Federal Wetland Legislation: A Slough of Issues for Iowa Farmers

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FEDERAL WETLAND LEGISLATION: A SLOUGH OF ISSUES FOR IOWA FARMERS

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I. INTRODUCTION

"Once perceived as vast wastelands, Iowa's shrinking wetlands only now are coming to be understood as the wonderlands they actually are, rich and delicate ecosystems crucial to preserving the balance of nature."[1] The trend toward awareness in Iowa is reflected nationwide as the general public realizes wetland preservation is fundamental to maintaining a healthy environment. In 1790, the continental United States housed roughly 221 million acres of wetlands, but by 1970 over half had been damaged by natural threats or converted for agricultural,

1. Blackwell Publishing, *Wildflowers and Other Plants of Iowa's Wetlands* (book review) (source on file with author).

urban, or rural development.[2] Wetlands were drained and filled to create farmland, advance urban development, and control the mosquito population.[3]

Wetland destruction has led to contaminated run-off, deteriorated water quality, devastation of natural habitats, and increased flooding.[4] Agencies, groups, and individuals have reacted by working to restore destroyed wetlands, prevent further destruction, and raise awareness of the issues surrounding wetland destruction.[5] As a result, acres of wetlands have been restored and policies have been developed on both the federal and state level.[6] These policies have been met with acceptance and support, despite the barricades to development and land cultivation.[7]

This Note will act as a tool to guide Iowa farmers to a better understanding of the reasons wetlands are an essential ingredient to a healthy environment. Discussion will begin with the basics of wetland classification, wildlife, and vegetation. A review of major legislation concerning the preservation and maintenance of Iowa's wetlands will follow. This review will primarily focus on the 1972 Amendments to the Federal Water Pollution Control Act, more commonly known as §§ 301 and 404 of the Clean Water Act ("CWA"), and the Swampbuster Provisions of the Food Security Act of 1985, more commonly known as the 1985 Farm Bill.[8] Since most legislation regarding this issue is federal, this review will integrate the United States Eighth Circuit Court of Appeals interpretation and application of this legislation in recent years. This Note will explore the sequencing of relevant legislation and the ways in which one piece of legislation led to another. This Note will also consider action already taken to address this issue and highlight the areas where additional action is needed. Finally, this Note will evaluate the specific ways in which legislation preserving wetlands impacts Iowa farmers.

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2. RONALD K. GADDIE & JAMES L. REGENS, REGULATING WETLANDS PROTECTION: ENVIRONMENTAL FEDERALISM AND THE STATES 20 (2000); PAUL F. SCODARI, MEASURING THE BENEFITS OF FEDERAL WETLAND PROGRAMS 87 (1997).

3. NAT'L RES. COUNCIL, COMPENSATING FOR WETLAND LOSSES UNDER THE CLEAN WATER ACT 12 (2001) [hereinafter WETLAND LOSSES].

4. *See id.*; 33 C.F.R. § 320.4(b) (2006).

5. IOWA ASS'N OF NATURALISTS, IOWA WETLANDS 18 (2001).

6. *Id.* at 18-19.

7. *Id.* at 19.

8. 33 U.S.C. §§ 404, 1311 (2000); 16 U.S.C. § 3821 (2000 & Supp. III 2003).

II. WHAT ARE WETLANDS AND WHY ARE THEY IMPORTANT?

A. *Types, Definitions, Functions, and Cycles*

For purposes of this Note, it is important to define the term "wetland." Currently, a debate exists regarding the actual definition of a wetland.[9] The term "wetland" can be defined as simply as "transition areas between dry land and open waters."[10] However, "where one draws the line between a wetland and dry land is not always clear."[11] Another definition for the term "wetland" is "low areas where water flows continuously or periodically."[12] The Committee on Mitigating Wetland Losses defines a wetland as "an ecosystem that depends on constant or recurrent, shallow inundation or saturation at or near the surface of the substrate."[13] The Inter-Agency Task Force of Wetlands defines the term "wetland" "on the basis of the presence of wetland plants, wetland soils, water levels, and the number of days during a year when the soil [is] 'saturated.'"[14] Under this definition, "if an area ha[s] the right types of plants and soil and ha[s] water within 18 inches of the surface for seven days during the growing season, it is a wetland."[15]

Importantly, the most commonly accepted definition of the term "wetland" is that adopted by the Environmental Protection Agency ("EPA"). The EPA defines "wetlands" as "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."[16] While the EPA and the Secretary of Agriculture use this definition in implementing the CWA and the Swampbuster Provisions, the Swampbuster Provisions articulate an additional criterion which requires the area have a predominance of hydric soils to qualify as a wetland.[17]

Regardless of the exact definition, wetlands consist of several types. Iowa wetlands include: numerous marsh or palustrine wetlands which were carved by ancient glaciers; lacustrine wetlands which are lakes and their shallow

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9. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 20-21.
10. CHRISTOPHER AZEVEDO et al., IOWA WETLANDS: PERCEPTIONS AND VALUES STAFF REPORT 8 (2000).
11. *Id.*
12. *Id.*
13. WETLAND LOSSES, *supra* note 3, at 13.
14. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 20.
15. *Id.*
16. 40 C.F.R. § 230.3(t) (2006).
17. 16 U.S.C. § 3801(9)(C)(18)(A) (2000).

edges; associated wetlands, which surround Iowa's larger lakes; seepage wetlands, which are "[w]et areas where ground water comes to the surface;" bogs, which do not sustain an inflow or outflow of water and instead support peat and mosses; and pothole wetlands, which are "shallow and marsh-like pond[s]" that "provide homes to about seven million breeding ducks."[18] Pothole wetlands and other isolated or non-adjacent forms are among the most common in Iowa.[19]

In many types of wetlands, a natural cyclical process of succession occurs and various species of aquatic life are confined to certain stages in the cycle.[20] Beginning with an open water stage, the water basin is full and submersed plants thrive.[21] Years later, a drought ensues and the wetland becomes a dry marsh, fostering the budding of plant seeds in exposed soil.[22] This stage is followed by rainfall, and as the wetland is reinvented, a dense marsh filled with cattails and reeds forms.[23] Finally, the hemi-marsh stage, which houses the most diverse ecosystem of all the stages, occurs when emergent plants decline.[24] Importantly, drier wetlands are the most essential for water quality protection.[25] To define wetlands comprehensively, drafters must include those wetlands disguised as dry marshes in the definition used for purposes of protection delineation.

B. *Plant Life and Wildlife*

Iowa wetlands foster a diverse and unique ecosystem. Species of vertebrates and invertebrates vary from one wetland to another due to the unique needs of waterfowl and mammals for particular food and habitat.[26] Some of the most common animals to Iowa wetlands include beavers and muskrats.[27] Beavers, through the building of their dams, are responsible for the creation of many wetlands.[28] The muskrat population impacts the water basin of a wetland because

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18. GADDIE & REGENS, *supra* note 2, at 18-19; IOWA ASS'N OF NATURALISTS, *supra* note 5, at 2.

19. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 2; *see also* H.R. 58, 80th Gen. Assem., Reg. Sess. (Iowa 2005) (protecting isolated wetlands).

20. NAT'L RES. COUNCIL, WETLANDS: CHARACTERISTICS AND BOUNDARIES 37 (1995) [hereinafter CHARACTERISTICS].

21. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 3.

22. *Id.*

23. *Id.*

24. *Id.* at 4.

25. ENVTL. DEFENSE FUND & WORLD WILDLIFE FUND, HOW WET IS A WETLAND?: THE IMPACTS OF THE PROPOSED REVISIONS TO THE FEDERAL WETLANDS DELINEATION MANUAL xi (1992) [hereinafter HOW WET IS A WETLAND?].

26. CHARACTERISTICS, *supra* note 20, at 37-38.

27. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 9.

28. *Id.*

these mammals consume a significant amount of wetland vegetation for their diet and lodge building.[29]

Wetlands are the lifeblood of many North American birds.[30] Iowa's pothole wetlands provide an ideal environment for waterfowl nesting, egg hatching, and breeding.[31] In addition, these wetlands, which are located in the Central Flyway, supply crucial rest stops for migrating birds.[32] It is no surprise that wetland loss directly corresponds with severe declines in the migrating waterfowl population.[33]

The destruction of Iowa wetlands negatively impacts the migratory lesser scaups, more commonly known as bluebill ducks.[34] Ongoing studies implicate the poor water quality of Iowa wetlands, since body weights are above average when these birds land in Keokuk, Iowa, and substantially lower when these same birds arrive in Minnesota.[35] Lower populations of aquatic invertebrates, such as amphipods, prevent the scaup from generating necessary body weight.[36] The deteriorating aquatic invertebrate population can be attributed to Iowa marshlands being located in "the most intensively farmed region in the entire Midwest."[37] Migrating ducks and other waterfowl are now forced to subsist on more tolerant animals like snails, leading to a decline in less adaptable waterfowl species.[38]

C. *Environmental Benefits*

Aside from being home to diverse plant and animal life, wetlands provide an array of environmental benefits. Congress has found that "wetlands play an integral role in maintaining the quality of life through material contributions to our national economy, food supply, water supply and quality, flood control, and fish, wildlife, and plant resources" and, as a result, greatly impact the "health,

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29. *Id.*

30. *Id.* at 37.

31. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 10; GADDIE & REGENS, *supra* note 2, at 19.

32. CHARACTERISTICS, *supra* note 20, at 37 (noting "waterfowl species are sensitive to reductions in area, patch size, wetland density, and proximity to other wetlands" and emphasizing the need for small wetlands in addition to large ones).

33. *See id.*

34. Lowell Washburn, *Poor Water Quality in Iowa Wetlands May Threaten Migrating Waterfowl*, THE IOWA SPORTSMAN, Mar. 30, 2005, *available at* http://www.iowadnr.com/news/io/05mar29io.pdf.

35. *Id.*

36. Tom Landwehr, *Where Water Converts to Fat*, http://www.fintalk.com/moxie/1/1_3/ minnesota.shtml (last visited Oct. 2, 2006); Washburn, *supra* note 34.

37. Washburn, *supra* note 34.

38. *Id.*

safety, recreation, and economic well-being of all our citizens."[39] Productive wetlands help preserve water quality.[40] Streamside wetlands in agricultural watersheds have been shown to remove eighty percent of phosphorus and ninety percent of nitrogen from the water.[41] Without wetlands to slow water from storm run-off, rainfall water moves more quickly and carries with it higher levels of nutrients, soil, animal wastes, and sewage, which wetland plants are well equipped to filter.[42]

The nutrient-enriched water flows to the Mississippi River, causing hypoxia (low oxygen) at the river's mouth in the Gulf of Mexico and creating an area known as a Dead Zone.[43] These waters sustain fewer organisms, altering the food chain as algae blooms form.[44] Mass amounts of oxygen are used as these algal blooms decompose, depriving fish of needed oxygen.[45] Fisherman and coastal state economies are negatively impacted by these hypoxic waters.[46] Hypoxia has even been linked to an increased number of shark bites as the Dead Zone causes fish to seek more desirable water, forcing sharks into more shallow water.[47] Clearly, wetland destruction in Iowa has national and even international repercussions. "Iowa struggles with poor water quality, official labels of impaired waters and the stigma of contributing to water quality problems as far away as the Gulf of Mexico."[48]

A very specific example of damages caused by wetland destruction can be found in Clear Lake, Iowa.[49] Here, studies show a direct correlation between change of the Iowa landscape and the decline of clarity in the lake.[50] Clear Lake's water quality has diminished over the years resulting from increased phosphorus and nutrient levels from the watershed.[51] Water clarity has de-

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39. 16 U.S.C. § 3901(a)(1) (2000).

40. *See* 33 C.F.R. § 320.4(b)(2)(vii) (2006); IOWA ASS'N OF NATURALISTS, *supra* note 5, at 16.

41. MARK S. DENNISON, WETLAND MITIGATION: MITIGATION BANK AND OTHER STRATEGIES FOR DEVELOPMENT AND COMPLIANCE 8-9 (1997).

42. *See* IOWA ASS'N OF NATURALISTS, *supra* note 5, at 16.

43. Monica Bruckner, *The Gulf of Mexico Dead Zone*, MICROBIAL LIFE EDUC. RES., *available at* http://serc.carleton.edu/microbelife/topics/deadzone/index.html (last visited Oct. 2, 2006).

44. *Id.*

45. DENNISON, *supra* note 41, at 9.

46. Bruckner, *supra* note 43.

47. *"Dead Zone" Spreads in Gulf of Mexico,* MSNBC.com, http://www.msnbc.msn.com /id/5595098/print/1/displaymode/1098/ (last visited Oct. 2, 2006).

48. John H. Downing, *Looking Into Earth's Eye: A Watershed View of Clear Lakes*, http://www.inhf.org/Watersheds.htm (last visited Oct. 2, 2006).

49. *Id.*

50. *Id.*

51. *Id.*

creased, "reducing the diversity and abundance of aquatic vegetation."[52] Sadly, Clear Lake is no longer "clear." Wetlands are necessary because they act as a sponge, soaking up excess water and slowly filtering it for release into lakes and streams.[53]

III. HISTORICAL OVERVIEW OF LEGISLATION

Early federal legislation regarding wetlands had a very different goal than more recent legislation. American pioneers considered wetlands unproductive wastelands and feared them as sources of malaria and other illnesses.[54] These areas were the last to be developed until politicians and political scientists began to advocate for draining in the late 1800s and early 1900s.[55] The Swamp Land Act of 1850 granted to the states all unsold swamp and overflow lands unfit for cultivation to enable construction of the appropriate levees and drains.[56] At that time, the worth of a wetland or marsh existed only because farmers were able to drain it easily and adapt it into productive farmland.[57] These lands were sold for very little or even given away to railroad companies.[58]

Unfortunately, this attitude represented the consensus toward wetlands into the early 1970s, when President Richard Nixon's Secretary of Agriculture, Earl Butz, championed farmers to go forward with reclamation and plant crops "fencerow to fencerow."[59] During the mid-1970s the tables began to turn and wetlands came to the forefront of political and scientific activity.[60] The first Bush administration responded by supporting the legislative retreat from earlier wetland policy and introduced a "no net loss" goal, meaning every acre drained would have to be matched by an acre restored.[61] At the outset, however, it was unclear how this objective would be achieved.[62]

Congress initially responded to the public concern by amending the Rivers and Harbors Act of 1899, which granted wetland regulation authority to the

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52. *Id.*
53. Iowa Ass'n of Naturalists, *supra* note 5, at 16.
54. HUGH PRINCE, WETLANDS OF THE AM. MIDWEST: A HISTORICAL GEOGRAPHY OF CHANGING ATTITUDES 2 (1997).
55. *Id.* at 2-3.
56. *See* 43 U.S.C. § 981 (2000).
57. IOWA SCORP, SUPP. 1: WETLANDS PROTECTION 52 (2001).
58. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 17.
59. PRINCE, *supra* note 54, at 5.
60. *Id.* at 14.
61. *Id.* at 5.
62. *Id.*

Secretary of the Army through the Chief of Engineers ("Corps").[63] Federal agencies intending to alter a water body had to first consult with the Fish and Wildlife Service.[64] Although the Corps' jurisdiction was very limited, it eventually broadened its initial aim of conservation of wildlife resources to "undertake a public interest review" by considering ecological effects.[65]

A. *Section 404 of the Clean Water Act ("CWA")*

The need for protective legislation prompted Congress to enact the CWA.[66] The objective of Congress was "to restore and maintain the chemical, physical, and biological integrity of [our] Nation's waters."[67] Interestingly, there is no actual mention of the term "wetland" in the language of § 404.[68] Section 404 was triggered by § 1311 which prohibits the discharge of any pollutant by any person.[69] For purposes of the CWA, "[d]ischarge includes, but is not limited to, any spilling, leaking, pouring, pumping, emitting, emptying, or dumping."[70] "Pollutant" includes dredged spoil, rock, sand, cellar dirt and agricultural waste discharged into water.[71]

The CWA grants jurisdiction to the EPA, the Soil Conservation Service ("SCS"), and the Corps.[72] The primary role of the EPA relates to policy setting and enforcement functions, while the SCS is responsible for the delineation of wetlands on agricultural lands.[73] The Corps retains the duty to "prescribe such regulations for the use, administration, and navigation of the *navigable waters* of the United States," including administration of the permit program which re-

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63. 33 U.S.C. § 403 (2000); WILLIAM L. WANT, LAW OF WETLANDS REGULATION § 2:6 (Marie-Joy Paredes & John J. Sullivan eds., 2006).

64. WANT, *supra* note 63, at § 2.6.

65. 33 C.F.R. § 320.4(a) (2006); WANT, *supra* note 63, at § 2.6 (quoting 33 Fed. Reg. 18,672-73, formally codified at 33 C.F.R. § 320.4(a) (2006)).

66. 33 U.S.C. §§ 1251-1387 (2000 & Supp. III 2003).

67. *Id.* § 1251(a).

68. *See id.* § 404.

69. *Id.* § 1311.

70. 33 C.F.R. § 159.3 (2006).

71. *Id.* § 1362(6).

72. 33 U.S.C. § 1251 (2000 & Supp. III 2003); WANT, *supra* note 63, at § 2:2 n.2.

73. WANT, *supra* note 63, at § 2:2. For purposes of the CWA "agricultural lands" include "those lands intensively used and managed for the production of food or fiber to the extent that natural vegetation has been removed and cannot be used to determine whether the area meets applicable hydrophytic vegetation criteria in making a wetland delineation." The Secretary of the USDA through the SCS has ultimate authority to determine the scope of wetlands. Memorandum of Agreement Among the Departments of Agriculture, Interior and Army and EPA Concerning the Delineation of Wetlands Under Section 404 of the Clean Water Act and Subtitle B of the Food Security Act (Jan. 1994), *reprinted in* WANT, *supra* note 63, at App. 19 [hereinafter Memorandum].

quires persons to obtain a permit to discharge dredged and fill materials into navigable waters.[74] Navigable waters are defined as "waters of the United States," which the EPA has interpreted to include wetlands.[75] The EPA may impose civil or criminal sanctions against those who discharge pollutants without first obtaining an appropriate permit.[76] Initially, "the Corps did not interpret the phrase 'waters of the United States' to expand its wetlands jurisdiction."[77] The Supreme Court originally upheld the EPA's extension to wetlands,[78] but later limited the EPA's jurisdiction to wetlands adjacent to navigable waters.[79]

Initially, it was unclear how extensive the jurisdictional reach of these agencies would be. Farmers feared permits would be required for carrying out many traditional activities.[80] Permits are required any time a landowner wishes to discharge material that has the effect of replacing any portion of "waters of the United States" with dry land or changes the bottom elevation, a practice known as filling.[81] Types of fillers include rock, sand, soil, clay, plastics, debris, and wood chips.[82] Dredging, which involves the excavation of material from the "waters of the United States," is another activity regulated by the CWA.[83] Courts have been less clear regarding this practice because the activity is not explicitly regulated.[84] The Corps' express exclusion of incidental soil movement creates a major loophole in wetland legislation.[85] Section 301 prohibits only "discharge of any pollutant."[86] Consequently, if a farmer or developer can dredge without discharging, the dredging is not covered under the CWA.[87] Similarly, it is possible to drain a wetland by installing ditches or tiling without discharging pollutants.[88] Federal Regulations address this by including the "redeposit of small volumes of dredged material that is incidental to excavation activity in waters of the United

74. 33 U.S.C. §§ 1, 1344(a) (2000) (emphasis added).

75. *Id.* § 1362(7); 33 C.F.R. § 328.3(a)(3) (2006) (defining "waters of the States" to include wetlands) (but was limited to those wetlands "containing a relatively permanent flow" and "possessing a continuous surface connection" with other waters. Raponos v. United States, 126 S.Ct. 2208, 2235 (2006)).

76. 33 U.S.C. § 1319(b)-(c) (2000).

77. WANT, *supra* note 63, at § 2:8.

78. *See* United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 139 (1985).

79. Solid Waste Agency v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 170-71 (2001).

80. WANT, *supra* note 63, at § 2:8.

81. 33 C.F.R. § 323.2(e)(1)(ii) (2006).

82. *Id.* § 323.2(e)(2).

83. *Id.* § 323.2(c).

84. WANT, *supra* note 63, at § 4:34.

85. *Id.*

86. 33 U.S.C. § 1311(a) (2000).

87. *Id.*

88. *See id.*

States when such material falls back to substantially the same place as the initial removal" within the meaning of the term "discharge of dredged materials." [89] Courts have split regarding this regulation.[90] While a permit must first be obtained if a landowner wishes to dredge or fill a wetland for development or cultivation purposes, the CWA does not reach some activities which adversely affect wetlands.

The guidelines for permit review create a presumption against filling where there is a practicable alternative to the discharge proposal that would cause fewer environmental consequences.[91] Applicants may demonstrate these alternatives by submitting a written alternatives analysis, which the Corps will review to determine the proposed alternative's "potential short-term or long-term effects . . . on the physical, chemical, and biological components of the aquatic environment."[92] Also, before a permit may be issued, notice and opportunity for public hearings must be offered.[93]

A farmer who wishes to convert wetland into cropland must apply to the SCS rather than the Corps.[94] Under the Memorandum of Agreement Among the Departments of Agriculture, Interior and Army and EPA Concerning the Delineation of Wetlands Under Section 404 of the Clean Water Act and Subtitle B of the Food Security ("Memorandum"), the SCS has jurisdiction to make wetland delineations over all agricultural lands.[95] The term "wetland delineation" is defined as "any determination of the presence of wetlands and their boundaries."[96] If the SCS has delineated agricultural land as wetland and the landowner wishes to farm this land, he must petition for a delineation revision through the SCS appeals process.[97]

If the permit is issued, the applicant may be required to undertake a compensatory mitigation project which is defined as "the creation, restoration, enhancement, or preservation of a wetland designed to offset permitted losses of wetland functions in response to special conditions of a permit."[98] This process,

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89. 33 C.F.R. § 323.2(d)(2)(ii) (2006).

90. *Compare* Nat'l Mining Ass'n v. U.S. Army Corps of Eng'rs, 145 F.3d 1399, 1404 (D.C. Cir. 1998) (finding the statute cannot be meant to cover fallback), *with* U.S. v. Deaton, 209 F.3d 331, 335 (4th Cir. 2000) (finding the statute prohibits the discharge of any pollutant including "dredged spoil" created in the course of dredging).

91. 40 C.F.R. § 230.10(a) (2006).

92. *Id.* § 230.1; *see also* WANT, *supra* note 63, at § 6:15.

93. 33 U.S.C. § 1344(a) (2000).

94. Memorandum, *supra* note 73, at App. 19-3.

95. *Id.*

96. *Id.* at 19-11.

97. *Id.* at 19-10 (explaining the Corps and the EPA reserve the right to determine that a revised delineation is invalid under the CWA).

98. WETLAND LOSSES, *supra* note 3, at 14; *see also* WANT, *supra* note 63, at § 6:43.2.

known as "wetland mitigation" can be achieved by avoiding the negative impact on wetlands, minimizing impacts by limiting the action, "rectifying the impact by repairing . . . or restoring the affected environment," "reducing or eliminating the impact . . . by preservation and maintenance operations during the [course] of the action," or by "compensating for the impact by replacing or [creating] substitute . . . environments."[99]

Under the compensation alternative, a farmer may purchase credits of a mitigation bank, which is a created or restored wetland.[100] Ideally, these banks are established prior to destruction because achieving mitigation is not simple and credits will not be given unless "existing wetlands are preserved in conjunction with restoration, creation, or enhancement . . . ."[101] There are, in fact, several requisite steps in creating and sustaining a successful mitigation bank.[102] Long-term plans for achieving target wetland functions need to be established and a general watershed location must be selected and approved by the Mitigation Bank Review Team, which is chaired by the Corps.[103] Once the site is acquired, construction may commence followed by inspection and physical monitoring to determine whether typical wetland functions have been accomplished.[104] Plans for enduring protection and management must also be implemented.[105] Once established, the bank will be monitored by a bank sponsor who remains responsible for its enduring success and protection.[106]

This program has been met with approval, but it is not a perfect solution and those who purchase a credit in a mitigation bank should not assume this purchase will necessarily equal compliance. In fact, the initial policy of the EPA considered mitigation the least environmentally desirable option.[107] It is not always possible to replicate a productive and diverse wetland in another location.[108]

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99. 40 C.F.R. § 1508.20 (2006).

100. Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 60 Fed. Reg. 58,605, 58,607 (Nov. 28, 1995); WANT, *supra* note 63 at § 6:42.

101. 60 Fed. Reg. at 58,608; WANT, *supra* note 63, at § 6:42.

102. WETLAND LOSSES, *supra* note 3, at 94.

103. 60 Fed. Reg. at 58,610; WETLAND LOSSES, *supra* note 3, at 94 (A watershed is a "land area that drains into a stream, river, or other body of water.") *Id.* at 15.

104. WETLAND LOSSES, *supra* note 3, at 94.

105. *Id.*

106. 60 Fed. Reg. at 58,610.

107. WANT, *supra* note 63, at § 6:39 (Prior to entering into a Memorandum of Agreement on Mitigation on November 15, 1989, the EPA and the Corps were at odds over their respective positions regarding mitigation. The EPA took a restrictive stance, viewing mitigation as a last resort after first attempting to avoid the loss, then attempting to minimize the loss and finally trying to repair or rehabilitate damages. The Corps, on the other hand, took the position that mitigation was one way to satisfy the legal requirements for obtaining a permit).

108. IOWA ASS'N OF NATURALISTS, *supra* note 5, at 19.

Many times thriving wetlands are replaced by sterile, dormant substitutes.[109] Water-quality functions, for example, "can be mitigated but rarely duplicated."[110] To properly recreate the water quality of a natural wetland, appropriate levels of nitrate must be present as well as a "labile carbon source, anaerobic conditions and microbial activity."[111] Another mitigation danger occurs where recreated wetlands are fragmented, which harms wetland birds because predators, such as skunks, subsist near the edges of wetlands.[112] Although typical wetland vegetation may be present in a particular mitigation site, the wetland may not serve the same function as a natural wetland because it may not be near the pollution sources or affected water bodies.[113]

Specific mitigation compliance challenges include mitigation plans which fail to "specify the most basic requirements for a wetland: water source, water quality, water retention, water quantity, soil, topography, structure, and location."[114] A recreated wetland has little hope for adequate performance.[115] The permitting agency must hold permittees responsible for the mitigation they committed to when the permit was granted.[116] The Corps and the EPA recently proposed a rule addressing this issue, but it has been rejected as overly vague.[117] The proposed rule outlines the procedures for developing mitigation banks of wetland areas.[118] Because the proposed rule uses the terms "should" and "may" instead of "must" or "shall," interest groups regard it as a "guidance document" rather than a regulation.[119] Permitting agencies must take action to assure mitigation requirements are being satisfied.[120]

One success story can be found, however, at the Hurtsville Wetland Mitigation Area, which now supports wetland vegetation and animal life.[121] This area is one of fifty restored wetlands developed throughout Iowa to replace wet-

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109. *Id.*
110. WETLAND LOSSES, *supra* note 3, at 29.
111. *Id.* at 27.
112. Robert Fletcher, *Loss of Wetlands: How are Bird Communities Affected?*, ActionBioScience.org, Oct. 2003, http://www.actionbioscience.org/environment/fletcher.html.
113. WETLAND LOSSES, *supra* note 3, at 27.
114. *Id.* at 95.
115. *Id.*
116. *Id.* at 94.
117. *See* 74 U.S.L.Wk. 2758 (June 20, 2006).
118. 74 U.S.L.Wk. 2587 (Apr. 4, 2006).
119. *See* 74 U.S.L.Wk. 2758; *see also* 74 U.S.L.Wk. 2578.
120. *See* WETLAND LOSSES, *supra* note 3, at 94.
121. William Petroski, *DOT Restores Wetlands Lost to Highway Projects*, DES MOINES REGISTER, Apr. 28, 2002, *available at* http://desmoinesregister.com/news/stories/c5903220/18042589.html.

lands bulldozed for highway projects.[122] Restoration typically occurs on previously drained farmland.[123] Environmentalists remain skeptical, though, and worry that quantity is being emphasized over quality.[124]

1. *Eighth Circuit Interpretation of the CWA*

Interpretation of the CWA by the United States Eighth Circuit Court of Appeals has caused concern. For example, in *United States v. City of Fort Pierre*, the court narrowed the jurisdiction of the Corps when it decided the area of land in question did not fall within the statutory meaning of "navigable waters."[125] Here, the Corps sued the City of Fort Pierre based on claims the city violated the CWA by failing to obtain a permit before constructing streets over a wetland.[126] Although the area appeared to fall within the Corps' definition of a wetland, after much consideration of the area's history, the court determined it did not qualify as a wetland under the Corps' jurisdiction.[127] The court considered whether the area, known as the "Slough," to be a wetland because it was "frequently inundated and saturated with surface water" and sustained "wetland-type vegetation."[128]

It was determined the "Slough" was originally a side-channel of the Missouri River which formed when a railroad bridge was built.[129] The "Slough" eventually dried and began to support other vegetation such as willow trees.[130] During this time, the "Slough" was used for grazing, hunting, and cultivation of a fruit orchard.[131] In 1968, the Corps dredged sand from the Missouri River into the "Slough" and surface water pooled there, killing the trees; only cattails and other wetland-type vegetation survived in the polluted water.[132] Upon review of this chain of events, the court determined the "Slough" was not a wetland and did not qualify for protection under the CWA.[133] Deciding otherwise, the court held, would expand the Corps' "jurisdiction beyond the scope originally intended by Congress."[134]

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122. *Id.*
123. *Id.*
124. *Id.*
125. United States v. City of Fort Pierre, 747 F.2d 464, 467 (8th Cir. 1984).
126. *Id.* at 465.
127. *Id.* at 467.
128. *Id.* at 466.
129. *Id.*
130. *Id.*
131. *Id.*
132. *Id.*
133. *Id.* at 467.
134. *Id.*

2. *Supreme Court Interpretation of the CWA*

Significantly, in 1985, the Supreme Court was asked to address the vague language of the CWA in *United States v. Riverside Bayview Homes, Inc.*[135] Here, the Corps sued to enjoin a property owner from filling wetlands without first obtaining a permit.[136] The Court held the Corps' regulatory authority extended to cover wetlands and that the Corps' definition of "waters," which includes wetlands adjacent to "navigable waters," is reasonable.[137] The area in question was considered to be a wetland adjacent to a "navigable water" because it contained the requisite soil conditions and the wetland vegetation extended to a nearby creek.[138] The Court reversed the decision of the lower court, holding the plain meaning of the Corps' definition of a wetland did not require inundation or frequent flooding by the adjacent body of water, but rather that saturation by either surface or ground water would suffice.[139] Envisioning the questions its decision would raise, the Court noted

> [t]he regulation of activities that cause water pollution cannot rely on . . . artificial lines . . . but must focus on all waters that together form the entire aquatic system. Water moves in hydrologic cycles, and the pollution of this part of the aquatic system, regardless of whether it is above or below an ordinary high water mark, or mean high tide line, will affect the water quality of the other waters within that aquatic system.
>
> For this reason, the landward limit of Federal jurisdiction under Section 404 must include any adjacent wetlands that form the border of or are in reasonable proximity to other waters of the United States, as these wetlands are part of this aquatic system.[140]

The Court further noted that Congress defined waters covered by the CWA broadly and Congress must have intended to renounce some limits previously placed on federal regulation by water pollution control statutes "to regulate at least some waters that would not be deemed 'navigable' under the classical

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135. *See* U.S. v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985).

136. *Id.* at 121.

137. *Id.* at 131.

138. *Id.*

139. *Id.* at 129-30 (1985) (citing 33 C.F.R. § 323.2(c) (1985). (Wetlands are defined as lands 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." (citing 33 C.F.R. § 323.2(c) (1985) (Justice White appears to actually be citing 33 C.F.R. § 328.3(b) since 33 C.F.R. § 323.2(c) (2006) defines the term "dredged material")).

140. *Id.* at 133-34 (citing 42 Fed. Reg. 37,128 (1977)).

understanding of the term."[141] The Court based its holding on the significance of Congressional action when it specifically addressed the scope of the Corps' jurisdiction and rejected measures designed to curb it, out of concern that wetlands protection would be "unduly hampered by a narrow definition of 'navigable waters.'"[142] This decision maintained the Corps' broad statutory interpretation of the term "navigable waters," but did little to clarify its meaning.

In 2001, the Supreme Court again addressed the debated Corps' jurisdictional issue in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers* ("*SWANCC*").[143] In this case, a group of municipalities challenged the Corps' exercise of jurisdiction over an abandoned sand and gravel pit, which had "evolved into a scattering of permanent and seasonal ponds . . . ."[144] The municipalities intended to convert the area into a disposal site for non-hazardous materials.[145] The Court declined to extend the Corps' authority to isolated ponds, despite respondents' argument that Congress did not address the precise question of § 404's scope regarding non-navigable isolated, or non-adjacent, waters and, therefore, agency deference should be applied.[146] The Court held "[i]t was the significant nexus between wetlands and 'navigable waters' that informed our reading of the CWA in *Riverside Bayview Homes*."[147] While most lower courts have liberally interpreted the Corps' jurisdiction over isolated wetlands, many courts have demonstrated a narrow view and held wetlands must be directly adjacent to water bodies to fall within the Corps' jurisdiction.[148] In sum, courts have hesitated to extend the jurisdiction of the Corps to all wetlands and this reluctance has created some latitude for landowners who wish to adapt isolated wetland areas for farming.

The Supreme Court's latest attempt to clarify the meaning of "navigable waters" in *Rapanos v. United States*, seems to have further muddied already very muddy waters.[149] This decision addressed two consolidated cases.[150] The first of these cases, *Rapanos v. United States*, involved a civil enforcement action brought against the owners of three parcels of land containing wetlands in Michi-

141. *Id.* at 133 (citations omitted).

142. *Id.* at 137.

143. Solid Waste Agency v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 159 (2001) (although this decision specifically addresses the Migratory Bird Rule, the decision includes a comprehensive discussion of the Corps' jurisdictional reach).

144. *Id.* at 163.

145. *Id.*

146. *Id.* at 172.

147. *Id.* at 167.

148. *See* WANT, *supra* note 63, § 4:31(outlining a comprehensive discussion of lower court application of *SWANCC*).

149. *See* Rapanos v. U.S., 126 S. Ct. 2208, 2220 (2006).

150. *Id.* at 2219.

gan.[151] The district court determined that the wetlands had a surface-water connection to a navigable waterway via a man-made drain and therefore fell within the Corps' jurisdiction.[152] Rapanos wished to build a shopping center and hired a wetlands consultant to conduct a survey of the property.[153] The consultant informed Rapanos the site contained many acres of wetland, but Rapanos disregarded the report and proceeded with his development project without obtaining a permit.[154] The Federal Government brought criminal and civil charges against Rapanos and the district court found for the Government.[155] The second case, *Carabell v. United States Army Corps of Engineers*, concerned a parcel of land containing forested wetlands connected by a ditch and then a man-made drain which continuously carried water to a navigable waterway.[156] The Carabells planned to develop condominium units, but their permit application was denied.[157] The Corps found that the property provided water storage and that destroying it could result in increased erosion and degradation of water quality.[158] The district court granted summary judgment to the Corps and the Court of Appeals affirmed.[159] The Supreme Court consolidated these cases and granted certiorari to consider the Corps' jurisdiction over wetlands.[160]

Justice Scalia announced the plurality decision of the Court, but Justice Kennedy provided the deciding vote and his opinion is controlling because he concurred only in the judgment.[161] The plurality's test requires both "permanent standing water" or a "continuous flow" and a "continuous surface connection to other jurisdictional waters."[162] Justice Kennedy asserted that the plurality's first requirement, "permanent standing water" or a "continuous flow," is unreasonable since downstream water quality is a main focus of the CWA.[163] Kennedy argued that Congress' use of the term "waters" as opposed to the term "water" does not suggest the requirement of permanence or flow.[164]

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151. *Id.* at 2238.
152. *Id.*
153. *Id.*
154. *Id.* at 2238-39.
155. *Id.* at 2239.
156. *Id.*
157. *Id.*
158. *Id.* at 2240.
159. *Id.* (citing Carabell v. U.S. Army Corps of Eng'rs, 391 F.3d 704 (6th Cir. 2005); Carabell v. U.S. Army Corps of Eng'rs, 257 F. Supp. 2d 917 (E.D. Mich. 2003)).
160. *Id.* 2238-39.
161. *See id.* at 2264-65; *see e.g.* N. Cal. River Watch v. City Healdsburg, 457 F.3d 1023, 1025 (9th Cir. 2006).
162. *Rapanos*, 126 S. Ct. at 2225, 2227.
163. *Id.* at 2242.
164. *Id.* at 2243.

Regarding the second requirement that there be a "continuous surface connection to other jurisdictional waters," Kennedy disagreed with the plurality's argument that wetlands must necessarily be " 'indistinguishable' from waters to which they bear a surface connection."[165] In support of his argument, Kennedy cited the Court's findings in *Riverside Bayview*, "that an over inclusive definition is permissible even when it reaches wetlands holding moisture disconnected from adjacent water-bodies . . . [and] the difficulty of defining the water's edge cannot be taken to establish that when a clear boundary is evident, wetlands beyond the boundary fall outside the Corps' jurisdiction."[166] Kennedy noted that the plurality's "surface-connection" requirement is not supported by the *SWANCC* holding that isolated wetlands are not "navigable waters," and that *SWANCC* was not an express or implied overruling of *Riverside Bayview*'s holding that adjacency is a factor in determining the jurisdiction of the Corps.[167] Instead, the Corps' jurisdiction over wetlands should be based upon the presence of a "significant nexus" between the wetlands and a navigable water.[168] A "significant nexus" exists where a wetland substantially impacts "the chemical, physical, and biological integrity of other covered waters . . . ."[169] Where the effects of a wetland are merely speculative or insubstantial, a "significant nexus" is not present.[170]

In sum, the Corps may exercise jurisdiction based on adjacency, but without more precise regulations, a "significant nexus" must be demonstrated.[171] Chief Justice Roberts writes in his concurring opinion, that because "no opinion commands a majority of the Court," lower courts and agencies will have to "feel their way on a case-by-case basis."[172] While both sides of the debate have attempted to spin the decision in favor of their factions, it is yet to be determined whether this decision favors property owners or environmentalists.[173]

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165. *Id.* at 2244.
166. *Id.*
167. *Id.* at 2244-45.
168. *Id.* at 2248.
169. *Id.* at 2248 (other covered waters meaning "waters more readily understood as 'navigable waters'").
170. *Id.*
171. *Id.* at 2249.
172. *Id.* at 2236.
173. Charles Lane, *Justices Rein in Clean Water Act: Still-Divided Court Leaves Reach of the Law Unclear*, WASH. POST, June 20, 2006, at 2.

B. *The Swampbuster Provisions of the 1985 Farm Bill*

1. *Purpose and Requirements*

With the intention of further protecting wetlands and other highly erodible lands, Congress specifically addressed farmers and undertook a different strategy toward conservation by enacting the Swampbuster Provisions of the Food Security Act of 1985 ("1985 Farm Bill"). The Swampbuster Provisions "provide[ ] substantial economic disincentives to any landowner considering converting wetland into cropland . . . ."[174] Disincentives include ineligibility for "contract payments under a production flexibility contract, marketing assistance loans, and any type of price support or payment made available under the Agricultural Market Transition Act, the Commodity Credit Corporation Charter Act, . . . or any other Act."[175] Such persons may also be ineligible for loans made or guaranteed under the Consolidated Farm and Rural Development Act.[176] Determinations as to ineligibility are made by the respective agency of the USDA to which the person has applied for benefits.[177] These agencies include the Food Service Agency ("FSA"), the National Resource Conservation Service ("NRCS"), or the Cooperative State Research, Education, and Extension Service ("CSREES").[178]

In other words, a person who farms a wetland or other highly erodible land, will become ineligible for the above outlined subsidies. As mentioned above, the Swampbuster Provisions require such an area of land to posses the additional element of a "predominance of hydric soils" for qualification as a wetland.[179] For purposes of the Swampbuster Provisions, "hydric soil" is soil which "in its undrained condition, is saturated, flooded or ponded long enough during a growing season to develop an anaerobic condition that supports growth and regeneration of hydrophytic vegetation."[180] "Hydrophytic vegetation" refers to "plants growing in water or a substrate which is periodically oxygen deficient during a growing season due to excessive water content."[181] Finally, "highly

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174. Nat'l Wildlife Fed'n v. Agric. Stabilization & Conservation Serv., 901 F.2d 673, 674 (8th Cir. 1990).
175. 16 U.S.C. § 3821(b)(1) (2000 & Supp. III 2003) (citations omitted).
176. *Id.* § 3821(b)(2).
177. 7 C.F.R. § 12.6(a) (2006).
178. *Id.* § 12.6(a)-(c).
179. 16 U.S.C. § 3801(a)(18)(A) (2000).
180. *Id.* § 3801(a)(10).
181. *Id.* § 3801(11)(A)-(B).

erodible land" is defined as "land that has . . . an excessive average annual rate of erosion in relation to the soil loss tolerance level . . . ."[182]

To determine eligibility, the SCS must determine whether the land in question is in fact a wetland, whether the farmer converted that wetland after the cut-off date of December 23, 1985, and whether the farmer planted an agricultural commodity on the converted wetland.[183] The SCS may identify an area as one of several different types of wetland, including: artificial wetlands, which were formerly non-wetlands and due to human conduct now satisfy the requirements; converted wetlands, which are wetlands that have been drained, dredged, or filled for purposes of making agricultural production possible; commenced-conversion wetlands in which conversion remained incomplete prior to the cut-off date; farmed wetlands, which are wetlands manipulated for purposes of agriculture production; and farmed-wetland pasture, which are wetlands manipulated prior to the cut-off date into pasture or hay-land and on the cut-off date met the requisite inundation and saturation criteria.[184]

Several exemptions are delineated within the Swampbuster Provisions.[185] Where an exemption is satisfied, a person will retain eligibility.[186] A person will qualify for an exemption when they produce an agricultural commodity on any of the following types of wetlands: wetlands which were converted prior to the cut-off date; wetlands which have formed as a result of excavating or diking a non-wetland for purposes of water retention; wetlands which have formed as a result of implementation of an irrigation system; or natural wetlands which have been destroyed without any action by the producer of the agricultural commodity.[187] In addition, a good faith exemption exists, which provides a person's ineligibility may be reduced if the person is actively restoring the wetland to its prior state and the person has converted the wetland without the intent to violate the Swampbuster Provisions.[188]

2. *Eighth Circuit Court Interpretation of the Swampbuster Provisions*

Wetland delineation was specifically addressed in *Downer v. United States* where the court affirmed a grant for summary judgment in favor of the agency.[189] Downer appealed to the SCS when he was required to reimburse the

182. *Id.* § 3801(9)(A)(ii).
183. Downer v. United States, 97 F.3d 999, 1003 (8th Cir. 1996).
184. 7 C.F.R. § 12.2, Wetland: (1)-(5) (2006).
185. 16 U.S.C. § 3822(b) (2000).
186. *Id.* § 3822(b)(1).
187. *Id.* § 3822(b)(1)(A)-(D).
188. *Id.* § 3822(b)(1)(H)(i).
189. Downer, 97 F.3d at 999.

Price Support and Production Adjustment Program ("PSPAP"), from which he had earned payments for complying with the Swampbuster Provisions.[190] The court determined Downer had filled the areas surrounding the dugouts with "four to ten inches of foreign fill and reworked the drainage ditch that provided positive drainage to the road culvert . . . [which] [a]ffected the wetland basin or drainage of the sites" and that these actions violated the Swampbuster Provisions, making him ineligible for the PSPAP.[191] Downer argued he should not have been ineligible under the PSPAP because the wetlands he covered with fill dirt were actually dugouts, or artificial wetlands.[192] The SCS determined the dugouts had actually been situated within the wetland.[193] The court held the agency had performed a sufficient evaluation of whether the area in question qualified as wetland by taking photographs and samples to determine whether a prevalence of hydric soils existed.[194]

The Eighth Circuit addressed converted wetlands in *Gunn v. United States Department of Agriculture*, and supported the agency's finding that parts of Gunn's farmland were converted wetlands, which could not be farmed without becoming ineligible for benefits under the Swampbuster Provisions.[195] Gunn and his predecessors began farming the land in question in 1906, after the local drainage district installed tiling to drain the excess water from the land.[196] Prior to that time, the land in question was a wetland.[197] In 1947, additions to the drainage system caused water from neighboring farmland to drain across Gunn's land, creating wet areas which were unsuitable for farming.[198] In 1991, Gunn applied to the SCS for certification of his eligibility, and he was told his farm contained many acres of farmed wetland.[199] The SCS informed Gunn he could continue to farm this area and maintain the existing drainage system, but he could not improve the drainage area if he wished to continue to receive benefits.[200] To remedy the problem created with the 1947 drainage improvements, the drainage district

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190. *Id.* at 1002.
191. *Id.* at 1005-1006.
192. *Id.* at 1002.
193. *Id.*
194. *Id.* at 1003.
195. Gunn v. U.S. Dept. of Agric., 118 F.3d 1233, 1238 (8th Cir. 1997) (referencing Chevron U.S.A., Inc. v. Nat'l Res. Defense Council, 467 U.S. 837, 843 (1984) (establishing that where a "statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute.")).
196. *Id.* at 1235.
197. *Id.*
198. *Id.*
199. *Id.*
200. *Id.*

installed more tiling in 1992.[201] The Court held the disputed land did not qualify for an exemption available for wetlands converted before the cut-off date and the fact that the drainage system was installed by the drainage district instead of the farmer was of no consequence.[202]

More recently, the Eighth Circuit reached a similar conclusion in *Prokop v. United States Department of Agriculture*.[203] Here, Prokop asserted his property should be considered an "artificial wetland" because it was created by beavers and irrigation runoff.[204] A farmer will not lose eligibility for farming "artificial wetlands."[205] The court upheld the agency determination that where a wetland area was manipulated and managed as pasture before the cut-off date, inundated for at least seven consecutive days during the growing season, or saturated for at least fourteen days during the growing season in most years, it was to be considered farmed wetland pasture and therefore subject to protection under the Swampbuster Provisions.[206] Despite Prokop's argument, the court noted that because the property was fenced, an indication of pasture, it satisfied the manipulation element of the test.[207] For the hydrologic element, the court deferred to the SCS's reliance on soil maps and surveys and determined the requisite hydrology was present.[208]

C. *The Wetlands Reserve Program*

In addition to the Swampbuster Provisions, the Wetlands Reserve Program ("WRP") falls under the Farm Bill.[209] This program grants authority to the Secretary of Agriculture ("Secretary") to enroll acreage into the WRP by purchasing thirty-year easements and participating in restoration cost share agreements.[210] The Secretary may place an easement, or a reserve, on any land determined eligible.[211] To determine eligibility, the Secretary considers whether the land "maximizes wildlife benefits and wetlands values and functions," whether the land is farmed or converted wetland, whether the wetland is functional, and

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201. *Id.*
202. *Id.* at 1239.
203. Prokop v. U.S. *ex rel.* U.S. Dep't of Agric., 91 F. Supp. 2d 1301, 1316 (D. Neb. 2000).
204. *Id.* at 1306.
205. *Id*; *see also* 7 C.F.R. §12.2, Wetland: (1) (2006).
206. *See* Prokop, 91 F. Supp. 2d at 1306.
207. *Id.* at 1307.
208. *Id.*
209. 16 U.S.C. § 3837 (2000 & Supp. III 2003).
210. *Id.* § 3837(b)(2).
211. *Id.* § 3837(c).