

Distinguishing Water Law from Land Use to Protect Water Quality and Navigate *Rapanos*

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Water use, water quality, and land use are distinct areas of law. The Supreme Court blurred these distinctions in Rapanos v. United States, in which the Court struck down an Army Corps of Engineers regulation interpreting the Corps' jurisdiction over "waters of the United States." The plurality aggrandized traditional state land use powers to include water quality regulation. This inflation has led to gaps in water resources protection. Examining what truly constitutes traditional state land use powers is necessary to accurately understand the balance of federal and state power in regulating water resources.

INTRODUCTION

*"We never know the worth of water till the well is dry."*¹

As our society tests the limits of our water resources, effective water resources management becomes critical.² Adequate water supplies are necessary for health, economic activity, development, ecosystems, and life itself. Only one percent of all water on earth is freshwater available for our use.³ Our water resources are increasingly stressed as demands increase, population grows, and society struggles to keep up with the plethora of pollutants.⁴ Land

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¹ Thomas Fuller, *Gnomologia: Adages and Proverbs*, 237 (1732).

² See "Water: Our Thirsty World," *National Geographic* 217 (April 2010): 4, 53 ("Nearly 70% of the world's fresh water is locked in ice. Most of the rest is in aquifers that we're draining much more quickly than the natural recharge rate. Two-thirds of our water is used to grow food. With 83 million more people on earth each year, water demand will keep going up unless we change how we use it").

³ *Id.*, 50 (explaining that over 97% earth's water is salt water, and almost 2% lies in snow and ice).

⁴ See Thomas Kostigen, "Simple Ways to Save Water, and the World," *MarketWatch*, March 26, 2010 (U.N. Secretary General Ban Ki-moon stating that increased populations, demands for wa-

development threatens water resources with contamination and withdrawals⁵ and has contributed to the swift destruction of over half of our country's wetlands.⁶ Climate change is expected to exacerbate water supply and water quality problems.⁷ Many believe that demand will increasingly outpace available, adequate water supplies.⁸

Each level of government has an appropriate and significant role to play in effective water resources management. The scales of water resources management vary depending on the problem at hand. Some water problems are confined to a small watershed or sub-basin of a watershed; others affect large river basins or multiple watersheds spanning multiple states.⁹ In addition

ter, and pollution are increasing clean water scarcity, and predicting that “[w]ater prices are poised to rise due to increased water stress, and corporate growth is expected to be impeded as resources dwindle”); see, e.g., “NASA Data Reveals Major Groundwater Loss in California” (December 14, 2009), <http://www.jpl.nasa.gov/news/news.cfm?release=2009-194> (accessed April 22, 2012) (“New space observations reveal that since October 2003, the aquifers for California’s primary agricultural region—the Central Valley—and its major mountain water source—the Sierra Nevadas—have lost nearly enough water combined to fill Lake Mead, America’s largest reservoir”); “Council Calls on Feds, States to Boost Groundwater Support,” *Clean Water Report*, July 16, 2008 (explaining that water levels of the Ogallala Aquifer, which provides eight Midwest states with fresh water, have decreased by up to 100 feet in some areas due to high usage rates, and that “[c]ommercial development in Florida has produced dried-up wells, reduced surface water, and lowered water quality in the state”).

⁵ See Craig Anthony (Tony) Arnold, “Integrating Water Controls and Land Use Controls: New Ideas and Old Obstacles,” *Wet Growth: Should Water Law Control Land Use?* 23 (2005): 1 [hereinafter New Ideas] (explaining that development makes withdrawals and deposits to water resources, and more land development requires greater use of water supplies while causing greater degradation of water supplies).

⁶ More than half of the wetlands in the U.S. have been destroyed, and some states have lost 80 percent or more of their wetlands. James Salzman and Barton H. Thompson Jr., *Environmental Law and Policy*, 3rd ed. (2010), 265 [hereinafter Salzman and Thompson Jr.]. The EPA states that contamination has contributed to both wetland destruction and degradation. “The increase in flood damages, drought damages, and the declining bird populations are, in part, the result of wetlands degradation and destruction.” U.S. EPA, *Wetlands: Status and Trends* (2009), <http://www.epa.gov/wetlands/vital/status.html> (accessed April 22, 2012).

⁷ See *United States Global Change Research Program, Global Climate Change Impacts in the United States* (2009), 41–52 (“Climate change has already altered, and will continue to alter, the water cycle, affecting where, when, and how much water is available for all uses”—“[f]loods and droughts are likely to become more common and more intense[.]” and “[s]urface water quality and groundwater quantity will be affected by a changing climate”).

⁸ See Robert E. Beck and Amy K. Kelley, *Waters and Water Rights*, 3rd ed. (2010), vol. 1, 1-6 to 1-7 and 9-2 n.6 [hereinafter Beck Vol. 1] (articles and reports predicting water supply shortfalls); see, e.g., Benedykt Dziegielewski and Jack Kiefer, *U.S. Water Demand, Supply, and Allocation: Trends and Outlook* (2008), § 2.4 (identifying over a dozen “hot spots” in the U.S. that could face water crises by 2025); “New Water Supplies Needed for Utah Demand,” *TendersInfo*, March 12, 2010 (supply may override demand by 2027); Shaun McKinnon, “State Pressed on Water Deal; Tribe, Weary of Inaction, Holds Court-Decision Trump Card,” *Arizona Republic*, August 27, 2007, 1 (predicting that Flagstaff, Arizona, will need to import water by 2030).

⁹ For example, the Colorado River travels 1,400 miles through seven states and into Mexico. Joseph L. Sax et al., *Legal Control of Water Resources*, 2nd ed. (1991), 701 [hereinafter Sax et al.]. Even seemingly small affects on water supply can impact the region. Just diverting 10,000 acre-feet of water from the upper Colorado River increases the concentration of salt in the lower part of the river by one milligram per liter and can cause hundreds of thousands of dollars in damage. *Id.*, 17.

to different scales, water supply is regulated differently from water quality.¹⁰ Despite the interconnectedness of land and water, distinct areas of law have developed for each.¹¹

The distinctions between water law and land use were blurred in the well-known case *Rapanos v. United States*, in which the Supreme Court struck down an Army Corps of Engineers (the Corps) regulation interpreting the Corps' jurisdiction over "waters of the United States" pursuant to section 404 of the Clean Water Act (CWA).¹² The Court narrowly interpreted "waters of the United States" to mean "relatively permanent, standing or continuously flowing bodies of water,"¹³ and abruptly altered the trajectory of federal regulation of water quality. The plurality held that the Corps' regulation pushed the outer limits of Congress's Commerce Clause authority and was therefore invalid absent a clear statement from Congress.¹⁴ A clear statement from Congress is also needed when an agency's regulation threatens the balance of traditional state and federal powers,¹⁵ and the plurality lamented that upholding the regulation would impinge on states' traditional land use and water use powers.¹⁶ This article argues that the plurality, however, inflated traditional state land use powers to include water quality regulation.¹⁷ Issued with the intention of protecting states' traditional land use powers, this reasoning had the effect of *extending* what has traditionally constituted state power at the expense of legitimate federal authority, an effect contrary to the Supremacy Clause.¹⁸

In examining its federalism concern, the *Rapanos* plurality did not distinguish between land use law and water law, but rather lumped land use and water law together.¹⁹ The plurality was concerned that extensive federal jurisdiction over water quality regulation would impinge on traditional state power.²⁰ Examining what truly constitutes traditional state land use power is necessary to accurately understand the balance of federal and state power in managing water resources.

¹⁰ See *infra* Parts I.A.1, I.A.2.

¹¹ See *infra* Part I.A.

¹² *Rapanos v. United States, Carabell v. United States*, 547 U.S. 715 (2006) (the Court consolidated two cases that challenged the Army Corps of Engineers' jurisdiction under the Clean Water Act to regulate the dredging and filling of wetlands).

¹³ *Id.*, 739 (interpreting "waters of the United States" to include "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic features' that are described in ordinary parlance as 'streams[,] . . . oceans, rivers, [and] lakes'").

¹⁴ *Id.*, 738.

¹⁵ *Id.*

¹⁶ See *id.*, 737–739.

¹⁷ See *id.*, 737–738 (stating that upholding that the Army Corps of Engineers' interpretation of "waters of the United States," giving the Corps jurisdiction over all interstate waters and other waters that could affect interstate or foreign commerce, would impinge on traditional state land use power).

¹⁸ See Constitution art. IV, cl. 2.

¹⁹ See 547 U.S., 737–738.

²⁰ See *id.*

Water law is distinguishable from land use law. Water law has a different history, different doctrines, and different applications, and the federal government's role in protecting water resources is distinct from its role in regulating land use.²¹ In addition, land use law covers a variety of issues, and the federal government and the states both have important roles to play. Many land use powers are left to the states and delegated by the states to local governments.²² Land use powers are broad and significant, but they must be exercised within the bounds of federal and state constitutional law, as well as federal and state statutes enacted pursuant to the legislatures' constitutional powers.²³ Federal laws and regulatory schemes supersede local decision making and create the legal context in which local authorities may operate.²⁴ This may cause tension between local and federal prerogatives, or between small-scale and large-scale priorities, but the Supremacy Clause established this hierarchy.²⁵ Constitutional protections include takings, due process, and equal protection.²⁶ Federal statutory law that further defines the outer limits of local land use decision making includes the Fair Housing Act²⁷ and the Religious Land Use and Institutionalized Persons Act.²⁸ It is within this legal context that land use decision making operates.

Federal regulation of water quality is a relatively new scheme, launched by the CWA in 1972.²⁹ Before the CWA, states were unable to adequately address proliferating contamination, which increasingly crossed state lines.³⁰ Congress addressed this regulatory gap by setting forth a system of cooperative

²¹ See *infra* Part I.A.

²² Daniel R. Mandelker, *Land Use Law*, 5th ed. (2003), 1–2 [hereinafter Mandelker], (explaining that most states delegate zoning powers to local governments, and “all states authorize local governments to do comprehensive planning”).

²³ See *id.* (“Federal and state constitutions impose limitations on land use controls, which local governments adopt under what is known as the ‘police power’”).

²⁴ See Constitution art. IV, cl. 2 (“This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”); see also John R. Nolon, *Well Grounded: Using Local Land Use Authority to Achieve Smart Growth* (2001), 18, (explaining that “[l]ocal land use authority is subject to rights created by state and federal statutes and constitutional provisions”).

²⁵ See Constitution art. IV, cl. 2; see also *McCulloch v. Maryland*, 17 U.S. 316, 432 (1819) (“The American people have declared their constitution and the laws made in pursuance thereof, to be supreme”).

²⁶ See Constitution, amend. V, XIV.

²⁷ See 42 USC §§ 3601–3619 (2011).

²⁸ See Religious Land Use and Institutionalized Persons Act (RLUIPA), Pub. L. 106–274, 42 USC § 2000cc-1 (2011).

²⁹ See Federal Water Pollution Control Act, 33 USC §§ 1251–1387 (2011).

³⁰ See Salzman and Thompson Jr., *supra* note 6, 150 (explaining that the 1965 Water Quality Act failed because it left water quality control in the states' hands, and states lacked scientific information, technical capabilities, and will power to adequately address water pollution); Sax et al., *supra* note 9, at 15–16 (while state governments primarily addressed water pollution before 1972, “the majority of municipalities still dumped raw, untreated sewage into our oceans and waterways as late as the 1960s”).

federalism, in which the federal government sets national water quality standards and allows states to establish their own regulatory scheme that meets or surpasses the federal standards.³¹ The CWA also charges the Environmental Protection Agency (EPA) and the Corps with carrying out a permitting scheme for activities that pollute water resources, including the discharge of dredged or fill material into navigable waters when bringing the waters into a new use, under section 404.³²

Overextending state land use power to include water quality law has led to gaps in water resources protection. *Rapanos* chilled federal efforts to regulate and protect water resources, leading to inefficient water quality regulation and disjointed water resources management. The lower courts have had a difficult time navigating *Rapanos* and determining whether the Corps has authority under the CWA to regulate the dredging or filling of a particular wetland³³—their options are to use the plurality’s test,³⁴ use Justice Kennedy’s “significant nexus” test laid out in his concurring opinion,³⁵ or allow for federal jurisdiction under either test (as the *Rapanos* dissent instructs).³⁶ A 2009 report by the EPA indicated that the wake of uncertainty left by *Rapanos* has led to a decrease in enforcement actions. The report estimates that 489 enforcement actions have been affected by *Rapanos* “such that formal enforcement was not pursued as a result of jurisdictional uncertainty, case priority was lowered as a result of jurisdictional uncertainty, or lack of jurisdiction was asserted as an affirmative defense to an enforcement action.”³⁷

Lumping water quality regulation with land use law ignores the separate area of law that has developed for water.³⁸ This erroneous amalgamation consequently gives greater weight to land use concerns and private property ownership rights over water supply and water quality concerns. Interestingly,

³¹ See Federal Water Pollution Control Act, 33 USC §§ 1311(b)(1), 1314(a)(4), 1317(a)(2) (2011); *New York v. United States*, 505 U.S. 144, 167 (1992) (“[W]here Congress has the authority to regulate private activity under the Commerce Clause, we have recognized Congress’ power to offer States the choice of regulating that activity according to federal standards or having state law preempted by federal regulation. This arrangement, which has been termed ‘a program of cooperative federalism,’ is replicated in numerous federal statutory schemes. These include the Clean Water Act”).

³² 33 USC § 1344(f)(2) (2011) (section 404 permitting is required if the flow of the navigable waters could be threatened).

³³ See *infra* Part II.C.; see, e.g., *United States v. Cundiff*, 555 F.3d 200, 207 (6th Cir. 2009) (“Parsing any one of *Rapanos*’s lengthy and technical statutory exegeses is taxing, but the real difficulty comes in determining which—if any—of the three main opinions lower courts should look to for guidance”).

³⁴ *Rapanos v. United States*, 547 U.S. 715, 739 (2006).

³⁵ *Id.*, 779 (Kennedy, J., concurring) (“[T]he Corps’ jurisdiction over wetlands depends upon the existence of a significant nexus between the wetlands in question and navigable waters in the traditional sense”).

³⁶ *Id.*, 810 n.14 (Stevens, J., dissenting) (“[In] these and future cases the United States may elect to prove jurisdiction under either test.”).

³⁷ EPA, Office of Inspector General, *Congressionally Requested Report on Comments Related to Effects of Jurisdictional Uncertainty on Clean Water Act Implementation* (2009), 1, <http://www.epa.gov/oig/reports/2009/20090430-09-N-0149.pdf> (accessed April 22, 2012) [hereinafter *Jurisdictional Uncertainty*].

³⁸ See *infra* Part I.A. (distinguishing water use law, water quality law, and land use law).

the availability and quality of water increasingly limit what landowners can do with their property and can even affect property values.³⁹ In effect, then, the Court favored short-term property options over water quality concerns and long-term property ownership interests. Nominally giving greater weight to states' land use authority is a powerful button to push because Americans cherish and staunchly protect property ownership.⁴⁰ However, giving states more power in the name of land use at the expense of federal authority violates the Supremacy Clause and frustrates national water quality regulation.

Part I of this article examines what actually constitutes traditional state land use and water use powers. This section distinguishes (1) water use law, (2) water quality law, and (3) land use law. This section then explains that public interests ultimately govern water, while private interests ultimately govern land. Part II articulates the *Rapanos* plurality's aggrandizement of state land use powers and the effects of its failure to distinguish water law from land use law. Part III discusses why federal power to protect water quality through regulating pollution of certain intrastate waters does not necessarily usurp traditional local land use power. This section argues that Congress has more power to regulate certain intrastate waters under the Commerce Clause than it has utilized in the wake of *Rapanos*. The federal government, in addition to state and local governments, has an important role in effective governance of water resources, including water quality protection. Moving forward, Congress should explain the scope of federal jurisdiction under the CWA and its authorization under the Commerce Clause. If constitutional, the federalism concern does not affect the validity of Congress's actions, despite the Court's dicta in *Rapanos*.

³⁹ See, e.g., Holly J. Michael, Kevin J. Boyle, and Roy Bouchard, *Water Quality Affects Property Prices: A Case Study of Selected Maine Lakes* (1996), 4 (study of lake-front property owners in Maine showing that "people will pay more, all other characteristics being equal, for a property on a lake with high water quality than they would for a property on a lake with lower water quality"); Ensuring a Safe Water Supply: Shoreland Best Management Practices (2008), University of Minnesota Extension, <http://mn4h.net/distribution/naturalresources/components/DD6946d.html> (accessed April 22, 2012) (stating that "[a] safe water supply is an essential component of a valuable piece of shoreland property" and is usually necessary to secure financing for purchase of a property); see also Craig Anthony (Tony) Arnold, "The Structure of the Land Use Regulatory System in the United States," *Journal of Land Use & Environmental Law* 22 (2007): 441, 470 [hereinafter Land Use System] ("[T]he 'value' of the land is defined by social meanings given to the human and physical environments in which the land is located").

⁴⁰ See Julian Conrad Juergensmeyer and Thomas E. Roberts, *Land Use Planning and Development Regulation Law*, 2nd ed. (2007), 2 [hereinafter Juergensmeyer and Roberts], (noting the rapid growth of land use law in scholarship and law schools at the end of the twentieth century and that "[t]he interest of the American public in land use regulation has expanded at least as rapidly. Today, it is unusual to find a political campaign in which land use regulation and its cohort, environmental protection, are not crucial issues."); Rebecca Tsosie, "Land, Culture, and Community: Reflections on Native Sovereignty and Property in America," *Indiana Law Review* 34 (2001): 1291, 1303 ("Americans are quite protective of their attachment to private property rights. Private property rights are exalted under American jurisprudence for serving the values of efficiency and productivity and because they enhance an individual's basic rights, including liberty and autonomy").

I. “TRADITIONAL” STATE LAND USE AND WATER USE POWERS

What constitutes traditional state land use and water use powers? Perhaps land and water are thought to go hand in hand. The law addresses both water and land in terms of rights and, on the other side of the coin, in terms of governmental power to regulate. Land use law involves regulation of uses and development of property;⁴¹ water law regulates uses and pollution of water resources.⁴² Despite seeming similarities, the law treats land and water quite differently, and land use is a distinct body of law.⁴³ Differences in the law partly arose from the different natures of land and water, and partly from their different functions.⁴⁴

Land use law is distinct from property law, but it is highly informed by land property rights, which consist of a variety of ownership and use rights.⁴⁵ Land is fixed in place and divisible; water, on the other hand, is fluid and commonly cross-jurisdictional. Water rights generally refer to the right to use water because water is usufructuary in nature.⁴⁶ Generally speaking, people do not keep water once they use it. Once used in a garden, in an industrial plant, on a farm, or in a kitchen, water travels back through the earth to rejoin water sources and, eventually, to be used again by others. Once people use water, they no longer possess it because it re-enters the public domain.⁴⁷

⁴¹ Land use law pertains to planning, policies, and land use controls such as zoning, growth management, historic preservation, and environmental controls. See Juergensmeyer and Roberts, *supra* note 40, at 2 (“[T]he core of this subject is planning and regulation of land use by governmental entities through the police power.”); see, generally, Daniel R. Mandelker et al., *Land Use Law*, 8th ed. (2011). For a definition of land-use planning, see *Black’s Law Dictionary*, 9th ed. (2009) 958 (“The deliberate, systematic development of real estate through methods such as zoning, environmental-impact studies, and the like”).

⁴² See, generally, Beck Vol. 1, *supra* note 8, 4-1 to 4-4.

⁴³ See Land Use System, *supra* note 39, 448–454 (distinguishing land use law as its own area of law, distinct from constitutional law, administrative law, environmental law, property law, etc.: “The land use regulatory system has its own principles and functions that make it a distinct category of law and public policy”).

⁴⁴ See *infra* Parts I.A.1, I.A.2, I.A.3.

⁴⁵ See Land Use System, *supra* note 39, 450 (“Land use regulation and property rights are related, yet co-equal areas of legal analysis”). “Use rights” for land refer to nonpossessory property interests including easements and leases.

⁴⁶ Beck Vol. 1, *supra* note 8, 4-1 to 4-2 (“‘[W]ater right’ refers to a court-protected right to, both now and in the future, use water directly from a natural source. . . . While many states at one time purported to recognize absolute ‘ownership’ or dominion rights in groundwater underlying one’s land, most states now recognize only use rights in groundwater.”); see, e.g., *Chino Valley v. Prescott*, 131 Ariz. 78, 82 (1981) (owners have the right to capture and use groundwater for beneficial purposes on their land, but “there can be no ownership in seeping and percolating waters until they are reduced to actual possession and control by the person claiming them because of their migratory character. Like wild animals free to roam as they please, they are the property of no one”); *Knight v. Grimes*, 80 S.D. 517, 522–23 (1964) (landowners do not own percolating water on their land prior to withdrawing the water, but they do have a right to use and dispose of the water).

⁴⁷ See Beck Vol. 1, *supra* note 8, § 4.01.

Common law doctrines evolved subsidiarily to state property law to regulate water use.⁴⁸ Water regulation, however, is two-pronged: it involves regulation of water quality and regulation of water uses or supplies.⁴⁹ Different bodies of law evolved to address these distinct governmental functions,⁵⁰ which this article refers to as water use law and water quality law. This section distinguishes water use law, water quality law, and land use law; each have unique histories, boundaries, and governance structures.⁵¹

Understanding these distinct legal doctrines is necessary to distinguish governmental land use decision-making authority from governmental authority to regulate water resources. There are overlaps between these areas of law, as water use law originally developed subsidiarily to property law, and the regulation and use of one resource commonly affects the other. They are distinct, however; the nature and contours of land ownership rights differ from water rights, and the nature and degree of the federal and state governments' authority to regulate land differs from their authority to regulate and protect water.

A. Distinguishing Water Use Law, Water Quality Law, and Land Use Law

1. Water Use Law

The states and the federal government play important roles in establishing water rights.⁵² Two principal water rights systems developed on a state-by-state basis and are described below: riparianism and prior appropriation.⁵³ Some federal water rights stem from state water rights. The United States as a landowner has all state-created water rights that any landowner has in that jurisdiction.⁵⁴ If the United States owns land in a riparian jurisdiction, for example, it enjoys all riparian water rights that the state created for landowners.⁵⁵ In addition, some federal water rights arose independently of state law.⁵⁶ Under the doctrine of federal reserved rights, the federal government has the power to manage unappropriated water on federal lands, and this power overrides state authority.⁵⁷ The reserved powers pertain to unrestricted future use on an as-needed basis.⁵⁸ The federal government may also preempt state water

⁴⁸ See *id.* § 4.05.

⁴⁹ Sax et al., *supra* note 9, 918 (“Separate laws and doctrines are generally used to resolve quality and quantity issues”).

⁵⁰ *Id.*

⁵¹ See New Ideas, *supra* note 5, 34.

⁵² See Sax et al., *supra* note 9, 804 (noting that it “greatly oversimplifies the extensive role the federal government plays” to think the U.S. gave the primary role of defining water rights to the states).

⁵³ See Beck Vol. 1, *supra* note 8, § 4.05(a).

⁵⁴ Sax et al., *supra* note 9, 898.

⁵⁵ *Id.*

⁵⁶ *Id.*, 804.

⁵⁷ *Id.*, 805–806.

⁵⁸ *Id.*

policy.⁵⁹ In doing so, it has played a significant role in developing water resources and regulating water uses, such as through reclamation projects to advance navigation, flood control, hydroelectric power, and water supplies.⁶⁰

In the United States two principal legal systems apply to surface water uses: riparianism in the eastern states and prior appropriation in the western states. Some western states have a dual system that incorporates both.⁶¹ Riparianism arose in connection with land ownership and provides riparian landowners with the right to reasonable use of water adjacent to their property; prior appropriation does not associate water use rights with adjacent land and instead awards them based on beneficial use.⁶² However, now surface water use is primarily regulated through state statutory regimes establishing water permits, in both riparian and prior appropriation states.⁶³ All riparian states have either a comprehensive regulatory scheme or a partial one.⁶⁴ To the extent there are gaps in the permitting schemes, common law riparianism resolves water rights disputes.⁶⁵ All prior appropriation states, except Colorado, have permitting systems.⁶⁶

American water law has not been stagnant; common law water rights doctrines evolved as our society gained understanding of hydrology and as our primary uses of water changed. First, separate laws traditionally governed nonstream underground waters and surface waters (and subsurface streams). In riparian states, surface water was governed by a reasonable use rule, while the absolute ownership rule applied to percolating underground water.⁶⁷ Under the absolute ownership rule, the landowner was entitled to all property below the surface (and to the heavens above).⁶⁸ As society began to understand that groundwater was interlinked with surface water and therefore a shared resource, some courts began to apply a reasonable use rule to

⁵⁹ *Id.*, 905.

⁶⁰ *Id.*

⁶¹ *Id.*, 10 (map indicating states along and east of the Mississippi River are riparian; North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, California, Oregon, and Washington are prior appropriation; and Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico are mixed); Beck Vol. 1, supra note 8, § 4.05(a) (riparian states use a reasonable use rule and prior appropriation states use a beneficial use rule; some western states, such as California, require that the use be both reasonable and beneficial).

⁶² Beck Vol. 1, supra note 8, § 4.05(a).

⁶³ *Id.* § 4.01 (“Thus, many aspects of the water right are defined by what a article says rather than by common law concepts”); Sax et al., supra note 9, 137.

⁶⁴ See Beck Vol. 1, supra note 8, 9–45 (“More or less comprehensive regulated riparian statutes are found in 18 of the 31 states east of Kansas City”).

⁶⁵ *Id.* § 9.03(a).

⁶⁶ Sax et al., supra note 9, 245 (permits take into consideration the public interest); see also Colorado Constitution art. XVI, § 6 (“The right to divert the unappropriated waters of any natural stream to beneficial use shall never be denied”).

⁶⁷ Beck Vol. 1, supra note 8, § 4.05(a).

⁶⁸ See *id.*

groundwater as well.⁶⁹ Other jurisdictions compared the uses at issue when applying a reasonable use test, and some held that each landowner was entitled to an equitable share of the groundwater.⁷⁰ Many western states have applied the same rules to surface water and groundwater. Some, however, do not apply prior appropriation to groundwater, or do so to a different extent than it is applied to surface water.⁷¹

Second, water law evolved to reflect society's changing uses of water. Originally, riparian systems provided that each landowner was entitled to the natural flow of the water, which served the primary water uses at the time: navigation, commerce, and operating mills.⁷² These uses were best served by keeping the water in the same place. The basis of the riparian doctrine evolved from natural flow to reasonable use,⁷³ and then to regulated riparianism.⁷⁴ This evolution facilitated changes in society's primary uses of water, which changed from uses based on a steady, reliable flow in the same place to consumptive uses such as irrigation, manufacturing, thermoelectric power, and domestic uses.⁷⁵ These consumptive uses take water from its source, rather than keep the water at its source or return it to the source after use (such as through a mill operation). With population and demands growing, water is increasingly diverted to urban centers from external watersheds.⁷⁶ Even states that developed under the riparian doctrine facilitate regular transportation of water for consumption away from the source.⁷⁷ Thus, riparianism in many states has evolved to

⁶⁹ *Id.*

⁷⁰ See *id.*, 4–8 (for example, California requires that surface water uses be reasonable and beneficial).

⁷¹ See *id.* §§ 4.05(a), 11.01 (comparing Arizona, which applies prior appropriation only to subsurface streams, to Idaho, which applies the doctrine to all groundwater).

⁷² See *id.*, 4–7.

⁷³ See *Tyler v. Wilkinson*, 24 F. Cas. 472 (CCDRI 1827) (breaking with the English common law natural flow doctrine); Sax et al., *supra* note 9, 42–43 (“The use of the riparian must be reasonable with respect to the correlative ability of other riparians to make simultaneous reasonable use of the water course”).

⁷⁴ Beck Vol. 1, *supra* note 8, §§ 4.05(a), 9.01.

⁷⁵ See *id.* § 4.05(a); Sax et al., *supra* note 9, 42–44 (what uses are allowable “changes over time to reflect the needs of the community”); see also USGS, *Summary of Estimated Water Use in the United States in 2005* (2009), <http://pubs.usgs.gov/fs/2009/3098/pdf/2009-3098.pdf> (accessed April 22, 2012) (49% of water withdrawals went to thermoelectric power, 31% to irrigation, and 11% to water supply; these are the top three uses).

⁷⁶ See, e.g., New Ideas, *supra* note 5, 24 (Phoenix imports water from the Colorado, Salt, and Verde Rivers and overdrafts groundwater to meet its demands; “[i]n 1990, 18 western states had 31% of the nation’s population but 41% of the nation’s surface water withdrawals.”); “A Bond Measure Worth Considering,” *San Bernardino County Sun*, March 15, 2010 (noting that many cities in Southern California import 90% of their water); “Council Calls on Feds, States to Boost Groundwater Support,” *Clean Water Report*, July 16, 2008 (explaining that due to contamination of the San Fernando Valley Aquifer, Los Angeles must import 90% of its water); see generally Beck Vol. 1, *supra* note 8, § 3.03 (discussing transportation of water and anticipating new projects to divert water from one watershed to another, particularly in the face of climate change).

⁷⁷ See R.W. Adler, “Legal Framework for the Urban Water Environment,” in *The Water Environment of Cities* (2009), 173–174 (explaining that as cities grew in riparian states, demand for nonriparian water increased, and courts allowed cities to import water from other watersheds). New York City,

regulated riparianism to accommodate increased consumptive uses of water away from the source and to protect increasingly stressed water resources.⁷⁸

The western states, on the other hand, initially used water primarily for mining and irrigation, which required transporting water from its source.⁷⁹ Water was also less abundant than in the East, so restricting water use to riparian land would have drastically limited settlement of the West.⁸⁰ Western states correspondingly developed the prior appropriation doctrine, which gave water rights to those who first put the water to beneficial use and thus facilitated withdrawing water from its source.⁸¹ Under prior appropriation, property rights of land adjacent to water did not correspond to water rights.⁸² As states codified prior appropriation, legislatures specifically authorized withdrawal of water for use on nonadjacent lands for the restated purposes of irrigation and mining.⁸³ Many western states provided for prior appropriation in their constitutions.⁸⁴ Nine states adopted prior appropriation right away, and six states originally adopted riparianism, but later switched to prior appropriation.⁸⁵

Currently, in both riparian and prior appropriation states, much of water use law is statutory. Although the common law riparian doctrine still provides for reasonable use, statutory permitting schemes generally regulate withdrawals.⁸⁶ Nevertheless, regulation of water uses is not left exclusively to the states. Water is regulated differently depending on *how* it is used. Water as a commodity includes both surface and ground sources of freshwater used for drinking, domestic use, irrigation, agriculture, and industry.⁸⁷ These sources and uses of water are generally regulated by the states.⁸⁸ Both state and federal law regulate “water as habitat.”⁸⁹ Water in situ is used for human services

for example, began to import water from Westchester County and then from the Catskill Mountains and the Delaware River in the early twentieth century. See Diane Galusha, *Liquid Assets: A History of New York City's Water System* (1999), 90–93. The Supreme Court initially authorized New York City to divert water from the Delaware River in a 1931 decree. See *New Jersey v. New York*, 283 U.S. 805, 805 (1931), superseded by *New Jersey v. New York*, 347 U.S. 995, 996 (1954).

⁷⁸ See Beck Vol. 1, supra note 8, § 9.01. (Traditional riparian rights that still exist are likely to give way to regulated riparianism in the face of increasingly stressed water supplies, increasing water shortages, and climate change.)

⁷⁹ *Id.* § 4.05(a).

⁸⁰ Sandra B. Zellmer and Jessica Harder, “Unbundling Property in Water,” *Alabama Law Review*, 59 (2008): 679, 698.

⁸¹ Beck Vol. 1, supra note 8, §§ 4.05(a), 9.01; Sax et al., supra note 9, 137.

⁸² See *id.*

⁸³ See Beck Vol. 1, supra note 8, § 11.02.

⁸⁴ *Id.*, 11–16.

⁸⁵ Sax et al., supra note 9, 149.

⁸⁶ See Beck Vol. 1, supra note 8, § 4.05(a); Sax et al., supra note 9, 137.

⁸⁷ Robin Kundis Craig, “Climate Change, Regulatory Fragmentation, and Water Triage,” *University of Colorado Law Review*, 79 (2008): 834 [hereinafter Water Triage].

⁸⁸ *Id.*

⁸⁹ *Id.*, 846.

such as hydropower, fishing, and navigation, and these waters and uses are generally under the control of federal law and federal agencies.⁹⁰ The federal government has an important role in managing and developing these water uses. The Federal Energy Regulatory Commission regulates licensing of hydroelectric projects, the Bureau of Reclamation undertakes water supply and hydroelectric projects in the West, and the Army Corps of Engineers is responsible for numerous water supply, flood control, hydroelectric, and navigation projects throughout the country.⁹¹ The EPA and Army Corps of Engineers also indirectly manage water uses through section 404 of the CWA,⁹² which was enacted to protect water quality.⁹³

2. *Water Quality Law*

While *water use* law arose out of and still resembles common law doctrines, modern *water quality* law is based on federal statutes aimed at protecting surface water quality.⁹⁴ The common law water rights doctrines ineffectively addressed the growing problem of surface water pollution in the twentieth century.⁹⁵ Common law suits were only brought after pollution occurred, did not adequately consider the public interest, and only addressed pollution on a case-by-case basis.⁹⁶ In addition, courts lacked the scientific expertise needed to resolve disputes over pollution and had difficulty enforcing their decisions.⁹⁷ Even when the common law was used to address water pollution prior to the CWA, courts went beyond the riparian and prior appropriation doctrines, acknowledging that different interests were at stake than in water supply disputes.⁹⁸ Water quality is now regulated under a more comprehensive, stricter scheme that is administered through the EPA and state environmental agencies.⁹⁹

Federal regulation of water quality is a relatively new scheme, launched by the CWA in 1972,¹⁰⁰ and continuing with amendments to the Clean Water

⁹⁰ *Id.*, 838.

⁹¹ Sax et al., *supra* note 9, 905.

⁹² See 33 USC § 1331 (2011); Sax et al., *supra* note 9, 905.

⁹³ See 33 USC § 1251 (2011).

⁹⁴ New Ideas, *supra* note 5, 34 (explaining that “[d]ecisions about land use, water use, and water quality are essentially divided among three separate and very different legal or regulatory regimes”). Arnold further articulates that “[w]ater law is designed to *encourage or facilitate growth*,” while “[I]and use regulation is designed to *channel growth*,” and “[w]ater quality regulation is designed to *control the impacts of growth*.” *Id.*, 34–35; see also Sax et al., *supra* note 9, 918 (“The law, however, treats water quality quite differently from other allocative decisions”).

⁹⁵ Sax et al., *supra* note 9, 923.

⁹⁶ *Id.*, 923–24.

⁹⁷ *Id.*

⁹⁸ *Id.*, 922.

⁹⁹ *Id.*, 918.

¹⁰⁰ The principal body of law constituting the Clean Water Act is the Federal Water Pollution Control Act. See 33 USC §§ 1251–1387 (2011).

Act¹⁰¹ and the Safe Drinking Water Act.¹⁰² Leading up to the Clean Water Act, states were unable to adequately address proliferating contamination, which increasingly crossed state lines.¹⁰³ About half of the states failed to promulgate water quality standards by 1970, and most industrial facilities dumped untreated waste, and many municipalities dumped untreated sewage, into the nation's waters.¹⁰⁴ Congress responded to this gap in regulation with the CWA, through which Congress aimed to protect and restore U.S. waters and eliminate the discharge of pollutants into waterways.¹⁰⁵

Under the CWA, a federal permit is required for any discharge of a pollutant into "waters of the United States."¹⁰⁶ Under this system of cooperative federalism, the federal government sets national water quality standards that states much achieve.¹⁰⁷ The EPA sets effluent limitations that restrict the amount of a pollutant that a source may discharge into surface water, based on available technology.¹⁰⁸ All point sources¹⁰⁹ must obtain a permit under the National Pollutant Discharge Elimination System (NPDES) to lawfully emit a pollutant into a waterway.¹¹⁰ EPA issues the NPDES permits unless states qualify to issue them, and about three quarters of states are currently qualified.¹¹¹

In addition to contaminants such as sewage, garbage, chemical wastes, and solid wastes, a "pollutant" under the CWA includes "dredged spoil . . . rock, sand, [and] cellar dirt."¹¹² The "discharge of a pollutant" includes "any addition of any pollutant to navigable waters from any point source."¹¹³ Congress defined navigable waters as "waters of the United States including the territorial seas."¹¹⁴ Section 404 of the CWA establishes a permitting system for the dredging and filling of navigable waters.¹¹⁵ Section 404 requires a developer or landowner to obtain a permit from the Army Corps of

¹⁰¹ See *id.*

¹⁰² 42 USC §§ 300(f) et seq. (2011) (setting quality standards for drinking water supplies).

¹⁰³ See *supra* note 30 and accompanying text.

¹⁰⁴ Salzman and Thompson Jr., *supra* note 6, 150.

¹⁰⁵ 33 USC § 1251 (2011).

¹⁰⁶ *Id.* §§ 1311(a), 1362(7), 1362(12).

¹⁰⁷ See *supra* note 31 and accompanying text.

¹⁰⁸ See 33 USC § 1342 (2011); Salzman and Thompson Jr., *supra* note 6, 154–155.

¹⁰⁹ A point source discharges or may discharge a pollutant directly into a waterway. Common examples of point sources are factories and sewage treatment plants. Salzman and Thompson Jr., *supra* note 6, 147. The definition of "point source" under the CWA is "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." 33 USC § 1362(14) (2011).

¹¹⁰ See 33 USC §§ 1311(a), 1342 (2011).

¹¹¹ Salzman and Thompson Jr., *supra* note 6, 153.

¹¹² 33 USC § 1362(6) (2011).

¹¹³ *Id.* § 1362(12).

¹¹⁴ *Id.* § 1362(7).

¹¹⁵ See *id.* § 1344.

Engineers in order to fill a wetland, and it is an important source of wetland protection.¹¹⁶

The CWA also requires that states set water quality standards. The states designate beneficial uses for each waterway and then set the water quality standards that will allow the waters to be used in the designated manner.¹¹⁷ The states use water quality criteria prepared by the EPA to set standards that will support the designated uses.¹¹⁸ States must also identify waterways where the technology-based effluent limitations under the NPDES permit do not attain the water quality standards. For each of these deficient waterways, states must establish the total amount of pollutants that can be allowed if the waterway is to achieve the standard. This pollutant limit is the total maximum daily load (TMDL) and must be approved by the EPA.¹¹⁹

As demands for water and contamination of water increase,¹²⁰ regulation of water quality and regulation of water supply are beginning to look more similar.¹²¹ Different permitting systems regulate water quality and water supply. As water rights are increasingly regulated through state permitting schemes, and water supply problems increase, water allocation decisions are moving toward more comprehensive regulation.¹²²

3. *Land Use Law*

Land use law involves the regulation of development and use of land. Land use is authorized by the states' police power,¹²³ and states traditionally delegate most land use powers to local governments through state enabling legislation.¹²⁴ Local governments have primary regulatory authority over day-to-day land use decision making,¹²⁵ but this authority is supplemented by state

¹¹⁶ Salzman and Thompson Jr., *supra* note 6, 271 ("Section 404 of the Clean Water Act provides the principal protection for wetlands").

¹¹⁷ 33 USC § 1313 (2011). If a state fails to set water quality standards, the EPA can set the standards for the state. *Id.* § 1313(b).

¹¹⁸ Salzman and Thompson Jr., *supra* note 6, 167. The EPA's criteria show physical, chemical, and biological characteristics of a particular water. *Id.*

¹¹⁹ 33 USC § 1313(d) (2011); Salzman and Thompson Jr., *supra* note 6, 167.

¹²⁰ See Steven Ferrey, *Examples & Explanations: Environmental Law* (2010), 247 ("The problem we face is not primarily the lack of an adequate *supply*, but rather the abuse of a limited resource and degradation of overall water quality").

¹²¹ Sax et al., *supra* note 9, 918.

¹²² *Id.* ("Current approaches to regulating water quality may thus provide an interesting insight into the future of other water issues.")

¹²³ See *New Ideas*, *supra* note 5, 34; see, e.g., *Euclid v. Amber Realty Co.*, 272 U.S. 365 (1926) (police power authorizes actions to further public health, safety, morals, and welfare).

¹²⁴ See Mandelker, *supra* note 22, 1–2.

¹²⁵ Robert V. Percival et al., *Environmental Regulation: Law, Science, and Policy*, 6th ed. (2009), 769 [hereinafter Percival et al.] ("[R]egulation of land use generally remains the fiercely guarded province of local levels of government.").

and federal policies and controls.¹²⁶ While municipalities have significant land use authority, this power is neither inherent nor all-inclusive.¹²⁷ Land use law began to take form in the early twentieth century with the advent of zoning.¹²⁸ Famously, zoning was first upheld in *Village of Euclid v. Amber Realty Co.*¹²⁹ “Traditional local land use power” encompasses zoning and subdivision regulation, but additional land use regulations at the state and federal levels supplement zoning and also constitute land use law.¹³⁰ The federal and state governments play significant roles in environmental land use regulation such as through the federal flood insurance program, agricultural protection, and coastal management.¹³¹

Although a relatively new area of law, Americans’ interest in land use law is rampant.¹³² Property ownership is one of the most coveted rights in the United States. The American identity is largely based on our property rights, which is often viewed as synonymous with freedom.¹³³ Landowners can use

¹²⁶ See *id.*, 773 (“While the federal government generally does not directly regulate lands held by private parties, federal policies have a profound effect on the management and use of private lands”); Bruce Babbitt, *Cities in the Wilderness: A New Vision of Land Use in America* (2005), 5. (“The notion that land use is a local matter has come to dominate the political rhetoric of our age, obscuring the historical reality that the national government has been involved in land use planning since the early days of the republic”); Land Use System, *supra* note 39, 486–487 (“The United States has not seen a federal or state displacement of local responsibility and authority for land use regulation. Typically any federal or state land use controls are merely ‘overlays’ on top of local controls.”)

¹²⁷ Land Use System, *supra* note 39, 486–487 (“Federal and state constitutions impose limitations on land use controls”).

¹²⁸ See Mandelker, *supra* note 22, § 1.01.

¹²⁹ *Euclid v. Amber Realty Co.*, 272 U.S. 365 (1926) (upholding the village’s zoning ordinance, which classified areas of land based on permissible uses or development, as a valid exercise of the village’s police power); see also Juergensmeyer and Roberts, *supra* note 40, 2 (“[L]and use planning and control law as a separate and distinct area of law did not begin to emerge until the early zoning ordinances and judicial decisions concerning them in the 1920s”).

¹³⁰ See Juergensmeyer and Roberts, *supra* note 40, 2 (“No one, it seems, would confine land use control law to zoning and subdivision control. The uncertainty centers around how many related areas should be included”).

¹³¹ Mandelker, *supra* note 22, 12–2.

¹³² See Juergensmeyer and Roberts, *supra* note 40, 2 (describing the growth of land use law courses and materials in law schools and the growth of the public’s interest in the subject; “[t]oday it is unusual to find a political campaign in which land use regulation and its cohort, environmental protection, are not crucial issues”); Percival et al., *supra* note 125, 783 (“As voters become increasingly aware of the environmental and social costs of sprawl, land use regulation has become increasingly popular at the polls”).

¹³³ Everett Carl Ladd articulates that private property and political freedom are core American values that constitute individualism. See Everett Carl Ladd, *The American Ideology: An Exploration of the Origins, Meaning, and Role of American Political Ideas* (1994) (explaining that individualism is “a view of the individual person which gives unprecedented weight to his or her choices, interests, and claims. Private property in the economic sphere; democracy and freedom from government control in the polity; advancement on one’s merits, the absence of rank, and moral equality in the larger society: These are the essential, distinguishing American values. All reflect the pervasive underlying individualism”); see also Milton Friedman, *Capitalism and Freedom* (1962) (arguing that transferability of private property is essential for political freedom because it frees individuals of feudal dependency).

their land as they wish, within limits set by law, and are free to exclude others from using their property for innumerable reasons.¹³⁴ Land is fixed in place, and it is easily divided and transferred. The value of land rights stems from *owning* it.

This principle has been a part of America since the European conquests, when explorers were inspired to discover new lands so that they could own them. The value placed on discovery instilled the principle of first in time in American property principles—the first person to conquer the land owns it.¹³⁵ When land was abundant, high value was placed on discovery and conquest. Reliance on these principles continued while much of the United States was unsettled, and the federal government encouraged discovery and conquest through its legal systems. Through the Homestead Act, for example, the federal government gave applicants between 160 and 640 acres of land, and in exchange, the individuals improved the land.¹³⁶ This act encouraged settlement beyond the original thirteen colonies. When land was no longer as abundant, homesteading officially ended through the Federal Land Policy and Management Act of 1976.¹³⁷ Open, unclaimed land is no longer widely available, but Americans still adamantly associate freedom and wealth with land. Many Americans compulsively resist any restriction on land use development, regardless of its potential benefits to the common good, including the individual landowner.

B. Public Domain (Water) versus Private Domain (Land)

Land use law and water law are both concerned with public interests and private interests, to different extents. The purposes of land use law are to protect the “public health, welfare, and safety” pursuant to the states’ police powers and to uphold private property rights.¹³⁸ Land use law is heavily framed and restricted by private property protections.¹³⁹ Land use law must uphold the significant rights held by landowners, which are firmly protected in the

¹³⁴ Dukeminier et al., *Property* (2006), 39 (private ownership includes the right to exclude).

¹³⁵ See *Pierson v. Post*, 3 Cai. R. 175, 182 (N.Y. 1805) (holding that of two hunters in pursuit of a wild fox, the first one to take possession of the animal acquires title to it); see also Richard A. Epstein, “Possession as the Root of Title,” *Georgia Law Review* 13 (1979): 1221, 1234 (observing that “first in time” is reflected in riparian rights, which are held by property owners who were first to possess coastal property).

¹³⁶ 43 USC §§ 161 *et seq.* (1862) (repealed 1976).

¹³⁷ Federal Land Policy and Management Act of 1976, 43 USC § 1701 (1988).

¹³⁸ Land Use System, *supra* note 39, 457 (the land use regulatory system “protects private property rights to develop and use land in economically productive ways”); William L. Andreen, “The Evolving Contours of Water Law in the United States: Bridging the Gap Between Water Rights, Land Use and the Protection of the Aquatic Environment,” *Environmental and Planning Law Journal* 23 (2006): 5, 16.

¹³⁹ Land Use System, *supra* note 39, 479.

American culture and legal system, and are integral to economic growth.¹⁴⁰ The private domain primarily controls land use law as a result of strict cultural and legal protections of private property.¹⁴¹ Water law, on the other hand, embodies the preeminent public interest in protecting and allocating limited water resources.¹⁴² Even water rights law reflects the public interest: both the reasonable use doctrine and beneficial use doctrine are flexible to evolve over time to reflect social values.¹⁴³ Reasonableness and beneficial use are interpreted to prohibit the waste of water and to abide by the public interest.¹⁴⁴ Regulated riparianism also follows the standard of “reasonableness,”¹⁴⁵ and water permitting systems consider the public interest.¹⁴⁶ The public interest, or public domain, primarily controls water law.

Real property has long been considered essential to independence, freedom, and political participation.¹⁴⁷ Colonial America anchored the right to vote in land ownership.¹⁴⁸ A key characteristic of private land ownership is the right to exclude.¹⁴⁹ The government may not take away private property for public use without fairly compensating the landowner under the Fifth Amendment.¹⁵⁰ While the law protects public trust property from private

¹⁴⁰ *Id.*, 488–489 (explaining that “[l]ocal land use regulation occurs in the shadow of the superdominance of private control of land” because private landowners are guaranteed substantial property rights, Americans have a strong cultural bias toward protecting land ownership rights, and economies depend on private landowners for development).

¹⁴¹ See *id.*

¹⁴² See Meltz et al., *The Takings Issue* (1999), 461 [hereinafter Meltz et al.].

¹⁴³ See Beck Vol. 1, supra note 8, §§ 4.01, 4.05(a).

¹⁴⁴ *Id.* § 9.03(b)(1).

¹⁴⁵ *Id.* § 9.03(b).

¹⁴⁶ See *id.*, 9-46 to 9-47 (listing purposes of water rights statutes in regulated riparian states, including “ensuring the use of water consistent with the public interest”); Sax et al., supra note 9, 245 (in permitting systems in prior appropriation states, “[p]ermits may be denied or conditioned in order to assure that they are compatible with the public interest”).

¹⁴⁷ See Gregory S. Alexander, “Time and Property in the American Republican Legal Culture,” *New York University Law Review* 66 (1991): 273, 286 (“[R]epublicans conceived of property as necessary to facilitate a publicly active, self-governing citizenry. They believed that ownership of property provides the necessary foundation for virtue, enabling citizens to pursue the common welfare.”); Charles A. Reich, “The New Property,” *Yale Law Journal* 73 (1964): 733, 771 (private property “performs the function of maintaining independence, dignity and pluralism in society by creating zones within which the majority has to yield to the owner”).

¹⁴⁸ See Alexander Keyssar, *The Right to Vote: The Contested History of Democracy in the United States* (2000), 2 (“At its birth, the United States was not a democratic nation—far from it. . . . In practice, moreover, relatively few of the nation’s inhabitants were able to participate in elections: among the excluded were most African Americans, Native Americans, women, men who had not attained their majority, and white males who did not own land”).

¹⁴⁹ “Private ownership implies that the community recognizes the right of the owner to exclude others from exercising the owner’s private rights.” Dukeminier et al., *Property* (2006), 39 (Compared with *state ownership*, which “implies that the state may exclude anyone from the use of a right as long as the state follows accepted political procedures for determining who may not use state-owned property”).

¹⁵⁰ See Constitution amend. V. (the Takings Clause of the Fifth Amendment reads, “nor shall private property be taken for public use, without just compensation”).

ownership, it protects private land from government control. The relationship between private land ownership and the government is clearly established, and landowners' rights will be strictly protected.¹⁵¹

Water rights do not carry such inherent private freedoms and are not so arduously associated with independence, power, and unwavering entitlement.¹⁵² The boundaries of private water rights are less clearly defined and expected. First, the states established their own water rights schemes based on different water sources—surface waters, diffused surface waters,¹⁵³ and nonstream groundwater—and these doctrines continue to evolve.¹⁵⁴ Second, as mentioned previously, the nature of water rights varies from state to state.¹⁵⁵ Third, unlike land, the fundamental nature of water is usufructuary and ambient, and water is vital to everyone.¹⁵⁶

Fourth, individuals generally share water through use rights rather than private ownership.¹⁵⁷ People pay for the right to *use* water as a commodity, rather than the right to physical dominion over it or the right to possess it.¹⁵⁸ Water is a different kind of property, and the law correspondingly treats water rights differently from how it treats land use rights.¹⁵⁹

Fifth, the state and federal governments have inherent authority to manage certain waters for the public benefit. Under the public trust doctrine, the government holds water and water banks in trust for the public interest, traditionally to protect them for the public uses of navigation and commerce.¹⁶⁰ Justice Holmes famously stated:

¹⁵¹ See Meltz et al., *supra* note 142, 28 (“Of course, interests in land are among the most long-recognized and firmly entrenched species of property”).

¹⁵² See, e.g., *United States v. Willow River Power Co.*, 324 U.S. 499, 510 (1945) (“Rights, property or otherwise, which are absolute against all the world are certainly rare, and water rights are not among them.”); see also Meltz et al., *supra* note 142, 460 (“Under long-standing principles of property law, private rights to water have always been considered less absolute and fundamentally different in kind than fee interest in real or even personal property”).

¹⁵³ Diffused surface water falls on the earth, such as rainfall, and flows, but it does not form a watercourse. *Black’s Law Dictionary*, 9th ed (2009), 1728.

¹⁵⁴ See Beck Vol. 1, *supra* note 8, § 4.05.

¹⁵⁵ See Meltz et al., *supra* note 142, 457–458 (“No two states, seemingly, possess identical water rights systems.”); *supra* Part I.A.1.

¹⁵⁶ Beck Vol. 1, *supra* note 8, § 4.02 (“While in theory the state is the primary creator of property rights, because of peculiarities of the water resource, such as its ambient nature and the fact that it is necessary for life, there are many levels of power to which water can be subjected”).

¹⁵⁷ See *id.* § 4.01.

¹⁵⁸ *Id.* (In both riparian and prior appropriation systems, “the individual water right is said to give the holder only a right to use the water.”)

¹⁵⁹ See, e.g., *Eddy v. Simpson*, 3 Cal. 249, 252 (1853) (“The right of property in water is *usufructuary*, and consists not so much of the fluid itself as the advantage of its use. . . . The right is not in the *corpus* of the water, and only continues with its possession”). Most states also recognize use rights, rather than ownership, in groundwater. *Id.*

¹⁶⁰ See Jack Tuholske, “Trusting the Public Trust: Application of the Public Trust Doctrine to Groundwater Resources,” *Vermont Journal of Environmental Law* 9 (2008): 189, 214 [hereinafter Tuholske].

[F]ew public interests are more obvious, indisputable, and independent of particular theory than the interest of the public of a state to maintain the rivers that are wholly within it substantially undiminished, except by such drafts upon them as the guardian of the public welfare may permit for the purpose of turning them to a more perfect use. . . . The private right to appropriate is subject not only to the rights of lower owners, but to the initial limitation that it may not substantially diminish one of the great foundations of public welfare and health.¹⁶¹

The public trust doctrine traditionally applies to navigable waters including ponds, lakes, and streams; tidal waters; and beds and banks of streams.¹⁶² In *Illinois Central Railroad Co.*, the Supreme Court notably held that the public trust doctrine might limit a state's conveyance of common resources to private parties.¹⁶³ Even if owned by private parties, common water resources must benefit the public's interest in the water.¹⁶⁴ Pursuant to the doctrine, states have the ultimate responsibility over these waters for the public's benefit, to preserve the public right to use the waters for navigation, commerce, and fishing.¹⁶⁵ Over the last two decades, however, many courts have more broadly applied the public trust doctrine under state constitutions.¹⁶⁶ Many jurisdictions have extended the doctrine to cover recreational uses,¹⁶⁷ and some states apply the doctrine to other environmental issues such as groundwater and marine life.¹⁶⁸ The state is unable to relinquish its authority over and responsibility to public trust property.¹⁶⁹ Ultimately, the state holds the public trust property in trust for its citizens, and the state has a nondelegable fiduciary duty to the public to protect that property and preserve them for public use.¹⁷⁰

Sixth, with regard to flowing water, the government has the right to exclude because there is inevitably a finite amount of water available. As demand increases, communities bump up against the limitations of their water resource. Who will make the decisions regarding how to allocate water among competing demands? There is insufficient discussion of such difficult decisions, but they have to be made, and the government ultimately has

¹⁶¹ *Hudson County Water Co. v. McCarter*, 209 U.S. 349, 356 (1908) (implicitly overruled on other grounds by *Sporhase v. Nebraska ex rel. Douglas*, 458 U.S. 941 (1982)).

¹⁶² *Illinois Central R.R. Co. v. Illinois*, 146 U.S. 387 (1892) (Supreme Court first articulates the public trust doctrine); see also *Phillips Petroleum Co. v. Miss.*, 484 U.S. 469, 482 (1988).

¹⁶³ *Illinois Central R.R. Co.*, 146 U.S., 452–454.

¹⁶⁴ *Id.*; see also Tuholske, *supra* note 160, 215.

¹⁶⁵ Robin Kundis Craig, "A Comparative Guide to the Eastern Public Trust Doctrines: Classifications of States, Property Rights, and State Summaries," *Penn State Environmental Law Review* 16, 1 (2007): 17–18 [hereinafter Comparative Guide].

¹⁶⁶ See Tuholske, *supra* note 160, 192.

¹⁶⁷ See Comparative Guide, *supra* note 165, 17–18 (stating that most eastern states' public trust doctrines cover recreational uses).

¹⁶⁸ See *id.*, 19 (describing Hawaii's and California's expansive public trust doctrines).

¹⁶⁹ See Water Triage, *supra* note 87, 837.

¹⁷⁰ See Tuholske, *supra* note 160, 215. While each state has the sovereign, nondelegable duty to protect these waters for the public benefit, the states define this power in varying ways.

the authority to make them. The states and the federal government establish water allocation schemes.¹⁷¹ Statutory schemes protect and conserve water resources and allocate water when demand exceeds supplies.¹⁷² Particularly for water bodies shared by two or more states, allocating scarce water resources among competing users is bound to be tumultuous.¹⁷³ In intrastate conflicts, courts apply the federal common law doctrine equitable apportionment to most fairly allocate water resources, giving preference to existing uses.¹⁷⁴

The differences in the nature of land use rights and water use rights, as well as the differences between governmental authority to regulate land and its authority to regulate water, is evident in takings jurisprudence. Pursuant to the Fifth Amendment, no private property shall “be taken for public use, without just compensation.”¹⁷⁵ For purposes of the takings doctrine, an individual’s property interest in water is distinct from and less powerful than private interests in land.¹⁷⁶ This is because water rights are usufructuary¹⁷⁷ and incapable of being privately owned as land is owned. In addition, the public trust doctrine directly places ultimate responsibility of certain water resources in the hands of the state and federal governments.¹⁷⁸ In *Dames & Moore v. Regan*, the Supreme Court held that one does not have a property interest protected by the Fifth Amendment when that interest is subordinate to the government’s right to nullify or compromise that interest.¹⁷⁹ Thus if the government has ultimate control over water use, and water use rights are revocable in the name of the public interest, water rights are likely not as significantly protected from takings under the Fifth Amendment as private land.¹⁸⁰

The public has predominant interest in water resources.¹⁸¹ Because ownership of land is inherently a private right, the range of government actions

¹⁷¹ See supra Part I.A.1.

¹⁷² See Beck Vol. 1, supra note 8, § 9.03.

¹⁷³ See Water Triage, supra note 87, 825 (noting “the lack of any comprehensive public debate that acknowledges and weighs the cross-jurisdictional tradeoffs among water uses that insufficient supply makes necessary”). The unmet need for such public discourse also applies to intrastate disagreements over water allocation.

¹⁷⁴ See *id.*, 837. For example, the Supreme Court applied equitable apportionment to divide the flow of the Delaware River between New Jersey and New York. See *New Jersey v. New York*, 283 U.S. 336, 342–343 (1931), superseded by *New Jersey v. New York*, 347 U.S. 995, 996 (1954) (acknowledging both states’ needs; “[b]oth States have real and substantial interest in the River that must be reconciled as best they may”).

¹⁷⁵ Constitution amend. V.

¹⁷⁶ See Meltz et al., supra note 142, 457.

¹⁷⁷ *Id.*, 460.

¹⁷⁸ *Id.*, 459–460.

¹⁷⁹ *Dames & Moore v. Regan*, 453 U.S. 654, 674 n.6 (1981) (explaining that because one needed a license to attach foreign assets and such licenses were revocable by the President, petitioners did not have a property interest that could be “taken” and thus protected by the Fifth Amendment); see also Meltz et al., supra note 142, 457.

¹⁸⁰ See Meltz et al., supra note 142, 459–462.

¹⁸¹ *Id.*, 461; supra Part I.B.

that will constitute a taking of an individual's property is much greater than the range that would constitute a taking by infringing on a person's water rights.¹⁸² The law permits a greater extension of governmental control over water because it ultimately treats water as part of the public domain and under the government's power to regulate for the public's benefit.¹⁸³ It is likely that water resources regulations will not constitute a taking unless all economically viable uses are eliminated from the property.¹⁸⁴

Because of the strong public interests at stake in managing water resources, the usufructuary nature of water, the public treatment of water in the law, and expansive federal water law doctrines, water is essentially controlled by the public domain, while land by the private. Understanding these distinctions between governmental authority to manage water and authority to regulate land is crucial to understanding how to effectively protect water resources.

II. MUDDYING WATER LAW AND LAND USE LAW: *RAPANOS*

In *Rapanos v. United States*, the plurality struck down the Corps' regulation interpreting the scope of its jurisdiction under section 404; the Corps had interpreted "waters of the United States" to include all interstate waters and intrastate waters that could affect interstate or foreign commerce.¹⁸⁵ The *Rapanos* plurality held that a clear statement from Congress is needed to authorize the Corps' definition because it raised Commerce Clause concerns,¹⁸⁶ referred to herein as the constitutional concern. The plurality stated that a clear statement from Congress was also required to authorize federal action that substantially disrupts the traditional balance between state and federal powers, which this article refers to as the federalism concern, and the Corps' regulation

¹⁸² Meltz et al., *supra* note 142, 459 (stating that "[t]raditionally, a number of reasons have been advanced to support the principle that privately held water rights are not subject to a significant degree of protection under the Takings Clause—and certainly to less deference than is real property" and discussing those reasons: water rights are incapable of private ownership, the usufructuary nature of water rights, and the paramount public interest in water).

¹⁸³ See *id.* ("[S]tate and federal courts have relied on one or more of these principles to reject the vast majority of regulatory takings challenges to government restrictions on the private exercise of water rights").

¹⁸⁴ See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1030–1032 (1992) (holding that a regulation that eliminates all of a property's economically beneficial use is a per se taking, unless the activity is unlawful pursuant to background principles of state property law); see also Mandelker, *supra* note 22, 1–6 (explaining that environmental regulations can raise takings problems if they deny a landowner all economically beneficial use of the land); Sandra B. Zellmer and Jessica Harder, "Unbundling Property in Water," *Alabama Law Review* 59 (2008): 679, 721 (arguing that water in most jurisdictions is not protected by the Takings Clause because the property interest is not an irrevocable interest in "the exclusive possession and use of a discrete, marketable asset").

¹⁸⁵ *Rapanos v. United States*, 547 U.S. 738, 724, 739 (2006).

¹⁸⁶ *Id.*, 738.

was “an unprecedented intrusion into traditional state authority.”¹⁸⁷ The federalism concern and the constitutional concern were two independent reasons for requiring a clear statement from Congress to authorize the Corps’ definition.

The CWA prohibits the discharge of pollutants into “navigable waters” without obtaining a permit from the Army Corps of Engineers.¹⁸⁸ The act defines “navigable waters” as “the waters of the United States, including the territorial seas.”¹⁸⁹ The *Rapanos* plurality, authored by Justice Scalia, held that the CWA prohibits the discharge of pollutants into only “relatively permanent, standing or continuously flowing bodies of water ‘forming geographic features’ that are described in ordinary parlance as ‘streams[,] . . . oceans, rivers, [and] lakes.’”¹⁹⁰ Further, the plurality held that the CWA applies only to “those wetlands with a continuous surface connection” to waters that are considered “waters of the United States.”

The plurality distorted land use law and water law by inflating traditional state land use powers to include water law.¹⁹¹ This distortion also affected the plurality’s understanding of one of the CWA’s purposes: “to recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use . . . of land and water resources.”¹⁹² The plurality also misunderstood basic hydrological principles when applying its commonsense interpretation of “waters of the United States.”¹⁹³ These distortions likely magnified the opinion’s chilling effect on federal water quality regulation.¹⁹⁴ It is important to examine these distortions to understand how Congress should proceed to clarify the scope of federal jurisdiction to protect water quality, and to understand the appropriate and legitimate federal role in protecting water quality.

A. Overextending States’ Land Use Powers Is Unjustified

The *Rapanos* plurality inflated what constitutes traditional state land use powers to directly include water use and indirectly include water quality.¹⁹⁵ The opinion repeatedly stated that the Corps’ definition of “waters of the United

¹⁸⁷ *Id.*

¹⁸⁸ 33 USC §§ 1311(a), 1342(a) (2011). The CWA defines “discharge of a pollutant” as “any addition of any pollutant to navigable waters from any point source.” *Id.* § 1362(12).

¹⁸⁹ *Id.* § 1362(7).

¹⁹⁰ 547 U.S., 739 (further noting that ‘waters of the United States’ “does not include channels through which water flows intermittently or ephemerally, or channels that periodically provide drainage for rainfall”).

¹⁹¹ See *id.*, 737–739.

¹⁹² 33 USC § 1251(b) (2011).

¹⁹³ See 547 U.S., 733–734 (“The restriction of ‘the waters of the United States’ to exclude channels containing merely intermittent or ephemeral flow also accords with the commonsense understanding of the term”).

¹⁹⁴ See Jurisdictional Uncertainty, *supra* note 37; *supra* Introduction.

¹⁹⁵ 547 U.S., 738.

States,” a regulation pursuant to federal water quality law, impinged on states’ traditional power over land use and water use.¹⁹⁶ The opinion found that the Corps’ jurisdictional scope would allow the Corps to exercise the same discretion that local zoning boards exercise,¹⁹⁷ and it “would have brought virtually all ‘plan[ning of] the development and use . . . of land and water resources by the States under federal control.’”¹⁹⁸ The opinion inflated state land use law to include water use law, and indirectly include water quality law because the regulation was pursuant to a water quality statute.¹⁹⁹ Justice Scalia warned that “[t]he extensive federal jurisdiction urged by the Government would authorize the Corps to function as a *de facto* regulator of immense stretches of intrastate land—an authority the agency has shown its willingness to exercise with the scope of discretion that would befit a local zoning board.”²⁰⁰

Arguments based on preserving states’ land use powers are inflammatory because they invoke private property concerns, a bastion of American freedom.²⁰¹ It is important to acknowledge, however, that the broad category of land use law is not an area of law completely left to the states; federal law has traditionally shaped land use law as well.²⁰² Zoning law is a part of land use power that traditionally belongs to the state and is delegated to local governments, although those powers only emerged in the twentieth century.²⁰³

It is true that states generally delegate the power to issue building permits to local zoning authorities.²⁰⁴ The Corps, however, does not issue specific building permits under the CWA; it issues permits allowing the discharge of a specific pollutant at specific levels into a particular body of water,²⁰⁵ or allowing the dredging and filling of a wetland.²⁰⁶ This permitting scheme is an additional step to local governments’ permitting of developments, which has

¹⁹⁶ *Id.* (“[T]he Government’s expansive interpretation would ‘result in a significant impingement of the States’ traditional and primary power over land and water use’” (quoting *Solid Waste Agency of N. Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159, 174 (2001))).

¹⁹⁷ See *id.* (“Regulation of land use, as through the issuance of the development permits sought by petitioners in both of these cases, is a quintessential state and local power”).

¹⁹⁸ *Id.*, 737.

¹⁹⁹ See *supra* Part I.A.2. Although the plurality stated that the regulation impinged on state land use and water use law, its conclusion also included water quality law because the regulation at issue was enacted pursuant to the CWA, a water quality statute. The plurality reasoned that the scope of jurisdiction regarding section 404 permits would impinge on states’ responsibility to issue land use permits, indicating that land use permitting schemes encompass the section 404 water quality regulation.

²⁰⁰ 547 U.S., 738.

²⁰¹ See *supra* Part I.A.3.

²⁰² See, e.g., Mandelker, *supra* note 22, 1–2 (“Federal and state constitutions impose limitations on land use controls”); see *supra* Part I.A.3.

²⁰³ See *Euclid v. Amber Realty Co.*, 272 U.S. 365 (1926) (affirming New York City’s right to regulate land uses based on zoning); Mandelker, *supra* note 22, § 1.01.

²⁰⁴ Mandelker, *supra* note 22, 1–2.

²⁰⁵ 33 USC § 1342 (2011) (establishing NPDES).

²⁰⁶ *Id.* § 1344.

been and continues to be conducted by zoning authorities at the local level.²⁰⁷ A developer will still need to obtain other necessary permits and approvals from the local zoning authority for any construction and possibly from the state.²⁰⁸ The CWA does not regulate zoning, construction, or development; it does not displace a function that has been traditionally performed by state or local governments. The CWA protects the quality of the nation's waters by requiring permits to pollute certain waters.²⁰⁹ The CWA is consistent with state land use regulatory power, which is easily understood when water law is properly seen as distinct from land use.²¹⁰

The Supreme Court's analysis in *Rapanos* failed to acknowledge key distinctions between land use and water law.²¹¹ The plurality erroneously conflated water use law, water quality law, and land use law, assuming that land use is a larger umbrella of state power that encompasses water quality regulation.²¹² This analysis ignored Congress's authority to regulate water resources and to enact laws pursuant to its enumerated powers even if the laws affect land use and water use decision making, according to the Supremacy Clause.²¹³ The federal government's role in managing water resources is distinct from its role in managing land use,²¹⁴ although land use decisions may affect water resources, and water quality regulations may affect development.²¹⁵

The federal government's regulation of water quality does not usurp states' traditional power to plan for growth and development of land and water resources. Planning is distinct from and more comprehensive than regulating water quality.²¹⁶ State planning and development must abide by many different types of federal laws; such boundaries do not usurp states' traditional powers, but rather define the boundaries of what state action is permissible.

²⁰⁷ Land Use System, *supra* note 39, 487.

²⁰⁸ *Id.*; see, e.g., Minnesota Department of Natural Resources, Itasca County, http://www.dnr.state.mn.us/permits/water/water_permit_contacts_wrapper.html?id=ITAS (accessed April 22, 2012) (identifying permits required from state agencies and local governments for the dredging and filling of wetlands, in addition to a section 404 permit); New York State Department of Environmental Conservation, Freshwater Wetlands Permits, <http://www.dec.ny.gov/permits/6058.html> (explaining the state Freshwater Wetlands Regulatory Program including state permits) (accessed April 22, 2012); Summary of Permits Required for Works in Creeks and Rivers in Sonoma County, http://www.goldridercd.org/pdfs/permits_soco_streams.pdf (accessed April 22, 2012) (identifying necessary permits from the Army Corps of Engineers under section 404, the Regional Water Quality Control Boards, the California Department of Fish and Game, and the local city or county).

²⁰⁹ See 33 USC § 1311(a) (2011).

²¹⁰ See *supra* Part I.A.

²¹¹ See *Rapanos v. United States*, 547 U.S. 715, 719–729, 737–739 (2006).

²¹² See *id.*, 738.

²¹³ See Constitution art. VI, par. 2.

²¹⁴ See *supra* Part I.B.

²¹⁵ New Ideas, *supra* note 5, 23.

²¹⁶ See Land Use System, *supra* note 39, 498 (defining 'planning' as "the process of systematically establishing goals and policies to guide future land use activities").

For example, landlords, developers, and local zoning boards must abide by the Fair Housing Act and may not discriminate against people based on sex, religion, familial status, handicap, national origin, or race.²¹⁷ The Religious Land Use and Institutionalized Persons Act prohibits local zoning boards from passing a zoning ordinance that substantially burdens a person's religious exercise without a compelling interest.²¹⁸ The fact that federal laws shape the context in which state and local governments may exercise their powers does not threaten federalism, but is rather a key part of our federalist system.²¹⁹ Federal water quality regulation is not categorically inconsistent with state land use power. Pursuant to the Supremacy Clause of the Constitution, state powers are limited to boundaries constitutionally established by Congress.²²⁰

The *Rapanos* plurality's distortion of land use law and water law also affected its analysis of one of the CWA's goals: "to recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use . . . of land and water resources."²²¹ The opinion could not reconcile the Corps' regulation with this statutory purpose,²²² although states' primary responsibilities to manage water uses and land uses do not include water quality regulation.²²³ The states and federal government share water quality responsibilities under the CWA's cooperative federalism framework, and this balance of powers has existed since federal water quality regulation was first established.²²⁴ The federal water quality regulatory scheme informs state decision making regardless of the area of law, including land use decision making.²²⁵

B. The Hydrologic Connection

In its interpretation of this statutory language, the *Rapanos* plurality misunderstood basic principles of hydrology. The plurality confined the Corps' jurisdiction to waters having a relatively permanent surface connection to navigable waters.²²⁶ Misunderstanding hydrology and subsurface connections, Justice Scalia assumed that unless the waters touch, they could not

²¹⁷ 42 USC §§ 3601–3619 (2011).

²¹⁸ Religious Land Use and Institutionalized Persons Act (RLUIPA), Pub. L. 106-274, 42 USC § 2000cc-1 (2000).

²¹⁹ See *Martin v. Hunter's Lessee*, 14 U.S. 304, 347–348 (emphasizing "the importance, and even necessity of uniformity of decisions throughout the whole United States, upon all subjects within the purview of the constitution").

²²⁰ Constitution art. VI, par. 2 (establishes the Constitution, Federal Statutes, and U.S. treaties as "the supreme law of the land").

²²¹ 33 USC § 1251(b) (2011).

²²² See *Rapanos v. United States*, 547 U.S. 715, 737 (2006).

²²³ See *supra* Part I.A.

²²⁴ See *supra* Part I.A.2 (discussing cooperative federalism under the CWA).

²²⁵ See Constitution art. VI, par. 2.

²²⁶ 547 U.S., 739.

substantially affect each other: “It is not clear why roughly defined physical proximity should make such a difference—without actual abutment, it raises no boundary-drawing ambiguity, and it is undoubtedly a poor proxy for ecological significance.”²²⁷ The plurality seemed to be a product of those justices’ fear of large government rather than sound principles. Justice Scalia lamented, “[t]he dissent’s exclusive focus on ecological factors, combined with its total deference to the Corps’ ecological judgments, would permit the Corps to regulate the entire country as ‘waters of the United States.’”²²⁸

The plurality failed to acknowledge that a wetland connected to navigable water through groundwater may have just as significant effects on the navigable water than a wetland connected to navigable water by surface water.²²⁹ The plurality viewed the Court’s options as either allowing federal jurisdiction over waters linked by surface water connections under Congress’s Commerce Clause power or federal power over all water in the United States. Justice Scalia stated, “In fact, the entire land area of the United States lies in some drainage basin, and an endless network of visible channels furrows the entire surface, containing water ephemerally wherever the rain falls. Any plot of land containing such a channel may potentially be regulated as a ‘water of the United States.’”²³⁰ For the plurality, subsurface water connections were overwhelming and difficult to understand, so it determined that it was better to ignore subsurface hydrology altogether. Land and water are interconnected, however.²³¹ Water flows in many forms, including on the surface of the earth as streams, rivers, and oceans; as subsurface streams or aquifers; as precipitation; and as drainage. A comprehensive water quality regulatory scheme must understand the interconnectivity of surface water, groundwater, and land to encourage development in appropriate places and truly protect national water quality.²³²

Justice Scalia held that the CWA applies only to “those wetlands with a continuous surface connection” to waters that are considered “waters of the United States” because only those wetlands have a sufficient connection to the waters.²³³ For Scalia, the connection was significant because it was

²²⁷ *Id.*, 748.

²²⁸ *Id.*, 749.

²²⁹ See New Ideas, *supra* note 5, 22 (explaining that “land and water are inextricably interconnected,” and “harm to one part affects other parts and the entire system”).

²³⁰ See 547 U.S., 722.

²³¹ See New Ideas, *supra* note 5, 22.

²³² See Robert E. Beck and Amy K. Kelly, *Waters and Water Rights*, 3rd ed. (2010) § 18.03, 2 [hereinafter Beck Vol. 2] (“[W]ater in the zone of aeration and in the zone of saturation is intimately related,” and “all water is interrelated in the hydrologic cycle[;]” thus, “[t]his truth requires that water be managed conjunctively and that the management of water be integrated with the management of other related resources”).

²³³ 547 U.S., 739.

difficult to distinguish between those wetlands and other water bodies.²³⁴ The plurality's connection was not based on hydrologic principles or ecological connections.²³⁵

This holding is irrational in light of the fact that many wetlands and other water bodies are significantly connected to navigable waters through subsurface water.²³⁶ In fact, a subsurface river or aquifer between a wetland and a lake is a much more substantial connection than a trickle on the surface. In addition, as Justice Kennedy explained in his concurrence, wetlands may be significantly connected to a body of water even if water does not pass from the wetland to the water.²³⁷ Wetlands filter pollutants from water, prevent erosion and flooding, and serve as natural buffers.²³⁸ Consequently, filling in a wetland may have significant foreseeable effects on a body of water even if water does not pass from the wetland to the water, and regulating such infill and dredging is therefore critical to the CWA's stated purpose: "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."²³⁹

Generally, water law has evolved as our understanding of hydrology has developed.²⁴⁰ Without understanding the interconnectedness of water, Justice Scalia could not understand that there are still waters beyond federal jurisdiction such as purely intrastate waters that are not significantly connected to "waters of the United States" either through surface water or groundwater. His fear of not being able to see the limits of the Corps' power under the CWA because of the immense interconnectivity of the nation's waters led him to draw an arbitrary and overly simplistic line. The plurality's lack of understanding suggests that the judiciary is not the appropriate institution to understand hydrology and make judgments regarding how various parts of an ecosystem affect each other.²⁴¹

C. The Effect of *Rapanos*

The *Rapanos* opinion lacked a majority of the Court.²⁴² Chief Justice Roberts, Justice Thomas, and Justice Alito joined Justice Scalia.²⁴³ Justice Kennedy concurred in the judgment, but he disagreed with Justice Scalia's test for

²³⁴ *Id.*, 722.

²³⁵ *Id.*, 749 (chastising the dissent's emphasis on ecological factors).

²³⁶ See Beck Vol. 2, *supra* note 232, § 18.03.

²³⁷ 547 U.S., 766–767, 775 (Kennedy, J., concurring).

²³⁸ *Id.*, 775 (Kennedy, J., concurring).

²³⁹ 33 USC § 1251(a) (2011).

²⁴⁰ See *supra* Part I.A.1.

²⁴¹ In addition, the dissent suggests that appointed judges are not well suited to balance the costs and benefits of conservation policies. 547 U.S., 799 (Stevens, J., dissenting).

²⁴² 547 U.S., 719.

²⁴³ *Id.*

federal jurisdiction under section 404.²⁴⁴ Kennedy held that the CWA covers all waters that have a “significant nexus” to “navigable waters.”²⁴⁵ The plurality was concerned that Kennedy’s “significant nexus” test requires case-by-case determinations of federal jurisdiction rather than a bright line rule; such a test would be administratively difficult and unworkable.²⁴⁶ A bright line rule, if possible, may be more easily administered, but a bright line rule that is inaccurate would lead to other substantial inefficiencies that would likely eclipse the ease of administering the rule. Kennedy reasoned that “[t]he plurality’s first requirement—permanent standing water or continuous flow, at least for a period of ‘some months’—makes little practical sense in a statute concerned with downstream water quality.”²⁴⁷

In dissent, Justice Stevens stated that because the court lacked a majority, either test could be applied to establish jurisdiction.²⁴⁸ Subsequently, no federal appellate court has solely relied on the plurality opinion.²⁴⁹ Regarding the circuit courts that have had to apply *Rapanos*, the courts have (1) held that jurisdiction may be established under either test,²⁵⁰ (2) held that the significant nexus test controlled,²⁵¹ or (3) or reserved judgment.²⁵²

While the *Rapanos* opinion is not necessarily controlling because it lacked a majority, and much of the distortion of the federalism concern transpired as dicta, the opinion has had the effect of chilling federal efforts to regulate water quality.²⁵³ Based on the lower courts’ application of *Rapanos*,

²⁴⁴ *Id.*, 776 (Kennedy, J., concurring).

²⁴⁵ *Id.*, 779 (Kennedy, J., concurring).

²⁴⁶ *Id.*, 753.

²⁴⁷ *Id.*, 769 (Kennedy, J., concurring).

²⁴⁸ *Id.*, 810 n.14 (based on *Marks v. United States*, in which the Court held that when the court lacks a majority, the proper holding is “that position taken by those Members who concurred in the judgments on the narrowest grounds” (citing *Marks v. United States*, 430 U.S. 188 (1977))).

²⁴⁹ See *United States v. Donovan*, 661 F.3d 174, 180 (3rd Cir. 2011).

²⁵⁰ See *Donovan*, 661 F.3d at 176; *United States v. Bailey*, 571 F.3d 791 (8th Cir. 2009); *United States v. Johnson*, 467 F.3d 56 (1st Cir. 2006).

²⁵¹ See *United States v. Robison*, 521 F.3d 1319 (11th Cir. 2008); *United States v. Gerke*, 464 F.3d 723 (7th Cir. 2006); see also Damien M. Schiff, “Post-Rapanos Fallout,” in *Trends: ABA Section of Environment, Energy, and Natural Resources Newsletter* (November/December 2009), 13 (summarizing lower courts’ application of *Rapanos* and noting that the Supreme Court denied petitions for writ of certiorari in five of the seven appellate decisions at that time, indicating the Court will not likely address the issue).

²⁵² See *N. Cal. River Watch v. Wilcox*, 633 F.3d 766, 781 (9th Cir. 2011) (explaining that the Court had found the “significant nexus” test to be controlling, but it “did not, however, foreclose the argument that Clean Water Act jurisdiction may also be established under the plurality’s standard”); *Precon Dev. Corp. v. U.S. Army Corps of Eng’rs*, 633 F.3d 278, 288 (4th Cir. 2011) (where the parties agreed that the “significant nexus” test applied, the Court did not determine whether the plurality’s test could also apply); *United States v. Cundiff*, 555 F.3d 200, 210 (6th Cir. 2009) (reserving judgment on which test controls because “[h]ere, jurisdiction is proper under both Justice Kennedy’s and the plurality’s tests”); *United States v. Lucas*, 516 F.3d 316, 327 (5th Cir. 2008) (finding that “the evidence presented at trial supports all three of the *Rapanos* standards”).

²⁵³ See Jurisdictional Uncertainty, *supra* note 37; *supra* Introduction.

Kennedy's significant test seems to be the predominant rule. The language of and reasoning underlying the significant nexus test tracks the substantial effects test under the Commerce Clause as well.²⁵⁴ The plurality's test is also good law, but in many cases it is narrower than Kennedy's, and if Kennedy's test upholds federal jurisdiction, then jurisdiction is also highly likely under the plurality's test. However, there is still confusion among the lower courts and a chilling effect resulting in far fewer enforcement actions than before *Rapanos*.²⁵⁵ Clarification from Congress on the proper scope of the Corps' section 404 jurisdiction is needed.

III. BEYOND *RAPANOS*: FEDERAL POWER TO REGULATE WATER RESOURCES

Congress needs to clarify the scope of federal jurisdiction under section 404 to resolve uncertainty among lower courts and ensure proper enforcement of the CWA. Despite the chilling effect of the *Rapanos* opinion, when clarifying federal jurisdiction under section 404, Congress is not confined by the plurality's federalism concern. In determining whether a federal law is valid, the question is whether the law is constitutional: Was it enacted pursuant to one of Congress's enumerated powers?²⁵⁶ The *Rapanos* plurality's federalism concern, which applied when analyzing the validity of an agency's regulation,²⁵⁷ does not invalidate a federal law. Pursuant to the Supremacy Clause, a constitutional federal law supersedes state and local laws.²⁵⁸ Federal laws often provide the context in which states may act because the Supremacy Clause dictates that state law may not contradict federal law.²⁵⁹ States retain all powers not given to Congress, but "[no] form of state activity can constitutionally thwart the regulatory power granted by the Commerce Clause to Congress."²⁶⁰

²⁵⁴ See *Gonzales v. Raich*, 545 U.S. 1, 17 (2005) ("Congress has the power to regulate activities that substantially affect interstate commerce"); *infra* Part III.A.

²⁵⁵ See Jurisdictional Uncertainty, *supra* note 37; *supra* Introduction.

²⁵⁶ Richard Briffault and Laurie Reynolds, *Cases and Materials on State and Local Government Law*, 7th ed. (2009), 52 [hereinafter Briffault and Reynolds], ("[A]ll federal powers must be expressly or impliedly granted by the federal constitution").

²⁵⁷ See *Rapanos v. United States*, 547 U.S. 715, 738 (2006).

²⁵⁸ See Constitution art. IV, cl. 2; see also *Raich*, 545 U.S., 29 ("Just as state acquiescence to federal regulation cannot expand the bounds of the Commerce Clause, so too state action cannot circumscribe Congress' plenary commerce power."); *Wickard v. Filburn*, 317 U.S. 111, 124 (1942) ("[No] form of state activity can constitutionally thwart the regulatory power granted by the commerce clause to Congress").

²⁵⁹ See Constitution art. IV, cl. 2; *infra* Part III.A.

²⁶⁰ *Wickard*, 317 U.S., 124; see also *Raich*, 545 U.S., 29 ("Just as state acquiescence to federal regulation cannot expand the bounds of the Commerce Clause, so too state action cannot circumscribe Congress' plenary commerce power").

Valid federal laws provide context for how states may exercise their powers.²⁶¹ Congress may enact a law inconsistent with state law, even regarding areas traditionally reserved to the states if Congress issues a clear statement of intent.²⁶² Congress must explain how the clarified federal jurisdiction is authorized by its Commerce Clause power²⁶³ to guide the Corps in carrying out section 404 and enable proper CWA enforcement actions.

Understanding what constitutes “traditional” state powers, while not a test of the validity of a federal statute, should inform Congress’s decision regarding the appropriate scope of federal jurisdiction. Distinguishing traditional state land use powers from water law suggests that Congress’s clarification of section 404 jurisdiction would not necessarily be inconsistent with traditional state power; if Congress chooses to preempt state law, it should do so with a clear statement.²⁶⁴

A. Water Law and the Commerce Clause

The Commerce Clause empowers Congress to enact laws to regulate commerce among the states.²⁶⁵ This power must be read in conjunction with the Necessary and Proper Clause, authorizing Congress “[t]o make all Laws which shall be necessary and proper for carrying into Execution” the powers given to Congress under the Constitution.²⁶⁶ This provision gives Congress the flexibility to respond to the significant problems of the time.²⁶⁷ What is necessary and proper at one point in time may not be necessary and proper in another era. As demands on limited water resources have increased throughout the country and innumerable activities contaminate waters, individually and cumulatively,²⁶⁸ it has become necessary and proper for Congress to regulate water quality to protect interstate commerce.²⁶⁹

²⁶¹ For example, although education is a traditional state power, Congress validly passed the No Child Left Behind Act, which requires states to set educational standards in order to be eligible for federal funding. See No Child Left Behind Act, 20 USC §§ 6301–7941 (2011).

²⁶² See *Gregory v. Ashcroft*, 501 U.S. 452, 461 (1991); Briffault and Reynolds, *supra* note 256, 1133. If the federal law is consistent with state law, and there is no express preemption, the courts may infer preemption based on congressional intent, the existence of a comprehensive federal regulatory scheme, and the importance of having uniform legislation. See, e.g., *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 143–144 (1963); *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947).

²⁶³ Briffault and Reynolds, *supra* note 256, 52 (“[A]ll federal powers must be expressly or impliedly granted by the federal constitution”).

²⁶⁴ See *supra* Part II.A.; see also *Rapanos v. United States*, 547 U.S. 715, 738 (2006).

²⁶⁵ Constitution art. I, § 8, cl. 3.

²⁶⁶ Constitution art. I, § 8, cl. 18.

²⁶⁷ See *McCulloch v. Maryland*, 17 U.S. 316, 415 (1819) (“This provision is made in a constitution intended to endure for ages to come, and, consequently, to be adapted to the various crises of human affairs”).

²⁶⁸ See *supra* notes 3–8.

²⁶⁹ See *supra* Part I.A.2.

The evolution of water law corresponded to the evolution in our primary uses of and needs for water. Water evolved differently in western and eastern states due to differences in water availability and uses.²⁷⁰ As population and demand for water has increased, particularly in urban areas, eastern states' water laws now also facilitate diversions and transportation of water.²⁷¹ Water has always been interjurisdictional, but when water is abundant and clean, there is less of a need for regulation because various uses among states do not compete with each other. As demands for water have increased, and as activities that contaminate water have increased, one state's uses increasingly affect the amount of water available to other states.²⁷² A particular state's water uses or activities increasingly have interstate effects, and urban areas increasingly rely on imported water.²⁷³ These effects invoke Congress's Commerce Clause power to "regulate Commerce with foreign nations and among the several states, and with the Indian tribes."²⁷⁴

Our laws evolve to address the issues of our times. Not only has our understanding of hydrology improved, but also, over time, we have come to better understand how different land uses and activities affect water quality and supply. We also better understand the limited nature of water (and other resources) and how we should restrict our actions to conserve water. Now we are seeing the impacts of our economic activities on water quality and supply, enabling us to make smarter choices and manage our water resources before we deplete them.

Congress has the power to assert greater authority in regulating water quality in the U.S. than the *Rapanos* opinion suggests. Congress has the power to enact laws to protect and further interstate commerce, including regulation of activities that substantially affect interstate commerce.²⁷⁵ "Where economic activity substantially affects interstate commerce, legislation regulating that activity will be sustained."²⁷⁶ Congress may even regulate purely intrastate activities if part of a regulatory scheme and Congress could reasonably determine that such activities, in the aggregate, substantially affect interstate commerce.²⁷⁷ For example, the Supreme Court upheld federal regulation of wheat grown and consumed within a state because Congress reasonably concluded that such regulation was necessary for the federal regulation of the interstate wheat market.²⁷⁸ The Court also upheld federal regulation of

²⁷⁰ See Beck Vol. 1, supra note 8, §§ 4.01, 4.05(a); infra Part I.A.1.

²⁷¹ *Id.* § 9.01.

²⁷² See *id.*

²⁷³ See supra notes 4, 5, and 8.

²⁷⁴ Constitution art. I, § 8, cl. 3.

²⁷⁵ Constitution art. I, § 8; *Gonzales v. Raich*, 545 U.S. 1, 16–17 (2005) (Commerce Clause also authorizes Congress to regulate channels and instrumentalities of interstate commerce).

²⁷⁶ *United States v. Morrison*, 529 U.S. 598, 610 (2000).

²⁷⁷ *Raich*, 545 U.S., 22.

²⁷⁸ *Wickard v. Filburn*, 317 U.S. 111, 118 (1942).

marijuana produced and consumed in the home for medical purposes because such marijuana had a substantial effect on the interstate market.²⁷⁹

Congress may regulate purely local, intrastate activities if a rational basis exists for determining that the activities substantially affect interstate commerce in the aggregate.²⁸⁰ In two prominent cases, the Supreme Court struck down federal legislation as beyond Congress's Commerce Clause power. In *United States v. Lopez*, the Court invalidated the Gun-Free School Zones Act of 1990, which made possessing a gun in a school zone a crime.²⁸¹ The Act did not regulate an economic activity that substantially affected interstate activity, and Congress did not require that the gun possession relate to interstate commerce.²⁸² In *United States v. Morrison*, the Court struck down the Violence Against Women Act because the law also did not regulate an economic activity that substantially affected interstate commerce.²⁸³

This case law and *Rapanos* suggest that Congress may extend federal jurisdiction over water resources under the CWA. *Rapanos* affirmed that clarification from Congress is needed and without it, the lower courts will struggle to apply either the plurality's test or Justice Kennedy's test to determine whether federal jurisdiction under section 404 exists.²⁸⁴ The *Rapanos* plurality is the existing interpretation of the language Congress used decades ago ("waters of the United States"), but this does not mean that Congress is prohibited from going further to explain and expand federal jurisdiction. To be valid under the Commerce Clause, Congress can likely regulate certain intrastate activities that pollute waters, including dredging and filling, to the extent such activities reasonably and substantially affect interstate commerce.

The CWA regulates the "discharge of a pollutant," which includes "any addition of any pollutant to navigable waters from any point source."²⁸⁵ In addition to contaminants such as sewage, garbage, chemical wastes, and solid wastes, a "pollutant" under the CWA includes dredge and fill material.²⁸⁶ Discharging these pollutants—such as emitting chemical wastes or industrial wastes, or dredging or filling a wetland—are inextricable to economic activity in the United States. Much water pollution is a result of economic activity; major sources of water pollution include mining, agricultural runoff,

²⁷⁹ *Raich*, 545 U.S., 32.

²⁸⁰ *Id.*, 16, 22; *Wickard*, 317 U.S., 125, 128–129 ("[E]ven if [the] activity be local and though it may not be regarded as commerce, it may still, whatever its nature, be reached by Congress if it exerts a substantial economic effect on interstate commerce, and this irrespective of whether such effect is what might at some earlier time have been defined as 'direct' or 'indirect.'").

²⁸¹ *United States v. Lopez*, 514 U.S. 549, 562 (1995).

²⁸² *Id.*, 561 (explaining that the act "is not an essential part of a larger regulation of economic activity, in which the regulatory scheme could be undercut unless the intrastate activity were regulated").

²⁸³ *United States v. Morrison*, 529 U.S. 598, 612, 617 (2000).

²⁸⁴ See *supra* Part II.C.

²⁸⁵ 33 USC § 1362(12) (2011).

²⁸⁶ *Id.* § 1362(6).

construction, urban runoff from development, and hydrologic modification, which is changing the natural hydrology of a waterway such as through dams and diversions, generally to increase water supplies.²⁸⁷ Furthermore, Congress may narrow the scope of federal jurisdiction to the discharge of pollutants into waters of the United States specifically as a result of economic activity.

The nation's waters are a vast and crucial resource. As human stresses on water resources increase, waters are increasingly contaminated and transported.²⁸⁸ Degradation of water resources will likely substantially affect interstate commerce.²⁸⁹ It is important for Congress to clarify the scope of federal jurisdiction under section 404 so the Corps has a clear mandate²⁹⁰ and to explain how the Commerce Clause authorizes such jurisdiction.

B. Congressional Action or Inaction

In 2008 the EPA and the Corps issued a guidance memorandum defining the Corps' jurisdiction under the CWA as protecting waters that are determined to be navigable-in-fact by the courts, are currently being used or have historically been used for commercial navigation, or could realistically be used for commercial navigation in the future.²⁹¹ This scope leaves a significant gap between waters the federal government is regulating for water quality and activities substantially affecting interstate water quality.

In April 2011, the EPA and the Corps issued new draft guidance to clarify their understanding of the CWA's jurisdictional scope.²⁹² Over 200,000 comments were accepted through July 31, 2011.²⁹³ The 2011 draft guidance sets forth certain waters that are subject to the CWA: traditional navigable waters, interstate waters, wetlands adjacent to either traditional navigable waters or interstate waters; non-navigable tributaries to traditional navigable waters that are relatively permanent (they contain water at least seasonally), and wetlands that directly abut relatively permanent waters.²⁹⁴ It also applies a

²⁸⁷ See Salzman and Thompson Jr., *supra* note 6, 149. Not all activities that pollute waters and substantially affect interstate commerce are economic in nature. However, just as the Commerce Clause power authorizes Congress to regulate purely intrastate activity when a necessary part of comprehensive regulation of interstate commerce, Commerce Clause jurisprudence suggests that the Commerce Clause power may also allow Congress to regulate some noneconomic activities within the regulatory scheme if failure to regulate those would undercut the comprehensive regulatory program.

²⁸⁸ See *supra* notes 4–8.

²⁸⁹ See *supra* notes 4, 5, and 8.

²⁹⁰ See *Rapanos v. United States*, 547 U.S. 715, 738 (2006).

²⁹¹ EPA, *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States and Carabell v. United States* (2007), <http://www.epa.gov/wetlands/pdf/RapanosGuidance6507.pdf> (accessed April 22, 2012).

²⁹² "Draft Guidance on Identifying Waters Protected by the Clean Water Act," *Federal Register* 76 (April 27, 2011): 24,479 [hereinafter Draft Guidance].

²⁹³ Aaron Lovell, "EPA Faces Procedural Hurdles in Bid to Codify Water Jurisdiction Policy," *Inside EPA* (November 3, 2011).

²⁹⁴ See Draft Guidance, *supra* note 292, §§ 1–2.

fact-specific analysis to determine if the certain other waters are protected due to a “significant nexus” to a traditional navigable water or interstate water to determine jurisdiction, including tributaries to traditional navigable waters or interstate waters and wetlands adjacent to jurisdictional tributaries to traditional navigable waters or interstate waters.²⁹⁵ In addition, it provides examples of waters that are generally outside the scope of the CWA, including waters that lack a “significant nexus” where one is required for it to be protected.²⁹⁶

The 2011 draft guidance is intended to supersede prior guidance. By employing the significant nexus test, it seems to assert greater jurisdiction than the previous guidance, and it applies to the CWA’s jurisdiction over “waters of the United States,” while previous guidance only applied to section 404.²⁹⁷ Because it is not a rule, it will not have the force of law,²⁹⁸ but EPA recently launched the rulemaking to codify its understandings.²⁹⁹ Local governments, industry, and certain lawmakers assert that EPA may not simply codify its draft guidance, but must begin the rulemaking process with a blank page with formal consultations with industry and local governments.³⁰⁰

Although clarity regarding the jurisdictional scope of the CWA is unquestionably needed, the 2011 draft guidance has been controversial with industry and local governments concerned about greater federal control over waters and increased costs of compliance. One hundred seventy members of the House of Representatives have requested that EPA reconsider its position.³⁰¹ The House passed H.B. 2354 in 2011, an appropriations bill that would prevent the Corps from implementing the draft guidance.³⁰²

While at least some members of Congress do not want the Corps to clarify the scope of the CWA’s jurisdiction, neither is Congress taking on that task. It would be better for Congress to pass a clear amendment. By

²⁹⁵ See *id.* § 3 (“The agencies will assert jurisdiction over waters with a significant nexus to traditional navigable waters or interstate waters in accordance with *SWANCC* and *Rapanos*”).

²⁹⁶ See *id.* § 7.

²⁹⁷ See, generally, *id.*; Jonathan Simon, “New Proposed Guidance on the Jurisdictional Reach of the Clean Water Act,” *Trends* 43 (September/October 2011): 10.

²⁹⁸ See Draft Guidance, *supra* note 292, 1 (explaining that the draft guidance “is not a rule, and hence it is not binding and lacks the force of law”).

²⁹⁹ Aaron Lovell, “EPA Faces Procedural Hurdles in Bid to Codify Water Jurisdiction Policy,” *Inside EPA* (November 3, 2011).

³⁰⁰ See *id.*; Aaron Lovell, “EPA Agrees to Review ‘Federalism’ Effects of CWA Jurisdiction Rulemaking,” *Inside EPA* (November 10, 2011).

³⁰¹ Jonathan Simon, “New Proposed Guidance on the Jurisdictional Reach of the Clean Water Act,” *Trends* 43 (September/October 2011): 10.

³⁰² H.B. 2354, 112th Legis., § 108 (2011–2012) (“None of the funds made available by this Act or any subsequent Act making appropriations . . . may be used by the Corps of Engineers to develop, adopt, implement, administer, or enforce a change or supplement to the rule dated November 13, 1986, or guidance documents dated January 15, 2003, and December 2, 2008, pertaining to the definition of waters under the jurisdiction of the Federal Water Pollution Control Act”) (citation omitted).

not acting, Congress is deferring the responsibility of defining the limits of Congress's Commerce Clause power to the Corps, whose interpretation would inevitably be tested in the courts, again.³⁰³ It is vague for Congress to tell the Corps that their jurisdiction reaches the fullest extent of Congress's Commerce Clause power without defining that power. Congress would be deflecting its responsibility to define federal jurisdiction under section 404 to the courts. Given the courts' distortion of water law and land use law, and the Court's misunderstandings of hydrology,³⁰⁴ this proposal will not fill the need for clarification. Congress is better suited to make the policy judgments involved in defining the scope of federal jurisdiction under section 404.³⁰⁵

If Congress makes a clear statement on the Corps' federal jurisdiction, the Corps' future regulations will more likely be upheld because they will be adopted pursuant to clear authorization, as required by *Rapanos*.³⁰⁶ Congress's policy choices, if constitutional, will be respected.³⁰⁷ If there is no particular provision, but just 'the fullest extent that these waters are subject to Congress's powers,' rather than apply the Commerce Clause test to a specific regulation or water body at issue, the courts will be invited to define the limits of the Commerce Clause wholesale. The courts would make important policy choices that are better left to Congress.

If Congress fails to act, *Rapanos* will continue to chill federal jurisdiction over water resources and confuse lower courts. The regulatory gap in water quality will continue,³⁰⁸ which was ironically a principal reason for enacting the CWA.³⁰⁹ There are significant transaction costs to having states effectively regulate the quality of shared water resources. States upstream are not compelled to expend the time and resources needed to regulate the discharge of pollutants that primarily affect states downstream.³¹⁰ In addition, before the CWA, states lacked the political will to meet their own water quality standards.³¹¹

³⁰³ See *Rapanos*, 547 U.S., 738 (“[W]e would expect a clearer statement from Congress to authorize an agency theory of jurisdiction that presses the envelope of constitutional validity.”)

³⁰⁴ See supra Parts II.A., II.B.

³⁰⁵ See also supra note 232.

³⁰⁶ 547 U.S., 737–739.

³⁰⁷ See *id.*, 738; see, e.g., Michael Greve, “Citizen Suits and the Future of Standing in the 21st Century: From Lujan to Laidlaw and Beyond: Friends of the Earth, Foes of Federalism,” *Duke Environmental Law and Policy Forum* 12 (2001): 167, 172 (indicating that courts should defer to Congress's public policy choices absent a constitutional concern); Amy Langenfeld, “Living in Limbo: Mandatory Detention of Immigrants Under the Illegal Immigration Reform and Responsibility Act of 1996,” *Arizona State Law Journal* 31 (1999): 1041, 1069 (“When Congress has articulated its policy choice in clear statutory language, courts must defer”).

³⁰⁸ See supra Introduction.

³⁰⁹ See supra Part I.A.3.

³¹⁰ See, e.g., Sax et al., supra note 9, 924 (describing the first local legislative response to discharge of waste “was typically to require use of municipal sewers which simply dumped the sewage untreated further downstream, shifting the pollution problem and attendant typhoid outbreaks to neighboring towns”).

³¹¹ Salzman and Thompson Jr., supra note 6, 150.

To the extent this gap between federal and state regulation remains, efforts to preserve water quality may be undermined by permissible polluting of waters, including the dredging and filling of wetlands.

Due to the slow legislative process and political hurdles, the Supreme Court's invalidation of the Corps' regulation due to unclear congressional authorization has been tantamount to invalidating a statutory provision; the Court requires Congress to act before federal water quality regulation can be completely understood and acted upon.³¹² There is a risk that water law will continue to be confused and amalgamated with land use law, overextending state land use power at the expense of federal power to protect water resources. When courts overextend states' traditional power over land use regulation to other areas of law over which states do not traditionally govern, they give greater weight to state control over land use preferences compared to other responsibilities and considerations.³¹³ This overreaching usurps the legislative function of balancing policy concerns.

IV. CONCLUSION

The courts should be careful not to overextend states' traditional land use powers; weighing land use interests against other interests is a legislative function. Water is a unique area of law in terms of land use because of how closely water is related to land use and because effective regulation of water quality and supply affects, but does not determine or usurp, land use regulatory schemes. Land use decisions commonly affect water resources, and water supply and water quality laws affect land use regulation.³¹⁴ The fact that federal laws shape the context in which state and local governments may exercise their powers does not threaten federalism, but rather defines it.³¹⁵

Understanding the differences between (1) the boundary between governmental authority to regulate land and land ownership rights, on the one hand, and (2) the boundary between governmental authority to regulate water and water rights, on the other, is necessary to understand how to best manage both resources. Water is a resource essentially controlled by the public interest, or the public domain;³¹⁶ it is interjurisdictional and usufructuary.³¹⁷ Land is privatized, and private interests primarily control land use law.³¹⁸ Thus the

³¹² See Christopher H. Schroeder, "Environmental Law, Congress, and the Court's New Federalism Doctrine," *Indiana Law Journal* 78 (2003): 413, 457 ("Narrowing an environmental statute through statutory interpretation . . . will each cause a de facto contraction in federal problem solving abilities because the laws on the books will not soon be replaced by curative legislation").

³¹³ See *Rapanos v. United States*, 547 U.S. 715, 799 (2006) (Stevens, J., dissenting).

³¹⁴ New Ideas, *supra* note 5, 23.

³¹⁵ See *supra* Part II.A.

³¹⁶ See *supra* Part I.B.

³¹⁷ See *supra* Part I.A.1.

³¹⁸ See *supra* Part I.B.

government has greater authority to regulate water vis-à-vis its authority to regulate land.³¹⁹

Acknowledging the roles of the federal and state governments does not decimate or unjustly curtail local decision-making power. Additional federal controls that regulate issues of interstate or national concern further define the boundaries within which state and local governments can make decisions in their jurisdictions.³²⁰ This works against local governments making decisions that have deleterious external effects and ameliorates pressure on local governments to address problems beyond their capability or responsibility to resolve. Federal regulation of water quality and, as necessary and appropriate to respond to increasing water scarcity, of water supply does not categorically usurp traditional state or local power. The federal government assumes a critical role in regulating issues of interstate concern, something that state and local governments cannot effectively do. If the federal government fails to fulfill its responsibility to regulate water quality, significant gaps in water management will likely result.³²¹ Understanding the important roles that each level of government plays is critical to effectively managing water resources and protecting water quality.

³¹⁹ See *id.*

³²⁰ See New Ideas, *supra* note 5, 38 (explaining that “[o]ften these federal and state environmental or multijurisdictional regional controls are ‘overlays’: additional constraints laid over top of underlying local zoning and planning” and that “land use regulation remains essentially a local matter”).

³²¹ See *supra* Introduction.