INTRODUCTION

The flooding that accompanied Hurricane Katrina when it hit the Gulf coast in the summer of 2005 made it one of the most costly disasters in the history of the United States, both in terms of lives lost and property damaged. Most of the nation perceived Hurricane Katrina as a random and tragic act of nature.1 Russ Knocke, a spokesperson for the Department of Homeland Security, expressed the sentiments of many when he simply said, “Mother Nature trumped the playbook.”2 Others saw a divine role in the calamity, with some even suggesting that Katrina

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1 TED STEINBERG, ACTS OF GOD: THE UNNATURAL HISTORY OF NATURAL DISASTER IN AMERICA 198 (2d ed. 2006).
2 Id.
was “payback for the blood shed in abortion clinics”\(^3\) or punishment for a gay, lesbian, and bisexual street fair set to take place in New Orleans just as the storm hit.\(^4\) It is certainly difficult to see a disaster of Katrina’s magnitude as anything other than the unpredictable and uncontrollable act of some force larger than ourselves. But shockingly, Hurricane Katrina was, in fact, one of the most accurately predicted and easily preventable disasters ever to take place.\(^5\)

More than forty percent of the nation’s salt marshlands are in Louisiana.\(^6\) However, Louisiana may not have these marshlands for much longer. Those along the coast are disappearing at a rate of one football field-sized area every thirty-five minutes.\(^7\) The loss of these wetlands is significant because wetlands mitigate flooding and reduce the impact of storm surges.\(^8\) Thus, the erosion, in recent decades, of wetlands in southern Louisiana has led to higher and faster storm surges than have ever before occurred there.\(^9\) Even though coastal communities have long depended on a system of levees to protect them from the sea,\(^10\) the tragic events of Hurricane Katrina proved what scientists and journalists had been suggesting for years,\(^11\) that the levees were no longer enough to compensate for the loss of the natural protection provided by the wetlands.\(^12\)

In the wake of Katrina, the Supreme Court granted certiorari in a case with profound implications for such regulations. In June of 2006, the Court decided \textit{Rapanos v. United States}, which dealt with the question of whether wetlands adjacent to “navigable waters of the United States” could be regulated under section 404 of the Clean Water Act.\(^13\) The plurality, per Justice Scalia, used textual arguments in support of its conclusion that the Clean Water Act was intended to encompass only “relatively permanent, standing or flowing bodies of water”\(^14\) and that

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\(^3\) Id. at xi.
\(^4\) Id.
\(^6\) Handwerk, \textit{supra} note 5.
\(^7\) Id.
\(^9\) Handwerk, \textit{supra} note 5.
\(^10\) Id.
\(^11\) Id.
\(^12\) Id.; see also Press Release, Worldwatch Institute, \textit{Unnatural Disaster: The Lessons of Katrina} (Sept. 2, 2005), http://www.worldwatch.org/node/1822.
\(^14\) Id.
adjacent or abutting wetlands could not be regulated based on “mere hy-
drologic connection.”

This Note will argue that the Court’s decision in Rapanos was con-
trary to both the purposes of the Clean Water Act and the Court’s own re-
cent Commerce Clause jurisprudence. But it will further argue that in
light of the position taken by the Court in Rapanos, Congress should
regulate wetlands through other sections of the Clean Water Act or
through a federal land use statute such as the National Flood Insurance
Act, thus using cooperative federalism and state-based approaches to pre-
serve wetlands. Part I of this Note explains the functions and importance
of wetlands. Part II traces the history of federal wetlands regulation.
Part III details the Supreme Court’s precedent interpreting the jurisdic-
tion of the Army Corps of Engineers over wetlands. Part IV explains the
impact of the Court’s recent Commerce Clause jurisprudence on its
Clean Water Act decisions. Part V argues that the Court’s decision in
Rapanos does not comport with its recent Commerce Clause decision in
Gonzales v. Raich. Part VI argues that the voluntary grant program con-
tained in section 319 of the Clean Water Act and the National Flood
Insurance Program could potentially be used to encourage states to de-
velop their own wetland protection programs, thereby avoiding the diffi-
culties associated with regulating wetlands through section 404 of the
Clean Water Act.

I. WETLANDS: FORM AND FUNCTION

Wetlands are the most biologically productive ecosystems in the
United States, supporting a diversity of species comparable to that
found in tropical rainforests and coral reefs. They perform a wide ar-
ray of critical ecosystem functions. First, wetlands act like sponges,
absorbing water and then slowly releasing it. This water-storing capac-
ity allows wetlands to have the effect of mitigating flooding by limiting
erosion and allowing groundwater to recharge. In coastal areas, just
one mile of vegetated wetlands can reduce storm wave heights by as
much as a foot.

15 Id. at 2225.
16 Oliver A. Houck & Michael Rolland, Federalism in Wetlands Regulation: A Consider-
ation of Delegation of Clean Water Act Section 404 and Related Programs to the States, 54
gov/owow/wetlands/pdf/fun_val.pdf [hereinafter FUNCTIONS AND VALUES OF WETLANDS].
18 Jeremy A. Colby, SWANCC: Full of Sound and Fury, Signifying Nothing . . . Much?,
19 FUNCTIONS AND VALUES OF WETLANDS, supra note 17.
20 Id.
21 Houck & Rolland, supra note 16, at 1250.
Further, wetlands act as natural pollution control systems. Water that has slowed as a result of encountering a wetland has less capacity to carry sediment, and the water’s movement around the many aquatic plants found in wetlands further encourages the settling out of suspended sediment and pollutants. This natural filtration system has economic benefits:

[Wetlands] remove heavy metals at efficiencies ranging from twenty to one hundred percent. They remove up to ninety-five percent of phosphorous, nutrients and conventional pollutants, the equivalent of multi-million dollar treatment systems. A recent report concludes that a loss of fifty percent of America’s remaining wetlands would result in increased sewage treatment plant expenditures of up to $75 billion for the removal of a single pollutant, nitrogen, alone.

Wetlands are also important for the sustainability of fisheries. It is estimated that more than seventy percent of America’s annual commercial seafood harvest, valued in the billions of dollars, traces its origins to “the shallow seagrasses and the salt, intermediate and brackish marshes of coastal estuaries.” “Wetlands provide an essential link in the life cycle of seventy-five percent of the fish and shellfish commercially harvested in the U.S.” Catches of crab, shrimp, and salmon, all dependent on wetlands during some part of their life cycle, were estimated at $1.167 trillion in 2004.

Even “isolated” wetlands serve many of these same functions, especially in areas that are otherwise relatively dry, such as the western regions of the United States. Moreover, the very concept of an “isolated” wetland is questionable, since virtually all wetlands, even those which do not share a surface water connection to any other body of water, are connected to other bodies of water through groundwater.

The capacity of a wetland to carry out the functions described above is not directly proportional to its size. A wetland’s size affects both its water storage capacity and the rate at which it can carry out evapotrans-

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22 Id. at 1245.
23 FUNCTIONS AND VALUES OF WETLANDS, supra note 17.
24 Houck & Rolland, supra note 16, at 1245.
25 Id.
26 Id. at 1247.
28 Id.
29 Id.
piration (loss of water by evaporation) and infiltration (absorption of water).\textsuperscript{31} The loss of only a small amount of wetland may result in a dramatic loss of wetland function.\textsuperscript{32} Nonetheless, even small wetlands are worth preserving, since they play a complementary role to the large wetlands in the ecosystems in which they exist.\textsuperscript{33} While only large wetland systems can have a substantial impact on peak levels of larger, more infrequent floods, small wetlands reduce and delay peak levels of smaller, more frequent floods.\textsuperscript{34}

II. A HISTORY OF FEDERAL WETLANDS REGULATION

Wetland regulation is, at heart, a land use issue. Land use in general, and intrastate navigable waters in particular, are traditional areas of state sovereignty.\textsuperscript{35} This traditional state power is, however, limited by federal authority to regulate interstate navigation.\textsuperscript{36} The Commerce Clause of the Federal Constitution grants Congress the authority to “regulate Commerce with foreign Nations, and among the several states.”\textsuperscript{37} Although the Constitution does not mention federal regulation of navigation specifically, the intimate connection between commerce and navigation has long been perceived, and courts have presumed since the earliest days of Commerce Clause jurisprudence that Congress must have some ability to regulate navigation if it is to effectively regulate interstate commerce.\textsuperscript{38}

Although the Supreme Court has long acknowledged Congress’s authority to regulate navigation as part of its commerce power, the Court interpreted that power quite narrowly in the early part of the nation’s history.\textsuperscript{39} This was partly the result of a fairly narrow interpretation of the commerce power as a whole.\textsuperscript{40} The Court read the Commerce Clause as applying only to goods which actually moved interstate, focusing exclusively on where the relevant activity took place (either intrastate

\begin{itemize}
  \item[31] Id.
  \item[32] Colby, \textit{supra} note 18, at 1058.
  \item[34] Id.
  \item[36] Id.
  \item[37] U.S. CONST. art. I, § 8, cl. 3.
  \item[38] Mank, \textit{supra} note 35, at 824 (quoting Gibbons v. Ogden, 22 U.S. (9 Wheat) 1, 190 (1824), in which Chief Justice Marshall argued that “[t]he mind can scarcely conceive a system for regulating commerce between nations, which shall exclude all laws concerning navigation.”).
  \item[39] See id. at 825.
  \item[40] See id.
\end{itemize}
or interstate) and not on the activity’s ultimate impact on interstate commerce as a whole.\textsuperscript{41} Thus, the Court interpreted the Commerce Clause to grant Congress power only to regulate navigation involving the actual interstate transportation of commercial goods.\textsuperscript{42} In keeping with this notion of a limited commerce power, the Court interpreted Congress’s navigation power as extending only to those waters that were in fact navigable.\textsuperscript{43}

Beginning in the late nineteenth century, however, the scope of Congress’s power to regulate navigable waters as part of its Commerce Clause authority gradually began to expand.\textsuperscript{44} This was initially due to Supreme Court decisions holding that the federal government did have authority to regulate non-navigable waters that had significant effects on navigable waters.\textsuperscript{45} The expansion of the navigation power was also fueled by Congress’s enactment of the River and Harbors Act in 1890,\textsuperscript{46} which allowed the Secretary of War to protect navigable waters from obstruction.\textsuperscript{47} The Supreme Court acknowledged a new and broader conception of the federal power to control waters when it upheld the River and Harbors Act in \textit{United States v. Rio Grande Dam & Irrigation Co.}\textsuperscript{48} The Court held that activities in non-navigable waters or portions of waters were within the Act’s jurisdiction when they affected navigable waters.\textsuperscript{49}

Section 13 of the 1899 Act, commonly referred to as the Refuse Act,\textsuperscript{50} was a further expansion of Congress’s power to control non-navigable waters. The Refuse Act prohibited discharging refuse “into any navigable water of the United States, or into any tributary of any navigable water from which the same shall float or be washed into such navigable water.”\textsuperscript{51} The Act thus extended Congress’s authority over navigable

\begin{itemize}
\item \textsuperscript{41} \textit{Id.}
\item \textsuperscript{42} \textit{Id.}
\item \textsuperscript{43} \textit{Id.} (citing \textit{The Daniel Ball}, 77 U.S. (10 Wall.) 557, 563 (1871), which defined navigable waters of the United States as those “form[ed] in their ordinary condition by themselves, or by uniting with other waters, a continued highway over which commerce is or may be carried on with other States or foreign countries in the customary modes in which such commerce is conducted by water).
\item \textsuperscript{44} \textit{Id.}
\item \textsuperscript{45} \textit{Id.}
\item \textsuperscript{46} \textit{Act of Sept. 19, 1890, ch. 907, § 7, 26 Stat. 454} (amended 1892).
\item \textsuperscript{47} \textit{Id.}
\item \textsuperscript{48} \textit{174 U.S. 690} (1899).
\item \textsuperscript{49} \textit{Id. at 696–702, 707–10.} Congress amended the River and Harbor Act in 1899 to address perceived ambiguities in the Act. \textit{River and Harbor Act of 1899, 33 U.S.C. § 401} (2003); \textit{see also} Mank, supra note 35, at 826–27. The 1899 Act used the broader term “waters of the United States” in addition to “navigable water[s] of the United States,” and it required congressional consent or a permit from the Corps before any construction in such waters. \textit{Act of Mar. 3, 1899, ch. 425, § 9, 30 Stat. 1151}.
\item \textsuperscript{50} \textit{33 U.S.C. § 407}.
\item \textsuperscript{51} \textit{Id.}
\end{itemize}
waters to include refuse added to non-navigable tributaries of those waters.52

Beginning in 1937, the Supreme Court changed its approach to the Commerce Clause as a whole, moving away from its historically narrow interpretation and towards a broader approach. In National Labor Relations Board v. Jones Laughlin Steel Corp.,53 the Court held that Congress had the authority, under the Commerce Clause, to regulate not only interstate activities, but also intrastate activities that “have such a close and substantial relation to interstate commerce that their control is essential or appropriate to protect that commerce from burdens and obstructions.”54

As the Court’s interpretation of the Commerce Clause became more expansive, so too did its definition of “navigable waters.” In United States v. Appalachian Power Co.,55 the Court held that Congress “had authority under the Commerce Clause to promote the development of electric power under the Federal Power Act even if those purposes did not serve navigation needs.”56 The Court reasoned that “flood protection, watershed development measures, [and] recovery of the cost of improvements by utilization of power”57 fell within the purview of Congress’s commerce power because they were the inevitable “by-products” of using waterways for commerce.58 Thus, the Court affirmed the notion that “navigable waters” could include waters used for “a wider range of purposes than just navigation.”59 A year after Appalachian Power, the Court further expanded federal jurisdiction in State of Oklahoma ex rel. Phillips v. Guy F. Atkinson Co.,60 holding that “Congress may exercise its control over the non-navigable stretches of a river in order to preserve and promote commerce on the navigable portions.”61

Beginning in the 1950s, the political climate in the United States changed in ways that profoundly affected both the legislative and judicial approach to environmental issues. Strong evidence of widespread environmental damage began to surface.62 Books such as Aldo Leopold’s A

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53 301 U.S. 1 (1937).
54 Id. at 36–39.
55 311 U.S. 377 (1940).
56 Mank, supra note 35, at 829.
57 Appalachian Power Co., 311 U.S. at 426.
58 Id.; see also Mank, supra note 35, at 829.
59 Mank, supra note 35, at 829. The Appalachian Power Court also expanded the definition of “navigable waters” beyond currently navigable waters to include potentially navigable waters. See Appalachian Power Co., 311 U.S. at 427.
60 313 U.S. 508 (1941).
61 Id. at 523.
Sand County Almanac, and later Rachel Carson’s Silent Spring, dramatized these problems, focusing public attention on environmental issues and to sparking a popular environmental movement. By the 1970s, this movement had gained enough strength to generate an “amazing expansion in environmental law and regulation.” For the first time, environmental protection became one of the federal government’s fundamental responsibilities.

The “environmental decade” of the 1970s began with the passage of the National Environmental Policy Act (NEPA) on January 1, 1970. Instead of trying to attack any specific environmental problem by means of a regulatory scheme, NEPA attempted to achieve environmental goals by “mandating a significant change in the decision-making procedure used by federal agencies.” NEPA required federal agencies to consider the likely environmental impacts of their activities and to report their findings in an environmental impact statement. It also required federal agencies to investigate alternatives that would have a smaller environmental impact. NEPA thus recognized that, in the environmental context, even localized activities must be evaluated in terms of their effects on their ecosystem as a whole.

NEPA was the first major piece of federal legislation to endorse the idea of ecosystem-level management as a legal concept. It was followed by a series of federal environmental regulations passed in the early 1970s based on this premise. Water pollution control was one of the most notable areas in which the idea of ecosystem level management was quickly applied. Legislators and policymakers initially turned to the Rivers and Harbors Act as a tool for controlling water pollution on a sys-

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63 See generally Aldo Leopold, A Sand County Almanac (1949).
64 See generally Rachel Carson, Silent Spring (1964).
65 Ruggiero, supra note 62, at 39.
66 Id.
70 § 102(2)(c).
71 § 102(2)(e).
temic level. This proved to be difficult because the Army Corps of Engineers (Corps) traditionally used its jurisdiction under the Rivers and Harbors Act to focus on navigation rather than on pollution control. Serious questions began to arise about whether the Corps could extend its jurisdiction under the Rivers and Harbors Act beyond direct effects on navigation to effects on the environment more generally. It was in this context and spirit that Congress promulgated the Federal Water Pollution Control Act Amendments of 1972, or the Clean Water Act (CWA).

The 1972 CWA was designed to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” In order to achieve this goal, the CWA created a framework that uses Water Quality Standards, Total Maximum Daily Loads (TMDLs) for non-point source pollutants, and a system of permits that must be acquired before dredged or fill material can be discharged from a point source into navigable waters. These provisions are intended to guide states towards national water quality goals and thus to create “a comprehensive approach to regulating pollution and improving the quality of the nation’s waters.”

Central to the CWA is a prohibition against “discharge of any pollutant by any person” into covered waters. However, the CWA carves out a series of exceptions to this default rule. One of these exceptions, which is most frequently implicated in the context of wetland management and use, is section 404 of the CWA, which requires that:

Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced [is] required to have a permit [issued by the Army Corps of Engineers.]
Section 404 of the CWA has been referred to as “[t]he centerpiece of federal wetlands regulation,”86 and as “the most significant federal regulatory scheme related to wetlands protection.”87

The Environmental Protection Agency (EPA) holds primary responsibility for administering the CWA.88 However, section 404 of the CWA is co-administered by the Army Corps of Engineers.89 The substantive criteria used in determining when a section 404 permit should be granted are set out in regulations which the EPA and the Corps promulgate together,90 and the permit program is subsequently administered by the Corps alone.91 Additionally, the EPA has “veto” authority over the Corps’s permitting decisions,92 and both agencies have enforcement authority.93 The scope of the Corps and EPA’s jurisdiction is the same for all of the Act’s provisions, including section 404: “navigable waters.”94 The term navigable waters is vaguely and somewhat circularly defined in the CWA as “the waters of the United States, including the territorial seas.”95

Although they co-administer section 404, the EPA and the Corps initially had very different definitions of navigable waters. Under the River and Harbors Act, the Corps historically interpreted its jurisdiction as extending only to traditionally navigable waters, such as lakes and rivers.96 When the CWA was initially promulgated in 1972, the Corps continued to use a relatively narrow definition of the term navigable waters,97 construing it to cover only waters that were navigable in fact.98 This was in direct conflict with the regulatory definition published by the EPA in 1973, which adopted a relatively expansive definition of the navigable waters falling under its CWA jurisdiction.99 Then, in response to the D.C. Circuit’s decision in Natural Resources Defense Council v. Callaway,100 the Corps expanded its definition.101 The Corps’s new regula-

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86 Houck & Rolland, supra note 16, at 1243.
89 Id.
90 Id.
91 Id.
92 Id.
93 Id.
96 See Leslie Salt Co. v. Froehlke, 578 F.2d 742 (9th Cir. 1978).
97 Downing, Winer & Wood, supra note 88, at 480.
98 PerCival et al., supra note 69, at 600.
99 Id.
101 Mank, supra note 35, at 834.
tions defined navigable waters to include: (1) tributaries of navigable waters; (2) interstate waters and their tributaries; (3) non-navigable intrastate waters whose use or misuse could affect interstate commerce, and; (4) all freshwater wetlands that were adjacent to waters covered under the Act.102 The Corps’s interpretation of navigable waters has continued to expand since then, and the CWA, including section 404, now covers “all waters of the United States.”103

If determining the meaning of the term navigable waters has been difficult, determining how wetlands fit into that category has been even more so. Part of the reason that the term wetland has been problematic in the context of section 404 is that, although a wetland has a biological and ecological identity, “the term, as it is used in section 404, is jurisdictional in nature, not scientific.”104 Only wetlands whose use affects interstate commerce are subject to the Corps’s jurisdiction under the CWA.105 Wetlands that traditionally fell under the jurisdiction of the Corps, as defined by the CWA, included: (1) wetlands that were used or could be used by migratory birds, and as such could affect interstate commerce (often referred to as the “Migratory Bird Rule”); (2) wetlands that abutted surface watercourses, and; (3) wetlands adjacent to surface water courses.106 These adjacent wetlands were “areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support . . . a prevalence of vegetation typically adapted for life in saturated soil conditions.”107

This broad interpretation of the Corps’s jurisdiction over wetlands under section 404 held sway until as recently as the 1980s.108 The term “adjacent wetlands” was also construed quite broadly. For example, a road separating a swamp from a river did not preclude the exercise of the Corps’s jurisdiction over adjacent wetlands.109 The Corps even attempted to use section 404 to assert jurisdiction over certain isolated wet-

104 Davis, supra note 87, at 834.
105 Id. at 831.
108 See Riverside Bayview Homes, 474 U.S. at 128–29 (stating that a narrow construction is not necessary to avoid a takings problem).
lands used by migratory waterfowl. In recent years, however, the Supreme Court’s interpretation of the Corps’s jurisdiction under section 404 has become increasingly restrictive.

III. SUPREME COURT INTERPRETATIONS OF FEDERAL WETLANDS JURISDICTION

Deciding where and how to draw the line between water and land can prove surprisingly difficult, and Rapanos was not the first case in which the Court was asked to interpret the meaning of “waters of the United States” in the context of wetlands. The Court addressed this issue in two prior cases, United States v. Riverside Bayview Homes, Inc. and Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers. Like Rapanos, both of these cases addressed the question: when is a wetland sufficiently closely related to a navigable water to bring it within the Corps’s jurisdiction under section 404 of the CWA?

A. RIVERSIDE BAYVIEW HOMES

The Riverside Bayview Homes case arose because the respondent, Riverside Bayview Homes, owned a piece of “marshy land” near Lake St. Clair in Michigan on which it planned to construct a housing development. In preparation for construction, Riverside Bayview Homes began to place fill materials on the land. On the theory that the property constituted an “adjacent wetland” under the 1975 Corps regulation, the Corps sued to enjoin Riverside Bayview Homes from filling the wetland because the builder did not obtain a valid section 404 permit from the Corps. The District Court granted the injunction. The Sixth Circuit reversed, “constru[ing] the Corps’s regulations to exclude from the category of adjacent wetlands . . . wetlands that were not subject to flooding by adjacent navigable waters at a frequency sufficient to support the growth of aquatic vegetation.”

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111 See Riverside Bayview Homes, 474 U.S. at 121.
113 Riverside Bayview Homes, 474 U.S. at 121.
114 Id. at 124.
115 Id.
116 See Permits for Activities in Navigable Waters or Ocean Waters, 40 Fed. Reg. 31320 (July 25, 1975) (stating that the Corps Jurisdiction under section 404 includes “Navigable waters,” which could extend to wetlands adjacent to coastal waters, including marshes).
117 Id.
118 Id. at 125.
119 Id.
The Supreme Court unanimously reversed the Sixth Circuit, declaring that “[a]n agency’s construction of a statute it is charged with enforcing is entitled to deference if it is reasonable and not in conflict with the expressed intent of Congress.” Therefore, the Court set out to address “whether it is reasonable, in light of the language, policies, and legislative history of the Act for the Corps to exercise jurisdiction over wetlands adjacent to, but not regularly flooded by, rivers, streams, and other hydrographic features more conventionally identifiable as ‘waters.’” Examining the legislative history of the CWA, the Court found that, in promulgating the Act, Congress had adopted an expansive definition of “waters” in order to reflect the broad underlying purposes of the CWA. According to Justice White’s opinion in Riverside, the CWA originated not as an attempt to grant the Corps jurisdiction over navigable waters for commercial or economic purposes, but rather as an attempt to create a mechanism by which to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Taking the broad systemic purposes of the CWA into account and acknowledging evidence presented by the EPA demonstrating the close hydrological and ecological connections between wetlands and the waters they adjoin, the Court determined that the Corps’s conclusion that adjacent wetlands were covered by section 404 of the CWA was reasonable.

B. SOLID WASTE AGENCY OF NORTHERN COOK COUNTY v. U.S. ARMY CORPS OF ENGINEERS

The Court was not asked to interpret the meaning of navigable waters under the CWA again until 2001 in Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC). The SWANCC case arose when the solid waste agency in Cook County, Illinois proposed to use an abandoned sand and gravel pit mine as a landfill. The excavation trenches left on the land by the mining had become seasonal or permanent ponds. The Army Corps of Engineers, however, initially declined to assert jurisdiction because there were no adjacent navigable waters that would convert the ponds into jurisdictional wetlands. However, when it was discovered that the site provided

121 Riverside Bayview Homes, 474 U.S. at 131.
122 Id. at 132–33.
124 Riverside Bayview Homes, 474 U.S. at 134.
126 Id. at 163.
a temporary habitat to over 100 species of migratory birds each year, the Corps did assert jurisdiction under the so-called “Migratory Bird Rule.” This rule is found in a 1986 version of the CWA, which states that section 404(a) extends to intrastate waters:

a) Which are or would be used as habitat by birds protected by Migratory Bird Treaties; or
b) Which are or would be used as habitat by other migratory birds which cross state lines; or
c) Which are or would be used as habitat for endangered species; or
d) Which are or would be used to irrigate crops sold in interstate commerce.127

SWANCC challenged the Corps’s authority, but the Seventh Circuit upheld the Corps’s jurisdiction.128 The Corps’s victory, however, was short-lived.

The Supreme Court reversed the Seventh Circuit in a close five to four decision.129 In an opinion delivered by then-Chief Justice Rehnquist, the Court distinguished SWANCC from Riverside Bayview Homes.130 Rehnquist argued that the holding in Riverside Bayview Homes was “based in large measure upon Congress[‘s] unequivocal acquiescence to, and approval of, the Corps[‘s] regulations interpreting the CWA to cover wetlands adjacent to navigable waters” given the “significant nexus” between the adjacent wetlands and “navigable waters.”131 The Court found that the required nexus was lacking in the SWANCC case, where the wetlands at issue were not directly adjacent to any waters covered by the CWA.132

The SWANCC decision thus “eliminated ‘CWA jurisdiction over isolated, intrastate, non-navigable waters where the sole basis for asserting CWA jurisdiction is the actual or potential use of the waters as habitat for migratory birds.’”133 SWANCC arguably did not affect the Corps’s jurisdiction over wetlands adjacent to waters of the United States, as it technically involved neither wetlands nor adjacency.134 Nonetheless, it generated a considerable amount of litigation over the meaning of “isolated,” “adjacent,” and “significant nexus.”135 And whatever its ultimate doctrinal meaning, SWANCC had a substantial practical effect on wetlands protection. It is estimated that up to twenty

127 Id. at 161 (referring to the Migratory Bird Rule, 51 Fed. Reg. 41217).
128 Id. at 166.
129 Id.
130 See id. at 167–68.
131 Id. at 167.
132 Id. at 167–68
133 Colby, supra note 18, at 1030.
134 Id. at 1030–31.
135 Id. at 1031.
percent of the nation’s wetlands are isolated and thus no longer receive
the protection they previously enjoyed as a result of SWANCC. 136

IV. THE INFLUENCE OF LOPEZ, MORRISON, AND RAICH

The Court’s decision in SWANCC was heavily influenced by its de-
cisions in two Commerce Clause cases which, at the time of SWANCC,
were relatively new. In United States v. Morrison137 and United States v.
Lopez,138 the Court “reaffirmed the proposition that the grant of authority
to Congress under the Commerce Clause, though broad, is not unlimited.”139 These decisions were highly relevant to the SWANCC case be-
because it was the commerce power that Congress relied on for the
authority to regulate navigable waters through the CWA.140 Using the
commerce power to regulate isolated wetlands because they provided
habitat to migratory bird species which crossed state lines, Justice Rehn-
quist argued, “invokes the outer limits of Congress’s power” under the
Commerce Clause.141 In such a situation, the Corps would be required to
provide a “clear indication that Congress intended that result.”142 The
Court found that no such clear indication had been shown in the
SWANCC case.

A. A BRIEF HISTORY OF SUPREME COURT COMMERCE CLAUSE
JURISPRUDENCE

It was in Gibbons v. Ogden143 that the Court first articulated the
nature of Congress’s authority under the Commerce Clause.144 Commerce,
said the Gibbons Court, “undoubtedly, is traffic, but it is some-
thing more: it is intercourse. It describes the commercial intercourse
between nations, and parts of nations, in all its branches, and is regulated
by prescribing rules for carrying on that intercourse.”145 For almost a
century following its decision in Gibbons, the Court’s Commerce Clause
jurisprudence focused almost entirely on the Commerce Clause as a limit
on state legislative power, and hardly at all on the Commerce Clause as a
limit on Congress’s power.146 With the Shreveport Rate Cases, however,

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136 Id. at 1056.
137 529 U.S. 598 (2000).
139 Solid Waste Agency of N. Cook County v. U.S. Army Corps of Eng’rs, 531 U.S. 159,
140 See id. at 162 (stating that one question on certiorari is whether Congress’s actions are
consistent with its authority under the Commerce Clause).
141 Id. at 172.
142 Id.
143 22 U.S. (9 Wheat.) 1 (1824).
146 Lopez, 514 U.S. at 553.
the Court turned its attention to the limits of federal power under the Commerce Clause, holding that “where the interstate and intrastate aspects of commerce were so mingled together that future regulation of interstate commerce required incidental regulation of intrastate commerce, the Commerce Clause authorized such regulation.”

A series of the Court’s subsequent decisions drew the outer bounds of Congress’s commerce power using the Shreveport Rate distinction between direct and indirect effects on interstate commerce. However, significant changes in the way business was conducted combined with a sense that the Commerce Clause cases had artificially constrained Congress’s authority, eventually brought about a doctrinal shift. In the 1937 landmark case of NLRB v. Jones & Laughlin Steel, the Court declined to draw a distinction between direct and indirect effects on interstate commerce but instead asked whether the effects were substantial. In sustaining federal labor laws that applied to manufacturing facilities, the Court demonstrated its “definitive commitment to the practical conception of the commerce power.”

This trend continued into the 1940s when, in the case of United States v. Darby, the Court held that:

The power of Congress over interstate commerce is not confined to the regulation of commerce among the states. It extends to those activities intrastate which so affect interstate commerce or the exercise of the power of Congress over it as to make regulation of them appropriate means to the attainment of a legitimate end, the exercise of the granted power of Congress to regulate interstate commerce.

By 1942, in Wickard v. Filburn, the Court disavowed “the entire line of direct-indirect . . . cases” and determined that “broader inter-

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147 Id. at 554 (citing Houston, E. & W. Tex. Ry. Co. v. United States (Shreveport Rate Cases), 234 U.S. 342 (1914)).
148 See, e.g., A.L.A. Schecter Poultry Corp. v. United States, 295 U.S. 495 (1914); see also Lopez, 514 U.S. at 555 (“Activities that affected interstate commerce directly were within Congress’s power; activities that affected interstate commerce indirectly were beyond Congress’s reach.”).
149 301 U.S. 1, 37 (1937) (stating, “The question [of the scope congressional power under the Commerce Clause] is necessarily one of degree.”).
150 301 U.S. 1, 37 (1937) (stating, “The question [of the scope congressional power under the Commerce Clause] is necessarily one of degree.”).
151 See id. at 22–25, 29, 49.
152 Lopez, 514 U.S. at 573.
153 312 U.S. 100 (1941).
154 Id. at 118; see also Wickard v. Filburn, 317 U.S. 111, 128–29 (1942) (explicitly rejecting the distinction between direct and indirect effects).
pretations of the Commerce Clause [were] destined to supersede the earlier ones."  

B. Lopez, Morrison, and Raich

This broader approach to Commerce Clause jurisprudence continued until 1995, when the Court decided United States v. Lopez. At issue in Lopez was the Gun-Free School Zone Act of 1990, which made it a federal offense to possess a firearm in a school zone. The majority, per Chief Justice Rehnquist, held that the Gun-Free School Zone Act exceeded Congress’s authority under the Commerce Clause. The Court struck down the statute because, among other things, it found that: (1) the activity it attempted to regulate, the possession of a gun in a school zone, was not an economic activity; (2) it was not an essential part of a larger regulatory scheme relating to an interstate economic activity which could be undercut unless the intrastate activity was regulated; and; (3) the link between gun possession in school zones and interstate commerce was too attenuated. The Lopez majority argued that “if we accept the Government’s arguments, we are hard pressed to posit any activity by any individual that Congress is without power to regulate.”

Similarly, in United States v. Morrison, the Court held that a provision of the Violence Against Women Act (VAWA) providing for a federal civil remedy for gender-motivated violent crimes exceeded Congress’s commerce power. As with the Gun-Free School Zone Act in Lopez, the Morrison Court held that the provision fell outside the bounds of congressional authority because gender-motivated violent crimes “[were] not, in any sense of the phrase, economic activity” and because the connection between such crimes and interstate commerce was too attenuated to fall into the “substantial effect” category.

The Court’s decision in Gonzales v. Raich appeared to break the trend towards a narrower Commerce Clause. Raich involved California’s Compassionate Use Act (CUA), which permits those who are

156 Id.
158 Lopez, 514 U.S. at 551.
159 Id.
160 See id. at 561.
161 The proffered link was that guns in school zones lead to increased violent crime, which interferes with education, which has a detrimental affect on interstate commerce. See id. at 563–64.
162 Id. at 564.
164 Morrison, 529 U.S. at 613.
165 Id. at 615–16.
166 See Gonzales v. Raich, 545 U.S. 1, 2 (2005).
seriously ill to use marijuana for medical purposes. The Act creates an exemption from criminal prosecution for “a patient, or . . . a patient’s primary caregiver, who possesses or cultivates marijuana for the personal medical purposes of the patient upon the written or oral recommendation or approval of a physician.” The respondents in *Raich* were using marijuana in accordance with the CUA but were nonetheless prosecuted under the federal Controlled Substances Act (CSA). The question before the *Raich* Court was whether the provisions in the CSA prohibiting personal use of marijuana for medicinal purposes were valid exercises of Congress’s Commerce Clause authority. The Court held that the CSA was within the bounds of Congress’s commerce power. The *Raich* majority distinguished *Lopez*, arguing that, unlike the Gun Free School Zone Act, the CSA “was a lengthy and detailed statute creating a comprehensive framework for regulating the production, distribution, and possession of five classes of ‘controlled substances.’” Although the personal consumption of homegrown marijuana engaged in by the respondents in *Raich* was concededly a purely intrastate activity, the Court found that the prohibition of this activity was part of “a larger regulation of economic activity, in which the regulatory scheme could be undercut unless the intrastate activity were regulated.” The *Raich* Court accordingly found the CSA to be valid as an essential part of a broader regulatory scheme.

In light of the Supreme Court’s broad interpretation of Congress’s commerce power in *Raich*, courts tended to interpret the Supreme Court’s holding in *SWANCC* quite narrowly; they read it as restricting the Corps’s jurisdiction over wetlands only where jurisdiction “turned solely on the potential presence of migratory birds.” Disagreement among the circuits as to the scope of *SWANCC* prompted the Supreme Court to grant certiorari on two Sixth Circuit decisions “that upheld federal jurisdiction over wetlands adjacent to non-navigable tributaries of

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168 See *Raich*, 545 U.S. at 5–6.
169 § 11362.5(d).
170 See *Raich*, 545 U.S. at 7.
171 Id. at 5.
172 Id. at 24.
173 Id. at 24–25 (quoting United States v. Lopez, 514 U.S. 549, 561 (1995)).
navigable waters”176—United States v. Rapanos177 and Carabell v. U.S. Army Corps of Engineers.178

In United States v. Rapanos, John Rapanos owned three wetland properties in Michigan; two properties were connected by drain, the other by surface connection, and all were connected either to a river or to Lake Huron.179 In 1989, Rapanos began to fill these lands even though he was advised both by the state and by an independent consultant that doing so without a permit was a violation of the Clean Water Act.180 He proceeded “in open defiance of both a state cease-and-desist order and an EPA administrative compliance order.”181 As a result of this unauthorized filling, Rapanos was convicted of criminal violations of CWA section 404.182 The Rapanos case was joined with the Carabell case, in which the Carabells sought to fill a wetland in order to build condominiums.183 The wetland at issue in Carabell was near a drainage ditch which, through a series of connections, ultimately directed water to Lake St. Clair near the Michigan-Ohio border.184 The wetland was separated from a drainage ditch by a four-foot wide, man-made “berm.”185 In both Rapanos and Carabell, the Sixth Circuit upheld the Corps’s jurisdiction.186 On certiorari, Justice Scalia, writing for a plurality, framed the question as whether “four Michigan wetlands, which lie near ditches or man-made drains that eventually empty into traditional navigable waters, constitute ‘waters of the United States’ within the meaning of the [Clean Water] Act.”187

The plurality vacated and remanded the Sixth Circuit judgments, holding that section 404 of the CWA only covers wetlands adjacent to “waters of the United States” and not wetlands adjacent to non-navigable drainage ditches connected to navigable waters.188 Justice Scalia argued that “our prior and subsequent judicial constructions of [the term water], clear evidence from other provisions of the statute, and this Court’s canons of construction all confirm that ‘the waters of the United States’ in

176 PERCIVAL ET AL., supra note 69, at 608.
177 376 F.3d 629 (6th Cir. 2004).
178 391 F.3d 704 (6th Cir. 2004).
179 Id. at 2219; see also The Supreme Court, 2005 Term—I. Clean Water Act: Federal Jurisdiction Over Navigable Waters, 120 Harv. L. Rev. 351, 353 (2006) [hereinafter The Supreme Court, 2005 Term].
180 The Supreme Court, 2005 Term, supra note 179, at 353.
181 PERCIVAL ET AL., supra note 69, at 608.
182 Id.
183 Id.
185 Id.
186 Id.
187 Id.
188 Id. at 2235.
§1362(7) cannot bear the expansive meaning that the Corps would give it.”189

V. THE IMPLICATIONS OF RAPANOS

Federal regulation of land use, especially in the context of wetland protection, is a highly controversial and politicized issue. The plurality in Rapanos reached an ideological solution to this problem rather than a legal one.

The decision in Rapanos was inconsistent with the underlying purpose of the Clean Water Act. “A predicate of the Act . . . has been that clean water and related wetland values inhere to the entire nation and that a federal program is necessary to protect, restore, and maintain them.”190 The Court adopted a strict textualist approach, arguing that to allow the Corps the jurisdiction it was seeking would leave the term navigable without any significant meaning.191 The Court further asserted that the use of “waters” indicated that the statute did not refer to water in general, but rather only to relatively permanent waters such as oceans, rivers, lakes and other bodies of water which form more conventional geographic features.192

In taking this approach, the Court disregarded the substantial body of scientific evidence indicating that wetlands affect all the bodies of water in proximity to them, such that any jurisdictional separation between traditionally “navigable waters” and the wetlands near them is essentially meaningless.193 In addition, the Court ignored the fundamental and explicitly stated goal of the CWA, to create a comprehensive scheme to maintain the integrity of the nation’s water systems as a whole, an objective requiring that wetland preservation be taken into account.

In addition, Rapanos is inconsistent with the Court’s recent decision in Raich. Although Rapanos deals with the reasonableness of the Corps’s interpretation of its jurisdiction under section 404 and not the constitutionality of section 404 itself, the Court addresses the constitutional issue in dicta.194 According to the Rapanos Court, “The extensive federal jurisdiction urged by the Government would authorize the Corps to function as a de facto regulator of immense stretches of intrastate land.”195 The Court argued that “the Corps’ interpretation stretches the outer limits of Congress’s commerce power and raises difficult questions about the

189 Id. at 2220.
190 Houck & Rolland, supra note 16, at 1243.
191 See Rapanos, 126 U.S. at 2220–21.
192 See id. at 2222.
193 Id.
194 Id.
195 Id. at 2224.
ultimate scope of that power,"\textsuperscript{196} thus suggesting that it was beyond the scope of Congress’s authority under the Commerce Clause to regulate wetlands adjacent to tributaries.

This view does not comport with the Court’s decision in \textit{Raich}. In \textit{Raich}, the Court explained that congressional regulation of intrastate activities was a valid exercise of Congress’s commerce power where it was an essential part of a comprehensive statutory framework regulating an activity which had substantial effects on interstate commerce. The use of the nation’s waterways for transportation and commerce, for the production of power and electricity, and even for recreational and tourism purposes, plays a central role in interstate commerce and in the functioning of the national economy. In addition, the dredge and fill activities regulated by section 404 are typically engaged in by “commercial actors for a commercial profit.”\textsuperscript{197} If the Corps is unable to regulate the use of wetlands that have a hydrological connection to navigable waters, it will lose an essential mechanism for maintaining the integrity of the nation’s waterways as whole. If the integrity of the nation’s waterways is not maintained, our ability to carryout all of the aforementioned activities will be restricted to an unpredictable degree. The result could substantially, even catastrophically, affect interstate commerce.

Congress recognized the potential harm that would be caused by inadequate regulation of waterways and in response it promulgated the CWA.\textsuperscript{198} The CWA is a very detailed and far-reaching statute that attempts to create a comprehensive framework for regulating the means by which waterways can be used so as to prevent these types of situations from arising. The Corps’s interpretation of its jurisdiction under section 404 of the CWA does not push the outer limits of Congress’s commerce power, but rather fits squarely within the conception of Congress’s authority advanced by the Court in \textit{Raich}. Thus, given what we know about the interconnected and cyclical nature of water systems, it seems clear that regulating these wetlands is within Congress’s purview under the Commerce Clause.

Some scholars have argued that Congress’s power to regulate channels of commerce should be extended to include the power to regulate activities that will substantially affect the channels themselves, distinct from its power to regulate activities that will substantially affect inter-

\textsuperscript{196} Id.

\textsuperscript{197} Breedon, \textit{supra} note 30, at 1462 (citing Matthew Baumgartner, Note, SWANCC’s Clear Statement: A Delimitation of Congress’ Commerce Clause Authority to Regulate Water Pollution, 103 Mich. L. Rev. 2137, 2152 (2005)).

\textsuperscript{198} See 33 U.S.C. § 1251.
state commerce as a whole.\textsuperscript{199} This approach has also been endorsed by some courts.

The power to regulate channels of commerce includes “the power to regulate activities affecting the suitability of a channel’s use for transporting goods or persons in interstate commerce.”\textsuperscript{200} Some courts have held that this power includes “the authority to regulate activities that misuse or harm interstate channels of commerce, including navigable waters,” and “may be used to reach intrastate, non-economic activities that misuse or harm interstate channels of commerce.”\textsuperscript{201} “[C]ongressional power to regulate the channels and instrumentalities of commerce includes the power to prohibit their use for harmful purposes, even if the targeted harm itself occurs outside the flow of commerce and is purely local in nature.”\textsuperscript{202} The argument is thus that the regulation of navigable waters under the CWA is an exercise of congressional power to regulate channels of commerce and that this congressional power gives rise to a derivative authority to regulate non-navigable tributaries and adjacent wetlands as a “legitimate means of protecting the nation’s navigable waters against misuse.”\textsuperscript{203}

The Court’s 2005 decision in \textit{Raich} seemed to suggest that it was more prepared than it had been to accept this kind of broad conception of Congress’s Commerce Clause power. \textit{Raich} was a marked departure from \textit{Lopez} and \textit{Morrison}, “arguably signal[ing] a return to increased judicial deference to federal legislation regulating purely intrastate matters, where the legislation is enacted pursuant to Congress’s power to regulate activities substantially affecting interstate commerce.”\textsuperscript{204} Even in light of serious concerns about federal intrusion on areas of traditional state sovereignty, “\textit{Raich} suggests that not all intrastate concerns traditionally reserved to state regulation should necessarily remain so, particularly where Congress has enacted a comprehensive statutory scheme.”\textsuperscript{205} The Court should have used this model in \textit{Rapanos} to uphold the Corps’s jurisdiction.

\textsuperscript{199} Id. at 1443.
\textsuperscript{200} Id. at 1457; see also United States v. Thorson, No. 03-C-0074, 2004 WL 737522, at *1 (W.D. Wis. Apr. 6, 2004).
\textsuperscript{201} Breedon, supra note 30, at 1457–58; see also Caminetti v. United States, 242 U.S. 470, 491 (1917) (“[T]he authority of Congress to keep the channels of interstate commerce free from immoral and injurious uses has been frequently sustained.”); Perez v. United States, 402 U.S. 146, 150 (1971) (Congress may regulate “the use of channels of interstate commerce which Congress deems are being misused.”); United States v. Deaton, 332 F.3d 698, 707 (4th Cir. 2003) (“[T]here is no reason to believe that Congress has less power over navigable waters than over other interstate channels such as highways, which may be regulated to prevent their ‘immoral and injurious use’.”) (quoting \textit{Caminetti}, 242 U.S. at 491).
\textsuperscript{203} Breedon, supra note 30, at 1461.
\textsuperscript{204} Id.
\textsuperscript{205} Id. at 1462.
At the heart of Rapanos is a struggle between the need to preserve an ecosystem which performs essential functions and which is disappearing at the rate of hundreds of thousands of acres per year, on the one hand, and individual communities’ need for the employment and tax revenue that comes from developing wetland real estate, on the other. Yet local governments seem best equipped to understand local needs and the relationship between particular wetlands and local economies. At the very least, it seems clear that wetlands regulation will work best with active participation from state and local governments.

In addition, although the Rapanos decision may not be doctrinally consistent with Raich, the plurality’s reasoning does have some persuasive power. As Justice Scalia noted, when one considers a hydrological model in which all wetlands affect the water bodies around them, “even the most insubstantial hydrologic connection may be held to constitute a ‘significant nexus.’”

Particularly in light of this reluctance on the part of the Court to allow the Corps the kind of authority necessary for a truly effective federal wetlands protection program, a legislative solution aimed at fostering the development of strong state wetlands protection programs is an important step. At least one scholar has suggested that Congress should specifically amend the CWA so as to give the Corps jurisdiction over isolated and adjacent wetlands in order to recreate the wetlands protection lost as a result of SWANCC. In response to the Court’s decision in SWANCC, Congress attempted to do just that. The 107th Congress introduced, but did not enact, the Clean Water Authority Restoration Act of 2002. This bill would have deleted the term navigable from the CWA, codifying the Corps’s regulations defining its jurisdiction over “waters of the United States.”

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206 By the end of the twentieth century, fewer than half of the estimated 215 million acres of wetlands which existed in America at the time of European discovery remained. See Houck & Rolland, supra note 16, at 1251.
207 See id at 1252.
208 Id.
209 Id. at 1244.
211 Id.; Colby, supra note 18, at 1057–58.
212 Clean Water Authority Restoration Act of 2002, S. 2780, 107th Cong. (2002); Clean Water Authority Restoration Act of 2002, H.R. 5194, 107th Cong. (2002); Colby, supra note 18, at 1058. These bills contained various congressional findings responding to the Supreme Court’s decision in SWANCC, such as findings detailing the ways in which pollution of intrastate waters can affect covered waters of the United States. S. 2780; H.R. 5194. This suggests that Congress understood its authority for the bill as based at least partially in its Commerce Clause power to regulate channels of commerce. Colby, supra note 18, at 1059.
213 Colby, supra note 18, at 1058–59.
the Clean Water Authority Restoration Act of 2003, but again not enacted.

There are several problems with this approach. First, although the Court has thus far declined to directly address the Commerce Clause issue lurking in the background of these cases, the Court’s dicta in Rapanos and its other recent CWA cases suggest that it might strike down such legislation as unconstitutional. The Court’s decisions in United States v. Lopez and United States v. Morrison mark a distinct change in its Commerce Clause jurisprudence. The Court had steadily expanded Congress’s authority under the Commerce Clause over the course of nearly a century, but it suddenly curtailed that power in Lopez and Morrison. The Court’s decision in Gonzales v. Raich did appear to reverse or at least limit that new trend, but the fact that the Court was unwilling to accept Corps jurisdiction in Rapanos v. United States, even after Gonzalez v. Raich, suggests that the Court is likely to apply a relatively narrow, Lopez-like interpretation of the Commerce Clause to this kind of amendment, particularly to the extent that the amendment is justified under Congress’s power to regulate intrastate activities having a substantial effect on interstate commerce.

VI. SECTION 319 AND THE NFIP: POTENTIAL COOPERATIVE FEDERALISM SOLUTIONS

There is, perhaps, a more important reason why an amendment to the CWA returning the Corps’s jurisdiction to pre-SWANCC and Rapanos conditions is not the best approach to solving the wetlands preservation problem. Arguments pointing to the interconnected and cyclical nature of all water systems and highlighting the importance of wetlands preservation are emotionally appealing and ecologically sound. Even before SWANCC in 2001, wetlands were steadily disappearing, indicating that the protection section 404 offered when it was at its strongest was, while certainly valuable, less than optimal. This suggests that a federal pollution statute is simply not the best mechanism for preserving wetlands, and the Corps is not the best steward of environmental preservation. The underlying federalism concerns expressed by the Court in SWANCC and Rapanos v. United States are valid, and wetland protection needs to come, at least in part, from state or local governments which can

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215 Colby, supra note 18, at 1058–59.
216 Id. at 1060–61.
217 Id. at 1061 n.234 (comparing different scholars’ opinions about the future of environmental legislation based on Congress’s Commerce Clause power).
218 Id. at 1060.
219 See, e.g., supra notes 6–9 and accompanying text.
better understand the particular challenges facing their own municipalities and regions.

Rather than searching for ways to use federal agencies to protect wetlands, Congress should implement legislation that seeks to incentivize states to implement their own wetland protection programs. There are a variety of ways in which Congress could accomplish this objective. Section 319 of the CWA contains a voluntary grant program allowing states that develop non-point source pollution management programs to apply for federal funding to assist either in implementing that program, or in implementing groundwater protection activities that will advance the goals of non-point source pollution management programs. Because this is a voluntary program, Congress could easily amend it so as to include a requirement that applicant states include meaningful wetlands conservation provisions in their non-point source protection programs.

While there seems to be little downside to such a scheme since participation in the section 319 grant program is voluntary, lack of uniform participation and enforcement difficulties would likely pose problems. Another federal statute that could be used as a platform for prompting states to implement successful wetland conservation programs is the National Flood Insurance Act (NFIA). In response to the devastating flooding associated with Hurricane Betsy in 1965, the Act created the National Flood Insurance Plan (NFIP), whose ostensible purposes were to protect individual landowners from flood loss by making flood insurance more widely available than it had been and to reduce government expenditures on flood relief by promoting sound land use policies that minimize exposure to flood risks. Because floodplain management and land use regulations are largely the domain of state and local governments, the NFIP took a market-based approach, hoping to use the promise of flood coverage to incentivize communities to enact desirable policies. A community is eligible for participation in the program only if it can demonstrate that it has adopted floodplain man-

\begin{itemize}
  \item Id. § 1329(i).
  \item FED. EMERGENCY MGMT. AGENCY, NATIONAL FLOOD INSURANCE PROGRAM 1–2 (2002) [hereinafter NFIP DESCRIPTION].
  \item Id. at 2; see also Beverly v. Macy, 702 F.2d 931, 937 (Ala. 1983) (holding that the NFIP was in part intended to encourage state and local governments to develop effective land use policies, thereby minimizing the burden of flood disaster relief on the federal government). But see Schell v. Nat’l Flood Insurers Ass’n, 520 F.Supp. 150, 154 (1981) (holding that the NFIP is directed at compensating, rather than preventing, flood damages).
  \item NFIP DESCRIPTION, supra note 225, at 2.
\end{itemize}
agement regulations that comport with a set of minimum eligibility criteria set forth by FEMA.227

The NFIP has several attributes that make it a useful mechanism for protecting wetlands. First, flooding and wetlands are intimately connected. One of the most important natural functions of a wetland is to retain water during rain events and release it later, thus preventing and reducing flooding.228 When wetlands are destroyed, these mitigating functions are lost, increasing flood damage. Second, from a policy perspective, wetland management is much more intuitively a land use issue than a pollution issue, even though the connections between wetlands and water pollution are quite clear from a scientific perspective.229 Thus, an NFIP program that included wetland protection in addition to section 404 of the CWA would be more effective than section 404 alone and would serve as a truly comprehensive wetland protection scheme.

With an ecologically—and hydrologically—based conception of wetlands as flood mitigators in mind, Congress should adjust the NFIP to incorporate wetland protection as a goal. In section 4102(c) of the NFIA, Congress lays out a set of basic criteria that state and local plans must meet in order to qualify for the program.230 The last of these criteria is a catch-all provision, to “otherwise improve the long-range land management and use of flood-prone areas.”231 The idea of wetland protection is implicit in this provision, but Congress should take the step of adding an explicit requirement that communities wishing to participate in the NFIP must institute a reasonable wetland preservation scheme to section 4102(c).

CONCLUSION

The devastating flooding that followed Hurricane Katrina happened in part because the wetlands along the Louisiana Gulf coast that should have been able to mitigate the flooding are disappearing.232 Katrina

227 Id.
228 See supra Part I.
229 It is presumably in some significant part because wetland management involves land use, an area of traditional state sovereignty, that the Supreme Court has been resistant to attempts to use the Clean Water Act to engage in comprehensive wetland management programs.
230 As the NFIA currently reads, adequate State and local measures must:
   (1) constrict the development of land which is exposed to flood damage where appropriate,
   (2) guide the development of proposed construction away from locations which are threatened by flood hazards,
   (3) assist in reducing damage caused by floods, and
   (4) otherwise improve the long-range land management and use of flood-prone areas.
231 Id. § 4102(c)(4).
232 See sources cited supra note 5.
demonstrated what a deeply human issue wetlands preservation can be. In doing so, it highlighted the importance of resolving the inherent conflict between the interests of developers and the need for wetlands preservation. Continued development of coastal land and extreme weather patterns generated by global climate change are going to make flood management an increasingly difficult task. There can be no question that truly active wetlands restoration and protection are necessary if events such as those that took place in New Orleans during Hurricane Katrina are not to become increasingly familiar.

In choosing to support development interests, the Supreme Court in *Rapanos v. United States* ignored an overwhelming body of scientific evidence sustaining the crucial functions of wetlands and the dramatic impact they have on other, more traditionally “navigable” bodies of water. In addition, the Court ignored Congress’s intent when it promulgated the CWA, which was to institute a regulatory scheme that would be comprehensive and far-reaching enough to protect the integrity of the nation’s water systems as a whole. In sum, the Court ignored all the pressing reasons for a strong federal role in wetlands protection.

The federalism concerns expressed by the Court are real ones, however, and at the very least it must be said that in light of the Court’s decision in *Rapanos v. United States*, a legislative approach that institutes a cooperative federalism scheme has the best chance of success. Congress should use a land use statute, like the NFIA, as a platform for encouraging states to develop strong wetland protection programs. By tying the availability of flood insurance to these programs, the federal government can encourage much needed preservation without risk of running afoul of an unduly narrow interpretation of the Commerce Clause. Through the successful protection of wetlands, the United States can hope to minimize recurrences of the kind of devastation that followed Hurricane Katrina.

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233 See supra Part I.