the existing section 208 program.²⁴⁵ The new program also focused on watershed-based programs. It required states to develop plans, to the maximum extent practicable, on a watershed-by-watershed basis,²⁴⁶ and to report NPS loads and water quality improvements for navigable waters or identified watersheds.²⁴⁷ It also envisioned NPS pollution programs to protect both surface and groundwater.²⁴⁸

Other provisions reinforce this focus on watersheds and aquatic ecosystems—and all aquatic components of those systems—rather than only waterways as places of navigation. Section 104(a)(5) governs water quality–monitoring programs for navigable waters, groundwater, and coastal and ocean waters.²⁴⁹ Section 104(n) provides for studies on

240. *See id.* § 1288(b)(2)(G)–(K). The singular reference to navigable waters in section 208 involves potential state assumption of the dredge and fill program under section 404. *See id.* § 1288(b)(4)(B).

241. *See id.* § 1288(c)(1).

242. *See supra* Part III.A.4.

243. 33 U.S.C. § 1288(b)(2)(K).

244. *See id.* § 1329.

245. *See* H.R. REP. NO. 99-189, at 8–12 (1985).

246. 33 U.S.C. § 1329(b)(4).

247. *Id.* § 1329(h)(11).

248. *See id.* § 1329(b)(2)(A) (requiring plans to include best management practices “taking into account the impact of the practice on ground water quality”); *id.* § 1329(h)(5) (establishing preference for grants for programs that carry out groundwater quality protection as part of program); *id.* § 1329(i) (creating additional grants for protecting groundwater quality as part of efforts to advance comprehensive NPS pollution control programs).

249. *Id.* § 1254(a)(5).

pollution in estuaries and estuarine zones, with the latter defined as “an environmental system consisting of an estuary and those transitional areas which are consistently influenced or affected by water from an estuary such as, but not limited to, salt marshes, coastal and intertidal areas, bays, harbors, lagoons, inshore waters, and channels.”²⁵⁰ Similarly, CWA programs designed to restore and protect individual water bodies operate on a watershed basis rather than focusing on water bodies alone.²⁵¹

These provisions reinforce Congress’s focus on entire aquatic ecosystems as the primary focus of its statutory objective to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”²⁵² For this purpose, “the Nation’s waters” include all water bodies—including groundwater—within the geographic reach of the United States, regardless of which level of government has legal authority over those waters. WOTUS is the subset of those waters over which the federal government has regulatory authority under the Commerce Clause, and navigable WOTUS are the subset of those waters under the test for traditional navigability under *The Daniel Ball*.

B. The Fragmented Lines of Clean Water Act Scope Cases

A second way to test the unified theory is to apply it to other lines of cases involving CWA statutory scope. A sound interpretation of the Act’s multiple scope terms should resolve each line of cases in a logical and consistent way.

The most prominent and most politically contentious line of cases tests the reach of the term WOTUS and its relationship to the term “navigable waters.” As explained fully above, none of the current U.S. Supreme Court approaches to interpreting these terms is fully

250. *Id.* § 1254(n).

251. *See, e.g., id.* § 1257 (establishing mine water pollution control projects to eliminate acid or other mine water pollution in all or part of a watershed or river basin); *id.* § 1267(a)(3) (defining the “Chesapeake Bay ecosystem” as the ecosystem of the Bay and its watershed); *id.* § 1268(a)(3)(C) (defining the “Great Lakes System” as “all the streams, rivers, lakes, and other bodies of water” within the Great Lakes drainage basin); *id.* § 1269(g) (directing EPA to coordinate federal actions affecting water quality in the Long Island Sound’s watershed “to improve the water quality and living resources of the watershed”); *id.* § 1270(g)(2) (defining the “Lake Champlain drainage basin” as all parts of listed counties “that contain all of the streams, rivers, lakes, and other bodies of water, including wetlands, that drain into Lake Champlain”); *id.* § 1274(a)(4) (providing technical assistance and grants to cities for pilot projects to demonstrate wet-weather discharge management of a watershed basin, including plans to protect “surface water, ground water, and stormwater resources on a watershed or subwatershed basis to meet the objectives, goals, and policies” of the Act).

252. *Id.* § 1251(a); *see supra* Part III.A.1.

consistent with the statutory test and stated purposes.²⁵³ The unified theory draws upon a combination of those approaches in a way that best resolves the issue by consistently nesting sequentially narrower terms with all stated statutory objectives, goals, and policies. It also does so in a manner that comports with the Supreme Court’s long-standing constitutional doctrine regarding the multiple meanings of the term “navigable waters.” This Subpart tests the unified theory against two related lines of scope cases: cases defining the meaning of “addition” and “discharge”; and cases addressing the so-called “conduit” theory, in which pollutants reach waters through an intermediate medium.²⁵⁴

1. The “Addition” and “Discharge” Cases

The qualified discharge ban in CWA section 301(a) applies to “the discharge of any pollutant by any person.”²⁵⁵ That term is defined as “any addition of any pollutant to navigable waters from any point source.”²⁵⁶

Courts have long held that the “addition” element of a section 301(a) offense excludes intrabody transfers of pollutants; that is, it requires a person to add pollutants to a water body from an external source. In *National Wildlife Federation v. Gorsuch*,²⁵⁷ the D.C. Circuit held that the transfer of pollutants from river to reservoir to the downstream river segment did not require an NPDES permit because there was no addition of a pollutant to that water body.²⁵⁸ Following this reasoning, in *National Wildlife Federation v. Consumers Power Co.*,²⁵⁹ the Sixth Circuit held that a pumped storage facility used to generate power did not “add” pollutants to Lake Michigan when entrained fish parts caught in the apparatus were returned to the water body from which they came.²⁶⁰ The Supreme Court and other lower courts later followed this intrabody pollutant transfer reasoning.²⁶¹

253. *See supra* Part I.

254. Other lines of cases address other links in the chain of section 301(a) scope and liability, but do not have similar significance to the unified theory or to the scope terms addressed in this Article. *See supra* note 25 and accompanying text (identifying articles by Jeffrey Miller analyzing these lines of cases).

255. 33 U.S.C. § 1311(a).

256. *Id.* § 1362(12).

257. 693 F.2d 156 (D.C. Cir. 1982).

258. *Id.* at 174–75.

259. 862 F.2d 580 (6th Cir. 1988).

260. *Id.* at 583–86.

261. *See* L.A. Cnty. Flood Control Dist. v. NRDC, Inc., 568 U.S. 78, 82–83 (2013); Catskill Mountains Chapter of Trout Unlimited, Inc. (*Catskill I*) v. City of New York, 273 F.3d 481, 491–93 (2d Cir. 2001) (noting “[i]f one

Courts have facially treated the intrabody transfer issue differently, however, in the context of section 404 permits for discharges of dredge and fill material²⁶² than they have in the NPDES context.²⁶³ In particular, courts have found that extraction of dirt or other material from a wetland or other waters (dredging) and redeposit into water in that same water body constituted an “addition” of pollutants and therefore required a section 404 permit.²⁶⁴ This apparent inconsistency can be reconciled by focusing on the distinction between “water” as a component of “waters” and the waters themselves. As explained above, some courts found no addition where pollutants already in the *water* were moved to another portion of the water body. In the context of section 404, courts have held that dredging material from the beds or banks of wetlands or other water bodies, and depositing that material back into the water of the same water body, constituted an addition of pollutants. This is logical because the dredged material was a physical component of the aquatic ecosystem, but was transformed into a pollutant when added to the water of that water body.

The Supreme Court further addressed the “addition” question in *South Florida Water Management District v. Miccosukee Tribe of Indians*.²⁶⁵ The Court overturned a grant of summary judgment on whether a permit was required for a facility that pumped pollutants from a canal to an adjacent reservoir, both of which were parts of an interconnected series of wetlands and other water bodies in South Florida.²⁶⁶ Adopting the intrabody transfer reasoning, the Court held that the record below did not address whether the two water bodies were “meaningfully distinct” for purposes of determining whether pumping from one to another constituted an addition of pollutants to

takes a ladle of soup from a pot, lifts it above the pot, and pours it back into the pot, one has not ‘added’ soup or anything else to the pot”).

262. See 33 U.S.C. § 1344.

263. For an interesting proposal in this symposium issue that courts should address the WOTUS issue differently for purposes of section 404 than for section 402, see generally Robin Kundis Craig, *There Is More to the Clean Water Act than Waters of the United States: A Holistic Jurisdictional Approach to the Section 402 and Section 404 Permit Programs*, 73 CASE W. RESRV. L. REV. 349 (2022).

264. See, e.g., *United States v. Deaton*, 209 F.3d 331, 335–37 (4th Cir. 2000) (holding that sidecasting of dirt constituted addition because it transformed a non-pollutant (original material in a wetland) into a pollutant (dredged material)); *United States v. MCC of Fla., Inc.*, 772 F.2d 1501, 1506 (11th Cir. 1985) (holding that redeposit of material dug from sea floor by tugboat propellers constitutes an addition); *Avoyelles Sportsmen’s League, Inc. v. Marsh*, 715 F.2d 897, 923 (5th Cir. 1983) (holding that “addition” may include “redeposit” of material into the water).

265. 541 U.S. 95, 105–09 (2004).

266. *Id.* at 99–101.

a navigable water.²⁶⁷ Lower courts have applied this *interbody* transfer reasoning to find an addition where the discharger moves pollutants from one water body to another.²⁶⁸

EPA sought to mitigate the impact of the interbody transfer interpretation of “addition” by promulgating a regulation which exempts most intrabody or interbody transfers of pollutants.²⁶⁹ EPA based this exemption on its “unitary waters” theory, which asserts that the WOTUS means all waters of the United States taken together, rather than individual water bodies. According to EPA’s reasoning, there can be no “addition” to the unitary WOTUS absent an addition from “the outside world”; that is, from a source other than any water body.²⁷⁰

The unified theory of CWA scope and jurisdiction posited in this Article is consistent with the intrabody transfer exclusion adopted in cases like *National Wildlife Federation v. Gorsuch* and *National Wildlife Federation v. Consumers Power Co.*,²⁷¹ and the interbody transfer inclusion adopted in cases like *Catskill I* and *II*.²⁷² However, it plainly contradicts EPA’s unitary waters theory. Section 301(a) prohibits the unpermitted discharge of pollutants to navigable *waters*. As explained

267. *See id.* at 109–12.

268. *See Catskill Mountains Chapter of Trout Unlimited v. City of New York (Catskill II)*, 451 F.3d 77, 82–87 (2d Cir. 2006) (reaffirming *Catskill I* after the Supreme Court’s holding in *Miccokusuke*); *Catskill I*, 273 F.3d 481, 491–94 (2d Cir. 2001) (requiring permit for discharges from a reservoir to a creek into which they would not naturally flow); *N. Plains Res. Council v. Fidelity Expl. and Dev. Co.*, 325 F.3d 1155, 1163 (9th Cir. 2003) (holding CWA applied to transfer of methane trapped in groundwater and discharged into navigable water); *Dubois v. U.S. Dept. of Agric.*, 102 F.3d 1273, 1299 (1st Cir. 1996) (requiring permit for pollutant transfer from polluted to relatively pristine water body); *Dague v. City of Burlington*, 935 F.2d 1343, 1354–55 (2d Cir. 1991) (finding CWA jurisdiction over pollutants moved through a culvert to a distinct water body).

269. 40 C.F.R. §122.3 (2021) (exempting “water transfers” from NPDES permit requirement and defining a water transfer as “an activity that conveys or connects waters of the United States without subjecting the transferred water to intervening industrial, municipal, or commercial use”). For critiques of the so-called Water Transfers Rule, *see* Chris Reagan, Note, *The Water Transfers Rule: How an EPA Rule Threatens to Undermine the Clean Water Act*, 83 U. COLO. L. REV. 307 (2011); Jon Harris Maurer, Comment, *Exempting Water Transfers: Watering Down Clear Statutory Protections*, 27 J. LAND USE & ENV’T L. 383 (2012); Michael E. Landis, Comment, *Up the River Without a Permit: Why the Water Transfers Rule Endangers the Louisiana Wetlands*, 3 LA. ST. UNIV. J. ENERGY L. & RES. 259 (2014).

270. *See Friends of the Everglades v. S. Fla. Water Mgmt. Dist.*, 570 F.3d 1210, 1216–17 (11th Cir. 2009).

271. *See supra* notes 258–61 and accompanying text.

272. *See supra* notes 261, 268.

above,²⁷³ the Act’s distinction between “water” and “waters” is rooted in the statutory focus on restoring and maintaining the ecological integrity of “waters” as aquatic ecosystems or components thereof.²⁷⁴ If transferring pollutants from one water body to another degrades the receiving water’s “chemical, physical, or biological integrity,” that violates the main statutory objective.²⁷⁵ It also runs counter to the multiple statutory provisions designed to restore and maintain individual water bodies and water body segments that violate WQS,²⁷⁶ thus impeding implementation of the WQS program.

Courts had uniformly rejected EPA’s unitary waters theory in a pure litigation setting in which *Chevron* did not apply—that is, in the absence of a promulgated agency rule.²⁷⁷ However, courts ultimately upheld EPA’s theory based on *Chevron* deference in the context of challenges to the Water Transfer Rule.²⁷⁸ Based on the unified theory presented in this Article, courts should not have deferred to EPA on this issue. EPA argued that the terms “navigable waters” and WOTUS were ambiguous because they could mean individual “waters,” or they could mean “the navigable waters” as a whole or the “waters of the United States” as a whole. That argument might make sense by atomizing the analysis and reading those terms in isolation. In the context of the Act’s multiple, nested scope terms and the rest of the Act’s operative provisions, objectives, and goals, however, the terms unambiguously mean individual waters as distinct aquatic ecosystems.

Moreover, in the context of state water quality certifications under CWA section 401, unlike the section 402 context addressed in *National Wildlife Federation v. Gorsuch*,²⁷⁹ the Supreme Court and lower courts did not distinguish between an intrabody discharge and an interbody discharge. Congress provided that “[t]he term ‘discharge’ when used without qualification includes a discharge of a pollutant, and a discharge of pollutants.”²⁸⁰ Thus, the term presumably includes *but is not limited to* a “discharge of a pollutant” or a “discharge of pollutants,”

273. *See supra* Part II.B.

274. *See id.* To the extent that the statutory objective applies to “the Nation’s waters” rather than “navigable waters” or WOTUS, that distinction appears insignificant for purposes of this issue. All three terms are distinct from statutory provisions that refer to “water” as a substance rather than “waters” as water bodies or aquatic ecosystems.

275. *See* 33 U.S.C. § 1251(a).

276. *See supra* Part II.B.

277. *See Catskill I*, 273 F.3d 481, 490–91 (2d Cir. 2001); *see also supra* note 268 and accompanying text.

278. *See Friends of the Everglades v. S. Fla. Water Mgmt. Dist.*, 570 F.3d 1210, 1227–28 (11th Cir. 2009).

279. *See* 693 F.2d 156, 175–77 (D.C. Cir. 1982); *see also* 33 U.S.C. § 1342.

280. 33 U.S.C. § 1362(16).

and thus does not require any addition of pollutants to the receiving water.²⁸¹ The Supreme Court endorsed this view in *S. D. Warren Co. v. Maine Board of Environmental Protection*,²⁸² holding that a federal license regarding a downstream discharge from a dam required state water quality certification absent any showing of an addition of pollutants downstream.²⁸³

This distinction between “discharge” and “discharge of pollutants” also reinforces the statutory distinction between a “discharge of pollutants” and “pollution.”²⁸⁴ Pollutant discharges are a subset of the broader term “pollution,” which includes any “man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.”²⁸⁵ Thus, in *PUD No. 1 of Jefferson County v. Department of Ecology*,²⁸⁶ the Supreme Court upheld a state water quality certification requiring minimum stream flows to protect salmon habitat, affirming a determination by the lower court that “pollution” includes man-induced alteration of streamflow.²⁸⁷ The focus, consistent with the unified theory, is on protection of the integrity of waters as aquatic ecosystems. It is also consistent with the CWA’s federalism policies, however,²⁸⁸ because states are authorized to issue water quality certifications protecting a broader range of pollution problems under section 401, while both EPA and states may issue NPDES permits for pollutant discharges under section 402.²⁸⁹

2. The “Conduit” Cases

The second line of cases overlapping the WOTUS issue addresses circumstances in which pollutants are discharged into water bodies through intermediate media—the so-called “conduit” cases.²⁹⁰ The conduit cases logically should focus on the two prepositions in the CWA definition of “discharge” as “any addition of any pollutant to navigable waters from any point source.”²⁹¹ Are pollutants added *to* navigable

281. *See id.* § 1362(12).

282. 547 U.S. 370, 375 (2006).

283. *Id.* at 379–87; *accord* Ala. Rivers Alliance v. Fed. Energy Regul. Comm’n, 325 F.3d 290, 297–300 (D.C. Cir. 2003).

284. 33 U.S.C. § 1362(12), (16), (19).

285. *Id.* § 1362(19).

286. 511 U.S. 700 (1993).

287. *Id.* at 719–23, *aff’d*, 849 P.2d 646, 651–52, 659 (Wash. 1993).

288. *See supra* Part III.A.4.

289. *Compare* 33 U.S.C. § 1341, *with id.* § 1342.

290. A co-author and I addressed this line of cases, prior to the Supreme Court’s decision in *County of Maui*, in *Atomizing the Clean Water Act*. *See* Adler & House, *supra* note 21, at 55–57.

291. 33 U.S.C. § 1362(12) (defining the prohibited “discharge of a pollutant”).

waters *from* a point source when pollutants travel through an intermediate medium such as groundwater or air, or must pollutants be added directly from the point source into the navigable water? The Supreme Court addressed this issue in *County of Maui*, holding that an addition occurred either when pollutants are discharged directly from a point source into a WOTUS, or when a discharge through an intermediate medium (in this case, groundwater connected to the ocean) is the “functional equivalent” of such a discharge.²⁹²

Some lower courts complicated the conduit analysis by addressing whether the intermediate medium constitutes a “point source” or a WOTUS. First, some courts analyzed, in the context of discharges to navigable waters through groundwater, whether groundwater constituted a point source from which pollutants are added to the navigable water.²⁹³ This analytical step is necessary only if a pollutant must be added directly from the point source to the navigable water. If so, the intermediate medium must independently qualify as a point source to find an illegal discharge. The statute, however, defines “point source” as “any discernible, confined and discrete conveyance.”²⁹⁴ Thus, a diffuse intermediate medium such as groundwater (or the atmosphere in the case of discharges to water through air) does not qualify as a point source.²⁹⁵ Second, some courts resolved the conduit issue by deciding whether groundwater through which pollutants flowed constituted a WOTUS.²⁹⁶

292. See Adler & House, *supra* note 21, at 55–57.

293. See, e.g., *Ky. Waterways All. v. Ky. Utils. Co.*, 905 F.3d 925, 933 (6th Cir. 2018) (holding groundwater was not a point source because it was not discernible, confined, or discrete); *accord* *Tenn. Clean Water Network v. Tenn. Valley Auth.*, 905 F.3d 436, 444–45 (6th Cir. 2018); *Haw. Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980, 995 (D. Haw. 2014) (holding that groundwater constituted the point source from which pollutants were discharged). The Ninth Circuit upheld the District Court’s decision on other grounds, despite confusion about what the lower court held. See Adler & House, *supra* note 21, at 56.

294. 33 U.S.C. § 1362(14).

295. This does not mean, however, that a point source must be human-made to be confined, discrete, and discernible. See, e.g., *Concerned Area Residents for the Env’t v. Southview Farm*, 34 F.3d 114, 118–19 (2d Cir. 1994) (holding natural swale could form a link in a point source conveyance); *Sierra Club v. Abston Constr. Co.*, 620 F.2d 41, 45–46 (5th Cir. 1980) (finding that conveyances formed by natural erosion could constitute a point source).

296. See *Village of Oconomowoc Lake v. Dayton Hudson Corp.*, 24 F.3d 962, 965 (7th Cir. 1994) (holding that tributary groundwater is excluded from CWA jurisdiction); *Rice v. Harken Expl. Co.*, 250 F.3d 264, 269–70 (5th Cir. 2001) (excluding tributary groundwater from regulation under Oil Pollution Act meaning of navigability, construed to have same meaning as in CWA).

In *County of Maui*, the Supreme Court rejected the requirement that a pollutant must be discharged directly from a point source to a WOTUS to be an addition, rendering both the point source and WOTUS strands of the lower courts' analysis unnecessary. *County of Maui* correctly recognizes that Congress did not use the word “directly” in the linguistic chain that defines the section 301(a) prohibition. As such, to fall within section 301(a)'s qualified discharge ban, it is not necessary to have multiple point sources in the chain. So long as the pollutants are released from a point source initially, an addition occurs if the pollutants reach a WOTUS, according to the Supreme Court in *County of Maui* through a “functional equivalent” to a direct discharge.²⁹⁷

The main significance of this line of cases to the unified theory and the scope of the term WOTUS stems from one rationale Justice Scalia used in his plurality opinion in *Rapanos*. In that opinion, Justice Scalia rejected the argument that non-navigable components of aquatic ecosystems must fall within the WOTUS scope to protect traditional navigable waters from pollutants flowing downstream.²⁹⁸ Thus, Justice Scalia tied the scope of the term WOTUS to the scope of liability under the conduit analysis, essentially suggesting a reciprocal relationship in which the scope of WOTUS can be reduced if the reach of the conduit theory is broader.

To the extent that Justice Scalia's conduit reasoning was used to support the Court's decision in *County of Maui*, it was not necessary. The result in *County of Maui* is justified by the straightforward textual reasoning that Congress tied the conditional discharge ban to any addition of pollutants *from* a point source and *to* a navigable water without any qualifier such as “directly” or “immediately.” In addition to the plain text reasoning, that result comports with the objectives,

297. As part of its decision, the Court suggested a complicated multifactor test to ascertain whether the functional equivalent test is met, considering factors such as pollutant transit time and distance, the material through which the pollutant travels, dilution, any change in the pollutants in transit, the percentage of the originally discharged pollutants reaching the WOTUS, and the location at which the pollutants enter the WOTUS. *County of Maui, Haw. v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1468, 1475–77 (2020). Although not important to the analysis in this Article, this test could be critiqued on the same grounds as Justice Kennedy's “significant nexus” test in *Rapanos*. See *Rapanos v. United States*, 547 U.S. 715, 726 (2006). The Court is essentially making up the science rather than leaving it to the expert agencies to determine the conditions under which an addition occurs functionally, subject to judicial deference to agency expertise under standard principles of administrative law. See *supra* Part I.D.

298. See *Rapanos*, 547 U.S. at 742–46 (“The Act does not forbid the ‘addition of any pollutant *directly* to navigable waters from any point source,’ but rather ‘the addition of any pollutant *to* navigable waters.’”).

goals, and structure of the CWA and its implementing programs.²⁹⁹ Justice Scalia's reasoning also fails under the unified theory approach. As explained above, it is true that groundwater falls within the scope of "the Nation's waters," but not necessarily that all groundwater falls within WOTUS.³⁰⁰ Other tributary waters from which pollutants can flow into traditional navigable waters or otherwise affect WOTUS ecosystem integrity can also qualify as WOTUS under the Court's traditional navigability-for-commerce test.³⁰¹ Thus, Justice Scalia's analysis is not necessary to support the conduit theory, while it would incorrectly narrow the scope of WOTUS.

C. Implications for Past and Future Cases

Based on the above synthesis of the full range of CWA scope terms and how they fit together most logically, we can revisit and critique the various approaches adopted by various Supreme Court Justices to the WOTUS issue.³⁰² This review suggests that combining aspects of the approaches taken by several Justices would lead to a resolution of the WOTUS issue in the manner most consistent with the statutory text and structure.

The approach adopted by Justice White for a unanimous Court in *Riverside Bayview Homes* was deference to agency expertise given the graduated and scientifically complex transition from land to water.³⁰³ This approach makes sense for those waters that fall within a gray area in which the nature and degree of connectivity between a water body and a water that is navigable-in-fact is uncertain. This is precisely the situation in which delegation to expert agencies is most appropriate, with a judicial role to ensure that the resulting decisions are rational, supported by record evidence, and not inconsistent with statutory text. That does not mean, however, that the statutory text is irrelevant. Although the necessary connectivity between the adjacent wetlands in *Riverside Bayview Homes* was clear, especially given record evidence of hydrological connections through groundwater, that does not mean that agency decisions in other cases can be unbounded by the statutory text. (Nor did Justice White say anything to the contrary in *Riverside Bayview Homes*.)

299. See Adler and House, *supra* note 21, at 56–57.

300. See *supra* Part II.D. The *Village of Oconomowoc Lake* court misstated this distinction slightly, indicating that WOTUS "must be a subset of 'water'; otherwise, why insert the qualifying clause in the statute?" *Vill. of Oconomowoc Lake v. Dayton Hudson Corp.*, 24 F.3d 962, 965 (7th Cir. 1994). As explained by the unified theory, "waters of the United States" must be a subset of "waters" (not "water"), and "water" is a component of "waters."

301. See *supra* notes 63–67 and accompanying text.

302. See *supra* Part I.

303. See *supra* Part I.A.

Thus, Justice Rehnquist was correct in *SWANCC* to ensure that ACE acted within the boundaries of all provisions of the statute in applying the CWA to the nonadjacent wetlands at issue in that case.³⁰⁴ He was incorrect, however, in constraining his analysis of the statutory text by reference to the test for traditional navigable waters rather than the broader Commerce Clause meaning of that term. In doing so, he construed the significance of the word “navigable” in isolation from the full statutory text, in particular the relationship between “the Nation’s waters” and WOTUS explained above. Thus, even though Congress redefined “navigable waters” to mean WOTUS, one can heed Justice Rehnquist’s admonition that the word “navigable” must retain some significance in the statute while still supporting a broader statutory reach.

The importance of this distinction is that, for purposes of Commerce Clause regulation under *Appalachian Electric Power*, waters need not be navigable-in-fact themselves so long as protection of those waters is necessary to protect navigable waters. Despite his coining of the phrase “significant nexus,”³⁰⁵ Justice Rehnquist did not engage in this inquiry in *SWANCC*. Although my purpose is not to revisit the result in that case, the next step in the analysis would have been to ask whether the waters in question bore sufficient hydrological or ecological connections to a navigable water to support federal Commerce Clause regulation. As suggested by Justice White, deference to agency expertise is appropriate in reviewing decisions based on scientific factors and mixed questions of science and policy.

In his concurring (and controlling) opinion in *Rapanos*, Justice Kennedy suggested that this was the appropriate analysis, invoking the “significant nexus” language from Justice Rehnquist’s *SWANCC* opinion.³⁰⁶ He correctly attempted to read the term WOTUS in its full statutory context by expressly linking that inquiry to the statutory objective of chemical, physical, and biological integrity.³⁰⁷ Like Justice Rehnquist, however, he improperly narrowed the scope of the significant nexus test to traditional navigable waters rather than the broader scope of water bodies protected under the Commerce Clause test prevailing in 1972.

Moreover, the term “significant nexus” appears nowhere in the CWA. It is not a scientific concept because the word “significant” involves value judgments that are difficult to define. Nor is it the proper role of the judiciary to create extra-statutory tests or to assume the scientific and related policy responsibility Congress assigned to the agencies. Thus, although Justice Kennedy’s significant nexus test may

304. See *supra* Part I.B.

305. See *supra* notes 82–85 and accompanying text.

306. See *supra* Part I.D.

307. See *id.*

come closer to the statutory mark than other approaches, it would be better to leave the exact nature and phrasing of the test to the agencies, subject to judicial review under ordinary principles of administrative law.

The final approach to the WOTUS issue is a narrower version of the textualist approach urged by Justice Scalia in *Rapanos*.³⁰⁸ Although close attention to the statutory text is critical, as urged in this Article, a proper textual analysis must consider the full statute in context. Justice Scalia based his analysis largely on a dictionary definition of the word “waters” read in isolation from the multiple, nested uses of that word in the statute. Using that approach, he would radically restrict the Act’s reach relative to the potential breadth of statutory jurisdiction under the Commerce Clause, to include only “continuously flowing” and “relatively permanent” surface waters.³⁰⁹

Counting the umbrella term “the Nation’s waters” and “waters” used alone, Congress used the word “waters” in no fewer than fifteen different contexts in the CWA.³¹⁰ Some of those terms (groundwaters and underground waters as distinguished from surface waters) unquestionably reach beyond “continuously flowing” and “relatively permanent” surface waters.³¹¹ Thus, it is inappropriate to use a lay dictionary definition of “waters” read in isolation from the Act’s multiple scope terms and how they fit together.

Congress used the word “waters” in a scientific sense, beginning with the opening sentence of the CWA in which it discussed the Nation’s waters relative to the statutory objective of “chemical, physical, and biological integrity.”³¹² A focus on a broad range of aquatic sciences permeates the statute.³¹³ Thus, even if one atomizes the issue by focusing solely on the word “waters” to illuminate the meaning of “waters of the United States,” it is a mistake to turn to a lay dictionary definition rather than a scientific definition. The latter approach would consider “waters” as “water bodies” or as components of connected aquatic ecosystems.³¹⁴ By using the lay dictionary approach, Justice Scalia considered only the hydrological sense of the word “waters.” The statute, however, distinguishes between “water,” “waters,” and a range of different “water bodies,” and seeks pervasively to restore and protect the ecological integrity of those waters as aquatic ecosystems, not as inert containers of the substance water.

308. *See supra* Part I.C.

309. *See id.*

310. *See supra* Figure 1.

311. *Id.*

312. 33 U.S.C. § 1251(a).

313. *See supra* Part III.A.1.

314. *See EPA Synthesis Report, supra* note 77.

In future cases like *Sackett*, the strengths in various Supreme Court approaches to the WOTUS issue can be retained, while avoiding their pitfalls, by using the unified theory as a framework to consider the full statutory text and how it fits together. As suggested by Justices Rehnquist and Scalia, the text of the Act's scope terms must be considered first, with full attention paid to all words in the statute. Such an analysis, however, demands a broader reach of WOTUS than either Justice Rehnquist or Justice Scalia suggested. First, as noted by Justice Kennedy, the analysis must be guided by and consistent with the statutory objective, goals, and policies read as a whole. Second, as suggested by Justices White and Stevens, proper deference must be given to the expert agencies in matters involving science and policy, so long as the agencies heed the statutory text. Third, the statutory scope terms must be read together rather than atomized into individual components.

CONCLUSION: KEYS TO THE JURISDICTIONAL LOCKS

The above analysis of the structure, goals, and objectives of the CWA allows us to forge several keys to the seemingly impenetrable locks that have impeded clear and consistent rules for interpreting and applying the multiple definitions of "waters" in the CWA. Those keys can help courts avoid the need to create extra-statutory tests such as the significant nexus test adopted in *Rapanos* and the "functional equivalent" test in *County of Maui*.

An analysis that focuses on the whole statute, including all its scope terms and how they fit together, rather than an atomized approach, negates the inappropriate assumption that Congress was simply sloppy in its use of multiple terms to define the scope of various CWA programs. Rather, the different scope terms can be explained by reference to the nested hierarchy in the unified theory presented above, as depicted in Figure 2. That approach helps to effectuate the CWA's multifaceted statutory goals, and the different agencies and levels of government Congress determined were best suited to implement them. Thus, Congress adopted a nested set of scope terms to apply to different statutory provisions and purposes rather than a single definition applicable throughout the statute.

Relatedly, the CWA is not as limited by the concept of navigability as the Supreme Court suggested in *SWANCC*, and as some Justices supported in *Rapanos*. The statute's overriding aquatic ecosystem integrity objective applies not only to "the navigable waters," but to "the Nation's waters."³¹⁵ Although Congress did not define the term "the Nation's waters" separately, its plain meaning suggests a broader scope than "navigable waters" or even than "the waters of the United States." Moreover, placement and exclusive use of "the Nation's

315. Compare 33 U.S.C. § 1362(7), with *id.* § 1251(a).

waters” in the Act’s opening sentence indicates it applies throughout the statute, and therefore encompasses all of the Act’s other jurisdictional terms.

Read in the context of the whole statute, the term “navigable waters” extends beyond the traditional notion of navigability as reflected in cases such as *The Daniel Ball*. Decades before the 1972 version of the CWA, the Supreme Court acknowledged that navigability was simply one of several aspects of interstate commerce for which the federal government could govern water bodies. Thus, when Congress defined “navigable waters” as “waters of the United States,” it is logical to presume it intended to broaden the meaning of the term consistent with the Court’s broader existing interpretation of navigable waters for Commerce Clause purposes.

In the CWA, Congress designed multiple strategies, to be implemented by varying players, to achieve the broad and ambitious statutory objective and goals. The definitional terms applicable to each program, therefore, should be construed to effectuate the statutory goals Congress articulated for those programs in the text and structure of the whole statute.