# SECTION 404 AT THIRTY-SOMETHING: A PROGRAM IN SEARCH OF A POLICY

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## I. INTRODUCTION

In 2002, as the Clean Water Act ("CWA")[1] turned thirty, the program that regulates the discharge of dredged and fill material into water and wetlands was beset by an all too familiar turbulence. The Supreme Court's 2001 decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*[2] ("*SWANCC*") had churned up debate and litigation over the jurisdictional reach of section 404 of the CWA.[3] The announcement by the Bush Administration that it planned to propose new regulations to codify its interpretation of *SWANCC*,[4] replacing guidance adopted in the waning days of the Clinton Administration,[5] created uncertainty and threatened to reduce the scope of wetlands protection dramatically.[6] Issues that had been considered settled roiled into fights over the significance of the ordinary high water mark, and the meaning of and proof required to demon-

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1. The Clean Water Act, 33 U.S.C. §§ 1251-1387 (2000).

2. 531 U.S. 159 (2001).

3. 33 U.S.C. § 1344 (2000).

4. Advance Notice of Proposed Rulemaking on the Clean Water Act Regulatory Definition of "Waters of the United States," 68 Fed. Reg. 1991 (Jan. 15, 2003 [hereinafter Bush Admin. ANPR].

5. Memorandum from Gary S. Guzy, General Counsel, U.S. Environmental Protection Agency ("EPA"), and Robert M. Andersen, Chief Counsel, U.S. Army Corps of Engineers ("Corps"), to the Assistant Administrator for Water et al. (Jan. 19, 2001), *available at* http://www.epa.gov/owow/wetlands/swancc-ogc.pdf [hereinafter Guzy-Andersen Memo].

6. At stake were between twenty and eighty percent of the country's remaining wetlands. The percentage of wetlands ultimately affected would depend not only on whose estimates one accepted, but also how far the Bush Administration would take the opportunity to reduce Corps jurisdictional rules beyond what the holding of *SWANNC* dictated (invalidating the migratory bird rule as a basis for asserting jurisdiction under section 404). *Regarding Implications of the Supreme Court's SWANCC Decision: Hearing Before the House Committee on Government Reform, Subcomm. on Energy Policy, Natural Res. & Regulatory Affairs*, 107th Cong. (Sept. 19, 2002) (statement of Patrick Parenteau, Professor of Law, Vermont Law School), *available at* 2002 WL 31123956 [hereinafter Parenteau Testimony]. Comments on a leaked version of the proposed rule suggested that the new rule would have excluded one-fifth of the remaining wetlands, which would mean roughly 20 million acres in the lower forty-eight states. Elizabeth Shogren, *Rule Drafted That Would Dilute the Clean Water Act*, L.A. TIMES, Nov. 6, 2003, at A12, *available at* 2003 WL 2446562.

strate a "hydrologic connection."[7] Then, just as abruptly, newly-confirmed EPA Administrator Michael Leavitt repudiated the proposed rule, announcing that the agency was dropping plans to narrow the scope of jurisdiction.[8]

Only a year earlier, in 2001, the National Academy of Sciences and the General Accounting Office had both issued reports criticizing the implementation of mitigation requirements under section 404, the latest in a long series of reports critiquing the program and the Army Corps of Engineers (the "Corps").[9] Over the years, both governmental and non-governmental reports have highlighted the persistent gaps in knowledge, enforcement, monitoring, funding, and interagency coordination under section 404, and the attendant disappointing results.

This turmoil surrounding the CWA's thirtieth anniversary is not new. A review of the section 404 program's evolution under successive administrations reveals a program (and agency) perpetually in flux with a poorly-defined goal. A broad look at section 404's first thirty years highlights important tensions that have beset the section 404 program from its inception. These tensions can be traced in large measure to four structural flaws in section 404's design: the lack of a clear goal, the conflicts inherent in the Corps-EPA-section 404 relationship, reliance on a water statute to protect wetlands, and the regulation of activities in wetlands under a pollution control approach. A review of the first thirty years of regulation under section 404 illustrates how these flaws have limited and distorted the development of wetlands policy.

This Article focuses on three controversies that have dominated debate over wetlands during this period—jurisdiction, delineation, and the scope of activities regulated by section 404—and shows how the limitations inherent

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7. Treacy v. Newdunn Assocs., 344 F.3d 407, 416-17 (4th Cir. 2003) *petition for cert. filed* 72 U.S.L.W. 3310 (Oct. 27, 2003) (No. 03-637) (holding tributaries of navigable water can include man-made ditches and thus adjacent wetlands fall under the jurisdiction of the CWA); United States v. Rapanos, 339 F.3d 447, 450-53 (6th Cir. 2003) *petition for cert. filed* 72 U.S.L.W. 3451 (Dec. 22, 2003) (No. 03-929) (finding wetlands with a hydrologic connection between themselves, a drain, and a river to be covered by the CWA, even though they are eleven to twenty miles from navigable-in-fact water); FD&P Enters. v. U.S. Army Corps of Eng'rs, 239 F. Supp. 2d 509, 516 (D.N.J. 2003) (finding a "significant nexus" between wetlands and navigable waters "must constitute more than a mere 'hydrological connection'"); United States v. RGM Corp., 222 F. Supp. 2d 780, 788 (E.D. Va. 2002) (finding a continuous ordinary high water mark necessary for drainage ditches and ephemeral streams to be classified as waters of the United States and thus grant the Corps jurisdiction over adjacent wetlands); United States v. Lamplight Equestrian Ctr., 2002 WL 360652, at *6-*7 (N.D. Ill. Mar. 8, 2002) (holding critical jurisdiction issue to be whether there is a significant nexus between wetlands and a navigable body of water, noting "water need not flow in an unbroken line at all times" and connection need not be direct).

8. Felicity Barringer, *U.S. Won't Narrow Wetlands Protection*, N.Y. TIMES, Dec. 17, 2003, at A35.

9. NAT'L RES. COUNCIL, NAT'L ACAD. OF SCIS., COMPENSATING FOR WETLAND LOSSES UNDER THE CLEAN WATER ACT (2001) [hereinafter COMPENSATING FOR WETLAND LOSSES]; GEN. ACCT. OFFICE, WETLANDS PROTECTION: ASSESSMENTS NEEDED TO DETERMINE EFFECTIVENESS OF IN-LIEU-FEE MITIGATION, GAO-01-325 (May 2001). Earlier reports included GEN. ACCT. OFFICE, WETLANDS: THE CORPS OF ENGINEERS' ADMINISTRATION OF THE SECTION 404 PROGRAM, GAO/RCED-88-110 [hereinafter GAO, CORPS ADMIN.]; GEN. ACCT. OFFICE, WETLANDS PROTECTION: THE SCOPE OF THE SECTION 404 PROGRAM REMAINS UNCERTAIN, GAO/RCED-93-26 (Apr. 1993); and GEN. ACCT. OFFICE, WETLANDS OVERVIEW: PROBLEMS WITH ACREAGE DATA PERSIST, GAO/RCED-98-150 (July 1998).

in section 404 have contributed to endless conflict over these issues, with little long-term benefit to policy development. In place of meaningful policy debate, we are trapped in seemingly endless battles over implementation issues. These demand enormous energy and resources to resolve and supplant meaningful debate about both goals and policy. A close look at the struggles over section 404's reform shows what a limited context these issues provide for real policy development.

My contention is not that these technical issues are or were unreasonable subjects of debate for those concerned with wetlands and with wetlands regulation. Indeed, I maintain they are logical areas of contention that demand resolution under section 404. However, I suggest that these subjects provide a narrow and sometimes distorted field for debate. Thus, the realm of wetlands is viewed as a morass with little clarity, and we remain with little sense of our goals.

Reforms and debates that arise in this context seem doomed to provide limited solutions that ultimately fail to account for what we know and claim to value about wetlands.[10] For those seeking to develop a national policy on wetlands protection, these debates are not a promising context. These debates and battles represent at best the chance to defend the flawed section 404 program—a limited defensive strategy.

Whether one agrees or disagrees with any particular steps in the debate on and reforms under section 404 to date, we need to recognize that this process is not leading us to towards a clear policy or goal on wetlands. The path we are following cannot substitute for a more comprehensive look at our national goals and policy regarding wetlands.

Over the past thirty years, scholars have provided detailed and trenchant critiques of wetlands regulation under section 404, detailing its shortcomings, agency and executive missteps, and proposed improvements.[11] This Article seeks to gain whatever advantage the perspective of thirty years offers, to sketch the overarching picture that emerges from a look at section 404's history. I am not the first to see much of what emerges. The perspective of thirty years, though, confirms that we can no longer afford to focus on the narrow issues at the expense of broader reform, if we truly wish to conserve wetlands.

To begin, this Article examines why wetlands policy has failed to mature in its first thirty years. In Part II, it recounts the path of section 404's

10. This goes beyond the inherent limitations of relying on section 404 as the main regulatory tool to emphasize the constraints section 404 imposes on the realm of debate and of possible solutions.

11. Hope Babcock, *Federal Wetlands Regulatory Policy: Up to Its Ears in Alligators*, 8 PACE ENVTL. L. REV. 307 (1991); Michael C. Blumm, *The Clean Water Act's Section 404 Permit Program Enters Its Adolescence: An Institutional and Programmatic Perspective*, 8 ECOLOGY L.Q. 409 (1980) [hereinafter Blumm, *Adolescence*]; Michael C. Blumm & D. Bernard Zaleha, *Federal Wetlands Protection Under the Clean Water Act: Regulatory Ambivalence, Intergovernmental Tension, and a Call for Reform*, 60 U. COLO. L. REV. 695 (1989); Oliver A. Houck, *Ending the War: A Strategy to Save America's Coastal Zone*, 47 MD. L. REV. 358 (1988) [hereinafter Houck, *War*]; Oliver A. Houck, *Hard Choices: The Analysis of Alternatives Under Section 404 of the Clean Water Act and Similar Environmental Laws*, 60 U. COLO. L. REV. 773 (1989) [hereinafter Houck, *Alternatives*].

evolution under various administrations' leadership, showing how wetlands policy has remained constantly in flux and poorly defined. Part III describes the four structural limitations of the section 404 program that have inhibited wetlands policy development. Part IV then turns to the consequences of these structural flaws. First, it describes three prominent sources of controversy under section 404—jurisdiction, delineation, and the scope of activities regulated—and highlights the attention and resources these issues have demanded, supplanting broader policy debate. Second, it considers the way in which section 404's structural flaws contributed to these issues' prominence, and how the attention devoted to these issues has provided a narrow and distorted focus for wetlands policy development. Part V turns to what has been missing from public debate: the key facts and value choices we must confront and embrace. Part VI concludes with a call for a broad policy debate.

## II. THIRTY YEARS WITHOUT A COURSE

Commentators have often noted the lack of a national goal or policy on wetlands.[12] We can assess the effect of our current practices and de facto policies by looking at the state of our wetlands. From this view, it is apparent that current law and practice allow the destruction of wetlands at a steady pace.[13] One might say that this is, in fact, our de facto national policy and goal, though few would own it willingly. Depending on whether one is an optimist or a pessimist, one could state the goal of our policies as slowing the destruction of wetlands or destroying our remaining wetlands slowly. Both of these are possible descriptions of current policies, yet the two imply vastly different objectives. Our policies reflect this fatal ambiguity about our objectives.

To claim that we lack a goal and policy on wetlands is not to say that there has been no attention to the overall direction of the section 404 program. Indeed, both agency heads and presidents during this period have sought to control the program, and the lack of a clear statutory mandate has provided them with considerable room for maneuvering. The following quick review of efforts to steer wetlands policy over these thirty years reveals that these efforts to exert control rarely entailed articulation of a goal or meaningful policy. Instead, these have produced a program almost perpetually in flux whose goal has been poorly defined.

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12. THE CONSERVATION FOUND., PROTECTING AMERICA'S WETLANDS: AN ACTION AGENDA, THE FINAL REPORT OF THE NATIONAL WETLANDS POLICY FORUM 1, 3 (1988) [hereinafter PROTECTING AMERICA'S WETLANDS]; Curtis C. Bohlen, *Wetlands Politics From a Landscape Perspective*, 4 MD. J. CONTEMP. LEGAL ISSUES 1 (1992-93). This is often coupled with the broader observation that we lack a national water policy altogether. Sam Kalen, *Commerce to Conservation: The Call for a National Water Policy and the Evolution of Federal Jurisdiction Over Wetlands*, 69 N.D. L. REV. 873, 873 n.1 (1993).

13. As Professor Babcock aptly wrote about section 404, "[I]n reality, the section authorizes the destruction of wetlands rather than the protection of these valuable resources." Babcock, *supra* note 11, at 320.

The early years of the section 404 program were marked by the tension between the effort of the Corps to maintain its focus on navigation and conservationists' and courts' pressure to expand jurisdiction. In its initial enforcement and rulemaking, the Corps resisted exercising jurisdiction beyond that which it had exercised under the predecessor Rivers and Harbors Act, until judicial decisions forced its hand.[14] Following the 1977 amendments to the CWA, the Corps and the EPA contended over which agency would make jurisdictional determinations and whether the EPA's guidelines bound the Corps.[15] The Corps retained its traditional focus on maintaining navigation, while the EPA pursued its mission of environmental conservation. The early history of the section 404 program suggests a program in search of its soul.

After litigation in the late 1970s and the 1977 amendments confirmed the binding nature of the EPA guidelines and the broader jurisdictional scope of the section 404 program, the Corps and the EPA seemed to be moving towards following a single path that included the broader conservation mission. The Corps published extensive regulations, and the agencies reached landmark agreements during the 1980s, resolving critical issues regarding jurisdictional determinations, enforcement, and mitigation.[16] With this basic question of philosophy apparently resolved, the section 404 program presented successive administrations an opportunity to develop wetlands conservation policy.

Rather than clarifying the goal of the section 404 program, the history of presidential politics over the past thirty years exacerbated and prolonged turmoil in the section 404 program.[17] Shifts in direction and mandate for the Corps have demanded frequent reinventions within the agency. One observer of the Corps described the agency's passage through this period as like that of a huge tanker that responds slowly to changes in course and has been redirected too often. Just as the bow of the tanker finally reaches a heading set by presidential directive or judicial decision, a change in course is announced, squandering the momentum and resources of the agency to bring the tanker around once again.[18]

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14. Natural Res. Def. Council, Inc. v. Callaway, 392 F. Supp. 685 (D.C. Cir. 1975); United States v. Holland, 373 F. Supp. 665 (M.D. Fla. 1974). The 1977 amendments to the CWA raised the prospect of narrowing Corps jurisdiction to navigable waters only, but the attempts failed. *See* Kalen, *supra* note 12, at 898-903. The amendments did narrow the scope of the individual permit program via exemptions for a wide range of agricultural activities and authority for general permits. *Id.* at 901.

15. Houck, *Alternatives*, *supra* note 11, at 775; Kalen, *supra* note 12, at 905-06.

16. These agreements were expressed in a Memoranda of Agreement on enforcement and sequencing and in a joint delineation manual. WILLIAM L. WANT, LAW OF WETLANDS REGULATION § 2:9, at 2-12 to 2-14 (2000); *see also* Blumm, *Adolescence*, *supra* note 11, at 438.

17. *See* Jon Kusler, *Wetlands Delineation: An Issue of Science or Politics?*, ENV'T, Mar. 1992, at 7, 10.

18. Telephone Interview with Richard Hamann, Associate in Law, Center for Governmental Responsibility (Jan. 12, 2004). The challenge and cost in time and resources of implementing these changes in direction is magnified by the fact that the Corps' structure includes so many loci of decision. *See also* 2 WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW: AIR AND WATER § 4.12, at 185 (1986); Kusler, *supra* note 17, at 10. Other observers might be less sanguine that the Corps ever changed its original

In the early 1980s, as new regulations and interagency agreements were developing to resolve key Corps and EPA differences,[19] the Reagan Administration leadership moved the Corps back towards its roots, away from restrictive regulation.[20] Then-Vice President Bush's Task Force on Regulatory Reform developed proposals directed at reducing the burden of regulation.[21] The shift reignited tensions with the EPA.[22]

Congress approved a series of non-regulatory wetlands conservation initiatives. Although initiated under the Farm Bill, the effort complemented wetland protection under section 404. The Swampbuster program was enacted in 1985 with the express purpose of discouraging agricultural wetland conversion.[23] It achieved this purpose by generally precluding farmers who converted wetlands from receiving agricultural subsidies. Thus, Swampbuster both reached activities that were generally excluded from regulation under section 404 and simultaneously sought to remove the incentives that federal subsidies had created for undesirable wetland conversion.[24]

By the late 1980s, as the 1988 presidential election neared, the political winds seemed about to settle to enable policy development. With EPA support, the Conservation Foundation initiated a National Wetlands Policy Forum (the "Forum"), a bipartisan effort to "address major policy concerns about how the nation should protect and manage its valuable wetlands resources."[25] The Forum identified serious problems in our national efforts to protect wetlands, including the lack of a goal and recommended adoption of a national policy of achieving no net loss of wetlands acreage and function, and, where feasible, an increase in wetlands quality and quantity.[26] The final report from the Forum initially received bipartisan support, with both Republican and Democratic candidates in the 1988 election committing to wetlands protection. Upon his election, President Bush adopted "no net loss" as his stated policy and appointed William Reilly—former President of the Conservation Foundation who had played a leading role in the Fo-

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institutional orientation and identity as the nation's premier dredger. *See* Blumm & Zaleha, *supra* note 11, at 771.

19. The Corps published extensive regulations, and the agencies reached landmark agreements by the late 1980s, resolving critical issues regarding jurisdictional determinations, enforcement, and mitigation. These agreements were expressed in a Memoranda of Agreement on enforcement and sequencing and in a joint delineation manual. WANT, *supra* note 16, § 2:9, at 2-12 to 2-14; *see also* Blumm, *Adolescence*, *supra* note 11, at 438.

20. This history is described in Houck, *Alternatives*, *supra* note 11, at 781-83; *see also* Babcock, *supra* note 11, at 308 n.4.

21. *See* Houck, *Alternatives*, *supra* note 11, at 781-83.

22. *Id.* at 782-83.

23. Swampbuster was initiated under the 1985 Food Security Act and amended in 1990. It is formally titled the Erodible Land and Wetland Conservation and Reserve Program. 16 U.S.C. §§ 3821-24 (2000).

24. RALPH E. HEIMLICH ET AL., U.S. DEP'T OF AGRIC. ECON. RES. SERV., WETLANDS AND AGRICULTURE: PRIVATE INTERESTS AND PUBLIC BENEFITS, AGRICULTURAL ECONOMIC REPORT NO. 765, at 25 (1998) [hereinafter WETLANDS AND AGRICULTURE].

25. PROTECTING AMERICA'S WETLANDS, *supra* note 12, at 7.

26. *Id.* at 3. The report also detailed a series of recommendations to help in achieving this goal.

rum—as the Administrator of the EPA.[27] Despite some skepticism from environmentalists about what "no net loss" would mean on the ground,[28] there seemed to be consensus emerging on a goal of "no net loss" and opportunity for serious debate on policies to achieve this goal.[29]

Soon after, however, the Bush Administration reversed its vigorous commitment to wetlands protection, responding to industry pressure.[30] President Bush yielded the policy reins to Vice President Quayle's Council on Competitiveness, the primary focus of which was reducing regulatory burdens.[31] The message to the Corps was clear. The tanker hove to and returned to the course it had early charted, resisting broad jurisdiction and identifying with those seeking permits rather than those who argued for enhanced protection. The White House proposed to adopt a new delineation manual that dramatically reduced the areas that qualified as wetlands.[32] Despite this shift in policy under section 404, support continued for non-regulatory programs, with the addition of the Wetlands Reserve Program in 1990.[33]

With President Clinton's election, a slightly new tone was set, this time an ambiguous commitment to "balance."[34] The message to the agencies seemed to be to please everyone and anger no one. Professor Blumm aptly described the effect: "The Clinton plan, in short, strove to achieve that elusive 'balance' so necessary in resource disputes, where making everyone a little unhappy, yet giving everyone something, is considered the paradigm of reasonableness."[35] President Clinton's plan purported to adopt "no net loss" as an interim goal and to aspire to net gain over the long term.[36] But the essence of the Clinton plan was to work within the section 404 framework and to try to overcome divisive debate by measured responses to the most moderate and least controversial criticisms from all sides. Thus, it attempted to promote fairness through clarity and consistency in regulatory definitions in response to landowner complaints. It endorsed mitigation banking in response to criticisms of existing mitigation outcomes and

27. Babcock, *supra* note 11, at 308 n.4.

28. Blumm & Zaleha, *supra* note 11, at 762-63 (describing the Forum's apparent uninformed reliance on wetland creation and restoration and failure to recognize that wetlands are not fungible).

29. *Id.*

30. The history of this backlash is described in Babcock, *supra* note 11, at 339-40 nn.154-57.

31. WANT, *supra* note 16, § 2:9, at 2-14.

32. This conflict is described in more detail *infra* Part IV.A.2.

33. The Wetlands Reserve Program was created under the Farmers Home Administration Improvement Act of 1994, 7 U.S.C. § 1985(g) (2000).

34. WHITE HOUSE OFFICE ON ENVTL. POLICY, PROTECTING AMERICA'S WETLANDS: A FAIR, FLEXIBLE, AND EFFECTIVE APPROACH (Aug. 24, 1993), *available at* http://www.wetlands.com/fed/aug93wet.htm [hereinafter A FAIR, FLEXIBLE, AND EFFICIENT APPROACH]; Michael C. Blumm, *The Clinton Wetlands Plan: No Net Gain in Wetlands Protection*, 9 J. LAND USE & ENVTL. L. 203, 204 (1994) [hereinafter Blumm, *No Net Gain*].

35. Blumm, *No Net Gain*, *supra* note 34, at 205.

36. A FAIR, FLEXIBLE, AND EFFECTIVE APPROACH, *supra* note 34.

adopted the ill-fated Tulloch Rule to address the concern over activities that escaped the scope of section 404.[37]

Under President George W. Bush, wetlands have been a focus largely in connection with the implementation of the *SWANCC* decision. Encountering the post-*SWANCC* turmoil described earlier, the Administration first seemed prepared to exert no influence. Initial guidance supplied by the Corps and the EPA seemed to offer no change in direction. The subsequent decision to initiate rulemaking to revisit section 404 jurisdiction broadly indicated a change in course. The Administration appeared ready to take the opportunity to reduce section 404's geographic scope substantially under the banner that the changes were required by the Supreme Court's decision.[38] One analysis of a leaked version of the agencies' proposed rule suggested it would exclude a fifth of the remaining wetlands and dramatically reduce protection in the arid West and Southwest, eliminating protection of 80% to 90% of the streams in the Southwest.[39] When public outcry opposing this outcome ensued, the EPA and Corps backed away from the proposed rule and announced that they were abandoning plans to narrow protection within weeks.[40]

Two qualities emerge from this cursory glimpse at the history. First, it reveals a constantly shifting direction. This zigzag course of policy evolution is inefficient because the incipient agency policies and practices never mature. But such changes in course are not unique to wetlands protection. More disturbing than the shifts in policy, though, is the second attribute that this history suggests: the absence of an honest articulation of policy throughout most of this period. Shifts in policy can signal a healthy democratic process at work. But changes in policy that are not publicly articulated or that masquerade as technical decisions undermine accountability and discourage public involvement. Shifts in direction characterized vaguely as introducing "regulatory reform" or "balance" to some unnamed existing policy do not substitute for a statement of goals or policy. The long period without a policy or goal has prevented healthy debate and undermined accountability. It is too easy for all involved to intone the proper words and claim a vague commitment to wetlands in place of a true goal or policy.

Even a phrase with substantial content as a goal, such as "no net loss," now seems to have lost all meaning from overuse in an empty debate. Our leaders have never seriously engaged questions about what "no net loss" means in terms of preserving wetland functions and values and distribution across the landscape. From 1988 until today, we have operated under a stated policy of "no net loss" of wetlands.[41] Yet, no one can believe that we

37. *Id.* See *infra* notes 122-33 and accompanying text for a discussion of the history of this rule.
38. *See* Bush Admin. ANPR, *supra* note 4, at 1993-94.
39. Shogren, *supra* note 6, at A12.
40. Barringer, *supra* note 8, at A35.
41. *See* U.S. EPA News Release, EPA and Army Corps Issue Wetlands Decision (Dec. 16, 2003), available at http://www.usace.army.mil/inet/functions/cwicecwo/reg/swaanc_release.htm (reiterating Bush Administration commitment to no net loss); A FAIR, FLEXIBLE, AND EFFICIENT APPROACH, *supra*

have had a uniform commitment to that goal over this period. If so, we seem to be singularly inept at accomplishing our goals. We have never achieved "no net loss," and most new policy initiatives since 1990 have reduced the level of protection for wetlands further.[42] Under the guise of "no net loss," we are pursuing a very different but unnamed policy, one it would be useful to name.[43] "No net loss" serves as a screen behind which agencies operate and a pleasing backdrop in front of which the Executive can announce all new initiatives, whether or not they move us closer to no net loss.[44] Neither the President, nor Congress, nor the agencies have an incentive to upset this cozy picture, while we continue to drift forward, losing wetlands at a slow, steady pace.

## III. STRUCTURAL IMPEDIMENTS TO POLICY DEVELOPMENT

If we are to seize some future occasion for serious debate and commit to a national policy, we must first appreciate the context in which that debate will occur. This demands that we explore why we have labored for thirty years without a goal. Among the forces that have worked against clarity in the policy debate, four attributes of section 404 stand out: (1) the lack of a clear statutory goal, (2) the conflict inherent in the Corps-EPA-section 404 relationship, (3) reliance on a water statute to protect wetlands, and (4) the regulation of activities in wetlands under a pollution control approach. Any effort to reform section 404 and develop a wetlands policy will necessarily confront these flaws and require conscious effort to overcome them.

### *A. Lack of a Clear Goal*

In the search for a goal and policies on wetland conservation, the natural starting point is the language of section 404, the authority for the most visible program to prevent the destruction of wetlands.[45] One turns to the

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note 34, at 4; and sources cited in Babcock, *supra* note 11, at nn.1, 137.

42. *See supra* notes 4-8 and accompanying text (describing George W. Bush Administration initiatives); *see also supra* notes 34-37 and accompanying text (describing Clinton Administration initiatives); and *supra* notes 30-33 and accompanying text (describing George H.W. Bush Administration initiatives).

43. *See id.*

44. Blumm, *No Net Gain*, *supra* note 34, at 203 (describing fanfare surrounding Clinton plan); Babcock, *supra* note 11, at nn.1, 137 (describing George H.W. Bush announcement).

45. There are a number of agricultural subsidy and disincentive provisions that have played a significant role in wetlands conservation including the highly successful Swampbuster program under the Erodible Land and Wetland Conservation and Reserve Program, 16 U.S.C. §§ 3821-24 (2000), and the Wetlands Reserve Program under the Farmers Home Administration Improvement Act of 1994, 7 U.S.C. § 1985(g) (2000). Other statutes whose authority promotes wetlands conservation in whole or in part include the Water Bank Program for Wetlands Preservation, 16 U.S.C. §§ 1301-11 (2000); Wetlands Resources Act, 16 U.S.C. §§ 3901-32 (2000); Coastal Wetlands Planning, Protection and Restoration Act, 16 U.S.C. §§ 3951-56 (2000); Watershed Protection and Flood Prevention Act, 16 U.S.C. §§ 1001-12 (2000); Migratory Bird Conservation Act, 16 U.S.C. § 715k-3 (2000); and Protection and Conservation of Wildlife, 16 U.S.C. § 662 (2000). Detailed discussion of these programs is beyond the scope of this Article. But the problems and opportunities posed by this patchwork of programs are discussed

statute for adequate direction on its purposes in vain. The elliptical statutory command of section 404 provides fodder for endless arguments about the goal of the program. Those who favor reduced protection of wetlands point to the failure of Congress even to mention wetlands in the statute, the statute's jurisdictional focus on "navigable waters," and the lack of explicit direction in section 404 for protection of the many ecological values that the EPA and Corps regulations consider.[46] Those advocating protection, on the other hand, point to the statute's goal to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters,"[47] the statutory mandate that the EPA develop guidelines with ecological criteria,[48] and the evidence in legislative history that Congress disclaimed an exclusive focus on navigable waters under section 404 and has endorsed and espoused protection of wetlands and the values they embody.[49]

But, as with many environmental laws, the legislative process did not produce a clear statement of Congress's goal in enacting section 404 and the policy that Congress sought to pursue. Instead, Congress left issues to be resolved through the application of agency discretion or resolution in the courts.[50] However, section 404 is perhaps the extreme case—a statute whose most frequently cited mission is to protect wetlands but which fails to mention wetlands. In section 404, Congress left key questions not only unanswered but unasked.

### *B. Tension Inherent in the Corps-EPA-Section 404 Relationship*

Congress's commitment of the section 404 program to the joint custody of the Corps and the EPA is the second structural element that set us on a path fraught with tension, further clouding the policy waters.[51] The decision to charge the Corps with implementing section 404 has been labeled

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further *infra* Part VI.

46. Virginia S. Albrecht & Stephen M. Nickelsburg, *Could* SWANCC *Be Right? A New Look at the Legislative History of the Clean Water Act*, 32 DAILY ENVTL. L. REP. 11,042, 11,046-48 (Sept. 2002); Sheila Deely & Mark Latham, *The Federal Wetlands Program: A Regulatory Program Run Amuck*, 34 DAILY ENV'T. REP. 966 (Apr. 25, 2003); *Corps, EPA Mull Wetlands Regs to Address* SWANCC, ENDANGERED SPECIES & WETLANDS REP. 24 (Oct. 2002) (noting Albrecht testimony before House Committee). Even the most zealous advocates do not claim that Congress intended to exclude wetlands altogether by failing to mention them. Their claim is typically that extensive regulation of wetlands that are not adjacent to navigable waters was beyond Congress's intent.

47. 33 U.S.C. § 1251(a) (2000); Parenteau Testimony, *supra* note 6; *see also Corps, EPA Mull Wetlands Regs to Address* SWANCC, *supra* note 46.

48. Section 404(b) directs the EPA to develop guidelines with criteria comparable to those required by Section 403. Section 403(c) of the CWA, 33 U.S.C. § 1343(c), sets forth a broad array of factors the EPA is to incorporate in guidelines to govern ocean discharges. These include various human health and welfare, ecological, esthetic, recreational, and economic factors. *Id.*

49. *See* WANT, *supra* note 16, § 2:8, at 2-10 n.2; Kalen, *supra* note 12, at 887-905.

50. *See* John P. Dwyer, *The Pathology of Symbolic Legislation*, 17 ECOLOGY L.Q. 233, 242-50 (1990) (describing the pressures that often prevent Congress from resolving fundamental policy questions).

51. The conflict over this decision is summarized in Kalen, *supra* note 12, at 887-90. The resulting problems in implementation are summarized in Houck, *Alternatives*, *supra* note 11, at 774-75.

"ironic" by one leading authority,[52] and "a recipe for endless conflict" by another.[53] The Corps' role as the nation's premier dredger and its historic antipathy for environmental conservation raised immediate concerns about section 404's potential to achieve conservation of wetlands. Granting the Corps broad discretion in making permit decisions[54] under an explicitly environmental statute sent very mixed signals. Assigning the EPA to draft guidelines for the Corps and to wield veto power complicated the message and set up a clash that occupied the agencies for much of the 1970s, into the 1980s, detracting from any sustained policy development within the agencies.[55]

### *C. Reliance on a Water Statute to Protect Wetlands*

The third structural limitation in section 404 is that it seeks to protect wetlands as a category of water. The decision to address wetlands protection under the CWA was logical in many ways. The predecessor Rivers and Harbors Act had been applied to wetlands and was a water-focused statute. Wetlands stand out from the rest of the landscape by virtue of their hydrology—their water aspect. And many of the unique values associated with wetlands depend on wetlands' hydrology. Moreover, the interstate nature of many waters provided a constitutional basis for federal regulation. But the relegation of wetlands concerns exclusively to the CWA and the definition of wetlands as a subset of "waters" necessarily skewed our thinking about wetlands and wetlands policy.

The emphasis on the water aspect of wetlands places emphasis on a subset of the values and functions of wetlands at the cost of others. It may also reflect our ambivalence about wetlands and a desire to avoid confronting wetlands on their own terms. Wetlands pose a challenge to our dualistic thinking that divides the landscape into water and land. Neither an approach focused solely on wetlands as land nor one focused on their identity as water can fully capture wetlands and their value. The decision to adopt a water approach without pursuing a complementary effort focused on wetlands' character as land represents a serious constraint in the development of federal wetlands policy.

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52. WANT, *supra* note 16, § 2:7, at 2-9 n.6.

53. Oliver A. Houck, *More Net Loss of Wetlands: The Army-EPA Memorandum of Agreement on Mitigation Under the Section 404 Program*, 20 ENVTL. L. REP. 10,212, 10,212 (June 1990) [hereinafter Houck, *More Net Loss of Wetlands*].

54. *See* 2 RODGERS, *supra* note 18, § 4.12, at 186. As has been often noted, section 404 initially provided almost no guidance on how the Corps should exercise this discretion but merely granted them power to grant permits for discharge of dredged and fill material that would otherwise violate the basic prohibition against discharges under section 301 of the CWA. *Id.* at 182. Subsequent amendments have done little to provide guidance but have created a number of exemptions and authority for general permits. *Id.* at 187-93.

55. *See* Babcock, *supra* note 11, at 328-41 (describing history of disagreement over mitigation); Houck, *Alternatives*, *supra* note 11, at 774-84.

Another problem with regulating wetlands destruction under a water statute is the clash created by the frequency with which the regulated conduct occurs as part of land development activities. The existence of a substantial federal constraint operating in a realm largely thought to be regulated by state and local government has caused tension and visceral resistance.[56] But as Professor Malone has pointed out, the claimed absence of federal constraints on land use may be a convenient myth perpetuated in the hopes of bringing it to reality.[57] At the least, the involvement of local, state, and federal decisionmakers creates complexity and opportunities for conflict.[58] And the intersection of local decisionmaking processes focused on land and its potential uses with federal regulatory processes that seek to preserve the hydrologic aspects of wetlands and prevent their conversion to dry land creates inevitable tension. This tension results not just from the structure of section 404 but from the inherently transitional nature of wetlands—their failure to fit neatly into our dualistic view of the landscape as land and water.

### *D. The Pollution Control/Permitting Approach*

A fourth limitation inherent in section 404's structure is its reliance on a pollution control/permitting model. Section 404 is designed to limit discharges, just as is section 402 of the CWA[59] and other pollution control permit programs. Its focus is on specific conduct that degrades the wetland, rather than overall protection of the resource.[60] Section 404 regulates specific types of harm to wetlands, namely those caused by discharging into the wetlands, while ignoring other types of activity that can degrade wetlands' integrity and impair their value. Draining wetlands, dredging without a discharge, and degradation of the surrounding landscape can all have devastating consequences yet escape regulation under section 404. Recent battles over fallback of dredged material[61] and deep ripping practices[62] illustrate the

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56. Blumm, *Adolescence*, *supra* note 11, at 464.

57. Linda A. Malone, *The Myths and Truths that Ended the 2000 TMDL Program*, 20 PACE ENVTL. L. REV. 63, 79 (2002).

58. 2 RODGERS, *supra* note 18, § 4.12, at 185; Blumm & Zaleha, *supra* note 11, at 760-61 (suggesting the benefits and necessity of pluralism in decisionmaking in this context).

59. 33 U.S.C. § 1342(a) (2000).

60. WANT, *supra* note 16, § 4:53, at 4-27 to 4-34 (detailing the various categories of activities that are regulated under section 404); Blumm, *Adolescence*, *supra* note 11, at 418.

61. The settlement of *North Carolina Wildlife Federation v. Tulloch*, Civ. No. C90-713-CIV-5-BO (E.D.N.C. 1992), led to the issuance of the Tulloch Rule which invoked regulation of fallback from dredging regardless of quantity unless exempted because there was no impact or the action involved "normal dredging operations" in navigable waters. Final Rule, 58 Fed. Reg. 45,008 (Aug. 25, 1993). Subsequent litigation led to invalidation of the regulation of incidental fallback that occurred as part of a net withdrawal, prompting further revisions. *See* Revisions to the Clean Water Act Regulatory Definition of "Discharge of Dredged Material," 65 Fed. Reg. 25,121, 25,122 (Apr. 28, 2000); Further Revisions to the Clean Water Act Regulatory Definition of "Discharge of Dredged Material," 66 Fed. Reg. 4550, 4550 (Jan. 17, 2001) (codified at 33 C.F.R. § 323.2(d) and 40 C.F.R. § 232.2).

62. *See* Borden Ranch P'ship v. United States Army Corps of Eng'rs, 261 F.3d 810, 815 (9th Cir. 2001), *aff'd by an equally divided court*, 537 U.S. 99 (2002) (holding that deep ripping constitutes an

struggle to determine which degrading practices are covered by section 404 and which are left unregulated.

The focus on discharges into wetlands also ignores the reality that the threats to wetlands are different in kind from most other sources of air and water pollution. Much of the activity that degrades wetlands is undertaken with the goal of destroying the wetlands by converting them to dry land or open water. Most other polluting activities use the relevant resource (i.e., air, water, or land) as a sink for wastes, but only because waste is an unfortunate and undesired byproduct of an otherwise profitable activity. In contrast, the filling of wetlands often demands an effort to *find* fill to dispose of in the wetland so that the wetland can be converted to dry land.[63]

Thus, unlike other pollution control programs, technology-based controls will not address the problem of wetlands degradation.[64] There can be no expectation that as pollution control technology improves, less fill will be generated for disposal in wetlands and fewer wetlands will be dredged or drained. Filling or dredging the wetlands is the goal and is likely to remain a goal for landowners and a threat to wetlands. The section 404 program therefore depends on quality-based protective standards.[65] The history of environmental regulation has repeatedly demonstrated the difficulty of translating resource quality-based standards into a tool to affect individuals' conduct.[66] Hence, it is not surprising that the best section 404 can achieve is to slow the loss of wetlands. If there are incentives to fill wetlands and no standards that clearly prohibit it, quality-based standards provide a weak response. The renowned broad discretion that characterizes the section 404 regulations and landowners' strong interest and economic incentive create

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unpermitted discharge of pollutants under the CWA when performed in wetlands due to the excavation and redeposition of soils during the process).

63. When the goal of dredging is to create open water or channels, the disposal of dredged material sometimes more closely resembles a traditional pollution control problem. In these situations, the dredged material is more like other types of unwanted waste that permittees seek to dispose of incident to clearing channels or dredging harbors. However, like filling wetlands, the purpose of the dredging, if not the disposal, is often to convert wetlands to something else. That change is the goal, not an unintended consequence.

64. Many scholars have emphasized the efficacy of technology-based controls. *See* Drew Caputo, *A Job Half Finished: The Clean Water Act After 25 Years*, 27 ENVTL. L. REP. 10,574, 10,578-79 (1997); Oliver A. Houck, *Of Bats, Birds and B-A-T: The Convergent Evolution of Environmental Law*, 63 MISS. L.J. 403, 418 (1994) [hereinafter Houck, *Of Bats, Birds*]. For a discussion of some wetlands contexts in which technology-based controls might effectively protect wetlands, see Houck, *Alternatives*, *supra* note 11, at 835-36.

65. The section 404 guidelines direct the Corps to focus on protecting various values and qualities of the wetlands, among other values, in assessing permit applications.

66. Professor William Andreen's history of the CWA illustrates the progress achieved when Congress adopted innovative technology-based standards after a long history of ineffectual quality-based standards. William L. Andreen, *The Evolution of Water Pollution Control in the United States—State, Local, and Federal Efforts, 1789-1972: Part II*, 22 STAN. ENVTL. L.J. 215, 286-94 (2003). Under the Clean Air Act, the National Ambient Air Quality Standards created under section 109 have succeeded because they only act as a benchmark, and additional regulatory tools, including technology-based standards for new sources (section 111) and specific technology mandates (such as the lead phasedown in section 211 and CAFE standards for cars under section 202), have effectuated compliance with air quality standards. *See* 42 U.S.C. §§ 7408, 7411, 7521, 7545.

tremendous pressure against consistent protection of the quality and values of wetlands.[67]

Added to this is the constraint of section 404's reliance on case-by-case permit determinations to protect wetlands from what are the cumulative effects of development.[68] Most of the loss of functions and values caused by wetlands degradation is not the result of a single landowner's actions but rather reflects the incremental contributions of a series of actors.[69] An individualized assessment of a permit application is a poor context for evaluating the harm.[70] The decision to constrain a particular permittee to prevent harm is difficult to justify until cumulative effects finally become apparent. At that point, if it is not already too late, questions about the fair allocation of the burdens arise, tipping the balance of values away from permit denial. This dilemma also reflects the fact that wetlands form part of both very local and landscape-scale processes. Section 404 has provided a limited approach for protecting at either scale.[71]

The shortcomings of section 404 described above do not mean that individualized permitting has no role to play in wetlands conservation policy, only that it is not well-suited to protecting wetlands standing alone. Despite the shortcomings of case-by-case permitting on its own, the need for place-based decisions to protect the values of wetlands across the landscape seems clear.[72] The context and content of section 404 presents challenges and obstacles to the development of coherent policy. The challenges are not insuperable, but we must recognize and account for them in any attempts to develop goals and policy in the future.

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67. On the broad discretion granted to the Corps, see 2 RODGERS, *supra* note 18, § 4.12, at 182, 185 (describing section 404 as "an extreme example of open-ended 'balancing' under casual criteria" and the results as reflecting "a world of bargaining, negotiation, compromise").

68. Others have noted the inadequacy of section 404's case-by-case permitting, standing alone, as a means to protect wetlands. *See* GAO, CORPS ADMIN., *supra* note 9, at 2-4, 28-30, 85-86; Babcock, *supra* note 11, at 318-28; Houck, *War*, *supra* note 11, at 361-74.

69. Houck, *Alternatives*, *supra* note 11, at 775-76.

70. 2 RODGERS, *supra* note 18, § 4.12, at 183-84; Bohlen, *supra* note 12, at 8; Houck, *War*, *supra* note 11, at 361-62 (describing trade-offs with "trades [that] are poor and the rate of destruction is high" as the outcome of the regulatory program that seeks to stop cumulative development through individual permitting decisions).

71. *See* Bohlen, *supra* note 12, at 7-9. Initiatives for Advanced Identification of Wetlands and Special Area Management Plans have sought to address these problems through planning to complement individualized permitting. These programs are described in Leah V. Haygood & Robert S. Reed, *Advance Planning for Wetland Protection and Management*, *in* ISSUES IN WETLANDS PROTECTION: BACKGROUND PAPERS PREPARED FOR THE NATIONAL WETLANDS POLICY FORUM 31-37 (1990). *See also* Ben A. Wopat, *The Making of the Superior SAMP*, 20 NAT'L WETLANDS NEWSL. 1 (May-June 1998) (describing a SAMP case study).

72. *See* Bohlen, *supra* note 12, at 9; Oliver A. Houck, *An Open Letter to EPA Administrator William K. Reilly*, 13 NAT'L WETLANDS NEWSL. 3 (July-Aug. 1991) [hereinafter Houck, *Open Letter to Reilly*] (critiquing proposal to generally classify wetlands into three groups, protecting only the group of "highest value").

## IV. THREE CONTROVERSIES: TRACING THE ROOTS OF THE PROBLEM

The zigzag course set by successive administrations and section 404's structural shortcomings tell only part of the story of section 404's evolution. Those interested in wetlands regulation have not sat silent and idle for the past thirty years. To the contrary, advocates have sought to influence the direction of wetlands policy and have pursued reform of section 404 through legislative, judicial, and administrative avenues. In this section, I briefly describe three of the most visible topics of controversy that have surrounded the section 404 program and dominated public debate about wetlands conservation: the Corps' jurisdiction, the technique for wetland delineations, and the scope of activities regulated.[73] The descriptions of the controversies locate them in relation to section 404's structural flaws, illustrating how the structural limitations in section 404 contributed to the enduring prominence of these issues. Part IV.B. then looks closely at the nature of these three issues to understand better why the attention devoted to these issues has filled the policy vacuum but failed to advance the development of goals or broader policy.

### *A. Endless Battles*

#### *1. Jurisdiction*

Congress's lack of clarity in section 404 is reflected not only in the absence of well-expressed goals, but also in the almost Delphic statutory guidance on section 404 jurisdiction. The elliptical statutory language defining the jurisdictional reach of section 404 set the stage for ongoing jurisdictional battles.[74] Over the last thirty years, much time and many resources have gone to the efforts to resolve this question.

The meaning of the key phrase "waters of the United States" has been shaped through both judicial and administrative interpretation. Early litigation brought by environmental groups successfully challenged the Corps' interpretation of this phrase as limited to traditionally navigable waters and established in 1975 that the reach of section 404 extended beyond navigable waters.[75] As the Corps developed new rules to embody this interpretation,

73. These were certainly not the only controversies, but they stand out for their persistence and their links to section 404's structural limitations. Other important topics such as mitigation and general permits have been major subjects of debate and of reform efforts during this period, but they have generated less direct conflict in the courts and Congress.

74. *See* 33 U.S.C. § 1311 (2001) (prohibiting the discharge of pollutants); *id.* § 1362(12) (2001) (defining discharge as the introduction into navigable waters); *id.* § 1344(a) (2000) (authorizing the Secretary of the Army to issue permits for the discharge of dredged and fill material into navigable waters); *id.* §1362(7) (2001) (defining navigable waters as "waters of the United States").

75. Natural Res. Def. Council, Inc. v. Callaway, 392 F. Supp. 685, 686 (D.C. Cir. 1975).

Congress opened debate on amendments to the CWA. One topic debated as part of that effort was the jurisdictional scope.[76] Strenuous efforts to limit the jurisdiction of section 404 to navigable waters were defeated, leaving in place and confirming the broader reach.[77] The EPA and the Corps clarified their interpretations of section 404 jurisdiction through regulatory revisions and guidance, including the so-called migratory bird rule, in which the EPA asserted jurisdiction over isolated wetlands that were used or could be used by migratory birds.[78]

The next round of battles centered on the narrower question whether wetlands adjacent to open water were within the reach of waters of the United States. In *United States v. Riverside Bayview Homes, Inc.*,[79] the Supreme Court unanimously determined that the Corps' regulations extended jurisdiction to wetlands adjacent to navigable waters and were a valid interpretation of the Corps' delegated authority, consistent with congressional intent as determined from its past actions and inaction.[80] The years following *Riverside Bayview Homes* saw another challenge to the jurisdictional reach claimed by the Corps and the EPA, this time to the assertion of jurisdiction over non-adjacent wetlands.[81] Among the several cases raising this issue, *Hoffman Homes* attacked the validity of the EPA's migratory bird rule, which asserted jurisdiction over wetlands based solely on use by migratory birds without other evidence of a connection to interstate commerce.[82] After an anticlimactic series of reversals in direction, the Seventh Circuit withdrew from the field and left the issue unresolved.

The same issue was joined several years later in *SWANCC*, reaching the Supreme Court in 2000.[83] Once again, the petitioners challenged the validity of the migratory bird rule under the CWA.[84] This time, the Supreme Court resolved the issue, invalidating the migratory bird rule as beyond the scope of jurisdiction granted by Congress when applied to a wholly-intrastate isolated wetland.[85] The Court's 5-4 decision relied in part on its desire to avoid any constitutional issue under the Commerce Clause, which it identified as another potential bar to the migratory bird rule.[86]

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76. Kalen, *supra* note 12, at 896 n.122.

77. For a description of the amendments proposed and enacted, as well as subsequent failed legislative efforts to amend section 404 jurisdiction, see *id.* at 898-906. *See also* Blumm, *Adolescence, supra* note 11, at 417-28. Although jurisdiction was left unchanged, the 1977 amendments introduced important exemptions and confirmed and defined the Corps' authority to issue general permits. *Id.* at 430-31.

78. Definition of Waters of the United States, 51 Fed. Reg. 41,217 (Nov. 13, 1986). For a more detailed review of these developments, see Margaret N. Strand, *Federal Wetlands Law*, *in* WETLANDS DESKBOOK 17-19 (2d ed. 1997).

79. 474 U.S. 121 (1985).

80. *Id.* at 139.

81. *See* Strand, *supra* note 78, at 17-19.

82. Hoffman Homes, Inc. v. EPA, 961 F.2d 1310, 1321 (7th Cir. 1992).

83. 531 U.S. 159 (2001).

84. *Id.* at 165.

85. *Id.* at 174.

86. *Id.* at 173-74.

Agency responses to the *SWANCC* ruling were informed by vigorous advocacy seeking to constrain or expand the impact of the decision. Those in favor of protecting wetlands uniformly viewed *SWANCC* as limited to invalidation of the migratory bird rule.[87] Those who favored less regulation of wetlands uniformly argued that *SWANCC* dictated or at least invited that all non-adjacent or isolated wetlands be withdrawn from agency efforts at regulation.[88]

In the last days of the Clinton Administration, the EPA's and the Corps' General Counsels issued guidance that followed the narrow interpretation of *SWANCC*.[89] The Bush Administration announced in January 2003 that it was rescinding this guidance and published its own guidance along with an Advance Notice of Proposed Rulemaking, soliciting comments on revisions to section 404 jurisdictional rules in light of *SWANCC*.[90] A leak of the draft proposed rules in October 2003 revealed that the Bush Administration was poised to take the opportunity to restrict jurisdiction substantially, applying a broad reading of *SWANCC*.[91] In response to public outcry, the newly-appointed Administrator of the EPA announced a reversal of direction, withdrawing the proposed rule.

The battles about statutory jurisdiction are not over. Advocates of broader jurisdiction would undoubtedly challenge in court any rules that threatened to narrow jurisdiction and the prior effort to adopt such rules will be raised in the political forum that the 2004 election year provides. Should judicial challenges, election year political pressure, or the outcome of the election preclude efforts to narrow jurisdiction, the next logical parry by those seeking to constrain wetlands regulation will be to pursue litigation that finally squarely frames the constitutional challenge that lurked around the edges of *SWANCC*: whether the current extent of jurisdiction exceeds the Commerce Clause.

### 2. *Delineation of Wetlands*

The disputes over the proper technique for delineating what qualifies as a wetland under section 404 have followed a path similar to the related de-

87. Parenteau Testimony, *supra* note 6 (described in *Corps, EPA Mull Wetlands Regs to Address SWANCC*, *supra* note 46, at 24); Gary S. Guzy, Testimony Before a Hearing of the U.S. House of Representatives Comm. on Gov't Reform, Subcomm. on Energy Policy, Natural Res. & Regulatory Affairs, Regarding Implementation of the *SWANCC* Decision (Sept. 19, 2002), *available at* http://www.aswm.org/fwp/swancc/gg020919test.htm; Testimony of Richard Hamann, Associate in Law, Center for Governmental Responsibility, Levin College of Law, University of Florida, Before the Senate Comm. on Env't & Public Works, Subcomm. on Fisheries, Wildlife, Water & Wetlands (June 10, 2003) [hereinafter Hamann Testimony].

88. Albrecht & Nickelsburg, *supra* note 46, at 11,042; *see also Corps, EPA Mull Wetlands Regs to Address* SWANCC, *supra* note 46, at 24 (describing testimony by Virginia Albrecht arguing navigation as the only basis for jurisdiction).

89. Guzy-Andersen Memo, *supra* note 5.

90. Bush Admin. ANPR, *supra* note 4.

91. Shogren, *supra* note 6, at A12.

bate over statutory jurisdiction.[92] The struggle over the techniques and standards used to delineate areas as wetlands began in earnest with the settlement of *Natural Resources Defense Council, Inc. v. Callaway*,[93] which established that the Corps' jurisdiction extended beyond navigable waters.[94] At that time, the Corps adopted a definition of the term "wetlands." That definition, which remains in force today, designates as wetlands: "[a]reas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."[95]

Although there have been efforts to challenge even this definition,[96] the focus of greater attention have been the standards that operationalize the definition and the tests employed by delineators to determine whether a particular area falls within the general definition.

As the Corps and the EPA matured in the 1970s and 1980s, they developed distinct approaches to delineation, as did other agencies with roles in wetlands permitting, such as the Fish and Wildlife Service. The interagency cooperation that developed in the late 1980s led to an interagency effort to develop a common delineation manual that would govern delineation not only by the Corps and the EPA, but also by the Fish and Wildlife Service and the Soil Conservation Service.[97] The adoption of a new manual that broadened agency jurisdiction, concurrent with other interagency initiatives that emphasized vigorous implementation of section 404, and the newly-adopted "no net loss" goal led to a backlash from agricultural, oil and gas, and development interests.[98]

A major focus of criticism was the assertion of jurisdiction over drier-end, altered, and artificial wetlands.[99] After the Corps held hearings to air the criticisms, the momentum for revised delineation criteria sparked both legislative and executive proposals. On August 14, 1991, the agencies released a revised manual for public comment.[100] The revised manual emerged from an intensely political atmosphere and process and engendered

92. As befits a debate over an agency manual, the debate over delineation has resided less in the courts than has the debate over interpretation of the statutory grant of jurisdiction. Instead, the battles over delineation methodology have been fought largely within the executive branch with some congressional involvement.

93. 392 F. Supp. 685 (D.C. Cir. 1975).

94. *Id.*

95. 33 C.F.R. § 328.3(b) (2003).

96. See, e.g., the 1991 Hayes-Breaux bill described in Denis Collins Swords, *The Comprehensive Wetlands Conservation and Management Act of 1991: A Restructuring of Section 404 that Affords Inadequate Protection for Critical Wetlands*, 53 LA. L. REV. 163, 182-83 (1992).

97. FED. INTERAGENCY COMM. FOR WETLAND DELINEATION, FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS (1989) [hereinafter 1989 MANUAL]. The common manual drew from the manuals previously used by the various agencies. *See* Babcock, *supra* note 11, at 342 n.170.

98. *See* Babcock, *supra* note 11, at 343-44.

99. Kusler, *supra* note 17, at 11. Other criticisms included failure by the agencies to solicit adequate public comment and the manual's complexity for end users. *Id.*

100. 56 Fed. Reg. 40,446 (Aug. 14, 1991).

criticisms equal in vigor, if different in content, from those that met its predecessor.[101] Advocates on all sides focused intense energy on determining the merits and limitations of the new proposed manual. Critics noted that the 1991 manual lacked scientific validity and consistency.[102] It was unworkable in the field and when scientists field tested it, they estimated that delineation required three- to five-fold the time demanded by existing practice.[103] Moreover, field testing by a broad cross section of the scientific community revealed the dramatic impact that its implementation would have on jurisdiction—excluding 30% to 80% of the wetlands covered by the Corps' 1987 manual.[104]

Meanwhile, in response to the backlash against the 1989 Manual, the EPA issued guidance and the Corps developed its prior converted croplands exclusion in an effort to prevent wholesale elimination of section 404.[105] The political battle over delineation prompted numerous legislative initiatives in the 102nd Congress, almost all of which ultimately failed.[106] A measure did pass that prohibited the Corps from spending money to implement the 1989 Manual unless it was subjected to notice and comment under the Administrative Procedure Act.[107] Therefore the Corps reverted to its 1987 Manual, while the EPA continued to use the 1989 Manual.[108] Thus, the battle ended with a stalemate and no gain in clarity.

### *3. The Scope of Activities Regulated by Section 404*

A third controversy that has generated more heat than light is the range of activities subject to regulation under section 404. Since the CWA's enactment, the phrase "discharge of dredged or fill materials" has been examined in numerous court and agency decisions. The result has been that a hodgepodge of activities falls within the Corps' jurisdiction while others escape regulation. Activities that harm wetlands, like land clearing and dredging, partially avoid Corps oversight because of semantic distinctions that seem disconnected from any policy or goal. As with jurisdiction and delineation, the Corps' stated policy moves back and forth, leaving no issue ever truly settled and wetlands facing a continually uncertain future.

One of the earliest battles centered on section 404's effect on land clearing. Two Fifth Circuit decisions in 1983 delineated when land clearing invokes Corps' jurisdiction. In *Avoyelles Sportsmen's League, Inc. v. Marsh*,[109] the court held that land clearing for agricultural conversion tends

101. Babcock, *supra* note 11, at 346 n.186; Kusler, *supra* note 17, at 33.
102. Kusler, *supra* note 17, at 33.
103. *Id.*
104. *Id.* at 34.
105. *See* Babcock, *supra* note 11, at 347-49.
106. WANT, *supra* note 16, § 4:53, at 4-40.
107. *Id.* § 4:54, at 4-41.
108. *Id.* § 4:53, at 4-41.
109. 715 F.2d 897 (5th Cir. 1983).

to violate section 404 if it involves land leveling or substantial earth moving within Corps' jurisdictional areas.[110] The landowners had attempted to convert forest land into a soybean farm by using bulldozers to cut the timber and vegetation at ground level, pushing the felled trees into windrows, burning the windrowed vegetation, and discing or burying the remaining material.[111] The court determined that this form of land clearing involved the deposit of fill materials because sloughs were filled and the land was generally leveled in the process.[112]

However, in *Save Our Wetlands, Inc. v. Sands*,[113] the court indicated that land clearing does not per se violate section 404.[114] According to the court, a power company's removal of trees in a wetland to install power lines does not involve the discharge of dredged or fill material.[115] In *Avoyelles,* the work would have permanently converted the wetlands into agricultural land, while in *Save Our Wetlands*, the cleared trees and vegetation would be allowed to deteriorate naturally, simply transforming the wooded swampland into another variety of swampland.[116]

In response to the *Avoyelles* case, the Corps issued a Regulatory Guidance Letter stating that a permit would be required for land-clearing activities in waters of the United States that involve more than de minimis discharges.[117] Approximately five years later, the Corps issued another Regulatory Guidance Letter adopting the position that most mechanized land-clearing operations in wetlands are subject to section 404 jurisdiction because they involve some redeposition of soil.[118] Then in 1993, revisions to the Corps' regulations provided that the discharge of dredged material means any addition of dredged material into waters of the United States that is incidental to any activity, including mechanized land clearing.[119]

During the past ten years, judicial challenges and regulatory changes have continued to affect the Corps' jurisdiction over land clearing. Closely tied to land clearing, and thus also affected by these same changes, are dredging activities. Because dredging, as opposed to the discharge of dredged material, is not explicitly covered by the CWA, case law and the

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110. *Id.* at 930.
111. *Id.* at 920-21.
112. *Id.* at 924.
113. 711 F.2d 634 (5th Cir. 1983).
114. *Id.* at 647.
115. To distinguish the *Avoyelles* decision, the court relied heavily on the Corps' definition of "fill material as any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water-body." *Id.*; 33 C.F.R § 323.2(m) (1979).
116. *Save Our Wetlands*, 711 F.2d at 647.
117. U.S. Army Corps of Eng'rs, Regulatory Guidance Letter No. 85-4: "Avoyelles" (Mar. 29, 1985). The Corps did not change its policy on the mere removal of vegetation from land, which required no permit.
118. U.S. Army Corps of Eng'rs, Regulatory Guidance Letter No. 90-5: "Landclearing Activities Subject to Section 404 Jurisdiction" (July 18, 1990).
119. 33 C.F.R. § 323.2(d)(1)(iii) (1993). Not included is the incidental addition of dredged material that does not destroy or degrade wetlands, but the burden is on the landowner to prove this. *Id.* § 323.3(d)(3)(i) (1993).

Corps' regulatory policy on this practice have continually shifted. The *Avoyelles* court had not confronted the question of whether the discharge of dredged materials is subject to Corps jurisdiction because it concluded that the discharges at issue were discharges of fill material.[120] However, in 1986 the Corps issued a regulation expressly excluding from regulation "de minimis, incidental soil movement occurring during normal dredging operations."[121] Environmental groups challenged the rule because it failed to require a section 404 permit for the mechanized land clearing of some wetlands.[122] The parties ultimately settled the case, and from the terms of settlement, the Corps developed the Tulloch Rule in 1993.[123] The rule asserted jurisdiction over excavation (including mechanized land clearing) that results in the redeposit or fallback of dredged or excavated material, regardless of quantity, into a wetland or other water of the United States.[124] Permit exemptions were available in limited circumstances.[125]

Industry groups challenged the Tulloch Rule on the ground that it exceeded the authority of the Corps and the EPA under the CWA.[126] The Court of Appeals for the D.C. Circuit held that "by asserting jurisdiction over 'any redeposit,' including incidental fallback, the Tulloch Rule outruns the Corps's statutory authority."[127] In reaching this conclusion, the court stated:

> [T]he straightforward statutory term "addition" cannot reasonably be said to encompass the situation in which material is removed from the waters of the United States and a small portion of it happens to fall back. Because incidental fallback represents a net withdrawal, not an addition, of material, it cannot be a discharge.[128]

Responding to the ruling, the Corps and the EPA promulgated new regulations in 1999 that expressly exclude "incidental fallback" from the definition of "discharge of dredged material."[129] In 2001, the agencies

120. Avoyelles Sportsmen's League, Inc. v. Marsh, 715 F.2d 897, 929-30 (5th Cir. 1983).
121. Final Rule for Regulatory Programs of the Corps of Engineers, 51 Fed. Reg. 41,206, 41,232 (Nov. 13, 1986).
122. N.C. Wildlife Fed'n v. Tulloch, No. C90-713-CIV-5-B (E.D.N.C. 1992).
123. 40 C.F.R. § 232.2 (1993).
124. *Id.*
125. *Id.* § 232.2(4)(ii) (exemptions existed for activities involving an absence of an impact and "normal dredging operations" in navigable waters).
126. Nat'l Mining Ass'n v. United States Army Corps of Eng'rs, 145 F.3d 1399 (D.C. Cir. 1998).
127. *Id.* at 1405.
128. *Id.* at 1404. The court noted that a redeposit could be subject to section 404 permit requirements in some instances, such as where the redeposit took place in a different area from where it was obtained or was sidecast onto wetlands. *Id.* at 1407. *See Borden Ranch P'ship*, 261 F.3d. 810 (9th Cir. 2001), *aff'd by an equally divided court*, 537 U.S. 99 (2002) (holding that moving existing soil within a wetlands through "deep ripping" does invoke Corps' jurisdiction under the CWA); United States v. Deaton, 209 F.3d 331 (4th Cir. 2000) (holding that sidecasting dredged spoil is not incidental fallback that escapes regulation).
129. 40 C.F.R. § 232.2 (1999). In the preamble, the agencies stated that the change did not alter the doctrine that some redeposits constitute a discharge of dredged material. Therefore, whether a redeposit

moved toward recovering the jurisdictional reach they enjoyed under the original Tulloch Rule.[130] While declining to create a rebuttable presumption, the agencies stated that they regarded mechanized land-clearing, ditching, channelization, in-stream mining, or other mechanized excavation activity in the waters of the United States as resulting in a discharge unless project-specific evidence showed only incidental fallback.[131] Second, they interpreted "incidental fallback" narrowly as "the redeposit of small volumes of dredged material that is incidental to excavation activity in waters of the United States when such material falls back to substantially the same place as the initial removal."[132]

Other activities that have been subject to battles over the scope of the Corps' authority, but to a lesser extent, include draining, ditching, farming operations, placing pilings, and creating landfills. Draining is responsible for a large percentage of annual wetland loss. A policy focused squarely on wetland conservation and the goals of the CWA would seek to regulate this activity. However, by its terms, section 404 only regulates draining if it involves a discharge of dredged or fill material into jurisdictional waters.[133] A memorandum issued by the Corps attempts to narrow the exemption for drainage by stating that drainage occurring after December 1985 does not create a new set of "normal circumstances" for purposes of determining whether the area qualifies as wetlands.[134] Thus, the wetland would still meet the vegetative criterion in the definition of wetland if it would have supported wetland vegetation prior to draining, even if it no longer supports wetland vegetation after draining.

The construction of drainage ditches is often the means of converting wetlands into drier, more commercially-usable land. The Corps' jurisdiction over drainage ditches is generally dependent on whether the ditch is constructed in a jurisdictional area or in uplands. Drainage ditches built in jurisdictional areas will remain jurisdictional if an ordinary high water mark remains present, even if the surrounding land becomes dry.[135] Meanwhile, drainage ditches constructed in uplands may enter the Corps' jurisdiction if they constitute a surface water connection between two waters of the United States and an ordinary high water mark is present.[136] Exemptions do exist, particularly for those ditches connected to farming or forestry operations.[137]

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required a section 404 permit would be determined on a case-by-case basis. 64 Fed. Reg. 25,120-21 (May 10, 1999).

130. *See* 40 C.F.R. § 232.2 (2001).

131. 40 C.F.R. § 232.2(i).

132. *Id.* § 232.2(2)(ii)(2).

133. The Fifth Circuit upheld this view in a 1992 case, ruling that drainage per se is not subject to the section 404 permit requirement. Save Our Cmty. v. EPA, 971 F.2d 1155, 1167 (5th Cir. 1992).

134. WANT, *supra* note 16, § 4:53, at 4-30 (citing memorandum to all Division and District Counsel from Lance Wood, Assistant Chief Counsel (Apr. 10, 1990)).

135. Final Notice of Issuance and Modification of Nationwide Permits, 65 Fed. Reg. 12,818, 12,823 (Mar. 9, 2000).

136. *Id.* at 12,823-24.

137. *Id.*

Another important area of contention is activities undertaken in connection with farming. Historically, farming activities have resulted in the loss of a large percentage of wetlands, yet often these activities go unregulated. In the regulations developed by the Corps in response to the *Callaway* decision,[138] normal farming, silviculture, and ranching activities, such as seeding and plowing, were exempted from the definition of "dredged and fill material."[139] Then as part of the 1977 CWA amendments, Congress created similar categorical exemptions for these activities.[140] But the exemptions were not available if the discharges were "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."[141] The courts, the Corps, and the EPA have construed the exemptions narrowly.[142]

Pilings pose another contentious area for the Corps' jurisdiction. Because they are not placed for the "primary purpose" of eliminating wetlands or other waters, for many years they escaped the Corps' regulation because they did not constitute "fill material."[143] The Corps eventually conceded that a permit would be necessary if piles were used equivalently to fill.[144] Two years later, the Corps clarified its position because of the increasing use of pilings in place of fill material to avoid regulation under the CWA.[145] Thereafter, permits were required when pilings had the physical effect of fill[146] or when they had the functional use and effect of fill.[147] In 1993, the Corps revised its regulations to reflect the circumstances where piling installation would require a section 404 permit.[148]

Finally, the disposal of solid waste is an activity that has aroused some debate over whether the Corps has jurisdiction. In 1998, the Ninth Circuit ruled that the Corps does not have the authority to require a permit for the

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138. Natural Resources Defense Council, Inc. v. Callaway, 392 F. Supp. 685 (D.C. Cir. 1975).
139. 40 Fed. Reg. 31,320, 31,325 (1975) (originally codified at 33 C.F.R. § 209.120(d)(4) & (6)).
140. 33 U.S.C. § 1344(f) (1977).
141. *Id.* § 1344(f)(2).
142. *See generally* United States v. Brace, 41 F.3d 117, 127 (3d Cir. 1994) (holding that prior use of land for farming did not allow for application of "normal farming activities" exemption because activity was not "ongoing" as hydrological modifications were needed to resume farming operations); United States v. Larkins, 657 F. Supp. 76, 85-86 n.23 (W.D. Ky. 1987) (holding that cultivation or logging of wetlands before beaver entered and upset natural drainage did not constitute use as to which land was "previously subject" for purpose of determining whether farm exception applied).
143. U.S. Army Corps of Eng'rs, Regulatory Guidance Letter No. 88-14: "Applicability of Section 404 to Piles" (Nov. 7, 1988).
144. *Id.* (addressing situations where "piles are placed so close together that they effectively replace an aquatic area and create a fill for the primary purpose of converting the aquatic area to dry land").
145. U.S. Army Corps of Eng'rs, Regulatory Guidance Letter No. 90-8: "Applicability of Section 404 to Pilings" (Dec. 14, 1990).
146. *Id.* Examples include pilings placed for dams, dikes, other structures utilizing densely-spaced pilings, or as a foundation for large structures.
147. *Id.* Examples include pilings placed to facilitate the construction of office and industrial developments, parking structures, restaurants, stores, and similar structures.
148. 33 C.F.R. § 323.3(c) (1993) (indicating that permits are needed when, for example, the pilings are so closely spaced that sedimentation rates would be increased or the placement of pilings would reduce the reach or impair the circulation of waters of the United States).

placement of a landfill in wetlands.[149] As noted by the court, the CWA grants the Corps authority over the discharge of "dredged or fill material," while the EPA has authority over the disposal of solid wastes.[150] Additionally, the EPA had issued regulations for solid waste landfills in accordance with the Resource Conservation and Recovery Act, along with wetland regulations that mirror the EPA's section 404 guidelines concerning wetlands under the CWA.[151] Therefore, the EPA and states with approved solid waste permitting programs were determined to be the proper authorities to regulate the placement of landfill in wetlands.[152]

### *B. The Impact on Policy Development*

#### *1. Section 404 Jurisdiction and Delineation of Wetlands*[153]

"Define a thing and you can dispense with it, right?"[154]

Questions about what areas Congress intended to regulate and how to delineate the areas regulated by the statute have occupied a disproportionate share of public attention. Yet given the structural flaws of section 404, debate over the statute's geographic reach seems logical, natural, and indeed, perhaps inevitable. Congress's elliptical language and the lack of a clear statutory goal invited arguments about how to interpret jurisdiction. The tension between the Corps and the EPA fueled the battle over jurisdiction. Added to this, section 404's design as a pollution control statute that required permits for discharges of pollutants into the "waters of the United States" and completely excluded any "non-waters" from regulation invested the interpretation of the jurisdictional reach with enormous significance. Unlike a program that focused on protection of wetlands resources or their functions and values, section 404 focused on regulating activities occurring within a defined jurisdictional realm: waters.

As with conflict over jurisdiction, the roots of the delineation controversy can be traced to the inherent limitations of section 404. The lack of a clearly-defined goal related to wetlands provided no guidance on how to approach delineation. The different cultures and missions of the Corps and the EPA produced different approaches to delineation. And the reliance on a water statute made the water aspect of wetlands a topic of particular contention, engendering opposition to delineation protocols that included drier-end wetlands.

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149. Res. Invs., Inc. v. United States Army Corps of Eng'rs, 151 F.3d 1162 (9th Cir. 1998).
150. *Id.* at 1165-67.
151. *Id.* at 1167-68.
152. *Id.* at 1169.
153. Because the nature of the problems created by the focus on jurisdiction and delineation are similar, the two are discussed together in this part.
154. RICHARD FARINA, BEEN DOWN SO LONG IT LOOKS LIKE UP TO ME 39 (1966).

Moreover, debate about these questions seems a logical focus for advocates seeking to influence wetlands policy. From the perspective of an advocate interested in large-scale impact, the stakes in both the jurisdictional and delineation conflict are enormous. If sheer acreage subject to regulation is the concern, control of the definition of waters subject to the statute and of the method for delineating a wetland promises to have a direct and significant impact. Thus, debate over both jurisdiction and delineation methodology seems inevitable. Further, these issues are technically challenging. The scientific and policy challenge of developing a single methodology for delineating wetlands throughout the country quickly and at a reasonable cost is considerable. That this would present a challenge, engender a variety of views and approaches, and necessitate some trial and error seems reasonable.

But beyond their technical difficulty and the potential for leverage these issues offer, these controversies have endured because they are not purely technical questions but also encode basic questions about our values, our policy. Conflicts over jurisdiction and delineation both indirectly express the central ambiguity that wetlands present us: are they land or water?[155] Those who would alter wetlands argue for treating them as land and removing them from section 404's jurisdictional reach by drawing a jurisdictional line close to the water's edge.[156] They would legally and semantically "reclaim" areas that are relatively dry or far from open water as a preface to physical reclamation. Those who wish to preserve the ecological value of wetlands emphasize the ecological imperative of connectivity, wetlands' role as part of the broader hydrologic system, and their direct role in water pollution control.[157] They seek a broader jurisdiction for section 404 that encompasses isolated and drier-end wetlands and focus on the lack of a scientific basis to distinguish among the parts of the hydrologic system based on proximity to open water or absolute wetness alone. Thus, the conflict over wetlands' status as land or water encodes a conflict about the nature and extent of our concern for wetlands—about their value.

A definitional debate is not an adequate substitute for a debate on the underlying value questions, and debating these questions in the context of jurisdictional and delineation may not be a neutral strategy. It may have differential advantage for advocates who oppose regulation in relation to those seeking to protect wetlands for several reasons. First, a focus on definitions and jurisdiction submerges the conflict over the value of wetlands, a key value conflict that animates debate under section 404. It perpetuates the myth that there is no conflict about values: that no one favors diminished

155. *See* Kusler, *supra* note 17, at 10.

156. Albrecht & Nickelsburg, *supra* note 46, at 11,048-49, 11,055-56 (indicating that any jurisdiction outside of navigable waters must be justified by clear congressional expression of intent); Deely & Latham, *supra* note 46, at 966 (noting characterization of section 404 program as a "land grab" and defining its jurisdictional reach with reference to navigable waters).

157. Hamann Testimony, *supra* note 87, at 1; Parenteau Testimony, *supra* note 6, at 7-8.

protection of wetlands. In a battle about delineation or jurisdiction, the argument is cast as technical—scientific or statutory, as the case may be—but not as an argument about values. The alignment of one's values with the scientific or legal argument raised is generally treated as a coincidence, not worthy of mention or attention. The arguments over jurisdiction and delineation serve to hide the values that underlie the debate on both sides. In light of broad public support for enhanced protection of the environment, this seems more likely to advantage those who seek to limit regulation by restricting public debate and engagement on the relative importance of the values affected.

One can claim to value wetlands as much as the most ardent advocate of wetlands protection while simultaneously seeking to redefine what constitutes a wetland or "waters of the United States." It is harder to maintain one's claim to value wetlands while opposing regulation directly. Moreover, the narrowing of regulation's reach that can be achieved through contests over jurisdiction and delineation accurately reflects the goal of those who oppose regulation: no one opposing wetland regulation seeks to remove *all* wetlands from protection. Thus, battles focused on jurisdiction are well-suited to the goal of carving out from section 404 jurisdiction those wetlands that share the fewest or least visible characteristics of water.[158]

The focus on jurisdiction may fit well with an agenda to broaden regulation's scope incrementally, but it does not fit similarly well with an agenda to focus broadly on wetlands conservation. If we examine closely the battles over jurisdiction and delineation, their distorting effect goes beyond merely disguising important value choices. While delineation retains the aura of a scientific and technical question, the debate quickly moves from the technical into generalizations about wetland functions and values. In place of a comprehensive discussion about values and functions, delineation standards and methods are justified with reference to the presence or absence of selected attributes that are implicitly singled out as the prime source of wetlands value. For example, both in the 1991 manual and in related legislative proposals, the number of days of saturation at the surface emerged as a key attribute.

The arguments raised in this context may rely on unscientific generalizations about the attributes that give rise to wetlands' value. For example, arguments for a narrow jurisdictional limit or delineation protocol frequently incorporate a general claim that the wetlands excluded do not provide the same functions or values as those retained within agency jurisdiction or that they are unnatural.[159] The factual basis for such claims has typi-

158. This is not to suggest that these conflicts always result in victories for those seeking to narrow jurisdiction, only that a victory in a jurisdictional or delineation battle fits well with the goals of a party seeking to narrow jurisdiction.

159. See *Ditches Are Tributaries Under CWA, 4th Circuit Finds*, ENDANGERED SPECIES & WETLANDS REP., June 2003, at 4 [hereinafter *Ditches are Tributaries*], which quotes National Association of Home Builders Executive Vice President and CEO Jerry Howard criticizing the Fourth Circuit's decision in *United States v. Deaton*:

cally been that the wetlands to be excluded are dry most of the time, isolated, or altered by human activity.[160] Without making the supporting points explicit, the arguments rely on three premises: (1) that wetlands' only relevant values are their wetness or their proximity to open water, (2) that more wetness or closer proximity to water translates perfectly into higher value, and (3) that areas altered by human activity lose all value and justification for regulation under section 404.

The scientific community has consistently failed to accept these equations,[161] as have the Supreme Court and most Circuit Courts of Appeal to date.[162] But because of the narrow technical scope of debate, courts and advocates nevertheless often focus disproportionately on quantifiable attributes such as wetness or proximity to water as measures of quality in place of a broader, more nuanced focus on the many ways that the presence, and even absence, of water can have value.[163] The timing of water's presence, a wetland's context in the landscape, and other subtler attributes are less easily captured, quantified, and evaluated.[164] Moreover, the essential role

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> Congress never intended for [Section 404 to reach] ordinary rural roadside drainage ditches, which are ubiquitous . . . . The environmental value of manmade ditches that are clogged with vegetation and floating leaves for just a few weeks and dry during the rest of the year should not be comparable to, and in some cases exceed the environmental value of streams that run into the Chesapeake Bay.

*Id. See also* FD&P Enters., Inc. v. United States Army Corps of Eng'rs, 239 F. Supp. 2d 509, 517 (D.N.J. 2003) (stating test for jurisdiction of non-adjacent wetlands as substantial nexus to navigable waters demonstrated by proof that filling wetlands will harm navigable waters).

160. *See* United States v. RGM Corp., 222 F. Supp. 2d 780, 786-89 (E.D. Va. 2002) (rejecting seasonal, periodic flow as establishing an adequate hydrologic connection for adjacency and rejecting Corps' claims to jurisdiction landward of OHWM); United States v. Newdunn Assocs., 195 F. Supp. 2d 751, 758 (E.D. Va. 2002), *rev'd by* Treacy v. Newdunn Assocs., 344 F.3d 407 (4th Cir. 2003) (finding that wetlands "were non-tidal high elevation hydric soil flats" that were "less functional than wetlands that lay closer to navigable" water); Deely & Latham, *supra* note 46, at 966; *Ditches Are Tributaries*, *supra* note 159, at 4.

161. *See* NAT'L RESEARCH COUNCIL, NAT'L ACAD. OF SCIS., WETLANDS: CHARACTERISTICS AND BOUNDARIES (1995); Kusler, *supra* note 17, at 30-33.

162. *See* United States v. Riverside Bayview Homes, 474 U.S. 121, 129-30, 133-35 (1985) (rejecting argument that surface saturation or inundation was required by Corps regulations and emphasizing value of wetlands that are not saturated or inundated); *Treacy*, 344 F.3d at 410, 417 (upholding jurisdiction although hydrologic connection between navigable water and wetland at issue presently runs through 2.4 miles that includes man-made ditches and in which the flow is intermittent); United States v. Deaton, 332 F.3d 698, 702, 708 (4th Cir. 2003) (upholding jurisdiction over wetlands bordering a roadside ditch that connected to the Chesapeake Bay via a thirty-two-mile path, with eight miles separating the wetlands from the closest navigable-in-fact water). The District Court in the case made findings of fact which emphasized lower functionality of wetlands at issue. *See Newdunn Assocs.*, 195 F. Supp. at 758; United States v. Rapanos, 339 F. 3d 447, 451-53 (6th Cir. 2003) (emphasizing hydrologic connection and that passage of water through a man-made ditch does not negate jurisdiction).

163. *See* Timothy D. Searchinger, *Wetlands Issues 1993: Challenges and a New Approach*, 4 MD. J. CONTEMP. LEGAL ISSUES 13, 27 (1992-93).

164. On the difficulty of assessing wetland values and functions and the challenge to develop uniform assessment methodology, see Jon Kusler & William Niering, *Wetland Assessment: Have We Lost Our Way?*, 20 NAT'L WETLANDS NEWSL. 1 (Mar.-Apr. 1998); Noelle Haner-Dorr, *All Wet: State Blasts Land Rules*, ORLANDO BUS. J. (May 20, 2002), *available at* http://orlando.bizjournals.com/orlando/stories/2002/05/20/story2.html (describing lack of success by Florida in developing a uniform assessment methodology). On the importance of considering a wide range of values in assessing the adequacy of mitigation, see Dennis M. King & Luke W. Herbert, *The Fungibility of Wetlands*, 19 NAT'L WETLANDS NEWSL. 10 (Sept.-Oct. 1997).

played by wetlands when they are dry—their capacity to accommodate, hold, and move water—is overshadowed by the focus on wetness and proximity to water. Wetlands' periodic dryness becomes a shortcoming in place of a virtue. The temptation is strong to focus on a narrow array of characteristics (e.g., wetness and proximity) and to exclude consideration of a whole host of values and functions wetlands serve, including biodiversity, aesthetic, cultural, recreational, and spiritual values. These are swept out of the debate, neither sufficiently technical nor sufficiently as easily-applied standards for defining wetlands' boundaries.

The very decision to focus primarily on delineation is thus ultimately value-laden. To join issue over what areas are properly defined as wetlands engages debate on the task of drawing boundaries, of categorizing. Solving these challenges demands that we identify what is uniform and static about wetlands and what can be identified and assessed in a workable delineation method.[165] The varied, dynamic, and periodic aspects of wetlands inevitably prove harder to trap in a definition or a workable delineation method.[166] Absent from and obscured by the debate about delineation is open discussion of the purpose for which we are defining wetlands' reach. Yet this is critical to settling the question of the proper boundary to set. Determining why we regulate wetlands, with what goal, is key to determining an appropriate delineation method or jurisdictional boundary. For example, if the purpose of delineation were to determine what areas are unsafe in their present condition for construction of dwellings, or for location of septic tanks, many people who urge a narrow definition would willingly accept a broader delineation.[167] The purpose of regulation and its objective are relevant to determining how we define wetlands' bounds.

Instead of discussing the appropriate goal, we debate the appropriate delineation technique, conducting a coded and necessarily imprecise dialogue about the value of wetlands and the goals of regulation. The debate on definitions is likely to continue unabated and unresolved until we clarify the underlying purpose that delineation serves. The ground on which the battles over jurisdiction and delineation are fought offers little possibility for clarifying national goals or policy. The two outcomes possible from debates over delineation are to speed loss of wetlands or to slow it somewhat further. As Part V of this Article suggests, whatever the outcome of these arguments, the rate of loss is significant. The 1991 delineation manual could have exposed millions of acres by the stroke of a pen. Proposed but withdrawn regulatory revisions in the wake of *SWANCC* promised to do the

165. Although I maintain that the debate over jurisdiction ultimately favors a focus on a narrow range of quantifiable attributes, the results of litigation over jurisdiction has not uniformly narrowed the range of the agency's exercise of its authority. The landmark case of *Natural Resources Defense Council, Inc. v. Callaway*, 392 F. Supp. 685 (D.C. Cir. 1975), for example, focused on the proper scope of jurisdiction and resulted in a significant expansion of the Corps' recognized jurisdiction.

166. *See* Kusler, *supra* note 17, at 30.

167. *Id.* at 10.

same. The endless war over delineation and jurisdiction will never create a context likely to produce a discussion of national goals and policy.

*2. Activities Regulated by Section 404*

The legacy of controversy over which activities fall under section 404 reflects one of section 404's structural limitations in particular: the adoption of a pollution control approach. As with jurisdiction and delineation, it is logical that we have had controversy over what activities are covered by section 404 in implementing the statute, given the statute's inherent limitations. The focus on what constitutes the discharge of dredged and fill material seems to generate endless questions that distract energy from a broader focus on goals and policy development. The questions are sometimes meaningless in relation to wetlands policy because they lack a direct correlation with achieving wetlands conservation.

As with the debates over jurisdiction and delineation, the outside limits of debate are narrowed when conflict focuses on the activities regulated as discharges under section 404. Even broadly interpreted, the scope of activities subject to regulation under section 404 is widely acknowledged to be inadequate to achieve wetland conservation. These conflicts offer no promise of a context for developing coherent wetlands policy. The focus is entirely on determining which methods employed to intentionally alter wetlands will be regulated. The question is not even which methods should be prohibited, only which should be subject to a permit requirement. Thus, section 404's pollution control approach operates like a broad mesh sieve, allowing many categories of degrading activities to escape regulatory review altogether. Even those activities subject to permitting requirements will often be permitted.

The controversies spawned by section 404's focus on specific polluting activities may also provide a distorted context for considering wetlands policy. Value conflicts are projected onto technical questions about whether various dredging or land clearing practices entail a discharge. As with jurisdiction and delineation controversies, these tend to flatten the core value questions into disputes about landowners' rights and technical rules.

Nonetheless, as with jurisdiction and delineation, the stakes are high, generating conflict. Advocates have targeted litigation to address those activities that are most likely to produce significant rewards from their particular perspective. The resources devoted to litigating the Tulloch Rule, for example, reflect the broad impact this issue has. While we may recognize the practical importance of this issue, it is important to remain mindful that these conflicts only slow or speed the steady loss of wetlands and move us no closer to developing a coherent policy.

## V. FACTS WE KNOW AND FAIL TO LOVE

"Keats said a long time ago, 'a fact is not a truth until you love it.'"[168]

In the thirty years that advocates and administrations have struggled to gain control over section 404's direction indirectly, we have managed to ignore important facts—facts that are almost too obvious to bear repeating at this late date. These facts fall into two categories: (1) facts relevant to the values and priority we assign wetland conservation in relation to other values, and (2) facts that document our current practices and their impact. In part, the failure to consider these facts results from the focus on the distracting battles described above, in place of consideration of the broader questions of what we are doing and what we value. Perhaps through excessive familiarity these facts have also become banal and we cease to be aware of them or are numb to their power. Perhaps we ignore them because the challenge they imply places too much at risk to bear thinking, the strategy they suggest is outside the range of what we are willing to gamble. In short, perhaps we fail to love them. Whatever the reason for our failure to embrace these facts, acting on them as truths represents a key to developing a successful conservation policy for wetlands.

### *A. The Value of Wetlands*

The facts regarding the value of wetlands are so often repeated as to be commonplace. They are well established scientifically and largely unchallenged. Wetlands provide fish and wildlife habitat, essential breeding and nursery areas for many species including economically-important shellfish, and habitat and food for migrating birds; water supply protection through recharge; water quality protection through purification; flood control; erosion and shoreline protection by binding stream banks and absorbing wave energy; outdoor recreation opportunities for hunters and bird and wildlife watchers; and education and research benefits.[169] Endangered species' use of and reliance on wetlands has been documented.[170] A recent study documents a less-often-touted value and service provided by wetlands: that wetlands have significant effects on climate by moderating temperatures and protecting agricultural areas from freezes that damage crops.[171]

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168. Richard Tillinghast, *An Interview with Shelby Foote,* PLOUGHSHARES LITERARY J., Fall 1993, *available at* http://www.pshares.org/issues/articlePrint.cfm?prmArticleID=1525.htm (quoting Shelby Foote).

169. MARK S. DENNISON & JAMES F. BERRY, WETLANDS: GUIDE TO SCIENCE, LAW AND TECHNOLOGY 55-63 (1993); WORLD WILDLIFE FUND, STATEWIDE WETLANDS STRATEGIES: A GUIDE TO PROTECTING AND MANAGING THE RESOURCE 4-6 (1992). Presidential candidate George H.W. Bush was restating these in early 1992. *See A Presidential Wetlands Debate*, 14 NAT'L WETLANDS NEWSL. 5 (May-June 1992).

170. U.S. EPA, WETLANDS: FISH AND WILDLIFE HABITAT (July 2002), *available at* http://www.epa.gov/owow/wetlands/fish.html.

171. Curtis H. Marshall et al., *The Impact of Anthropogenci Land-Cover Change on the Florida*

These facts point to an impressive array of values that bridge the economic and the aesthetic. We value the functions and services wetlands provide to broader ecosystems—both those functions and services that benefit humans directly (e.g., flood control and water purification) and those that may provide more indirect or intangible benefits (e.g., fish and wildlife habitat for species that have no economic or recreational value but which we value). There may be disagreement about why we care about these values—whether out of utilitarian impulses or an instinct to respect the intrinsic value of fish, wildlife, and the ecosystems on which they depend, for example. But the values themselves and the facts underlying these values are uncontested.

Although in general it is the opponents of wetlands regulation who claim fairness as a value they seek to protect, [172] there are claims that distributive justice or fairness is promoted by wetland protection, too. If a landowner externalizes costs to the rest of society when she destroys wetlands in order to profit herself, this can be claimed to be not only inefficient but also unfair, just as any pollution imposed on the public is.[173]

Of course, knowing the values associated with protection of wetlands does not resolve the question of what our goal is or should be under section 404 or dictate our policies. One challenge is knowing how to weigh these intangible attributes and non-market services provided by wetlands against other conflicting values, especially those that can be expressed in dollars and cents.[174] But the bare facts that we do know are significant: that wetlands provide defined services and have known attributes that we value.

### *B. Values in Conflict with the Protection of Wetlands*

Wetlands regulation is a continual source of conflict in part because there are values that stand in direct conflict with the values found in wetlands. Unlike the values associated with wetlands, these values have most often been expressed indirectly, in the form of a claim of a legal right—a property right—rather than as an assertion of values. This often expressed concern for private property rights has largely failed to prevail in the courts and in Congress, leaving intact the government's legal right to regulate dredge and fill activities without compensating landowners unless the constitutional threshold for a taking is passed. Property rights advocates' strat-

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*Peninsula: Sea Breezes and Warm Season Sensible Weather*, 132 MONTHLY WEATHER REV. 28 (2003).

172. For the more commonly raised claim that regulation is in conflict with fairness and the controverted facts underlying both sets of claims, see "Values in Conflict with the Protection of Wetlands," *infra.* Part V.B.

173. *See* Christopher H. Schroeder, *Cool Analysis Versus Moral Outrage in the Development of Federal Environmental Criminal Law*, 35 WM. & MARY L. REV. 251, 268 (1993).

174. James Salzman, *Currencies and the Commodification of Environmental Law*, 53 STAN. L. REV. 607 (2000) (discussing the value of efforts to monetize the benefits provided by wetlands and other natural systems); James Salzman et al., *Protecting Ecosystem Services: Science, Economics, and Law*, 20 STAN. ENVTL. L.J. 309, 312 (2001).

egy of claiming a right has often obscured the values that they seek to assert.[175] The polarized conflict has failed to provide a sound debate about the nature of the competing values. Neither ignoring the effects of regulation on landowners, as advocates of conservation may, nor attempting to establish the values at stake through sympathetic anecdotes, as advocates of property rights may, provides the full picture we need if we are to develop a sound policy. The concern for property rights can be translated as expressing three core values—landowners' concern for their autonomy, for their well-being, and for fairness, each of which may be implicated in a given case. Closer consideration of these values is an important aspect of developing a sound wetlands policy.

Autonomy in this context is the value of freedom to act without government interference on wetlands one owns. Autonomy is a value that frequently stands in conflict with the values advanced by environmental regulation, and it is at its strongest where the regulation affects activity on private lands, as with regulation under section 404. Where an individual seeks to engage in activities and regulation prevents or alters those plans, the landowner's autonomy is directly affected.

However, in many cases, the activities are undertaken not by individuals but by economic entities such as corporations. To the extent that corporate actors undertake to dredge or fill wetlands, it is more difficult to claim that the value at stake is autonomy since the corporation is not a human. One response to this problem is to focus on the autonomy of the shareholders of the corporation whose activities are regulated.[176] Adopting this view, the directors and officers of the corporation act as fiduciaries for the shareholders, and, therefore, they seek to assert and protect the shareholders' interest in autonomy.

As a practical matter, this characterization seems to stretch the fiction of the corporate form too far in most situations, except perhaps in the case of small, closely-held businesses. Shareholders of a large land development company or a multinational agribusiness, for example, are unlikely to be aware of or care about the impacts of regulation on their autonomy so much as its impact on their ability to acquire wealth through the activities of the company.[177] Indeed, some shareholders support regulation notwithstanding

175. The claim of property rights is asserted confidently as though claims to property rights always serve a consistent and well-defined set of values. The assertion of the right is most directly countered by a denial of the existence of a right, thus deflecting debate from the question of the underlying values at stake.

176. Other corporate forms, such as limited liability companies and various forms of partnerships, have slightly different structures, but the basic premise remains true. The entity is designed to protect the financial interests of the investors—either through direct management or through management by fiduciaries accountable to the investors.

177. Mark Sagoff's related distinction between the role of a person as consumer and as citizen highlights the way in which people may hold different values when they act in different realms. MARK SAGOFF, THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT (1988). Here I am emphasizing the role of the person as investor, which is closer to that of a consumer (of financial products). The prevalence of mutual funds and of institutional investors as shareholders further weakens the idea that individual shareholders' interest in autonomy is at issue.

its costs to them. In general, it seems fair to say that investing with the goal of acquiring wealth is more often a means by which investors seek to advance their well-being, not a means they pursue to exercise their freedom to dredge or fill wetlands.[178] Regulation reduces the profitability of economic activity in wetlands; thus, it most often affects those linked values of well-being and economic wealth—not the more often identified value of autonomy.

A third value, beyond autonomy and economic well-being that may stand in tension with the values embodied in functioning wetlands, is fairness or distributive justice. Fairness always lurks at the margins of the debate on wetlands, but it is generally addressed obliquely.[179] Those who assert values in opposition to regulation emphasize that most wetlands are privately owned. The entire public derives benefits from the services and values that privately-owned wetlands provide, but the owners of wetlands alone bear a special attendant burden. They have title to the land but cannot develop it without obtaining a permit. The owner of wetlands can thus claim unfairness stemming from the expectation in purchasing the land that it could be developed like all other land.

These claims regarding fairness tread into difficult territory, premised as they are on facts about landowner expectations and knowledge, which facts are not uniform to all landowners and are difficult to discern. Thus, there is a competing set of factual assumptions that challenges the claim that regulation is unfair. This view casts the facts related to landowner expectations and knowledge differently. It emphasizes the history of wetlands regulation and the long tradition of treating wetlands as a common resource subject to the public trust.[180] For thirty years, landowners in the United States have been subject to highly visible restrictions if they purchase and seek to dredge or fill wetlands. Seen from this perspective, a landowner's rights are not unfairly changed by a permit denial or condition imposed today; no new burden has been suddenly imposed. The landowner is not disproportionately or unfairly burdened because in acquiring wetlands, she had reason to know that she was acquiring highly-regulated lands. The factual premise here is that it is reasonable to expect a landowner to be mindful of the limited rights associated with wetlands when purchasing them. The debate about values depends on the facts, including when the land was purchased, knowledge about the land and familiarity with the law, and judgments regarding what expectations are reasonable.

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178. The legislative proposals from those who oppose wetlands regulation tend to confirm this identification of pursuit of economic wealth as the primary value at stake. Most of the proposed legislation in the 1990s focused on requiring governmental payments to landowners who were not permitted to develop wetlands rather than on removing the restrictions on their autonomy. *See, e.g.*, Private Property Protection Act of 1995, H.R. 925, 104th Cong. (1st Sess. 1995).

179. Houck, *Open Letter to Reilly*, *supra* note 72.

180. Fred P. Bosselman, *Limitations Inherent in the Title to Wetlands at Common Law*, 15 STAN. ENVTL. L.J. 247 (1996); Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 457-78 (1970).

Thus, in debates about wetlands regulation, those claiming that regulation is unfair generally present the picture of an individual landowner who was reasonably unaware of having bought wetlands. Those emphasizing the fairness of regulation point to cases of large professional development companies that have recently and knowingly purchased wetlands, well aware of the regulatory implications. Resolving the underlying policy questions is not easy, but open discussion of the factual assumptions relevant to fairness is a first step.

One foundation for policy would be to try to discern the expectations and knowledge of each owner of wetlands on a case-by-case basis, an approach that seems excessively costly were it even possible. An alternative would be to make assumptions or generalizations about the level of knowledge and expectations of landowners based on the best summary information we can reasonably obtain.[181] Of course, no set of assumptions will be accurate in every case. However, if we face the facts honestly and accept them, we may be able to discern categories that reflect significant differences among landowner situations. It is possible that we could identify a class of cases where fairness is most likely to be implicated and develop a policy that treated different landowners differently where fairness concerns are present.[182] By sometimes failing to embrace the relevance of economic well-being and fairness, conservationists invite those who oppose regulation to claim these values and control the debate about them. The result is a policy debated dominated by anecdotes and counter-anecdotes that never fairly engage or resolve the issue.

Beyond these rational values of human well-being, autonomy, and fairness, the incessant pressure to convert wetlands may also reflect a deeper, less rational impulse to resolve the uncomfortable ambiguity wetlands represent, to order a complex and seemingly chaotic landscape, to control it and render it more hospitable to direct human occupation. Beyond the practical constraints that wetlands impose on human domination, even their poetic functions are limited.[183] They lack a connection to a positive mythology. Wetlands may still generate a visceral sense of alienation. Even in creating value for humans, they remain apart: much of the value they create is through the indirect services they perform without human intervention or

181. For example, surveys to determine the level of public awareness of wetlands regulation, the frequency with which owners purchase wetlands without knowing of their existence, and other relevant facts could provide a useful base of information from which to derive reasonable assumptions.

182. The test under the Fifth Amendment that separates compensable from non-compensable governmental incursions has long been analyzed as drawing a line based on factual distinctions, in part to reflect fairness concerns. Frank I. Michelman, *Property, Utility and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165 (1967). It is possible that aspects of the current program, such as the general permit covering residential, commercial, and institutional development that cause no greater than one-half acre loss of non-tidal waters, already address fairness concerns. This and other general permits cover many of the activities small non-corporate landowners most often engage in.

183. For example, wetlands often fail to evoke the qualities that underlie the poetic significance of water, such as a mirror-like quality, clarity, and purity. *See, e.g.*, GASTON BACHELARD, WATER AND DREAMS: AN ESSAY ON THE IMAGINATION OF MATTER 14, 20-22,133-35 (Edith R. Farrell trans., 1983).

participation, rather than as a result of human occupation. The tremendous public education and shift in attitudes since the 1970s has done much to overcome the historic attitudes that cast wetlands as sites of disease and danger. But recognizing that some ambivalence remains may help to guide future efforts to develop a coherent policy. If reluctance to embrace the value of wetlands plays a role in the public policy debate, it operates as a hidden counterweight against wetlands conservation. Perhaps the balance to this force lies in the facts about wetland loss. If ambivalence limits our embrace of the values of wetlands, knowledge of the ongoing loss and threat of loss may provide the needed motivation to shake any remaining cloud of irrational ambivalence.

### *C. The Ongoing Loss of Wetlands and the Role of Regulation*

The central facts about loss of wetlands are well known and easily grasped: we have destroyed vast amounts of wetlands and continue to preside over their destruction. A series of government reports issued in the 1980s and 1990s provided the first comprehensive evaluation of the historic and ongoing loss of wetlands in the United States.[184] These studies paint a picture of dramatic wetland loss. Fifty percent of the wetlands in the forty-eight coterminous states disappeared between the 1780s and 1983, representing an average annual loss of roughly 550,000 acres per year that continued throughout this two-hundred-year period.[185] Policies that encouraged wetlands conversion and the persistent pressures of agriculture, urban development, transportation, and water control and supply projects contributed to drainage and filling of wetlands throughout this period.[186]

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184. THOMAS. E. DAHL, U.S. DEP'T OF THE INTERIOR, STATUS AND TRENDS OF WETLANDS IN THE CONTERMINOUS UNITED STATES, 1986 TO 1997 (2000) [hereinafter 2000 STATUS AND TRENDS]; THOMAS E. DAHL, U.S. DEP'T OF THE INTERIOR, WETLANDS LOSSES IN THE UNITED STATES 1780S TO 1980S (1999) [hereinafter WETLANDS LOSSES]; THOMAS E. DAHL & GREGORY J. ALLORD, U.S. GEOLOGICAL SURVEY, TECHNICAL ASPECTS OF WETLANDS: HISTORY OF WETLANDS IN THE CONTERMINOUS UNITED STATES (1990), *available at* http://water.usgs.gov/nwsum/WSP2425/history.html [hereinafter TECHNICAL ASPECTS OF WETLANDS]; THOMAS E. DAHL & CRAIG E. JOHNSON, U.S. DEP'T OF THE INTERIOR, STATUS AND TRENDS OF WETLANDS IN THE CONTERMINOUS UNITED STATES, MID-1970S TO MID-1980S (1991) [hereinafter 1991 STATUS AND TRENDS]; RALPH W. TINER, JR., U.S. DEP'T OF THE INTERIOR, WETLANDS OF THE UNITED STATES: CURRENT STATUS AND RECENT TRENDS (1984) [hereinafter 1984 STATUS AND TRENDS]; U.S. CONGRESS, OFFICE OF TECH. ASSESSMENT, WETLANDS: THEIR USE AND REGULATION (1984) [hereinafter WETLANDS USE AND REGULATION].

185. The U.S. Fish and Wildlife Service estimates that Alaska had 170 million acres of wetlands in the 1780s and the coterminous forty-eight states had 221 million acres. *See* WETLANDS LOSSES, *supra* note 184, at 1. By 1983, only 103.3 million acres of wetlands remained in the lower forty-eight states, less than half of the wetlands present in the 1780s. *See* 1991 STATUS AND TRENDS, *supra* note 184, at 1. An estimated 97.8 million acres of freshwater wetlands and 5.5 million acres of estuarine (coastal) wetlands remained as of 1983. *Id.*

186. *See* TECHNICAL ASPECTS OF WETLANDS, *supra* note 184, at 2-9. The federal government promoted wetland destruction and land drainage through a variety of legislative and policy instruments, including the Watershed Protection and Flood Prevention Act, several programs administered by the U.S. Department of Agriculture, and the Agriculture Conservation Program (whose policies caused wetland losses averaging 550,000 acres each year from the mid-1950s to the mid-1970s). *Id.* Agriculture alone was responsible for more than 80% of wetlands loss. *Id.*

The 1960s marked the beginning of a sea change in attitudes towards wetlands, but economic pressure to drain and fill wetlands continued.[187] The enactment of section 404 in 1972 began a shift in policies away from promoting wetlands destruction and towards wetlands conservation. Since the 1970s, the rate of wetlands loss has slowed significantly.[188] Our techniques for calculating even ongoing gross acreage losses are crude and imperfect, but the pace of net wetlands loss seems to have slowed from 550,000 acres per year to somewhere between 58,000 and 90,000 acres per year.[189] When one considers the figures on wetlands loss over time, the trend is encouraging. There is steady progress that some believe will culminate in no net loss and others claim has already produced no net loss.[190]

Beyond the total acreage lost, government reports detail the complex dance as some wetlands are filled to become uplands or dredged to become deepwater.[191] Others are converted by humans from forested wetlands like swamps into emergent and shrub wetlands including marshes.[192] At the same time, uplands are scraped down to increase the total stock of wetlands, largely ponds.[193] We are moving the matrix of wetlands around, reconfiguring the landscape at the same time that we diminish the total acreage that constitutes wetlands.

This picture of slowed loss of wetlands is encouraging, but to evaluate the role of section 404 in protecting wetlands demands that we also look behind these numbers at the rate of loss attributable to different activities and the impact of section 404 on these various activities. We can refine our understanding further by considering the distinct causes of loss and patterns of loss for freshwater and coastal wetlands[194] and the regional patterns of

187. 2000 STATUS AND TRENDS, *supra* note 184, at 30-32.

188. *Id.* at 34.

189. Dahl calculates the average rate of loss over the period from the mid-1950s to the mid-1970s at 458,000 acres per year. *See id.* Between 1970 and 1980, the average annual net wetland loss for the conterminous United States was 290,000 acres of wetlands each year. *Id.* Between 1986 and 1997, the net loss of wetlands in the conterminous United States appeared to slow dramatically. The total wetland loss for the decade amounted to only 644,000 acres, or an average of 58,500 acres of wetlands per year. *Id.* at 9, 34. A contrasting assessment by the Natural Resource Conservation Service for the overlapping period of 1982 through 1992 suggests a rate of loss of 70,000 to 90,000 acres a year on non-federal lands. Ralph Heimlich & Jeanne Melanson, *Wetlands Lost, Wetlands Gained,* 17 NAT'L WETLANDS NEWSL. 1 (May-June 1995).

190. *See* WETLANDS AND AGRICULTURE, *supra* note 24, at 53 (noting progress towards no net loss and assessing role of current programs in continuing and sustaining gains); *see also* Jonathan Tolman, *Achieving No Net Loss*, 17 NAT'L WETLANDS NEWSL. 5 (May-June 1995) (claiming that acreage of wetlands restored under the Partners for Wildlife Program, North American Waterfowl Management Plan, Wetlands Reserve Program, and mitigation under section 404 exceeded acreage lost in 1994). These latter claims are hard to verify and reflect a focus on acreage without any assessment of functions and values.

191. 1991 STATUS AND TRENDS, *supra* note 184, at 10-13.

192. *Id.*

193. *Id.*

194. From the 1950s to the 1970s, close to 90% of conversions from wetland to non-wetland areas occurred in inland freshwater areas. WETLANDS USE AND REGULATION, *supra* note 184, at 87. Approximately 80% of actual losses in these freshwater areas involved the draining and clearing of inland wetlands for agricultural purposes; 8% resulted from the construction of impoundments and large reservoirs; 6% from urbanization; and 6% from other causes, including mining, forestry, and road construc-

loss.[195] Destruction of wetlands for agriculture has been the leading cause of wetlands loss historically and continues to be a major factor.[196] However, the contribution from agriculture to total losses has fallen dramatically in recent years.[197] Programs such as the Conservation Reserve Program, Partners in Wildlife, and the North American Waterfowl Conservation Plan, coupled with the disincentives of Swampbuster, have played a leading role both in discouraging conversion and achieving conservation and restoration.

It is also important to consider the quality and function of the remaining acreage of wetlands. The impact of human activities on the overall quality of the remaining wetlands in terms of the functions and values they embody is uncertain.[198] What we know suggests that the loss figures would be considerably higher if we were able to assess and quantify the reduced or lost functions and values of those wetlands we count as preserved.[199] The national studies of wetland acreage explicitly disclaim any assessment of quality.[200] And where gains in wetlands are reported, the types of wetlands created or restored may not replace lost functions.[201] By these measures, the steady loss continues.

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tion. *Id.* Of the losses of coastal wetlands, approximately 56% resulted from dredging for marinas, canals, and port development, and to a lesser extent from shoreline erosion; 22% from urbanization; 14% from disposing of dredged material or the creation of beaches; 6% from natural or man-induced transition of saltwater wetlands to freshwater wetlands; and 2% from agriculture. *Id.*

195. *See* Babcock, *supra* note 11, at 313-17. Various reports from the Department of the Interior based on the National Wetlands Inventory have provided some insight into relative losses in different regions of the United States. *See* 2000 STATUS AND TRENDS, *supra* note 184, at 54-55; A REPORT TO CONGRESS BY THE SECRETARY OF THE INTERIOR, THE IMPACT OF FEDERAL PROGRAMS ON WETLANDS (1988); RALPH W. TINER ET AL., U.S. DEP'T OF THE INTERIOR, GEOGRAPHICALLY ISOLATED WETLANDS: A PRELIMINARY ASSESSMENT OF THEIR CHARACTERISTICS AND STATUS IN SELECTED AREAS OF THE UNITED STATES (June 2002), *available at* http://www.wetlands.fws.gov/Pubs_Reports/isolated/report.htm.

196. Estimates for the period from the mid-1950s to the mid-1970s show 80% of freshwater wetland loss for agricultural purposes. WETLANDS USE AND REGULATION, *supra* note 184, at 87. Conversions to agricultural land uses accounted for 54% of the losses of wetlands between 1970 and 1980, while conversions to other uses accounted for 41% of the wetlands losses. 1991 STATUS AND TRENDS, *supra* note 184, at 15. Between 1986 and 1997, the losses attributed to agriculture dropped 26% of the total. *Id.* at 29, 45. However, this number very likely over-reports the conversion to non-agricultural uses because a substantial part of this acreage had been cleared and drained but not yet put to an identifiable use—agricultural or not. 1991 STATUS AND TRENDS, *supra* note 184, at 2. Thus, it seems likely that some proportion of these acres were converted for future agricultural purposes.

197. 2000 STATUS AND TRENDS, *supra* note 184, at 45.

198. *See* 1991 STATUS AND TRENDS, *supra* note 184, at 4.

199. This would include wetlands that lose some of their values and functions when they are surrounded by development, as well as created wetlands that may appear as wetlands but have a low long-term success rate. *See* 2000 STATUS AND TRENDS, *supra* note 184, at 45 (noting that 40% of sampled freshwater wetlands were adjacent to or on agricultural lands and potentially adversely affected); Alyson C. Flournoy, *Preserving Dynamic Systems: Wetlands, Ecology, and Law*, 7 DUKE ENVTL. L. & POL'Y F. 105, 120-22 (1996) [hereinafter Flournoy, *Preserving Dynamic Systems*]; Ann M. Redmond, *Florida Moves to Mitigation Banking*, NAT'L WETLANDS NEWSL. 14 (Nov.-Dec. 1995).

200. *See, e.g.*, 1991 STATUS AND TRENDS, *supra* note 184, at 4.

201. For example, a dramatic gain of 2.6 million acres in open ponds since the mid-1950s likely reflects stormwater retention pond creation. From 1985 to 1995, this category of wetland increased 14% to reach 5.2 million acres, while freshwater (palustrine) wetlands lost 870,000 acres. *See* Teresa Opheim, *Wetland Losses Continue but have Slowed*, 20 NAT'L WETLANDS NEWSL. 7 (Nov.-Dec. 1997).

Unless there is an effective method under the section 404 program for the Corps to identify thresholds below which certain values and functions are irretrievably lost, and to stop that loss, section 404's main long-term legacy will have been to slow the rate of loss of wetlands and the values they provide. This is a value, but a very compromised one. It has value in that it buys time for programs that restore wetlands and acquire them for conservation.[202] Given the diversity of values that the Corps public interest review considers, the lack of any absolute limit on Corps discretion to grant permits, and the lack of adequate information about cumulative loss of values and functions, the most likely prospect is a continued steady loss of wetland functions and values.

An important question to ask is what role 404 has played. To the extent the rate of loss has slowed, it seems unlikely that section 404 is entirely responsible for the decline in the rate of wetlands loss,[203] although section 404 has undoubtedly played some role. It is interesting to inquire as to how section 404 has effectively slowed development. One impulse is to assume that section 404 stops development by denying permits to applicants who would otherwise have filled wetlands.[204] But the available figures tell a different story. Applicants who pursue the process to the end more often than not receive a permit—in some districts, overwhelmingly so.[205] During fiscal years 1996 to 1999, only 0.3% of individual permit applications were denied.[206] A journalist's study of permitting in Florida revealed that the Corps approved 8300 permits and denied one between 1998 and 2002.[207] Between 1992 and June 2001, the same study showed that 25,767 permits were granted and thirty-four were denied.[208] Meanwhile, the vast majority of activities authorized nationwide, though not the majority of the acreage affected, occur without review under general permits.[209]

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202. *See* Houck, *War*, *supra* note 11, at 365.

203. Various factors appear to have contributed to the slower pace of wetlands loss. The slowed rate of conversion to farmland in particular seems to reflect the suite of agricultural programs that encourage wetland conservation and discourage wetlands destruction. These include the Swampbuster Program, the Wetlands Reserve Programs, the Water Bank Program for Wetlands Preservation, as well as programs under the North American Waterfowl Management Plan and Partners for Wildlife. *See infra* note 214. Analysts also point to shifts in agricultural commodity markets that reduced incentives to convert wetlands and to widespread public awareness and changed attitudes towards wetlands, Heimlich & Melanson, *supra* note 189, at 1, 23-25. Nonetheless, a 1988 report by the Department of the Interior listed among the reasons why farmers sometimes converted wetlands in the Prairie Pothole region notwithstanding the lack of economic benefit that "[s]ome operators seem to enjoy engaging in drainage in their spare time." A REPORT TO CONGRESS BY THE SECRETARY OF THE INTERIOR, *supra* note 195, at 88.

204. Searchinger, *supra* note 163, at 24.

205. *See id.*; Ted Brown, *Clarifying Classification*, 15 NAT'L WETLANDS NEWSL. 9 (Jan.-Feb. 1993) (reporting on Arvida's success in obtaining permits).

206. Jeffrey A. Zinn & Claudia Copeland, *Congressional Research Service Issue Brief for Congress: Wetlands Issues*, at CRS-5 (updated Oct. 9, 2002).

207. Derek Catron, *Wetlands Under Siege*, DAYTONA BEACH NEWS-J., Jan. 27, 2002, at 1A.

208. *Id.*

209. General permits accounted for 84% of all permit requests between 1996 and 1999. Zinn & Copeland, *supra* note 206, at CRS-5. According to the National Research Council, general permits generate approximately 12,000 acres of wetland loss per year. COMPENSATING FOR WETLAND LOSSES, *supra* note 9, at 3, 17.

So any success in slowing wetlands loss seems to come largely from something other than the denial of permits. As the Corps has frequently pointed out in defending its record, many projects are dropped or modified to satisfy Corps concerns, reducing the wetland acreage affected.[210] Thus, even an approval may represent a victory for protection of wetlands values where the project has been modified to preserve relevant wetland values. Unfortunately, the Corps has not maintained a record of the acreage thus preserved.[211]

Economic interests who wish to alter wetlands describe the high cost in time and dollars of obtaining a section 404 permit.[212] It seems likely, as others have claimed, that the delay and cost of obtaining a section 404 permit have played some role in deterring the destruction of wetlands.[213] Though reliance on such a crudely-shaped tool as regulatory delay and costs associated with the permit process might horrify economists, the regulatory cost of permitting under section 404 may be forcing landowners to internalize some or all of the costs imposed on society by wetlands development. Without regulation, there are clearly social costs associated with the individual and cumulative loss of wetlands, and these costs are not borne exclusively by those who develop wetlands. Those downstream and those who value the wildlife associated with the wetlands or other wetlands in the same basin also bear the cost of the loss of the functions and values that we know wetlands protect.[214]

So if we look at wetlands development as an activity that imposes external costs on society, perhaps the costs associated with obtaining a permit, while not designed as nor constituting an accurate measure of these external costs, serve as surrogates. Economics has not yet developed the capacity to produce a consensus methodology for valuing wetlands in dollars, and given the complexity of this task, we are unlikely to achieve such advances anytime soon.[215] In the meantime, however imperfect, perhaps the regulatory

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210. GAO, CORPS ADMIN., *supra* note 9, at 22. Withdrawals accounted for 8.7% of all applications in fiscal year 1994, but over half of these withdrawals were because of errors in recordkeeping or because no permit or only a general permit was required. Teresa Opheim, *Section 404's Efficiency: A Spin at the Numbers*, 18 NAT'L WETLANDS NEWSL. 2, 3 (Mar.-Apr. 1996). Even where permits are granted, mitigation required under section 404 has offset losses, particularly through restoration. For a discussion on the qualified nature of mitigation's success, see Houck, *More Net Loss of Wetlands*, *supra* note 53.

211. In its response to the 1988 GAO study, the Corps pointed to both the limited value of such statistics and the high cost of assembling them. *See* GAO, CORPS ADMIN., *supra* note 9, at 95 (Department of Defense comments).

212. *See* Michael L. Davis, *A More Effective and Flexible Section 404*, 17 NAT'L WETLANDS NEWSL. 7 (July-Aug. 1995); Deely & Latham, *supra* note 46, at 968 (describing delays and uncertainty involved in jurisdictional determinations).

213. *See* Ralph Heimlich et al., *Sustaining Our Wetland Gains*, 19 NAT'L WETLANDS NEWSL. 5, 8-9 (July-Aug. 1997); Letter to the Editor from Ralph Heimlich, 18 NAT'L WETLANDS NEWSL. 3 (July-Aug.1996); Catron, *supra* note 207 (noting comments of former Corps attorney Royal Gardner on how cost and delay discourage many potential applicants); Department of Defense Comments, *reprinted in* GAO, CORPS ADMIN., *supra* note 9, at 95.

214. *See* PAUL F. SCODARI, MEASURING THE BENEFITS OF FEDERAL WETLANDS PROGRAMS 13-14 (1997); Davis, *supra* note 212, at 7.

215. SCODARI, *supra* note 214, at 3-4, 64-69, 75-76.

costs imposed by section 404 are a significant and valid part of section 404's success: by creating an effective set of economic disincentives for wetlands regulation, Congress has slowed the pace of development.

We have no way of measuring whether the owners of the most valuable wetlands are those who are deterred. But combined with the reduced impacts that result from permit denials and modifications, deterrence may indeed be contributing to section 404's impact. One can argue whether the costs imposed are too high or too low, but certainly a regime with no costs undervalues wetlands. And given the pace at which wetland loss continues, it seems that if we want to preserve wetlands values, not merely slow their loss, then current constraints undervalue wetlands.

Information on the Corps' regulatory program suggests that funding of section 404 implementation fails to enable the program to meet its potential. The move to general permits and the breadth of the general permit program reflect, in part, the lack of agency resources relative to the volume of permit applications. The pressures on the Corps to speed permit processing in recent years have been substantial.[216] The Corps has tried to respond to criticism of the delay in permitting by the regulated community, but without additional resources, the only available avenue is to reduce the time spent on each. Nor have significant new resources been added following reports that criticized the inadequate review, monitoring, and enforcement practices.[217] Site visits are a rarity except on large projects.[218] And monitoring of mitigation is very limited.[219]

Given the limitations of our understanding, rules and practices that allow ongoing loss of wetlands without any meaningful goal or policy place what we value about wetlands at risk. The story of the farmer and the pig with the wooden leg captures best the path we are on.[220] We are consuming wetlands and simultaneously extolling their virtues as functioning ecosystems. An analogy would be to permit private actors to dismantle the electrical grid piece-by-piece, with no clear stopping point determined, believing that the grid will continue to function simply because we are minimizing the pieces we remove from it. Our policies with respect to the complex interrelated matrix of wetlands are the equivalent of such a policy. But if we face the facts, we know that systems will fail. Services are lost, at some point irretrievably. Moreover, because wetlands operate in a scattered matrix

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216. *See* Catron, *supra* note 207 (citing comments by former Corps employees on the pressure to grant permits and to act quickly as part of job performance).

217. *See, e.g.*, COMPENSATING FOR WETLAND LOSSES, *supra* note 9, at 101-02 (citing inadequacy of enforcement and monitoring and inadequate resources to review permit applications). Funding for specific new initiatives, such as $5 million appropriated in fiscal year 2000 to establish administrative appeals of jurisdictional determinations, may speed permit review and ensure that determinations are not overly broad but will not enhance consideration of environmental values. *Id.*

218. Catron, *supra* note 207 (quoting a Corps project manager in Florida).

219. COMPENSATING FOR WETLAND LOSSES, *supra* note 9, at 101.

220. *See* Alyson C. Flournoy, *Restoration Rx: An Evaluation and Prescription*, 42 ARIZ. L. REV. 187 (2000). This is based on a story appearing in DAVID R. COLBURN & LANCE DEHAVEN-SMITH, GOVERNMENT IN THE SUNSHINE STATE: FLORIDA SINCE STATEHOOD 118 (1999).

across the landscape, they are lost irretrievably at each point in the landscape where they are removed.[221] No one can calculate the long-term impact of these changes. Nor can we anticipate the costs that we will face when we confront the results of present policies in an uncertain future environment where the unknowable impacts of global warming become an irreversible reality.

## VI. CONCLUSION: TOWARD A NATIONAL POLICY ON WETLANDS

This view of the first thirty years under section 404 suggests a need to step back and engage the broader question of our national policy on wetlands. Essential to any debate on objectives and goals is straightforward discussion of the relevant values at stake, grounded in reality rather than myth. Resolving the issues raised by such a discussion may ultimately demand new information beyond what is currently available. Greater clarity about our values will help in the decision about whether to commit further resources to advance our knowledge base.

As we consider the tools available to accomplish our goals, we need to consider all available policy tools and the costs associated with pursuing various objectives under different strategies. Both the structural impediments inherent in section 404 and the important role in wetlands conservation played by programs other than section 404 counsel that the focus of debate be broader than section 404.[222] We need a national policy dialogue that is broad enough to encompass regulatory and non-regulatory initiatives, to address the threats from both urban and agricultural conversion, and to consider the costs and benefits of wetland protection under a range of strategies.[223]

Beyond the reaches of section 404, complementary wetlands conservation initiatives under the auspices of the Department of Agriculture and the Department of the Interior have helped to compensate for the shortcomings of section 404. Beginning with the highly successful Swampbuster program in 1985, and including the Wetlands Reserve Program and the North American Waterfowl Management Plan, Congress has enacted and funded programs that have both discouraged wetlands conversion and subsidized wetland conservation and restoration.[224] This resort to non-regulatory

221. Successful mitigation or restoration may minimize the loss, but see Flournoy, *Preserving Dynamic Systems*, *supra* note 199, at 126-31, for a brief summary of the limitations of mitigation.

222. The work of several scholars and the conclusions of government reports have documented the inadequacy of section 404 standing alone as a means to protect wetlands. *See* GAO, CORPS ADMIN., *supra* note 9, at 2-4; Babcock, *supra* note 11, at 318-28; Houck, *Alternatives*, *supra* note 11, at 773; Houck, *War*, *supra* note 11, at 361-74.

223. Coordination of federal programs with state and local government conservation programs will also be an important dimension of any policy development process.

224. An analysis of Swampbuster by the Department of Agriculture predicted that without this program an additional 5.8 to 13.2 million acres of wetlands would be converted. WETLANDS AND AGRICULTURE, *supra* note 24, at 21, 35. The Wetlands Reserve Program and Emergency Wetlands Reserve Program protected some 533,026 acres between 1992 and 1997. *Id.* at 45.

strategies has been widely praised and is now viewed by most as an essential component of any comprehensive effort at wetlands conservation.[225] The annual challenge to secure funding to continue these programs and the shift in agriculture subsidy policies may necessitate some rethinking of these programs. Moreover, their relationship to section 404 needs to be better considered and funding strategies and goals integrated. For example, determining the appropriate level of funding for the Wetlands Reserve Program should not happen solely as part of the debate on the annual farm bill completely independent from consideration of the funding needs for effective monitoring and enforcement of section 404 and the likely gains in wetland conservation through each investment.

It is true that the risks associated with opening political debate are substantial for anyone who cares about wetland conservation. Conservationists may fear the fact that neither the current Administration nor the present Congress seems likely to endorse a strong wetland policy. At the same time, the lessons learned from the failed environmental initiatives in the Contract with America impel caution about opening debate among those who favor less regulation as well. But at some point, the risks of not opening the debate are higher than the risks of doing so. This Article suggests what we can learn from the first thirty years under section 404 that could productively inform such a debate, should an opportune moment arise.

The Forum convened by the Conservation Foundation in 1987 promised to initiate just such a dialogue on wetlands conservation. Unfortunately, its bottom line—no net loss—proved too easily claimed as a political slogan. No net loss has served to stifle meaningful policy debate, falsely employed to assure the public that there is nothing at risk from current practices and policies. But the report of the Forum, as well as the work of scholars, nongovernmental organizations, and agencies, has generated a wealth of interesting policy proposals over the last twenty years that warrants full review and consideration as we move forward. The key to success will be a broad focus and a grounding in good information.

Without an honest policy debate that openly addresses the questions of what we value and why, and the effect of current practices on that which we value, we will never develop policies that can be enforced, that can mature, and that have long-term effect. Without such policies, those constrained by section 404 will pursue a strategy of endless technical attacks on the scope of section 404. And those who wish to strengthen it will continue to offer the same rationales for enhancing or maintaining its protection, without meaningful engagement on the issue of the best means and the cost. Our national "policy" on wetlands will meander, blown back and forth by political winds, never maturing. And we will continue to suffer a slow, steady

225. Broader acquisition and restoration strategies and potential funding sources are discussed in Houck, *War*, *supra* note 11, at 367-69.

bleed from our stock of wetlands while sustaining the myth that they are protected.

There is no formula that will successfully transform the debate on wetlands. Indeed, as with much environmental policy and law, change may depend on a chance occurrence that galvanizes public interest and attention—new data on wetlands status and trends, television coverage of a dramatic event like flooding exacerbated by the collapse of wetland functions, or concern about the impacts of global warming on coastal wetlands. The EPA's recent repudiation of its efforts to narrow section 404 jurisdiction in the wake of the *SWANCC* decision suggests that public concern about wetlands remains a political force. Even should an occasion arise to refocus public attention on wetland protection, initiating a national policy dialogue that is not merely reactive will demand leadership, courage, and skill. Without these, section 404 promises to continue its contribution to slowing wetlands loss, or destroying wetlands slowly, as you choose. Notwithstanding its flaws, it deserves a better goal and fate.