Wetlands Conservation and Federal Regulation: Analysis of the Food Security Act's "Swampbuster" Provisions as Amended by the Federal Agriculture Improvement and Reform Act of 1996

by

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WETLANDS CONSERVATION AND FEDERAL REGULATION: ANALYSIS OF THE FOOD SECURITY ACT'S "SWAMPBUSTER" PROVISIONS AS AMENDED BY THE FEDERAL AGRICULTURE IMPROVEMENT AND REFORM ACT OF 1996

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I. PREFACE: RESPONSIBILITY OF THE NATURAL RESOURCES CONSERVATION SERVICE

The efforts of the United States Department of Agriculture's Natural Resources Conservation Service in connection with its jurisdiction over wetland conservation are not widely recognized, despite the fact that these efforts prevent the loss of many wetland acres and result in a variety of ecological and environmental benefits to society. Congress conferred jurisdiction of the Conservation Title of the Food Security Act[1] ("FSA") to the Soil Conservation Service ("SCS") in 1985 and renamed the agency the Natural Resources Conservation Service ("NRCS") in 1994.[2] In addition to demarcating the scope of the NRCS's jurisdiction by defining the term "wetland,"[3] the Conservation Title of the FSA also contains Subchapter III, commonly known as "Swampbuster,"[4] which makes farmers' eligibility for government benefits contingent upon their compliance with wetland conservation guidelines.

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1. Food Security Act of 1985, 16 U.S.C. §§ 3801–3862 (1994).

2. *See* Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994, 7 U.S.C. § 6962(b)(5) (1994).

3. *See* Food Security Act of 1985, 16 U.S.C. § 3801(a)(16) (1994).

4. *See id.* §§ 3821–3824.

The NRCS's jurisdiction over wetlands conservation allows the agency to protect about 92.6 million acres of wetlands[5] located on "agricultural lands."[6] Examining the effect of agriculture on wetlands lost annually between 1982 and 1992, the evidence shows that the NRCS has been an effective watchdog. During this period, development caused 57% of all wetland losses (88,600 acres annually) while agriculture caused only 20% (31,000 acres annually) of all wetland losses.[7] Furthermore, the average annual losses due to agriculture in the 1982–1992 period were eighty percent less than average annual losses in the 1974–1983 period and over ninety percent less than average annual losses in the 1954–1974 period.[8]

Despite this success, many players in the commercial, development, and even environmental worlds do not recognize or appreciate the large role that the NRCS plays in promoting wetlands conservation.[9] In most cases involving wetlands, the agency named as defendant is either the Environmental Protection Agency ("EPA") or the Army Corps of Engineers ("COE"). Why are the EPA and COE involved in so many more legal wetland actions than the

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5. *See* Keith D. Wiebe et al., *Wetlands Potentially Exempted and Converted Under Proposed Delineation Changes*, J. SOIL & WATER CONSERVATION at 403, 405 (Sept.-Oct. 1996); *see also* Ralph Heimlich, economist, Environmental Indicators and Resource Accounting Branch, USDA Economic Research Service, Implications of Proposed Swampbuster Exemptions (Sept. 25, 1995) (unpublished report, on file with author). Technically, all of the 92.6 million acres fall under the concurrent jurisdiction of the Environmental Protection Agency through its implementation of the Clean Water Act. *See* 33 U.S.C. §§ 1251–1387 (1994).

6. A Memorandum of Agreement on wetlands regulations among the Environmental Protection Agency, the Department of Agriculture, the Department of the Interior, and the Department of the Army defines "[a]gricultural lands" as "those lands intensively used and managed for the production of food or fiber to the extent that the natural vegetation has been removed and cannot be used to determine whether the area meets applicable hydrophytic vegetation criteria in making a wetland delineation." EPA, USDA, USDI, DOD, MEMORANDUM OF AGREEMENT CONCERNING THE DELINEATION OF WETLANDS FOR PURPOSES OF SECTION 404 OF THE CLEAN WATER ACT AND SUBTITLE B OF THE FOOD SECURITY ACT 2 (1994) [hereinafter MOA]; *see infra* note 114 (explaning the MOA's purpose).

7. *See* Ralph Heimlich & Jeanne Melanson, *Wetlands Lost, Wetlands Gained*, NAT'L WETLANDS NEWSL. (Environmental Law Inst., Washington, D.C.), May-June 1995, at 1, 23; Ralph Heimlich, economist, Environmental Indicators and Resource Accounting Branch, USDA Economic Research Service, (Nov. 5, 1996) (unpublished report, on file with author).

8. *See* U.S.D.A. Natural Resources Conservation Service, NATIONAL RESOURCES INVENTORY (NRI): A SUMMARY OF NATURAL RESOURCE TRENDS IN THE U.S. BETWEEN 1982 AND 1992, at 4 (1995).

9. On the other hand, many farmers participating in federal farm programs probably refer to the NRCS as the "natural resource police" of wetlands.

NRCS when the NRCS regulates, arguably with more effectiveness, nearly the same amount of wetlands?

An examination of the regulation promulgated by each agency for the protection of wetlands provides a partial answer to this question. This Article, in examining such legislation, pays special attention to the process and effectiveness of the Swampbuster provisions under the Food Security Act. The Article begins with a discussion of the important benefits society can receive as a result of effective regulation of wetlands. The Article also examines several federal, state, and private wetland-oriented programs implemented to increase local and national communities' enjoyment of wetlands.

Next, the Article presents an overview of the inception of federal wetlands regulation. Intermingled within and following the overview of the two mainstream wetland laws, the Clean Water Act and the Food Security Act, the Article examines the definition of a "wetland" and examines how a seemingly simple definition has led to multiple U.S. Supreme Court cases and prolonged disagreement among multiple government agencies and members of Congress.

Finally, the Article considers various recommendations and amendments to the rubric of seemingly chaotic wetland regulation. This Part of the Article includes analyses of bills introduced by the 104th Congress, policy recommendations from the United States Department of Agriculture ("USDA"), and the position of the Clinton Administration's White House Working Group on Wetlands. The Article concludes with a look at the wetlands provisions in the Federal Agriculture Improvement and Reform Act of 1996, an Act reauthorizing the 1985 Food Security Act.[10]

II. WHY REGULATE WETLANDS? WETLAND FUNCTIONS AND VALUES

Some say that "[w]etlands are among the most productive and valuable ecosystems in the world."[11] But why, precisely, are wetlands important enough to justify continued regulation under both

10. *See* 16 U.S.C. § 3822 (1994).

11. Hope Babcock, *Federal Wetlands Regulatory Policy: Up to its Ears in Alligators*, 8 PACE ENVTL. L. REV. 307, 309 (1991).

Swampbuster and the Clean Water Act? This Part will attempt to answer this question by examining the functions served by wetlands and the values they provide.

The term "value" is "often used in an ecological sense to refer to functional processes";[12] for example, primary production that provides food energy that, in turn, drives the ecosystem is a "value."[13] But in an every-day sense, "the word connotes something worthy, desirable, or useful to humans. The reasons that wetlands are often legally protected have to do with their value to society, not with the abstruse ecological processes that occur in wetlands."[14] Although it may be hard to measure the functional processes of wetlands, it is easy to show their value in the common sense of the word.

A. Specific Wetland Functions and Values Gained by Society

1. Habitat Values

When wetland habitat is preserved, biodiversity increases, wildlife populations within wetlands are protected, and the commercial values associated with productive wetlands rise. A whole range of fish and wildlife, including numerous endangered species, thrive in wetlands habitats.[15] Even though only about 3.5% of the land area of the United States is made up of wetlands, "of the 209 animal species listed as endangered in 1986, about 50 percent depend on wetlands for survival and viability."[16]

> The National Wildlife Federation reports that, as of 1986, 45% of all animals listed as threatened or endangered in the United States and 26% of such plants depend directly or indirectly on wetlands to complete their life cycle successfully, and aside from threatened and endangered species that depend on wetlands, 5,000 species of plants, 190 species of amphibians, and

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12. WILLIAM J. MITSCH & JAMES G. GOSSELINK, WETLANDS 507–08 (2d ed. 1993).
13. *See id.*
14. *Id.* at 508.
15. *See* Joseph G. Theis, *Wetlands Loss and Agriculture: the Failed Federal Regulation of Farming Activities under Section 404 of the Clean Water Act*, 9 PACE ENVTL. L. REV. 1, 2 (1991) (citing U.S. OFFICE OF TECHNOLOGY ASSESSMENT, WETLANDS: THEIR USE AND REGULATION 43–52 (1984)).
16. MITSCH & GOSSELINK, *supra* note 12, at 517.

> 270 species of birds are estimated to occur in the Nation's wetlands.[17]

There are also definite commercial values linked to the abundance of wildlife associated with wetlands. Perhaps the most obvious example is recreational waterfowl hunting.[18] The Fish and Wildlife Service estimated that, in 1994 alone, sports enthusiasts nationwide spent $349 million to hunt waterfowl in the "Prairie Pothole" Region, located largely in the Dakotas.[19] Experts estimate that the prairie potholes are responsible for between fifty and eighty percent of North America's main game species.[20]

Another example of commercial value is the fishing and shellfish harvesting industry. "Over 95 percent of the fish and shellfish species that are harvested commercially in the United States are wetland-dependent."[21] The National Oceanic and Atmospheric Administration estimates that commercially and recreationally, the value of estuarine dependent fishery species is $27.4 billion annually.[22] River swamps located in Georgia alone produce 13,000 pounds of fish per acre.[23] Further, experts have found that shrimp production in costal wetlands is directly related to the amount of intertidal marsh habitat.[24]

Other examples of commercial value include animals harvested for pelts and vegetation harvested for timber. The animals harvested include muskrat, alligator, beaver, raccoon, and mink.[25] State governments have been careful to monitor and regulate hunting and harvesting of wildlife, so that the monetary value of the pelts is balanced against the need to protect species from over-harvesting.[26] The vegetation includes approximately 55 million acres of timber

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17. Theis, *supra* note 15, at 2 n.3.

18. MITSCH & GOSSELINK, *supra* note 12, at 510 ("[Wetlands] support a large and valuable recreational hunting industry.").

19. *See* Letter from Mollie Beattie, Director of the U.S. Fish and Wildlife Service, to Senator Patrick J. Leahy 7 (Nov. 8, 1995) (on file with author).

20. *See* MITSCH & GOSSELINK, *supra* note 12, at 510.

21. *Id.* at 514.

22. *See* Theis, *supra* note 15, at 4 n.6 (citing 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, 697 n.3 (1989)).

23. *See* Babcock, *supra* note 11, at 309 n.8.

24. *See id.* at 309 n.9.

25. *See id.* at 509–10.

26. *See, e.g., id.* at 510 (recounting the "dramatic success story" of the alligator, achieved through tight regulatory controls in Florida and Louisiana).

located in wetland areas.[27] The evergreen, bottomland hardwood, and cypress timber located in wetlands is worth about $620 per hectare (about $8 billion in total).[28] High timber prices may tempt landowners to clear-cut and drain these wetlands, but sound silviculture practices will allow landowners to reap timber profits without destroying productive wetlands.[29]

2. Ecosystem Values

Because wetlands intercept storm runoff and store storm waters, they have the ability to act as a natural flood control device.[30] In fact, hydrologists often recommend constructing man-made wetlands to control stormwater.[31] For example, many experts believe that if wetlands had been more prevalent prior to the Mississippi River floods of 1993, the impact of the flooding would have been less severe.[32] Further, the flood control function of wetlands is not limited to protection against rivers and streams: "[c]oastal wetlands absorb the first fury of ocean storms as they come ashore."[33]

Wetlands also provide value by improving water and soil quality. Wetlands can act as a disposal "sink" for water impurities such as sediment, nitrogen, phosphorus, zinc, copper, cadmium, nickel and chromium.[34] "Where environmental circumstances are appropriate, waste organic compounds are rapidly decomposed and nitrogen is denitrified and lost to the air."[35] In addition, wetlands can help control soil erosion and add nutrients to soil, thereby improving overall soil quality.[36]

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27. *See id.* at 516.
28. *See id.*
29. *See id.*
30. *See id.* at 519.
31. *See generally* EARL SHAVER & JOHN MAXTED, *Construction of Wetlands for Stormwater Treatment, in* THE DELAWARE STORMWATER MANAGEMENT DESIGN MANUAL, (forthcoming 1996) (draft at ch. 6, on file with author).
32. *See* William K. Stevens, *Restored Wetlands Could Ease Threat of Mississippi Floods*, N.Y. TIMES, Aug. 8, 1995, at C1.
33. MITSCH & GOSSELINK, *supra* note 12, at 522.
34. *See* SHAVER & MAXTED, *supra* note 31, at 12–13.
35. MITSCH & GOSSELINK, *supra* note 12, at 524.
36. *See* Neil D. Hamilton, *Legal Issues in Enforcing Federal Soil Conservation Programs: An Introduction and Preliminary Review*, 23 U.C. DAVIS L. REV. 637, 639 (1990).

3. Aesthetic Values

Although aesthetic value is difficult to quantify in economic terms, it may be the most noticed wetland function. To most people who frequent the outdoors, the notion of a wetland conjures up images of cattails, migratory waterfowl, egrets, frogs, shellfish, and other plants or animals. When analyzing the value of wetlands, most people first think of these tangible pleasures—not the regulations, economic factors, or definitional debates.

In *National Wildlife Federation v. Agricultural Stabilization and Conservation Service*[37] ("ASCS") the Eighth Circuit Court of Appeals held that a conservation organization had standing to bring an action against the ASCS, an agency of the USDA, to enforce the wetlands provisions of the Food Security Act. In arguing that individual members of the organization would be harmed if the USDA allowed a producer to convert certain wetlands, the members of the organization emphasized the aesthetic value of the wetlands where they watched, fed, and photographed wildlife.[38] The court responded: "If their allegations are true they will suffer a loss of aesthetic pleasures associated with wetlands and wetland wildlife, increased contamination of their drinking water, and decreased supplies of ground water and soil moisture for farming purposes. These are among the injuries [Swampbuster] seeks to avoid."[39]

B. Prioritizing Different Wetlands Within the Regulatory Process

One important point to keep in mind while considering the previous discussion of wetland functions and values is that prioritizing wetlands is a difficult and subjective process. William Mitsch and James Gosselink explain this point perfectly by setting forth six generic but crucial problems that must be considered when quantifying or prioritizing wetland values:

> 1. Wetlands are multiple-value systems, that is, they may be valuable for many different reasons [and to different people for

37. 901 F.2d 673 (8th Cir. 1990).
38. *See id.* at 675.
39. *Id.* at 678.

> different reasons] . . . . This is the old "apples versus oranges" problem . . . . [I]n most wetland evaluations, evaluators are not concerned with single commodities. Instead, they wish to apprehend the overall value of an area, that is, the value of the whole fruit basket, rather than the apples, oranges, and pears . . . .
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> 2. The most valuable products of wetlands are public amenities that have no commercial value for the private wetland owner . . . .
>
> 3. The relationship between wetland area and marginal value is complex . . . .
>
> 4. Commercial values are finite, whereas wetlands provide values in perpetuity. Wetland development is often irreversible . . . .
>
> 5. A comparison of economic short-term gains with wetland value in the long term is often not appropriate . . . .
>
> 6. Estimates of values, by their nature, are colored by the personal endowment and biases of individuals and of the society.[40]

In summary, because of the complex variables and ambiguities involved in quantifying wetland values, it is quite difficult to construct a bright-line test to determine whether a wetland is a "good apple" or a "bad orange."

One attempt to grapple with the difficult problem of creating a bright-line test is the hydrogeomorphic classification of wetlands, or HGM.[41] This analytical tool is currently being field tested and "is intended to lay a foundation for and support ongoing efforts to develop methods for assessing the physical, chemical, and biological functions of wetlands."[42] The introduction of the report describing HGM explains the hope that "it will lead to a better understanding of the relationship between organisms and the environment."[43] The USDA, and other agencies, also hope that HGM will allow agencies to determine, in a more quantitative manner,

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40. MITSCH & GOSSELINK, *supra* note 12, at 527–29 (emphasis omitted).

41. *See generally* MARK M. BRINSON, U.S. ARMY CORPS OF ENGINEERS, *A Hydrogeomorphic Classification for Wetlands, Final Report* (Aug. 1993).

42. *Id.* at ii.

43. *Id.* at 1.

whether a particular wetland should be eligible for conversion, mitigation, enhancement, or replacement.[44]

Regardless of how individual wetlands are prioritized, one point seems clear: wetlands do provide value to society as a whole. The public benefit should not succumb to private greed, whether economic or otherwise.[45]

C. Wetlands Programs

The quantity and popularity of federal, state, and privately run wetland programs make it clear that wetlands serve useful functions and provide value to society.

1. Federal Wetlands Programs

Arguably the best-known federal wetlands program is the Wetlands Reserve Program ("WRP").[46] The WRP is a voluntary program offering landowners a chance to receive payments for restoring and protecting wetlands on their property. Authorized by the 1990 amendments to the Food Security Act, the WRP provides a unique opportunity for farmers to retire marginal agricultural lands and to reap the many benefits of having wetlands on their property. The WRP obtains conservation easements from participating landowners and provides cost-share payments for wetland restoration.[47]

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44. *See* S. 851, 104th Cong. (1995) (Wetlands Regulatory Reform Act of 1995); H.R. 961 104th Cong. (1995) (Clean Water Act Amendments of 1995). Both bills sought to establish a framework that classifies all lands that fit the definition of wetlands into one of three categories: Class A for high-value wetlands; Class B for medium-value wetlands; and Class C for low-value wetlands. Because of the bills' proposed procedures for classifying the wetlands, the classification scheme would have resulted in reduced wetlands protection. *See* EPA, Section-by-Section Analysis of S. 851, at 9–11 (July 1995) (on file with author). Rep. Norman Mineta, ranking Democratic member of the Transportation and Infrastructure Committee of the U.S. House of Representatives, stated that the bill "drastically reduces those [existing wetland] protections, requiring *all* wetlands to be categorized in a fantastically expensive process estimated to require thousands of extra bureaucrats and billions of dollars." Rep. Norman Y. Mineta, *America Doesn't Need A Dirty Water Bill*, Remarks at the Capitol News Conference 2 (Mar. 22, 1995) (transcript on file with author).

45. *See* Daryn McBeth, Note, *Environmental Protection and Property Rights—Public Need and Private Greed*, 1 DRAKE J. AGRIC. L. 112 (1996) (exploring the value of environmental protection, including wetlands, and the struggle to maintain conservation of natural resources in the face of private property rights advocates).

46. *See* 16 U.S.C. § 3837 (1994).

47. *See id.*

Initially, Congress set a goal to enroll not less than 330,000 acres in the WRP by 1995.[48] Even though the authorization for the WRP came in the 1990 FSA amendments, funds for the implementation of the WRP were not appropriated until fiscal year 1992.[49] That year, $46.4 million was made available to nine states participating in the pilot program.[50] A sign-up in June 1992 resulted in 2300 farmers offering 462,000 acres even though the pilot program could only accommodate 50,000 acres.[51] Because of the popularity of the WRP, the second sign-up, held in 1994, increased the eligible number of states to twenty.[52] Again, at the initial sign-up landowners from these states exceeded expectations with an offering of 590,000 acres when the statutory limit was 75,000 acres.[53] For 1995, Congress made all fifty states eligible[54] and funded the program with $92 million for an expected 118,000 acres.[55]

Another popular federal wetlands program is called the Water Bank Program.[56] This program is designed to preserve and improve naturally existing wetlands by giving the Secretary of Agriculture the authority to "enter into agreements with landowners and operators in important migratory waterfowl nesting and breeding areas for the conservation of water on specified farm, ranch, or other wetlands."[57] The Secretary of Agriculture and the landowners enter into ten-year agreements that contain a provision for renewal for additional periods.[58] Payment rates are established based on prevailing local rental rates and may be adjusted at the beginning of the fifth year of the agreements to reflect current land values.[59]

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48. *See* 16 U.S.C. § 3837(b).

49. SOIL AND WATER CONSERVATION SOC'Y, FARMER PERSPECTIVES ON THE WETLAND RESERVE PROGRAM: A SERIES OF FOCUS GROUPS 5 (1994).

50. *See id.*

51. *See id.*

52. *See* Daryn McBeth, *Wetlands Law Update*, AGRIC. L. UPDATE, July 1995, at 1, 1.

53. *See id.*

54. *See* Natural Resources Conservation Service, Wetlands Reserve Program Responsibility Transferred from Consolidated Farm Service Agency to NRCS, 60 Fed. Reg. 28,511 (1995).

55. *See id.*

56. *See* 16 U.S.C. §§ 1301–1311 (1994).

57. *Id.* § 1302.

58. *See id.* § 1305.

59. *See* 7 C.F.R. § 752.14–.15 (1996).

A third voluntary federal wetlands protection initiative includes an opportunity for farm program participants with loans secured by the Farmers Home Administration ("FmHA") to qualify for cancellation of a portion of their FmHA indebtedness in exchange for a conservation or wetland easement.[60] If a debtor is eligible, the FmHA will cover the costs of all surveys, appraisals, and recording fees associated with the conservation easement.[61]

In 1989, Congress enacted another wetlands program, the North American Wetlands Conservation Act,[62] with the goal of providing for the acquisition, management, enhancement, and restoration of wetlands in North America. The main purpose of the Act is to protect migratory birds and other wildlife through wetland conservation.[63] These conservation efforts are partially funded through penalties, fines, and forfeitures authorized by the Migratory Bird Treaty Act.[64]

Other federal wetlands programs include the Migratory Bird Hunting Stamp Act,[65] the Fish and Wildlife Coordination Act,[66] the Emergency Wetlands Resources Act of 1986,[67] the Everglades Na-

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60. *See* U.S. DEP'T OF AGRIC., FARMERS HOME ADMINISTRATION, PROGRAM AID #1528, DEBT CANCELLATION CONSERVATION EASEMENTS (1994).

61. *See id.*

62. 16 U.S.C. §§ 4401–4414 (1994).

63. *See* Renee Stone, *Wetlands Protection and Development: the Advantages of Retaining Federal Control*, 10 STAN. ENVTL. L.J. 137, 149 (1991).

64. *See id.*

65. 16 U.S.C. § 718–718(j) (1994) (declaring that the protection of wildlife whose survival is interconnected with preservation of wetlands is an important government objective). The Act requires all hunters of waterfowl to purchase stamps to hunt legally. *See id.* The Act directs funds from the purchase of stamps to be deposited in the migratory bird conservation fund, which is responsible for acquiring, restoring, and preserving wetlands for habitat and nesting. *See id.*

66. *Id.* §§ 661–667(e) (recognizing the contribution of wildlife and its habitat to the nation). The Act directs the Secretary of the Interior to provide development, protection, and stocking of all species of wildlife and their habitat, public shooting and fishing areas, and other measures necessary to effectuate the purposes of the Act. *See id.* The Act also directs the Secretary to make surveys and investigations of wildlife and wetland numbers. *See id.* Through the charge to establish wildlife habitat, the Act allows the Fish and wildlife Service to protect and enhance many wetland acres.

67. Pub. L. No. 99-645, 100 Stat. 3582 (codified as amended in scattered sections of 16 U.S.C. and 19 U.S.C.). The Act directs funds collected from the National Wildlife Refuge System to be placed into the migratory bird conservation fund, and establishes the National Wetlands Priority Conservation Plan. *See id.* The Plan is a region-by-region analysis designed to maximize and improve wetlands functions and values. *See id.* The Act also establishes the National Wetlands Inventory system, which the Fish and Wildlife Service conducts. *See id.*

tional Park Protection and Expansion Act of 1989,[68] and the North American Wetlands Conservation Act of 1989.[69]

2. State Programs

State governments have taken the initiative in protecting and enhancing wetlands through their own legislation.[70] The states have used a variety of mechanisms for achieving efficient wetland protection, including permitting,[71] zoning,[72] acquisition,[73] and the imposition of criminal penalties.[74] Between 1795 and 1934, states adopted 79 laws relating to wetlands.[75] The number of wetland-related laws adopted by states increased to 110 during the next twenty years, and during the period from 1965 to 1978, state lawmakers passed another 355 wetland-related laws.[76]

One example of a recent state initiative is the proposed restoration of Lake Apopka in Central Florida. The St. Johns River Water Management District (a state political subdivision) is coor-

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68. 16 U.S.C. § 410r-5 to -8 (1994) (declaring that the protection of land for the enjoyment of people and for use by animals is a public benefit). The Act's purpose is to increase the level of protection of the Everglades National Park and to enhance and restore the ecological values and public enjoyment of the wetlands areas. *See id.* The Act's purpose is also to assure that the park is managed in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals, as well as the behavior of native animals, as part of their ecosystem. *See id.*

69. 16 U.S.C. §§ 4401–4414 (1994) (demonstrating that wetland ecosystems provide flood control, recreational opportunities, and essential habitat for birds, fish, and endangered species). The purpose of the Act is to protect, enhance, restore, and manage an appropriate distribution and diversity of wetland ecosystems and other habitats for migratory birds and other fish and wildlife in North America and to maintain current or improved distributions of migratory bird populations through agreements with Canada, Mexico, and other countries. *See id.*

70. *See* Paul Sarahan, *Wetlands Protection Post-Lucas: Implications of the Public Trust Doctrine on Takings Analysis*, 13 VA. ENVTL. L.J. 537, 539 (1994).

71. *See id.* at 540 n.19 (citing FLA. STAT. ANN. § 403.91–.938 (West 1986 & Supp. 1993); N.Y. ENVTL. CONSERV. LAW § 24-0701 to -0705 (McKinney 1984 & Supp. 1993); S.C. CODE ANN. § 48-39-140 (Law Co-op. 1987); WASH. REV. CODE ANN. §§ 90.58.140, 90.62.010–.908 (West 1992)).

72. *See id.* (citing WIS. STAT. § 61.351 (West 1988)).

73. *See id.* (citing TENN. CODE ANN. § 11-14-401 to -407 (Michie 1992); TEX. NAT. RES. CODE ANN. § 33.231–.238 (West 1993 & Supp. 1997)).

74. *See id.* (citing MO. ANN. STAT. § 569.067 (West Supp. 1993)).

75. *See* MISC. PUB. NO. 1455, FARM DRAINAGE IN THE UNITED STATES: HISTORY, STATUS, AND PROSPECTS, 7 (George A. Pavelis, Economic Research Service, U.S. Dep't of Agric., ed., 1987).

76. *See id.*

dinating the restoration of the 31,000-acre lake.[77] As part of the plan, the District will reflood and restore 13,000 acres of former wetlands surrounding the lake.[78] The re-establishment of the wetlands will create a marsh flow-way that will act as a natural filter to clean nutrients from the lake.[79] The Florida legislature appropriated $20 million in 1996 for the acquisition of the surrounding wetlands.[80] To supplement the Florida legislature's contribution, the USDA's NRCS provided approximately $26 million through the Wetlands Reserve Program for thirty-year easements from landowners along the lake's shoreline.[81]

3. Private/Partnership Programs

Private non-profit organizations sometimes act as coordinators to assist in the acquisition or preservation of wetlands on a local level. The Iowa Natural Heritage Foundation ("INHF") is one such group. Its purpose is to "[build] partnerships and [educate] Iowans to protect, preserve and enhance Iowa's natural resources for future generations."[82] In one project coordinated by the INHF, 2600 acres of land in a badly flooded levee district were converted into wetlands and a national wildlife refuge.[83] The land in question had been flooded repeatedly over the last seventy years, and, in the Mississippi floods of 1993, there were $2.7 million in damages to the area.[84] Through the INHF's coordination and the efforts of the Joyce Foundation, the U.S. Fish and Wildlife Service ("FWS"), the U.S. Army Corps of Engineers, and the NRCS's Wetlands Reserve Program and Emergency Reserve Program, landowners in the district have received funding, tax incentives, and legal advice for transferring the land to the refuge.[85]

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77. *See* OFFICE OF COMMUNICATIONS, USDA, CLINTON ADMINISTRATION ANNOUNCES MAJOR WETLANDS RESTORATION PROJECT IN CENTRAL FLORIDA 1 (October 30, 1996).
78. *See id.*
79. *See id.*
80. *See* 1996 FLA. LAWS ch. 96-424, § 5.
81. *See* OFFICE OF COMMUNICATIONS, USDA, *supra* note 77.
82. Iowa Nat. Heritage Found., IOWA NAT. HERITAGE, Winter 1996, at 2.
83. *See* Jennifer Ealy, *From Levee District to Wildlife Refuge*, IOWA NAT. HERITAGE, Summer 1994, at 4, 4.
84. *See id.* at 5.
85. *See id.*

There are many similar conservation-oriented private groups that coordinate partnerships between the government, landowners, and financial contributors. For example, the American Land Conservancy ("ALC") organized the transfer of wetland easements for 7000 acres of unproductive farmland along the Mississippi River in Southern Illinois.[86] The ALC worked with landowners to convey conservation easements to NRCS for farmland prone to frequent flooding, with the remainder interest in the lands conveyed to the Shawnee National Forest.[87] The cost of purchasing the remaining easements was about $600,000.[88]

There are also governmental partnership initiatives. NRCS's Wetlands Reserve Program[89] provides for financial assistance to "a State, political subdivision, or agency thereof in connection with agreements entered into under a special wetland and environmental easement enhancement program carried out by that entity."[90] The U.S. Fish and Wildlife Service also has authority to simply contribute financial assistance to partnership projects.[91] Under the Fish and Wildlife Coordination Act, the FWS operates its "Partners for Wildlife" program to provide technical and habitat restoration assistance for the direct benefit of declining species and to contribute to the conservation of biological diversity.[92] Under the program, private landowners, local partners or organizations, and the USDA are all eligible for assistance.

III. The Inception of the Federal Regulation of Wetlands

Originally, society did not think of wetlands as a beneficial resource. The government designed national programs to govern activities on inland waterways solely "to promote water transportation and commerce."[93] The public considered wetlands to be "un-

86. *See* American Land Conservancy, Congressional Fact Sheet 1 (1996).
87. *See id.*
88. *See id.*
89. *See supra* text accompanying notes 46–55 (describing the Wetlands Reserve Program).
90. 16 U.S.C. § 3837d(c)(4) (1994).
91. *See* 16 U.S.C. §§ 661–667(e) (1994).
92. *See id.*
93. 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, 877 (1993).

important areas to be filled or drained for various uses."[94] Wetlands have become "valuable" only recently, as public perception of wetlands has become more positive. The United States Court of Appeals for the Federal Circuit recently stated that "yesterday's Everglades swamp to be drained as a mosquito haven is today's wetland to be preserved for wildlife and aquifer recharge."[95] The same court, however, had previously warned that:

> One who remembers when wetlands were called swamps, when their draining or filling was deemed progress, and when their main environmental impact was in the production of noxious disease-bearing mosquitoes, and who has observed their present status, will not be astonished if some day a mosquito bred in a swamp bites someone and infects him with malaria, and the old beliefs revive.[96]

A. Evolution of the Federal Regulation of Wetlands: Early Attempts

The first significant embodiment of the shift in the perception of wetlands, from a nuisance[97] to an asset, came in the Rivers and Harbors Act of 1890 ("RHA").[98] Section 10 of the Act prohibited the creation of any man-made obstruction impairing the navigable capacity of any of the waters of the United States, unless authorized by Congress.[99] The Act also made it unlawful to excavate or fill any navigable water of the United States unless the COE recommended the work and the Secretary of the Army authorized the

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94. UNITED STATES GENERAL ACCOUNTING OFFICE, WETLANDS OVERVIEW: FEDERAL AND STATE POLICIES, LEGISLATION AND PROGRAMS at 1, GAO/RCED-92-79-FS, Nov. 1991 [hereinafter Wetlands Overview].

95. Florida Rock Indus. v. United States, 18 F.3d 1560, 1566 (Fed. Cir. 1994).

96. Florida Rock Indus. v. United States, 791 F.2d 893, 902 (Fed. Cir. 1986).

97. The Swamp Land Act of 1849, ch. 87, 9 Stat. 352, Swamp Land Act of 1850, ch. 84, 9 Stat. 519, and Swamp Land Act of 1860, ch. 5, 12 Stat. 3, all encouraged the draining or filling of wetlands.

98. *See* 33 U.S.C. §§ 401–467 (1994). The Act allowed the Secretary of War to provide funding for the protection of various rivers and harbors under the Rivers and Harbors Act, ch. 907, 26 Stat. 426 (1890). This Act was superseded by the "Rivers and Harbors Appropriation Act of 1899." 33 U.S.C. § 401 (1994); *see also* REGULATORY BRANCH, UNITED STATES ARMY CORPS OF ENGINEERS SECTION 404 OF THE CLEAN WATER ACT AND WETLANDS, SPECIAL STATISTICAL REPORT 3 (1995) [hereinafter COE Report] (discussing the history of the Rivers and Harbors Act and section 10 permits).

99. *See* 33 U.S.C. § 403 (1994).

recommendation.[100] Section 13 prohibited the deposit of refuse without the permission of the Secretary of the Army.[101]

The word "wetland" did not appear in the Act, nor is it likely that the 51st Congress recognized or understood the values that wetlands provide. However, in the early 1900s, as concerns escalated over water quality and water planning, the use of the RHA evolved from promotion of commerce and transportation to protection of waterways against pollution.[102] This new application of the RHA led to the need for a more defined federal statute that addressed water pollution, navigable waters, and a permitting process.[103] It is no accident that the purpose of the RHA and the purpose of the present-day Army Corps of Engineers, enforcing the CWA, is the same: "to protect and maintain the navigable capacity of the nation's waters."[104]

In 1934 Congress passed the Migratory Bird Hunting and Conservation Stamp Act, which was aimed more directly at protecting wetlands.[105] The Act requires duck and goose hunters of ages sixteen and older to buy "duck stamps," the proceeds of which are used by the Migratory Bird Conservation Fund to acquire habitat for migratory waterfowl.[106]

> Millions of acres of wetlands and surrounding uplands areas have been preserved with these funds, either by outright purchase or through perpetual easements . . . . For example, through fiscal year 1989, about $49 million had been spent to obtain over 23,000 easements on more than 1.2 million acres of wetlands, and another $102 million had been spent to acquire fee-simple title to almost 564,000 acres of wetlands.[107]

In 1953 Congress extended COE's authority to prevent obstructions to navigation of the nation's navigable waters when it

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100. *See id.*

101. *See id.* § 407.

102. *See* Kalen, *supra* note 93, at 878–79.

103. See *id.* at 880–87, for a more detailed discussion of how the RHA evolved into the Clean Water Act's permitting program administered by the Army Corps of Engineers.

104. COE Report, *supra* note 98, at 3.

105. *See* 16 U.S.C. § 718–718j (1994). For further discussion of the Migratory Bird Hunting and Conservation Stamp Act and other federal, state, and private wetlands programs designed to enhance and promote wetland functions and values, see *infra* notes 46–92 and accompanying text.

106. *See id.* § 718a, 718d.

107. Wetlands Overview, *supra* note 94, at 23.

passed the Outer Continental Shelf Lands Act.[108] This expansion of authority included the ability to control artificial islands, installations, devices located on the seabed, and the seaward limit of the outer continental shelf, which bolstered the COE's claim to authority over wetlands.[109] Between the RHA's initial implementation and the present, Congress has enacted many other statutes that have had positive effects on the protection of navigable waters, and by extension, wetlands.[110] Today however, the Clean Water Act and the Swampbuster provision of the Food Security Act overshadow Congress' early attempts to protect wetlands.

B. Shared Responsibility for Wetland Regulation

Although the mandate to protect wetlands evolved somewhat strangely from the regulation of navigable waters,[111] there are now two major laws that are aimed directly at the protection of wetlands—section 404[112] of the Clean Water Act ("CWA") and the Wetland Conservation provision of the Food Security Act,[113] also known as Swampbuster. Section 404 of the CWA is enforced by the Army Corps of Engineers ("COE") under EPA's section 404(b)(1) guidelines, while Swampbuster is enforced by the USDA through the Natural Resources Conservation Service ("NRCS").

Generally, the wetlands subject to regulation under the CWA and Swampbuster are the same. However, some activities exempted under Swampbuster require a CWA section 404 permit, and some

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108. *See* Outer Continental Shelf Lands Act of 1953, 43 U.S.C. § 1333(e) (1994).

109. *See id.*

110. *See, e.g.*, Fish and Wildlife Act of 1956, 16 U.S.C. §§ 742a–754a (1994); Multiple-Use Sustained Yield Act of 1960, 16 U.S.C. §§ 528–531 (1994); Refuge Recreation Act of 1962, 16 U.S.C. § 460k to 460k-4 (1994); Land and Water Conservation Fund Act of 1965, 16 U.S.C. § 4601-4 to -11 (1994); Coastal Zone Management Act of 1972, 16 U.S.C. §§ 1451–1464 (1994). How the regulation of navigable waters relates to and evolved into the protection of wetlands will become apparent in Part III.B.1–.2, which discuss the jurisdiction of the CWA and how Congress created Swampbuster to fill in gaps left by the CWA permitting program.

111. For a critical discussion of how the regulation of navigable waters evolved into wetland regulation, see LANDOWNER, HOW THE FEDS USE WETLANDS REGULATIONS TO ERODE YOUR PROPERTY RIGHTS (1995); Darrell Smith, *Wetland Woes: Wetlands in Fields Frustrate Farmers and Clog Drainage Ditches*, FARM J., Sept. 1995, at 18–19; Darrell Smith, *The Case Against Regulatory Creep: Should Congress Rein in Runaway Wetlands Rules?*, TOP PRODUCER, Aug.-Sept. 1995, at 30–31.

112. Pub. L. No. 92-500, § 2, 56 Stat. 884 (codified at 33 U.S.C. § 1344).

113. Food Security Act of 1985, 16 U.S.C. §§ 3821–3824.

activities allowed under section 404 are subject to regulation under Swampbuster.[114] Each law, as discussed below, found its roots in restrictions on activities affecting navigable waters. These roots grew initially out of the Federal Water Pollution Control Act (renamed the Clean Water Act). Because the CWA proved complicated to implement and only partially effective, it prompted Congress to initiate wetlands protection under Swampbuster.

1. Wetland Regulation Under the Clean Water Act

Although the emphasis of this Article is on the relationships between agriculture, conservation, and the federal regulation of wetlands, a survey of wetland regulation is not complete without a discussion of the Clean Water Act.[115] Most believe that the CWA is the leading federal statute protecting wetlands.[116] The purpose of the CWA is the restoration and maintenance of the chemical, physical and biological integrity of the nation's waters.[117] As to the statute's regulation of wetlands, the definitions of "navigable waters" and "waters of the United States" centrally determine the scope of the Act's jurisdiction.[118]

The bulk of the Act's jurisdiction over wetlands comes from section 404, which states, "The Secretary may issue permits . . . for the discharge of dredged or fill material into the navigable waters . . . ."[119] This vague and seemingly simple language is critical to the protection of 104 million acres of wetlands under the

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114. For example, wetlands on non-agricultural lands are generally exempt from Swampbuster, and most routine ongoing farming activities do not require section 404 permits. The MOA, *see supra* note 6, attempted to alleviate some of the inconsistencies between CWA section 404 and the FSA regarding wetlands. The result, however, only led to shared wetland delineation and determination responsibilities, while the decision of whether a landowner was subject to wetland regulation was still confused.

115. 33 U.S.C. §§ 1251–1387 (1994).

116. *See, e.g.*, Stone, *supra* note 63, at 144 ("The main tool available to the federal government to protect wetlands is its regulatory program, principally Section 404 of the Clean Water Act."); Theis, *supra* note 15, at 1 ("Section 404 of the Clean Water Act is the single most important provision for the protection of the vital, yet dwindling wetlands resource.").

117. *See* 33 U.S.C. § 1251(a) (1994).

118. *See* SECTION OF NATURAL RESOURCES, ENERGY, AND ENVIRONMENTAL LAW, AMERICAN BAR ASSOCIATION, THE CLEAN WATER ACT HANDBOOK 136 (Parthenia B. Evans ed., 1994) [hereinafter CLEAN WATER ACT HANDBOOK] (stating that "[j]urisdiction under the section 404 program largely is determined by the scope of the definition of 'waters of the United States.'").

119. 33 U.S.C. § 1344(a) (1994).

CWA.[120] However, one must turn to regulations promulgated by the EPA and COE, wetlands delineation manuals, and, most importantly, case law to discover the "real" scope of the Act's jurisdiction over wetlands protection.[121]

Assuming that "wetlands" fall under the CWA's protection of "navigable waters," one may ask, what then is the point of having another wetlands protection provision in the FSA? The answer is that the CWA contains certain exempted activities that are not prohibited from causing the dredging or filling of wetlands. Most notably, the Act states:

> [T]he discharge of dredged or fill material . . . from normal farming, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices . . . is not prohibited by or otherwise subject to regulation under [the section 404 permit program].[122]

Some of the activities that escape regulation by section 404 have been major causes of wetland losses: drainage, ditching, and channelization for agricultural production.[123] In fact, most estimates suggest that the Clean Water Act's section 404 permit program effectively regulates only about twenty percent of the activities that cause wetland losses.[124] To compensate for this lack of protection, the Food Security Act (FSA) of 1985 included major wetlands-related provisions.[125]

Another gap in the protection of wetlands under the CWA stems from the COE's adoption of certain "state," "regional," and "nationwide" permit processes to facilitate the process of granting

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120. *See* Letter with enclosures from Administrator Carol M. Browner, EPA, to Senator Robert Lugar, Chairman, Senate Committee on Agriculture, Nutrition, and Forestry (Sept. 21, 1995) (on file with author). Administrator Browner's letter was sent to all 100 U.S. Senators in response to a threat to change the definition of "wetland" to require 21 days of saturation during the growing season rather than 14 days. *See infra* note 234 and accompanying text. Browner's letter contains an enclosure stating that wetland protection would be reduced 60–75%, estimating that this would equal 65–76 million acres of wetland suddenly left without protection. Using averages and deduction, this means that about 104 million acres of wetlands are protected by the CWA.

121. *See* Part IV.B.1.

122. 33 U.S.C. § 1344(f)(1)(A) (1994).

123. *See id.*

124. *See* Wetlands Overview, *supra* note 94, at 21.

125. *See* 16 U.S.C. § 3821 (1994).

and denying permits for dredging or filling wetlands.[126] Some believe that the COE's increasing use of this authority has weakened wetlands protection,[127] creating another motivating factor for the creation of a wetlands conservation provision in the Food Security Act.[128]

2. *Wetland Conservation Under the Food Security Act*

Leading up to the 1985 Food Security Act ("FSA"), conservationists were becoming increasingly concerned that traditional programs were not effectively addressing the environmental problems caused by widely accepted agricultural practices.[129] "Publicized instances of significant problems, such as water pollution, combined with large estimates of the total cost of off-site impacts of soil erosion, increased awareness and altered the debate over the most appropriate policy responses."[130]

Many small, temporary, and seasonal wetlands were falling through the gaps between the CWA's protections. This was a serious problem because the value of a wetland is not necessarily related to its size:

> In all areas of the country, small or cropped wetlands provide floodwater retention, groundwater recharge and discharge, sedi-

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126. *See* 33 U.S.C. § 1344(e) (1994) (stating that the "Secretary may . . . issue general permits on a State, regional, or nationwide basis for any category of activities involving discharges of dredged or fill material"). These categorical permits are in part determined by guidelines outlined in 33 U.S.C. § 1344(b)(1).

127. *See* David E. Ortman, *The Corps' Stealth Permit Program*, NAT'L WETLANDS NEWSL., March-April 1995, at 10, 10 (stating that the EPA and COE "have been quietly attempting to divest themselves of their mission from Congress to protect the waters of the United States . . . . Like physicists deconstructing the universe with quarks, bosons, and other strange discoveries, the Corps has been busy deconstructing the wetland universe with similar strange inventions, such as alternative permit procedures, regional general permits, and letters of permission.").

128. *But see* Joby Warrick, *Government to Tighten Wetlands Regulations: Army Corps of Engineers Will Phase Out Controversial Development Permit*, WASH. POST, Dec. 6, 1996, at A1, 17. The Army Corps of Engineers, possibly after making sure the Clinton Administration was secure in the White House for another four years, took a step to tighten the loophole in "nationwide" permit #26. *See id.* Instead of a streamlined notice process for requests to convert wetlands between 1 and 10 acres, the COE proposed to limit the "fast-track" permitting process to wetlands between one-third of an acre and three acres. *See id.* It remains to be seen whether the revised policy will withstand anticipated legal scrutiny from both environmental and development organizations.

129. *See* JEFFREY A. ZINN, THE 1995 FARM BILL: SOIL AND WATER CONSERVATION ISSUES, CONGRESSIONAL RESEARCH SERVICE ISSUE BRIEF 2 (1995).

130. *Id.*

> ment trapping, removal of nutrients and chemicals, forage, and livestock water in addition to the traditional role of providing essential habitat for waterfowl, other migratory birds and resident wildlife.[131]

In 1985, while enacting the "Swampbuster" provisions of the FSA, Congress acknowledged that "[w]etlands are a priceless resource whose contributions have long gone unrecognized."[132] Congress stated that:

> The purpose of the wetland conservation subtitle of the Committee bill is to discourage the draining and cultivation of wetland that is unsuitable for agricultural production in its natural state. This purpose will be realized by limiting an agricultural producer's access to various price support, production adjustment, Federal crop insurance, Federal disaster loans and payments, and various other programs carried out by the Federal Government if the producer drains and plants crops on a natural wetland.[133]

Swampbuster required agricultural producers to protect the wetlands on the farms they owned or operated if they wanted to be eligible for USDA farm program benefits. Some refer to the FSA's concept as "green payments,"[134] where "[p]aying farmers to behave in an environmentally responsible manner offers an alternative to command-and-control regulations based on the 'polluter pays' principle."[135] Although not a true direct payment, a participant in USDA programs who has a wetland on his farm receives benefits from the federal programs "coupled" with voluntary wetland conservation.[136]

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131. Natural Resources Conservation Service, USDA, Small Cropped Wetland Values Worth Forgetting or Conserving 1 (1995) (unpublished report, on file with author).

132. H.R. Rep. No. 99-271, pt. 1, at 86 (1985), *reprinted in* 1985 U.S.C.C.A.N. 1103, 1190.

133. AGRICULTURE, NUTRITION, AND FORESTRY COMM., S. Rep. No. 99-145, at 303, *reprinted in* 1985 U.S.C.C.A.N. 1103, 1969.

134. Christopher R. Kelley & James A. Lodoen, *Federal Farm Program Conservation Initiatives: Past, Present, and Future*, NAT. RESOURCES & ENV'T, Winter 1995, at 17, 67.

135. *Id.*

136. *Id.* (citing Tim Osborne, *U.S. Conservation Policy—What's Ahead?*, AGRIC. OUTLOOK, Nov. 1993, at 36).

IV. WHAT IS A "WETLAND?"

Defining "wetland" is a complicated matter, but it is an issue at the core of federal wetlands regulation. The term "wetland" has only recently come into common usage,[137] and society appears to have adopted the term as a "euphemistic substitute for the term 'swamp.'"[138] Some think the definition should include requisite societal functions and values that a parcel of land must provide to be a "wetland."[139] However, these function and value "requirements" are difficult to quantify for the purposes of statutes or regulations. Thus, attempts have been made at a *scientific* definition of "wetland," using wetland criteria[140] and wetland indicators.[141]

A. Evolution of Regulatory Definitions

In the past, scientists have failed to agree on a common definition of "wetland," primarily because they have had no motivation to do so.[142] Some believe that the problem with scientifically defining a wetland will continue until decisionmakers give incentives for scientists to play larger roles in researching, gathering data, and disseminating research results.[143] It seems that legislatures and the agencies regulating wetlands are heeding this call and requesting the input from scientists more and more frequently.

Three definitions of wetlands are commonly used by the United States government: the 1977 COE definition, the 1985 Food Security Act definition used by NRCS, and the 1979 U.S. Fish and

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137. *See* NATIONAL RESEARCH COUNCIL, WETLANDS: CHARACTERISTICS AND BOUNDARIES 43 (1995) [hereinafter WETLANDS: CHARACTERISTICS AND BOUNDARIES].

138. *Id.* at 43.

139. *See supra* Part II (discussing wetland functions and values).

140. The National Research Council (NRC) states that a "criterion" is a "standard of judgment of principle for testing; it must relate directly to a definition." WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 62.

141. The NRC states that an "indicator" is "[a]ny kind of evidence that bears on the evaluation of a criterion . . . . Indicators vary in specificity and are sometimes hierarchical: A specific indicator can support a more general one. For example, hydric soil is a general indicator that supports the substrate criterion, and characteristic chroma, or brightness of soil color, is a specific indicator that supports the identification of hydric soil." *Id.*

142. *See id.* at 44.

143. *See* Jon A. Kusler, *Wetland Protection: Is Science Meeting the Challenge?*, Wetland Functions and Values: The State of Our Understanding, Proceedings of the National Symposium on Wetlands 31 (1978).

Wildlife Service definition.[144] Definitions used by the NRCS and COE are important because those agencies administer the Food Security Act (and "Swampbuster") and the Clean Water Act section 404 program respectively. Although the FWS does not regulate wetlands, use of its definition is significant because this agency is charged with reporting to Congress on the status of the nation's wetlands.[145]

The first official use of the term "wetland" in a government report was in 1956, when the FWS issued Circular 39.[146] "This circular has been one of the most common and most influential documents used in the continuous battle to preserve a critically valuable but rapidly diminishing National Resource."[147] The circular stated:

> The term "wetlands," as used in this report and in the wildlife field generally, refers to lowlands covered with shallow and sometimes temporary or intermittent waters. They are referred to by such names as marshes, swamps, bogs, wet meadows, potholes, sloughs, and river-overflow lands. Shallow lakes and ponds, usually with emergent vegetation as a conspicuous feature, are included in the definition, but the permanent waters of streams, reservoirs, and deep lakes are not included. Neither are water areas that are so temporary as to have little or no effect on the development of moist-soil vegetation. Usually these very temporary areas are of no appreciable value to the species of wildlife considered in this report.[148]

Since this definition in 1956, there have been many other attempts at a wetland definition. In 1974, the FWS Office of Biological Services commenced a new national inventory of wetlands.[149] To prepare for this project, a dozen wetland scientists prepared the first draft of a new wetland classification system known as the 1974 Wetland Inventory Project.[150] Around this time, because of a citizen

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144. *See* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 56.

145. *See* Emergency Wetlands Resources Act of 1986, as amended, Pub. L. No. 99-645, 100 Stat. 3582 (1986).

146. *See* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 48.

147. LEWIS M. COWARDIN ET AL., CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES, U.S. DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE 2 (1979).

148. WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 48.

149. *See* COWARDIN ET AL., *supra* note 147 at 2.

150. WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 48.

suit, the COE was busy implementing new regulations in accordance with its redefined responsibilities under the CWA.[151] These regulations, quickly issued by the COE, included the first regulatory attempt to define wetlands.[152] At the same time the COE was working on its definition, the FWS published the outcome of a 1975 FWS workshop called the "Interim Classification of Wetlands and Aquatic Habitats of the United States."[153]

In 1977, the COE was inundated[154] with comments on their proposed definition of wetlands. In response, the COE substantially revised its initial effort. The revised definition states that wetlands are:

> Those areas 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. Wetlands generally include swamps, marshes, bogs and similar areas.[155]

In creating this definition, the COE highlighted four issues that were important in the revised version.[156] First, the definition purposely made no distinction between high-water-line boundaries or between fresh and salt water.[157] Second, the COE specifically addressed the "frequency of inundation" qualification.[158] The COE explained that the new definition was designed to pertain to an existing wetland and introduced frequency and duration compo-

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151. *See* Natural Resources Defense Council v. Callaway, 392 F. Supp. 685 (D.C. Cir. 1975) (ruling that the definition of navigable waters in section 404 of the Clean Water Act had the same meaning as the broad definition used elsewhere in the statute, thus extending coverage of the Act to wetlands regardless of actual navigability). This decision held invalid the COE's earlier interpretation of the Act, which had excluded approximately 85% of the nation's wetlands and started a new course in the history of wetland regulation. *See* A.D. TARLOCK, THE LAW OF WATER RIGHTS AND RESOURCES 9-12 (1993). When the government accepted the new judicial interpretation of the Act, the COE and EPA needed for the first time to adopt and implement new regulations to define wetlands. *See* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 49.

152. *See* 49 Fed. Reg. 31,328 (1975); *see also* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 41.

153. *See* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 50.

154. No pun intended; the COE received more than 4500 comments regarding their new definition of "navigable waters" for the purposes of its section 404 authority. *See* WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW § 4.6 at 334, (2d ed. 1994).

155. *See* 33 C.F.R. § 328(3)(b) (1996).

156. *See* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 51.

157. *See id.*

158. *See id.*

nents by which a delineator would measure inundation and saturation sufficient to support aquatic vegetation. Third, the COE expanded its use of the word "normal" in its definition.[159] The COE was concerned with both non-aquatic areas that experience an abnormal presence of aquatic vegetation and areas where individuals would attempt to eliminate the wetland characteristics of the land to avoid Clean Water Act compliance requirements. Finally, the COE explained that it continued to use the term "prevalence" to identify wetland vegetation in order to eliminate confusion when referring to only "occasional" aquatic vegetation interspersed with upland or dry land vegetation.[160] Also, because the old definition excluded many forms of truly aquatic vegetation that do not biologically require saturated soil to reproduce and grow, the COE added language explaining that the "prevalent" vegetation need only be "typically adapted for life in saturated soil conditions."[161] The 1977 definition is still used by the COE and EPA today.[162]

Congress first addressed the issue of defining "wetlands" during the process of creating the second set of amendments to the FWPCA.[163] In 1977, as part of the second set of amendments, Congress renamed the FWPCA the "Clean Water Act" and undertook to clarify wetlands issues.[164] Using strong language, the Senate Committee on Environment and Public Works noted that "the 1972 Federal Water Pollution Control Act exercised comprehensive jurisdiction over the Nation's waters to control pollution to the fullest constitutional extent."[165] Still looking at the Senate committee report from the 1972 amendments to the FWPCA, the 1977 Senate Committee Report acknowledged that by restricting the jurisdiction of navigable waters to those relatively few waterways actually used for navigation, efforts to meet the Act's goal of controlling the discharge of pollutants were seriously crippled.[166]

However, when Congress finished the amendment process, the only place in the bill in which the term "wetland" appeared was

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159. *See id.* at 52.
160. *See id.*
161. *Id.*
162. *See* 33 C.F.R. § 328(3)(b) (1996).
163. Congress first amended the FWPCA in 1972. *See* Pub. L. No. 92-500, 86 Stat. 816 (1972).
164. *See* Pub. L. No. 95-217, 91 Stat. 1566 (1977).
165. S. REP. NO. 95-370, at 75 (1977), *reprinted in* 1977 U.S.C.C.A.N. 4326, 4400.
166. *See id.*

in addressing the potential delegation to the states of administration of the section 404 program.[167] "The result of this legislative process was to leave the section 404 program substantially intact and to give the administering agencies little new guidance for the definition or delineation of wetlands."[168]

Further attempt at clarification of the definition of wetlands continued at the agency level. The FWS continued to work on its definition and classification system.[169] A 1979 report entitled "Classification of Wetlands and Deepwater Habitats of the United States," which expanded on a previous FWS circular, was significant for several reasons:

> First, it introduced the concepts of hydrophytes and hydric soils, and it was the impetus for the development of official lists of these. Second, it embraced the concept of predominance (hydrophytes or undrained hydric soils had to be "predominant" in wetlands). Third, it introduced the use of three factors for wetland identification: soils, vegetation, and hydrology. Finally, it included some areas that lack vascular plants or soils. Each of these concepts was later developed in one or more of the wetland delineation manuals.[170]

Congress finally codified the term "wetland" in the Food Security Act of 1985 (FSA).[171] Further amendments were made by the Food, Agricultural, Conservation, and Trade Act of 1990 (FACTA).[172] Presently, the FSA defines a wetland as that which:

> (A) has a predominance of hydric soils;
> (B) is inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and
> (C) under normal circumstances does support a prevalence of such vegetation.[173]

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167. *See* 33 U.S.C. § 1344(g)(1) (1994).
168. WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 54.
169. *See generally* COWARDIN ET AL., *supra* note 147 (setting forth the definition and classification system).
170. WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 55.
171. Pub. L. No. 99-198, 99 Stat. 1504 (1985).
172. Pub. L. No. 101-624, 104 Stat. 3359 (1990).
173. 16 U.S.C. § 3801(a)(16) (1994).

The FSA further directs the United States Department of Agriculture to develop criteria and lists of hydric soils and hydrophytic vegetation, and defines those terms as follows:

> "[H]ydric soil" means soil that, in its undrained condition, is saturated, flooded, or ponded long enough during a growing season to develop an anaerobic condition that supports the growth and regeneration of hydrophytic vegetation.
>
> "[H]ydrophytic vegetation" means a plant growing in—
> (A) water; or
> (B) a substrate that is at least periodically deficient in oxygen during a growing season as a result of excessive water content.[174]

Technical wetland delineation manuals of each relevant agency, discussed in the following section, provide even more specific guidance for determining whether hydric soil is saturated "long enough" during a "growing season," whether hydrophytic vegetation is growing in water or substrate that is "periodically deficient," and finally, whether a wetland actually exists on a certain piece of property.

B. Delineations and Determinations

Without a definition, deciding what is a wetland is almost impossible. However, the day-to-day mechanisms for establishing whether certain property contains a wetland are "delineations" and "determinations." The term "wetland delineation" refers to the process used to separate wetlands from non-wetlands, determining where the wetland ends or begins.[175] The term "wetland determination" refers to the process for determining whether wetlands exist on a given parcel of land, and thus, whether restrictions apply to the use of the land.[176]

"Wetlands are delineated primarily because property owners need to know which parts of their land could be within the regu-

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174. 16 U.S.C. § 3801(a)(8)–(9) (1994).

175. *See* FEDERAL INTERAGENCY COMMITTEE FOR WETLAND DELINEATION, FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS 131 (1989) [hereinafter FEDERAL WETLANDS MANUAL].

176. *See id.*

latory jurisdiction of one or more federal statutes."[177] In order to lend some specificity to the definition of wetland and to have consistent boundary determinations for wetlands, agencies have adopted technical wetlands delineation manuals.[178]

Before 1986, no federal agency had implemented any sort of formal methodology for wetland delineation.[179] However, by 1989, each agency had adopted its own delineation manual, and the agencies formed an interagency manual—the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.[180] The intent of the manual was to provide a single, consistent approach for determining whether an area is a jurisdictional wetland and for delineating the upper boundary of an area determined to be a wetland.[181]

1. Wetland Definitions Under the CWA—Scope of the Clean Water Act's Jurisdiction

One prominent environmental reference states, "[t]he ebb and flow of the jurisdiction of the U.S. Army Corps of Engineers over wetlands development presents one of the more poignant conflicts of contemporary water pollution law."[182] Subsection 1344(a) states that the Secretary of the Army "may issue permits, after notice and opportunity for public hearings, for the discharge of dredged or fill material into the *navigable waters* at specified disposal sites."[183] Because the term "navigable waters" is defined in the CWA as "waters of the United States,"[184] jurisdiction under the section 404 program is determined largely by the scope of the definition of "waters of the United States."[185] In fact, the legislative history of CWA seems to reject the requirement that the waters in question be navigable.[186]

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177. WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 66.
178. *See id.* at 65.
179. *See id.*
180. *See id.*
181. *See* FEDERAL WETLANDS MANUAL, *supra* note 175, at 1.
182. RODGERS, *supra* note 154, § 4.6, at 318.
183. 33 U.S.C. § 1344(a) (1994) (emphasis added).
184. 33 U.S.C. § 1362(7) (1994).
185. CLEAN WATER ACT HANDBOOK, *supra* note 118, at 136.
186. *See, e.g.*, S. Conf. Rep. No. 92-1236, at 123–24 (1972), *reprinted in* 1972 U.S.C.C.A.N. 3776 (indicating a desire to escape from the constrictions of a narrow interpretation of the term "navigable waters").

Defining wetlands to include all "waters of the United States" is more than a mere matter of semantics; it directly impacts the scope of COE's jurisdiction. The next Part of this Article briefly examines how the COE came to regulate wetlands under this expansive definition.

a. Statutory Language of the CWA and Applicable Regulations

The Clean Water Act section 404 permit program regulates the discharge of dredged or fill material into "navigable waters."[187] The individual permit process under § 1344(a) calls for public hearings when the COE issues a permit for the discharge of dredged or fill material into "navigable waters at specified disposal sites."[188] The COE must also ensure that the permit complies with the EPA's requisite environmental criteria, known as the section 1344(b)(1) guidelines.[189]

The focus of most debate is over the definition of "navigable waters." The COE requires a permit for dredging or filling a wetland, but many argue that the Clean Water Act should not regulate, and was never intended by Congress to regulate, wetlands.[190] To understand how the COE and EPA are able to include wetlands within the definition of "waters of the United States," one must examine the Congressional intent of the statute and case law decisions discussing this intent.

b. Congressional Intent for Wetlands Protection Under the CWA

One commentator notes that "[t]he Clean Water Act uses, somewhat indiscriminately, the historical phrases 'navigable waters' and

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187. *See* 33 U.S.C. § 1344(a).

188. *Id.* "Dredged material" is defined as material that is excavated from the waters of the United States. *See* 33 C.F.R. § 323.2(c) (1995). A "discharge of dredged material" refers to the material's reintroduction into the waters by direct dumping or by "runoff or overflow from a contained land or water disposal area." *Id.* at § 323.2(d) (1995). The term "fill material" is defined as "material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a body of water." *Id.* at § 323.2(e) (1995).

189. *See* 40 C.F.R. § 230 (1996).

190. *See, e.g.*, Lance D. Wood, *Section 404: Federal Wetland Regulation is Essential*, NAT. RESOURCES & ENV'T, Summer 1992, at 10.

'navigable waters of the United States.' But the definitions section and the legislative history eliminate the ambiguity."[191]

One Senate Report specifically indicates "a desire to escape from the constrictions of the navigability test,"[192] and, in a related Conference Report, Congress expresses the desire to give the term "navigable waters" "the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes."[193] As the next section shows, courts of law reviewing challenges to the jurisdiction of the COE regarding wetlands regulations have had no choice but to turn to this legislative history to interpret section 404 of the Clean Water Act.

c. Judicial Interpretation of Wetland Protection Under the CWA

In 1974 a federal court directed that the CWA should be enforced to the fullest extent of the law.[194] In 1975 the District of Columbia District Court prompted the COE to expand its licensing responsibilities beyond waters that met the traditional, narrow "navigable waters" definition.[195] Then in *United States v. Riverside Bayview Homes, Inc.*,[196] the U.S. Supreme Court unanimously held that the COE's broad construction of "waters" included adjacent wetlands.[197] The Court went on to say that the COE's definition was consistent with the "breadth of congressional concern for protection of water quality and aquatic ecosystems" underlying the 1972 CWA.[198] In the past two decades, then, judicial interpretation has broadened the scope and expanded the reach of the CWA's wetland protection powers.

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191. RODGERS, *supra* note 154, § 4.6, at 332 (footnotes omitted).

192. S. Rep. No. 92-414, at 77 (1971), *reprinted in* 1972 U.S.C.C.A.N. 3668.

193. S. Rep. No. 92-1236, at 123–24 (1972), *reprinted in* 1972 U.S.C.C.A.N. 3776.

194. *See* United States v. Ashland Oil & Transp. Co., 504 F.2d 1317 (6th Cir. 1974).

195. *See* Natural Resources Defense Council, Inc. v. Callaway, 392 F. Supp. 685 (D.D.C. 1975) (invalidating any definition of federal jurisdiction that departed from "waters of the United States").

196. 474 U.S. 121 (1985).

197. *See id.* at 139.

198. *Id.* at 133; *see also* CLEAN WATER ACT HANDBOOK, *supra* note 118, at 137.

2. Wetland Delineation and Determinations Under the Food Security Act

Wetland delineations and determinations under the Food Security Act (FSA) are different for several reasons from decisions as to whether an area meets the definition of wetlands under the CWA. First, the underlying definitions are not the same.[199] Second, some activities allowed under section 404 of the CWA are subject to FSA wetlands compliance measures.[200] Finally, the CWA is strictly regulatory while the FSA wetlands conservation guidelines are intermingled with participation in federal farm programs.

The Wetland Conservation (Swampbuster) Provision of the FSA requires agricultural producers to protect the wetlands on the farms they own or operate in order to be eligible for USDA farm program benefits.[201] Specifically, producers are not eligible for benefits if they plant an agricultural commodity on wetlands that were converted by drainage, leveling, or any other means after December 23, 1985 (the effective date of the FSA), or if they convert a wetland for the purpose of agricultural commodity production after November 28, 1990.[202]

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199. *See supra* notes 162, 173 and accompanying text.

200. Many normal farming, silvicultural, and ranching activities that involved discharges of dredged or fill materials into wetlands are exempted from section 404; that is, they do not require a permit. U.S. ENVIRONMENTAL PROTECTION AGENCY, WETLANDS FACT SHEET NO. 19, WETLANDS ON AGRICULTURAL LANDS: SECTION 404 AND SWAMPBUSTER 1 (1995).

201. *See* 16 U.S.C. § 3821 (1994).

202. *See id.* § 3821(b) (1994). The 1990 amendments to the Food Security Act changed the "trigger" that is used to determine when a violation has occurred. Under the present FSA, a wetland is deemed to be "converted" when an agricultural commodity could be produced on it, even if the commodity has not yet been produced. The Senate Report from the 1990 amendments states:

> Currently, a person may drain a wetland and not be in violation of swampbuster until the person produces an agricultural commodity on that land. Therefore, a person can produce on the converted wetland during a time of high commodity prices and stay out of the production adjustment programs. During a year of low commodity prices, the person can simply not produce on the converted wetland and regain eligibility for farm program benefits. The functional value of the wetland, however, is lost as long as it is converted.

S. Rep. No. 101-357, at 236 (1990), *reprinted in* 1990 U.S.C.C.A.N. 4656, 4890.

a. Wetland Definition and "Triggers" Under the Food Security Act

The Food Security Act was the first statute to define "wetland" using explicit terms and requirements. Within the definition, the FSA set out three indicators that must be present for an area to be labeled a wetland: hydric soil, hydrophytic vegetation, and wetland hydrology (i.e., an inundated or saturated surface).[203] The FSA, also separately defines "hydric soil" and "hydrophytic vegetation."[204] Once the NRCS determines that property contains a wetland according to the above criteria,[205] the producer who participates in federal farm programs must abide by certain wetland conservation measures in order to remain eligible for program benefits.[206]

Among the wetland conservation measures producers must abide by is a prohibition on "converting" a wetland. The FSA defines the term "converted wetland" as well as the "trigger" that causes the change from a "wetland" to a "converted wetland."[207] The body of the section entitled "Program ineligibility" explains which "program benefits" a producer would lose if he

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203. *See* 16 U.S.C. § 3801(a)(16) (1994); *see also* supra note 173 and accompanying text.

204. *See* 16 U.S.C. § 3801(a)(8)–(9) (1994).

205. *See infra* notes 214–216 and accompanying text (discussing in more detail the NRCS's procedures and responsibilities under NRCS regulations, the NRCS manual, and the interagency Memorandum of Agreement).

206. Some refer to this as "coupling." *See supra* notes 134–136 and accompanying text.

207. *See* 16 U.S.C. § 3801(a)(4) (1994). The statute states:

> (A) The term "converted wetland" means wetland that has been drained, dredged, filled, leveled, or otherwise manipulated (including any activity that results in impairing or reducing the flow, circulation, or reach of water) for the purpose or to have the effect of making the production of an agricultural commodity possible if—
>
> (i) such production would not have been possible but for such action; and
>
> (ii) before such action—
>
> (I) such land was a wetland; and
>
> (II) such land was neither highly erodible land nor highly erodible cropland.
>
> (B) Wetland shall not be considered converted wetland if production of an agricultural commodity on such land during a crop year—
>
> (i) is possible as a result of natural condition, such as drought; and
>
> (ii) is not assisted by an action of the producer that destroys natural wetland characteristics.

Id.

produces an agricultural commodity on a converted wetland[208] or "converts a wetland . . . for the purpose, or to have the effect, of making the production of an agricultural commodity possible on such converted wetland."[209] Finally, the FSA exempts certain activities that seem to convert a wetland but do not result in a participant losing program eligibility.[210]

The first step in deciding whether FSA conservation measures will apply to a producer is a wetland delineation. The NRCS must produce a public record of the boundaries of each wetland, to be marked on a wetland delineation map.[211] In conjunction with recording the wetland's boundaries, the NRCS must provide the affected property owner a chance to appeal the delineation and to request an on-site investigation of the delineation in the case of an appeal.[212]

b. NRCS's Regulations and Guidance for Wetlands Delineation

After examining the FSA's description of wetland conservation measures, it may seem that delineating the boundaries of a wetland

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208. *See id.* § 3821(a) (1994). This is known as the original 1985 Food Security Act trigger and was originally used to determine when a wetland was actually "converted."

209. *Id.* § 3821(b) (1994). This is known as the 1990 FACTA trigger, and is used to determine when a wetland is deemed "converted." *See supra* note 20 for the legislative history of the change.

210. *See* 16 U.S.C. § 3822(b) (1994). Until the 1996 amendments to the FSA, these exemptions included:

> (1) production of an agricultural commodity on—
> (A) converted wetland if the conversion of such wetland was commenced before December 23, 1985;
> (B) an artificial lake, pond, or wetland created by excavating . . . ;
> (C) a wet area created by a water delivery system . . . or the application of water for irrigation . . . ;
> (D) wetland on which the owner or operator of a farm or ranch uses normal cropping or ranching practices to produce an agricultural commodity in a manner that is consistent for the area where such production is possible as a result of a natural condition, such as drought, and is without action by the producer that destroys a natural wetland characteristic; or
> (2) for the conversion of—
> (A) an artificial lake, pond, or wetland created by excavating . . . ; or
> (B) a wet area created by a water delivery system . . . or the application of water for irrigation.

Id.; *see infra* notes 341–373 and accompanying text for a discussion of the added and modified exemptions from the 1996 Act. *See also infra* note 256 for a discussion of two proposed exemptions that would have severely weakened Swampbuster, but failed.

211. *See* 16 U.S.C. § 3822(a)(1) (1994).

212. *See id.* § 3822(a)(2).

or converted wetland is a rather simple matter. However, this is not necessarily accurate. Although the FSA's definition of a wetland mandates that three indicators[213] be present, the definitions of the wetland indicators alone are not enough to consistently apply the criteria. Hydric soils, hydrophytic vegetation, and wetland hydrology may not mean the same thing to different wetland delineators. For this reason, the FSA also states that the NRCS shall develop specific criteria for the identification of these special soils and hydrophytic plant species and, more importantly, shall maintain lists of such soils and vegetation.[214]

Matching wet dirt and water-type plant specimens seems to be an easy method to locate a wetland. But, "[m]uch of the controversy over wetland delineation can be reduced to a single question: which characteristics can be used to identify wetland ecosystems and distinguish them from other ecosystems?"[215] Controversy results because the process becomes more complex when a delineator must identify an area that meets all of the requirements of the full wetland definition under the FSA: (1) a predominance of hydric soils that is (2) "inundated or saturated by surface or groundwater at a frequency and duration sufficient to support" (3) a prevalence of hydrophytic vegetation under "normal circumstances."[216]

i. Hydric Soils and Hydrophytic Vegetation

Under the FSA, the NRCS must decide which hydric soils and hydrophytic vegetation are specific to each county. The regulations written by NRCS state that "[h]ydric soils are those soils which meet criteria set forth in the publication 'Hydric Soils of the United States 1985' which was developed by the National Technical Committee for Hydric Soils and which is incorporated by reference."[217] A list of hydric soils is on file for each county in each state's

213. *See supra* note 173 and accompanying text.

214. *See id.* § 3801(b). According to the regulations, the NRCS shall "[o]versee the development and application of criteria to identify hydric soils in consultation with the National Technical Committee for Hydric Soils and make available to the public an approved county list of hydric soil map units, which is based upon the National List of Hydric Soils" and shall "[c]oordinate with the U.S. Fish and Wildlife Service and others in updating the National List of Plant Species that Occur in Wetlands." Highly Erodible Land and Wetland Conservation, 7 C.F.R. §§ 12.30(a)(1)–(5), 12.31(a)(3)(ii) (1996).

215. WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 90.

216. 16 U.S.C. § 3801(a)(16) (1994).

217. 7 C.F.R. § 12.31(a)(3) (1996).

NRCS field office. The second indicator, hydrophytic vegetation, is defined by the regulations as "consist[ing] of plants growing in water or in a substrate that is at least periodically deficient in oxygen during a growing season as a result of excessive water content."[218] The regulation continues: "[a] plant shall be considered to be a plant species that occurs in wetland if such plant is listed in the National List of Plant Species that Occur in Wetlands."[219] Unfortunately, these definitions of the first two wetlands indicators leave some ambiguity: when is the "growing season" during which hydric soils must be saturated; what constitutes "normal circumstances"; and what amount constitutes a "prevalence" of hydrophytic vegetation?

The National Food Security Act Manual ("NFSAM") helps to clear up some of the ambiguity by defining "growing season" (during which hydric soils must be "saturated, flooded, or ponded") as "that part of the year when soil temperatures at 19.7 inches below the soil surface are higher than biological zero (5 degrees Celsius) . . . . The growing season can be approximated as the period of time between the average date of the [last] *killing* frost to the average date of the [first] killing frost."[220] Obviously this time frame has a direct correlation with whether a wetland is present under the FSA definition. Defining a "growing season" as having a shorter duration would exclude some lands that only briefly exhibit the wetlands indicators during the beginning or end of the growing season as currently defined.[221]

The answer to the "normal circumstances" question is found in the regulations:

> (i). . . . The term "normal circumstances" refers to the soil and hydrologic conditions that are normally present, without regard

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218. *Id.* § 12.31(b).

219. *Id.* § 12.31(b)(1).

220. NATURAL RESOURCES CONSERVATION SERVICE, USDA, NATIONAL FOOD SECURITY ACT MANUAL at 527-69 (1994) [hereinafter NFSAM] (emphasis added). The NFSAM printed an error, by mistakenly interchanging the words "first" and "last." Obviously the growing season does not consist of the time from the first frost until the last frost.

221. *See* S. 851, 104th Cong. § 3 (1995); H.R. 961, 104th Cong. § 804(2) (1995). Both bills, drafted to reauthorize the Clean Water Act and to give wetland delineation authority solely to the USDA for all wetlands located on "agricultural land," defined "growing season" as "the period between the average date of the last frost in spring and the average date of the first frost in autumn." S. 851; H.R. 961. Notice that neither bill included the qualifier "killing frost." This was an attempt to limit federal wetlands regulation by shortening the period defined as a "growing season."

> to whether the vegetation has been removed; or (ii) In the event the vegetation . . . has been altered or removed, [NRCS] will determine if a prevalence of hydrophytic vegetation typically exists in the local area in the same hydric soil map unit under non-altered hydrologic conditions.[222]

This definition and requirement that a potential wetland area "under normal circumstances does support" hydrophytic vegetation in a predominance of hydric soils is an attempt to establish "average conditions."[223] These "average conditions" do not include alteration or removal of the vegetation by a person, eliminating incentives for a landowner to erase evidence of the vegetation indicator.

The answer to the "prevalence" question was a more definite one. The NRCS had an equation that allowed field personnel to determine, in a consistent manner, whether a hydrophytic plant species was "prevalent" in an area.[224] However, the Interim Final Rule changed the reference to "prevalence" by stating that "[t]he determination of prevalence of hydrophytic vegetation will be made in accordance with the current Federal wetland delineation methodology in use by NRCS at the time of the determination."[225] It is unclear whether NRCS will continue to use the prevalence index equation, but by modifying the rule, the agency now has the authority to use alternative methods.

ii. Wetland Hydrology

The third indicator is wetland hydrology. "The importance of hydrology in the formation and maintenance of wetlands is well accepted, but the threshold conditions that satisfy the hydrologic criterion and the methods to be used for determining the presence or absence of wetland hydrology are still in need of study."[226] This indicator is the most controversial criterion requisite in the wetland

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222. 7 C.F.R. § 12.31(b)(2) (1996).

223. *See* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 103.

224. *See* 7 C.F.R. § 12.31(b)(3)(iv)(A) (1995) (stating that the "prevalence index" equals:

$$[(1 \times \Sigma F_1) + (2 \times \Sigma F_2) + (3 \times \Sigma F_3) + (4 \times \Sigma F_4) + (5 \times \Sigma F_5)] \div [\Sigma (F_1 + F_2 + F_3 + F_4 + F_5)]$$

where "F" equals the frequency of occurrence of a plant species, and n(1–5) are equal to ecological index values for indicator groups).

225. 7 C.F.R. § 12.31(b)(3) (1996).

226. WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 90–91.

definition, probably because of its seemingly arbitrary—some would say political[227]—parameters.

Frequency and duration of continuous flooding, inundation, or saturation within a given distance of the surface during a growing season are the threshold determinants in measuring the wetland hydrology indicator.[228] The frequency or duration relates to the different classes of wetland.[229] The class of wetland, according to its hydrology, determines the kind of farming activity that is allowed or prohibited on "farmed wetlands"—areas that were manipulated before December 23, 1985, for the purpose of, or to have the effect of, making the production of an agricultural commodity possible.[230] As to the particular hydrology criteria for certain classes of farmed wetlands, the NFSAM requires the following durations or frequencies:

> [I]f the area is a playa, pothole, or pocosin [it must be] inundated for at least 7 days or saturated for at least 14 consecutive days during the growing season, or if the area is not a pothole, playa, or pocosin [it must have a] 50% chance of being seasonally ponded or flooded for at least 15 consecutive days during the growing season, or 10% of the growing season, whichever is less.[231]

The NFSAM explains inundation and saturation in an appendix.[232] The NFSAM describes "inundated" wetlands as having at least a fifty percent chance of flooding or ponding for at least seven consecutive days during the growing season in most years.[233] "Saturation" is a condition where there is at least a fifty percent chance of water being found at or near the surface for at least fourteen consecutive days during the growing season in most years.[234] A

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227. See *infra* note 234 for a discussion of how the 104th Congress threatened to change this criterion within the definition of a wetland.

228. *See* WETLANDS: CHARACTERISTICS AND BOUNDARIES, *supra* note 137, at 92.

229. See *infra* notes 239–246 and accompanying text explaining why wetlands have different labels after determination.

230. *See* NFSAM, *supra* note 220, at 514-10.

231. *Id.*

232. *See* NFSAM, *supra* note 220, at 527-67. This supplemental information is regarding hydrology *criteria*, which are more specific than the general hydrology *indicators*. See *supra* notes 140–141 for definitions of "criterion" and "indicator."

233. *See* NFSAM, *supra* note 220, at 527-68.

234. *See id.* at 527-69. This was one of three issues concerning the definition of a wetland that some members of Congress tried to change early in the FSA debate. For a discussion of the other two issues, see *infra* note 256. This effort became known as the

delineator may consider soils to be saturated to the surface when the water table is within .5 feet of the surface for coarse sand, sand, or fine sandy soil and within one foot of the surface for all other types of soil.[235]

iii. Procedure for Delineating a Wetland

Finally, the procedure for delineating a wetland may be completed either through an off-site or on-site identification.[236] NRCS field personnel are allowed to make off-site delineations where there is appropriate correlation between known wetlands and office information consisting of soil survey maps, color slides, aerial photography, or geological survey maps.[237] On-site procedures are required if delineation by off-site methods cannot be used, reliable mapping conventions have not been approved for that county, or when an on-site delineation has been requested.[238]

c. Wetland Determinations and USDA Form AD-1026

Once the NRCS identifies the boundaries of a wetland through delineation, parcels of land must be labeled to determine whether

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"21-day proposal," since it required water to be on or above the surface of land for 21 consecutive days in order for that land to qualify as a wetland. This proposal arose despite the fact that the National Research Council ("NRC"), whom Congress had commissioned to study the definition, had concluded that a 14-day period for saturation was the most scientifically accurate. *See* Wiebe et al., *supra* note 5 at 404.

Preparing to refute the proposed definition, the USDA Economic Research Service studied the effect the 21-day proposal would have had on turning wetland acres back into production acres and on the resulting grain prices. *See generally id.*, *supra* note 5. Although parts of the study were unreleased because of potential scrutiny, economists estimated that this new definition would have reduced corn prices 11% ($.28 per bushel) and bean prices 10% ($.63 per bushel) from predicted baseline levels. *See* Ralph Heimlich, economist, Environmental Indicators and Resource Accounting Branch, USDA Economic Research Service, Implications of Proposed Swampbuster Exemptions 3 (Sept. 25, 1995) (unpublished report, on file with author). The definition would have increased deficiency payments of the 1995 farm program by $1.9 billion; however, net returns to producers would have fallen by $2.3 billion. *See id.* Consequently, the 21-day proposal was defeated in the FSA reauthorization process, although the definition remains in both the Senate and House versions of the Clean Water Act reauthorization bills. *See* H.R. 961, 104th Cong. § 803 (1995); S. 851, 104th Cong. (1996) (proposing amendments to 33 U.S.C. § 1341).

235. *See* NFSAM, *supra* note 220, at 527-69.

236. *See id.* at 527-71.

237. *See id.*; *infra* notes 244–245 and accompanying text for an explanation of mapping conventions and use of soil survey maps.

238. *See* NFSAM, *supra* note 220, at 527-71.

FSA restrictions or exemptions apply to the land.[239] This process is called a wetland determination. Notification that the NRCS has made a wetland determination, a copy of each wetland delineation map concerning the affected property, and appeal procedures concerning the delineation and determination are provided to each program participant who completes a USDA Form AD-1026.[240] The NRCS is responsible for making wetland determinations on all land for which an AD-1026 has been received.[241]

An NRCS field office completes a wetland determination after notification that an applicant has filed a USDA Form AD-1026.[242] The NRCS also makes wetland determinations when the COE or an individual requests information in order to implement a CWA program.[243] Pursuant to the field office's local wetland mapping policy,[244] a District Conservationist or other NRCS staff person for that county examines mapping conventions specific to the state area where the wetland is located. NRCS bases the mapping conventions on field tested correlations between off-site and on-site information regarding the property in question.[245] When the wetland determination is completed, the NRCS office records the determi-

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239. *See generally* NFSAM, *supra* note 220, at 514.

240. *See id.* The Farm Services Agency, NRCS's counter-part agency handling eligibility provisions of all USDA commodity programs, requires each producer who wishes to participate in a federal farm program to complete a USDA Form AD-1026. This form is part of the application to receive USDA crop deficiency payments under the Price Support and Production Adjustment Program. *See* 7 U.S.C. §§ 1421–1471 (1994). The form, called the "Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification," requires applicants to certify under item eight whether they will "plant or produce an agricultural commodity on land for which neither a highly erodible land nor wetland determination has been made" and whether they will "plant or produce an agricultural commodity on land on which planting was made possible by drainage, dredging, filling, leveling, or any other means after December 23, 1985, and NRCS evaluated and approved the drainage activities." USDA, FORM AD-1026 (1996).

241. *See* NFSAM, *supra* note 220, at 513-1.

242. *See* 7 C.F.R. § 12.6 (1996).

243. *See* NFSAM, *supra* note 220, at 514-4. The NRCS will make determinations for CWA program implementation purposes "whether or not the person who owns, manages or operates the land is a participant in USDA programs." *Id.*

244. These policies are referred to as wetland "mapping conventions," and are "a set of accepted practices or procedures used to guide the wetland delineator in making off-site wetland determinations on agricultural lands." NFSAM, *supra* note 220, at 513-21. Mapping conventions are state-specific procedures. *See id.*

245. The "verifying information" may include aerial photography of the land, FSA color slides, precipitation records, climatological conditions, soil survey maps, FWS National Wetlands Inventory maps, and data recording any observations of the requisite wetland indicators. *See* NFSAM, *supra* note 220, at 513-23.

nation on a USDA Form CPA-026 and mails the form to the program participant.

If a parcel of land meets the three wetland indicators, FSA restrictions regarding allowable uses of wetlands apply to the property.[246] In general, restrictions on wetlands under Swampbuster apply to lands "which continue to provide important wetland functions and values."[247] Restricted activities for the affected wetland and producer will generally include prohibition of "manipulation" or of "making production possible" on the wetland.[248] The NFSAM defines manipulation as "the alteration of the hydrology and/or the removal of woody vegetation (including stems and stumps) on a wetland."[249]

Although many producers (mistakenly) believe that a wetland label will completely restrict their activities, a wetland may be used to produce an agricultural commodity if the following conditions are met:

- production is made possible as a result of a natural condition, such as drought, and
- water regimes are not manipulated, and
- woody vegetation is not removed, and
- normal tillage practices are used that do not fill, level, or otherwise cause conversion of the wetland.[250]

Even if a participant does not meet all of the criteria listed, the NRCS may determine that the effect on remaining wetland functions and values would be "minimal,"[251] thereby allowing the participant to retain eligibility for USDA assistance.

There are several other situations in which a participant may be permitted to farm wetlands. One is if the NRCS makes a determination that the land is a farmed wetland. "Farmed wetlands" or "FWs" are wetlands "that were drained, dredged, filled, leveled or otherwise manipulated before December 23, 1985, for the purpose of, or to have the effect of, making the production of an agricul-

246. *See id.* at 514-7.
247. *Id.*
248. *Id.*
249. *Id.*
250. *See* NFSAM, *supra* note 220, at 514-9.
251. See *infra* notes 259–262 and accompanying text for a discussion of the "minimal effects" exemption and other options for flexibility under the wetlands compliance provisions.

tural commodity possible, and continue to meet specific hydrologic criteria."[252] For example, these areas may be wetlands in the middle of fields that are farmable in dry years, but not in wet years. Additional qualifying elements of an FW include no possible production on the FW before the manipulation, and at least one production of an agricultural commodity on the land prior to December 23, 1985.[253] Areas labeled as an FW may be used to produce agricultural commodities without the loss of USDA program eligibility. Furthermore, existing drainage systems or other hydrologic manipulations may be "maintained to the scope and effect that existed on the wetland" prior to December 23, 1985.[254] If drainage is improved to a level beyond the condition that existed on December 23, 1985, the site will be reclassified as "converted wetland" or "CW."[255]

Some areas that seem to be wetlands and have the three wetland indicators present may not be subject to Swampbuster because the land falls under the "Exemptions" section in the FSA.[256] Under these exemptions, the production of an agricultural commodity on a converted wetland or the conversion of a wetland will not result in ineligibility for USDA benefits. The most common exemption is the "prior converted cropland," or "PC." An area designated PC was at one time a wetland that has now been altered, converted, or otherwise manipulated, and cropped before December 23, 1985.[257] Until the 1996 amendments to the FSA, PC cropland had to be farmed, maintained, or improved in such a way that it would not be considered "abandoned."[258]

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252. NFSAM, *supra* note 220, at 514-10.

253. *See id.*

254. *Id.* at 514-12.

255. *Id.* at 514-18.

256. *See* 16 U.S.C. § 3822(b) (1994). *See generally* NFSAM, *supra* note 220, at 514-30. During the 1995 FSA debate there was discussion of adding two more exemptions to those listed in § 3822(b): wetlands less than one acre in size; and wetlands that were cropped six out of ten years. Mollie Beattie, Director of the U.S. Fish and Wildlife Service, sent a letter with attachments to Senator Patrick Leahy for his use in refuting the attempt to add the two new exemptions. *See* Beattie, *supra* note 19 at 1. The attachments contained data showing that approximately 2,366,619 acres of wetlands would be exempted as a result of these two proposed exemptions. *See id.* at 2. This would, in turn, have an effect of $167,519,000 in lost retail sales associated with recreation on wetlands. *See id.* The data evidently was effective in converting the exemptions' advocates—the exemptions failed. See *infra* notes 313, 317–331, discussing Rep. Nick Smith's amendment for the one acre exemption, called the "Down to Earth Tiny Wetland Act of 1995."

257. *See* NFSAM, *supra* note 220, at 514-30.

258. *See id.* at 514-23. "Abandonment" has since been (partially) abandoned by the

Swampbuster has other provisions granting flexibility to program participants in the form of two additional exemptions:[259] "minimal effects" and "mitigation."[260] Under the minimal effects exemption, a producer may receive permission to manipulate a wetland if the changes will have only a "minimal effect" on the wetland characteristics as determined by the NRCS.[261] Under the mitigation exemption, a producer is allowed to convert a wetland as long as those functions and values lost during the conversion are mitigated through the restoration of another wetland.[262]

d. Appealing a Wetland Determination

i. Administrative Procedure for Appeals

The Department of Agriculture Reorganization Act of 1994[263] requires a person to "exhaust all administrative appeal procedures established by the Secretary or required by law before the person may bring an action in a court of competent jurisdiction."[264] These

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1996 reauthorization of the FSA. *See infra* note 351 and accompanying text. Abandonment is the cessation of cropping, forage production, or management on a PC or FW for five consecutive years such that the three wetland criteria are met. *See* NFSAM, *supra* note 220, at 514-23. After this time, NRCS would designate the area a wetland.

The purpose behind the controversial abandonment policy is interesting. Because the degree of alteration is the key in determining whether land is a "wetland" or "PC," something was needed to help categorize the impact of the alteration on the current condition of the land. Abandonment was one such categorization.

The NRCS could not realistically apply the PC label to land that was manipulated in 1920 but meets the criteria to be classified as a wetland today; conceivably all land has been manipulated at some time. The abandonment policy prevented NRCS from having to protect one area as a wetland while ignoring another area that had greater ecological value merely because it was "manipulated" decades ago. *See* Memorandum from Warren Lee & Bob Misso, Program Manager, Wetlands Reserve Program, USDA, Abandonment: What Is It and Why Does It Exist? 3 (Aug. 2, 1995) (unpublished memorandum, on file with author). Because the abandonment policy does allow five years for landowners to catch up with the management of their land, it helps to prevent unjust reclassification from PC to wetland. This is still the case under the 1996 amendments; however, the landowner is allowed to keep the PC label with adequate documentation of when manipulations were made. *See infra* notes 351–355 and accompanying text.

259. Because these exemptions have been changed by the 1996 reauthorization of the FSA, this section only provides a summary of the exemptions' purpose. *See infra* notes 356–365 and accompanying text (discussing the modification of these two exemptions).

260. *See* 16 U.S.C. § 3822(f) (1994).

261. *See id.* § 3822(f)(1). *See generally* NFSAM, *supra* note 220, at Part 516.

262. *See* 16 U.S.C. § 3822(f)(2). *See generally* NFSAM, *supra* note 220, at Part 517.

263. *See* 7 U.S.C. §§ 6901–7014 (1994).

264. *Id.* § 6912(e).

administrative appeal procedures include the opportunity for producers with an "adverse decision" to be heard by a newly established National Appeals Division ("NAD").[265] The USDA Reorganization Act set out jurisdiction over appeals concerning conservation programs as follows:

> Until such time as an adverse decision . . . is referred to the National Appeals Division for consideration, the Farm Service Agency shall have initial jurisdiction over any administrative appeal resulting from an adverse decision made under [the Conservation Title] of the Food Security Act of 1985, including an adverse decision involving technical determinations made by the Natural Resources Conservation Service.[266]

The Farm Service Agency, in addition to carrying out the Wetlands Conservation provisions, establishes regulations providing administrative appeal procedures under which a person who is adversely affected by any determination made under Swampbuster may seek review of such determination.[267] The NRCS provides extensive rights of appeal for persons adversely affected by NRCS decisions.[268] Once a producer receives an adverse technical deter-

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265. *See id.* §§ 6991–7002; *see also* Alan R. Malasky & William E. Penn, *USDA Reorganization—Fact or Fiction?*, 25 U. MEMPHIS L. REV. 1161 (1995); Christopher R. Kelley, *An Early Look at the USDA NAD*, AGRIC. L. UPDATE, Apr. 1995, at 1; Christopher R. Kelley & Susan A. Schneider, *Persistent Implementation Problems Under USDA NAD*, AGRIC. L. UPDATE, Dec. 1995, at 4.

266. *See* 7 U.S.C. § 6932(d) (1994). The applicable rules were changed by the 1996 reauthorization of the FSA. Now, before a participant appeals an adverse decision to the NAD, the participant must exhaust any available appeal procedures through a Farm Service Agency county committee. *See* 7 C.F.R. § 614.101(a)(2) (1996). In cases where the NRCS has not completed a field visit to the site in question, a designated conservationist shall complete such a visit before the Farm Service Agency county committee considers the appeal. *See* 7 C.F.R. § 614.104(b). This change in the rules is important because, in the past, wetland determinations often were made by using only "off-site" information that would not sufficiently support a wetland determination in the NAD or a district court. The NRCS and the lawyers defending NRCS wetland determinations felt the need for a certain process whereby the agency had a chance to build its administrative record with evidence to support its initial determination. *See supra* note 238 and accompanying text; *see also* Christopher R. Kelley, *Government Regulation of Agriculture: How Federal Agencies Make Rules*, AGRIC. L. REPORT, No. 1, 1994, at 4; Christopher R. Kelley, *Resolving Disputes with Administrative Agencies*, AGRIC. L. REPORT, No. 2, 1994 at 1. When reviewing an agency determination, a district court will examine only the administrative record. *See infra* note 279 and accompanying text.

267. *See* 16 U.S.C. § 3843(a) (1994); 7 CFR § 614 (setting forth procedures for administrative appeals of NRCS determinations).

268. *See* 60 Fed. Reg. 67,298, 67,313 (amending Reconsideration and Appeal Procedures, 7 C.F.R. § 614 (1996)).

mination from a District Conservationist, the producer may request a reconsideration of the determination[269] or request mediation.[270]

ii. Appealing a Determination to the District Court

Once a producer appealing a wetland determination exhausts the administrative remedies according to the USDA Reorganization Act, the Food Security Act, and applicable USDA regulations, the producer may seek judicial review in the appropriate district court. The plaintiff in cases against a government agency often petitions the court for review under the Administrative Procedure Act[271] following an adverse review determination by the agency. Unfortunately for the producer, however, the likely standard of review in such a case is the "arbitrary and capricious" standard.[272]

In *Downer v. United States Department of Agriculture and Soil Conservation Service*,[273] the court examined a plaintiff's request for judicial review of a wetland determination by the Soil Conservation Service ("SCS," presently NRCS).[274] The district court granted SCS's motion for summary judgment, using strong language affirming SCS's ability and experience in making wetland determinations.[275] The Eighth Circuit Court of Appeals affirmed.[276]

Before recounting its examination of the administrative record, the Eighth Circuit stated: "Our review . . . is limited to a determination of whether the decisions were 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'"[277] The Eighth Circuit applied the same four factors cited by the district court in conjunction with its examination of the administrative record under the arbitrary and capricious standard of review:

1. Has the agency relied on factors Congress has not intended it to consider?
2. Has the agency entirely failed to consider an important

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269. *See* 7 C.F.R. § 780.2(b).
270. *See id.* § 614.102.
271. Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (1994).
272. *Id.*
273. 894 F. Supp. 1348 (D.S.D. 1995), *aff'd.*, No. 95-2540, 1996 U.S. App. LEXIS 24648 (8th Cir. Sept. 19, 1996).
274. *See* 894 F. Supp. at 1348.
275. *See id.*
276. 1996 U.S. App. LEXIS 24648, at *1.
277. *Id.* at *3 (citing the Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (1994)).

aspect of the problem?
3. Is the agency's offered explanation for its decision one that runs counter to the evidence before the agency?
4. Is the agency's decision one that is so implausible that it could not be ascribed to a difference in view or the product of agency expertise?[278]

Both courts also held that, when reviewing an agency determination, the reviewing court will examine only the administrative record.[279] In other words, a plaintiff may not bring new evidence in front of the reviewing court during the trial because the administrative record has already been established.[280]

Agency determinations receive substantial deference in a court of law.[281] Both the Eighth Circuit and the district court quoted language from the famous *Marsh v. Oregon Natural Resources Council*[282] case: "[w]hen specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive."[283] The Eighth Circuit concluded that the NRCS properly reviewed the evidence before it, stating that "[w]hile there is evidence in the record cutting both ways, the agency was entitled to rely on the tests and observations made by its own experts" and that it would not be the court's place to insert its own opinion should it see things differently.[284]

In light of these standards of review, the Eighth Circuit closely examined NRCS's decisions regarding "1) whether the areas in question were wetlands; 2) whether such wetlands were converted; 3) whether the conversion was commenced before December 23,

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278. *Downer*, 894 F. Supp. at 1352–53 (citing CHILDRESS & DAVIS, FEDERAL STANDARDS OF REVIEW, § 15.07 at 15–41 (2d ed. 1992), citing Motor Vehicles Mfrs. Ass'n v. State Farm Ins. Co., 463 U.S. 29, 43 (1983)); *see Downer*, 1996 U.S. App. LEXIS 24648, at *4.

279. *See* 1996 U.S. App. LEXIS 24648, at *4; 894 F. Supp. at 1353 (citing 5 U.S.C. § 706 (1977); Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 420 (1971)).

280. See *supra* note 266 and accompanying text for a discussion of how the NRCS seeks to build the administrative record to sufficiently support determinations under the scrutiny of a district or appellate court.

281. *See* 1996 U.S. App. LEXIS 24648, at *3 ("[T]he reviewing court may not substitute its judgement for that of the agency and must give substantial deference to agency determinations.") (citing Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)).

282. 490 U.S. 360 (1989).

283. 1996 U.S. App. LEXIS 24648, at *5 (quoting *Marsh*, 490 U.S. at 378); 894 F. Supp. at 1353 (quoting *Marsh*, 490 U.S. at 378).

284. 1996 U.S. App. LEXIS 24648, at *10.

1985; and 4) whether the areas were artificial rather than natural wetlands."[285] The court concluded that the use of aerial photography and site visits by experts was sufficient to support NRCS's determination regarding the wetland,[286] its conversion,[287] the date of the conversion,[288] and the natural state of the wetlands.[289] The court also pointed out that the administrative record was comprised of the proceedings from nine separate hearings and reconsiderations that were part of the NRCS determination.[290]

In addition to his contention that the NRCS's determination was wrong, Downer also raised procedural due process issues. He argued that he was not notified that he would be ineligible for crop subsidy payments if he converted the wetland in question.[291] The district court decision emphasized the importance of NRCS's use of USDA Forms AD-1026 and 026[292] to maintain the plaintiff's right to due process.[293] The Eighth Circuit agreed that Downer had "adequate notice," that he "was specifically alerted to the presence of wetland areas on his farms," and that he "certified that he would not produce an agricultural commodity on converted wetlands without first consulting with the USDA."[294]

The *Downer* case is more than just a lesson in administrative law and the standards of review used in examining agency determinations. *Downer* is evidence that the NRCS has successfully responded to a Congressional mandate for expertise in making wetland determinations and promoting wetlands conservation.

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285. *Id.* at *3.
286. *See id.* at *7.
287. *See id.* at *10.
288. *See id.* at *12.
289. *See id.* at *14–*15.
290. *See id.* at *15.
291. *See id.*
292. *See supra* notes 240–246 and accompanying text.
293. *See Downer*, 894 F. Supp. at 1358 (noting that the plaintiff had submitted and received forms that indicated the presence of wetlands and described the plaintiff's plans for these areas, and concluding that the plaintiff had sufficient notice and knowledge of the appropriate process to convert wetlands).
294. *Downer*, 1996 U.S. App. LEXIS 24648, at *15–*16.

V. Reauthorization of the Clean Water Act and Food Security Act—The Road Toward Improved Federal Wetland Regulation

A. Reauthorization of the Clean Water Act

Many people believed that if Congress were to change wetlands regulation significantly, such changes would be made in the reauthorization of the Clean Water Act. The 104th Congress considered two mainstream bills, H.R. 961 and S. 851, that closely resembled each other and would have significantly changed the level of wetland regulation. However, it seemed unlikely from the beginning that either bill's provisions concerning wetlands would remain intact.

First, strong criticism of the bills' attempt to roll back wetland protection began at their inception.[295] This antagonism made it unlikely that the bills would survive through Congress or that the President would sign them. Second, Congress implicitly manifested its intent to maintain the protection of wetlands—at least through the next seven years—by passing amendments to strengthen the Swampbuster portion of the FSA.[296] After Congress had shown its support for wetlands through the strengthening of the Swampbuster program, a roll-back of protection for other wetlands through drastic amendments to the Clean Water Act would have been susceptible to a Presidential veto. The 104th Congress did not act on the bills before the close of its second session, but the new Congress is unlikely to substantially alter the prediction that drastic amendments to the Clean Water Act will not become law.

B. Clinton Administration Wetlands Policy and the Department of Agriculture's Blue Book

President Clinton's guidance when announcing the Administration's wetlands policies makes it clear that in the future the President would veto measures that roll back wetlands protection.

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295. *See, e.g.*, Editorial, *House of Environmental Horrors*, N.Y. Times, Aug. 7, 1995, at A12.

296. *See* Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, 110 Stat. 888, 986–992 (1996).

Controversies over wetlands identification and the rate of wetlands losses, as well as concerns for fairness to private landowners and farmers prompted President Clinton to initiate an intensive review of the wetlands program soon after he took office.[297] Clinton appointed an interagency team that announced its plan for an inclusive package of improvements to federal wetlands policy in August, 1993.[298] One government official called the plan "a common sense, workable set of administrative initiatives which coordinate[s] federal wetlands policy with state and local efforts, is more fair and flexible for landowners, and more effective in protecting valuable wetlands."[299]

The Administration strongly supports common-sense federal regulation of wetlands. The Administration recognizes the American public's support of wetlands protection: "77% of the public supports wetlands protection at least as stringent as current laws and regulations."[300] Further, the Clinton Administration went on record to vigorously oppose both the wetlands provisions in the Clean Water Act reauthorization that were before the House of Representatives (H.R. 961) and the separate wetlands bill that was pending in the Senate (S. 851).[301] The Clinton Administration is against "special interests" within H.R. 961 and S. 851.[302] "Included in these 'special interests' provisions are exemptions benefiting mining activities and railroads, as well as exemptions for road building and utility lines and special provisions to reduce protection of wetlands in Alaska regardless of the environmental effect."[303]

The Administration has specifically addressed wetlands, agriculture, and the FSA in its own publication—although it has yet to give it a catchy name.[304] The Clinton Administration's Wetlands

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297. *See* Robert H. Wayland III, *The Clinton Administration's Perspective on Wetlands Protection*, 50 J. SOIL & WATER CONSERVATION 581, 581 (1995). Wayland is the Director of the Office of Wetlands, Oceans and Watersheds, U.S. Environmental Protection Agency, Washington, D.C.

298. *See id.*

299. *Id.*

300. THE CLINTON ADMINISTRATION, WETLANDS PLAN: AN UPDATE 1 (Feb. 1995).

301. *Id.*

302. *See* Hazel Groman, *The Clinton Administration and Wetlands Protection: Meeting Our Commitment to Wetlands Reform*, 1995 American Law Association Annual Conference Materials J-2-13.

303. *Id.*

304. *See* George Anthan, *Glickman: Accord on Farm Bill Nearer. The White House*

Plan, in conjunction with the Administration's *Blue Book* proposals for improving the Food Security Act, provides a "blueprint" to restore confidence in the regulation of wetlands associated with agriculture.[305] The Administration's *Blue Book* stated,

> The Swampbuster provision . . . has successfully reduced the loss of wetlands to agriculture production to levels not seen since the turn of the century. However, this provision is controversial. Much of this controversy is caused by the rigidity of the law itself . . . . Swampbuster is one of the primary federal wetlands programs, and therefore it is critical to minimize, where appropriate, the differences between Swampbuster and these other programs, primarily Section 404 of the Clean Water Act. These efforts need not reduce the level of protection of wetlands functions and values as exist today.[306]

Specifically, the *Blue Book* states that Congress should "[p]ursue amendments to the wetland conservation provisions of the 1985 Farm Bill to ensure that the program focuses on conserving significant and important wetland functions and values, while providing greater flexibility to the agency as it works with farmers, particularly with regard to the mitigation provisions."[307] This is exactly what the Congress did—although not without a fight—in the Federal Agriculture Improvement and Reform Act of 1996 (reauthorization of the Food Security Act of 1985).

Continues to Insist, Though, on Linking a Good Share of Support Payments to Market Prices, DES MOINES REGISTER, Feb. 3, 1996, at 3. The article states:

> Agriculture Secretary Dan Glickman said Friday that Republicans may have gained a temporary advantage over the Clinton administration on farm policy because they attached a *catchy title* to their bill. Noting that Freedom To Farm's death has been predicted several times, Glickman called the GOP proposal "almost like an immutable law of nature. When you give something a name, it takes on a life of its own." Glickman noted the Clinton administration's farm plan last year was titled simply the "*Blue Book*." "We should have called ours something like, 'Farms for Eternity.'"

Id. (emphasis added).

305. *See* Wayland, *supra* note 297, at 584.

306. BLUE BOOK: ADMINISTRATION'S FARM BILL PROPOSAL, SWAMPBUSTER, 43 (1995).

307. *Id.* at 44.

C. Reauthorization of the Food Security Act—Wetland Provisions

After long debate, conducted mostly by committee staff behind closed doors,[308] both houses of Congress finally passed the extension of the Food Security Act on March 28, 1996.[309] As in 1990, this extension modified wetlands provisions in Subtitle C of Title III of the Food Security Act.[310]

1. The Stage Was Set for a Fight

Not surprisingly, the changes did not come without a fight.[311] Starting with early discussions of what the reauthorization of the FSA would look like, various legislators and interest groups were at odds over the fate of Swampbuster. A *Congressional Quarterly* article, dated four days before the House Subcommittee on Conservation was to mark up the Conservation Title of the Food Security Act, stated: "Both the House and Senate Agriculture committees are moving to scale back conservation regulations . . . in areas that environmentalists want to designate as protected wetlands."[312] In fact, an early draft version of the conservation title, authored by Congressman Wayne Allard, Chairman of the House Agriculture Committee's Resource Conservation, Research and Forestry Subcommittee, set out to completely repeal the Swampbuster initiative.[313]

Rep. Allard initially stated that he would "consider ending the 'Swampbuster' program, which penalizes farmers who drain wetlands,"[314] and that he "wanted to terminate the program altogether."[315]

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308. *See, e.g.*, David Hosansky, *Key Farm Policy Changes Advance in Conference*, 53 CONG. Q. WKLY. REP. 3448 (1995) (stating that "[t]he conferees, who spent much of the week behind *closed doors* in informal negotiations, were trying to cut farm programs by about $13 billion over seven years.") (emphasis added).

309. *See* 142 CONG. REC. D285,290 (daily ed. Mar. 28, 1996). The Senate vote was 74–26 and the House vote was 318–89. *Id.*

310. *See* H.R. CONF. REP. NO. 104-494, at 103–09 (1996).

311. *See* Dallas Muhlenbruch, Editorial, *Wetlands Reform is No. 1 Environmental Issue*, DES MOINES REGISTER, Aug. 16, 1995, at 9.

312. David Hosansky, *Panels Studying Conservation*, 53 CONG. Q. WEEKLY REPT. 3365 (1995) [hereinafter Hosansky I].

313. *See* H.R. 2542, 104th Cong. (1995). Later, Rep. Allard offered an Amendment in the Nature of a Substitute to H.R. 2542, which did not contain the repeal of Swampbuster. *See Mark-up: Hearing on H.R. 2542 Before the Subcomm. on Resource Conservation, Research and Forestry*, 104th Cong. (Nov. 8, 1995).

314. Hosansky, *supra* note 312, at 3365.

315. David Hosansky, *House Panel OKs Relaxing Cropland Regulations*, 53 CONG. Q. WEEKLY REP. 3454, 3455 (1995) [hereinafter Hosansky II].

He then "stepped back from such sweeping changes, because . . . they could trigger referrals to other committees and possibly jeopardize passage of the bill."[316] Instead, the Subcommittee adopted amendments introduced by Representatives Tim Johnson and Nick Smith.[317]

The Johnson amendment proposed to grant flexibility in Swampbuster enforcement by allowing the Secretary to determine the ineligibility of a producer in proportion to the severity of the violation;[318] ease abandonment guidelines;[319] provide for regional "minimal effects" exemptions;[320] provide for mitigation options through enhancement, restoration, or creation of wetlands;[321] modify the "good faith" exception;[322] and eliminate the role of the Fish and Wildlife Service in making determinations and mitigation plans.[323] These provisions largely remained intact in the version of the Act that was passed.[324]

The Smith amendment simply proposed to exempt all wetlands one acre or less in area from Swampbuster regulation.[325] Parallel provisions were in a Senate bill amending Swampbuster provisions.[326] The companion Senate bill also proposed to exempt from Swampbuster compliance all wetlands that were "frequently cropped agricultural land."[327] The bill then defined "frequently cropped agricultural lands" as those that were used for agriculture production six out of the ten years prior to 1996.[328]

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316. *Id.*

317. *See Mark-up: Hearing on H.R. 2542 Before the Subcomm. on Resource Conservation, Research and Forestry*, 104th Cong. (Nov. 8, 1995) (voice vote).

318. *See* Amendment offered by Mr. Johnson to the Amendment in the Nature of a Substitute to H.R. 2542 at § 601.

319. *See id.* § 602.

320. *See id.*

321. *See id.*

322. *See id.*

323. *See id.* §§ 602–603.

324. *See* Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, 110 Stat. 888 (to be codified at 16 U.S.C. §§ 3821–2822); see also *infra* Part V.C.2 for a discussion of the newly passed Swampbuster provisions.

325. *See* Amendment offered by Mr. Smith to the Amendment in the Nature of a Substitute to H.R. 2542 at § 610.

326. *See* S. 1373, 104th Cong. § 5(b)(4) (1995). The Senate bill was authored by Republican Senators Dole, Lugar, Craig, and Grassley and titled the Agricultural Resources Enhancement Act of 1995. *Id.*

327. *Id.*

328. *See id.* § 3(a)(4).

The failure of the Smith amendment and companion Senate provisions to appear in the final farm bill Conference Report demonstrates the strong stance taken by environmentalists and the Administration against provisions that would have exempted certain wetlands from Swampbuster. Some environmentalists noted that the rejected provisions would create a situation where "the government would be in the position of subsidizing farmers who plow environmentally fragile lands, as opposed to current law, which requires farmers to meet specific conservation standards in order to receive crop subsidies."[329] Kenneth Cook, president of the Environmental Working Group, noted that under the proposed amendment, "[y]ou're encouraged by subsidy payments to go out and drain . . . . Environmentally, it's a real disaster."[330] Administrative agencies such as the Fish and Wildlife Service and NRCS reminded legislators of the drastic effects such exemptions would have on protected wetland acres and the economic consequences of removing this protection.[331]

Specific wetland issues, especially acreage qualifications and easement-terms of the Wetlands Reserve Program, became to some extent mere poker chips in a larger commodity-driven farm bill game.[332] One Washington, D.C., agriculture columnist wrote that minority House members backing conservation measures similar to those in the companion Senate bill were "forced to compromise with GOP leaders who wanted no mention of conservation in the farm bill."[333] Because the House bill passed with wetlands provisions different from those that conservationist organizations had been led to believe would be included, one usually soft spoken but

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329. Hosansky I, *supra* note 312, at 3365.

330. *Id.*

331. See *supra* note 256 and accompanying text for a discussion of the Administration's efforts to combat attempts to change the definition of wetland and its efforts to disallow the "6 of 10" exemption. *See also* Hosansky II, *supra* note 315, at 3455 (stating that "[t]he Fish and Wildlife Service concluded that the proposal could reduce fall duck flights in the northern prairies by as much as 48 percent, severely restricting hunting opportunities"); Tom Kenworthy, *Panel Supports Stronger Species Act—Effect of Study on Upcoming Hill Environmental Debate Seen as Questionable*, WASH. POST, May 25, 1995, at A3 (stating that "[a] National Research Council report . . . strongly endorsed tough protections for wetlands because of their vital role in providing wildlife habitat," even though it did not seem to have much effect on Congress).

332. *See* George Anthan, *Conservationists Rail at Farm Bill Changes—Deal Diluted Safeguards, They Contend*, DES MOINES REGISTER, Mar. 2, 1996, at 3A.

333. *Id.*

effective player of the conservation movement stated, "We got rolled."[334]

Democratic Senators were working doubly hard: first, to be heard by their Republican colleagues who wanted to scale back wetlands provisions; and second, if they were heard, to end up with a bill that would not simply fold into a stronger House version once the "showdown" occurred.[335] Even after each house of Congress passed its version of the farm bill and the conferees of both houses were to meet in order to reconcile the different bills, Republican proponents of a weaker version of Swampbuster refused to give up, even though neither of the two bills going to the conference committee contained the changes they desired.[336] In a letter to Senator Tom Harkin, who had been named to the Conference Committee over fellow Iowan and Senate Agriculture Committee member Senator Charles Grassley, Grassley and the five other Congressmen from Iowa—all Republicans—wrote to "congratulate" Harkin for being named to the negotiating team for the Senate.[337] Then, the Republican delegation wrote, "As the sole representative of Iowa farmers on the (House-Senate conference) committee, we strongly urge you to support an issue that's vital to the farmers of our state—swampbuster reform."[338] The letter asked Harkin to insist that the reconciled farm bill include the controversial provisions exempting one-acre and frequently cropped wetlands from conservation provisions—even though the provisions existed in neither the House bill nor the Senate bill.[339] Harkin saw through the plea, and advised the delegation that including these exemptions would effectively remove protection from over half of Iowa's wetlands on private lands.[340]

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334. *Id.* (quoting Norm Berg, former Chief of the U.S. Department of Agriculture's Soil Conservation Service (now NRCS)). Mr. Berg, a close friend of the author, confessed in a personal communication that he really made a statement to journalist George Anthan that contained even more vigor.

335. *See* Kenneth Pins, *Farm Bill Showdown Set—Representatives, Senators must Reconcile Versions*, DES MOINES REGISTER, Sept. 29, 1995, at 4 (explaining how the Democratic Senators lost to their Republican colleagues on a straight party line vote in the Agriculture Committee, then set up for a "confrontation with the House over the direction of farm policy").

336. *See* George Anthan, *Harkin Sees Through GOP "Compliment"—Iowa Colleagues Press Points on New Farm Bill*, DES MOINES REGISTER, Mar. 19, 1996, at 2.

337. *See id.*

338. *Id.*

339. *See id.*

340. *See id.* Harkin also reminded the delegation members that they had already

2. Wetlands Provisions in the Federal Agriculture Improvement and Reform Act of 1996

a. The Good Faith Exemption and Reduction of Ineligibility

If a farm program participant produced an agricultural commodity on a converted wetland, under the 1990 Food Security Act that producer "shall be ineligible for" price support payments, loans, disaster payments, payments under voluntary incentive programs, cost-share assistance, and all other benefits conferred by the USDA.[341] The Secretary of Agriculture, under the Food Security Act, had little or no discretion to be flexible with a producer. Producing on a converted wetland was essentially a death penalty for program participants unless they qualified for a narrow "good faith" exemption[342] and graduated sanction reduction.[343] If so, the Secretary could reduce ineligibility if the participant was actively restoring the converted wetland, if the participant had not violated the provisions of Swampbuster in the previous 10-year period, and if the participant had committed the conversion in good faith without the intent to violate the provision.[344] Even if a participant could meet these requirements, however, the Secretary could only reduce the participant's ineligibility by "not less than $750 nor more than $10,000."[345]

In other words, if a program participant only received minimal USDA program benefits—$500 or less in any one year—because of the rigid language of § 3822(h)(2), that participant would not be eligible to receive a reduction in ineligibility. However, in amending § 3821 by stating that the person shall be "ineligible for loans or payments in an amount determined by the Secretary to be *proportionate* to the severity of the violation,"[346] Congress untied the hands of the Secretary to be flexible in dealing with producers.

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had their chance during each house's debate to push the measures through themselves. *See id.*

341. *See* 16 U.S.C. § 3821(a) (1994).

342. *See id.* § 3822(h)(1).

343. *See id.* § 3822(h)(2).

344. *See id.* § 3822(h)(1).

345. *Id.* § 3822(h)(2).

346. Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, Sec. 321(a), 110 Stat. 888, 986 (to be codified at 16 U.S.C. § 3821(a)(2)) (emphasis added).

Further amendment to the "Good Faith Exemption" at 16 U.S.C. § 3822(h) allows the Secretary to waive a person's ineligibility for program loans, payments, and benefits upon a showing of good faith and lack of intent concerning the violation.[347] If the NRCS chooses to waive ineligibility after a good faith conversion, the producer now has "a reasonable period, but not to exceed 1 year, during which to implement the measures and practices necessary to be considered to actively restoring the subject wetland."[348] The emphasis of the new provision is on restoring the value of the wetland rather than penalizing the producer.

These changes in the good faith exemption will solve a problem that occurs when tenants plant on land owned by absentee landowners. Under the old language, if a different producer subsequently planted on the absentee landowner's land two years later and also committed a good faith wetland conversion, the Food Security Act would not have allowed either the second producer or the absentee landowner to come back into compliance without losing program benefits. This was because the FSA allowed only one violation every ten years for each parcel of land, regardless of who committed the violation.[349]

b. Abandonment

The 1996 reauthorization of the FSA provides for the production of an agricultural commodity on a converted wetland, or for conversion of a wetland, if:

> the original conversion of the wetland was commenced before December 23, 1985, and the Secretary determines the wetland characteristics returned after that date as a result of—
>
> (i) the lack of maintenance of drainage, dikes, levees, or similar structures;
>
> (ii) a lack of management of the lands containing the wetland; or
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> (iii) circumstances beyond the control of the person.[350]

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347. *See* Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, Sec. 322(f), 110 Stat. 888, 991 (to be codified at 16 U.S.C. § 3822(h)).

348. *Id.*

349. *See* 16 U.S.C. § 3822(h)(1)(B)(i) (1994).

350. Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, Sec. 322(b), 110 Stat. 888, 988–989 (to be codified at 16 U.S.C. § 3822(b)(1)(G)).

This language has the effect of repealing part of the NRCS's "abandonment" provision.[351] Previously, if a program participant abandoned a prior converted (PC) wetland—which is exempt from Swampbuster—for five years during which wetland characteristics returned to the PC, the PC was considered "abandoned" by the NRCS and was relabeled as a wetland, subject to Swampbuster. What would happen, then, if a landowner with a PC voluntarily wanted to allow the PC to revert back to wetland characteristics, but not lose the PC designation? Under the NFSAM guidelines, the landowner would still have to "plow up" the PC once every five years to maintain the PC label.[352] The NRCS knew that this was contrary to the goals of the agency—NRCS did not want to require a landowner to plow a PC once every five years in order to maintain the PC label, when the landowner was willing to let the PC revert to wetland characteristics indefinitely. Warren Lee, Director of the Watersheds and Wetlands Division of NRCS, stated:

> [I]f a landowner with a PC wishes to provide wetland functions and values to society by letting his land labeled PC revert back to a wetland, we should not make him plow it up every five years just so he can keep his designation. Even if he wishes to then turn it into a corn field fifteen years later, society received those benefits of the wetland for that time, and it doesn't seem right to penalize the producer by saying he just converted a wetland. That is not the intent of Swampbuster or abandonment.[353]

The preceding new language "perfects" the PC label for a landowner: once a PC, always a PC.

The second part of the revised abandonment provision states that no person shall be ineligible for production of an agricultural commodity on a converted wetland, or for conversion of a wetland if:

> (i) the [land] was determined by the [NRCS] to have been manipulated for the production of an agricultural commodity or forage prior to December 23, 1985, and was returned to wetland

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351. *See* NFSAM, *supra* note 220, at 514-23; *see also supra* note 258 and accompanying text explaining "abandonment."

352. *See* NFSAM, *supra* note 220, at 514-23.

353. Telephone interview with Warren Lee, Director, Watershed and Wetland Division, NRCS USDA (Mar. 29, 1996).

> conditions through a voluntary restoration, enhancement, or creation action subsequent to that determination;
>
> (ii) technical determinations regarding the prior site conditions and the restoration, enhancement, or creation action have been adequately documented by the [NRCS];
>
> (iii) the proposed conversion action is approved by the [NRCS] prior to implementation; and
>
> (iv) the extent of the proposed conversion is limited so that the conditions will be at least equivalent to the wetland functions and values that existed prior to implementation of the voluntary wetland restoration, enhancement, or creation action.[354]

The new language emphasizes the point made in Warren Lee's above statement: now a producer will truly be able to voluntarily abandon a previously manipulated wetland and will have the freedom to (re)convert that land without becoming ineligible. The only caveat to this new common sense freedom is that the producer must "document the benchmark" of the activity with the NRCS prior to the implementation of a voluntary restoration, enhancement, or creation.[355] The documentation enables the Agency to understand and record the producer's intentions. Should the landowner then wish to (re)convert the wetland some time in the future, he may do so if the conversion is limited so that the land will have at least the wetlands functions and values that existed after the initial conversion.

c. Mitigation of Functions and Values

Congress made the most important change in all of the wetland conservation provisions of the FSA in a new exemption expanding mitigation. This change, developed by the NRCS and implemented by Congress, is believed by many to be the solution to Swampbuster criticism.[356]

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354. Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, Sec. 322(b), 110 Stat. 888, 989 (to be codified at 16 U.S.C. § 3822(b)(1)(H)).

355. *See id.*

356. This statement is personal knowledge and opinion. The author worked as a law clerk at the USDA for the National Wetlands Team of NRCS, the Farm Bill Team of NRCS, and the Natural Resources Division at the Office of the General Counsel. The author witnessed the inception of the provision through its drafting, re-drafting, lobbying, explaining, and "selling" to members of the Administration, Congress, field personnel,

The reauthorization of the FSA amends 16 U.S.C. § 3822(f)(2), which describes the guidelines by which NRCS will allow mitigation through restoration, enhancement, or creation action.[357] As amended, the section states that the Secretary shall exempt a person from converting a wetland under the provisions of Swampbuster if "[t]he wetland and the wetland values, acreage, and functions are mitigated by the person through the restoration of a converted wetland, the enhancement of an existing wetland, or the creation of a new wetland," and the restoration, enhancement, or creation meets several additional criteria.[358] The additional criteria include requirements that the mitigation be "in accordance with a wetland conservation plan; . . . in advance of, or concurrent with, the action; . . . [and] not at the expense of the Federal Government."[359]

This new authority will free the NRCS to allow common sense mitigation, whereas before the amendment, to be eligible for mitigation the wetland had to be "frequently cropped" and the mitigation could only occur on prior converted croplands (PCs)[360] that were also "frequently cropped."[361] For example, assume a producer had an existing, degraded wetland in the middle of a field that was disrupting the farming operation. (The existing wetland might have been degraded, for example, by the deposit of sediment, while a proposed mitigation site could be managed as a wetland with more permanent water and buffer vegetation.) The producer may be willing to replace or greatly increase the functions and values of the degraded wetland at the alternative site. However, if the mitigation site that the participant wished to use was not located on prior converted cropland (PC), the Food Security Act up until this time prohibited the NRCS from accepting the mitigation plan.

The additional guidelines ensure that the mitigation plan for agricultural wetlands approved by NRCS will be effective. Paragraph (D) assures the producer that the Agency will not require—when restoring or enhancing a wetland—more land from the pro-

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program participants, and environmental, wildlife, and conservation organizations all having a stake in the reauthorization of the Swampbuster provisions of the farm bill.

357. *See* Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, Sec. 322(d), 110 Stat. 888, 990 (to be codified at 16 U.S.C. § 3822(f)).

358. Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, Sec. 322(d), 110 Stat. 888, 990 (to be codified at 16 U.S.C. § 3822(f)(2)).

359. *Id.*

360. *See* 16 U.S.C. § 3822(f)(2) (1994).

361. *See id.*

ducer than the quantity being converted, unless more wetland is needed to produce equivalent functions and values as were produced by the wetland being converted.[362] Paragraph (E), on the other hand, assures the Agency and the public that when *creating* a new wetland—a practice not usually as efficient or as successful as restoring or enhancing an existing wetland—the mitigation plan must produce an amount of land *more* than equal to the wetland being converted.[363] Paragraph (F) restricts mitigation projects to the same general watershed as the wetland being converted.[364] This is to prevent a true mitigation banking situation from taking place, in which a producer in Montana could plow up his wetland and somebody in Iowa would enhance an existing wetland to off-set the conversion. Finally, paragraph (G) requires an easement to be placed on the newly mitigated site, to ensure that the process of mitigation is not in vain and that no net loss of wetland functions and values is incurred.[365]

d. Restoration of "the" Converted Wetland

Section 322(g) of the 1996 reauthorization of the FSA fixes a problem that severely prohibited the NRCS from being more flexible with producers. The section amends the "Restoration" provision of 16 U.S.C. § 3822(i):

> Any person who is determined to be ineligible for program benefits under section 3821 of 16 U.S.C. for any crop year shall not be ineligible for such program benefits under such section for any subsequent crop year if, prior to the beginning of such subsequent crop year, the person has fully restored the characteristics of the converted wetland to its prior wetland state, *or has otherwise mitigated for the loss of wetland values, as determined by the Secretary, through the restoration, enhancement, or creation of wetland values in the same general area of the local watershed as the converted wetland.*[366]

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362. *See* Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, Sec. 322(d), 110 Stat. 888, 990–991 (to be codified at 16 U.S.C. § 3822(f)(2)).

363. *See id.*

364. *See id.*

365. *See id.*

366. *Id.* § 3822(i); H.R. Rep. No. 104-494, at § 322(g), (1996) (passed) (emphasis added by the Conference Report).

Before the addition to 16 U.S.C. § 3822(i) from the text of the Conference Report, the NRCS would only allow restoration of "the" converted wetland. For example, if a producer converted a wetland, sold the property on which the converted wetland was located, and then wished to mitigate the converted wetland to regain program eligibility, the producer had to receive permission from the subsequent landowner to restore "the" converted wetland. However, the amending language allows the producer to mitigate the lost wetland functions and values of the converted wetland through restoration, enhancement, or creation of another wetland.

e. Minimal Effects

Section 322(c) of the reauthorization of the FSA directs the Secretary, through regulations, to establish "categorical minimal effect exemptions on a regional basis to assist persons in avoiding a violation" under Swampbuster.[367] This will clarify the scarcely used "minimal effects" exemption in 16 U.S.C. § 3822(f)(1). Because minimal effects on a wetland conversion differ from region to region, this language provides flexibility in establishing regulations that set out general minimal effects guidelines.

f. Consistency Between Section 404 and Swampbuster

Section 322(d) of the reauthorization of the FSA adds an additional exemption to the "Minimal effects; Mitigation" section at 16 U.S.C. § 3822(f).[368] The new language states that producers who convert wetlands under a Clean Water Act section 404 permit may remain eligible for USDA program benefits provided that the functions and values of the converted wetland are adequately mitigated for the purposes of the Food Security Act.[369] This provision will help reduce the confusion of interpreting multiple agency definitions of wetland compliance policies, and will add predictability and consistency to wetlands compliance. For example, a landowner who never participated in a USDA program may have

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367. Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, § 322(c), 110 Stat. 888, 990 (to be codified at 16 U.S.C. § 3822(d)).

368. Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, § 322(d), 110 Stat. 888, 990 (to be codified at 16 U.S.C. § 3822(f)).

369. *See id.*

obtained a section 404 permit from the COE in 1992 to convert a wetland and grow an agricultural crop such as vegetables. Under requirements for that permit, assume the COE required the producer to mitigate for the lost functions and values of the wetland. If this producer sought to become a Federal farm program participant, the USDA would make a wetland determination on the property.[370] The site that was converted would be labeled CW-91, making the client ineligible for program benefits.[371] Before the amending language, the only way this client could regain eligibility would be to restore the wetland that was converted in 1991—regardless of who currently owns that property. Furthermore, the only way the mitigation performed under the COE permit could be accepted under previous Swampbuster requirements was if the area converted was a frequently cropped wetland and the landowner performed the mitigation on a prior converted cropland.

g. Mitigation Banking

Section 322(i) of the reauthorization of the FSA authorizes the Secretary to establish a pilot mitigation banking program,[372] in which wetlands credits could be established that involve the restoration, enhancement, or creation of wetlands by public or private entities for use in compensation for lost wetland functions and values.[373]

h. Fish and Wildlife Service Concurrence Eliminated

The amending language deletes controversial provisions within Swampbuster that required the NRCS to seek concurrence from the Fish and Wildlife Service and Department of the Interior before approving mitigation plans and while making wetland delineations.[374]

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370. *See supra* notes 240–241 and accompanying text.

371. *See* NFSAM, *supra* note 220, at 514-21.

372. *See* Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, § 322(i), 110 Stat. 888, 992 (to be codified at 16 U.S.C. § 3822(k)).

373. *See* Federal Guidance for the Establishment Use and Operation of Mitigation Banks, 43 Fed. Reg. 12,286 (1995); Richard M. Hopen, *Wetlands Mitigation Banking: Giving Entrepreneurs a Chance to Build Better Wetlands*, 2 J. ENVTL. L. & PRAC. 32, 32 (1994); Lew Lautin, *Wetlands Mitigation Banking: Understanding—and Joining—an Emerging Industry*, LAND DEV., Winter 1995, at 10; Virginia C. Veltman, *Banking on the Future of Wetlands Using Federal Law*, 89 NW. U.L. REV. 654, 659 (1995).

374. *See* Federal Agriculture Improvement and Reform Act of 1996, Pub. L. No. 104-127, § 322(h), 110 Stat. 888, 991 (to be codified at 16 U.S.C. § 3822(j)).

Legislators probably viewed the deleted provisions as unnecessary, cumbersome requirements that only slowed the process for program participants. However, much of the scientific, wildlife, and ecological expertise used in designing mitigation plans and making delineations often came from the FWS officials. It is unlikely that anyone will feel negative ramifications from this provision except the Department of Interior, which will probably help the NRCS perform these functions anyway—only now without direct financial appropriation from Congress.

VI. Conclusion

The NRCS carries a heavy responsibility in protecting wetlands located on agricultural lands, and the decline in wetland conversions indicates that the agency meets its responsibilities effectively. Although there are inconsistencies and confusing allocations of responsibilities in wetlands protection between the Clean Water Act and Swampbuster program, the goal of "no net loss" established by President Bush is finally starting to be achieved—a result of coordinated efforts between the NRCS and agencies implementing the Clean Water Act.

The effort to protect wetlands is not over. The Clean Water Act will likely be revisited by the 105th Congress. Any reduction of wetlands protection in the CWA's section 404 could have severe ramifications in light of Swampbuster's unknown future. As the statistics of wetland conversions due to development versus agriculture indicate, Congress should strive to make section 404 protections at least as effective as Swampbuster. Through common sense Swampbuster provisions, NRCS employees have helped to remind agricultural producers that wetlands conservation is a good thing for society. Wetlands reduce erosion and flood risk, improve water quality, protect wildlife, increase clean air, and provide recreational opportunities. If those implementing the section 404 provisions could instill this ethic in developers, then the CWA may have the same success with urban private property rights advocates as Swampbuster has had with landowners in rural and agricultural areas. This effectiveness will come from strong, scientifically sound mitigation and restoration provisions, not from further nationwide exemptions and general permits.

The current definition of a "wetland" is cumbersome and complicated, but it is, at the very least, accurate. Despite efforts to cloud a report produced by the National Academy of Science, the most scientific and accurate definition of wetland has survived the 1996 reauthorization of the FSA and Swampbuster program.

Society is becoming more aware of the functions and values of wetlands, and Congress is responding accordingly. While the 1996 reauthorization of the FSA added flexibility provisions so NRCS could address landowners' concerns in a common sense manner, the legislation kept in place the mechanisms necessary to continue effective protection of wetlands on agricultural lands. This level of protection, although threatened by some during Swampbuster's reauthorization, reflects through the democratic process society's desire to maintain and even increase wetland functions and values.

However, the Food Security Act and federal farm programs are currently set to expire in seven years—an expiration without renewal. The valuable Swampbuster program and other conservation compliance initiatives will lose their efficacy as producers lose their incentive to comply. Will landowners and agricultural producers maintain wetlands conservation on their own, without the threat of program ineligibility to keep them in line? If not, will the public then understand the value of farm programs and realize that subsidy payments often come with a bonus—conservation and environmental protection? These questions remain unanswered. With the added common sense flexibility for wetlands conservation provided by the Congress in the Federal Agriculture Improvement and Reform Act of 1996, it would be a shame to implement these provisions for the next seven years and then pull the rug out from under the public as farm programs—and Swampbuster—cease to exist.