Volume 62 | Issue 1 Article 3

5-13-2017

Governing the Gradient: Clarity and Discretion at the Water's Edge

Jamison E. Colburn

2017]

GOVERNING THE GRADIENT: CLARITY AND DISCRETION AT THE WATER'S EDGE

JAMISON E. COLBURN*

INTRODUCTION

THE Clean Water Act (CWA) aims to restore and protect the "integrity" of something without clear boundaries: the Nation's waters.[1] Yet this uncertainty in the Act's aims stems not just from the typical sources of legislative ambiguity,[2] but decades of disparate interpretations, as well.[3] Of the statute's many puzzles, none has proven more vexing than its geographic scope: the "waters of the United States." As with so many other critical legal boundaries like sexuality,[4] privacy,[5] disability,[6] or maturity,[7] it turns out that "waters" comprises a gradient.[8] Congress, however, has refused to account for this brute fact. "Congress did not define what it meant by 'the waters of the United States'; the phrase was not a term of art with a known meaning; and the words themselves are hopelessly indeterminate."[9] Indeed, Congress buried perhaps the only insight into its collective intent in a Committee Report on the law,[10] referencing its own Article I constitutional limits—limits that have since proven rather unsteady.[11]

---

* Joseph H. Goldstein Faculty Scholar & Professor of Law, Penn State University.

1. *See* 33 U.S.C. § 1251(a) (2012) ("The objective of th[e Clean Water Act] is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.").

2. *See* 33 U.S.C. § 1362(7) (2012) (defining Act's geographic term "navigable waters" as "waters of the United States, including the territorial seas"); *cf.* ROBERT A. KATZMANN, JUDGING STATUTES 15–22 (2014) (describing deficits of awareness, agreement, foresight, precision drafting, and care as typical sources of legislative ambiguity).

3. *See infra* notes 62–102 and accompanying text.

4. *See* William N. Eskridge, Jr., *Sexual and Gender Variation in American Public Law: From Malignant to Benign to Productive*, 57 UCLA L. REV. 1333 (2010).

5. *See* Daniel J. Solove, *Conceptualizing Privacy,* 90 CALIF. L. REV. 1087 (2002).

6. *See* Frank S. Bloch, *Medical Proof, Social Policy, and Social Security's Medically Centered Definition of Disability*, 92 CORNELL L. REV. 189 (2007).

7. *See* Elizabeth F. Emens, *Aggravating Youth:* Roper v. Simmons *and Age Discrimination,* 2005 SUP. CT. REV. 51 (2005).

8. *See infra* notes 135–43 and accompanying text.

9. Sackett v. Envtl. Prot. Agency, 566 U.S. 120, 133 (2012) (Alito, J., concurring).

10. *See* S. REP. NO. 92-1236, at 144 (1972) (Conf. Rep.), *reprinted in* 1 LEGIS. HIST. OF THE FED. WATER POLLUTION CONTROL ACT AMENDS. OF 1972 327 (1973) ("The conferees fully intend that the term 'navigable waters' be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes.").

11. *See infra* notes 320–25 and accompanying text.

The Environmental Protection Agency's (EPA) and Army Corps of Engineers' (Corps) attempt to improve upon this status quo in 2015 in their "Clean Water Rule" (CWR)[12] met a fierce opposition.[13] Though claims that the CWR was *ultra vires* abound,[14] much of this opposition has been motivated by what CWA governance purportedly costs. One notorious estimate was that the rule would cost permittees and governments between $158 and $465 million annually.[15] For their part, several environmental groups alleged the rule left large loopholes for purely political reasons[16] and that the rule's swerve away from extant law necessitated an impact analysis pursuant to the National Environmental Policy Act (NEPA).[17] President Obama vetoed Congress's attempt to abrogate the CWR in January 2016, although President Trump and EPA Administrator Pruitt have now made the rule's rescission their priority.[18] Some of the hostility toward the rule stems from the Act's dubious past in the courts and the resulting discretion lodged in its administering agencies, EPA and the Corps. Indeed, the CWA is actually administered by *three* separate bu-

12. *See* Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401) [hereinafter Clean Water Rule].

13. *See* Marcia Coyle, *Obama Water-Rule Opponents Clash with Feds over Wave of Suits*, LAW.COM (July 8, 2016), http://www.law.com/sites/almstaff/2016/07/08/obama-water-rule-opponents-clash-with-feds-over-wave-of-suits/?slreturn=20160621110034 (reporting that "opponents have spent hundreds of thousands, collectively millions, litigating the jurisdictional question").

14. *See id.* (describing constitutional and statutory challenges being pressed in multiple venues by more than half of states and dozens of private challengers).

15. *See* Claudia Copeland, EPA AND THE ARMY CORPS' RULE TO DEFINE "WATERS OF THE UNITED STATES" 11 (2017) (citing U.S. ENVTL. PROT. AGENCY & U.S. DEP'T OF THE ARMY, *Economic Analysis of the EPA-Army Corps Clean Water Rule*, U.S. ENVTL. PROTECTION AGENCY (May 20 2015), https://www.epa.gov/sites/production/files/2015-06/documents/508-final_clean_water_rule_economic_analysis_5-20-15.pdf [https://perma.cc/E7MH-YXMH] [hereinafter *CWR Economic Analysis*]).

16. *See* Coyle, *supra* note 13. The WaterKeeper Alliance and Center for Biological Diversity, among others, challenged the rule for several exclusions and for the distance cutoffs for certain waters that were added to the final version approved by the Office of Management and Budget. *See* Press Release, Ctr. for Biological Diversity & Waterkeeper All., EPA and Army Corps Issue Weak Clean Water Rule (May 27, 2015), https://www.biologicaldiversity.org/news/press_releases/2015/clean-water-rule_05-27-2015.html [https://perma.cc/U9JN-KQBP].

17. *See* 42 U.S.C. § 4332(C) (2012) (mandating review of environmental impacts of "major [f]ederal actions significantly affecting the quality of the human environment"). The challenges consolidated in the Sixth Circuit include the Sierra Club's NEPA challenge. *See* Stan Parker, *Clean Water Rule Not Strong Enough, Enviros Tell 6th Circ.*, LAW360 (Nov. 2, 2016, 11:16 PM), https://www.law360.com/articles/858728/clean-water-rule-not-strong-enough-enviros-tell-6th-circ [https://perma.cc/K9UD-AT4T].

18. *See* Richard G. Leland, *Clean Water Rule: A Dispute Playing Out in All Government Branches*, N.Y.L.J. (Apr. 15, 2016), http://www.newyorklawjournal.com/id=1202754983804/Clean-Water-Rule-a-Dispute-Playing-Out-in-all-Government-Branches?slreturn=20170104163731; Dep't of the Army, Corps of Engineers & Envtl. Prot. Agency, Notice—Intention to Review and Rescind or Revise the Clean Water Rule, 82 Fed. Reg. 12,532 (Mar. 6, 2017).

reaucracies if we count the U.S. Department of Agriculture's (USDA) implementation of the colossal farm bill, Wetland Reserve Program, and related appropriations.[19]

Perhaps most confusingly, unlike its sibling the Clean Air Act, the CWA's special statutory review provision and provisions on rulemaking were muddled almost from the start and have grown more so with each rulemaking litigated, never having been revisited by Congress.[20] Two federal courts quickly reached opposite conclusions about review of the CWR,[21] and although three district courts have stayed their proceedings in deference to the Sixth Circuit Court of Appeals, the Supreme Court's certiorari grant in January on jurisdiction to hear challenges to the rule drew that court's jurisdictional determination into doubt.[22]

This Article refutes the gravamen of the challenges to the CWR and argues that the agencies offered their stakeholders and partners a compromise all would be wise to accept. Left to analogy and common law methods, CWA jurisdiction will grow ever more obtuse. Justice Kennedy, in his excursion from a unanimous opinion in 2016 in *United States Army Corps of Engineers v. Hawkes Co.*,[23] remarked that "the reach and systemic conse-

19. *See* Douglas R. Williams, *Agricultural Programs*, *in* WETLANDS LAW AND POLICY: UNDERSTANDING SECTION 404 463 (Kim Diana Connolly et al. eds., 2005). Concurrent with the CWR's proposal, EPA and the Corps released an "interpretive rule" as to the scope of the "normal farming" exemption in Section 404(f)(1). *See* Notice of Availability Regarding the Exemption from Permitting Under Section 404(f)(1)(A) of the Clean Water Act to Certain Agricultural Conservation Practices, 79 Fed. Reg. 22,276 (Apr. 21, 2014). The agencies later withdrew the proposal under intense political pressure. *See* Notice of Withdrawal, 80 Fed. Reg. 6705 (Feb. 6, 2015).

20. Clean Air Act (CAA) Section 307(b)(1), as revised in 1990, lists a defined set of actions reviewable in one court, the D.C. Circuit Court of Appeals, and sweeps in "any other nationally applicable regulations promulgated, or final agency action taken" by the EPA. *See* 42 U.S.C. § 7607(b)(1) (2012). That true catchall—missing from CWA Section 509(b)(1)—has vested review jurisdiction in a single court for any "nationally applicable" actions. *See id.* For further discussion on the CWA's statutory review provision and related litigation, see *infra* notes 168–71 and accompanying text.

21. *Compare* North Dakota v. U.S. Envtl. Prot. Agency, 127 F. Supp. 3d 1047, 1052–53 (D.N.D. 2015) (finding none of Section 509(b)(1)'s provisions applicable and holding that jurisdiction to hear challenges to rule lies with district courts), *with* Murray Energy Corp. v. U.S. Dep't of Def., Army Corps of Eng'rs, 817 F.3d 261, 270 (6th Cir. 2016) (finding rule is "other limitation" in keeping Section 509(b)(1)(E) and is thus to be reviewed in courts of appeal). *See* Richard Lazarus, *Who's On First? District, Appeals Courts Grapple with Jurisdiction*, 33 ENVTL. F., Sept./Oct. 2016, at 13, 13; Leland, *supra* note 18. Before he stayed his proceedings, Judge Erickson of the U.S. District Court of North Dakota opined, with no analysis, that the rule was probably "arbitrary," that the agencies had probably not adhered to required procedures, and that he would probably "set aside" the rule pursuant to the Administrative Procedure Act (APA). *See North Dakota*, 127 F. Supp. 3d at 1056–58.

22. The Supreme Court granted certiorari on the Sixth Circuit's jurisdictional holding. *See* Nat'l Ass'n Mfrs. v. Dep't of Def., 2017 WL 125667 (2017).

23. 136 S. Ct. 1807 (2016).

quences of the [CWA] remain a cause for concern."[24] The CWR is an opportunity to resolve many of those concerns.[25] Part I of this Article introduces the puzzle of "navigable waters" in history, and Part II explains the architectural departure the CWR turns away from that history. Part III examines the property-rights claims so many judges view as paramount to the CWA's goals, while Part IV answers the most troubling critiques of the CWR: its imposition of (arbitrary) termini on some paths to jurisdiction and its consistency with the rule of law.

I. JUDICIALLY (UN-)RECONSTRUCTED: THE LEGAL ABYSS OF WATERS AND NAVIGABILITY

The legal significance of navigability has changed throughout American history as often and as abruptly as the concept's scope has.[26] Part I briefly traces that history lying behind the scope and significance of navigability today. Section A maps the Supreme Court's four distinct doctrines of navigable waters, and Section B reviews its recent chartering of a fifth: that construing CWA Section 502(7)'s geographic scope.

A. *Navigability in History*

There are four doctrines of navigability: that defining the reach of a federal "navigational servitude"; that informing the reach of Article I's Commerce Clause; that defining the reach of Article III admiralty jurisdiction; and that identifying resources owned in trust for the people by the several states. Although each of these substantially overlaps one or more of the others, their legal effects are distinct, making them indelibly separate doctrines.

For decades the Supreme Court developed a judicial doctrine limiting riparian owners' title in favor of the public's navigation and the preservation of waters' navigability.[27] In the Court's view, the United States held paramount title to the flow of any navigable water and its tributaries, to the beds underlying those waters, and to the commercial values that might attach to either.[28] The property law roots of this prerogative made it pow-

24. *See id.* at 1816 (Kennedy, Thomas, & Alito, JJ., concurring).

25. *See infra* notes 181–238 and accompanying text.

26. *See* Robert W. Adler, *The Ancient Mariner of Constitutional Law: The Historical, Yet Declining Role of Navigability*, 90 WASH. U. L. REV. 1643, 1651–82 (2013) (examining history of "navigability" even before CWA).

27. *See, e.g.*, Scranton v. Wheeler, 179 U.S. 141, 163 (1900) (describing riparian owner's claim to "submerged lands" in navigable water as "a bare technical title" that does not protect owner from appropriation by United States); Gilman v. City of Philadelphia, 70 U.S. 713, 725 (1865) (referring to navigable river as "public property of the nation").

28. *See* United States v. Rands, 389 U.S. 121, 123–24 (1967) (denying compensation for special value of condemned land as power site); United States v. Grand River Dam Auth., 363 U.S. 229, 231 (1960) (holding that United States' flood control dam on non-navigable tributary of navigable river downstream of riparian did not deprive riparian of any compensable interest); United States v. Twin City

erful.[29] But in *Kaiser Aetna v. United States*,[30] then-Justice Rehnquist announced that the tide had turned against the expansion of this prerogative.[31] "Reference to the navigability of a waterway," his majority noted, "adds little if anything to the breadth of Congress' regulatory power over interstate commerce."[32] And if the United States aimed to force an adjacent owner to suffer public use of its marina simply for its having joined that marina to the Pacific Ocean, Justice Rehnquist reasoned, it had to *compensate* that owner for its lost right to exclude.[33] After decades of protecting U.S. interest in the quality and extent of navigable waters as title, property, property interests, and the like, the Court had finally acted to protect a landowner, instead. Yet the Court did nothing to situate this judicially-created servitude within the Constitution's Property Clause,[34] to explain how far laterally or up a tributary the servitude ex-

---

Power Co., 350 U.S. 222, 226 (1956) (denying compensation for special value attributable to site access to stream flow when United States appropriated site); Oklahoma *ex rel.* Phillips v. Guy F. Atkinson Co., 313 U.S. 508, 534–35 (1941) (rejecting Tenth Amendment challenge to federal reservoir project on non-navigable tributary and concluding that United States could serve other ends than protecting navigability with its interest in "flow" of navigable waters); United States v. Cress, 243 U.S. 316, 326 (1917) (assuming United States possessed authority to dam non-navigable waters to render them navigable); Lewis Blue Point Oyster Cultivation Co. v. Briggs, 229 U.S. 82, 87–88 (1913) (holding that dredging of navigable water that destroyed petitioner's cultivated oyster beds was not compensable because of navigation servitude); United States v. Chandler-Dunbar Water Power Co., 229 U.S. 53, 62 (1913) (observing that "title of the owner of fast land upon the shore of a navigable river to the bed of the river is, at best, a qualified one . . . subordinate to the public right of navigation, and . . . is of no avail against the exercise of the great and absolute power of Congress over the improvement of navigable rivers").

29. For example, rejecting a necessary permit to fill an area subject to the servitude should result in no takings liability for the government, if the denial was navigation-related. *See, e.g.*, Palm Beach Isles Assocs. v. United States, 208 F.3d 1374, 1378–79 (Fed. Cir. 2000) (explaining that there is no taking despite "total loss of value for the land" when land is subject to "federal navigational servitude").

30. 444 U.S. 164 (1979).

31. The *Kaiser Aetna* Court held that if owners of a private marina who had dredged a connection to the territorial seas were prevented from excluding the public on the theory that they had opened their property up to the "navigable waters of the United States," they would be owed just compensation pursuant to the Fifth and Fourteenth Amendments. *See id.* at 179–80.

32. *Id.* at 173.

33. *See id.* at 176–80.

34. *See* U.S. CONST. art IV, § 3, cl. 2; *see also generally* Richard W. Bartke, *The Navigation Servitude and Just Compensation—Struggle for a Doctrine*, 48 OR. L. REV. 1 (1968) (discussing "[federal] government's control of and dominion over the nation's navigable waters"). "In reality, the federal navigational servitude arose not simply as a species of Commerce Clause authority, but to address cases in which exercise of that authority may conflict with private property." Adler, *supra* note 26, at 1679.

tends,[35] nor to explain its relationship to the Commerce Power.[36] *Kaiser Aetna* drew a line in the sand and did little else as to navigability.[37] Such is, perhaps, the nature of case-by-case adjudication.[38]

Congress's Commerce Clause power, the origins of the navigation servitude,[39] was one of the two original struggles over navigability's "geographic reach."[40] From *Gibbons v. Ogden*[41] and *The Daniel Ball*[42] to *United States v. Appalachian Electric Power Co.*,[43] the nineteenth and twentieth centuries saw a steady expansion of this power's reach.[44] The *Daniel Ball*'s "navigable-in-fact" approach eventually grew to include waters that could be *rendered* navigable-in-fact through "reasonable improvements."[45] It also now includes waters navigable only by very small pleasure craft.[46] Article III's admiralty jurisdiction,[47] the other original contest over navigability's scope,[48] grew from only those waters affected by the tides to include the

35. *See, e.g.*, State v. McIlroy, 595 S.W.2d 659, 664–65 (Ark. 1980) (finding small creek "navigable" as matter of state law and, thus, burdening owner of land beneath creek with navigation servitude); State *ex rel.* Brown v. Newport Concrete Co., 336 N.E.2d 453, 457 (Ohio Ct. App. 1975) (finding Little Miami River to be navigable water).

36. *See* Bartke, *supra* note 34, at 3–6 (noting several problems relating navigational servitude to Commerce Clause).

37. *Kaiser Aetna* did later motivate the Court's conclusion in *Loretto v. Teleprompter Manhattan CATV Corp.* that regulations curtailing an owner's right to exclude—no matter how trivial—are a per se taking under the Fifth Amendment's Just Compensation Clause. *See* Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 432–33 (1982) ("*Kaiser Aetna* reemphasizes that a physical invasion is a government intrusion of an unusually serious character.").

38. *See infra* notes 251–65 and accompanying text.

39. *See* Gibson v. United States, 166 U.S. 269, 276 (1897).

40. *See* Adler, *supra* note 26, at 1661–76.

41. 22 U.S. (9 Wheat.) 1 (1824).

42. 77 U.S. (10 Wall.) 557 (1870).

43. 311 U.S. 377 (1940).

44. For further discussion on the Commerce Clause's reach to non-navigable headwaters and tributaries, see United States v. Twin City Power Co., 350 U.S. 222, 224–25 (1956), Oklahoma *ex rel.* Phillips v. Guy F. Atkinson Co., 313 U.S. 508, 523 (1941), and United States v. Appalachian Elec. Power Co., 311 U.S. 377, 408–19 (1940), *superseded by statute as stated in* Rapanos v. United States, 547 U.S. 715 (2006).

45. *See Appalachian Elec. Power*, 311 U.S. at 406–08; *see also* Ashwander v. Tenn. Valley Auth., 297 U.S. 288, 328–30 (1936); FPL Energy Me. Hydro LLC v. Fed. Energy Regulatory Comm'n, 287 F.3d 1151, 1159 (D.C. Cir. 2002) (affirming agency finding that stream was navigable-in-fact because substantial evidence had been adduced that canoeist could navigate stream easily given its many artificial enhancements).

46. *See, e.g.*, *FPL Energy*, 287 F.3d at 1151.

47. *See* U.S. CONST. art. III, § 2, cl. 1 ("The judicial Power shall extend to all Cases . . . of admiralty and maritime Jurisdiction.").

48. *See* Daniel J. Hulsebosch, *Writs to Rights: "Navigability" and the Transformation of the Common Law in the Nineteenth Century*, 23 CARDOZO L. REV. 1049, 1097–105 (2002).

Great Lakes system,[49] all waters actually functioning as commercial highways,[50] and finally all waters navigable-in-fact and bearing *some* "interstate nexus."[51]

But the Court's most recent reconstruction of navigability was for purposes of state title under its "equal footing" doctrine.[52] With every state presumably entitled to the navigable waters within its borders at the time of statehood,[53] the Court held in *PPL Montana, LLC v. Montana*[54] that navigability for state title purposes is a question of fact, must be proved segment-by-segment, and, being for its own purposes, shares nothing necessarily with the other doctrines' theory of navigability.[55] Earlier fears that the practical troubles of finding facts about navigability at the time of statehood would unduly cloud title to valuable lands[56] were brushed aside in *PPL Montana*.[57] The Court's own modern holding that tidal influence was *sufficient* for inclusion even if the waters were *not* navigable-in-fact was also ignored.[58] It simply held that a "historical determination,"[59] no matter how problematic for waters lacking convenient historical sources like

49. *See* The Propeller Genesee Chief v. Fitzhugh, 53 U.S. (12 How.) 443, 458 (1851) (declining to follow *The Steam-Boat Thomas Jefferson* (citing 23 U.S. (10 Wheat.) 428 (1825))).

50. *See* Foremost Ins. Co. v. Richardson, 457 U.S. 668, 674–77 (1982) (affirming traditional locality test for admiralty jurisdiction under Article III); The Montello, 87 U.S. (20 Wall.) 430, 441 (1874).

51. *See* THOMAS J. SCHOENBAUM, ADMIRALTY AND MARITIME LAW § 1–3, at 11–18 (2d ed. 1994) (collecting cases).

52. The equal footing doctrine holds that, upon entry into the Union, every state accedes to the same rights and powers as the original states. *See* Pollard v. Hagan, 44 U.S. (3 How.) 212, 230 (1845) ("The new states have the same rights, sovereignty, and jurisdiction over [navigable waters and the soils under them] as the original states."); Martin v. Waddell's Lessee, 41 U.S. (16 Pet.) 367, 410 (1842).

53. *See* Shively v. Bowlby, 152 U.S. 1, 26 (1894). The federal grounds, as opposed to state grounds, for this doctrine are disputable. *See* Glass v. Goeckel, 703 N.W.2d 58, 62 (Mich. 2005) (discussing Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892)).

54. 565 U.S. 576 (2012).

55. *See id.* at 589–93 (concluding that any questions of navigability for purposes of state title are governed by federal law and that Montana Supreme Court's use of admiralty case for navigability determinations was erroneous).

56. *See, e.g.*, United States v. Utah, 283 U.S. 64, 74–75 (1931).

57. *See PPL Mont., LLC*, 565 U.S. at 592–93.

58. *See* Phillips Petroleum Co. v. Mississippi, 484 U.S. 469, 479–81 (1988).

59. *See PPL Mont., LLC*, 565 U.S. at 600–01. Justice Kennedy's opinion made liberal use of the *Journals of Lewis & Clark*. *See id.* at 581–86, 592–93.

the *Journals of Lewis and Clark*,[60] was legally required regardless of the practical consequences involved.[61]

B. *Judicially Constructed: The Clean Water Act's "Waters"*

A broad and deep literature exists on the judicial construction of CWA Section 502(7)'s definition of navigable waters[62] as "waters of the United States, including the territorial seas."[63] For our purposes it suffices to summarize the Supreme Court's three encounters: *United States v. Riverside Bayview Homes, Inc.*,[64] *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers* (*SWANCC*),[65] and *Rapanos v. United States*.[66] The last has been the most troublesome. *Riverside Bayview* was a unanimous opinion affirming the Act's application to an "adjacent" wetland about a mile from Lake St. Claire.[67] The wetland parcel in *Riverside*

60. *Cf.* Adler, *supra* note 26, at 1647 ("Evidence of the physical condition of a waterway at statehood, however, will be even more scant if no one plied those waters at the time and therefore left no records to be evaluated." (citing Charles F. Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 ENVTL. L. 425, 446 (1989); Leighton L. Leighty, *The Source and Scope of Public and Private Rights in Navigable Waters*, 5 LAND & WATER L. REV. 391, 393, 437 (1970))).

61. *PPL Montana*'s rule is not to be mistaken with the related but distinct rule that pre-statehood conveyances by the United States that vest title to shorelands in third parties carry with them an implied federal rule of law determining their extent. *See* Hughes v. Washington, 389 U.S. 290, 293–94 (1967).

62. *See, e.g.*, Jonathan H. Adler, *Wetlands, Waterfowl, and the Menace of Mr. Wilson: Commerce Clause Jurisprudence and the Limits of Federal Wetland Regulation*, 29 ENVTL. L. 1 (1999); Michael C. Blumm & Steven M. Thiel, *(Ground)Waters of the United States: Unlawfully Excluding Tributary Groundwater from Clean Water Act Jurisdiction*, 46 ENVTL. L. 333 (2016); Jamison E. Colburn, *Waters of the United States: Theory, Practice, and Integrity at the Supreme Court*, 34 FLA. ST. U. L. REV. 183 (2007); Bradford C. Mank, *Implementing* Rapanos*—Will Justice Kennedy's Significant Nexus Test Provide a Workable Standard for Lower Courts, Regulators, and Developers?*, 40 IND. L. REV. 291 (2007); Bradford C. Mank, *The Murky Future of the Clean Water Act After* SWANCC*: Using a Hydrological Connection Approach to Saving the Clean Water Act*, 30 ECOLOGY L.Q. 811 (2003); Margaret "Peggy" Strand & Lowell M. Rothschild, *What Wetlands Are Regulated? Jurisdiction of the § 404 Program*, 40 ENVTL. L. REP. 10,372 (2010); Mark Squillace, *From "Navigable Waters" to "Constitutional Waters": The Future of Federal Wetlands Regulation*, 40 U. MICH. J.L. REFORM 799 (2007); April Collaku, Note, *The Clean Water Rule: A Clarification of the Definition of "Waters of the United States" or Agency Overreach*, 27 FORDHAM ENVTL. L. REV. 442, 446–51 (2016).

63. *See* 33 U.S.C. § 1362(7) (2012).

64. 474 U.S. 121 (1985).

65. 531 U.S. 159 (2001).

66. 547 U.S. 715 (2006).

67. *See Riverside Bayview*, 474 U.S. at 126. Justice White's opinion framed the question as "whether respondent's property is an 'adjacent wetland' within the meaning of the applicable regulation, and, if so, whether the Corps' jurisdiction over 'navigable waters' gives it statutory authority to regulate discharges of fill material into such a wetland." *Id.* "Adjacent" was then defined in the regulation as "bordering, contiguous, or neighboring," and, although the parcel bordered a tributary of Lake St. Claire (the Clinton River), the issues litigated in the lower courts and brought to the Supreme Court on certiorari focused on the definition

Bayview bordered and drained to a tributary of the lake.[68] *SWANCC* was more complicated. Employing a "clear statement" canon to avoid what it said would be constitutional infirmities in the statute if it did not, the Court held that the Act could not be read to reach wholly intrastate, "isolated ponds, some only seasonal . . . because they serve as habitat for migratory birds."[69] *SWANCC* held the Act cannot cover waters that are said to be hydrologically isolated and not connected to other, more traditionally navigable waters except by migratory birds.[70] However, neither case came even close to causing the degree of disruption in the law that *Rapanos* did.

The two consolidated actions in *Rapanos* involved four parcels. Rapanos's three parcels were wetlands connected to navigable-in-fact waters by non-navigable creeks and ditches.[71] The Carabell's property was connected to such waters only by a ditch that was on the other side of a "[four]-foot-wide manmade berm."[72] A bloc of four Justices focused on the Act's term "waters" and concluded that it limited the Act's geography to those "relatively permanent, standing or flowing bodies of water" like streams, oceans, rivers, and lakes.[73] "None of these terms encompasse[d] transitory puddles or ephemeral flows of water[,]"[74] obviously, but drawing lines with this approach eluded the plurality—especially as to streams.[75] The Court elected to remand to the Sixth Circuit without con-

---

and relevance of "wetlands," not the lateral extent of adjacency or of a tributary. *See* United States v. Riverside Bayview Homes, Inc., 729 F.2d 391 (6th Cir. 1984), *rev'd*, 474 U.S. 121 (1985); *see also* 33 C.F.R. § 328.3(c)(1) (2016).

68. *See Riverside Bayview*, 474 U.S. at 130–31.

69. *See SWANCC*, 531 U.S. at 171–72. The Act's ambiguous definition in section 502(7) was not the clear statement the majority held would be necessary were the Act to govern so broadly. *See id.* at 173–74. The Court thus invalidated the "Migratory Bird Rule," an interpretative position the Corps and EPA had taken in preamble statements and by asserting jurisdiction over the parcel in *SWANCC*. *See id.* at 174 (citing Final Rule for Regulatory Programs of the Corps of Engineers, 51 Fed. Reg. 41,206, 41,217 (Nov. 13, 1986) (to be codified at 33 C.F.R. pts. 320 and 330)).

70. *See id.* at 171–72.

71. *See Rapanos*, 547 U.S. at 729–30.

72. *See id.* at 729–30, 791. The plurality believed that this berm "[wa]s largely or entirely impermeable to water and block[ed] drainage from the [Carabells'] wetland, though it [ ] permit[ed] occasional overflow to the ditch." *Id.* at 730. The plurality concluded that the wetlands did not "implicate the boundary-drawing problem of *Riverside Bayview* and thus lack[ed] the necessary connection to covered waters that [the Court] described as a 'significant nexus' in *SWANCC*." *Id.* at 742 (citing *SWANCC*, 531 U.S. at 167).

73. *See Rapanos*, 547 U.S. at 732–33 & nn.4–5 (quoting WEBSTER'S NEW INTERNATIONAL DICTIONARY 2882 (2d ed. 1954)).

74. *Id.* at 733.

75. *See id.* at 733 n.6 (contrasting streams that constitute "permanent, geographically fixed bodies of water" having "continuous flow" with "intermittent" and "ephemeral" streams that plurality regarded as not real streams).

cluding that any of the four parcels was necessarily *not* jurisdictional.[76] Arguably, their opinion was not even meant for the Court, though, because Justice Kennedy's concurrence aimed to turn the law in an entirely different direction.[77]

Justice Kennedy's vote to remand focused on streams and waters not themselves navigable but which are ecologically continuous with navigable waters.[78] In his view, *Riverside Bayview* and *SWANCC* had begun to fuse the Act's purposes with its constraining terminology to form a test for the law's geographic reach.[79] That test was whether the target waters bore some "significant nexus" to the more traditional navigable waters.[80] For all Justice Kennedy said, his anchoring category consisted of those waters "susceptible to use in interstate commerce"[81]—a category he viewed as established in the law.[82] And although the notion of susceptibility to use

76. The plurality paused to deride several lower courts' findings of non-navigable waters as jurisdictional. *See id.* at 726–27 (citing Save Our Sonoran, Inc. v. Flowers, 408 F.3d 1113 (9th Cir. 2004) (discussing arroyos)); Treacy v. Newdunn Assocs., LLP, 344 F.3d 407 (4th Cir. 2003) (examining ditches); United States v. Deaton, 332 F.3d 698 (4th Cir. 2003) (discussing same); Cmty. Ass'n for Restoration of the Env't v. Henry Bosma Dairy, 305 F.3d 943 (9th Cir. 2002) (discussing same); Headwaters, Inc. v. Talent Irrigation Dist., 243 F.3d 526 (9th Cir. 2001) (dealing with canals).

77. The plurality continued to demand the "'clear and manifest' statement from Congress to authorize an unprecedented intrusion into traditional state authority" demanded in *SWANCC*. *See Rapanos*, 547 U.S. at 738 (citing BFP v. Resolution Trust Corp., 511 U.S. 531, 544 (1994)). Justice Kennedy believed that *Riverside Bayview*, *SWANCC*, and the Act's purposes could be used to set the Act's geographic scope independent of the agencies' mistakes. *See infra* notes 84–87 and accompanying text.

78. *See Rapanos*, 547 U.S. at 759 (Kennedy, J., concurring) ("[T]o constitute 'navigable waters' under the Act, a water or wetland must possess a 'significant nexus' to waters that are or were navigable in fact or that could reasonably be so made." (quoting *SWANCC*, 531 U.S. 159, 167, 172 (2001))).

79. Any doctrinal test is only as sound as its weakest elements and, while he clearly spoke to certain aspects of his test with great care, Justice Kennedy paid little attention to what "navigable-in-fact" waters encompass and to what degree the target area must *itself* exert a significant impact thereon. *See infra* note 312 and accompanying text.

80. *See Rapanos*, 547 U.S. at 766–67 (Kennedy, J., concurring). The Sixth Circuit panel in *Rapanos* had found this same common denominator, as did Fourth and Tenth Circuit panels. *See* United States v. Rapanos, 376 F.3d 629, 641 (6th Cir. 2004), *vacated and remanded*, 547 U.S. 715; *see also United States v. Hubenka*, 438 F.3d 1026, 1034 (10th Cir. 2006); *Treacy*, 344 F.3d at 416–17. At least one commentator had, too. *See* Mank, *The Murky Future*, *supra* note 62, at 883–89.

81. *See Rapanos*, 547 U.S. at 760–61 (Kennedy, J., concurring) (citing United States v. Appalachian Elec. Power Co., 311 U.S. 377, 406–08 (1940); The Daniel Ball, 77 U.S. (10 Wall.) 557 (1870)).

82. Justice Kennedy nowhere specified further what "traditional" navigable waters included beyond his citation to *Appalachian Electric Power* and *The Daniel Ball*. Each of those precedents, however, significantly altered navigability's reach in their own rights and were, in any event, about two different doctrines. *See supra* notes 39–45 and accompanying text.

in commerce may have been latent in the law, it was hardly a fixed standard.[83]

Justice Kennedy's theory of the CWA's text, purpose, and doctrinal record differed substantially from the plurality's theory in this regard.[84] He argued that a water or wetland possesses the requisite nexus if it "either alone *or in combination with similarly situated lands in the region*, significantly affect[s] the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'"[85] Where the plurality looked to a dictionary definition of waters, Justice Kennedy looked for a common denominator to unite *SWANCC* and *Riverside Bayview*. He allowed that aggregating the effects from all attenuated waters "similarly situated in the region" upon the navigable waters downstream could support jurisdiction.[86] Most importantly, the CWA's goal of restoring and maintaining the "chemical, physical and biological integrity of the Nation's waters" directly informed the "nexus" Kennedy would require.[87]

But what is to be made of an opinion for a single Justice? In *United States v. Gerke Excavating, Inc.*,[88] a Seventh Circuit panel was quick to conclude, after its first opinion had been remanded in light of *Rapanos*,[89] that the agencies could assert jurisdiction over any water reached *either* by the plurality's permanence and surface continuity requirements *or* by Justice Kennedy's significant nexus test.[90] The panel engaged in an explicitly predictive analysis, grounded in the Supreme Court's doctrine from *Marks v. United States*.[91] That is, it intuited from *Rapanos* the most likely outcome should its case be decided by the Supreme Court as it was then constituted.[92] The panel found that both Kennedy's and the plurality's ap-

83. *See infra* note 116 and accompanying text.

84. For Justice Kennedy, the Act's reach upstream and upland to areas not themselves "navigable waters" was a synthesis of the Act's purposes statement in section 101(a), the agencies' factual proof of an aquatic system's interconnectedness, and *Riverside Bayview* and *SWANCC*. *See Rapanos*, 547 U.S. at 767–77 (Kennedy, J., concurring).

85. *Id.* at 780 (Kennedy, J., concurring) (emphasis added) ("When, in contrast, wetlands' effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term 'navigable waters.'").

86. This aggregation throughout a "region" became a key, if misunderstood, facet of the CWR. *See infra* note 136 and accompanying text.

87. *See* 33 U.S.C. § 1251(a) (2012).

88. 464 F.3d 723 (7th Cir. 2006).

89. *See id.* at 807–08.

90. *See id.* at 724–25.

91. *See id.* (quoting Marks v. United States, 430 U.S. 188 (1977)). *Marks* held that "[w]hen a fragmented Court decides a case and no single rationale explaining the result enjoys the assent of five Justices, 'the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds.'" *Marks*, 430 U.S. at 193 (quoting Gregg v. Georgia, 428 U.S. 153, 169 n.15 (1976)).

92. Prediction has long played a critical role in following precedent. *See, e.g.*, RICHARD A. POSNER, THE PROBLEMS OF JURISPRUDENCE 221–28 (1990); Evan H. Caminker, *Precedent and Prediction: The Forward-Looking Aspects of Inferior Court Deci-*

proach would uphold the agencies' jurisdiction given the four dissenters' deference to the agencies under *Chevron* and like doctrines.[93] Although the panel also concluded that Kennedy's nexus test was more germane to its facts, its use of *Marks* betrayed the troubles with the approach to an agency-administered statute.[94] The aim of the *Marks* doctrine was to identify authoritative holdings from the narrowest grounds supporting a case disposition.[95] This presupposes that the relative widths of judicial opinions are measurable.[96] Assuming this supposition is sound in constitutional adjudication,[97] it is almost surely not when four Justices' grounds were deference to a co-equal branch entrusted by Congress with the statute's administration.[98]

Subsequent encounters with *Rapanos* underscore this doubt.[99] As the Ninth Circuit unwittingly demonstrated, using *Marks* to find Justice Ken-

---

sionmaking, 73 TEX. L. REV. 1 (1994); Michael C. Dorf, *Prediction and the Rule of Law*, 42 UCLA L. REV. 651 (1995). Caminker notes that, "[o]n rare occasions, . . . lower courts candidly . . . . predict their higher court's subsequent ruling and, taking that as a given, conform today's decision to tomorrow's." Caminker, *supra*, at 5 & n.16. But rule-of-law concerns can call this approach into question. *See infra* notes 307–09 and accompanying text.

93. *See Gerke Excavating*, 464 F.3d at 725.

> [A]ny conclusion that Justice Kennedy reaches in favor of federal authority over wetlands in a future case will command the support of five Justices (himself plus the four dissenters), and in *most* cases in which he concludes that there is no federal authority he will command five votes (himself plus the four Justices in the *Rapanos* plurality), the exception being a case in which he would vote against federal authority only to be outvoted 8-to-1 (the four dissenting Justices plus the members of the *Rapanos* plurality) because there was a slight surface hydrological connection.

Id. The dissenters in *Rapanos* argued that the courts should defer to the agencies' interpretation of section 502(7) and to their interpretations of their own implementing regulations. *See* Rapanos v. United States, 547 U.S. 715, 793–94 (2006) (Stevens, Souter, Ginsberg, & Breyer, JJ., dissenting); *id.* at 811–12 (Breyer, J., dissenting).

94. *See Gerke Excavating*, 464 F.3d at 725.

95. *See Marks*, 430 U.S. at 193–95.

96. Describing legal reasons and rules two-dimensionally is fairly conventional. *See, e.g.*, CASS R. SUNSTEIN, ONE CASE AT A TIME: JUDICIAL MINIMALISM ON THE SUPREME COURT 10–23 (1999).

97. *See id.* at 8–9 (arguing that people from diverse backgrounds can better understand judicial reasoning when it is sorted dimensionally). This critical assumption may allow lower courts to be bound by some "holding" from no-majority cases, but there is reason to doubt the assumption's good sense in statutory contexts. *See infra* notes 100–01 and accompanying text.

98. The dissent's *Chevron* deference to the United States means, in essence, that its dispositional rule rested on the identity of the litigant. *See Rapanos*, 547 U.S. at 793 (Stevens, Souter, Ginsburg, & Breyer, JJ., dissenting); *cf.* United States v. Johnson, 467 F.3d 56, 64 (1st Cir. 2006) ("This understanding of 'narrowest grounds' as used in *Marks* does not translate easily to the present situation.").

99. Several lower court opinions have employed *Marks* to find that either theory could support agency jurisdiction. *See, e.g.*, United States v. Donovan, 661 F.3d 174, 181–82 (3d Cir. 2011); United States v. Bailey, 571 F.3d 791, 799 (8th Cir. 2009); *United States v. Cundiff*, 555 F.3d 200, 210–13 (6th Cir. 2009); N. Cal. River

nedy's opinion authoritative is tantamount to ignoring why judicial reasoning matters.[100] If the reasons for a holding are what distinguish it from a decree, what separated Kennedy from the others was his distinct mode of reasoning. Yet the agencies followed this predictive approach, publishing guidance in June 2007 announcing their intentions to pursue jurisdiction wherever either test could be satisfied.[101] Indeed, this approach factors directly into 2015's CWR.[102] The CWR thus continued a long tradition in the agencies' handling of judicial interpretations of Section 502(7), but it also led to an entirely new understanding of "waters of the United States." Part II unpacks this somewhat paradoxical turn.

II. CHANGING ARCHITECTURES: ECOLOGY FROM COMMERCE

Complexity has always attended the agencies' extensions of jurisdiction beyond "navigable-in-fact" waters. That complexity has reflected the agencies' interactions with the judiciary.[103] Originally, the target waters themselves had to exert some plausible influence upon interstate or foreign commerce.[104] However, as more courts accepted the fact that,

Watch v. City of Healdsburg, 496 F.3d 993, 999–1000 (9th Cir. 2007); *Johnson*, 467 F.3d at 66. Several courts expressly challenged *Marks*' usefulness under the circumstances, though. *See Donovan*, 661 F.3d at 181–82; *Bailey*, 571 F.3d at 798–800; *Johnson*, 467 F.3d at 62–63.

100. In withdrawing an opinion published immediately after *Rapanos*, the court took almost a year to issue an amended opinion in *Northern California River Watch v. City of Healdsburg*. *See* N. Cal. River Watch v. City of Healdsburg, 496 F.3d 993 (2007). The court changed how it characterized *Rapanos* in light of *Marks*. *Compare* N. Cal. River Watch v. City of Healdsburg, 457 F.3d 1023, 1029 (9th Cir. 2006) ("Justice Kennedy, constituting the fifth vote for reversal, concurred only in the judgment and, therefore, provides the controlling rule of law." (citing Marks v. United States, 430 U.S. 188, 193 (1977))), *withdrawn*, 496 F.3d 993, *with N. Cal. River Watch*, 496 F.3d at 999 ("Justice Kennedy, constituting the fifth vote for reversal, concurred only in the judgment. His concurrence is the narrowest ground to which a majority of the Justices would assent if forced to choose in almost all cases." (citing *Gerke Excavating*, 464 F.3d at 724)). The disposition of the case remained unchanged.

101. *See* U.S. ENVTL. PROT. AGENCY & U.S. DEP'T OF THE ARMY, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT'S DECISION IN *RAPANOS V. UNITED STATES* & *CARABELL V. UNITED STATES* (2007), https://www.epa.gov/sites/production/files/2016-04/documents/rapanosguidance6507.pdf [https://perma.cc/4UNE-6Y9H] [hereafter 2007 JOINT GUIDANCE]. The *2007 Joint Guidance* was superseded a year later in another memo that included several "clarifications." *See* U.S. ENVT'L PROT. AGENCY & U.S. DEP'T OF THE ARMY, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT'S DECISION IN *RAPANOS V. UNITED STATES* & *CARABELL V. UNITED STATES* (2008), https://www.epa.gov/sites/production/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf [https://perma.cc/S8X3-9ZHR] [hereinafter 2008 JOINT GUIDANCE].

102. *See infra* notes 182–84 and accompanying text.

103. *See* Sam Kalen, *Commerce to Conservation: The Call for a National Water Policy and the Evolution of Federal Jurisdiction over Wetlands*, 69 N.D. L. REV. 873, 879–97 (1993).

104. *See, e.g.*, P.F.Z. Props., Inc. v. Train, 393 F. Supp. 1370, 1378 (D.D.C. 1975).

through the 1972 Act Congress aimed to protect aquatic ecosystems and not just transportation or commerce, the agencies asserted jurisdiction over "adjacent" wetlands and eventually over the minor tributaries of navigable-in-fact waters.[105] But that evolution followed incrementally, as reviewing courts concurred or even took the initiative in citizen suits.[106] The 2015 CWR, in response to *SWANCC* and *Rapanos*, continued that alliance. It was something much deeper that changed.

In 2007, guidance signaled that the agencies would adopt the courts' predictive stance toward *Rapanos*.[107] Like several courts of appeals, the agencies would comport themselves as if their interpretations would be reviewed by the Supreme Court. Draft guidance in 2011 outlined what would eventually become the CWR, scrapping the old architecture completely.[108] The new architecture required that target waters bear some substantial connection to: (1) "traditional navigable waters"; (2) "interstate waters"; or (3) "the territorial seas."[109] With these per se jurisdictional waters as anchors, all other waters reached would be jurisdictional only through biological, chemical, and/or physical relationships thereto, regardless of commerce.[110] Changing the relationships that render attenuated waters jurisdictional may (or may not) reach much the same geography.[111] But the legal theory underlying these "other waters" was wholly rebuilt in light of the Supreme Court's cases.[112] This Part describes that

105. *See infra* notes 118–21 and accompanying text.

106. *See, e.g.*, Avoyelles Sportsmen's League, Inc. v. Marsh, 715 F.2d 897 (5th Cir. 1983).

107. Without drawing attention to the rule-of-law implications of their methods, the agencies counted votes precisely as the *Gerke Excavating* panel had. *See* 2008 JOINT GUIDANCE, *supra* note 101, at 3 ("When there is no majority opinion in a Supreme Court case, controlling legal principles may be derived from those principles espoused by five or more [J]ustices." (citing Marks v. United States, 430 U.S. 188, 193–94 (1977))). This approach carried into the 2014 proposal. *See* Definition of "Waters of the United States" Under the Clean Water Act, 79 Fed. Reg. 22,188, 22,252 (proposed Apr. 21, 2014) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401) [hereinafter Proposed Definition] (observing "[n]o Circuit Court has held that only the plurality standard applies" and that at least five courts of appeal had followed Justice Kennedy's test).

108. *See* Draft Guidance on Identifying Waters Protected by the Clean Water Act (undated) (copy on file with author); *see also* Richard E. Glaze Jr., Comment, Rapanos *Guidance III: "Waters" Revisited*, 42 ENVTL. L. REP. 10,118, 10,118 (2012) (arguing that 2011 proposal was intended to be "a basis for exercising broader authority over the nation's waters than current policy supports").

109. *See* Glaze, *supra* note 108, at 10,118–19, 10,121.

110. *See* Clean Water Rule, 80 Fed. Reg. 37,054, 37,056–58 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401).

111. *See* Proposed Definition, 79 Fed. Reg. at 22,192 (referring to proposed alteration of regulation as "[t]he most substantial change" in proposal but not speculating as to its practical effect).

112. *See id.* at 22,189 ("In light of the Supreme Court decisions in *SWANCC* and *Rapanos*, the scope of regulatory jurisdiction in this proposed rule is narrower than that under the existing regulations." (citing 40 C.F.R. § 122.2 (2016))). EPA and the Corps maintained that this rule was "clear and understandable . . . pro-

shift and its legal bases. Section A sets out the CWR's major innovations, while Section B situates them within the law of informal rulemaking.

A. *A Nexus to Commerce: Judicial Invention, Judicial Target*

As the agencies noted,[113] the regulations challenged in *SWANCC* and *Rapanos*[114] reached for waters "susceptible to use in" or the "use, degradation or destruction of which could affect" interstate or foreign commerce.[115] This standard grew from judicial holdings—it was synthesized from various courts' reliance on the 1972 Conference Report supporting the Act's passage.[116] And it eventually animated the Corps' 1977 regula-

---

tect[ive] [of] the nation's waters, [and] consistent with the law and currently available scientific and technical expertise." *See id.* at 22,192.

113. *See id.* at 22,198–99; Advanced Notice of Proposed Rulemaking on the Clean Water Act Regulatory Definition of "Waters of the United States," 68 Fed. Reg. 1991, 1993 (proposed Jan. 15, 2003) [hereinafter 2003 ANPRM].

114. EPA's regulation, 40 C.F.R. § 230.3(s), was first promulgated in 1980 and the Corps' regulation, 33 C.F.R. § 328.3(a), was updated in November 1986. *See* Final Rule for Regulatory Programs of the Corps of Engineers, 51 Fed. Reg. 41,206 (Nov. 13, 1986) (to be codified at 33 C.F.R. pts. 320–30).

115. *See* 2003 ANPRM, 68 Fed. Reg. at 1994 (quoting 40 C.F.R. § 230.3(s); 33 C.F.R. § 328.3(a)). From the CWA's beginning, a nexus to commerce had been both necessary and sufficient. *See, e.g.*, United States v. Earth Scis., Inc., 599 F.2d 368, 374–75 (10th Cir. 1979); United States v. Ashland Oil & Transp., 504 F.2d 1317, 1325–29 (6th Cir. 1974); P.F.Z. Props., Inc. v. Train, 393 F. Supp. 1370 (D.D.C. 1975). The inclusion of "adjacent" wetlands was equally a matter of judicial impetus. *See, e.g.*, United States v. Tilton, 705 F.2d 429 (11th Cir. 1983); United States v. Byrd, 609 F.2d 1204 (7th Cir. 1979); United States v. Holland, 373 F. Supp. 665, 672–73 (M.D. Fla. 1974).

116. *See* Mank, *Implementing* Rapanos, *supra* note 62, at 300–01; Mank, *The Murky Future, supra* note 62, at 831–36; Kalen, *supra* note 103, at 892–905. As of the first jurisdictional actions in the 1970s, *Appalachian Electric Power* remained the Court's most authoritative explanation of the Commerce Clause's ties to navigability. Recall that, besides finding navigable-in-fact waters within its scope, the Court had found that waters that could be *made* navigable by "reasonable improvements" also fell within Congress's power. *See* United States v. Appalachian Elec. Power Co., 311 U.S. 377, 407–08 (1940). That Congress's legitimate purposes in asserting jurisdiction need not be about navigation and that this "plenary power" extended over waters whether they were used for commerce or not also influenced the holding in *Appalachian Electric Powers*. *See id.* at 409–10, 426–27, 433 (Roberts & McReynolds, JJ., dissenting) ("If this test be adopted, then every creek in every state of the Union which has enough water, when conserved by dams and locks or channeled by wing dams and sluices, to float a boat drawing two feet of water, may be pronounced navigable . . . .").

tions.[117] But the addition of these "other waters"[118] became a target of multiple legal challenges for the attenuation of Congress's Article I power they represented.[119] "Interstate waters," also long ago carved out for federal common law, were eventually merged into the CWA's jurisdiction with the Court's help.[120] And CWA Section 502(7) expressly included the "territorial seas" as per se waters of the United States.[121]

As Part I showed, the interstate and commercial properties of waters as necessary or sufficient grounds for federal jurisdiction were contentious before the CWA.[122] Minor tributaries were also contentious prior the CWA.[123] And Commerce Clause challenges continued—if unsuccessfully—with the promulgation of the agencies' first rules interpreting Sec-

117. The Corps' initial effort to confine CWA jurisdiction to that of the Rivers and Harbors Act was enjoined, and the agency agreed voluntarily to overhaul its rules. *See* Nat. Res. Def. Council, Inc. v. Callaway, 392 F. Supp. 685 (D.D.C. 1975). By then, in a CWA section 311 case, the Sixth circuit concluded that tributaries of "navigable streams" fell within the CWA's ambit, citing the Supreme Court's navigation servitude precedents together with the Conference Report. *See Ashland Oil & Transp.*, 504 F.2d at 1323–29. "Adjacent" wetlands were first reached in "coastal areas" where tidal action was at work. *See, e.g.*, Leslie Salt Co. v. Froehlke, 403 F. Supp. 1292 (N.D. Cal. 1974), *rev'd in part, modified in part*, 578 F.2d 742 (9th Cir. 1978). They were soon reached wherever hydrologic continuity connected wetlands to jurisdictional waters. *See* Permits for Activities in Navigable Waters or Ocean Waters, 40 Fed. Reg. 31,320, 31,320 (July 25, 1975) (to be codified at 33 C.F.R. pt. 209); *Leslie Salt Co.*, 578 F.2d at 754–56; Conservation Council of N.C. v. Costanzo, 398 F. Supp. 653, 668–70 (E.D.N.C. 1975).

118. *See* Regulatory Programs of the Corps of Engineers, 42 Fed. Reg. 37,122, 37,127–29 (July 19, 1977) (discussing final 33 C.F.R. § 323.2(a)(5)).

119. *See infra* notes 124–27 and accompanying text.

120. *See, e.g.*, Arkansas v. Oklahoma, 503 U.S. 91, 98 (1992) ("Interstate waters have been a font of controversy since the founding of the Nation." (citing Gibbons v. Ogden, 22 U.S. 1 (1824))); Int'l Paper Co. v. Ouellette, 479 U.S. 481, 491–500 (1987); Illinois v. City of Milwaukee, 406 U.S. 91, 102–08 (1972). As the agencies noted in an appendix to the proposed rule, the Water Pollution Control Act of 1948—the statute amended in 1972 to take the form of the modern CWA—declared the pollution of "interstate waters" a public nuisance. *See* Pub. L. No. 80-845, § 2(d)(1), 62 Stat. 1155, 1156 (1948). The "long-standing" interpretation of the CWA by the agencies has thus been that interstate waters are per se jurisdictional. *See* Proposed Definition, 79 Fed. Reg. 22,188, 22,258 (proposed Apr. 21, 2014) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401).

121. *See* 33 U.S.C. § 1362(7) (2012); *see also id.* § 1362(8) (defining "territorial seas").

122. *See supra* notes 41–61 and accompanying text.

123. *See, e.g.*, Zabel v. Tabb, 430 F.2d 199, 201–02 (5th Cir. 1970) (denying landowners permits to dredge and fill land adjacent to bay); Kalur v. Resor, 335 F. Supp. 1, 10–12 (D.D.C. 1971) (finding U.S. government exceeded authority under Rivers and Harbors Act of 1899 by granting permit to dump "refuse" in Grand Ohio River).

tion 502(7).[124] But beginning with *United States v. Lopez*,[125] the Commerce Clause's parameters became unsettled.[126] Extensions of federal jurisdiction via migratory bird or endangered species' usage of target areas became the subjects of pointed attack.[127]

The CWR's innovations are primarily along this axis. Its new architecture shrinks the jurisdictional per se categories of waters, defines categories that *typically* bear a significant nexus thereto, defines categories that, regardless of nexus, are *excluded* by rule, and leaves fact-specific interstices between the foregoing to be adjudicated case-by-case.[128] The jurisdictional per se waters are: (1) "traditional navigable waters" (TNWs);[129] (2) interstate waters;[130] (3) the territorial seas;[131] and (4) any "impoundments" of (1)–(3).[132] The waters found typically to bear a significant nexus to these are the "tributaries" of (1)–(3) and the waters "adjacent" to (1)–(4) or their tributaries.[133] Finally, for waters within the CWR's residual categories to be jurisdictional, structured and individuated find-

124. *See, e.g.*, Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng'rs, 191 F.3d 845, 851–53 (7th Cir. 1999), *rev'd*, 531 U.S. 159 (2001); Rueth v. U.S. Envt'l Prot. Agency, 13 F.3d 227, 231 (7th Cir. 1993); Hoffman Homes, Inc. v. Adm'r, U.S. Envt'l Prot. Agency, 961 F.2d 1310, 1321–23 (7th Cir. 1992); Leslie Salt Co. v. United States, 896 F.2d 354, 360 (9th Cir. 1990); Avoyelles Sportsmen's League, Inc. v. Marsh, 715 F.2d 897, 916–18 (5th Cir. 1983); United States v. Byrd, 609 F.2d 1204, 1208–11 (7th Cir. 1979).

125. 514 U.S. 549 (1995).

126. *See* John Copeland Nagle, *The Commerce Clause Meets the Delhi Sands Flower-Loving Fly*, 97 MICH. L. REV. 174, 177 (1998).

127. *See* 2003 ANPRM, 68 Fed. Reg. 1991, 1996–98 (proposed Jan. 15, 2003) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, and 401) (describing challenges); *see also SWANCC*, 531 U.S. at 166–67; Rice v. Harken Expl. Co., 250 F.3d 264, 265 (5th Cir. 2001); United States v. Wilson, 133 F.3d 251, 256–58 (4th Cir. 1997).

128. *See* Clean Water Rule, 80 Fed. Reg. 37,054, 37,055–59 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401). The most basic change was to reach for, instead of those waters that could affect interstate commerce, "those waters that require protection in order to restore and maintain the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, and the territorial seas." *See id.* at 37,055.

129. *See id.* at 37,058. The agencies defined TNWs as "all waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide," including all waters governed by "section[s] 9 [and] 10 of the Rivers and Harbors Appropriations Act of 1899," various waters ruled navigable by federal courts, and all waters navigable-in-fact. *See id.* at 37,074. Gone was any reference to waters "the use, degradation, or destruction of which *could affect* interstate or foreign commerce." *Cf. Wilson*, 133 F.3d at 257 (quoting 33 C.F.R. § 328.3(a)(3) (1993)) (holding then-section 328.3(a)(3)'s category of "other waters" invalid under *Lopez*).

130. *See* Clean Water Rule, 80 Fed. Reg. at 37,074–75.

131. *See id.* at 37,075 (explaining that "territorial seas" are jurisdictional by statute).

132. *See id.* Impounding a jurisdictional water does not affect its jurisdictional status. *See* S.D. Warren Co. v. Me. Bd. of Envtl. Prot., 547 U.S. 370, 379 n.5 (2006).

133. *See* Clean Water Rule, 80 Fed. Reg. at 37,065–71.

ings of a significant nexus must support the determination.[134] It is hard to overstate the significance of these changes.

Through a massive literature review known as the *Science Report*,[135] EPA found that tributaries and "adjacent" waters normally bear a significant nexus to the per se waters in their region[136] because of their hydrology, common biota, and natural forces.[137] This legislative fact-finding,[138] backed by over a thousand peer-reviewed studies,[139] described the connectivity of aquatic systems as a gradient defined by discrete transport mechanisms that work across several spatial and temporal scales.[140] Governing this gradient demands sensitivity to those mechanisms and their operability.[141] That starts with using them to inform the norms of asserting

134. The individuated significant nexus determinations must follow the term's definition, and the checks built into the rule against double-counting "adjacent" waters. *See id.* at 37,091 (explaining 33 C.F.R. §§ 328.3(a)(7), (c)(5)). The definition looks to the functions the water may serve including "sediment trapping, nutrient recycling, pollutant trapping, transformation, filtering and transport, retention and attenuation of floodwaters, runoff storage, contribution of flow, export of organic matter, export of food resources, and provision of life-cycle dependent aquatic habitat . . . for species located in [TNWs], interstate waters, or the territorial seas." *Id.*; *see also* U.S. ENVT'L PROT. AGENCY, CONNECTIVITY OF STREAMS & WETLANDS TO DOWNSTREAM WATERS: A REVIEW AND SYNTHESIS OF THE SCIENTIFIC EVIDENCE (FINAL REPORT) §§ 6.1.4—6.1.5 (2015), https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=296414&CFID=86911120&CFTOKEN=40271389 [https://perma.cc/KF7C-L6NM] [hereinafter SCIENCE REPORT] (available under "Downloads"). The definition also makes clear that "[f]or an effect to be significant, it must be more than speculative or insubstantial." Clean Water Rule, 80 Fed. Reg. at 37,106.

135. *See generally* SCIENCE REPORT, *supra* note 134.

136. *See* Clean Water Rule, 80 Fed. Reg. at 37,065–81. Although Justice Kennedy did not further elaborate on what he meant by "similarly situated waters in the region" in *Rapanos*, the agencies defined the relevant region as "the single point of entry watershed." *See* Clean Water Rule, 80 Fed. Reg. at 37,066; *see also* Rapanos v. United States, 547 U.S. 715, 780 (2006) (Kennedy, J., concurring).

137. *See* Clean Water Rule, 80 Fed. Reg. at 37,065–71.

138. The use of "legislative" facts by agencies making rules and policies predates and, in a real sense, animates our modern administrative system. *See* Kenneth Culp Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 HARV. L. REV. 364 (1942). The *judicial* reception of such facts has remained unfortunately problematic, though. *See* Ann Woolhandler, *Rethinking the Judicial Reception of Legislative Facts*, 41 VAND. L. REV. 111 (1988).

139. *See* SCIENCE REPORT, *supra* note 134, at ES-2–ES-14.

140. *See id.* §§ 1.2.2, 2.3.2.1.

141. There is some degree of attenuation where none of the transport mechanisms exert any substantial effect on other parts of a watershed. The *Science Report*'s contribution to the CWR is, thus, not that everything is connected. *But see Perspectives on the Proposed Rule Defining "Waters of the United States" Under the Clean Water Act*, 36 NAT'L WETLANDS NEWS, July–Aug. 2014, at 14, 20 [hereinafter *Perspectives on the Proposed Rule*] ("'I've read the [*Science Report*] and [it] says everything is connected . . . . This is not really the way to do a rulemaking on this issue.'" (quoting Deidre Duncan)). Its contribution is that discrete mechanisms forming a gradient have been identified and general relationships among them are, in many cases, well known.

statutory jurisdiction.[142] Small streams, for example, should be jurisdictional wherever they function like a tributary,[143] as should wetlands separated from waters by engineered works.[144]

The CWR balanced many values, though. More than a dozen exclusions were made for practical reasons.[145] The rule limited adjacency findings and defined areas "used for established normal farming, ranching, and silviculture activities" as "not adjacent."[146] It confined case-by-case significant nexus findings to 4,000 feet from the lateral limit of a jurisdictional water, its impoundments or tributaries, or the 100-year floodplain of these waters.[147] Furthermore, given that the tributary systems of most major waters have been manipulated for decades, if not centuries, the very concept of a tributary is frustratingly complex.[148] Many river systems, like

142. As Professor Woolhandler put it,

> [t]he key difference between adjudicative and legislative facts is not the characteristics of particular versus general facts, but rather, evidence whose proof has a more established place and more predictable effect within a framework of established legal rules as distinct from evidence that is more manifestly designed to create the rules.

Woolhandler, *supra* note 138, at 114.

143. Flow constitutes the principal transport vector, just as vital functionally are tributaries' (especially smaller tributaries') capacities to slow or disperse transport. *See* SCIENCE REPORT, *supra* note 134 §§ 3.2–3.5.3. Particularly significant are small tributaries' relative nutrient transformation/cycling capacities. With more water in contact with the substrate, more nutrients are absorbed, assimilated, or precipitated out of the water column in smaller streams and rivers. *See id.* at 3–27.

144. *See* Clean Water Rule, 80 Fed. Reg. 37,054, 37,084 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401) (explaining that periodic overtopping and seepage through berms and other barriers is significant).

145. *See id.* at 37,096–101 (explaining that, for first time, exemptions for artificial lakes, ponds, irrigated areas, reflecting pools and other small ornamental waters, puddles, water-filled depressions, and erosional features would all be exempt by rule and also exempting groundwater, prior converted cropland, storm water control features, and waste treatment systems); *id.* at 37,105 (finalizing 33 C.F.R. § 328.3(b)).

146. *See id.* at 37,105 (citing 33 U.S.C. § 1344(f) (2012)) (finalizing 33 C.F.R. § 328.3(c)(1)–(2)); *id.* at 37,097 ("The exclusions are an important aspect of the agencies' policy goal of providing clarity and certainty."). Distinguishing "normal" farming from the activities to which Section 404 extends coverage has proven challenging. *See, e.g.*, Borden Ranch P'ship v. U.S. Army Corps of Eng'rs, 261 F.3d 810, 815–16 (9th Cir. 2001) (affirming agencies' judgment that certain plowing practices were exceptional and, thus, not exempt), *aff'd*, 537 U.S. 99 (2002). Section 404(f)(1)'s normal farming exemption is typically regarded as narrow, and it bears its own "recapture" provision where farming is *expanded* into jurisdictional waters. *See* United States v. Huebner, 752 F.2d 1235, 1240–41 (7th Cir. 1985) (construing 33 U.S.C. § 1344(f)(2)). It remains to be seen whether *any* rule could clarify the outlines of "normal farming."

147. *See* Clean Water Rule, 80 Fed. Reg. at 37,093–96 (describing limits placed on significant nexus jurisdictional determinations).

148. The final definition of tributary looked to the presence of beds, banks, and ordinary high water marks—indicators that had long been part of CWA guidance. *See id.* at 37,076. The great majority of tributaries so defined, the agencies estimated, "are headwater streams that play an important role in the transport of

the Los Angeles River, have been transformed into engineered hydraulic works.[149] A rule that reached tributaries of any size, regardless of cultural characteristics, was going to be contentious.[150] At finalization, the agencies allowed constructed features like ditches that relocate or are excavated within tributaries to be regulated as such, even where surface continuity is lost.[151] But they also excluded most low-flow ditches.[152] And

water, sediments, organic matter, nutrients, and organisms to downstream waters." *See* U.S. DEP'T OF THE ARMY, OFF. OF ASSISTANT SEC'Y OF THE ARMY FOR CIVIL WORKS, FINDING OF NO SIGNIFICANT IMPACT: ADOPTION OF THE CLEAN WATER RULE: DEFINITION OF WATERS OF THE UNITED STATES 4 (2015), https://www.epa.gov/sites/production/files/2015-05/documents/finding_of_no_significant_impact_the_clean_water_rule_52715.pdf [https://perma.cc/62GT-ENQD] [hereinafter FINDING OF NO SIGNIFICANT IMPACT]. Of course, these factors' relationships to interstate or foreign commercial activities as bases of jurisdiction had entailed a further degree of legal contingency following *SWANCC*.

149. *See* KAREN M. O'NEILL, RIVERS BY DESIGN: STATE POWER AND THE ORIGINS OF U.S. FLOOD CONTROL (2006). The Los Angeles River has featured in several late struggles. *See* Jeremy P. Jacobs, *Clean Water Rule: Concrete-Lined River Seen as Regulatory Quagmire for EPA*, E&E NEWS (Feb. 1, 2016), http://www.eenews.net/stories/1060031564/print [https://perma.cc/RD76-XP2C]. The CWR preamble mentioned the Los Angeles River *by name* as a TNW notwithstanding the rip-rap and concrete lining its banks. *See* Clean Water Rule, 80 Fed. Reg. at 37,078.

150. As noted in the proposed rule's preamble, some fifty-nine percent of the streams in the contiguous United States flow intermittently or ephemerally. *See* Proposed Definition, 79 Fed. Reg. 22,188, 22,231 (proposed Apr. 21, 2014) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401). The agencies declined commenters' requests that they define ephemeral, intermittent, and perennial flow, noting only that "they are commonly used scientific terms." *See* Clean Water Rule, 80 Fed. Reg. at 37,076. The *Science Report* revealed the common network structure of most watersheds, linking their small, first-order streams to their largest, third- and fourth-order rivers. *See* SCIENCE REPORT, *supra* note 134 § 3.6. Thus, "[a] stream's position on the gradient is influenced not only by distance to downstream waters but also by the frequency, magnitude, duration, timing, and rate of change of fluxes to downstream waters." *Id.* at 3–45. Even the 1977 volume threshold reached many intermittent tributaries, though. *See* Regulatory Programs of the Corps of Engineers, 42 Fed. Reg. 37,122, 37,144–45 (July 19, 1977).

151. *See* Clean Water Rule, 80 Fed. Reg. at 37,077 ("[A] natural or constructed break in bed and banks or other indicator of ordinary high water mark does not constitute the upper limit of a tributary where bed and banks or other indicator [sic] ordinary high water mark can be found farther upstream."). The agencies' approach to tributaries attracted significant public comment. *See id.* at 37,078. "Ditches are jurisdictional under the rule only if they both meet the definition of 'tributary' and are not excluded under . . . the rule." *Id.* Subsection (b)(3) excludes ditches with ephemeral flow if they are not excavated in a tributary or a relocated tributary, do not drain a wetland, or flow into a per se water. *See id.* at 37,105 (discussing 33 C.F.R. § 328.3(b)(3)).

152. *See id.* at 37,078–79 (explaining ditch exclusions in subparagraphs (b)(3)(i)–(iii)). Whereas the proposal excluded "upland" ditches, commenters drew attention to the potentially confusing delineation of "uplands," leading the agencies to further delineate excluded ditches in the final rule.

that line-drawing effort featured prominently in some of the opposition and legal challenges to the rule.[153]

It is also worth noting that the distance cut-offs in the definition of adjacency and in the residual categories of waters that may be proven jurisdictional on a case-by-case basis did not appear in the proposal.[154] They were explained as a reflection of the agencies' experience with jurisdictional determinations and the desire to provide assurances to affected stakeholders in light of the rule's changes throughout the promulgation process.[155] That desire apparently was the product of internal administration discussion involving the Secretary of Agriculture, among others.[156] Thus, during the White House Office of Management and Budget's (OMB) review of the rule, a process said to pool "the wide variety of perspectives that can be found throughout the executive branch,"[157] the agencies compromised to provide the regulated community with assur-

153. *See* North Dakota v. U.S. Envtl. Prot. Agency, 127 F. Supp. 3d 1047, 1056 (D.N.D. 2015); *see also Perspectives on the Proposed Rule*, *supra* note 141, at 18 (stating remarks from reprinting industry lawyer that "EPA says that most ditches are exempt, but proving that your ditch is constructed in uplands and drains only uplands makes the ditch exemption very difficult to prove under this rule" (quoting Deirdre Duncan)).

154. This may be the core of environmentalists' opposition to the rule. *See, e.g.*, Patrick Parenteau, *A Bright Line Mistake: How EPA Bungled the Clean Water Rule*, 46 ENVTL. L. 379, 382–88 (2016). The definition of "neighboring," a term used to define "adjacent," includes waters within 100 feet of the ordinary high water mark (OHWM) and waters within the 100-year floodplain but not more than 1,500 feet from the OHWM of jurisdictional waters. *See* Clean Water Rule, 80 Fed. Reg. at 37,105. Paragraph (a)(8) includes waters within the 100-year floodplain of TNWs, interstate waters, and the territorial seas so long as they bear a significant nexus thereto as well as all waters within 4,000 feet of the OHWM or OHTL of those waters, their impoundments, or their tributaries. *See id.* In keeping with Justice Kennedy's test, this nexus can be found if the target waters, "either alone or in combination with other similarly situated waters in the region, significantly affect[ ] the chemical, physical, or biological integrity" of any per se jurisdictional waters where " 'in the region' means the watershed that drains to the nearest [per se jurisdictional water]." *See id.* at 37,106 (finalizing 33 C.F.R. § 328.3(c)(5)).

155. *See* Clean Water Rule, 80 Fed. Reg. at 37,080–101. While "adjacent" wetlands have been included and had been defined as "bordering, contiguous, or neighboring" since 1977, the CWR added a definition of "neighboring," extending it to (1) within 100 feet of the ordinary high water mark (OHWM) of per se waters or their impoundments and tributaries, and (2) within the 100-year flood plain but no more than 1500 feet from the OHWM of per se waters and the Great Lakes. *See id.* at 37,081 (explaining subparagraph (c)(2)).

156. *Compare id.* at 37,089–90 (recognizing there is no optimal line but that 4,000 feet reflects experience making significant nexus determinations and desire for rule with "sufficient boundaries so that the public reasonably understands where CWA jurisdiction ends"), *with* Annie Snider & Kevin Bogardus, *USDA Chief Played Major Backstage Role on Hot-Button Rule*, E&E NEWS (Nov. 18, 2015), http://www.eenews.net/greenwire/stories/1060028127/print [https://perma.cc/SQT2-8YAQ] (reporting that distance limit on scope of "adjacent" likely resulted from urgings by USDA Secretary Tom Vilsack).

157. *See* Cass R. Sunstein, *The Office of Information and Regulatory Affairs: Myths and Realities*, 126 HARV. L. REV. 1838, 1855 (2013).

ances and to conserve scarce enforcement resources given the CWR's innovated structure and scope.[158]

Final rules often differ from proposed rules, sometimes considerably.[159] But bracketing for the sake of argument the objections that the changes rendered the final CWR something less than a "logical outgrowth" of the proposal,[160] the rule's final exclusions are of uncertain legal effect.[161] The organizing premise of the CWR is to include within Section 502(7) per se waters, their impoundments, and tributaries.[162] Jurisdiction elsewhere takes at least an individuated finding backed by evidence, challengeable as such (or the party's capitulation to the foregoing).[163] As the Supreme Court's twin jurisdictional determination

158. *See* Clean Water Rule, 80 Fed. Reg. at 37,097.

159. Any holding either that the CWR's changes from the proposal to the final or that the impetus for such changes from within the White House violated the APA's requirements for informal rulemaking would have to ignore settled law. *See* Perez v. Mortgage Bankers Ass'n, 135 S. Ct. 1199, 1203–10 (2015) (quoting Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519 (1978)); United States v. Fla. E. Coast Ry. Co., 410 U.S. 224, 241 (1973); Sierra Club v. Costle, 657 F.2d 298 (D.C. Cir. 1981) (construing Clean Air Act's hybrid rulemaking procedure and concluding President's Article II powers protect off-the-record, "intra-executive" deliberations at least unless expressly prohibited by statute); JEFFREY S. LUBBERS, A GUIDE TO FEDERAL AGENCY RULEMAKING 335–55 (5th ed. 2012).

160. Reviewing courts have consistently rejected "logical outgrowth" challenges to informal rulemakings wherever the notice of proposed rulemaking put affected parties on notice that their *interests* were at stake. *See* Long Island Care at Home, Ltd. v. Coke, 551 U.S. 158, 174–75 (2007); Allina Health Servs. v. Sebelius, 746 F.3d 1102, 1107–10 (D.C. Cir. 2014); CSX Transp., Inc. v. Surface Transp. Bd., 584 F.3d 1076, 1080 (D.C. Cir. 2009); Envtl. Integrity Project v. Envtl. Prot. Agency, 425 F.3d 992, 997 (D.C. Cir. 2005); Alto Dairy v. Veneman, 336 F.3d 560, 569–70 (7th Cir. 2003); Nat'l Mining Ass'n v. Mine Safety & Health Admin., 116 F.3d 520, 531 (D.C. Cir. 1997); Am. Med. Ass'n v. United States, 887 F.2d 760, 767–69 (7th Cir. 1989). In the small minority of cases where the claim has succeeded, the notice of proposed rulemaking has typically proposed the *opposite* of what the agency finalized. *See Allina Health Servs.*, 746 F.3d at 1109; *Envtl. Integrity Project*, 425 F.3d at 995–98.

161. For EPA or Corps enforcement of the CWA's permitting duties, a rule excluding target areas from jurisdiction could create a kind of de facto bar on asserting that jurisdiction in a future case. *Cf.* New Hope Power Co. v. U.S. Army Corps of Eng'rs, 746 F. Supp. 2d 1272, 1280 (S.D. Fla. 2010) (finding that informal guidelines to enforcement personnel were final agency action and reviewable because they tended to bind enforcement decisions). Furthermore, while the threat of citizen suits may loom regardless of the agencies' interpretations, courts hearing those suits and paying deference to agency rules adopted as "legislative" rules can obviously neutralize any such threat beyond the confines of the CWR if they so choose.

162. *See supra* notes 129–34 and accompanying text.

163. To be "adjacent" requires a showing that the target area(s) is "bordering, contiguous, or neighboring," with the defined term "neighboring" serving both to include and to exclude certain areas. *See* Clean Water Rule, 80 Fed. Reg. at 37,091. Any of the two significant nexus determinations must follow that term's complex definition, while avoiding double-counting any "adjacent" waters. *See id.* (explaining 33 C.F.R. §§ 328.3(a)(7)–(8), (c)(5)). The definition looks to the functions the water may serve including "sediment trapping, nutrient recycling, pollutant

precedents now guarantee,[164] any such finding is immediately subject to general or special statutory review.[165] Given the agencies' resource constraints and the limited threat citizen suits present, the evidentiary burdens alone afford a measure of security against jurisdictional status beyond the CWR's jurisdiction-by-rule waters.[166]

Even in the waters deemed jurisdictional by rule, though, any contest over CWR permit requirements *as applied* would at least have to admit the argument that jurisdiction was *ultra vires*. Section 509(b)(2)'s preclusive scope has never been certain.[167] Indeed, the Court itself has sewn layers of confusion into such intersections of rulemaking, the legal effect of

---

trapping, transformation, filtering and transport, retention and attenuation of floodwaters, runoff storage, contribution of flow, export of organic matter, export of food resources, and provision of life-cycle dependent aquatic habitat . . . for species located in [TNWs], interstate waters, or the territorial seas." *Id.*; SCIENCE REPORT, *supra* note 134, §§ 6.1.4–6.1.5. The definition also states that "[f]or an effect to be significant, it must be more than speculative or insubstantial." Clean Water Rule, 80 Fed. Reg. at 37,106. This requirement is also true of "tributaries." *See id.* at 37,075 ("The existing definition of 'waters of the United States' regulates all tributaries without qualification. The [CWR] protects only waters that have a significant effect on the integrity of [per se waters].").

164. *See* U.S. Army Corps of Eng'rs v. Hawkes Co., 136 S. Ct. 1807 (2016); Sackett v. Envtl. Prot. Agency, 132 S. Ct. 1367 (2012).

165. Section 509(b)(1)'s exclusion of jurisdictional findings leaves them to the general statutory review procedures of 5 U.S.C. § 704 in federal district court. *See* Hawkes Co., Inc. v. U.S. Army Corps of Eng'rs, 782 F.3d 994, 999 (8th Cir. 2015), *aff'd*, 136 S. Ct. 1807.

166. Several courts of appeal have held that jurisdiction under Section 502(7) failed for lack of evidence. *See* Precon Dev. Co. v. U.S. Army Corps of Eng'rs, 633 F.3d 278, 293–97 (4th Cir. 2011); S.F. Baykeeper v. Cargill Salt Div., 481 F.3d 700, 708 (9th Cir. 2007); Hoffman Homes, Inc. v. Adm'r, U.S. Envtl. Prot. Agency, 999 F.2d 256, 261–62 (7th Cir. 1993).

167. CWA Section 509(b)(2) states that any EPA action "with respect to which review could have been obtained under [CWA Section 509(b)(1)] shall not be subject to judicial review in any civil or criminal proceeding for enforcement." *See* 33 U.S.C. § 1369(b)(2) (2012). But the Supreme Court has held that wherever a challenge is not to the validity of the rule as such but rather to the rule *as applied*, Section 509(b)(2) is no obstacle. *See* Decker v. Nw. Envtl. Def. Ctr., 133 S. Ct. 1326, 1334–35 (2013). Indeed, the efficacy of such bars to future consideration of rules' validity and scope is open to substantial questions. *See* Nw. Tissue Ctr. v. Shalala, 1 F.3d 522, 527–37 (7th Cir. 1993) (distinguishing rule's interpretation from reviewability of rule given existence of argument preclusion statutory bar); Nat'l Labor Relations Bd. Union v. Fed. Labor Relations Auth., 834 F.2d 191, 195–96 (D.C. Cir. 1987) (noting ways to circumvent such bars on challenge); *see also* Bethlehem Steel Corp. v. Envtl. Prot. Agency, 538 F.2d 513, 518 (2d Cir. 1976) (describing Section 509(b)(2)'s relation to overall act as "confusing"). Nonetheless, the putative value of argument preclusion probably explains the U.S. government's strong preference for Section 509(b)(1) appellate jurisdiction when challenges to CWA rulemakings arise-including the challenges to the CWR. *See* Murray Energy Corp. v. U.S. Army Corps of Eng'rs, 817 F.3d 261, 266–74 (6th Cir. 2016) (reviewing United States' many arguments in support of construing § 509(b)(1) to vest jurisdiction over challenges to CWR in courts of appeal).

agency rules, and argument preclusion.[168] But it runs afoul of our whole constitutional tradition to give agency actions the force of law without Congress doing so.[169] The CWA's relative silence on executive authority to make rules like the CWR has fueled decades of dispute over the force of CWA rulemakings generally.[170] As the Sixth Circuit's opinion confirming its jurisdiction to hear the CWR challenges betrayed, the judicial constructions of CWA Section 509(b)—the statute's special jurisdiction for review of certain listed EPA actions—are not easily reconciled.[171] Ironically, then, it may be the CWR's exclusions from jurisdiction that have the greater practical effect.[172] Section B weighs the legality of these innovations in their broader context.

---

168. *See* Kristin E. Hickman, *Unpacking the Force of Law*, 66 VAND. L. REV. 465 (2013); Thomas W. Merrill & Kathryn Tongue Watts, *Agency Rules with the Force of Law: The Original Convention*, 116 HARV. L. REV. 467 (2002); Thomas W. Merrill & Kristin E. Hickman, Chevron*'s Domain*, 89 GEO. L.J. 833 (2001); Kathryn A. Watts, *Rulemaking as Legislating*, 103 GEO. L.J. 1003 (2015).

169. *See* Food & Drug Admin. v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 159–61 (2000); *see also* Merrill & Watts, *supra* note 168, at 476–81.

170. Pursuant to the CWA, "[EPA] is authorized to prescribe such regulations as are necessary to carry out [its] functions under [the CWA]." 33 U.S.C. § 1361(a). The Act vests no similar authority in the Corps. An epic circuit conflict, eventually resolved by the Supreme Court, once raged over whether EPA could promulgate binding, sector-based effluent limitation guidelines, variances therefrom, and where each could be judicially reviewed. *See* William Funk, *The Exception That Approves the Rule: FDF Variances Under the Clean Water Act*, 13 B.C. ENVTL. AFF. L. REV. 1, 3–23 (1985) (discussing E.I. du Pont de Nemours & Co. v. Train, 430 U.S. 112 (1977)). EPA rules may be binding as far as they go. *See* Merrill & Watts, *supra* note 168, at 529–37. Current Supreme Court doctrine may entitle the interpretations they embody to *Chevron*-style judicial deference. *See id.* at 587–90. However, courts remain obliged to assure that no agency asserts jurisdiction without statutory warrant or contrary to the Constitution. *See* City of Arlington v. Fed. Commc'ns Comm'n, 133 S. Ct. 1863, 1877 (2013) (Roberts, C.J., dissenting); Gonzales v. Oregon, 546 U.S. 243, 259–66 (2006); Chrysler Corp. v. Brown, 441 U.S. 281, 302 (1979).

171. *See Murray Energy Corp.*, 817 F.3d at 265–74. Section 509(b)(1) lists seven discrete EPA actions under the Act, implying that general statutory review in district courts is the default. *See* League of Wilderness Defs./Blue Mountains Biodiversity Project v. Forsgren, 309 F.3d 1181, 1190 n.8 (9th Cir. 2002). But the Supreme Court's *purposive* interpretation of Section 509(b)(1), presuming that Congress expressed a preference for appellate review of EPA actions of broad scope, has sometimes encouraged courts of appeal to claim jurisdiction broadly. *See, e.g.*, Iowa. League of Cities v. Envtl. Prot. Agency, 711 F.3d 844, 860–66 (8th Cir. 2013); Nat'l Cotton Council v. U.S. Envtl. Prot. Agency, 553 F.3d 927, 933 (6th Cir. 2009) (citing *E.I. du Pont de Nemours*, 430 U.S. at 136 (1977)).

172. Agencies constraining their enforcement discretion by specifying the circumstances in which they will assert their authority must, of course, fulfill any procedural prerequisites of doing so. *See* Richard M. Thomas, *Prosecutorial Discretion and Agency Self-Regulation:* CNI v. Young *and the Aflatoxin Dance*, 44 ADMIN. L. REV. 131 (1992). But the claim that the CWR exclusions demand a full environmental impact statement under NEPA Section 102(2)(C) probably falters for the attenuated causal connections between purely jurisdictional actions and actual consequences in the environment. *See, e.g.*, Kootenai Tribe v. Veneman, 313 F.3d 1094 (9th Cir. 2002).

B. *Not in Accordance with Law? The Clean Water Rule's Legal Foundations*

Aside from the distance limits, certain categorical exclusions, and its construction of the key term "tributary," the CWR's legal bases can be found in the Supreme Court's own cases construing the CWA.[173] Recall that Justice Kennedy accepted that target areas were jurisdictional if they alone, "or in combination with similarly situated lands in the region" bore a significant nexus to his per se waters.[174] Assuming Justice Kennedy's approach was "middle-ground terrain,"[175] leaving a path to jurisdiction open for those field offices inclined to prove a target area's significant nexus was hardly revolutionary.[176] Justice Scalia's death underscores the rule-of-law issues attending this approach to our Supreme Court, though.[177] The only authority Justice Kennedy had in *Rapanos* was a vote, arguably rendering his entire opinion dicta—especially after a change in the Court's composition.[178] So what force should his opinion have?[179]

173. *See Review of Administrative Action*, 120 HARV. L. REV. 351, 357 (2006).

174. Justice Kennedy allowed that "wetlands possess the requisite nexus, and thus come within the statutory phrase 'navigable waters,' if the wetlands, *either alone or in combination with similarly situated lands in the region*, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'" Rapanos v. United States, 547 U.S. 715, 780 (2006) (Kennedy, J., concurring) (emphasis added). Moreover, "[w]here an adequate nexus is established for a particular wetland, it may be permissible, as a matter of administrative convenience or necessity, to presume covered status for other comparable wetlands *in the region*." *Id.* at 782 (Kennedy, J.) (emphasis added).

175. *See Review of Administrative Action*, *supra* note 173, at 357. "Justice Kennedy's middle-ground test represents a pragmatic alternative to today's polarized environmental law and politics. It deserves the embrace of both future courts and environmental advocates." *Id.* at 356.

176. *See* POSNER, *supra* note 92, at 227 ("Precedents are essential inputs into the predictive process but they are not 'the law' itself, so the lower-court judge who has a strong reason to believe that the higher court would not follow its own precedent if the case arose today is not being lawless in declining to follow that precedent."); Frederick Schauer, *Precedent*, 39 STAN. L. REV. 571, 604 (1987) ("[T]he extent of reliance on precedent is not fixed, but is subject to change in the same ways as are norms governing any decisionmaking institution. This process does not necessarily depend upon written rules, but reflects the entire array of methods by which decisionmakers assimilate what it is proper to do and what is discouraged.").

177. *See* Dorf, *supra* note 92, at 689 (arguing that predictive methods are contrary to rule-of-law principle of justifying decisions on impersonal grounds).

178. *See, e.g.*, United States v. Chevron Pipe Line Co., 437 F. Supp. 2d 605, 613 (N.D. Tex. 2006) (ignoring Justice Kennedy's significant nexus test as "vague" and "subjective"). A careful account of no-clear-majority Supreme Court decisions prepared in 1956 revealed that lower courts often cited such cases *as if there were* a clear majority. *See* Comment, *Supreme Court No-Clear-Majority Decisions: A Study in* Stare Decisis, 24 U. CHI. L. REV. 99 (1956). So perhaps Kennedy was right to explain how his views differed from the plurality. Moreover, dicta sometimes have real force in our system. *See* Caminker, *supra* note 92, at 75 ("[L]ower courts frequently give considerable, and sometimes even dispositive, weight to nonbinding but well-considered dicta when addressing novel legal questions.").

179. "Obviously, whether one thinks a more conventional, careful, and precedent-bound judiciary is good or bad will depend on one's vision of the role of the

Much of the CWR follows from the intuitive sense of waters—relatively permanent, relatively constant water bodies.[180] The exclusion of groundwater exemplifies this aspect of the rule.[181] Yet much of it is predicated on the notion of connections extending up and out from such waters and some of that on Justice Kennedy's theory of aggregation in *Rapanos*. For example, the CWR named five subcategories of landforms that the agencies found from the *Science Report* to be "similarly situated" for purposes of the significant nexus analysis.[182] This may risk giving too much influence to the inclinations of a single judge.[183] Still, the basic insight that waters' limits are a gradient is firmly entrenched in the law, mitigating Justice Kennedy's role here.[184] Moreover, the *Science Report* set

courts in society." Thomas W. Merrill, *Judicial Opinions as Binding Law and as Explanations for Judgments*, 15 CARDOZO L. REV. 43, 78 (1993).

180. *See* Rapanos v. United States, 547 U.S. 715, 731–36 (2006) (Scalia, J.); *see also* Fed. Deposit Ins. Corp. v. Meyer, 510 U.S. 471, 476 (1994) (observing that if statutory term is not defined in statute nor term of art, it should be construed in accordance with "ordinary or natural meaning"). This intuitive sense of "waters" has appeared in many lower court adjudications, as well. *See, e.g.*, Village of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962, 965 (7th Cir. 1994). The *Science Report* and CWR preamble both make clear how ambulatory waters' boundaries are different scales, though. *See* Clean Water Rule, 80 Fed. Reg. 37,054, 37,081 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401).

181. *See* Clean Water Rule, 80 Fed. Reg. at 37,105 (finalizing 33 C.F.R. § 328.3(b)(5)); *cf.* Cape Fear River Watch, Inc. v. Duke Energy Progress, Inc., 25 F. Supp. 3d 798, 809–10 (E.D.N.C. 2014) (collecting lower court cases on groundwater's place in "waters of the United States," noting split in authorities, and finding groundwater excluded in light of *Rapanos*), *amended by* No. 7:13-CV-200-FL, 2014 WL 10991530 (E.D.N.C. Aug. 1, 2014).

182. Those listed subcategories are "Prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands." *See* Clean Water Rule, 80 Fed. Reg. at 37,086. The agencies explained that the named subcategories "perform similar functions and they are located sufficiently close to each other to function together in affecting downstream waters and therefore reasonably [may] be evaluated in combination with regard to their effects on the integrity of [per se waters]." *See id.* at 37,071. The one court to consider this aspect of Kennedy's test affirmed the agencies' aggregation of almost 500 acres of wetlands throughout a tributary's three-mile long drainage area as all "similarly situated." *See* Precon Dev. Corp. v. U.S. Army Corps of Eng'rs, 633 F.3d 278, 292 (4th Cir. 2011).

183. *See* Jeffrey J. Rachlinski, *Bottom-up Versus Top-down Lawmaking*, 73 U. CHI. L. REV. 933, 940–43 (2006); Frederick Schauer, *Opinions as Rules*, 62 U. CHI. L. REV. 1455, 1466–74 (1995) (observing that practice of judicial explanation has become vitally important but under-theorized).

184. Besides *SWANCC*'s reference to *Riverside Bayview* as turning on the significant nexus between wetlands and waters, navigability doctrine's several branches have each grappled with fixing limits. *See supra* notes 40–61 and accompanying text. The aggregative notion of lands "similarly situated" in "the region" was original with Justice Kennedy's *Rapanos* opinion. *See Rapanos*, 574 U.S. at 780 (Kennedy, J., concurring). And although he obviously presented it as a "dispositional rule" to the case, it was the product of Kennedy's chambers alone. For that reason, its epistemic standing may be diminished relative to appellate opinions generally. *See* Caminker, *supra* note 92, at 15 (describing opinions as presenting "dispositional rules" that govern their facts); *see also* Evan H. Caminker, *Why Must Inferior*

out in detail the listed subcategories' and others' hydrologic connectivity, shared biota, and geospatial continuity.[185] Is that fact-finding arbitrary merely for having been organized around a judge's phrases?

The objection to so much legislative fact-finding cannot be that agencies must act as Platonic guardians when marshaling facts to justify policy choices at wholesale. Our system denied that objection long ago.[186] Nor can the objection be that EPA conducted its fact-finding arbitrarily. The *Science Report*, prepared through an exacting process and subjected to multiple external reviews and reviews by twenty-seven topic experts at EPA's Science Advisory Board (SAB), withstood intense scrutiny from the public and affected stakeholders.[187] A reviewing court rejecting that synthesis tout court has forgotten itself and the history of judicial overreach on fact-finding in informal proceedings.[188] So-called facial challenges of the kind—without benefit of the rule's application—should have to show that "'no set of circumstances exists under which the [rule] would be valid.'"[189] The objection cannot even be about the presence of politics in the agencies' use of the facts.[190] Fact-finding in informal proceedings is

Courts Obey Superior Court Precedents?, 46 STAN. L. REV. 817, 847 (1994) (arguing lower courts should obey appellate court opinions because appellate courts operate collegially and can benefit from many minds and accumulated expertise). The CWR's use of the aggregation option may have adequate, independent grounds, though. *See infra* notes 320–41 and accompanying text.

185. *See* SCIENCE REPORT, *supra* note 134, at app. B.

186. *See* Roger C. Cramton, *A Comment on Trial-Type Hearings in Nuclear Power Plant Siting*, 58 VA. L. REV. 585 (1972); *see also* Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519, 525 (1978); Fed. Commc'ns Comm'n v. Schreiber, 381 U.S. 279, 289 (1965) (noting established principle that agencies are free to "resolve 'subordinate questions of procedure . . . [like] the scope of the inquiry'" (citing Fed. Commcn's Comm'n v. Potsville Broadcasting Co., 309 U.S. 134, 138 (1940)); Sec. & Exch. Comm'n v. Chenery Corp., 332 U.S. 194 (1947) (holding that courts may not dictate agencies' sequencing of regulatory actions).

187. *See* Laurie C. Alexander, *Science at the Boundaries: Scientific Support for the Clean Water Rule*, 34 FRESHWATER SCI. 1588, 1590 (2015) ("Scientific assessments for rulemaking require high transparency, public input, and rigorous review. This assessment focused entirely on published, peer-reviewed literature to bolster confidence in the conclusions . . . . Drafts of the report were externally peer reviewed on 3 separate occasions, concluding with a public peer review by the EPA's Science Advisory Board." (citations omitted)).

188. *See, e.g.*, David L. Bazelon, *Science and Uncertainty: A Jurist's View*, 5 HARV. ENVTL. L. REV. 209 (1981); Harold Leventhal, *Environmental Decisionmaking and the Role of the Courts*, 122 U. PA. L. REV. 509 (1974); James L. Oakes, *The Judicial Role in Environmental Law*, 52 N.Y.U. L. REV. 498 (1977); Antonin Scalia, Vermont Yankee*: The APA, the D.C. Circuit, and the Supreme Court*, 1978 SUP. CT. REV. 345; J. Skelly Wright, *The Courts and the Rulemaking Process: The Limits of Judicial Review*, 59 CORNELL L. REV. 375 (1974).

189. *See* Reno v. Flores, 507 U.S. 292, 301 (1993) (quoting United States v. Salerno, 481 U.S. 739, 745 (1987)).

190. *But see* Ohio v. U.S. Army Corps of Eng'rs, 803 F.3d 804, 807 (6th Cir. 2015) (calling rulemaking procedure finalizing CWR "facially suspect" because record was "devoid of specific scientific support for the distance limitations that were included").

submerged in politics.[191] Administrative law has turned the page on unsubstantiated allegations that crookedness behind the scenes better explains why a final rule shifted from a proposal or why agencies seeking to accommodate stakeholders are really their captives.[192]

The reviewing court's role is to determine whether findings are demonstrably incorrect or irrational or whether they fail to meet an enabling statute's standards.[193] It would pervert that role to cast as arbitrary the mismatch inherent in regulating individually de minimis threats that, as aggregates, now comprise the bulk of our society's environmental challenges.[194] Problems like habitat and species loss, greenhouse gas emissions, wetland and tributary loss, and hypertrophication of surface waters all stem from multitudes of individually trivial threats. The available regulatory responses can imply that public priorities are askew, that government is too big, or that the costs of action outweigh the benefits.[195] But that implication is false.

The significant departures from Supreme Court precedent or the *Science Report* all came in deference to the regulated community's demands for assurances and Section 502(7)'s conflicted record in the courts.[196] At

191. *See* Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667, 1670 (1975).

192. *See generally* STEVEN P. CROLEY, REGULATION AND PUBLIC INTERESTS: THE POSSIBILITY OF GOOD REGULATORY GOVERNMENT (2008); *see also* LUBBERS, *supra* note 159, at 303–14; Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543 (2000).

193. *See* Mark Seidenfeld, *The Irrelevance of Politics for Arbitrary and Capricious Review*, 90 WASH. U. L. REV. 141 (2012); Adrian Vermeule, *Rationally Arbitrary Decisions in Administrative Law*, 44 J. LEGAL STUD. S475, S482–89 (2015); Louis J. Virelli III, *Deconstructing Arbitrary and Capricious Review*, 92 N.C. L. REV. 721, 737–60 (2014).

194. *Compare* M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 U. CHI. L. REV. 1383, 1411–12 (2004) (noting that agencies may choose but not design administrative tools they employ and hypothesizing that they make those choices balancing at least procedural costs, legal effect, and likely judicial reaction to those tool choices), *with* Jodi L. Short, *The Political Turn in American Administrative Law: Power, Rationality, and Reasons*, 61 DUKE L.J. 1811, 1858–60 (2012) (arguing that fact that agency has invested deeply in decision indicates decision has been carefully researched and has strong political support).

195. *See* Kevin M. Stack & Michael P. Vandenbergh, *The One Percent Problem*, 111 COLUM. L. REV. 1385, 1398–1402 (2011). "[I]f the marginal cost of regulatory compliance by relatively small . . . contributors exceeds the marginal benefits, exempting [them] may be advisable. Not surprisingly, many statutes and regulations include exemptions for small actions or entities . . . ." *Id.* at 1387 (footnotes omitted).

196. *See infra* notes 214–16 and accompanying text. For example, the CWR's exclusion of groundwater pertains to a category that has long divided courts. At least two courts of appeals have held groundwater is categorically excluded by the Act's structure, purpose, and history. *See* United States v. Johnson, 437 F.3d 157, 161 n.4 (1st Cir. 2006); Rice v. Harken Expl. Co., 250 F.3d 264, 268–70 (5th Cir. 2001); Village of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962, 965 (7th Cir. 1994). But some courts have found ways around *categorical* exclusion. *See, e.g.*, Hawai'i Wildlife Fund v. Cty. of Maui, 24 F. Supp. 3d 980 (D. Haw. 2014).

least at first cut, it seems wrong to fault agencies working to balance such factors.[197] But do the CWR's innovations run afoul of the law? Let's take the definitions of adjacency and tributary.

1. *Tributaries*

The Corps' 1977 rules set a presumptive flow-volume threshold for tributaries, although it was quickly muddled in field office discretion.[198] Today, a vast range of lower court precedents hold that non-navigable tributaries fall within Section 502(7).[199] And even the seeming cultural mistake of categorizing engineered ditches as tributaries accords with Supreme Court precedent.[200] Finally, long before the CWR, lower courts rejected—virtually without exception—the argument that ditches should be beyond reach because they are artificial.[201]

197. *See* Mobil Oil Expl. & Producing Se., Inc. v. United Distrib. Cos., 498 U.S. 211, 230–31 (1991). The agencies were arguably under a *duty* to adopt any Article III court's holding that Section 502(7) unambiguously excludes some particular type of landform. *See* United States v. Home Concrete & Supply, LLC, 132 S. Ct. 1836, 1839–41 (2012); Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 980–88 (2005). Whether the distance limits render the rule "arbitrary" is a separate question. *See infra* notes 336–42 and accompanying text.

198. *See* Regulatory Programs of the Corps of Engineers, 42 Fed. Reg. 37,122, 37,129 (July 19, 1977) (noting that tributaries are included up to their "headwaters," which "is the point on the stream above which individual or general permits *ordinarily* will not be required" (emphasis added)). Headwaters were defined as flowing at five cubic feet per second annual average. *See id.* The Corps eventually winnowed the circumstances in which nationwide permits automatically authorized discharges to headwaters. *See* William E. Taylor & Kate L. Geoffroy, *General and Nationwide Permits*, *in* WETLANDS LAW AND POLICY: UNDERSTANDING SECTION 404 151, 159–60 (Kim Diana Connolly et al. eds., 2005). The Corps' failure to define tributary jurisdiction better was not wholly unnoticed by courts. *See* United States v. RGM Corp., 222 F. Supp. 2d 780, 783–85 (E.D. Va. 2002).

199. *See, e.g.*, United States v. Moses, 496 F.3d 984, 988–89 (9th Cir. 2007); Treacy v. Newdunn Assocs., LLP, 344 F.3d 407, 417 (4th Cir. 2003); United States v. Deaton, 332 F.3d 698, 710–12 (4th Cir. 2003); United States v. Phelps Dodge Corp., 391 F. Supp. 1181, 1187 (D. Ariz. 1975).

200. In unanimously reversing the Ninth Circuit's characterization of the Los Angeles River's flow from its concrete-lined to its more "natural" reaches downstream as the origins of a "point source," Justice Ginsburg's opinion in *Los Angeles County Flood Control District* characterized "the flow of water from an improved portion of a navigable waterway into an unimproved portion of the very same waterway" as *flow* of that waterway, pure and simple. *See* L.A. Cty. Flood Control Dist. v. Nat. Res. Def. Council, Inc., 133 S. Ct. 710, 713 (2013).

201. *See, e.g.*, Needham v. Needham, 354 F.3d 340, 346 (5th Cir. 2003); United States v. Deaton, 332 F.3d 698, 707–12 (4th Cir. 2003); Headwaters, Inc. v. Talent Irrigation Dist., 243 F.3d 526, 533 (9th Cir. 2001); United States v. Eidson, 108 F.3d 1336, 1342 (11th Cir. 1997); United States v. Huebner, 752 F.2d 1235, 1239–40 (7th Cir. 1985); United States v. Tull, 769 F.2d 182, 185–86 (4th Cir. 1985), *rev'd in part on other grounds*, 481 U.S. 412 (1987); United States v. DeFelice, 641 F.2d 1169, 1173 (5th Cir. Unit A Apr. 1981); United States v. Buday, 138 F. Supp. 2d 1282 (D. Mont. 2001); United States v. Holland, 373 F. Supp. 665, 673 (M.D. Fla. 1974). *Rapanos* changed nothing here. *See, e.g.*, United States v. Hamilton, 952 F. Supp. 2d 1271 (D. Wyo. 2013); United States v. Vierstra, 803 F. Supp. 2d 1166 (D. Idaho 2011); United States v. Brink, 795 F. Supp. 2d 565 (S.D. Tex.

In the long history of navigable waters, how diminutive or inconsequential a tributary must be before it is nonjurisdictional has *never* been settled by judicial doctrine.[202] Indeed, it is hard to imagine the question ever being settled through common law methods.[203] For, "if we are truly arguing from precedent, then the fact that something was decided before gives it present value despite our current belief that the previous decision was erroneous."[204] And constraints like that put intuition before evidence—exactly the fault in common law methods so many have emphasized.[205] This cannot mean that there are *no* limits. But it is critical to understand what the CWR changes and what it does not.

The CWR says a tributary must "contribute[ ] flow," while the *Science Report* makes plain which transport mechanisms work by means of flow.[206] Any jurisdictional assertion's underlying evidence can therefore be checked against the *Science Report*'s findings as incorporated by the rule.[207] Likewise, the CWR's move to include ditches acting as functional tributaries while excluding certain low-flow ditches from that parent category shifts away from the devices of analogical reasoning and toward evidence-based judgments.[208] This surely puts emphasis on the target area's flow

2011). The rare exceptions, like *RGM Corp.*, were disclaimed or overruled. *See Deaton*, 332 F.3d at 711–12 (rejecting argument that small, artificial ditches draining wetlands cannot be jurisdictional).

202. *See supra* notes 44–55, 74–75 and accompanying text.

203. Even if the courts were inclined to build, through consistent use of coherent "dispositional" rules, a doctrinal limit on tributaries as "waters of the United States," the fact that the Supreme Court can always overrule its own precedents qualifies any such doctrinal settlement. *See* POSNER, *supra* note 92, at 227; Michael C. Dorf, *Dicta and Article III*, 142 U. PA. L. REV. 1997, 2029–40 (1994) (arguing that holding-dictum distinction turns on rationales as well as facts and outcomes but still conceding that only rarely will past precedents be strictly controlling).

204. Schauer, *supra* note 176, at 575.

205. *See, e.g.*, ADRIAN VERMEULE, LAW AND THE LIMITS OF REASON (2009); Rachlinski, *supra* note 183, at 937–51.

206. *See* Clean Water Rule, 80 Fed. Reg. 37,054, 37,105 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401); *id.* at 37,097–98 (explaining tributary as having bed, banks, ordinary high water mark, and contributing flow); *see also* SCIENCE REPORT, *supra* note 134 § 3.6.

207. *See* Judulang v. Holder, 132 S. Ct. 476, 488 (2011) (noting "[a]rbitrary agency action becomes no less so by simple dint of repetition" and that agency that had "repeatedly vacillated" on central factual issue for many years could not sustain its policy against arbitrariness review under APA); Ariz. Grocery Co. v. Atchison, T. & S.F. Ry. Co., 284 U.S. 370, 389–90 (1932) (holding agencies are bound to act consistent with their own "legislative" fact-findings once made).

208. *See* Clean Water Rule, 80 Fed. Reg. at 37,078. The devices of analogical reasoning are not without bounds. *See* Scott Brewer, *Exemplary Reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument by Analogy*, 109 HARV. L. REV. 923, 965 (1996) ("[I]n order for an argument by analogy to be compelling . . . there must be sufficient warrant to believe that the presence in an 'analogized' item of some particular characteristic or characteristics allows one to infer the presence in that item of some particular other characteristic."). But there is "inevitably an uncodifiable imaginative moment" in analogical reasoning, something that leaves a

regime.[209] But what can constitute the minimum flow needed under the CWR is necessarily a function of the proof carrying the burden of production in any case where a surface owner pleads his or her tributary or ditch should be exempt.[210]

2. *Adjacency*

The Corps' 1977 rules introduced the concept of *adjacency* to reach wetlands proximate to jurisdictional waters.[211] The terms used ever since to define adjacency have included "neighboring," a tie several courts found rather elastic after *Riverside Bayview*.[212] The CWR includes all waters[213] adjacent to per se waters, their tributaries, and impoundments if any portion thereof is within 100 feet of such waters' lateral limit *or* within

gradient-defined concept like *tributary* inherently plastic under the law. *See id.* at 954.

209. *See* Clean Water Rule, 80 Fed. Reg. at 37,079 (noting that very low flow features will not have bed, banks, or OHWM); *id.* at 37,105 (finalizing 33 C.F.R. § 328.3(b)(4)(vi) (excluding "erosional features" like "gullies, rills, and other ephemeral features" not meeting definition of tributary)).

210. *See* Hoffman Homes, Inc. v. Adm'r, U.S. Envtl. Prot. Agency, 999 F.2d 256, 261–62 (7th Cir. 1993) (scrutinizing administrative record for "substantial evidence" that target area was habitat to migratory birds); Clean Water Rule, 80 Fed. Reg. at 37,075 (discussing tributaries and stating that "[t]he final rule protects only waters that have a significant effect on the integrity of [TNWs], interstate waters, or the territorial seas").

211. *See* Regulatory Programs of the Corps of Engineers, 42 Fed. Reg. 37,122, 37,144 (July 19, 1977) (finalizing 33 C.F.R. § 323.2(d)) ("The term 'adjacent' means bordering, contiguous, or neighboring. Wetlands separated from other [jurisdictional waters] by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands.'"). The Corps specified no more in its 1977 rulemaking than to say that "adjacent wetlands" were in "reasonable proximity" to covered waters. *See id.* at 37,129.

212. *See, e.g.*, United States v. Bailey, 571 F.3d 791 (8th Cir. 2009) (upholding jurisdiction over large parcel bordering navigable lake with wetlands set far back from shoreline); Baccarat Fremont Developers, LLC v. U.S. Army Corps of Eng'rs, 425 F.3d 1150 (9th Cir. 2005) (holding that adjacency need not involve any hydrological connection); Treacy v. Newdunn Assocs., LLP, 344 F.3d 407 (4th Cir. 2003) (holding that parcel separated from navigable water by constructed highway which then established hydrologic connection via 2.4 miles of creeks flowing to navigable water was "adjacent"); United States v. Banks, 115 F.3d 916 (11th Cir. 1996) (finding wetlands connected primarily through ground water and common biota shared with navigable waters almost half mile away to be adjacent); United States v. Pozsgai, 999 F.2d 719 (3d Cir. 1993) (finding wetland parcel draining to tributary up-gradient of that tributary's jurisdictional boundary to be "adjacent" and therefore jurisdictional); Unites States v. Osborne, No. 1:11CV1029, 2012 WL 1095960 (N.D. Ohio Mar. 30, 2012) (denying defendant's motion for summary judgment because government's allegation that defendant's wetlands were less than 300 feet from navigable-in-fact water was sufficient); United States v. Malibu Beach, Inc., 711 F. Supp. 1301 (D.N.J. 1989) (holding that wetlands on beach parcel bordering inlet subject to ebb and flow of tide "adjacent").

213. A notable exception on adjacency came in a citizen suit against some of Cargill's San Francisco Bay salt ponds. *See* S.F. Baykeeper v. Cargill Salt Div., 481 F.3d 700 (9th Cir. 2007). The target ponds were deemed excluded because the regulatory definition of adjacency then in effect captured only adjacent "wetlands,"

the 100-year floodplain and not more than 1,500 feet from the lateral limit of a jurisdictional water.[214] It aims to add at least a measure of settlement to the scope of "neighboring," a step that convinced some that the agencies' new approach to adjacency was changing the law.[215] Yet the baseline from which to draw these comparisons cannot be fixed.[216] Adjacency findings will now come down to evidence about connectivity and measurable distances, not analogies, but how can we possibly know whether the new perimeters of adjacency expanded or contracted the geographic scope of the CWA?

There is no practical escape from the conclusion that these changes, while significant legally, are not readily compared factually to what they replace. For example, consider the 100-year floodplain boundary. Even setting climate change aside,[217] flood events' return intervals may be much more irregular than the metric suggests.[218] For most of rural

not all adjacent *waters*. *See S.F. Baykeeper*, 481 F.3d at 704–05; *see also* 40 C.F.R. § 122.2(c) (2006).

214. *See* Clean Water Rule, 80 Fed. Reg. at 37,105 (finalizing 33 C.F.R. § 328.3(c)(2)).

215. *See id.* at 37,085; *see also* Snider & Bogardus, *supra* note 156 (reporting that distance limit on scope of "adjacent" was likely at USDA Secretary Tom Vilsack's behest). The Ninth Circuit's resolution of Basalt Pond's jurisdictional status—a pond that bore several connections to a larger wetland complex neighboring a navigable river but was separated therefrom by a levee—shows how flexible "neighboring" could be under the 1986 rules. *See* N. California River Watch v. City of Healdsburg, 496 F.3d 993, 996 (9th Cir. 2007) (finding pond "adjacent"); *see also* United States v. Lucas, 516 F.3d 316, 322 (5th Cir. 2008) (upholding jurisdiction over wetlands serving flood storage functions for "neighboring" tributary navigable by kayak). Had that same case come before a different court, however, there is no telling whether the levee might have driven a different result.

216. The mean, median, or typical "neighboring" connection since 1977 appears nowhere in the rulemaking record or in the professional literature. As the *CWR Economic Analysis* discussed, the rulemaking as a whole was estimated *potentially* to expand jurisdiction from the status quo, although comparing either the status quo or the CWR to what predominated *before Rapanos* as to adjacency findings was deemed impossible. *See CWR Economic Analysis*, *supra* note 15, at 10–11. The agencies ultimately resorted to probabilistic modeling to estimate potential uses of "adjacent," "tributary," and significant nexus connections going forward. *See id.* at 37–45.

217. Modeling future flood intervals or severity confronts significant structural uncertainties. However, changes in flood frequency, severity, or both can be expected if either seasonal precipitation or temperatures change regionally. *See* Iman Mallakpour & Gabriele Villarini, *The Changing Nature of Flooding Across the Central United States*, 5 NATURE CLIMATE CHANGE 250, 250 (2015).

218. *See, e.g.*, JAMES H. EYCHANER, LESSONS FROM A 500-YEAR RECORD OF FLOOD ELEVATIONS (2015), http://www.floods.org/ace-files/documentlibrary/publications/asfpmpubs-techrep7_2015.pdf [https://perma.cc/6WMX-HF4N]. Eychaner found that fewer than "half of the [return] intervals between 50- and 100-year floods were within 50 percent of the nominal average interval," indicating extreme variability from one of the few truly deep records of observational data. *See id.* at 1. Factoring climate change probabilistically would lessen confidence in many if not most 100-year floodplain estimates. *See id.* at 7.

America, there are little or no observational data, leaving only contentious estimative techniques to calculate boundaries.[219] Of course, floodplains are vitally connected to waters however either is defined. But a 100-year floodplain is not real, it is nominal and highly variable. Showing that its use in the rule either expanded or contracted the geographic scope of the Act would be impossible. Troubled as they may be, in short, the limits on adjacency were merely meant to confine what could trail off indefinitely *given* the use of parent categories within the CWR which reflect the CWA's dissonant facets and interpretive past.[220]

It is tempting to blame the uncertainty inherent in CWA Section 502(7)'s geography on dysfunction, ineptitude, or worse. The agencies jointly administer an open-textured statute that has not been updated since 1987 opposite a Congress now deeply skeptical of the goals and tools the Ninety-Second Congress delegated.[221] But the real cause, which is much deeper, is our too-often contrived use of judicial precedents to fashion so many of our norms, paired to a constantly besieged administrative power to implement cryptic programmatic statutes.[222] Stripped of its "traditionalist nostalgia for the days when the lawyer's craft and reasoning were respected as a distinctive, complex, prudence-ennobled intellectual pursuit that was the special province of lawyer-experts-cum-lawyer-statesmen," however, the precedents that have amassed on the nature and quality of "waters" of the United States offer not some storehouse of law's reason.[223] If anything, they record the adroit workings of a Justice Department able to pursue cases it deems favorable to the United States and settle those that it does not.[224] The judicial need to maintain neutral ap-

219. *See id.* at 6–7.

220. Choosing *any* numerical thresholds, thus, would be an "arbitrary" distinction between proximate and attenuated target areas. *See* Parenteau, *supra* note 154, at 384 (calling 4,000-foot-cutoff arbitrary but admitting that proximity cannot be irrelevant). Doing so does not render a rule arbitrary in the relevant sense, though. *See infra* notes 336–38 and accompanying text.

221. Congress influences agency implementation through a long list of formal and informal means. *See* KATZMANN, *supra* note 2, at 23–28. For example, Congress had the agencies withdraw their joint guidance on the "normal farming" exemption. *See supra* note 19. Moreover, it barred EPA from using appropriated funds for campaigning in support of its CWR rulemaking. *See* U.S. Envtl. Prot. Agency, Opinion Letter on Application of Publicity or Propaganda and Anti-Lobbying Provisions of the Financial Services and General Government Appropriations Act (Dec. 14, 2015), http://www.gao.gov/assets/680/674163.pdf [https://perma.cc/MY9W-3SR5].

222. *See, e.g.*, PHILIP HAMBURGER, IS ADMINISTRATIVE LAW UNLAWFUL? 31 (2014).

223. *See* Brewer, *supra* note 208, at 952.

224. *See* Linda R. Cohen & Matthew L. Spitzer, *The Government Litigant Advantage: Implications for the Law*, 28 FLA. ST. U. L. REV. 391, 397–405 (2000). The fact that the Justice Department is an organized, repeat-play advocate for the interests of the United States hardly proves anything inappropriate in its actions. *See* Courtney R. McVean & Justin R. Pidot, *Environmental Settlements and Administrative Law*, 39 HARV. ENVTL. L. REV. 191, 195–200 (2015).

pearances in its lawmaking should be of no moment to agencies that bear no similar burden.[225] The CWR's substitution of judicial constructions, such as a nexus to commerce, with factual constructions, such as the connectivity gradient, shifts what is being judged and by whom. But it was never going to eliminate judgment at the margins.[226]

It is in this light that the CWR's *exclusions*, particularly the distance limits on adjacency and a significant nexus, may prove the more consequential.[227] The only plausible ground for limits of the kind, of course, is the enforcer's discretion.[228] And when two agencies find from decades of experience and some 400,000 adjudications—120,000 of them following *Rapanos*—that certain defaults on their jurisdiction will not compromise their program but *could* afford assurances to their regulated community and partners, what warrant can there be for judicial interference?[229] That some agency staff contested the finding before it was finalized?[230] That should hardly affect a decision's validity.[231]

---

225. *See* Woolhandler, *supra* note 138, at 116–21 (describing unpredictability of judicial lawmaking and fact-finding that stems from courts' refusal to acknowledge their use of legislative facts); *see also* Watts, *Rulemaking as Legislating*, *supra* note 169, at 1050–52 (noting many scholars and judges have grown uncomfortable with unduly searching review of fact-finding in informal rulemaking).

226. *But see* Rapanos v. United States, 547 U.S. 715, 758 (2006) (Roberts, C.J., concurring) (arguing that agencies, in abandoning rulemaking proposal advanced following *SWANCC*, "chose to adhere to [an] essentially boundless view of the scope of [their] power").

227. *See* Eric Biber & J.B. Ruhl, *The Permit Power Revisited: The Theory and Practice of Regulatory Permits in the Administrative State*, 64 DUKE L.J. 133, 155–64 (2014) (noting differences between full exemption and use of "general permits" that help regulators learn about regulated universe and effects that disclosure or regulation may have). Furthermore, the exclusions, like the rulemaking more generally, are conceivably a substantial benefit to regulated parties. *See* Richard K. Berg, *Re-Examining Policy Procedures: The Choice Between Rulemaking and Adjudication*, 38 ADMIN. L. REV. 149, 163 (1986) (observing that rulemakings articulating generally applicable rules lower information costs of compliance).

228. Shaping enforcement discretion by rule is nothing new to administrative law. *See, e.g.*, Warren E. Baker, *Policy by Rule or* Ad Hoc *Approach—Which Should It Be?*, 22 LAW & CONTEMP. PROBS. 658, 660 (1957); David L. Shapiro, *The Choice of Rulemaking or Adjudication in the Development of Administrative Policy*, 78 HARV. L. REV. 921, 924 (1965).

229. *See* Clean Water Rule, 80 Fed. Reg. 37,054, 37,089 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401); FINDING OF NO SIGNIFICANT IMPACT, *supra* note 148, at 23. Generally, agencies can waive applicable requirements in the interest of competing considerations. *See, e.g.*, IAN AYRES & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE 102–06 (1992) (describing waivers granted to enable "self-regulation" that may be less costly and more effective); David J. Barron & Todd D. Rakoff, *In Defense of Big Waiver*, 113 COLUM. L. REV. 265, 272–91 (2013).

230. *See* Parenteau, *supra* note 154, at 385–88 (observing that several Corps personnel opposed limits before finalization and that when limits were inserted into rule it took "everyone outside EPA's inner circle by surprise").

231. Preliminary, deliberative documents are exempt both from production under the Freedom of Information Act and from addition to a filed administrative record. *See* Voyageurs Nat'l Park Ass'n v. Norton, 381 F.3d 759, 766 (8th Cir.

Nothing legally required the two agencies to fashion a common approach to Section 502(7)'s geographic scope.[232] The attempt to standardize their approaches has been costly to them and mostly in deference to others.[233] If connectivity is, as the *Science Report* documented at length, irreducibly a matter of degree, then simple rules were never an option.[234] Especially because partners and stakeholders seek regulatory clarity,[235] unless the CWA's text and purpose were to be ignored, an architecture consisting of a core and periphery would naturally gravitate toward some set of finite termini.[236] Finally, if the CWR's version of the periphery had simply ignored *Rapanos*, the Supreme Court's very supremacy would have drawn that rulemaking into question.[237] It is arguably "irresponsible" for the executive branch, in interpreting and implementing the law, not to at least "attempt to predict and take into account what the courts would do."[238]

In summary, the CWR reflects a merger of scientific, prudential, and inter-branch concerns and judging its pieces entails first understanding the sources behind them. Part III confronts the one judicial concern aligned against all of these conclusions: property rights.

2004); Town of Norfolk v. U.S. Army Corps of Eng'rs, 968 F.2d 1438, 1458 (1st Cir. 1992). Ordinarily, challengers must carry a heavy burden to add such pre-decisional communications to a record. *See* Fla. Power & Light Co. v. Lorion, 470 U.S. 729, 743–44 (1985).

232. With recent commentary about "pooling" powers among executive branch agencies as a path to tyranny, it seems right to recall the frictions and conflicting signals the regulated community long endured from EPA and Corps' differences over the Act. *See, e.g.*, Nat'l Mining Ass'n v. McCarthy, 758 F.3d 243, 248–50 (D.C. Cir. 2014); Daphna Renan, *Pooling Powers*, 115 COLUM. L. REV. 211, 255 (2015). In 1979, the Office of Legal Counsel settled that EPA, not the Corps, had "ultimate administrative authority to construe the jurisdictional term 'navigable waters.'" *See* Administrative Authority to Construe § 404 of the Federal Water Pollution Control Act, 43 Op. Att'y Gen. 197 (1979).

233. *See CWR Economic Analysis*, *supra* note 15, at 13–19; *see also* FINDING OF NO SIGNIFICANT IMPACT, *supra* note 148, at 25–26.

234. *See* SCIENCE REPORT, *supra* note 134, at § 6.1.4 ("Watersheds are integrated at multiple spatial and temporal scales by flows of surface water and ground water, transport and transformation of physical and chemical materials, and movements of organisms.").

235. Dozens of states, localities, and industry groups commented on the 2014 proposal to the effect that the proposal was still too indeterminate and likely to support jurisdiction at the agencies' discretion. *See* U.S. ENVTL. PROT. AGENCY, CLEAN WATER RULE COMMENT COMPENDIUM TOPIC 10: LEGAL ANALYSIS, http://www2.epa.gov/sites/production/files/2015-06/documents/cwr_response_to_comments_10_legal.pdf [https://perma.cc/G2H8-74SR].

236. While Justice Scalia's plurality in *Rapanos* would have limited jurisdiction to what the agencies regard as per se jurisdictional waters, a majority of the Court rejected that view as inconsistent with the Act's purposes. *See* Rapanos v. United States, 547 U.S. 715, 732–38 (2006).

237. *See* LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW § 3.4 (1st ed. 1978) (discussing Cooper v. Aaron, 358 U.S. 1 (1958)).

238. *See* Samuel A. Alito, Jr., *Change in Continuity at the Office of Legal Counsel*, 15 CARDOZO L. REV. 507, 510 (1993).

III. JUDICIAL SOLICITUDE FOR LAND OWNERS: NECESSARY BUT INSUFFICIENT?

The lower court in *Riverside Bayview*,[239] the Supreme Court in *SWANCC*,[240] a Supreme Court plurality in *Rapanos*,[241] and, most recently, Justice Kennedy's concurring opinion in *Hawkes Co.*[242] were motivated to attack CWA jurisdiction at least in part from the burdens it has put on landowners.[243] Judicial solicitude for landowners runs hot in our legal culture and has featured prominently in a regulatory takings jurisprudence that, ironically, demonstrates how little this solicitude will accomplish.[244] Entrusted to judicial doctrine alone, owners' rights in and about waters have remained deeply compromised, qualified, and contingent.[245]

Justice Louis Brandeis, like many contemporary property theorists, understood the right to exclude others from an asset as the essence of property.[246] In Brandeis's view, that right to exclude diminished proportionally to whatever extent property was "affected with a public interest."[247] In the modern Court's telling, by contrast, the right to exclude bears special force with respect to property in land and only begrudgingly acknowledges that *all* property is subordinated to the public good by the most basic implication of the Fifth Amendment's Just Compensation Clause.[248] Yet this telling creates a colossal tension. With so many state judiciaries resorting to their own public trust doctrines to protect the pub-

239. *See* United States v. Riverside Bayview Homes, Inc., 729 F.2d 391, 397–98 (6th Cir. 1984) (citing Kaiser Aetna v. United States, 444 U.S. 164, 172–80 (1979)), *rev'd*, 474 U.S. 121 (1985).

240. *See SWANCC*, 531 U.S. 159, 174 (2001).

241. *See* Rapanos v. United States, 547 U.S. 715, 721 (2006) (Scalia, J.).

242. *See* U.S. Army Corps Eng'rs v. Hawkes Co., 136 S. Ct. 1807, 1817 (2016) (Kennedy, J., concurring).

243. *See, e.g.*, *Rapanos*, 547 U.S. at 721 (Scalia, J.) ("[O]ver $1.7 billion is spent each year by the private and public sectors obtaining wetlands permits." (alteration in original) (quoting David Sunding & David Zilberman, *The Economics of Environmental Regulation by Licensing: An Assessment of Recent Changes to the Wetland Permitting Process*, 42 NAT. RESOURCES J. 59, 81 (2002)) (internal quotation marks omitted)).

244. *See infra* notes 280–88 and accompanying text.

245. *See infra* notes 289–94 and accompanying text.

246. *See* Henry E. Smith, *Property as the Law of Things*, 125 HARV. L. REV. 1691, 1698–1700 (2012). For the canonical elaboration of this claim, see J.E. PENNER, THE IDEA OF PROPERTY IN LAW 68–104 (1997).

247. *See* Int'l News Serv. v. Associated Press, 248 U.S. 215, 250 (1918) (Brandeis, J., dissenting) ("An essential element of individual property is the legal right to exclude others from enjoying it. If the property is private, the right of exclusion may be absolute; if the property is affected with a public interest, the right of exclusion is qualified.").

248. *See* Eduardo Moisés Peñalver, *Is Land Special? The Unjustified Preference for Landownership in Regulatory Takings Law*, 31 ECOLOGY L.Q. 227, 231–33 (2004). The Fifth Amendment's Just Compensation Clause presumes that private property can be taken for public use. *But cf.* Kelo v. City of New London, 545 U.S. 469, 493 (2005) (Kennedy, J., concurring) ("There may be private transfers in which the risk of undetected impermissible favoritism of private parties is so acute that a presumption . . . of invalidity is warranted under the Public Use Clause." (citing E.

lic accessibility and the quality of their states' waters, the right to exclude others from water or at the water's edge today is more contested than ever. This Part shows that the property rights agenda has stalled along this interface in largest part because of property's innate need for exactly what waters preclude: clear boundaries and legal predictability.[249] Section III.A reviews the troubled state of regulatory takings doctrine, while Section III.B suggests why it has done and will continue to do so little for landowners in and about waters.

A. *Property "Affected with a Public Interest" and Takings*[250]

To know whether a taking due just compensation has occurred, a court must first resolve whether any property has been appropriated, annulled, or devalued.[251] Despite four decades of sustained effort, the Supreme Court has been unable to clarify that task.[252] Taking the Court at its word, the default test for judging these claims is a factored analysis of the law's impact on the claimant,[253] featuring an appraisal of the claimant's intended plans for the property.[254] This might give pause by itself. Courts are notoriously anchored to the facts and sympathies of the parties

Enterps. V. Apfel, 524 U.S. 498, 549–50 (1998) (Kennedy, J., concurring in part, dissenting in part))).

249. *See, e.g.*, State v. McIlroy, 595 S.W.2d 659, 665 (Ark. 1980) (expanding definition of "navigable" to include rived "used for a substantial portion of the year for [public] recreational purposes"); Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 732 (Cal. 1983) (holding that prior appropriation of tributary flow to Mono Lake was subject to administrative review where harmful effects were attributable to diversions); Marks v. Whitney, 491 P.2d 374, 380 (Cal. 1971) (stating public trust doctrine is "sufficiently flexible to encompass changing public needs" and protect tidelands with ecological value); City of Daytona Beach v. Tona-Rama, Inc., 294 So. 2d 73, 78 (Fla. 1974) (holding that Florida law allows the public to acquire prescriptive easements over beaches where beach-goers have customarily used them (citing Duval v. Thomas, 114 So. 2d 791 (Fla. 1959))); *In re* Water Use Permit Applications, 9 P.3d 409, 444, 471 (Haw. 2000) (holding that all state's waters are governed by state's "precautionary" version of public trust doctrine); Glass v. Goeckel, 703 N.W.2d 58, 78 (Mich. 2005) (redefining "ordinary high water mark" placement as jurisdictional limit of public trust lands in order to protect public use by pedestrian travel along shore).

250. *See Associated Press*, 248 U.S. at 250 (Brandeis, J., dissenting).

251. *See* Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165, 1183–201 (1967).

252. *See* Jamison E. Colburn, *Splitting the Atom of Property: Rights Experimentalism as Obligation to Future Generations*, 77 GEO. WASH. L. REV. 1411, 1414–39 (2009).

253. *See* Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 123–25 (1978) ("The economic impact of the regulation on the claimant, and . . . the extent to which the regulation has interfered with distinct investment-backed expectations are . . . relevant considerations. So, too, is the character of the governmental action." (citations omitted)).

254. *See* Connolly v. Pension Benefit Guar. Corp., 475 U.S. 211, 227 (1986); Kaiser Aetna v. United States, 444 U.S. 164, 175 (1979); *Penn Cent. Transp. Co.*, 438 U.S. at 135–36; Loveladies Harbor, Inc. v. United States, 28 F.3d 1171, 1179–82 (Fed. Cir. 1994) (finding Corps' denial of § 404 permit interfered with owner's reasonable investment-backed expectations).

facing them even as they strive to elaborate and apply general principles.[255] Indeed, adjudication's institutional face may have significantly biased these appraisals.[256] If the random distribution of bias acts as a safeguard in political and administrative lawmaking, then the credentialism, homogeneity, and hierarchy of our federal judiciary, to say nothing of the sequencing inherent in common law methods, may be the effective opposite.[257] The selection effects alone are daunting: only those cases where both opposing litigants held out result in judicial resolution.[258] For example, judges who fear above all the risk of tyranny will be inclined to reject factual claims that the entirety of a watershed's wetlands and tributaries determine its overall integrity.[259] In short, common law methods tend to have profound limitations in comparison to other, more systematic approaches.[260]

More troubling, though, is that in weighing any owner's plans for their assets, courts must assess a reasonable owner's anticipation of the future, including future legal change.[261] Measuring the reasonableness of an owner's plans for the owner's assets against precedent can privilege past judicial reasoning over good sense and evidence.[262] As a whole, these appraisals have been chillingly uneven.[263] In one recent case, what consti-

255. *See supra* note 183 and accompanying text.

256. *See* Colburn, *supra* note 252, at 1459–63; Lynda J. Oswald, *Cornering the Quark: Investment-Backed Expectations and Economically Viable Uses in Takings Analysis*, 70 WASH. L. REV. 91, 108–30 (1995) (arguing that circular notion of owners' expectations "has worked its way into" precedents simply by having been mentioned frequently enough).

257. *See* NEIL K. KOMESAR, LAW'S LIMITS: THE RULE OF LAW AND THE SUPPLY AND DEMAND OF RIGHTS 35–52 (2001).

258. *See* Tracey E. George et al., *The New Old Legal Realism*, 105 NW. U. L. REV. 689, 690–91 (2011).

259. *See* Rapanos v. United States, 547 U.S. 715, 738 (2006) (Scalia, J.) ("We ordinarily expect a 'clear and manifest' statement from Congress to authorize an unprecedented intrusion into traditional state authority." (citing BFP v. Resolution Tr. Corp., 511 U.S. 531, 544 (1994))).

260. *See* NEIL K. KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY 123–50 (1994); Rachlinski, *supra* note 183, at 946 ("Careful statistical reasoning is also apt to be more difficult in an individual case than in the aggregate . . . . Single cases tend to trigger a subjective format and hide the commonalities a case might have with a broader category. A case-by-case approach makes the facts seem unique . . . ." (footnotes omitted)).

261. *See* Oswald, *supra* note 256, at 109 (noting paradox of using owners' expectations or plans for their assets as decision factors when owners should also be able to anticipate future regulatory controls); *cf.* Michelman, *supra* note 251, at 1229–34 (describing this aspect of takings precedent).

262. *Cf.* KOMESAR, LAW'S LIMITS, *supra* note 257, at 37–38 (arguing that information costs of participation in adjudicative process can systematically bias resulting patterns); VERMEULE, *supra* note 205, at 49 (arguing that, "[f]ar from representing a set of legal judgments that have stood the 'test of time,' a body of precedent generated sequentially may embody reduced epistemic value" more resembling fads and fashions than wisdom).

263. *See* J. Peter Byrne, *The Public Trust Doctrine, Legislation, and Green Property: A Future Convergence?*, 45 U.C. DAVIS L. REV. 915, 920–25 (2012) (reviewing ex-

tuted a physical requisitioning of owned water as opposed to governance of a public resource—at once a question of state and federal law—was held, for a time, to turn on the design and operation of the diverting structure employed.[264] That was the law of the case, at least, until it was resolved that the diverted water was probably *still* public property.[265]

But what *should* the reasonable owner of property in or about waters expect? "Although real property law is often celebrated (or condemned) as a domain in which clear, precise rules are prevalent, in practice, no matter how clear those rules are 'on the books,' their *scope* is not self-evident 'on the ground.'"[266] Here, again, the courts' reliance on analogies to past cases in place of anything more consistent or rule-guided has been a principal cause.[267] The uncertainties have only compounded as the ju-

---

traordinary see-sawing of dissenting and majority opinion drafts at Supreme Court contesting boundaries of California state law drawn between public and private rights in *Nollan v. California Coastal Commission*); J. Peter Byrne, *Ten Arguments for the Abolition of the Regulatory Takings Doctrine*, 22 ECOLOGY L.Q. 89, 116 (1995) (noting widespread redefinition of property rights by states throughout Nineteenth Century to encourage development of water power and mills (citing Joseph L. Sax, *Property Rights and the Economy of Nature: Understanding* Lucas v. South Carolina Coastal Council, 45 STAN. L. REV. 1433, 1488 (1993))); Andrea B. Carroll, *Examining a Comparative Law Myth: Two Hundred Years of Riparian Misconception*, 80 TUL. L. REV. 901, 906–11 (2006) (contrasting two distinct traditions for governing right to exclude from non-navigable lakes); Regina McMahon, Comment, *The* Lucas *Dissenters Saw Katrina Coming: Why Environmental Regulation of Coastal Development Should Not Be Categorized as a "Taking"*, 15 PENN ST. ENVTL. L. REV. 373, 381–95 (2007) (reviewing shifting legal rules governing buffering zones of coastal floodplains and how coastal development put people and investment in jeopardy in southern Louisiana); Kenneth Salzberg, *The Dog that Didn't Bark: Assessing Damages for Valid Regulatory Takings*, 46 NAT. RESOURCES J. 131, 150–51 (2006) (reviewing *Stupak-Thrall v. Glickman*, 988 F. Supp. 1055 (W.D. Mich. 1997), which held that agency's prohibition of riparians' use of motorboats on neighboring lake was taking but refusing to award compensation).

264. *See* Casitas Mun. Water Dist. v. United States (*Casitas I*), 543 F.3d 1276, 1291–96 (Fed. Cir. 2008) (finding that water in canal was property that was being "taken" from plaintiff by operation of fish ladder installed to avoid Endangered Species Act liability); *see also* Josh Patashnik, Note, *Physical Takings, Regulatory Takings, and Water Rights*, 51 SANTA CLARA L. REV. 365, 377–81 (2011). If, as the *Casitas I* dissent maintained, the water in the canal was California's by operation of state law, the diversion could not have been a taking, physical or otherwise. *See Casitas I*, 543 F.3d at 1297 (Mayer, J., dissenting); *cf.* Casitas Mun. Water Dist. v. United States (*Casitas V*), 708 F.3d 1340, 1358 (Fed. Cir. 2013) (holding plaintiff's claim unripe for adjudication because water excluded from canal by fish ladder was not correct measure of any compensable losses to plaintiff).

265. *See Casitas V*, 708 F.3d at 1353–55.

266. Stewart E. Sterk, *Property Rules, Liability Rules, and Uncertainty About Property Rights*, 106 MICH. L. REV. 1285, 1319 (2008).

267. *See* Colburn, *supra* note 252, at 1425–39; John D. Echeverria & Michael C. Blumm, Horne v. Department of Agriculture*: Expanding Per Se Takings While Endorsing State Sovereign Ownership of Wildlife*, 75 MD. L. REV. 657, 667–80, 683–87 (2016); Lee Anne Fennell & Eduardo M. Peñalver, *Exactions Creep*, 2013 SUP. CT. REV. 287, 288–89.

risdictional knots in takings doctrine have tightened.[268] Where takings claims may or must be litigated is deeply uncertain.[269] Just six years ago, only four Justices were willing to conclude that an abrupt shift in judicial doctrines fixing the boundaries between public and private property in and about waters could *ever* be a taking necessitating compensation.[270] The majority of the Court had a hard time viewing adjudication as the stuff of compensable takings.[271] If property only ever has been a "complex aggregate of rights, privileges, powers and immunities, availing against a large and indefinite number of people,"[272] owners ought not to expect any more refuge than society's patterns promise. Protests that newly-formed resource protections have unsettled owners' "*reasonable* investment-backed expectations,"[273] thus, may fall completely flat.[274]

Still, the right to exclude is merely one of many traditional incidents of ownership.[275] And none of this is to say there is no property where entitlements cannot be delineated precisely.[276] But where adjudication of private claims so often comes down to the purity of a government's mo-

268. *See* Colburn, *supra* note 252, at 1435–39; Thomas W. Merrill, *Anticipatory Remedies for Takings*, 128 HARV. L. REV. 1630, 1638–54 (2015); Stewart E. Sterk, *The Demise of Federal Takings Litigation*, 48 WM. & MARY L. REV. 251, 256–76 (2006). Given the Just Compensation Clause's unique structure, there is good reason not to separate discussions of right, remedy, and jurisdiction in takings claims. *See* Colburn, *supra* note 252, at 1414; John D. Echeverria, *Eschewing Anticipatory Remedies for Takings: A Response to Professor Merrill*, 128 HARV. L. REV. F. 202, 210–16 (2015).

269. This uncertainty exists despite sustained attention from the Supreme Court. *See* Merrill, *supra* note 268, at 1639–47.

270. *See* Stop the Beach Renourishment, Inc. v. Fla. Dep't Envtl. Prot., 560 U.S. 702, 717–19 (2010) (Scalia, Thomas, Alito, JJ., & Roberts, C.J.) (noting concurring justices' disagreement).

271. *See Stop the Beach*, 560 U.S. at 736–37 (Kennedy, J., concurring).

272. Walter Wheeler Cook, *Hohfeld's Contributions to the Science of Law*, 28 YALE L.J. 721, 730 (1919).

273. *See* Hodel v. Va. Surface Mining & Reclamation Ass'n, 452 U.S. 264, 295 (1981); Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978); Andrus v. Allard, 444 U.S. 51, 65 n.21 (1979); Kaiser Aetna v. United States, 444 U.S. 164, 175 (1979).

274. *See* Steven J. Eagle, *The Rise and Rise of "Investment-Backed Expectations"*, 32 URB. LAW. 437, 437 (2000); Joseph L. Sax, *Takings and the Police Power*, 74 YALE L.J. 36, 60 (1964).

275. Honoré famously collected about a dozen traditional incidents of ownership. *See* A.M. Honoré, *Ownership*, *in* OXFORD ESSAYS IN JURISPRUDENCE 107, 112–28 (A.G. Guest ed., 1961).

276. *See* Sterk, *supra* note 266, at 1320–27 (reviewing delineation problems in real property).

tive,[277] where physical boundaries are so innately ambulatory,[278] and where jurisdiction even to hear the claim is so contested, that type of claim at least sits in some tension with the underlying expectations.[279] And that must weaken its force in any takings analysis.

A disproportionate sample of the Court's regulatory takings cases has involved lands bordering or bearing waters, a testament both to the Court's opportunities to clarify matters and to the uncertainties that proliferate despite, or perhaps because of, its efforts.[280] It could even be argued that many private claims in and about *concededly*-public waters actually enjoy stronger practical protection than like claims to fully private property.[281] It turns out that the purely political frictions securing "valid existing rights" on the public domain, including navigable waters, are quite substantial.[282] The environmentalist challengers to the CWR would

277. *See, e.g.*, Koontz v. St. Johns River Water Mgmt. Dist., 133 S. Ct. 2586, 2599–600 (2013) (noting takings doctrine's attention to government motives); Dolan v. City of Tigard, 512 U.S. 374, 391 (1994) (holding local government could not withhold permission to develop lot on condition that applicant dedicate right of way adjacent to stream because government's purposes were not germane to underlying restrictions on development); United States v. Gerlach Livestock Co., 339 U.S. 725, 738–42 (1950) (holding Central Valley Project's Friant Dam was reclamation project not made for navigational improvements and that, therefore, just compensation was due to riparian owners who would lose spring flooding over their pastures).

278. *See supra* note 180 and accompanying text.

279. *See* Merrill, *supra* note 268, at 1634–36 (dividing Supreme Court precedent into two opposing lines of authority for availability of pre-deprivation remedies in takings claims).

280. *See, e.g.*, *Koontz*, 133 S. Ct. at 2592–93; Ark. Game & Fish Comm'n, 133 S. Ct. 511 (2012); Stop the Beach Renourishment, Inc. v. Fla. Dep't of Envtl. Prot., 560 U.S. 702, 711 (2010); Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 307 (2002); Palazzolo v. Rhode Island, 533 U.S. 606, 612–15 (2001); City of Monterey v. Del Monte Dunes at Monterey, Ltd., 526 U.S. 687, 694–95 (1999); Suitum v. Tahoe Reg'l Planning Agency, 520 U.S. 725, 728 (1997); *Dolan*, 512 U.S. at 379–83; Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1106–08 (1992); Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 827–28 (1987); First English Evangelical Lutheran Church v. Cty. of Los Angeles, 482 U.S. 304, 307–08 (1987); *Hodel*, 452 U.S. at 273–74; San Diego Gas & Elec. Co. v. City of San Diego, 450 U.S. 621, 624–25 (1981); *Kaiser Aetna*, 444 U.S. at 166–69; Murr v. State, No. 2013AP2828, 2014 WL 7271581, at *1–2 (Wis. Ct. App. Dec. 23, 2014), *cert. granted*, 136 S. Ct. 890 (2016).

281. *See* Bruce R. Huber, *The Durability of Private Claims to Public Property*, 102 GEO. L.J. 991, 1035 (2014) (recounting saga of expiring aquaculture permit within Point Reyes National Seashore that attracted Congressional appropriations rider, Senator's constant attention, grant extending nonconforming use, and years of litigation, notwithstanding clear expiration agreement that terminated claimant's rights unequivocally years before); *see also* Bd. of Cty. Comm'rs v. Park Cty. Sportsmen's Ranch, LLP, 45 P.3d 693, 715 (Colo. 2002) (holding water appropriator's injection of stored water under neighbor's property did not effectuate trespass because neighbor did not possess underground water or aquifer space into which water was injected).

282. *See* Huber, *supra* note 281, at 1003–04 (tracing intermediate construct of "valid existing rights" across range of public domain areas).

surely agree.[283] Even groundwater, specifically excluded from the CWR and seemingly as enmeshed in the bundle of rights to a parcel of land as anything, has defied delineation as a legal entitlement.[284] Hard-pressed to identify anything in the law of groundwater use as a bona fide property right,[285] courts have drilled through layers of legal sedimentation in a push to improve the law of property and groundwater, to little avail.[286] The odd court's invention of some slack for ground water users may block state efforts to curb over-use.[287] But it will do little to clarify or secure investment-backed expectations as such.[288]

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

284. *See, e.g.*, Baker v. Ore-Ida Foods, Inc., 513 P.2d 627, 630–35 (Idaho 1973) (reviewing various common law antecedents to Idaho statute governing ground water rights). The Texas Supreme Court's recent conclusion that regulations controlling groundwater withdrawals could constitute a taking of property—largely on the basis of an analogy to oil and gas—did not so much protect property in ground water to surface owners as it did crowd out the administrative efforts to govern. *See* Zachary Bray, *Texas Groundwater and Tragically Stable "Crossovers"*, 2014 B.Y.U. L. REV. 1283, 1326–36 (discussing *Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814 (Tex. 2012)) (arguing Texas law has too long resisted inevitable shift toward managing for scarcity because of entrenched, faulty analogy of groundwater to oil and gas). For further discussion of groundwater specifically excluded from the CWR, see *supra* note 183 and accompanying text.

285. Texas's rule-of-capture had for a century been known as "the rule of the biggest pump." *See* ROBERT GLENNON, WATER FOLLIES: GROUNDWATER PUMPING AND THE FATE OF AMERICA'S FRESH WATERS 92 (2002). But the Texas Supreme Court in *Day* strained to conclude that, because surface owners were once *said in dictum* to be protected against the waste of neighbors pumping from the same aquifer, their interest in groundwater use was a property interest protected from a regulatory taking. *See Day*, 369 S.W.3d at 829–32; *see also* Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313, 315 (Fed. Cl. 2001) (holding ground water-pumping restrictions could be compensable taking).

286. *See, e.g.*, Spear T Ranch, Inc. v. Knaub, 691 N.W.2d 116, 125–35 (Neb. 2005) (acknowledging surface and ground waters are often hydrologically connected but refusing to treat groundwater as governed by prior appropriation in light of drastic consequences for well owners and finding Nebraska statutes had abrogated all other common law claims); Sipriano v. Great Spring Waters of Am., Inc., 1 S.W.3d 75, 80 (Tex. 1999) (holding groundwater regulation was legislature's duty and refusing to change common law rule of capture).

287. *See Day*, 369 S.W.3d at 823–44.

288. The courts' episodic and unsystematic interventions, in other words, cannot, unless and until they amount to some coherent, predictable set of dispositional rules, create reasonable, "investment-backed" expectations as such. *Cf.* CASS R. SUNSTEIN, LEGAL REASONING AND POLITICAL CONFLICT 118–20 (1996) (contrasting free markets and "rule of law" but finding latter instrumental to former as compared to fully-particularized decision making). Finally, the higher an owner's search costs, the less likely owners are to regard some entitlement as their own. *See* Sterk, *supra* note 266, at 1305–08 (showing that rules protecting owners only to extent of demonstrable damages in cases of encroachment do not necessarily control search costs that society incurs below same costs of rules that block encroachments categorically).

The more scarce or threatened a resource becomes, the more pressure its governing entitlements will bear.[289] With all water resources coming under increased pressure and scrutiny, our legal culture is gradually adapting to a model of permissions and governance for risk.[290] What traditionally had been private disputes will continue transitioning so many complaints about public governance.[291] Yet configuring property rights by adjudication accentuates precisely the features that advocates use to analogize to or distinguish their case from past precedent. And that process can resist normalization over time.[292] Even putting aside the variability of states' trust doctrines or of Section 502(7), property in and about any kind of water, navigable or not, has grown increasingly unstable in multiple dimensions.[293] Virtually any judicial doctrine protecting owners against encroachment has remained exceedingly difficult to apply in the presence of waters.[294]

B. *The Public Costs of Uncertainty at the Water's Edge*

In this case, degrees of uncertainty matter to both the public and private owners. "[P]roperty's core move—identifying an 'owner' as the residual claimant—avoids the high costs of transacting over every contingency."[295] Property's core utility to the larger society consists to no small

289. *See* DANIEL H. COLE, POLLUTION AND PROPERTY: COMPARING OWNERSHIP INSTITUTIONS FOR ENVIRONMENTAL PROTECTION 173–77 (2002).

290. *See* ERIC T. FREYFOGLE, ON PRIVATE PROPERTY: FINDING COMMON GROUND ON THE OWNERSHIP OF LAND 141–56 (2007); ERIC T. FREYFOGLE, THE LAND WE SHARE: PRIVATE PROPERTY AND THE COMMON GOOD 229–53 (2003).

291. *See* Colburn, *supra* note 252, at 1452–59.

292. *See supra* notes 84–87 and accompanying text. For further discussion on how doctrinal factors accumulate over time, see SUNSTEIN, *supra* note 288, at 140–47.

293. *See, e.g.*, Robert H. Abrams, *Water Law Transitions*, 66 S.C. L. REV. 597 (2015) (reviewing "transitions" in surface water allocation law); Carroll, *supra* note 263, at 911–38 (describing Roman law maxim's increasing and distorting influence on property rights of riparians who border non-navigable lakes); William J. Shapiro, *Fifth Amendment Taking Claims Arising from Restriction on the Use and Diversion of Surface Water*, 39 VT. L. REV. 753 (2015) (reviewing several phases of takings doctrine development over past several decades and how it has failed to solidify owner expectations).

294. *See, e.g.*, Alaska Pub. Easement Def. Fund v. Andrus, 435 F. Supp. 664 (D. Alaska 1977) (declaring public's right to make recreational use of non-navigable waters); Conatser v. Johnson, 194 P.3d 897 (Utah 2008) (concluding same); Day v. Armstrong, 362 P.2d 137 (Wyo. 1961) (concluding same); *see also* Beacham v. Lake Zurich Prop. Owners Ass'n, 526 N.E.2d 154 (Ill. 1988) (adopting shared model of ownership of non-navigable private lake to maximize collective enjoyment of asset instead of individuated rights to exclude); Babel v. Schmidt, 765 N.W.2d 227 (Neb. 2009) (distinguishing accretion and avulsion for purposes of boundary disputes); Butler v. Bruno, 341 A.2d 735 (R.I. 1975) (holding owner's diversion of surface water from property to that of neighbor's was tortious only if doing so was not necessary to his making "reasonable use" of property).

295. Lee Anne Fennell, *The Problem of Resource Access*, 126 HARV. L. REV. 1472, 1489 (2013) (citing Sanford J. Grossman & Oliver D. Hart, *The Costs and Benefits of*

degree in its scalability, that is the "compatibilit[ies] of components" when combined into larger wholes that transfer their features into that whole.[296] Property in and about waters is poorly scalable in this sense, though, given how crucial case-by-case adjudication has been to its delineation[297] and the way in which even small changes in scale can mean dramatically different consequences.[298] In short, waters make identifying a residual claimant inherently problematic, as problematic as identifying waters' market-valued aspects.[299]

Property may be at its most useful when it facilitates exchange, capitalization, and economies of scale.[300] As any asset's attributes become costlier to measure, though, the market value of being that asset's residual claimant diminishes.[301] Thus, if waters are held in trust for the people—

Ownership: A Theory of Vertical and Lateral Integration, 94 J. POL. ECON. 691, 692, 695 (1986)).

296. *See* Smith, *supra* note 246, at 1712–13; *see also* Thomas W. Merrill, *Property as Modularity*, 125 HARV. L. REV. F. 151, 156 (2012).

297. Just as "navigability" has evolved and shifted the legal geography, so too can the concepts of "ordinary" high water marks, "beneficial use," and "easements" held by the state in trust for the people. *See, e.g.*, State Dep't of Ecology v. Grimes, 852 P.2d 1044 (Wash. 1993) (discussing beneficial use); Rock-Koshkonong Lake Dist. v. State Dep't of Natural Res., 833 N.W.2d 800, 811 (Wis. 2013) (dealing with ordinary high water marks); *Armstrong*, 362 P.2d at 143–51 (discussing public easements). In short, with each such issue's continuing resolution remaining a function of the common law, the clarity of entitlement delineations that result is systematically limited. *See* Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE L.J. 1, 60–68 (2000) (collecting arguments that legislative control of entitlement definition yields greater clarity, stability, and comprehensiveness than if left to individual common law adjudications); *see also* Thomas W. Merrill, *Trespass, Nuisance, and the Costs of Determining Property Rights*, 14 J. LEGAL STUD. 13, 42–45 (1985) (finding nuisance, tort-like legal structure in "highly uncertain and complex set of rules" determining whether servitude runs with property and likening it to Court's takings jurisprudence).

298. *See* COLE, *supra* note 289, at 149–51; ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 104–10 (1990). For further discussion on scalability, see Smith, *supra* note 246, at 1713 ("Scalability is the systemic consequence of a certain kind of compatibility of components, in which features of the whole are inherited from its parts.").

299. *See* YORAM BARZEL, ECONOMIC ANALYSIS OF PROPERTY RIGHTS 78–84 (2d ed. 1997). Residual claimancy can be the most powerful determinant of an owner's profits, but it can also entail liabilities as, for example, in the case of some catastrophic loss dropping the asset below the value of all extant claims thereon. *See id.* Where assets' features are unknowable, the typical maximizing behaviors that make ownership efficient are under that much more restraint. *See id.* at 16–32.

300. *See* Smith, *supra* note 246, at 1714–15; Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 354–55 (1967) (arguing property rights concentrate costs and benefits of decisions about asset in single owner).

301. *See* BARZEL, *supra* note 299, at 5; U.S. Envtl. Prot. Agency & U.S. Army Corps of Eng'rs, *Economic. Analysis of Proposed Revised Definition of Waters of the United States,* NAT'L ASSOC. OF COUNTIES 10 (Mar. 2014), http://www.naco.org/sites/default/files/wus_proposed_rule_economic_analysis.pdf [https://perma.cc/SS79-V38Y] ("[U]ncertainty can lead businesses to sit on capital rather than take un-

whatever form they take[302]—until some aspect or quantity thereof is permanently alienated from the public domain, the difficulty of doing so discourages investment and capitalization.[303] Put differently, the "relevant parcel" baseline in any takings analysis will remain permanently equivocal.[304] But with no definite rules setting the relevant baselines or fixing the values being exchanged—whether in government permissions or in markets—adjudicators hearing takings complaints are left to guess at how new standards depart from old ones. Part IV suggests what the CWR, should it somehow survive intact, could do to improve this status quo.

IV. WHAT FUTURE FOR WATERS IN THE UNITED STATES?

As EPA's *Science Report* documented in detail, connectivity turns on scores of factors, remains hard to quantify, and is constantly in flux in the environment.[305] Invalidating the CWR will not change any of that and, indeed, will just introduce more uncertainty into landowners' interests. This last part considers two deeper objections to the CWR and peers into an uncertain future assuming those objections are denied and the rule survives. Section A refutes the argument that the CWR's innovations are contrary to the rule of law, while Section B shows that arbitrariness is often the key to resolving major impasses in the law.

A. *Rule of Law Values? Creating Clarity in a Multi-Polar World*

Part II.B allowed that incorporating Justice Kennedy's aggregative notions within the CWR raises unique rule-of-law concerns and also allowed that the distance limits on jurisdiction may raise related issues.[306] In its orthodox forms, the rule of law at least demands clear, legitimate, pub-

known risks. The current lack of clarity in where the CWA applies can delay building roads and houses, developing natural resources, and engaging in other activities where CWA [ ] permits are needed.").

302. *Compare* Casitas V, 708 F.3d 1340, 1353–54 (Fed. Cir. 2013) ("Under well-established California law, 'the right of property in water is usufructuary . . . .' [And] a party having a right to use a given amount of California surface water does not have a possessory property interest in the corpus or molecules of the water itself." (citations omitted)), *with* Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 821–22 (Tex. 2012) (affirming administrative permitting determination that fifty-acre lake on property was "state surface water" and that lake's contents and any spring tributary flow feeding it was properly excluded from baseline calculation of historic "beneficial use" by property owner).

303. If, as economists argue, property's chief utility to individuals is its assignment of any and all fruits and profits to its residual claimants, the identity of the residual claimant to waters is often unknown. *See* BARZEL, *supra* note 299, at 3–4.

304. *See* Dwight H. Merriam, *Rules for the Relevant Parcel*, 25 U. HAW. L. REV. 353, 353 (2003) (calling "relevant parcel" [ ] an essential building block in most takings analyses"); Michelman, *supra* note 251, at 1192–93 (describing takings inquiry as "denominator" problem).

305. *See* SCIENCE REPORT, *supra* note 134, at ES-7–ES-14.

306. *See supra* notes 218–20 and accompanying text. For further discussion on the rule-of-law concerns pose by the CWR, see *supra* notes 92–93 and accompanying text.

licly-accessible rules laid down in advance and applied neutrally, without regard for the identities of the judge or judged.[307] As an agency, taking a predictive approach to the Supreme Court's precedents on "waters of the United States," especially as to *Rapanos* and after the 2016 election where the Court's vacancy became deeply enmeshed in national politics, runs afoul of this ideal to some extent.[308] But that cannot end the inquiry, for the ideal is realized to greater or lesser extent across a broad and interconnected range of considerations, not one of which is superintended finally by a single institution.[309] As already noted, the rulemaking surfaced deep divisions within the executive branch and reflected a compromise among contending factions.[310] But was there some better alternative the agencies should have taken out of rule-of-law concerns?

Coherence and consistency across their respective jurisdictions were key motivations behind the CWR.[311] Lying within the structural decision to utilize the significant nexus is CWA Section 101(a), which contains the statute's overarching objective.[312] *Any* judge concerned with statutory

307. *See* SUNSTEIN, *supra* note 288, at 104–05 (equating six elements of "blind justice" with rule of law); Richard H. Fallon, Jr., *"The Rule of Law" as a Concept in Constitutional Discourse*, 97 COLUM. L. REV. 1, 8–9 (1997) (identifying five constitutive elements); *see also* LON FULLER, THE MORALITY OF LAW 39 (rev'd ed. 1969).

308. *See* Fallon, *supra* note 307, at 38 (concluding that rule of law may be "less than completely realized" when it fails to satisfy elements of "public[ ] accessib[ility]," intelligibility of governing rules, and impersonal application of foregoing to governed). An agency's policy choices are general in scope, unlike a court deciding a discrete case or controversy by predictive methods. *See* SUNSTEIN, *supra* note 288, at 106 (concluding instability and inconsistency are "part of the fabric of the modern regulatory state" and that rule of law is diminished for it). For further discussion on the predictive approach to "waters of the United States," see *supra* notes 91–93 and accompanying text.

309. *Compare* SUNSTEIN, *supra* note 288, at 105 ("If there is little or no resemblance between enacted law and real law, the rule of law cannot exist. If the real law is different from the enacted law, generality, clarity, predictability, fair notice, and public accessibility are all sacrificed."), *with* Fallon, *supra* note 307, at 38 ("Because the Rule-of-Law ideal never can be completely attained, we must make judgments, not only about what would be best, but about what should count as 'good enough' for some practical purposes.").

310. *See supra* note 18 and accompanying text.

311. Here, it is vital to separate form from substance in the CWR. *See* Fallon, *supra* note 307, at 54 ("By linking the Rule of Law too closely to core positions in broader disputes about substantive justice, a strongly substantive conception would tend to deprive the ideal of the Rule of Law of independent analytical bite in assessing those desiderata of a legal system . . . that Rule-of-Law virtues have traditionally measured."); *see also* FULLER, *supra* note 307, at 157 ("The internal morality of the law demands that there be rules, that they be made known, and that they be observed in practice by those charged with their administration . . . . [J]ust as law is a precondition for good law, so acting by known rule is a precondition for any meaningful appraisal of the justice of law.").

312. *See* 33 U.S.C. § 1251(a) (2012). Justice Kennedy's approach may be critiqued for its vague allusions to aggregation, even assuming he interpreted the statute's purposes correctly. *See, e.g.*, Mank, *Implementing* Rapanos, *supra* note 62, at 328–29.

purpose statements should put strong emphasis on Section 101(a).[313] Indeed, the "clear statement" for reaching attenuated waters demanded in *SWANCC*, given the *Science Report*'s findings, *is* Section 101(a)'s orientation of the Act's dissonant texts and agents.[314] The rule of law is not at all served by ignoring a statute's declared objective or the gradient it governs.[315]

To be sure, the CWA's objective, compared to the median Trump voter or legislator of the One Hundred-Fifteenth Congress, is the outlier. And, "especially as the temporal gap between law-making and law-application widens, the normative consensus that once endorsed the originally understood meaning of a . . . provision may weaken or even dissipate completely, and the factual or normative predicates may be altered."[316] In short, stringent enforcement of a dated law can be anti-democratic. But while Section 101(a) defined a social aspiration, it did not set rights or duties, and it is an aspiration that, although variably interpreted over the years, has never been altered.[317] It would exceed the bounds of judging to deny a legislating Congress the benefit of a bargain no subsequent Congress has been able to amend.[318] The agencies' balancing of Section 101(a) against the regulated community's demands for repose and the brute fact of the Supreme Court's finality is less an affront to the rule of law than one branch's deference to the power of others.[319]

Of course, if there are adequate and independent grounds for the CWR's significant nexus dimensions regardless of Kennedy's *Rapanos*

313. *See* KATZMANN, *supra* note 2, at 31–35 (arguing that "purposivism" has been "dominant approach" to interpreting statutes over last century).

314. *See supra* notes 69–70 and accompanying text.

315. *See* William N. Eskridge, Jr. & John Ferejohn, *Politics, Interpretation, and the Rule of Law*, *in* THE RULE OF LAW: NOMOS XXXVI 265, 267 (Ian Shapiro ed., 1994) (arguing stable "interpretive regime" is necessary to legislatures and individual legislators to know what they are voting for).

316. Fallon, *supra* note 307, at 45.

317. *See* FULLER, *supra* note 307, at 183 ("The morality of aspiration speaks, not imperatively, but in terms of praise, good counsel, and encouragement."). Changed interpretations hardly undermine Section 101(a) as law. *See* Antonin Scalia, *Judicial Deference to Administrative Interpretations of Law*, 1989 DUKE L.J. 511, 516–21 (arguing that best reason for courts to defer to agency interpretations is Congress's will that where statute delegates its implementation to that agency, possibilities for continuous upset are created as successive administrations interpret ambiguities differently).

318. *See* Nicholas Quinn Rosenkranz, *Federal Rules of Statutory Interpretation*, 115 HARV. L. REV. 2085, 2126–40 (2002) (defending Congress's constitutional prerogative over executive and judiciary to legislate its purposes and other expectations of how its statutes shall be interpreted); *see also* Sullivan v. Finkelstein, 496 U.S. 617, 631 (1990) (Scalia, J., concurring) (stating that "what committees of the 99th and 95th Congresses thought the 76th Congress intended" is irrelevant). Section 101(a)'s seven more specific declarations have variously factored into scores of published opinions.

319. *See* Fallon, *supra* note 307, at 18–21 (noting that "legal process" ideal type of rule of law identifies different institutional roles in pursuit of legal justice and that intermediating those roles is inevitably much of what constitutes rule of law).

opinion, any rule-of-law concerns should weaken. The Court's constructions of the Commerce Clause from *Lopez* to the present provide them. *Lopez* explicitly preserved the Court's doctrine allowing Congress to reach those "activities" that, in the aggregate, "substantially affect interstate commerce."[320] This line of precedent was categorically reaffirmed by *Gonzales v. Raich*[321] in 2005.[322] Still, as the Affordable Care Act challenge demonstrated, what comprises the "activity" in this prong is an open question.[323] If we take the Ninety-Second Congress's objective seriously, reaching activities jeopardizing the "integrity" of the Nation's waters as far laterally and upstream as the notion of a water permits,[324] assuming the activities are economic, is a prototypical synthesis of legislative, judicial, and executive authorities.[325] Finally, although it might be tempting to dismiss the *Rapanos* opinions completely, the Court's often jealous defense of the prerogative that comes from being final counsels against that.[326] Indeed, Justice

320. *See* U.S. v. Lopez, 514 U.S. 549, 558–60 (1995); *see also* United States v. Morrison, 529 U.S. 598, 609–11 (2000) (reviewing three prongs of Commerce Clause doctrine affirmed in *Lopez* and finding that "economic nature" of regulated activity was central to falling within Congress's commerce power).

321. 545 U.S. 1 (2005).

322. In a 6-3 opinion by Justice Stevens, the Court held that "[o]ur case law firmly establishes Congress'[s] power to regulate purely local activities that are part of an economic 'class of activities' that have a substantial effect on interstate commerce." *See id.* at 17 (quoting Perez v. United States, 402 U.S. 146, 151 (1971); Wickard v. Filburn, 317 U.S. 111, 128–29 (1942)); *see also* San Luis & Delta-Mendota Water Auth. v. Salazar, 638 F.3d 1163, 1174 (9th Cir. 2011) (rejecting Commerce Clause challenge to Endangered Species Act (citing *Raich*, 545 U.S. at 17)); Ala.-Tombigbee Rivers Coal. v. Kempthorne, 477 F.3d 1250 (11th Cir. 2007) (holding same).

323. *Compare* Nat'l Fed'n of Indep. Bus. v. Sebelius, 132 S. Ct. 2566, 2587–91 (2012) (Roberts, C.J.) (holding Affordable Care Act mandate that individuals purchase health insurance "does not regulate existing commercial activity"), *with id.* at 2617–23 (Ginsburg, J., concurring in part, dissenting in part) (arguing Congress aptly found that "uninsured, as a class, substantially affect interstate commerce" and that majority's conduct compulsion-prohibition distinction fails).

324. *See supra* note 180 and accompanying text.

325. *See* Gibbs v. Babbitt, 214 F.3d 483, 490–93 (4th Cir. 2000) (denying Commerce Clause challenge to Endangered Species Act based on economic impact of preserving wildlife). Nothing the Court has said is to the contrary. In *Sebelius*, the Court held that a law compelling the purchase of a product by an unwilling purchaser was not within Congress's Commerce power. *See* Sebelius, 132 S. Ct. at 2586. This "novel constraint on Congress'[s] commerce power" has no bearing on a rule pertaining only to the jurisdictional scope of a law obviously designed to control market forces which, if left unchecked, degrade the nation's natural resources. *See id.* at 2618 (Ginsburg, J., concurring in part, dissenting in part); *see also Raich*, 545 U.S. at 17 ("When Congress decides that the 'total incidence' of a practice poses a threat to a national market, it may regulate the entire class." (citing *Perez*, 402 U.S. at 154–55)). For an in-depth discussion of executive administrative processes, see Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2272–303 (2001).

326. *See Sebelius*, 132 S. Ct. at 2629 (Ginsburg, J., concurring in part, dissenting in part) (noting Chief Justice's "puzzling" attempt, striving "mightily" to "hem in Congress' capacity" under Commerce Clause, while affirming its power to accomplish very same ends by taxation); District of Columbia v. Heller, 554 U.S. 570,

Kennedy himself made this plain *as to navigability* in *PPL Montana*.[327] Section B suggests the path ahead for the Nation's waters should the CWR survive.

B. *Arbitrary Thresholds: Not So Arbitrary*

One brute fact of governing gradients is the unavoidability of *some* arbitrariness if any sense is to be made of prescriptive jurisdiction.[328] Two institutional preliminaries are important here, though. First, agencies' various deficits often force them to forego optimization in favor of finding "good enough."[329] Second, arbitrariness reviews in the Supreme Court have overwhelmingly favored the agency, although some lower courts seem not to have noticed.[330] Putting the substantive challenges to the rule's exclusions in this light defuses them.

Information costs are a pervasive element of risk governance. A judicial holding that an agency must give precise reasons for *every* corner turned in risk policy choices may be no more than calculated obstructionism.[331] Nothing about their "satisficing" strategies, strategies that are sufficient but not optimal,[332] tells agencies what aspirations to set. Still, these institutional constraints are not (or, at least, should not be) unfamiliar to

679 (2008) (Stevens, J., dissenting) (concluding that right to bear arms announced by majority "was not 'enshrined' in the Second Amendment by the Framers" but rather "is the product of today's law-changing decision"); Bush v. Gore, 531 U.S. 98, 128–29 (2000) (Stevens, J., dissenting) ("Although we may never know with complete certainty the identity of the winner of this year's Presidential election, the identity of the loser is perfectly clear. It is the Nation's confidence in the judge as an impartial guardian of the rule of law.").

327. *See supra* notes 54–61 and accompanying text.

328. *See* Emens, *supra* note 7, at 52–54 (arguing that Justice Kennedy's opinion in *Roper v. Simmons*, holding that executing person who committed crime before age of eighteen violates Eighth Amendment, was grounded on insight that, while age-based classifications are "rational proxy for certain characteristics," in some instances "particular judgments based on age" can be irrational).

329. *See* Stephen Breyer, *Judicial Review of Questions of Law and Policy*, 38 ADMIN. L. REV. 363, 393 (1986); Vermeule, *supra* note 193, at S482–85; *see also* Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355, 1388–93 (2016). Empirically speaking, the Court's arbitrariness reviews of agency action have been strikingly deferential, as have those of the lower courts. *See id.* at 1362; *see also* Thomas J. Miles & Cass R. Sunstein, *The Real World of Arbitrariness Review*, 75 U. CHI. L. REV. 761, 778–79 (2008).

330. *See* Gersen & Vermeule, *supra* note 329, at 1362–70; *see also id.* at 1364–67 (finding that lower court arbitrariness reviews have been more searching and less deferential to agency than Supreme Court).

331. *See* SIDNEY A. SHAPIRO & ROBERT L. GLICKSMAN, RISK REGULATION AT RISK: RESTORING A PRAGMATIC APPROACH (2003).

332. *See* Michael Slote & Philip Pettit, *Satisficing Consequentialism*, 58 PROC. ARISTOTELIAN SOC'Y 139, 166 (1984) (noting that strategy of "satisficing," looking for options that are "good enough" but not necessarily optimal, turns on antecedent decision of how aspirational to be). Still, for agents pursuing a plurality of goals, it is often the "mundane external factors" that set the constraints. *See* DAVID SCHMIDTZ, RATIONAL CHOICE AND MORAL AGENCY 32–33 (1995).

reviewing courts.[333] And although serial litigation of agencies' satisficing choices has been optimistically cast as "dialogue,"[334] the capacities allocated in that model will typically be the courts' choosing. And that often blocks the resolution of the more significant uncertainties.[335] In short, this dialogue comes at a cost that must be weighed soberly.

What reasons can there be for hard lateral limits on CWA jurisdiction at 4,000, 1,500, or 150 feet?[336] For all the agencies explained, there might be little at all,[337] and our legal culture at least tilts heavily against that.[338] Sharp corners are hardly more inimical to the rule of law than an overweening judiciary, though.[339] Indeed, the risk is real that some variables will be forced out of consideration because they cannot be quantified or otherwise specified.[340] Thus, coordinating the agencies with termini on CWA authority while consolidating jurisdiction around the mechanisms of connectivity may be the one path that is both reflective of an administration's legitimate priorities[341] and supportive of investment-backed expec-

333. *See* Hoctor v. U.S. Dep't of Agric., 82 F.3d 165, 170 (7th Cir. 1996) (noting agency's selection of "arbitrary (not in the 'arbitrary or capricious' sense) rules that are consistent with the statute . . . but . . . represent an arbitrary choice among methods of implementation").

334. *See* Emily Hammond Meazell, *Deference and Dialogue in Administrative Law*, 111 COLUM. L. REV. 1722 (2011).

335. *See* Jamison E. Colburn, *Reasons as Experiments: Judgment and Justification in the "Hard Look"*, 9 CONTEMP. PRAGMATISM 205, 221–23 (2012).

336. *See supra* notes 147–58 and accompanying text.

337. The agencies' invocation of many past jurisdictional determinations arguably invoked their "tacit expertise" in balancing the virtues of inclusion against those of deferring jurisdiction. *See supra* notes 156–60 and accompanying text; *see also* Gersen & Vermeule, *supra* note 329, at 1396–98. But the exact numbers chosen may have been without specific justification.

338. *See* Vermeule, *supra* note 193, at S504 ("The culture of law . . . conspire[s] to produce judicial hyperrationalism.").

339. *See, e.g.*, R. SHEP MELNICK, REGULATION AND THE COURTS: THE CASE OF THE CLEAN AIR ACT (1983) (showing how serial litigation of CAA standards brought by special-interest stakeholders delayed and distorted implementation of CAA). Even elevating rule of law values over other values comes with its own costs. *See* POSNER, *supra* note 92, at 272 ("The common enterprise that judges are pledged to advance . . . is not a set of specific substantive values but the peaceable and orderly governance of the United States—a value too, of course, but one both widely shared and compatible with disagreement over specific policies.").

340. *See* Breyer, *supra* note 329, at 389 ("[Agencies'] 'compromise' decisions are, in a sense, 'political.' They may not be able to be supported through pure logic, but are they unreasonable?"); Ctr. for Sustainable Econ. v. Jewell, 779 F.3d 588, 610–12 (D.C. Cir. 2015) (rejecting arbitrariness challenge and allowing agency to evaluate option value of decision in qualitative terms because quantification was practically impossible for agency when it made determination).

341. *See* Kagan, *supra* note 325, at 2319–46 (arguing statutory silences in delegations to executive agencies should be read to empower President to lead according priorities); *see also* Nat'l Mining Ass'n v. McCarthy, 758 F.3d 243, 249 (D.C. Cir. 2014) (refusing to find "implicit" ban on enhanced coordination between EPA and Corps in Section 404 permitting out of deference to executive and Article II powers to take care that whole Act be faithfully executed).

tations in and about waters.[342] As more surface waters have been designated as impaired—not achieving their CWA water quality standards—regulators have shifted focus to the impairments stemming from water withdrawals and their associated infrastructure.[343] EPA' authority under CWA Section 404(c), allowing the agency to reject Section 404 permits if it finds an "unacceptable adverse effect on [ ] water supplies," fish or wildlife, "or recreational areas,"[344] is probably sufficient to reject any project harmful to impaired waters by means of any connectivity thereto.[345] These permits, after all, become shields to different liabilities.[346] Regardless, states have come under mounting pressures to remediate all sources of impairment, further intertwining water quality and quantity throughout the CWA's direct and indirect reach.[347] Appropriative use rights and other developments will grow more stable, not less, with jurisdictional rules that turn to evidence of connectivity over judicial intuitions while simultaneously entrenching standardized limits on jurisdictional tributaries, groundwater, and other resources.[348]

Finally, it should surprise no one that reviewing courts have deferred to the agencies' expanded use of general permits,[349] a tool that has reduced permitting costs and delays as the permitting universe has grown

342. *See* Biber & Ruhl, *supra* note 227, at 178–86 (analyzing permits as barriers to entry in markets that can advantage incumbents); *see also* Bass Enters. Prod. Co. v. United States, 381 F.3d 1360, 1366–70 (Fed. Cir. 2004) (reviewing takings claim grounded on permitting delay by determining whether delay was "extraordinary" compared to other, similar permitting delays).

343. *See* ADAM SCHEMPP, ENVTL. L. INST., AT THE CONFLUENCE OF THE CLEAN WATER ACT AND PRIOR APPROPRIATION: THE CHALLENGE AND WAYS FORWARD 31–54 (2013).

344. *See* 33 U.S.C. § 1344(c) (2012).

345. *See* SCHEMPP, *supra* note 343, at 34–35 (arguing that EPA's "existing guidelines contain all the pieces necessary to consider in Section 404 decisionmaking the water quality impacts from a project's anticipated long-term modification of flow"). EPA is certainly empowered to veto permits that threaten small streams. *See, e.g.*, Mingo Logan Coal Co. v. Envtl. Prot. Agency, 829 F.3d 710, 726 (D.C. Cir. 2016).

346. *See* Douglas A. Henderson et al., *The Clean Water Act Permit Shield—Recent Battles*, 29 NAT. RESOURCES & ENV'T, Spring 2015, at 56, 56 ("Despite recent dents . . . the permit shield remains alive and relatively healthy under the CWA.").

347. *See* Reed D. Benson, *Pollution Without Solution: Flow Impairment Problems Under the Clean Water Act Section 303*, 24 STAN. ENVTL. L.J. 199 (2005). States' authority to reject federal permissions under CWA Section 401 extends to the CWA's furthest reaches. *See* S.D. Warren Co. v. Me. Bd. of Envtl. Prot., 547 U.S. 370 (2006); PUD No. 1 of Jefferson Cty. v. Wash. Dep't of Ecology, 511 U.S. 700 (1994).

348. *See* Henry E. Smith, *Standardization in Property Law*, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF PROPERTY LAW 148, 157–60 (Kenneth Ayotte & Henry E. Smith eds., 2011) (arguing that property's market value appreciates quickest when third parties' information costs are checked and alienability is enhanced).

349. *See, e.g.*, Ohio Valley Envtl. Coal. v. Aracoma Coal Co., 556 F.3d 177, 186–87 (2009); Ohio Valley Envtl. Coal. v. Bulen, 429 F.3d 493 (4th Cir. 2005); Kentuckians for the Commonwealth, Inc. v. Rivenburgh, 317 F.3d 425 (4th Cir. 2003); Bragg v. W. Va. Coal Mining Ass'n, 248 F.3d 275 (4th Cir. 2001).

and the availability of the permits has been clarified by rule.[350] This may commend them less for the predictive value of such judicial acceptance than for the principled legality behind that deference.[351] But nullifying the agencies' CWR settling some basic uncertainties and structuring the fact-finding that will resolve other uncertainties case-by-case would compound the difficulties of their mission and leave them to contest marginal cases they might otherwise ignore.[352] That will do nothing to help landowners as a class.

This dovetails with perhaps the hardest questions raised in the rulemaking: the lines to be drawn separating tributaries from excluded ditches and how to distribute the burdens of uncertainty therein.[353] Much as it would be improper for courts to pick their favored experts in cases of expert disagreement,[354] an agency's use of some but not all possible criteria to set a distinction should be judged *arbitrary* only if the factual record is unquestionably against the agency's choices.[355] EPA and the Corps had to balance an enormous and uneven legacy of hydro-modifications, water transfers, climate disruption, the reality of uncooperative actors, and information costs in arriving at the ditch exclusions from their inclusive definition of tributary.[356] Nationwide inventories suggest significant flux in the upland/wetland divide,[357] perhaps explaining the angst expressed about line-drawing here.[358] Instability in the world-at-large is

350. The Corps has long offered dozens of different nationwide permits. *See* Taylor & Geoffroy, *supra* note 198, at 184. Designing the conditions and availability of these general permits to suit the CWR's exclusions is work still to be done. *See* Biber & Ruhl, *supra* note 227, at 164–78 (reviewing design options and where each concentrates its costs).

351. *Cf.* FULLER, *supra* note 307, at 39 (identifying eight features of law that give it its force including generality, publicity, prospectivity, coherence, constancy, and congruence between what is written and enforced).

352. *See* FINDING OF NO SIGNIFICANT IMPACT, *supra* note 148, at 21 (reporting re-analysis of negative jurisdictional determinations made where only small percentage would shift to positive findings of jurisdiction under CWR, most of which would have been in "other waters" category so long as they were governed by guidance and field office judgment).

353. *See supra* note 218 and accompanying text.

354. *See, e.g.*, Tri-Valley Cares v. U.S. Dep't of Energy, 671 F.3d 1113, 1126 (9th Cir. 2012); Druid Hills Civic Ass'n, Inc. v. Fed. Highway Admin., 772 F.2d 700, 709 (11th Cir. 1985).

355. *See* Scott Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 YALE L.J. 1535, 1590–96 (1998) (observing that non-experts judging competence of experts face compounded challenge because expertise comes in degrees and domains and is constantly updated and overthrown).

356. *See supra* notes 206–10 and accompanying text.

357. *See, e.g.*, U.S. FISH & WILDLIFE SERV., STATUS AND TRENDS OF WETLANDS IN THE CONTERMINOUS UNITED STATES 2004–2009 89–90 (2011), https://www.fws.gov/wetlands/documents/Status-and-Trends-of-Wetlands-in-the-Conterminous-United-States-2004-to-2009.pdf [https://perma.cc/S9MF-3RDM] (finding almost half-million acres of uplands were re-established as wetlands during study period).

358. *See supra* note 156 and accompanying text. The CWR excludes ditches not excavated in or relocating a tributary if the ditch does not drain *wetlands* or

hardly rare, though, and a court's insistence on simple-sounding defaults, like aiming for consensus, could entail steep penalties.[359] Agency reasonableness here turns on credibility, not a court's estimate of optimality.[360] And the more practical means come to define intermittent versus ephemeral flow regimes, or whether a ditch is actually a proxy tributary,[361] the more we will learn about our shared aspiration of restoring and maintaining our waters' integrity.[362]

CONCLUSION

The CWR was the Obama Administration's response to the legal mess that CWA jurisdiction has become. The suits challenging the CWR and the Trump Administration's declared hostilities obscure a broader picture of legal evolution, one in which common law processes that have failed to organize "navigable waters" yield to an ordered system of permitted governance and evidence-based decision-making. The CWR is a synthesis of the Ninety-Second Congress's rather cryptic intentions, over four decades of judicial and administrative interpretations, and the administration's Article II power to implement the *whole* law. This Article has argued that the CWR bends the curve in CWA jurisdictional determinations toward the physical evidence of continuity and connectivity in natural "waters" and away from the analogy-driven thinking that has so long muddled navigability. Any review of the rule's merits beginning from that premise would uphold it as a sensible and justified set of compromises.

---

flow into per se waters. *See* Clean Water Rule, 80 Fed. Reg. 37,054, 37,105 (June 29, 2015) (to be codified at 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 300, 302, and 401) (finalizing 33 C.F.R. § 328.3(b)(3)). The exclusion also turns on measuring the flow regime in those ditches. *See id.* at 37,097 (explaining final rule's use of "intermittent" and "ephemeral" flow in excluded ditch types).

359. *See* John Beatty & Alfred Moore, *Should We Aim for Consensus?*, 7 EPISTEME 198 (2010) (arguing that unanimity requirements are antithetical to full authority because they suppress dissent and dissent can be instrumental to genuine deliberation).

360. *See* Tri-Valley Cares v. U.S. Dep't of Energy, 671 F.3d 1113, 1124 (9th Cir. 2012) (concluding courts must be most deferential when reviewing scientific judgments and technical analyses within agency's expertise).

361. The CWR preamble noted several practical, widely-available tools for identifying tributaries and flow regimes. *See* Clean Water Rule, 80 Fed. Reg. at 37,076–77.

362. *See supra* note 1 and accompanying text.