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PROTECTING WETLANDS: ENVIRONMENTAL FEDERALISM AND GRASSROOTS CONSERVATION IN THE PRAIRIE POTHOLE REGION

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Abstract

Wetlands provide a multitude of benefits including flood protection, clean water, carbon sequestration, and critical species habitat. Given that wetlands are valuable natural resources, it is important to better understand the extent to which federal regulation impacts optimal wetlands conservation. Where federal regulation under the 2015 Clean Water Rule abrogated the ability of the states to make certain regulatory decisions over their waters, the recently promulgated Navigable Waters Protection Rule—that narrows the definition of “waters of the United States” (WOTUS)—may create new opportunities for alternative wetlands conservation strategies. This Article examines five states in the Prairie Pothole Region to evaluate the integral roles the federal government, state governments, and private organizations have in wetlands conservation. Environmental federalism considers the optimal balance of federal and state regulation in achieving complementary environmental protection. Insofar as scaling back federal regulation over isolated wetlands reduces conflict between federal regulators and private landowners,

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private organizations can more effectively align economic incentives with voluntary conservation objectives. This Article concludes with an examination of Ducks Unlimited, the world's largest waterfowl and wetlands conservation organization, as a case study for private conservation and public-private action in the region.

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“Conservation will ultimately boil down to rewarding the private landowner who conserves the public interest.”

-Aldo Leopold²

I. Introduction

Wetlands cover just 5.5 percent of the conterminous states, but are home to thirty-one percent of the country’s plant species, more than one-third of the country’s endangered or threatened species, and rival the ecosystem productivity of rainforests and coral reefs.³ Wetlands are valuable natural resources, so it is important to evaluate the extent to which federal regulation impacts optimal wetlands conservation.⁴ Environmental federalism considers this balance between different levels of government and private actors in determining their respective roles in protecting natural resources.

Federal regulation under the 2015 Clean Water Rule (2015 Rule) abrogated the ability of the states to make certain regulatory decisions over their waters. The Environmental Protection Agency (EPA) and Army Corps of Engineers (the Corps), however, recently promulgated the Navigable Waters Protection Rule (2020 Rule) that narrows the definition of “waters of the United States” (WOTUS) and decreases federal agency power—but that may be better for wetlands conservation.⁵ As Professor Jonathan Adler observes, “[b]y expanding [federal] regulatory authority, the agencies may crowd out potentially complementary efforts by state and local governments and conservation organizations.”⁶

² Aldo Leopold is referred to by many as the father of wildlife ecology. ALDO LEOPOLD, *THE RIVER OF THE MOTHER OF GOD: AND OTHER ESSAYS* 202 (Susan L. Flader et al. eds., U. of Wis. Press 1991) (citing an essay entitled *Conservation Economics*, published in 1934).

³ See T.E. DAHL, U.S. FISH & WILDLIFE SERV., *STATUS AND TRENDS OF WETLANDS IN THE CONTERMINOUS UNITED STATES 2004 TO 2009* 37 (2011), <https://www.fws.gov/wetlands/Documents/Status-and-Trends-of-Wetlands-in-the-Conterminous-United-States-2004-to-2009.pdf>; U.S. ENVTL. PROT. AGENCY, *WETLANDS OVERVIEW* (2002), <https://nepis.epa.gov/Exe/ZyPDF.cgi/500025PY.PDF?Dockey=500025PY.PDF>; U.S. ENVTL. PROT. AGENCY, *FUNCTIONS AND VALUES OF WETLANDS* (2002), <https://nepis.epa.gov/Exe/ZyPDF.cgi/200053Q1.PDF?Dockey=200053Q1.PDF>.

⁴ “The Nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired, in value.” Theodore Roosevelt, *SPEECH BEFORE THE COLORADO LIVE STOCK ASSOCIATION* (1910).

⁵ The Navigable Waters Protection Rule: Definition of “Waters of the United States, 85 Fed. Reg. 22250 (Apr. 21, 2020) (to be codified at 33 C.F.R. pt. 328, 40 C.F.R. pt. 110, 40 C.F.R. pt. 112, 40 C.F.R. pt. 116, 40 C.F.R. pt. 117, 40 C.F.R. pt. 120, 40 C.F.R. pt. 122, 40 C.F.R. pt. 230, 40 C.F.R. pt. 232, 40 C.F.R. pt. 300, 40 C.F.R. pt. 302, 40 C.F.R. pt. 401) [hereinafter Final Rule].

⁶ Jonathan H. Adler, *Redefining the Waters of the United States: The EPA’s New Water Rule Could Discourage Private Conservation Efforts*, 34 PERC POL’Y SERIES 38 (2015) (“The unrestrained expansion of regulatory jurisdiction may be good for federal agencies, but it’s not always good for conservation.”) (referring to the 2015 Rule).

The definition of WOTUS is critical because it demarcates the scope of the federal government's authority under the Clean Water Act (CWA) to regulate beyond traditionally navigable waters.⁷ Congress defined "navigable waters" as "waters of the United States, including the territorial seas" and left the agencies to define WOTUS in a manner that is constitutional and consistent with the legislative text.⁸

The dominant approach to environmental protection has been centralized federal regulation.⁹ The 2015 Rule is one such example. Much of the existing literature on environmental federalism, in contrast, argues that less federal regulation may lead to better state protection of natural resources.¹⁰ This may hold true in certain states, but private conservation can be a critical aspect of this theory. While regulation of navigable waters, and adjacent and interstate wetlands serves an important national purpose, carte blanche federal regulation over isolated wetlands may inhibit complementary state regulation or private conservation.¹¹

This Article examines the Prairie Pothole Region (PPR) to better understand how decreased federal regulation may impact state-level wetlands regulation and potentially improve the conservation efforts of private organizations with landowners. The Article addresses the optimal role the federal government, state governments, and private actors have in conserving different types of wetlands. Prairie potholes are kettle-shaped depressions that collect rainfall and snowmelt, forming small, shallow wetlands across the prairie.¹² Many potholes seasonally fluctuate in how much surface water they hold and are often isolated from navigable waters.¹³ The states where these wetlands predominate include Montana, North Dakota, South Dakota, Iowa, and Minnesota, reflected in the dark grey area in Figure 1. Potholes, and other wetlands, provide many benefits including flood

⁷ Final Rule, *supra* note 5, at 22273.

⁸ See 33 U.S.C. § 1362 (2018).

⁹ Under certain environmental statutes, for example, federal agencies have stretched the boundaries of their delegated authority.

¹⁰ See generally HENRY N. BUTLER & JONATHAN R. MACEY, USING FEDERALISM TO IMPROVE ENVIRONMENTAL POLICY (1996); Jonathan H. Adler, *Jurisdictional Mismatch in Environmental Federalism*, 14 N.Y.U. ENVTL. L. J. 130–178 (2005) [hereinafter Adler, *Jurisdictional Mismatch*]; Jonathan H. Adler, *When Is Two a Crowd? The Impact of Federal Action on State Environmental Regulation*, 31 HARV. ENVTL. L. REV., 67–114 (2007) [hereinafter Adler, *When is Two a Crowd?*]; Richard L. Revesz, *Federalism and Environmental Regulation: A Public Choice Analysis*, 115 HARV. L. REV. 553–641 (2001); Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking The "Race-To-The-Bottom" Rationale For Federal Environmental Regulation*, 67 N.Y.U. L. REV. 1210–54 (1992); Terry L. Anderson & Peter J. Hill, *Environmental Federalism: Thinking Smaller*, 8 PERC POL'Y SERIES 1–32 (1996); Wallace E. Oates, *On Environmental Federalism*, 83 VA. L. REV. 1321–1329 (1997).

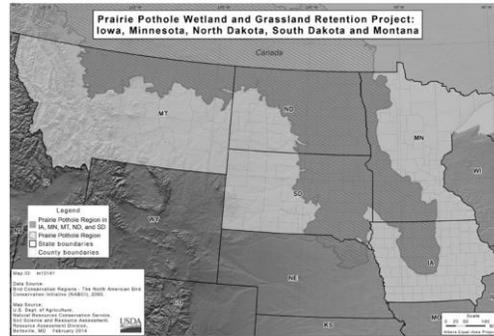
¹¹ Adjacent, in this context, refers to wetlands that actually abut navigable waters. See *infra* note 43.

¹² T.E. DAHL, U.S. FISH & WILDLIFE SERV., STATUS AND TRENDS OF PRAIRIE WETLANDS IN THE UNITED STATES 1997 TO 2009 6 (2014), <https://www.fws.gov/wetlands/documents/Status-and-Trends-of-Prairie-Wetlands-in-the-United-States-1997-to-2009.pdf>.

¹³ *Id.* at 1.

protection, carbon sequestration, and groundwater filtration.¹⁴ They also provide critical nesting habitat and breeding grounds for waterfowl and other animals on the prairie.¹⁵

Figure 1¹⁶



Focusing on a region that is both dependent on agricultural production and critical to breeding ducks and other migratory birds provides a case study for conservation, given that agriculture has been a primary contributor to historic wetlands loss.¹⁷ Prairie potholes are also significant because they are expressly subject to case-by-case regulation under the 2015 Rule, but likely excluded from federal regulation under the 2020 Rule.¹⁸ Case-by-case determinations often impose significant costs and create conflict with individual landowners. This Article instead suggests that private conservation may be optimal for protecting isolated wetlands. While certain environmental interest groups may be concerned that decreasing federal regulation will inhibit their environmental policy agendas,

¹⁴ U. S. DEP'T OF AGRIC., NAT. RES. CONSERVATION SERV., RESTORING AM.'S WETLANDS: A PRIVATE LANDS CONSERVATION SUCCESS STORY 5–14 (2010), https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045079.pdf. Other types of wetlands include marshes (including prairie potholes), swamps, bogs and fens. *See generally Classification and Types of Wetlands*, ENVTL. PROT. AGENCY, <https://www.epa.gov/wetlands/classification-and-types-wetlands#marshes> (last visited July 23, 2019).

¹⁵ *See* U. S. DEP'T OF AGRIC., *supra* note 14, at 5–14.

¹⁶ U. S. DEP'T OF AGRIC., NAT. RES. CONSERVATION SERV., SOIL SCI. AND RES. ASSESSMENT, RES. ASSESSMENT DIV. (2014).

¹⁷ Agriculture accounted for 87 percent of historic wetland loss before 1985. *See Wetlands*, U. S. DEP'T OF AGRIC., NAT. RES. CONSERVATION SERV., <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/water/wetlands/> (last visited July 22, 2019); T.E. DAHL, U.S. FISH & WILDLIFE SERV., WETLANDS LOSSES IN THE UNITED STATES 1780'S TO 1980'S 9 (1990), <https://www.fws.gov/wetlands/documents/Wetlands-Losses-in-the-United-States-1780s-to-1980s.pdf>.

¹⁸ The 2015 Rule included case-by-case determinations for prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools, and Texas coastal prairie wetlands. *See infra* note 78.

an alternative argument is that the 2020 Rule may yield more effective conservation.¹⁹

Part I provides a brief overview of WOTUS and the case law that has shaped the agencies' regulatory revisions over the last half century. This section considers constitutional and statutory constraints that shape the proper balance between federal and state regulation of the nation's waters, particularly wetlands. As the Supreme Court has failed to clarify the precise scope of WOTUS, uncertain and expansive regulation has sparked political backlash in most states within the PPR and muddled the efforts of conservation groups to work with private landowners.

Part II reviews the principles of environmental federalism and critiques the race-to-the-bottom theory. It then shifts to the underlying conjecture that the 2020 Rule will create jurisdictional gaps in wetlands regulation. Less federal regulation will increase wetlands acreage that is not subject to any regulation; state or federal.²⁰ State policymakers may respond by enacting legislation that increases wetlands regulation. It is also important to consider whether state regulators in the PPR have the administrative authority under existing state laws to assert broader jurisdiction over unregulated wetlands and whether state agencies are likely to increase their regulatory authority, to the extent they are able, in the presence of less federal regulation. This section suggests that states in this region are likely to vary widely in the degree to which they will seek to assert regulatory authority in the absence of certain federal regulations.

Part III turns to the distinct role private conservation has in protecting isolated wetlands. Private conservation may offer a better solution to wetlands protection by reducing conflict that expansive federal regulation often creates. This section considers whether private organizations are willing to bear the costs of conservation particularly for wetlands that some states may choose not to regulate. While prairie potholes may be seen as a national public good undervalued by the

¹⁹ Much of the economic theory of legislation literature suggests that interest groups prefer federal law to state law. See Jonathan R. Macey, *Federal Deference to Local Regulators and the Economic Theory of Regulation: Toward a Public-Choice Explanation of Federalism*, 76 VA. L. REV. 265, 270–71(1990). Professor Jonathan Macey suggests that this preference for federal law can be explained by four factors: (1) federal law involves fewer transaction costs; (2) the supremacy clause generally requires interest groups to pay at both the state and federal levels for a state law; (3) federal law is often perceived as a higher quality product than state law; and (4) “federal law is harder for adversely affected parties to avoid than state law.” *Id.* at 271–72. Macey concludes, however, that the federalist system provides a complementary mechanism by which the federal government may delegate certain regulatory matters to state and local officials: “[d]eferred regulatory matters to the state legislatures must take its place alongside the other strategies by which federal politicians can offer wealth transfers to interests groups in exchange for political support.” *Id.* at 290–91.

²⁰ This is likely the case for prairie potholes, which are typically isolated from navigable waters, given that the 2020 Rule largely reflects Justice Scalia's plurality opinion in *Rapanos v. United States*, 547 U.S. 715, 718–58 (2006). The 2015 Rule, in contrast, includes case-by-case evaluation of similarly situated waters, such as prairie potholes, to determine whether waters meet the “significant nexus” test outlined in Justice Kennedy's concurring opinion in *Rapanos*. *Id.* at 758–86.

states, it does not follow that these wetlands are necessarily non-excludable environmental assets that the government must regulate.

Part IV examines the work of Ducks Unlimited (DU), the world's largest waterfowl and wetlands conservation organization, as a case study for private conservation. DU has been successful in implementing a working lands approach to conservation—executing programs that work for both landowners and breeding waterfowl. The organization employs various property-based solutions, financial support, and technical expertise that incentivize private landowners to restore and maintain wetlands. Critical to this approach are effective organizational and governmental partnerships and the continuation of various federal agricultural incentive programs. With 75 percent of the country's remaining wetlands on private land, working with private landowners to align economic incentives with conservation objectives is essential for successful wetlands protection.²¹ This study, as it relates to agriculture, is also important because 94 percent of wetlands in the PPR are located on or adjacent to agricultural lands or grassland.²²

Policymakers, conservationists, and sportsmen all have a vested interest in better understanding the potential impact that decreased federal regulation may have on wetlands. Working towards understanding the optimal strategy for wetlands protection ensures more effective conservation of these assets and the rich ecosystems that they support.

II. Federal Regulation of “Waters of the United States”

The history of WOTUS has been a source of division among environmental organizations, state lawmakers and agencies, and private landowners. The federal agencies themselves have also been divided on the precise scope of the CWA.²³ In 1972, Congress made significant changes to the Federal Water Pollution Control Act, known as the CWA, which made it unlawful to “discharge any pollutant from a point source into navigable waters” without a permit.²⁴ The CWA broadened the term “navigable waters,” which were previously defined as being capable of use by vessels in interstate commerce, to include “the waters of the United States,

²¹ See U.S. DEP'T OF THE INTERIOR ET AL., THE STATE OF THE BIRDS 2013 REPORT ON PRIVATE LANDS 6 (2014), http://www.stateofthebirds.org/2013/2013%20State%20of%20the%20Birds_low-res.pdf. About 90 percent of the PPR is privately owned. *Id.* at 3.

²² DAHL, *supra* note 12, at 1.

²³ See Stephen P. Mulligan, *Cong. Research Serv.*, R44585, *Evolution of the Meaning of “Waters of the United States” in the Clean Water Act* 6 (2019), <https://fas.org/sgp/crs/misc/R44585.pdf>; Bradford 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, 300 (2007) (“From 1972 until 1975, the EPA and the Corps disagreed about the scope of the Act’s jurisdiction.”).

²⁴ See generally *Summary of the Clean Water Act*, ENVTL. PROT. AGENCY, <https://www.epa.gov/laws-regulations/summary-clean-water-act> (last visited June 20, 2019). Congress first enacted the Federal Water Pollution Control Act in 1948, but after the 1972 amendments, which significantly reorganized and expanded the Act, the law became known as the CWA. *Id.*

including the territorial seas.”²⁵ The Act defines “pollutant” broadly to include expected contaminants, such as industrial waste, but also extends to sand and dredged material.²⁶ In general, the CWA prohibits any person from any amount of dredging or filling of waters of the United States without a permit.²⁷

A. The CWA Section 404 Permitting Process

The CWA delegates authority to the Corps, or approved state agency, to issue permits for dredge or fill activity of federally protected waters.²⁸ The permitting process for isolated wetlands, in particular, can be costly, time-consuming, and uncertain; especially in cases when the regulation provides no clear guidance for private landowners. The process begins with understanding the underpinning regulation, determining if the particular wetland at issue is subject to federal regulation, and receiving a preliminary jurisdictional delineation from the agency.²⁹ If the agency determines that the wetland is subject to federal regulation, the landowner must then apply for a permit and show that no practicable alternative exists that would be less damaging to the wetland ecosystem, or that the nation’s waters would not be significantly degraded.³⁰ The average application process for an individual permit takes 788 days and costs \$271,596 (mean); excluding the costs for expert studies, and mitigation or design changes.³¹ Property owners thus bear

²⁵ See Mulligan, *supra* note 23, at 1.

²⁶ 33 U.S.C. § 1362(6) (2018) (“The term ‘pollutant’ means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.”).

²⁷ CWA § 404 provides that the Corps must issue a permit to any person to discharge dredged or fill material into “waters of the United States,” unless the activity is exempt from § 404 regulation. 33 U.S.C. § 1344 (2018).

²⁸ The CWA states that an approved state agency may also assume § 404 permitting authority. *Id.* New Jersey and Michigan are the only two states that have assumed such authority in lieu of the federal government. BRENDA ZOLLITSCH ET AL., ASS’N OF STATE WETLAND MANAGERS, STATUS AND TRENDS REPORT ON STATE WETLAND PROGRAMS IN THE UNITED STATES 27 (last updated Mar. 6, 2016),

https://www.aswm.org/pdf_lib/state_summaries/status_and_trends_report_on_state_wetland_programs_in_the_united_states_102015.pdf.

²⁹ See 33 U.S.C. § 1344. Wetland delineations are conducted in accordance with the Corps’ 1987 Wetland Delineation Manual. See generally U.S. ARMY CORPS OF ENG’R, WETLANDS DELINEATION MANUAL (1987), <https://www.lrh.usace.army.mil/Portals/38/docs/USACE%2087%20Wetland%20Delineation%20Manual.pdf>.

³⁰ See 33 U.S.C. § 1344. *But see* 33 U.S.C. § 1344(f) (detailing agricultural and ranching permit exemption activities).

³¹ David Sunding & David Zilberman, *The Economics of Environmental Regulation by Licensing: An Assessment of Recent Changes to the Wetland Permitting Process*, 42 NAT. RES. J. 59, 74–75 (2002).

the costs and other operating expenses for long periods of time suspended in uncertainty.³²

Under the 2015 Rule, the permitting process for the specifically provisioned isolated wetlands,³³ such as prairie potholes, requires additional scientific evaluation outlined in the 400-plus-page Connectivity Report.³⁴ The Report details the physical, chemical, and biological conditions necessary to assert case-specific jurisdiction over these isolated waters.³⁵ When regulation is uncertain, there are perverse incentives for property owners not to alter wetlands on their property—even if doing so would improve their quality—because the CWA imposes steep fines and even criminal liability for such violations. Where federal regulation is poorly defined, private landowners may unknowingly violate federal law.³⁶ In both scenarios, this creates conflict between property owners and federal agencies at the expense of conservation.

The federal permit process for *certain* wetlands, those that actually abut navigable waters or border state lines, generally serves an important purpose for environmental protection. Mitigating textual ambiguity and overreach, however, are essential ingredients for regulatory policy that promotes regulatory compliance, effective state regulation, and private conservation. The implications of federal regulation on wetlands conservation warrant a brief evolutionary review of WOTUS.

B. The Expansion of WOTUS

The CWA does not specifically define WOTUS. Congress delegated to the agencies the task of defining the term in a manner that is constitutional and consistent with the legislative text.³⁷ The Supreme Court has repeatedly upheld federal regulation that extends beyond waters that are navigable-in-fact.³⁸ The term

³² *Id.* at 82.

³³ *See infra* note 78.

³⁴ *See generally* ENVTL. PROT. AGENCY, Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Sci. Evidence (2015).

³⁵ *See id.* at 22–23; R. David Simpson, *What Went Wrong With WOTUS: Reflections on Economic Valuation and Environmental Regulation*, 59 PERC Pol’y Series 10 (2019) (“The EPA saw its primary task to be implementing Justice Kennedy’s instruction to identify a ‘significant nexus’ between clearly jurisdictional navigable waters and the small, intermittent, ephemeral, or ostensibly isolated waters that might be shown to have a connection to them.”).

³⁶ *See, e.g., infra* notes 130–32 and accompanying text.

³⁷ The purpose of the CWA is to restore and maintain the chemical, physical and biological integrity of the nation’s waters, while recognizing the responsibilities of the States and Tribes to regulate their own waters; consistent with the principles of federalism. 33 U.S.C. § 1251(a) (2018).

³⁸ “Navigable-in-fact” waters refers to waters that are capable of being used by vessels in interstate commerce or that are subject to the ebb and flow of the tide. *See, e.g., PPL., Mont., LLC v. Montana*, 565 U.S. 576, 591–92 (2012) (quoting *The Daniel Ball*, 77 U.S. 557, 563 (1871)). *See also* Jonathan H. Adler, *Redefining “Waters of the United States:” Can the Trump Administration Constrain Wetland Regulation*, *Cato Inst. reg.*, Summer 2019, at 16 (“As the Supreme Court has recognized

“waters of the United States,” however, provides little textual clarity as to the precise limit of federal regulation on the continuum between water and dry land. As Justice Alito aptly summarized: “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.”³⁹

During the 1980s, the agencies increasingly expanded their regulatory authority to more waters. By 1982, both agencies promulgated regulations that notably included: (1) all interstate waters, including wetlands; (2) all waters or wetlands susceptible to use in interstate commerce; and (3) adjacent wetlands to other jurisdictional waters.⁴⁰ The Supreme Court has since limited both the agencies’ use of the Commerce Clause and the term “adjacent wetlands” in determining the scope of federal jurisdiction. Adjacent wetlands, in particular, continue to be a source of legal contention.

The Supreme Court first reviewed the issue of adjacent wetlands subject to federal regulation in 1985. In *United States v. Riverside Bayview Homes, Inc.*, the Corps sought to prevent a developer from filling wetlands on its property that were a mile from Lake St. Clair in Michigan, which is a navigable-in-fact body of water.⁴¹ The Corps argued that Riverside Bayview needed to obtain a permit before discharging fill material into its wetlands adjacent to other jurisdictional waters. The opinion repeatedly referenced the legislative history of the CWA, which expressed a “comprehensive legislative attempt” to regulate the nation’s waters.⁴²

The Court held that it was reasonable to conclude that “adjacent wetlands” that actually abut navigable waters are “inseparably bound up with the ‘waters’ of the United States” and thus within the scope of federal jurisdiction to require a permit.⁴³ The Court, however, expressly stated that its ruling was limited to

repeatedly, the decision to define “navigable waters” as “waters of the United States” indicates Congress’ intent to reach beyond those waters that are navigable-in-fact.”)

³⁹ *Sackett v. EPA*, 132 U.S. 1367, 1375 (2012) (referring to the CWA, which provides that federal regulation applies to “the waters of the United States”).

⁴⁰ See 40 C.F.R. § 122.3 (1981) (EPA’s definition); Interim Final Rule for Regulatory Program of the Corps of Engineers, 47 Fed. Reg. at 31, 810 (codified in 33 C.F.R. § 424.2 (1983)) (the Corps’ definition).

⁴¹ See 474 U.S. 121 (1985).

⁴² *Id.* at 132 (“Section 404 originated as part of the Federal Water Pollution Control Act Amendments of 1972, which constituted a comprehensive legislative attempt ‘to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.’”) (citing 33 U.S.C. § 1251).

⁴³ *Id.* at 133–34 (reversing the Sixth Circuit’s conclusion that WOTUS must be narrowly construed to avoid a potential Fifth Amendment “taking” without just compensation in *United States v. Riverside Bayview Homes*, 729 F.2d 391, 397–98 (6th Cir. 1984)). In line with the holding in *Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, an agency with rulemaking authority is entitled to a certain amount of deference in its construction of a statute. 474 U.S. at 131 (“[O]ur review is limited to the question whether it is reasonable, in light of the language, policies, and legislative history of the Act for the Corps to exercise jurisdiction over wetlands adjacent to but not regularly flooded by rivers, streams, and other hydrographic features more conventionally identifiable as ‘waters.’”).

wetlands adjacent to navigable waters.⁴⁴ Despite the holding in *Riverside Bayview*, which defined the appropriate scope of federal jurisdiction for wetlands beyond navigable waters, the agencies continued to push the boundary of their delegated authority to regulate additional waters.

Following *Riverside Bayview*, the Corps (1986) and the EPA (1988) implemented the Migratory Bird Rule, which interpreted the Commerce Clause to broaden the scope of federal jurisdiction to include waters that may support migratory birds.⁴⁵ In 1997, the Fourth Circuit Court of Appeals determined in *United States v. Wilson* that the Corps exceeded its constitutional authority in regulating wetlands without any surface connection to waters of the United States.⁴⁶ The Supreme Court, however, did not revisit the issue in the context of wetlands until the early 2000s.

C. Limits to Agency Regulation

In 2001, the Supreme Court determined, in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)*, that the agencies exceeded the intended scope of waters that were protected under the CWA by relying on their interpretation of interstate commerce to include the presence of migratory birds to assert jurisdiction over isolated waters.⁴⁷ SWANCC was formed by municipalities in Northern Illinois that selected an abandoned sand and gravel pit as a disposal site for nonhazardous waste, which required filling in some of the permanent and seasonal ponds on the premises.⁴⁸ The Corps argued that it had jurisdiction over the ponds in question—which were otherwise isolated, man-made waters—because they supported migratory birds.⁴⁹ Despite several proposals by

⁴⁴ *Id.* at 131 n.8. While the Court in *Riverside Bayview* certainly expanded the Corp’s authority to regulate adjacent wetlands, it expressly limited “adjacent” to a “wetland that actually *abuts* on a navigable waterway,” a notable difference from the 2015 Clean Water Rule. *Id.* at 135 (emphasis added).

⁴⁵ See Mulligan, *supra* note 23, at 14–15; Final Rule for Regulatory Programs of the Corps of Engineers, 51 Fed. Reg. 41,206, 41,217 (Nov. 13, 1986); Final Rule: Clean Water Act Section 404 Program Definitions and Permit Exemptions, 53 Fed. Reg. 20,764, 20,765 (June 6, 1988). The agencies claimed that adding the Migratory Bird Rule was not rulemaking, arguing instead that it was a clarification to the existing regulation. *Id.*

⁴⁶ 133 F.3d 251, 258 (4th Cir. 1997) (The court held that the lower court erred in instructing the jury to extend federal jurisdiction to wetlands that lacked a “‘direct or indirect surface connection’ to interstate waters, navigable waters, or interstate commerce” and remanded for a new trial). Following the Court’s decision in *United States v. Lopez*, 514 U.S. 549 (1995), the *Wilson* Court held that the agency could not use the Commerce Clause to assert federal jurisdiction unless such activity would “‘substantially affect interstate commerce.’” 133 F.3d at 256, 258 (emphasis added). The *Lopez* Court determined that the proper test to determine Congress’ regulatory power under the Commerce Clause is “whether the regulated activity ‘substantially affects’ interstate commerce.” 514 U.S. at 559.

⁴⁷ See 531 U.S. 159 (2001).

⁴⁸ *Id.* at 159.

⁴⁹ See *id.* at 164. The Corps cited the Migratory Bird Rule, which it interpreted in 1986 to extend § 404(a) jurisdiction to intrastate waters, “[w]hich are or would be used as habitat by birds protected

SWANCC to mitigate the likely displacement of a great blue heron rookery and securing the required water quality certification from the Illinois EPA, the Corps refused to issue a permit.⁵⁰ The Court held that the Corps could not use this interpretation of the Commerce Clause to impose federal regulation because it threatened the federal-state balance where land and water regulation is a primary responsibility of the states.⁵¹ Prior to the 2015 Rule, the SWANCC decision excluded most prairie potholes and other isolated wetlands, that often support migratory birds, from federal regulation.⁵²

While the SWANCC Court limited its holding to the agencies' migratory bird interpretation, in ruling that the Corps failed to show that such fill activities would "substantially affect" interstate commerce, it distinguished the isolated wetlands in the present case from the wetlands adjacent to navigable waters in *Riverside Bayview*.⁵³ The effect of SWANCC was thus much broader—it called into question just how far the agencies could assert jurisdiction over isolated, intrastate waters such as prairie potholes.⁵⁴

Five years later, the Court revisited WOTUS in *Rapanos v. United States*, which consolidated two cases that challenged the precise nature of adjacent wetlands subject to federal regulation.⁵⁵ The four wetlands in question were situated near ditches or man-made drains that *eventually* emptied into traditional navigable waters.⁵⁶ Rapanos, for example, backfilled fields with "sometimes-saturated" soil on his property that were 11 to 20 miles away from the nearest body of navigable water.⁵⁷ Regulators determined that his fields were "waters of the United States," sparking twelve years of criminal and civil litigation. Prior to the Supreme Court's decision, Rapanos faced 63 months in prison and prohibitive

by Migratory Bird Treaties; or [w]hich are or would be used as habitat by other migratory birds which cross state lines; or [w]hich are or would be used as habitat for endangered species; or [u]sed to irrigate crops sold in interstate commerce." *Id.* (citing 51 Fed.Reg. 41217 (1986)).

⁵⁰ *Id.* at 159.

⁵¹ *Id.* at 174 ("Rather than expressing a desire to readjust the federal-state balance in this manner, Congress chose to 'recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use . . . of land and water resources . . .'" (citing 33 U.S.C. § 1251(b)). See also *supra* note 37 and accompanying text.

⁵² See Arnold G. van der Valk & Roger L. Pederson, *The SWANCC Decision and its Implications for Prairie Potholes*, 23 WETLANDS 590–596 (2003) (concluding that the majority of wetlands in the PPR were no longer regulated under the CWA).

⁵³ *Id.* at 167, 173 (referencing the holding in *Lopez* that limited Congress' Commerce Clause authority).

⁵⁴ See Mulligan, *supra* note 23, at 20.

⁵⁵ See 547 U.S. 715 (2006) (consolidating *Carabell v. U.S. Army Corps of Eng'rs*, 391 F.3d 704 (6th Cir. 2004); *Rapanos v. United States*, 376 F.3d 629 (6th Cir. 2004)).

⁵⁶ *Rapanos*, 547 U.S. at 729 (emphasis added). The Rapanos and their affiliated business deposited fill material into three wetlands sites without a permit and the United States brought civil enforcement proceedings against them. *Id.* The Carabells were denied a fill permit and filed suit against the Corps, challenging the exercise of federal jurisdiction over the wetland site in question. *Id.* at 730.

⁵⁷ *Id.* at 719–21.

criminal and civil fines.⁵⁸ Isolated wetlands were once again center-stage in the Supreme Court.

1. The Scalia Plurality

The plurality opinion, written by Justice Scalia, held that an adjacent wetland may only be considered within the scope of federal jurisdiction if there is a relatively continuous surface connection to bodies of water that are “waters of the United States.”⁵⁹ The plurality distinguished the wetlands at issue from the adjacent wetlands in *Riverside Bayview*, which were within the scope of WOTUS because they actually abutted a navigable waterway.⁶⁰ The plurality also noted that the definition of “adjacent” was not part of the statutory definition that the Corps was authorized to interpret: “[h]owever ambiguous the term may be in the abstract, as [the Court] explained earlier, ‘adjacent’ as used in *Riverside Bayview* is not ambiguous between ‘physically abutting’ and merely ‘nearby.’”⁶¹ Given the isolated nature of the wetlands at issue, the Court held that the wetlands were outside the scope of federal jurisdiction. In adopting a narrower view of WOTUS, the agencies have used the plurality as the basis for the 2020 Rule. Such language promotes policy that provides far greater regulatory clarity for the states and private landowners.

2. The Kennedy Concurrence

Justice Kennedy’s opinion concurring in judgment outlined a test that gave the agencies significantly more regulatory authority. The opinion outlined a significant nexus test, which considered “whether the specific wetlands at issue possess a *significant nexus* with navigable waters.”⁶² Significant nexus was not a novel term: “it was the *significant nexus* between the wetlands and ‘navigable waters’ that informed [the Court’s] reading of the CWA in *Riverside Bayview Homes*.”⁶³ *Riverside Bayview*, however, limited federal jurisdiction to *actually abutting* adjacent wetlands—a detail central to the plurality.

The significant nexus test stated: “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.’”⁶⁴ An isolated prairie pothole, for example, may

⁵⁸ *Id.*

⁵⁹ *Id.* at 717.

⁶⁰ *See id.* at 726; *Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng’rs*, 531 U.S. 159, 167 (2001).

⁶¹ *Rapanos*, 547 U.S. at 748.

⁶² *Id.* at 787 (emphasis added).

⁶³ *Id.* at 741 (emphasis in text) (quoting the opinion in *SWANCC*, 531 U.S. at 167).

⁶⁴ *Id.* at 780.

be outside the scope of federal jurisdiction, but a number of closely situated potholes together could meet the significant nexus test, depending on the jurisdictional determination by the Corps.⁶⁵ This standard, however, is nearly impossible to apply on a consistent basis, given that many potholes fluctuate seasonally in how much water they hold and their subsurface connection to other potholes varies by case.⁶⁶

With respect to adjacent wetlands, the test essentially evaluated the “reasonable inference of ecologic interconnection” to navigable-in-fact waters.⁶⁷ Despite the fact that a unanimous Court in *Riverside Bayview* explicitly rejected case-by-case determinations of ecological significance when deciding whether a wetland is included within WOTUS, the agencies adopted significant aspects of the Kennedy concurrence in promulgating the 2015 Rule.⁶⁸

It is fair to question why the plurality seldom refers to science. After all, the purpose of the CWA is to restore and maintain the chemical, physical and biological integrity of the nation’s waters.⁶⁹ The *Chevron* court determined that the agencies must adopt a definition that is both consistent with the statutory text as well as the agencies’ reasoned judgment as to how best to achieve the legislative purpose of the statute.⁷⁰ Indeed, the plurality expressed this view.⁷¹ Adler further notes in his public interest commentary of the proposed rule that scientific research must inform the agencies’ assessment of WOTUS, so long as the law demarcates the scope of federal jurisdiction.⁷² One argument, often overlooked, is that the plurality may inform policy that has a superior impact on conservation.⁷³ This is overshadowed by the discord between the plurality and the Kennedy concurrence—the lasting byproduct of *Rapanos*.

⁶⁵ See generally ENVTL. PROT. AGENCY., *supra* note 34.

⁶⁶ See *id.* at B-14–22 (detailing the EPA’s case study of Prairie Potholes).

⁶⁷ See *id.*

⁶⁸ See *Rapanos*, 547 U.S. at 753 (referencing *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 135 n. 9 (1985)).

⁶⁹ See 33 U.S.C. § 1251(a) (2018).

⁷⁰ *Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 865 (1984) (“[A]n agency to which Congress has delegated policy-making responsibilities may, within the limits of that delegation, properly rely on the incumbent administration’s views of wise policy to inform its judgments.”).

⁷¹ See *Rapanos*, 547 U.S. at 787–812.

⁷² Jonathan H. Adler, Public Interest Commentary, *The U.S. Army Corps of Engineers and Environmental Protection Agency’s Proposed Rule: Revised Definition of “Waters of the United States,”* THE GEO. WASH. U. REG. STUD. CTR., Apr. 15, 2019 at 6 (“As the agencies have themselves acknowledged in proposing the 2015 definition of ‘waters of the United States’”). While the agency must consider the relevant scientific research, it is not clear why the Court must engage in a similar inquiry. *Id.* The question for the Court was simply the legal limit of the agency’s regulatory authority. *Id.* For more on the proposed rule see *infra* note 86 and accompanying text.

⁷³ See, e.g., Adler, *When is Two a Crowd?*, *supra* note 10, at 108–114 (arguing that federal regulations may crowd out certain state wetland protections).

3. Plurality Decisions

Plurality decisions occur when the court is unable to generate a single opinion supported by a majority of the justices.⁷⁴ As a consequence, the lower courts have disagreed over which opinion in *Rapanos* controls: the plurality or the Kennedy concurrence.⁷⁵ The most plausible reason for the plurality in *Rapanos* is that “waters of the United States” is a term that is both broad and complex, making it difficult for the Court to “avoid extreme dissensus.”⁷⁶ While the Court sought to limit the agencies from exceeding the scope of authority delegated to them by Congress under the CWA, *SWANCC* and *Rapanos* actually created further jurisdictional uncertainty that the agencies sought to remedy in promulgating the 2015 Rule and then the 2020 Rule.⁷⁷

D. The 2015 Clean Water Rule

The agencies intended to clarify the regulation of waters with ambiguous jurisdictional status, including isolated wetlands, by promulgating the expansive 2015 Rule. Setting aside questions of constitutionality and statutory interpretation, the 2015 Rule did little to clarify the boundaries of federal jurisdiction and created significant uncertainty among state governments and private landowners by using abstruse language to broaden the scope of federal jurisdiction. The primary source of ambiguity was the agencies’ use of Justice Kennedy’s significant nexus test and case-specific evaluation of certain waters that would not otherwise be jurisdictional by rule.⁷⁸ The 2015 Rule subsequently created heightened conflict between landowners and federal agencies.

Departing from the language of the 1986 and 1988 regulations, the 2015 Rule redefined the term tributary to include waters: (1) that contribute “flow, either directly or through another water,” to a traditional navigable water, interstate water,

⁷⁴ See Pamela C. Corley et al., *Extreme Dissensus: Explaining Plurality Decisions on the United States Supreme Court*, 31 JUST. SYS. J. 180 (2010).

⁷⁵ See *id.* at 182. See, e.g., *N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993 (9th Cir. 2009) (applying Kennedy’s concurrence); *United States v. Gerke Excavating Inc.*, 464 F.3d 723 (7th Cir. 2006) (applying Kennedy’s concurrence); *United States v. Johnson*, 467 F.3d 56 (1st Cir. 2006) (applying the plurality or Kennedy’s concurrence).

⁷⁶ Corley et al., *supra* note 74, at 196.

⁷⁷ David Simpson, the EPA’s former Director for Ecosystem Economic Studies within the National Center for Environmental Economics, relates the *Rapanos* plurality to the legal maxim: “hard cases make bad law.” Simpson, *supra* note 35, at 7.

⁷⁸ See 40 C.F.R. § 110.1 (2018). The 2015 Rule stipulated that prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools, and Texas coastal prairie wetlands, would be “waters of the United States” if on a case-specific basis they met a significant nexus to water identified as: (1) traditional navigable waters, (2) interstate waters, or (3) the territorial seas; or if similarly situated waters in this section when combined satisfy the significant nexus analysis. 40 C.F.R. § 110.1(1)(viii). Jurisdictional by rule means: (1) traditional navigable waters; (2) interstate waters; (3) the territorial seas; (4) impoundments of waters otherwise identified as WOTUS; and (5) tributaries as defined by the 2015 Rule. 40 C.F.R. § 110.1(1)(i)–(v).

or the territorial seas, (2) “characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.”⁷⁹ The 2015 Rule also expanded its jurisdiction over adjacent wetlands by broadening the term “neighboring,” which was used in the existing regulation to define “adjacent.”⁸⁰ The *Rapanos* plurality expressly limited the term “adjacent” to wetlands that actually abut jurisdictional waters, whereas the concurring judgment did not. Thus, the agencies used the dissensus in *Rapanos* to expand their jurisdiction over intrastate tributaries and wetlands.

At one end of the spectrum, some environmental organizations argued that the 2015 Rule did not do enough to protect wetlands and headwaters; although they certainly favored more federal regulation.⁸¹ At the other end, farmers, ranchers, and other interest groups, argued that the 2015 Rule was so expansive that virtually all waters *could* meet the significant nexus test.⁸² While these characterizations capture the dominant narrative, they do not express the assertion that the 2015 Rule eroded the beneficial roles that state and private actors have in wetlands conservation. By pushing up against the boundary of their delegated authority, the agencies’ 2015 Rule was also legally vulnerable on both substantive and procedural grounds and was challenged by many of the states in the U.S. district courts.

E. Changes Following the 2015 Rule

Many states sued the EPA in U.S. district courts, challenging the scope of the 2015 Rule. As a result, the 2015 Rule was enjoined in twenty-six states, where regulations promulgated in 1986 and 1988 remained largely in effect—accounting for the guidance issued following *SWANCC* and *Rapanos*.⁸³ Minnesota was the only state in the PPR that did not contest the 2015 Rule.

President Trump issued an executive order in 2017 directing the EPA and the Corps to rescind the 2015 Rule and revise WOTUS in a manner consistent with

⁷⁹ § 110.1(1)(iii).

⁸⁰ *Id.* The term “adjacent” means “bordering, contiguous, or neighboring,” where the 2015 Rule promulgated a new definition of “neighboring” to include all waters: (1) located within 100 feet of the ordinary high water mark of waters jurisdictional by rule; (2) located within the 100-year floodplain of waters jurisdictional by rule, but not more than 1,500 feet from the ordinary high water marker; (3) located within 1,500 feet of the high tide line of a primary water; and (4) within 1,500 ft of the ordinary high water mark of the Great Lakes. 40 C.F.R. § 110.1(3)(i)–(ii).

⁸¹ *See, e.g.,* Jon Devine, *Oh, Happy Day! Clean Water Rule Adopted!*, NAT. RES. DEF. COUNCIL (May 28, 2015), <https://www.nrdc.org/experts/jon-devine/oh-happy-day-clean-water-rule-adopted> (“Any departure from the science concerns us because of what it represents – a license, without federal oversight, to pollute or destroy waters that can have important downstream impacts.”).

⁸² The agricultural industry has been especially critical of the 2015 Rule.

⁸³ *See generally* *North Dakota v. EPA*, 127 F. Supp. 3d 1047 (D.N.D. 2015) (including Alaska, Nevada, Idaho, Arizona, Montana, Wyoming, Colorado*, New Mexico*, North Dakota, South Dakota, Nebraska, Iowa, Missouri, and Arkansas); *Georgia v. Pruitt*, 326 F. Supp. 3d 1356 (S.D. Ga. 2018) (including Utah, Kansas, Wisconsin, Indiana, Kentucky, West Virginia, Alabama, Georgia, North Carolina, South Carolina, and Florida); *Texas v. EPA*, No. 3:15-CV-00162, 2018 U.S. Dist. LEXIS 160443 (S.D. Tex. Sep. 12, 2018) (including Texas, Louisiana, and Mississippi).

the plurality in *Rapanos*.⁸⁴ The agencies then initiated a two-step process to repeal and replace the 2015 Rule.⁸⁵ In February of 2019, the agencies published for public comment a proposed rule intended to clarify the scope of WOTUS and “maintain the quality of the nation’s waters while respecting State and Tribal authority over their own land and water resources.”⁸⁶ In October of 2019, the agencies finalized a rule that repealed the 2015 Rule and re-codified WOTUS to the regulatory definition that existed prior to the 2015 Rule.⁸⁷ In April of 2020, the agencies promulgated the final 2020 Rule—making good on the Trump Administration’s promise to limit federal regulation.⁸⁸ Notwithstanding some of the shortcomings⁸⁹ of the 2020 Rule changes, this Article assumes the language of the Rule in evaluating the impact of less federal regulation on state-level regulation and private conservation in the PPR.

F. The 2020 Rule

Both the plurality and Kennedy’s concurrence in *Rapanos* agree that some non-navigable waters should be included within the scope of the CWA. Where they differ substantially is how to determine where to draw the jurisdictional line between waters that are within and excluded from the scope of federal jurisdiction. The 2020 Rule eliminates case-by-case determinations and the significant nexus

⁸⁴ Mulligan, *supra* note 23, at 2.

⁸⁵ In 2017, the EPA and the Corps also proposed an “applicability date” to the 2015 Rule, effectively delaying the implementation of the Rule until 2020 while the agencies worked to replace it. *Id.* at 3. The U.S. District Court for the District of South Carolina held that the Applicability Rule violated the Administrative Procedure Act, issuing a nationwide injunction of the Applicability Rule that caused the 2015 Rule to go into effect in states where injunctions had not been issued. *S.C. Coastal Conservation League v. Pruitt*, 318 F. Supp. 3d 959 (D.S.C. 2018).

⁸⁶ Revised Definition of “Waters of the United States,” 84 Fed. Reg. 4154, 4196 (proposed Feb. 14, 2019). One criticism of the proposed rule was the exclusion of interstate waters from federal regulation. The 2020 Rule, unfortunately, did not incorporate this concern. *See* Adler, *supra* note 72, at 13 (“The agencies should also reconsider whether failing to include ‘interstate waters’ as a category of water subject to regulation is consistent with the text and purpose of the CWA, and use the definition of ‘waters of the United States’ to help focus federal regulatory efforts where federal intervention is most necessary and most beneficial.”); Rogers S. Hoyt, Jr. et al., Public Interest Commentary, *DU Statement on 2019 Waters of the United States*, Apr. 12, 2019 at 19 (“We recommend the Agencies retain Interstate Waters, including intrastate wetlands, as a separate category of WOTUS.”).

⁸⁷ Definition of “Waters of the United States”—Recodification of Pre-Existing Rules, 84 Fed. Reg. 56626 (Oct. 22, 2019).

⁸⁸ Final Rule, *supra* note 5. The 2020 Rule “recognizes Congress’ intent ‘to exercise its powers under the Commerce Clause to regulate at least some waters that would not be deemed ‘navigable’ under the classical understanding of that term,’ [] but at the same time acknowledges that ‘[t]he grant of authority to Congress under the Commerce Clause, though broad, is not unlimited.’” *Id.* at 22273 (quoting *Riverside Bayview*, 474 U.S. at 133 and *SWANCC*, 531 U.S. at 173).

⁸⁹ The 2020 Rule excludes interstate water waters, including interstate wetlands, as a separate category of WOTUS. Final Rule, *supra* note 5 at 22283.

test for isolated waters with some “ecological significance” to navigable waters that were included in the 2015 Rule.⁹⁰

The 2020 Rule limits jurisdictional waters to:

Relatively permanent flowing and standing waterbodies that are traditional navigable waters in their own right or that have a specific surface water connection to traditional navigable waters, as well as wetlands that abut or are otherwise inseparably bound up with such relatively permanent waters.⁹¹

Adjacent wetlands actually abut or have a direct hydrologic surface connection⁹² to other jurisdictional non-wetland waters in a typical year.⁹³ This is largely consistent with the “adjacent” construction in *Riverside Bayview*, *SWANCC*, and the plurality in *Rapanos*.⁹⁴

In response to comments the agencies received following the publication of their proposed rule, the agencies broadened the definition of jurisdictional wetlands to include wetlands naturally separated⁹⁵ from other jurisdictional waters, and wetland complexes that are separated by roads or similar structures “if those structures allow for a surface water connection between the segregated wetland portions (such as through a culvert through a roadway) in a typical year.”⁹⁶ The 2020 Rule, however, excludes the 1986 regulations that defined WOTUS to include interstate waters, including interstate wetlands—an exclusion that may only marginally impact prairie potholes but has broader consequences for other types of waters and wetlands.⁹⁷

III. Environmental Federalism

A widely-accepted justification for federal environmental regulation is that it prevents states from competing for industry by lowering their environmental

⁹⁰ *Id.* at 22273.

⁹¹ *Id.* In an effort to improve clarity, the 2020 Rule creates four categories of jurisdictional waters: “(1) the territorial seas and traditional navigable waters; (2) tributaries of such waters; (3) certain lakes, ponds, and impoundments of jurisdictional waters; and (4) wetlands adjacent to other jurisdictional waters (other than waters that are themselves wetlands).” *Id.*

⁹² As compared to the proposed rule, the agencies broadened surface water connections that maintain jurisdictional connectivity to include wetlands and other waters separated only by artificial dikes and artificial barriers. *Id.* at 22307.

⁹³ *Id.* Typical year means, “when precipitation and other climatic variables are within the normal periodic range (e.g., seasonally, annually) for the geographic area of the applicable aquatic resources based on a rolling thirty-year period.” *Id.* at 22274.

⁹⁴ *Rapanos v. United States*, 547 U.S. 715, 740, 741 n.10 (2006) (citing *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 135 (1985) and *Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng’rs*, 531 U.S. 159, 159 (2001)).

⁹⁵ Natural berms, banks, or dunes. Final Rule, *supra* note 5, at 22307.

⁹⁶ *Id.*

⁹⁷ *Id.* at 22283-83.

standards—a competition known as the race-to-the-bottom.⁹⁸ This argument could apply to the PPR, where, absent federal regulation, states would underregulate because wetlands produce interstate externalities resulting in state regulatory costs that outweigh the benefits of wetlands protection.⁹⁹ This is the principle market-failure argument that economists have long used to support federal environmental regulation.¹⁰⁰

The related public-choice argument asserts that states systematically undervalue environmental protection or overvalue the corresponding regulatory costs to the state economy.¹⁰¹ Professor Richard Revesz provides a compelling empirical critique to the race-to-the-bottom theory in the context of environmental regulation, building on some of the existing economic literature¹⁰² that challenges this theory.¹⁰³ One example he provides is that before the EPA even implemented the 1990 amendments to the Clean Air Act, some states announced they would adopt more stringent pollution control standards than what were required under federal law.¹⁰⁴

⁹⁸ Revesz, *supra* note 10, at 1210. Professor Richard Stewart published two influential articles making race-to-the-bottom arguments for federal environmental regulation. See Richard B. Stewart, *Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 YALE L.J. 1196–1272 (1977); Richard B. Stewart, *The Development of Administrative and Quasi-Constitutional Law in Judicial Review of Environmental Decisionmaking: Lessons from the Clean Air Act* 62 IOWA L. REV. 713–770 (1977). The Clean Air Act, for example, contains several provisions directed at interstate pollution externalities that Congress explicitly justified by reference to race-to-the-bottom theory. See Revesz, *supra* note 10, at 1224. See, e.g., 42 U.S.C. § 7410(a)(2)(D) (Supp. II 1990).

⁹⁹ Revesz, *supra* note 10, at 1212. Interstate externalities, in this context, refer to wetlands as public goods whose benefit may be realized by other states. This assertion may be difficult to test empirically as the 2015 Rule was enjoined in four of the five states in the PPR (prior to its formal repeal in October 2019). Insofar as prairie potholes, the dominant isolated wetland feature in the PPR, are only subject to case-by-case federal regulatory determinations in Minnesota, the 2020 Rule is still likely to have *some* effect on states where the 2015 Rule was enjoined. A theoretical approach to how states in the PPR may respond to the 2020 Rule highlights both statutory prohibitions to administrative action as well as state preferences for environmental regulation. Such conclusions can motivate the importance of private conservation, given that an estimated 88 percent of wetlands and other bodies of water in the PPR are geospatially isolated from navigable waters. DAHL, *supra* note 12, at 48.

¹⁰⁰ Revesz, *supra* note 10, at 1212.

¹⁰¹ *Id.*

¹⁰² See, e.g., Wallace E. Oates & Robert M. Schwab, *Economic Competition Among Jurisdictions: Efficiency Enhancing or Distortion Inducing?*, 35 J. PUB. ECON. 333–354 (1988).

¹⁰³ Revesz, *supra* note 10, at 1227. Revesz is careful to distinguish his critique to the race-to-the-bottom theory: “. . . while the Article’s arguments do not extend to the so-called race to the bottom over corporate charter or banking regulation, they do extend to state efforts to impose costs, through regulatory measures, on physical assets of mobile capital in other regulatory areas.” *Id.* at 1213.

¹⁰⁴ *Id.* at 1228. Nine Northeastern states announced that they would adopt California’s pollution control requirements for vehicles, indicating that such regulatory costs would account for a large percentage of the market for new cars. *Id.* In agreeing to adopt such standards, those states factored the social welfare benefits of less aggregate pollution minus the increased costs of in-state industrial activity. See *id.* at 1229.

Economists generally hold that the socially optimal level of pollution reduction is the amount that maximizes the benefits of such reduction to impacted persons, minus the costs of regulation.¹⁰⁵ Revesz concludes that there are no formal models supporting the assertion that interstate competition is inconsistent with the maximization of social welfare.¹⁰⁶ Social welfare, in the context of wetlands, is reflected in the public benefits that such waters provide. While some states, in the presence of less federal regulation, may impose more stringent state wetlands regulations—others may not.

The states that do not adopt heightened state regulation may do so because state statutes impose stringent prohibitions to agency regulation beyond what is required under federal law or because they have different preferences for environmental regulation.¹⁰⁷ This section examines such prohibitions in the PPR as well as some of the political-economic considerations that may impact different preferences. Parts III and IV subsequently address ways in which private organizations may bear some of the costs associated with wetlands conservation where the states may not otherwise regulate.

A. State-level Regulation

State legislatures may enact or amend laws to protect state waters, including wetlands, that are not regulated under federal law. Most states define “waters of the state” much more broadly than the EPA and the Corps, given that water is a primary responsibility of the states.¹⁰⁸ Less than half of the states, however, currently have their own permitting programs for freshwater wetlands.¹⁰⁹ Although, as Adler notes in his analysis of the impact of federal action on state environmental regulation, “states receive little inducement to assume responsibility for administering the Section 404 program in the federal government’s stead.”¹¹⁰ To illustrate the impact of this disincentive under the CWA, consider that, prior to the first federal wetlands regulation in 1975, every coastal state in the conterminous states except Texas adopted wetlands regulations in some form.¹¹¹ Therefore, it does not necessarily

¹⁰⁵ *Id.* at 1214.

¹⁰⁶ *Id.* at 1242.

¹⁰⁷ *Id.* at 1226, 1242. It should be noted that such statutory constraints may be amended by the legislature and are therefore not absolute barriers to increasing state regulation.

¹⁰⁸ See generally R. Steven Brown et al., *The States’ Definitions of ‘Waters of the State,’* *Envtl. Council of the States* 2 (Feb., 2009),

https://www.aswm.org/pdf_lib/ecos_feb_2009_definitions_of_waters_of_the_state.pdf.

Minnesota, for example, defines “waters of the State” as: “surface or underground waters, except surface waters that are not confined but are spread and diffused over the land. Waters of the state includes boundary and inland waters.” *Minn. Stat. Ann.* § 103G.005 (2018).

¹⁰⁹ See Rebecca L. Kihslinger, *WOTUS Proposal Poses Challenge for States*, *ENVTL. L. INS.* (Feb. 18, 2019), <https://www.eli.org/vibrant-environment-blog/wotus-proposal-poses-challenge-states>. Thus, less than half of the states regulate wetlands beyond what is required under the CWA.

¹¹⁰ Adler, *When is Two a Crowd?*, *supra* note 10, at 109.

¹¹¹ See *id.*

follow that states would be unwilling to increase state wetlands regulation following decreased federal regulation.

Some states may legislate additional coverage of state wetlands.¹¹² For states with comprehensive coverage, changes to WOTUS may have less of an impact. Minnesota, for example, has a state permit program and an aquatic resource program that employs about 22 people.¹¹³ The remaining states in the PPR rely solely on CWA § 401 water quality certification under the CWA and do not have state permit programs.¹¹⁴

State environmental agencies may also seek to regulate state waters administratively, to the extent they are able under state law. Over two-thirds of the states, however, have laws that restrict the authority of state agencies to regulate waters beyond what is required under the CWA.¹¹⁵ Part I of this Article detailed the federal minimum standards for WOTUS regulation; a stringency “floor”—both under the 2015 Rule and the 2020 Rule. South Dakota law, for example, restricts any regulation beyond the minimum standards set forth under any comparable federal program.¹¹⁶ Other state statutes in the PPR contain “qualified” stringency prohibitions to agency regulation that create restrictions, but do not expressly create a stringency “ceiling” relative to federal law. In both instances, state legislatures can of course enact legislation delegating additional authority to the agencies or explicitly regulating certain wetlands (without delegation to an agency). This section examines existing stringency prohibitions in three states in the PPR across this continuum.

To the extent the 2020 Rule increases the acreage of unregulated wetlands in the PPR, it is important to understand to what degree state agencies may be willing and able to regulate wetlands that are not included in the 2020 Rule. Table 1 ranks the states in the PPR by their existing ability to administratively exercise jurisdiction over wetlands beyond what is required under federal law.¹¹⁷ This Table shows that South Dakota is least able to impose more stringent regulation, while Minnesota is most likely to do so as it currently imposes regulations on state wetlands not subject to federal regulation.

¹¹² *But see* MICH. COMP. LAWS § 324.1307 et seq. (2019) (amending §§ 1307; 1511; 30101; 30112; 30301; 30304; 30305; 30306; 30307; 30314; 30316; 30319; 30321; 32301) (reflecting the narrowed scope of Michigan’s wetlands law).

¹¹³ Kihlslinger, *supra* note 109. Iowa, in contrast, which just developed an EPA-approved Wetlands program has only a few staff covering its regulatory program. *Id.*

¹¹⁴ *See generally* U.S.C. § 1341; 40 C.F.R. § 121. Section 401 provides that states are authorized to review applications for § 404 permits, but four out of the five states in the PPR rely solely on CWA § 401 certification. *Id.* *See also infra* Table 1.

¹¹⁵ ENVTL. L. INS., State Constraints: State Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal Clean Water Act 36 (2013), <https://www.eli.org/sites/default/files/eli-pubs/d23-04.pdf> (“Two thirds of all states have laws that constrain, in one or more ways, the authority of their state and local government officials to adopt aquatic resource protections.”).

¹¹⁶ *See id.* at 198–99.

¹¹⁷ *See infra* Table 1.

Table 1: Agency Authority and Regulation of State Waters¹¹⁸

	Agency Authority: Beyond federal regulation	Status: State Regulation of Non-CWA Waters	Non-CWA Waters: Current State Coverage	2015 Rule in effect?
1. South Dakota	Strict stringency prohibitions	None, relies solely on § 401 cert.	No	No
2. Iowa	Stringency prohibitions and qualified stringency prohibitions	None, relies solely on § 401 cert.	No	No
3. North Dakota	Qualified stringency prohibitions	None, relies solely on § 401 cert.	No	No
4. Montana	Qualified stringency prohibitions	None, relies solely on § 401 cert.	No	No
5. Minnesota	Qualified stringency prohibitions, but authorized to regulate "waters of the state"	Yes, State dredge/fill permit program	Partial	Yes

1. Strict Stringency Prohibitions Beyond Federal Regulation

South Dakota has the strictest stringency prohibitions in the PPR and arguably the most sweeping in the United States.¹¹⁹ The statutory language prohibits state agencies from asserting jurisdiction that is broader than corresponding federal requirements for regulating water pollution, livestock discharge, water supply and treatment system operators, and the appropriation, use, and management of groundwater and irrigation water. South Dakota does not have a regulatory program to regulate non-CWA waters and did not enact legislation or promulgate regulation to broaden its jurisdiction over state waters following the narrowed scope of WOTUS in SWANCC and Rapanos.¹²⁰

2. Qualified Stringency Prohibitions Beyond Federal Regulation

North Dakota law imposes fewer restrictions on agency regulation through qualified stringency prohibitions. The Department of Health, the State's primary environmental agency, must make a written finding after public comment and hearing based upon evidence in the record to promulgate a more stringent rule than the comparable federal regulation.¹²¹ The Agency must show that federal regulation

¹¹⁸ See ENVTL. L. INS., *supra* note 115, at 93–96, 132–34, 143–50, 169–72, 198–99.

¹¹⁹ *Id.* at 198–199; S.D. Codified Laws § 1-40-4.1 (2019) (“No rule that has been promulgated pursuant to Title 34A [Environmental protection] . . . 46 [Water Rights], or 46A [Water Management] may be more stringent than any corresponding federal law, rule, or regulation governing an essentially similar subject or issue.”). Iowa law also imposes stringency prohibitions, but they applied specifically to effluent water quality standards and manure control. ENVTL. L. INS., *supra* note 115, at 93; Iowa Code § 459.311(2) (2019) (establishing maximum requirements for manure control); Iowa Code § 455B.173 (2019) (establishing maximum requirements for effluent water quality standards).

¹²⁰ See ENVTL. L. INS., *supra* note 115, at 199.

¹²¹ See *id.* at 169–170; N.D. CENT. CODE § 23–01–04.1(1)–(3), (5) (2019) (“Except as provided in subsection 2 [rulemaking authority and procedure], no rule which the state department of health . . . adopts for the purpose of the state administering a program under the . . . federal Clean Water Act . . . may be more stringent than corresponding federal regulations which address the same circumstances.”). Montana has a similar set of prohibitions and rulemaking procedure. Montana law provides that the Board of Environmental Review, under the Department of Environmental Quality,

under the CWA is inadequate to protect the public health and the environment of the State.¹²² Even so, the State's agencies do not currently have a program to regulate non-CWA waters and did not enact legislation or promulgate regulation to broaden its jurisdiction over state waters following the narrowed scope of WOTUS in *SWANCC* and *Rapanos*.¹²³

3. More Stringent State Regulation

Minnesota law, in contrast, imposes qualified stringency prohibitions, but includes its own state permit program to regulate certain waters of the state.¹²⁴ Every two years, the Minnesota Pollution Control Agency must present to the state legislative committees responsible for the Agency's budget, a list of existing and proposed state water regulations that are more stringent than the corresponding federal regulations.¹²⁵ Minnesota is the only state in the PPR that regulates wetlands beyond what is required under the CWA.¹²⁶

The Minnesota Department of Natural Resources, the agency responsible for state permitting, is authorized to regulate certain waters of the state that would not be regulated under the 2020 Rule.¹²⁷ The Agency may also reclassify public waters wetlands—under Laws 1979, chapter 199—as public waters or as Wetland Conservation Act Wetlands.¹²⁸ The State's Wetlands Conservation Act prohibits a private landowner from dredging or filling a wetland subject to state regulation unless he restores or creates a wetland area of at least equal value under an approved

must show that the proposed rule protects public health or the environment; and can mitigate such harm under current technology. *See* ENVTL. L. INS., *supra* note 115, at 144; MONT. CODE ANN. § 75–6–116 (2019). Iowa law imposes qualified stringency prohibitions in addition to stringency prohibitions. (“The [Agency] must: (1) identify in its notice of intended action or adopted rule preamble each rule that is more restrictive than the federal program requires; (2) state the reasons for proposing or adopting the more restrictive requirement; and (3) included with its reasoning a ‘financial impact statement’ detailing the general impact of the rules on affected parties.”). *See* ENVTL. L. INS., *supra* note 115, at 95; IOWA CODE § 455B.105 (2019).

¹²² *See* ENVTL. L. INS., *supra* note 115, at 169–170; N.D. CENT. CODE § 23–01–04.1(1)–(3), (5).

¹²³ *See* ENVTL. L. INS., *supra* note 115, at 172.

¹²⁴ *Id.* at 132–33; MINN. STAT. § 115.03(9)(4) (2019). Technically, Minnesota law also includes stringency prohibitions, should the State assume administration of § 404 permitting under the CWA. *See* ENVTL. L. INS., *supra* note 115, at 132; MINN. STAT. § 103G.127 (2019). Note that federal § 404 permitting is separate from the State's permitting program for state waters. The Public Waters Law of the State establishes the Public Waters Permit Program and the Public Water Inventory Program whereby the Department of Natural Resources may issue a permit for projects that impose “a minimum encroachment, change, or damage to the environment, particularly the ecology of the waterway.” MINN. STAT. § 103G.245(7)(a) (2019).

¹²⁵ *See* ENVTL. L. INS., *supra* note 115, at 132–33; MINN. STAT. § 115.03(9)(4) (2019).

¹²⁶ *See* ENVTL. L. INS., *supra* note 115, at 133. Minnesota is also the only state in the PPR where the 2015 Rule was not enjoined. *See supra* note 83.

¹²⁷ *See id.*; MINN. STAT. § 115.01(22) (2019).

¹²⁸ *See* MINN. STAT. § 103G.201(b)–(e) (2019). *See generally* MINN. BD. OF WATER AND SOIL RES. & MINN. DEP'T OF NAT. RES., WETLANDS REG. IN MINNESOTA (version 2.1, Mar. 2019).

replacement plan.¹²⁹ Minnesota has one of the most robust wetlands programs in the United States and has the second most freshwater wetlands acreage behind Alaska, despite 80 percent historic wetlands loss.¹³⁰

B. Political Economy

The political economy of these states is an important factor to state-level regulation, particularly as it relates to public-choice arguments for environmental regulation. Agriculture is a key industry in the PPR and has contributed significantly to historic wetlands loss.¹³¹ Farmers and ranchers were particularly opposed to the 2015 Rule, in part because of the perception that Obama-era regulation hamstrung basic agricultural activities.

Some of these concerns seem warranted. For example, the Corps determined that John Duarte, a fourth-generation farmer from California, violated the CWA when he plowed a field on his property in preparation for planting winter wheat.¹³² The field had several seasonal wetlands, which the farmer plowed around.¹³³ The Corps claimed that the three to four inch plowed furrows created “small mountain ranges” that discharged pollutants—specifically tilled dirt—into the wetlands.¹³⁴ A year-long legal battle ensued before Duarte settled with the government for \$1.1 million.¹³⁵ This example is one of many supporting the view that property owners should be free to make decisions about managing their land and water resources without ambiguity or expensive and time-consuming regulation.

¹²⁹ See ENVTL. L. INS., *supra* note 115, at 134; MINN. STAT. § 103G.245(7)(a) (2019). See also MINN. R. 6115.0190(1)(A), 6115.0200(1)(A), 6115.0270(4)(B) (2019). Minnesota’s wetland banking program is an example of an approved replacement plan where a private landowner may purchase wetlands “credits” from private and state-sponsored wetland banks to offset authorized wetland impacts. See *Wetland Bank Credits and Fees*, MINN. BD. OF WATER AND SOIL RES., <https://bwsr.state.mn.us/wetland-bank-credits-and-fees> (last visited July 10, 2019).

¹³⁰ DAHL, *supra* note 12, at 10.

¹³¹ See *supra* note 17 and accompanying text (detailing historic wetlands loss due to agriculture); *supra* Table 2 (showing agriculture as a percentage of GDP by state in the PPR).

¹³² Robin Abcarian, *A Land-Use Case That’s Enough to Furrow a Farmer’s Brow*, LOS ANGELES TIMES (Jan. 15, 2016), <https://www.latimes.com/local/abcarian/la-me-0115-abcarian-farmer-wetlands-20160115-column.html>.

¹³³ *Id.* As Abcarian notes, “[a]s a farmer matter, you don’t really want to plan in puddles that don’t drain . . . [a]s a legal matter, the government takes a dim view of wetland destruction.” *Id.*

¹³⁴ *Id.*

¹³⁵ Associated Press, *Northern California Farmer who Plowed Wetland is Fined \$1.1 Million*, LOS ANGELES TIMES (Aug. 16, 2017), <https://www.latimes.com/local/lanow/la-me-farmer-wetlands-20170816-story.html>.

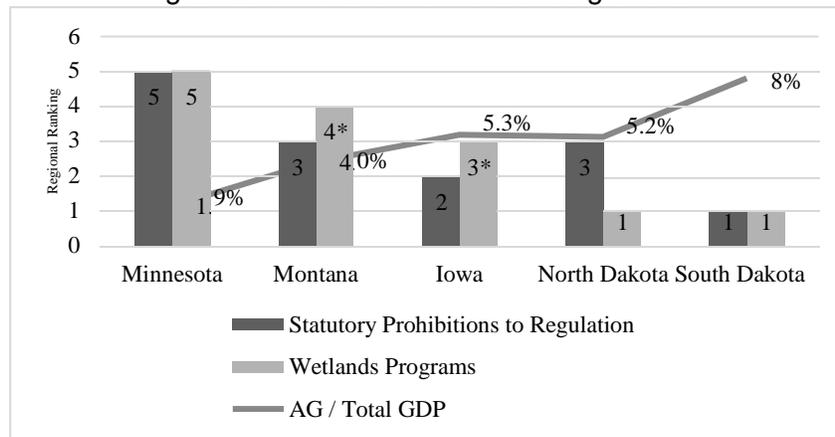
The impact of such conflicts on preferences for state regulation in the PPR can be measured in part by the importance of agriculture to a state’s economy. Table 2 shows agriculture as a percentage of state gross domestic product (GDP) for each State in the PPR and Figure 2 demonstrates a correlation between agricultural dependence, and existing stringency prohibition statutes and state wetlands programs.¹³⁶

Table 2: State Agricultural Economy¹³⁷

	Agriculture: AG / Total State GDP (%)	Crops: #1 crop (acre) / U.S. Rank	Livestock: #1 livestock (#) / U.S. Rank
1. South Dakota	8.0%	Corn / 6	Cattle / 7
2. Iowa	5.3%	Corn / 1	Layers (hens) / 1
3. North Dakota	5.2%	Wheat / 2	Cattle / 16
4. Montana	4.0%	Wheat / 3	Cattle / 10
5. Minnesota	1.9%	Corn / 4	Turkeys / 1

¹³⁶ See *infra* Figure 2.

¹³⁷ Agriculture: FED. RESERVE BANK OF ST. LOUIS, ECON. RESEARCH, <https://fred.stlouisfed.org> (last visited July 9, 2019). The Agriculture column represents the 5-year (2013–2018) average of agricultural activities as a percentage of total state GDP, seasonally adjusted annual rate. Agriculture includes forestry, hunting, and fishing. Crops and livestock: U.S. DEP’T OF AGRIC., STATE AGRICULTURE OVERVIEW, https://www.nass.usda.gov/Statistics_by_State/Ag_Overview/ (last visited July 9, 2019). The crops and livestock columns represent the primary agricultural activity, on a per acre and headcount basis respectively. They also include the state’s total output relative to other states.

Figure 2: State-Level Wetlands Regulation¹³⁸

While South Dakota, North Dakota, Iowa, and Montana did not enact legislation or promulgate regulation to broaden their jurisdiction over state waters following *SWANCC* and *Rapanos*, a theoretical question worth entertaining is whether state action could have been discouraged due to the presence of federal regulation.¹³⁹ It is plausible to consider that if the 2020 Rule reduces regulatory conflicts that these states may respond differently.¹⁴⁰ However, politicians in South Dakota, North Dakota, Iowa, and Montana are among the most vocal proponents of the 2020 Rule.¹⁴¹ Industry dynamics in the PPR, particularly agricultural,

¹³⁸ Statutory prohibitions to regulation: See ENVTL. LAW INST., *supra* note 115, at 93–96, 132–34, 143–50, 169–72, 198–99. Wetlands Programs: See ASS’N OF STATE WETLAND MANAGERS, IOWA STATE WETLAND PROGRAM SUMMARY (2015), https://www.aswm.org/pdf_lib/state_summaries/iowa_state_wetland_program_summary_083115.pdf [hereinafter ASWM, IOWA WETLAND PROGRAM]; ASS’N OF STATE WETLAND MANAGERS, *supra* note 28; ASS’N OF STATE WETLAND MANAGERS, MONTANA STATE WETLAND PROGRAM SUMMARY (2015), https://www.aswm.org/pdf_lib/state_summaries/montana_state_wetland_program_summary_083115.pdf; ASS’N OF STATE WETLAND MANAGERS, MINNESOTA STATE WETLAND PROGRAM SUMMARY (2015), https://www.aswm.org/pdf_lib/state_summaries/minnesota_state_wetland_program_summary_111815.pdf [hereinafter ASWM, MINN. WETLAND PROGRAM]; ASS’N OF STATE WETLAND MANAGERS, NORTH DAKOTA STATE WETLAND PROGRAM SUMMARY (2015), https://www.aswm.org/pdf_lib/state_summaries/north_dakota_state_wetland_program_summary_083115.pdf; ASS’N OF STATE WETLAND MANAGERS, SOUTH DAKOTA STATE WETLAND PROGRAM SUMMARY (2015), https://www.aswm.org/pdf_lib/state_summaries/south_dakota_state_wetland_program_summary_083115.pdf. AG / Total GDP: See FEDERAL RESERVE BANK OF ST. LOUIS, *supra* note 137.

¹³⁹ See ENVTL. L. INST., *supra* note 115, at 96, 150, 172, 199.

¹⁴⁰ The 2020 Rule will warrant an empirical examination of its impact on state-level regulation.

¹⁴¹ For example, as U.S. Senator Mike Rounds from South Dakota expressed:

The revised WOTUS rule gives farmers, ranchers and landowners the certainty they need to know when the Clean Water Act applies to them and when it does not . . . Additionally, the rule works with landowners to strengthen water safety –

provide persuasive evidence that increased state-level regulation through legislative or administrative action is unlikely in most of these states.

State-level dynamics in Minnesota suggest a different outcome. Minnesota was one of the first states to develop wetlands and water monitoring programs.¹⁴² Such preferences for state-level regulation can be explained by a number of factors: Minnesota has the second most inland wetland acreage in the country, historically high wetlands loss, and less dependence on agriculture relative to other states in the PPR.

Insofar as the PPR suggests that states may not adopt more stringent state regulation—which seems to support race-to-the-bottom theory on its face—it does not follow that such conclusions warrant heightened federal environmental regulation per se. Even so, as Revesz acknowledges, some studies may “define specific circumstances in which federal regulation could improve upon the results of interstate competition.”¹⁴³ The broader significance of Revesz’s assertion, far from a definitive refutation of all environmental race-to-the-bottom arguments, supports an optimal framework for federal regulation, state regulation, and private conservation in which each entity plays an important and distinct role in the broader context of environmental protection.¹⁴⁴

IV. Grassroots Conservation

Conservation organizations may conserve wetlands outside the scope of regulation. Working with private landowners is imperative in a region where 90 percent of land is in private ownership.¹⁴⁵ A study conducted by the U.S. Fish & Wildlife Service (USFWS) estimated that 88 percent of wetlands and other bodies of water in the PPR are geospatially isolated from navigable waters.¹⁴⁶ Where the 2015 Rule was enjoined, federal regulation did not extend to the majority of wetlands in the PPR, given the *SWANCC* decision that struck down the use of the Migratory Bird Rule.¹⁴⁷ In Minnesota, the 2020 Rule now excludes isolated

rather than saddle them with unnecessary burdens with little to no benefit to the environment and our water supply.

Rounds: Revised WOTUS Rule a Win for Landowners, Ag Community & States Rights, MIKE ROUNDS, U.S. SENATOR FOR SOUTH DAKOTA (Dec. 11, 2018), <https://www.rounds.senate.gov/newsroom/press-releases/rounds-revised-wotus-rule-a-win-for-landowners-ag-community-and-states-rights>.

¹⁴² See *History of Water Protection: Origin of State Authority over Public Waters*, MINN. DEP’T OF NAT. RES., https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/history.html (last visited Aug. 5, 2019).

¹⁴³ Revesz, *supra* note 10, at 1253.

¹⁴⁴ See *id.* at 1254.

¹⁴⁵ DAHL, *supra* note 17, at 7.

¹⁴⁶ DAHL, *supra* note 12, at 48.

¹⁴⁷ See *supra* note 52 and accompanying text.

wetlands from regulation, absent any state regulation that would delegate such authority to the state agencies.¹⁴⁸

Agricultural exemptions under CWA § 404 for prior converted croplands and other exemptions in the Farm Bill legislation also suggest that very few prairie potholes on private lands are subject to federal regulation.¹⁴⁹ Other mechanisms for conserving wetlands in the PPR are consequently critical in achieving optimal wetlands protection. Part IV addresses these private conservation mechanisms in particular.

There are a number of reasons why private conservation—instead of regulation—may produce better results for isolated wetlands. When federal regulation extends to certain prairie potholes as it did under the 2015 Rule, permitting requires case-by-case analysis that can be costly and uncertain for private landowners.¹⁵⁰ This approach undermines environmental protection by creating conflict. Perverse incentives exist for landowners to either ignore regulation or do nothing for fear of litigation and the costs involved.¹⁵¹ Violating federal law certainly has significant consequences, to the extent violators are held criminally and civilly liable under the CWA. The latter—doing nothing—is a more likely scenario, but it may not be optimal for wetlands conservation. While regulation may discourage dredging or filling isolated wetlands, it often creates conflict and falls short of improving the quality of these assets. Private conservation offers an attractive solution.

A. National Public Goods

Proponents of expansive federal involvement in regulating state resources argue that because certain national public goods provide non-excludable benefits to residents in other states, these goods are likely to be under-protected by state governments.¹⁵² Professor John List has published some empirical research that suggests that states may underinvest in habitat conservation where the benefits of such action would be partly realized in other states.¹⁵³ Consider such parallels to

¹⁴⁸ Minnesota Governor, Tim Walz, signed an executive order suggesting that state agencies would regulate at least some isolated wetlands in the federal government's stead. Minn. Exec. Order No. 19–17 (April 1, 2019) (“All responsible departments and agencies must . . . [p]rotect, enhance, and restore the quality and extent of Minnesota’s wetlands to the fullest extent of their authority in accordance with the goal of “no-net loss” of wetlands in the State.”).

¹⁴⁹ DAHL, *supra* note 12, at 48 (“In the PPR, where the transitory nature of surface water allows even some of the deepest emergent marshes to dry sufficiently and have an established history of cropping, there are very few prairie wetlands on private lands that appear to have any federal protection status either through CWA (because they are likely to be considered “isolated”) or through other exemptions in the Farm Bill Legislation (because of past cropping practices).”).

¹⁵⁰ See *supra* notes 34, 78 and accompanying text.

¹⁵¹ See *supra* notes 30–32, 133–35 and accompanying text.

¹⁵² See Adler, *Jurisdictional Mismatch*, *supra* note 10, at 143.

¹⁵³ See *id.* Compare John A. List et al., “Beggars Thy Neighbor:” *Testing for Free Riding in State-Level Endangered Species Expenditures*, 111 PUB. CHOICE 303, 312–13 (2002) (“Species preservation, in contrast [to pollution control], involves mainly nonuse value that readily spill over

wetlands in the PPR, which may produce waterfowl that are hunted elsewhere or capture carbon that improves global air quality. List's assertion is indeed plausible when applied to certain wetlands and may justify the appropriate level of federal government regulation.¹⁵⁴ It does not follow, however, that wetlands conservation must be provided by government per se.

Nobel laureate Ronald Coase published an influential article challenging the long-held assumption that the lighthouse is an example of a service that could only be provided by the government.¹⁵⁵ The assumption was that a lighthouse is a public good with benefits that are difficult to restrict to those that pay.¹⁵⁶ Coase counters this assumption by looking at private lighthouses in 18th and 19th century Britain that charged user fees at the dock to generate revenue.¹⁵⁷ Prairie potholes, and other isolated wetlands, are in some ways analogous to a Coasean lighthouse. Conservation groups can generate private funds from individuals who benefit from pothole conservation, such as duck hunters. In this way potholes are national public goods that are not necessarily non-excludable resources. Thus, the efforts of private actors are a viable alternative to government regulation. Where isolated wetlands that provide a national public good may be undervalued by the state and thus unregulated, private actors may fill those gaps by bearing some of the costs of conservation.¹⁵⁸ Of course, the most important question is whether private conservation in those instances will equal or exceed the degree of wetlands protection achieved through regulation. The work of DU in the PPR suggests it may, provided that adequate private and governmental incentive programs are in place.

to other constituencies and offer more opportunity for free riding.”), *with* Revesz, *supra* note 103 and accompanying text (finding that states do not necessarily adopt lax pollution policies to attract investment).

¹⁵⁴ *See, e.g., supra* note 86 and accompanying text (arguing that WOTUS should include interstate waters and wetlands).

¹⁵⁵ *See* Ronald H. Coase, *The Lighthouse in Economics*, 17 J.L. & ECON. 357–376, 358–460 (1974). Coase challenged the work of earlier economic scholars who argued that lighthouses produced uncompensated services that could not be divided by free markets. *See generally* HENRY SIDGWICK, *THE PRINCIPLES OF POLITICAL ECONOMY* 406 (3rd ed. 1901); A.C. PIGOU, *ECONOMICS OF WELFARE* 183–84 (4th ed. 1938); PAUL A. SAMUELSON, *ECONOMICS: AN INTRODUCTORY ANALYSIS* 45, 159 (6th ed. 1964).

¹⁵⁶ *See id.*

¹⁵⁷ *See id.* at 360–72.

¹⁵⁸ *See* Adler, *Jurisdictional Mismatch*, *supra* note 10, at 143 (“It should be noted that just because a given environmental amenity meets the traditional economic definition of a public good does not mean that it will not be provided privately ”); Robert J. Smith, *Private Solutions to Conservation Problems*, in *THE THEORY OF MARKET FAILURE: A CRITICAL EXAMINATION* 341 (TYLER COWEN ED., 1988); Jonathan H. Adler, *Back to the Future of Conservation: Changing Perceptions of Property Rights & Environmental Protection*, 1 N.Y.U. J.L. & LIBERTY 988, 1013–19 (2006).

B. Regulatory Distrust Breeds Conflict

Private organizations have been successful in building relationships with private landowners—who generally distrust federal regulators—by aligning economic incentives with voluntary conservation objectives without expensive oversight and fear of further impositions. As the father of wildlife ecology, Aldo Leopold, writes, “conservation will ultimately boil down to rewarding the private landowner who conserves the public interest.”¹⁵⁹ It is important to consider how expansive federal regulation may inhibit private landowner conservation.

Philip Howard, a well-known leader of government and legal reform, discusses America’s current governing system and the consequences of expansive federal regulation.¹⁶⁰ Howard challenges the theory that regulatory uniformity achieves “clear law” by providing compelling examples of regulatory dysfunction.¹⁶¹ One such case is a family-owned apple orchard in upstate New York that is subject to about 5,000 requirements from 17 different regulatory programs.¹⁶² Many of these regulations impose impractical compliance measures that may have crippling consequences for farmers and small business owners.¹⁶³ As Howard observes, “American government is failing because it preempts the active intelligence and moral judgments of people on the ground.”¹⁶⁴ It is not difficult to understand why this system of governance creates conflict.

These assertions are certainly applicable to the PPR, where federal regulation breeds conflict. The 2020 Rule may reduce conflict and present an opportunity for private organizations to work with landowners to conserve the public interest. Potholes and other isolated wetlands that are scattered across the region capture and store agricultural runoff, provide critical flood protection,

¹⁵⁹ ALDO LEOPOLD, *THE RIVER OF THE MOTHER OF GOD: AND OTHER ESSAYS* 202 (Susan L. Flader et al. eds., U. of Wis. Press 1991) (citing an essay entitled *Conservation Economics*, published in 1934).

¹⁶⁰ See PHILIP K. HOWARD, *THE RULE OF NOBODY: SAVING AMERICAN FROM DEAD LAWS AND BROKEN GOVERNMENT*, 47–62 (2014) [hereinafter HOWARD, *THE RULE OF NOBODY*]; Philip K. Howard, *How Distrust Breeds Dysfunction*, NISKANEN CENTER (Feb. 5, 2019), <https://niskanencenter.org/blog/how-distrust-breeds-dysfunction/> [hereinafter Howard, *How Distrust Breeds Dysfunction*]. Howard writes:

Regulation has a bad name, for a good reason: It often requires things that make no sense, and then punishes people for not complying. Regulation by principles puts the focus where it should be, on public goals, and also on doing something more revolutionary: turn government’s focus toward helping people improve, not punishing them. The point of regulation, we seem to have forgotten, is to make sure things work in a crowded society. HOWARD, *THE RULE OF NOBODY*, at 57.

By scaling back regulation, government can reduce conflict and focus on regulating the areas of greatest need. Private organizations, in turn, can do their part to help landowners better conserve the public interest.

¹⁶¹ See Howard, *supra* note 160.

¹⁶² See *id.*

¹⁶³ See *id.*

¹⁶⁴ See *id.*

sequester carbon emissions, provide clean drinking water, and support a vibrant ecosystem.¹⁶⁵ Given the significance of these national public goods, private organizations have an important role in working with private landowners by bearing some of the costs of wetlands conservation.

V. Case Study: Ducks Unlimited

DU has identified the PPR as the most important and threatened waterfowl habitat in North America.¹⁶⁶ The organization is an active member of the Prairie Pothole Joint Venture (PPJV), which includes federal and state agencies as well as private conservation groups.¹⁶⁷ Where expansive federal regulation has failed to protect the vast majority of wetlands in the PPR, DU has been successful in complementing various federal incentive programs, conducting scientific research, and developing critical relationships with private landowners.¹⁶⁸

DU's *Preserve Our Prairies* initiative is a great instance of private conservation and public-private cooperation at work. The goal of the initiative is to implement a working lands approach to conservation by providing willing landowners with attractive land conservation programs that may also diversify their income.¹⁶⁹ The working lands strategy approaches wetlands conservation in the PPR by providing incentives that often exceed the cost of meeting wetland conservation requirements. DU's primary wetlands conservation programs include conservation easements; revolving lands, which involves purchasing critical lands in fee-simple and then restoring habitat; and sustainable grazing management and cover crop assistance.¹⁷⁰

A. Conservation Easements

Purchasing conservation easements that protect wetlands and grasslands from cropland conversion is the principal tactic for the USFWS to permanently protect duck habitat.¹⁷¹ Between 1998 and 2012, the USFWS and its conservation partners spent \$152.2 million on easements in the PPR. DU was the principal

¹⁶⁵ See DUCKS UNLIMITED, PRESERVE OUR PRAIRIES (2019). The PPR provides habitat for a long-term average of 20 million breeding ducks, the most in North America. *Id.*

¹⁶⁶ *See id.*

¹⁶⁷ PRAIRIE POTHOLE JOINT VENTURE, <http://ppjv.org> (last visited Aug. 5, 2019). USFWS formed the PPJV in 1987 as one of the original six priority joint ventures under the North American Waterfowl Management Plan. *Id.* PPJV partners include: USFWS; Montana Fish, Wildlife & Parks; North Dakota Game and Fish Department; South Dakota Game, Fish and Parks; Iowa Department of Natural Resources; Minnesota Department of Natural Resources; Pheasants Forever; DU; and The Nature Conservancy. *Id.*

¹⁶⁸ *See id.*

¹⁶⁹ *See* DUCKS UNLIMITED, *supra* note 165.

¹⁷⁰ *See id.*

¹⁷¹ Johann Walker et al., *An Integrated Strategy for Grassland Easement Acquisition in the Prairie Pothole Region, USA*, 4 J. OF FISH AND WILDLIFE MGMT. 267, 268 (2013).

provider of private matching funds, contributing \$26.9 million—about 17 percent of total funding.¹⁷² Precipitous increases in commodity prices during the 2000s increased the cost of easements, but also necessitated the development of a more advanced Geographic Information System (GIS) easement-targeting strategy.¹⁷³ These technological mapping improvements combined existing USFWS priority areas with the probability of cropland conversion and cost of protection areas to provide a more accurate picture of easement costs relative to the benefits lost per potential acquisition unit.¹⁷⁴

Landowner demand is also a critical component to the conservation easement strategy. More than 1,500 landowners across the Dakotas and Montana are interested in enrolling their land in conservation easements.¹⁷⁵ Where demand currently exceeds funding, DU has responded by launching a five-year private funding goal of \$65 million through 2024, which would unlock an additional \$130 million in public funding.¹⁷⁶ In 2017, 86,633 acres were protected through easements in Montana, North Dakota, and South Dakota—a testament to the collective efforts of private fundraising and revenue generated through the Migratory Bird Conservation Fund.¹⁷⁷ The Fund generates revenue through the sale of Duck Stamps, which duck hunters are required to purchase annually; appropriations authorized by the Wetlands Loan Act; excise taxes on hunting equipment, such as ammunition; and access permits to national wildlife refuges.¹⁷⁸ In this way, hunters who benefit from more wetlands bear some of the costs of conservation.

Conservation easements allow landowners to maintain ownership of the land and continue farming and ranching, provided they refrain from plowing grasslands and draining wetlands.¹⁷⁹ Easements run with the land, ensuring perpetual wetland and grassland conservation. Given that crop prices have declined since reaching record levels in 2013, agricultural land values and the cost of easements have declined or stabilized across most of the PPR.¹⁸⁰ Decreasing federal regulation under the 2020 Rule, particularly in states where the 2015 Rule was

¹⁷² *Id.* This public-private partnership conserved more than 344,000 hectares (850,043 acres) of grasslands through easements during that period. *Id.*

¹⁷³ *See id.* Between 1998 and 2012, average inflation-adjusted corn prices in North and South Dakota increased 210 percent, while the average inflation-adjusted cost of grassland easements increased 300 percent during that same period. *Id.*

¹⁷⁴ *See id.* at 270, 276. Local knowledge that private organizations and agency field offices provide can enhance these determinations. *Id.* at 276. These methods are more effective than strictly measuring breeding duck pair abundance. *Id.*

¹⁷⁵ *See* DUCKS UNLIMITED, *supra* note 165.

¹⁷⁶ *Id.*

¹⁷⁷ *See* Johann Walker, *Preserve Our Prairies, Progress Report 2018*, DUCKS UNLIMITED 1–2 (2018), <http://www.ducks.org/Portals/0/GPR/Preserve%20Our%20Prairies2018F%20email.pdf>.

¹⁷⁸ *See Migratory Bird Conservation Commission*, U.S. FISH & WILDLIFE SERV., <https://www.fws.gov/refuges/realty/mbcc.html> (last visited Aug. 6, 2019).

¹⁷⁹ *See* DUCKS UNLIMITED, *supra* note 165.

¹⁸⁰ *See id.*

enjoined, will have a marginal impact on the cost of easements.¹⁸¹ Conservation easements, therefore, are currently economically attractive for both private landowners and conservation groups.

B. Revolving Lands

DU also purchases high-priority lands at market value from willing sellers.¹⁸² This provides an appealing incentive for farmers and ranchers to retire debt and receive financial security from the sale.¹⁸³ High-priority lands have much of their waterfowl habitat value intact, but are at high risk of environmental degradation because they are adjacent to intensively cropped lands or unprotected by conservation easements.¹⁸⁴ A central element to the revolving lands strategy is ensuring that wetland restoration provides economic and ecological returns for future buyers, who can realize returns from natural working lands.¹⁸⁵ After restoring habitat on the property, DU places a conservation easement on the land.¹⁸⁶ The easement ensures that the restorative measures are realized in perpetuity. The land is then sold on the open market and the capital from the sale is re-invested for the next land purchase.¹⁸⁷

C. Grazing Management, Cover Crops, and Soil Health

In addition to purchasing property interests, DU provides financial incentives and technical assistance to ranchers and farmers to engage in their own wetlands conservation. For ranchers, this includes grassland restoration and fencing and watering systems for livestock. Farmers receive funds to plant non-cash cover crops outside of the normal growing season to provide soil nutrients and additional wildlife habitat. Cover crops are also an attractive alternative to tile draining, a subsurface drainage system (SDS) detrimental to surrounding wetlands.¹⁸⁸ Farmers

¹⁸¹ The vast majority of wetlands in the PPR have not been subject to federal regulation since before the SWANCC decision in 2001. *See supra* note 52 and accompanying text.

¹⁸² *Revolving Land Program*, DUCKS UNLIMITED, <https://www.ducks.org/conservation/land-protection/revolving-land-program> (last visited Aug. 6, 2019).

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ *Id.* In addition to sustainable farming and ranching, landowners can generate rents by leasing their fields to hunters. *See, e.g.*, BASE CAMP LEASING, <https://www.basecampleasing.com> (last visited Aug. 8, 2019); HUNTING LAND RENTALS BY OWNER, <https://www.hlrbo.com> (last visited Aug. 8, 2019); LANDTRUST, <https://www.landtrust.com> (last visited Aug. 8, 2019).

¹⁸⁶ *See* DUCKS UNLIMITED, *supra* note 165.

¹⁸⁷ A working lands approach that allows for sustainable land use, ensures that DU can recover costs for the original purchase and restoration. *See supra* note 185 and accompanying text.

¹⁸⁸ SDSs use perforated pipes buried below the soil surface to remove the surrounding groundwater to create optimal conditions for farming. *See* Brian A. Tangen & Mark T. Wiltermuth., *Prairie Pothole Region Wetlands and Subsurface Drainage Systems: Key Factors for Determining Drainage Setback Distances*, 9 J. OF FISH AND WILDLIFE MGMT. 274, 275 (2018). Although the USFWS protects some wetlands through easements that often stipulate buffers between wetlands

have used SDSs for decades in Iowa and Minnesota, where historic wetlands losses total 89 percent and 80 percent, respectively.¹⁸⁹ In the last twenty years, SDS use has expanded rapidly in the Dakotas, where rising commodity prices increased demand for wetland and grassland conversion to cropland.¹⁹⁰ DU has responded, for example, by planning to enroll 30,000 acres in cover crop management in North Dakota alone by 2020.¹⁹¹

D. Federal Programs and Partnerships

DU's programmatic solutions are vital for wetlands conservation in the PPR, but they are insufficient alone to maintain critical habitat and duck production capacity.¹⁹² Federal conservation grants, effective incentive programs, and public-private partnerships are critical to wetlands protection, particularly as a complement to private conservation in the stead of state or federal regulation over isolated wetlands.

One example of federal funding is the North American Wetlands Conservation Act, which provides matching grants to organizations that have developed wetlands conservation partnership projects benefiting migratory birds.¹⁹³ Private organizations enhance federal programs by providing matching investment and on-the-ground implementation on private lands. Changes to the Agricultural Act in 2014 (2014 Farm Bill) improved government incentive

and drainage systems, further research is required to determine the efficacy of these setback distances. *Id.* In the Dakotas, for example, expanded use of SDSs has significantly increased the number of drainage permit applications for private agricultural lands—even those protected by USFWS wetlands easements. *Id.* In addition to better understanding ways to limit the effects of SDSs to the hydrology of wetlands, cover crop assistance can reduce the demand for more disruptive draining practices. *Id.*

¹⁸⁹ ASWM, IOWA WETLAND PROGRAM, *supra* note 138 (Iowa); DAHL, *supra* note 12, at 10 (Minnesota).

¹⁹⁰ See Tangen & Wiltermuth, *supra* note 188.

¹⁹¹ See DUCKS UNLIMITED, *supra* note 165.

¹⁹² PRAIRIE POTHOLE JOINT VENTURE, 2017 PRAIRIE POTHOLE JOINT VENTURE IMPLEMENTATION PLAN 2.16 (Sean P. Fields ed., 2017) (“The goal of the Waterfowl Plan is to sustain the overall duck production capability that existed in the PPJV during 1994–2015.”). A recent study conducted by the PPJV concluded that while perpetual protection remains critical to wetlands conservation, federal incentive programs are imperative to keep up with wetlands loss rates in the PPR. PRAIRIE POTHOLE JOINT VENTURE, 2017 PRAIRIE POTHOLE JOINT VENTURE IMPLEMENTATION PLAN 1.39 (Sean P. Fields ed., 2017).

¹⁹³ North American Wetlands Conservation Act (NAWCA), Pub. L. No. 101-233, 103 Stat. 1968 (1989). The Act has funded over 2,900 projects in the last 20 years, totaling \$1.71 billion in grants and including more than 6,100 partners that contributed another \$3.49 billion in matching funds to affect 30 million acres of habitat. See *North American Wetlands Conservation Act*, U.S. FISH & WILDLIFE SERV., <https://www.fws.gov/birds/grants/north-american-wetland-conservation-act.php> (last visited Aug. 8, 2019). In the most recent cycle of standard NAWCA grants, DU and its project partners in the PPR received \$4 million in grants contributing to over \$12.8 million in total proposed investment. See U.S. FISH & WILDLIFE SERV., NORTH AMERICAN WETLANDS CONSERVATION ACT GRANTS (2019), <https://www.fws.gov/migratorybirds/pdf/grants/nawcaprojects190619.pdf>.

programs by making crop insurance premium subsidies contingent on conservation compliance.¹⁹⁴ Added constraints to farm subsidies, however, are effective only because the 2014 Farm Bill included modifications to certain programs to ensure that the benefits exceeded the costs of meeting compliance requirements.¹⁹⁵ One instance of inducing conservation compliance was extending coverage to “shallow” agricultural losses not normally covered by crop insurance.¹⁹⁶ A recent economic analysis conducted by the U.S. Department of Agriculture suggests that changes to crop insurance programs translate to strong compliance incentives for farms in the PPR with potentially convertible wetlands.¹⁹⁷ Lastly, voluntary partnerships like the PPJV are critical vehicles for agency and private sector cooperation because they leverage public and private resources to address specific regional conservation needs.¹⁹⁸ Private organizations, such as DU, are able to build and maintain relationships with private landowners to maximize the benefits associated with public-private partnerships.

Private conservation efforts and federal programs shift the costs of wetlands protection from private landowners to public stakeholders through revenue and

¹⁹⁴ See U.S. DEP’T OF AGRIC., ECON. RESEARCH SERV., CONSERVATION COMPLIANCE: HOW FARMER INCENTIVES ARE CHANGING IN THE CROP INSURANCE ERA 15 (2017). Such provisions include Highly Erodible Land Compliance (HELCS), requiring farm participants to implement approved soil conservation systems on highly erodible cropland, and Wetland Conservation (WC), requiring participants to refrain from draining wetlands. *Id.* at 1. These programs are known collectively as the “Swampbuster” provisions, first introduced in the 1985 Farm Bill. See *Wetland Conservation Provisions (Swampbuster)*, U.S. DEP’T OF AGRIC., <https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/water/wetlands/?cid=stelprdb1043554> (last visited Aug. 5, 2019). Insurance subsidies and other payments were tied to Swampbuster compliance provisions under the 1985 Farm Bill, but were removed from the 1996 Farm Bill—the 2014 Farm Bill’s reversal of the 1996 changes is critical for wetlands conservation on agricultural land. See U.S. DEP’T OF AGRIC., *supra* note 194, at 15.

¹⁹⁵ See *id.* at 39.

¹⁹⁶ *Id.* at 15.

¹⁹⁷ *Id.* at 39. The study concludes:

For farms that include potentially convertible wetland, at least in the [PPR], Compliance incentives are strong. Roughly 75 percent of wetlands in 5 Prairie Pothole States are on farms with ‘high’ Compliance incentives (>\$1.0/\$ rental value of land subject to Compliance). This proportion varies little in response to crop price changes. In the heart of the [PPR] (including significant parts of North and South Dakota), farms also receive relatively high crop insurance premium subsidies. *Id.*

Another federal incentive program is the Conservation Reserve Program (CRP), where landowners agree to 10–15 year lease agreements that provide annual rent payments in exchange for removing certain lands, such as wetlands, from agricultural production.

Conservation Reserve Program, U.S. DEP’T OF AGRIC., <https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/> (last visited Aug. 5, 2019).

¹⁹⁸ See *What We Are*, PRAIRIE POTHOLE JOINT VENTURE, <http://ppjv.org/about/what-we-are> (last visited Mar. 29, 2020). Cooperation, instead of conflict, improves environmental quality: “JVs work for one simple reason: because partners have realized that they can achieve more through collaboration than they can accomplish by acting alone.” *Id.*

excise taxes, incentive programs, and private contributions. Decreased federal regulation in the PPR may reduce conflict associated with wetlands protection because it provides private organizations with an opportunity to work with willing landowners to provide economic incentives for conserving more wetlands.¹⁹⁹

VI. Conclusion

The federal government, state governments, and private organizations all have an integral role in wetlands conservation. Environmental federalism suggests that more federal regulation does not necessarily equate to more environmental protection. Proponents of the race-to-the-bottom rationale may point to states like South Dakota when arguing that decreased federal regulation will not increase state and local regulation, resulting in environmental consequences. In some states, decreasing federal regulation will enhance state efforts; in others, it will not. This argument, however, does not account for the efforts of private organizations like DU that have a vested interest in conserving wetlands. Of course, in an incentive-based system, a considerable amount of additional funding, from both private and public sources, is essential to support adequate wetland and grassland conservation goals.

When federal environmental action is optimally administered, conflict decreases and states and private organizations can do their part to protect natural resources. Greater consideration should be given to these dynamics in developing an optimal framework for wetlands conservation.

¹⁹⁹ As Aldo Leopold writes: “When land does well for its owner, and the owner does well by his land; when both end up better by reason of their partnership, we have conservation.” Aldo Leopold, *The Farmer as a Conservationist*, 45 AM. FORESTS 1 (1939).