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BOGGED DOWN TRYING TO DEFINE FEDERAL WETLANDS

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INTRODUCTION

What are wetlands? What are the essential characteristics of wetlands? Who regulates them? Should you look for ducks, egrets, snails, turtles, reeds, rushes, or mucky soil? In short, forget the ducks and egrets, and ignore the snails and snapping turtles, but look for reeds, rushes, and mire.¹

Wetlands are areas of land that are permanently or seasonally wet, and where water dynamics interact directly with soil types to support the growth of vegetation adapted to water saturated soil conditions.² Such areas may include swamps, bogs, and marshes.³ Moreover, wetlands “are found in both saltwater and freshwater systems, on every

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1. For a more detailed discussion of the definitional problems related to federal wetlands, see James J. S. Johnson & William L. Logan, III, *How an Uncodified Appropriations Act Has Partially Cured a Constitutional Problem About How Wetlands Are Defined for Federal Regulatory Purposes*, 13 TEMP. ENVTL. L. & TECH. J. 173 (1994); James J. S. Johnson & William Lee Logan, III, *How an Uncodified Federal Appropriations Act Blocks Some Constitutional Challenges to the Regulatory Method Used to Define a Federal Jurisdictional Wetland*, 4 U. BALT. J. ENVTL. L. 182 (Summer 1994).

2. 33 C.F.R. § 328.3(b) (1995); JULIE K. ANDERSON, TEX. PARKS AND WILDLIFE DEP’T, WETLANDS ASSISTANCE GUIDE FOR LANDOWNERS 7 (1995).

3. 33 C.F.R. § 328.3(b) (1995); 40 C.F.R. § 230.3(t) (1995).

continent except Antarctica, and in every climate from the tropics to the tundra."⁴

"Once considered of little or no use, wetlands have now taken center stage in the political arena as their many values and rapid rate of loss have been recognized. . . . The continued decline of wetlands throughout the country has encouraged federal, state and local governments to regulate the activities that threaten these soggy habitats."⁵ Furthermore, wetlands have unique physical, chemical, and biological features⁶ and under federal law are considered ecological systems, not just random coincidences of plants, mud, and seasonal rains.⁷ Currently, three factors are utilized by federal agencies to identify and delineate wetlands: *hydrophytic plants*, *hydric soils*, and *wetland hydrology*.⁸

Hydrophytic plants are plants that grow in partially oxygenated, water-saturated soil.⁹ Most species of plants cannot tolerate such water-soaked conditions because standing water cuts off a plant's access to atmospheric oxygen, therefore, the water-covered portions cannot adequately access enough atmospheric oxygen to survive. However, *hydrophytes* thrive in flooded or water-soaked soils such as swamps, bogs, fens, marshes, lakeshores, stream banks, pondshores, estuarial sandbanks, sloughs, quagmires, and other sponge-like soils.¹⁰ Thus, the presence of hydrophytic plants is a factor used to identify

4. ANDERSON, *supra* note 2, at 7.

5. PAUL D. CYLINDER ET AL., *WETLANDS REGULATION, A COMPLETE GUIDE TO FEDERAL AND CALIFORNIA PROGRAMS* 1 (1995). The Supreme Court considered wetlands a public health nuisance that caused malaria, stating "the police power is never more legitimately exercised than in removing such nuisances." *Leovy v. United States*, 177 U.S. 621, 636 (1900).

6. CYLINDER, *supra* note 5, at 1.

7. *Id.*

8. U.S. ARMY CORPS OF ENGINEERS, U.S. ENVIRONMENTAL PROTECTION AGENCY, U.S. FISH AND WILDLIFE SERVICE AND U.S.D.A. SOIL AND CONSERVATION SERVICE, *FEDERAL INTERAGENCY COMM. FOR WETLAND DELINEATION, FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, COOPERATIVE TECH. PUBLICATION* (Jan. 1989) [hereinafter *FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS*]; ENVIRONMENTAL LABORATORY, DEP'T OF THE ARMY, CORPS OF ENGINEERS *WETLANDS DELINEATION MANUAL*, TECH. REPORT Y-87-1, Jan. 1987 [hereinafter *ENVTL. LAB.*]. "To determine whether a site is a wetland, the [Corps] manual uses a three-parameter test . . . of hydrophytic vegetation, hydric soils, and wetland hydrology . . ." CYLINDER, *supra* note 5, at 22-23. *See also* *Mulberry Hills Dev. Corp. v. United States*, 772 F. Supp. 1553, 1555 (D. Md. 1991) (mem.) (The court never reached the substantive issues because the court determined the case was not ripe for review).

9. *FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS*, *supra* note 8, at 5; *ENVTL. LAB.*, *supra* note 8, at 13. "Plants that have adapted to wetland conditions are known as 'hydrophytes,' or water plants." CYLINDER, *supra* note 5, at 9.

10. *See generally* ANDERSON, *supra* note 2, at 10; Kate Seago, *Bogged Down — Town Creates Wetland, Headaches At Dump Site*, DALLAS MORNING NEWS, Dec. 3, 1995, at A45.

wetlands.¹¹ Approximately 7,000 species of hydrophytic plants grow in U.S. wetlands, including cattails, bulrush, spikerush, pondweed, willows, bald cypresses, mangroves, sedges, and shallow rooted trees such as cottonwood, native plum, western dogwood, and persimmon.¹²

The second factor used to identify wetlands is the presence of poorly drained or flooded soils, known as *hydric soils*.¹³ Hydric soils are typically saturated or flooded for at least one week during the growing season with the soil temperatures remaining above forty-one degrees Fahrenheit.¹⁴ "Soils that are saturated for long periods undergo chemical and physical changes which set them apart from the well drained uplands soils. The most immediate effect of soil saturation is a rapid loss of oxygen."¹⁵ These anaerobic conditions favor the growth of hydrophytic vegetation whereas, "[a]naerobic conditions prevail in wetland soils . . ."¹⁶ Approximately 2,000 types of hydric soils have been identified in U. S. wetlands by the U.S.D.A. Soil and Conservation Service.¹⁷

The third factor, *wetlands hydrology*, or water drainage, is the principal force that creates wetlands.¹⁸ Wetlands hydrology becomes a

11. FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, *supra* note 8, at 5. Four federal agencies — the U.S. Fish and Wildlife Service, the Army Corps of Engineers, the Environmental Protection Agency and the U.S.D.A. Soil and Conservation Service — jointly published the *National List of Plant Species That Occur in Wetlands*. *Id.* The list divides vascular plants into four groups based on a species frequency of occurrence in wetlands. *Id.* The four groups are: (1) *obligate wetland* plants, those almost always occurring naturally in wetlands because they require wetlands conditions for reproduction or survival; (2) *facultative wetland* plants, those usually occurring naturally in wetlands, but occasionally occurring in nonwetlands; (3) *facultative* plants, those equally likely to grow in nonwetlands as wetlands; and (4) *upland* plants, those usually occurring in nonwetlands, but occasionally occurring in wetlands. *Id.* Of the 7,000 species of vascular plants found growing in U.S. wetlands, only approximately twenty-seven percent are *obligate wetland* species. *Id.*

12. *Id.*; see also ANDERSON, *supra* note 2, at 10.

13. FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, *supra* note 8, at 6.

14. *Id.*

15. CYLINDER, *supra* note 5, at 8. Wetlands plants have adapted to anaerobic conditions by developing shallow root systems, and metabolism regulation. *Id.* at 9.

16. *Id.* at 8-9. An "oxygenless state is referred to as an 'anaerobic' condition." *Id.* at 8.

17. Seago, *supra* note 10 (citing U.S. Army Corps of Engineers); "The National Technical Committee for Hydric Soils has developed criteria for hydric soils and a list of the Nation's hydric soils (U.S.D.A. Soil and Conservation Service 1987)." FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, *supra* note 8, at 6.

18. FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, *supra* note 8, at 7. "The water in wetlands derives from direct precipitation, overland flow, rising groundwater, or some combination of these processes." CYLINDER, *supra* note 5, at 7. Further, "[P]rocesses by which water reaches and leaves a site are known as wetland 'hydrology.'" *Id.* at 8. Such processes include "evaporation, surface or subsurface flow, percolation into the groundwater, or tidal action." *Id.* Hydrology is the "scientific study of the properties, distribution, and

critical factor favoring wetlands formation when water movement occurs in amounts favoring hydrophytic plants over non-hydrophytic plants.¹⁹ "Numerous factors influence the wetness of an area, including precipitation, stratigraphy, topography, soil permeability, and plant cover."²⁰ Consequently, due to seasonal variations in precipitation, wetlands hydrology is the least exact factor used to identify wetlands.²¹

These delineation factors are set forth in two federal manuals: (1) the 1987 Wetlands Delineation Manual ("1987 Manual");²² and (2) the 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands ("1989 Manual").²³ Prior to 1993, both manuals were used by the United States Army Corps of Engineers ("Corps") and the United States Environmental Protection Agency ("EPA") to identify and delineate wetlands.²⁴ Although both manuals utilized the same three-factor test for determining the presence of wetlands, the 1989 Manual contained an exception where the presence of only two factors, *hydric soils* and *wetland-type hydrology*, resulted in a wetlands delineation.²⁵ These inconsistent delineation procedures have provided the basis for several high-profile cases involving disputes between federal agencies and landowners.

This article examines these cases as well as the history, policies, and rationales behind identifying and conserving wetlands. It proposes a unique analytical method for valuation of wetlands. Under the proposed analysis, government agencies and landowners would be required to prepare economic impact statements containing cost/benefit analyses measuring the effects of wetlands delineations upon land values. These analyses would provide the basis for determining the value of preserving wetlands ecosystems as well as the basis for determining

effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere." AMERICAN HERITAGE DICTIONARY 645 (College ed. 1980).

19. FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, *supra* note 8, at 6-7.

20. *Id.* at 7.

21. *Id.*

22. ENVTL. LAB., *supra* note 8.

23. FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, *supra* note 8.

24. The term *wetlands* means 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.

33 C.F.R. § 328.3(b) (1995) (U.S. Army Corps of Engineers' ("Corps") definition of wetlands); 40 C.F.R. § 230.41(a)(1) (1995) (U.S. Environmental Protection Agency's ("EPA") definition of wetlands).

25. See *Mulberry Hills Dev. Corp. v. United States*, 772 F. Supp. 1553 (D. Md. 1991) (mem.) (The court never reached the substantive issues because the court determined the case was not ripe for review).

fair compensation payable to landowners in the event they suffer land use or income loss as a result of wetlands delineations.

I. DEFINITIONAL PROBLEMS

Federal regulations promulgated in accordance with section 404 of the Clean Water Act²⁶ as well as other federal laws provide the regulatory basis for defining federal jurisdictional wetlands. As a result, the statutory missions of at least six federal agencies are related to wetlands preservation: (1) The EPA and the Corps have roles pursuant to the Clean Water Act including permit issuance and land use regulation;²⁷ (2) The Corps makes jurisdictional determinations pur-

26. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500 Stat. 816 (1972) (codified at 33 U.S.C. § § 1251-1376 (1986)). The primary statute granting federal agencies broad power to regulate wetlands is the Clean Water Act (CWA). Section 404 bans any discharge of fill or dredged material into navigable waters of the United States absent a permit issued by the Corps. 33 U.S.C. § 1344 [hereinafter Section 404]. Dredged material is "material that is excavated or dredged from waters of the United States." 33 C.F.R. § 323.2(c) (1995). Fill material is "any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of an [sic] waterbody." *Id.* § 323.2(e). Congress first approved the use of the 1987 Manual in the Clean Water Act. The Clean Water Act was designed to identify and delineate wetlands to assure that national waters were restored and maintained.

The discharge of dredged or fill material in wetlands is likely to damage or destroy habitat and adversely affect the biological productivity of wetlands ecosystems by smothering, by dewatering, by permanently flooding, or by altering substrate elevation or periodicity of water movement. The addition of dredged or fill material may destroy wetland vegetation or result in advancement of succession to dry land species. It may reduce or eliminate nutrient exchange by a reduction of the system's productivity, or by altering current patterns and velocities. Disruption or elimination of the wetland system can degrade water quality by obstructing circulation patterns that flush large expanses of wetland systems, by interfering with the filtration function of wetlands, or by changing the aquifer recharge capability of a wetland. Discharges can also change the wetland habitat value for fish and wildlife. . . . Discharging fill material in wetlands as part of municipal, industrial or recreational development may modify the capacity of wetlands to retain and store floodwaters and to serve as a buffer zone shielding areas from wave actions, storm damages and erosion.

40 C.F.R. 230.41(b) (1995).

27. Although the Clean Water Act does not specifically mention wetlands, the Act prohibits the discharge of dredged or fill materials into navigable waters, defined as waters of the United States. 33 U.S.C. §§ 1344, 1362(7) (1994). The Environmental Protection Agency promulgated regulations defining waters of the United States to include wetlands. 40 C.F.R. § 230.3(s)(2), (3), (7) (1995). The EPA and the Corps are jointly responsible for administering and enforcing the Clean Water Act. The Corps and the EPA are responsible for issuing permits under guidelines established by the EPA for discharge of dredged or fill materials. 33 U.S.C. § 1344(a)(b) (1994). The EPA may veto a permit issued by the Corps if it determines an activity will have adverse effects on waters, wildlife, fish, shellfish, or recreational areas. *Id.* § 1344(c). The Corps may assess administrative penalties for permit violations. *Id.* § 1319(g)(1)(B). The EPA may issue administrative orders, institute civil suits for injunctions and/or for civil penalties or assess administrative penalties for permit violations or unauthorized discharges. *Id.* § 1319.

suant to the Rivers and Harbors Act,²⁸ as well as receives assistance in reviewing permits and is required to solicit advisory environmental impact comments from the U.S. Fish & Wildlife Service and the National Marine Fisheries Service when it considers modification of any body of water pursuant to the Fish & Wildlife Coordination Act;²⁹ (3) The U.S.D.A. Soil and Conservation Service has been involved in wetlands identification since 1956 and recently increased its involvement due to the *Swampbuster* provision of the Food Security Act;³⁰ (4) the Endangered Species Act prohibits development of wetlands considered habitats for endangered species;³¹ and (5) The National Environmental Policy Act ("NEPA") directs federal agencies to assess the effects of agency actions on human environments such as wetlands.³²

A. Wetlands Manuals

In accordance with these various regulatory statutes, federal agencies involved in wetlands have promulgated different standards and procedures for identifying and delineating wetlands. The Corps relies on the 1987 Manual for its identifications,³³ and not surprisingly, the U.S.D.A. Soil and Conservation Service, the U.S. Fish & Wildlife Service, and the EPA developed their own procedures for identifications. As a result of these different standards, the 1989 Manual, although only *technical* in nature, was drafted expressly to provide a *uniform* approach to identifying wetlands — using *vegetation, soils, and hydrology* as test parameters.³⁴

Under the 1987 Manual, a multi-parameter test is utilized requiring the presence of *hydrophatic vegetation, hydric soils, and wetlands hy-*

28. The Rivers and Harbors Act is an early statute prohibiting the excavation or filling or placement of obstructions in the navigable waters of the United States absent prior approval by the Corps. The purpose of the statute is to promote navigation. See Rivers and Harbors Appropriation Act of 1899, 33 U.S.C. §§ 401-467n (1994).

29. 16 U.S.C. §§ 661-668ee (1994).

30. The Food Security Act prohibits farmers from growing crops on wetlands. Penalties include withdrawal of subsidies and fines. *Id.* § 3821.

31. 16 U.S.C. §§ 1531-1544 (1994).

32. 42 U.S.C. §§ 4321-4370d (1994).

33. ENVTL. LAB., *supra* note 8.

34. *Contra* United States v. Mills, 817 F. Supp. 1546, 1548 (N.D. Fla. 1993), *aff'd per curiam*, 36 F.3d 1052 (11th Cir. 1994), *cert. denied*, 115 S. Ct. 1966 (1995). The court stated:

This case presents the disturbing implications of the expansive jurisdiction which has been assumed by the United States Army Corps of Engineers under the Clean Water Act. In a reversal of terms that is worthy of *Alice in Wonderland*, the regulatory hydra which emerged from the Clean Water Act mandates in this case that a landowner who places clean fill dirt on a plot of subdivided dry *land* may be imprisoned for the statutory felony offense of "discharging pollutants into the navigable *waters* of the United States."

Id. at 1548. Cf. United States v. Phelps Dodge Corp., 391 F. Supp. 1181, 1187 (D. Ariz. 1975) (noting that normally dry arroyos may be jurisdictional wetlands).

drology.³⁵ This three factor test is called the "vegetation-hydrology-soils" analysis,³⁶ or "VHS test." However, the 1989 Manual allows for an exception to this three-pronged test.³⁷ This exception only requires the presence of two of the three VHS test elements to designate an area a wetlands if the site has been disturbed by human activity.³⁸ Consequently, landowners and developers have argued the 1989 standard effectively *expanded* the federal definition of wetlands,³⁹ and in order for the 1989 standard to become law, it should have been enacted in accordance with the proper procedural process.⁴⁰ Yet, the 1989 standard was *passed* by the regulating agencies themselves, not directly by Congress, the legal process necessary for federal legislation to become binding upon the public.⁴¹

In 1992, in an attempt to settle the controversy, Congress included a provision in the Energy and Water Development Appropriations Act of 1993⁴² prohibiting further use of the 1989 Manual. The Appropriation Act states:

None of the funds in this Act shall be used to identify or delineate any land as a "water of the United States" under the Federal Manual for Identifying and Delineating Jurisdictional Wetlands that was adopted in January 1989 or any subsequent manual adopted without notice and public comment.

Furthermore, the Corps of Engineers will continue to use the Corps of Engineers 1987 Manual, as it has since August 17, 1991, until a final wetlands delineation manual is adopted.⁴³

In accordance with this congressional mandate, the Corps' present authority to identify wetlands is limited to the standard set forth in the 1987 Manual. The Appropriation Act specifically invalidates use of the 1989 Manual for wetlands delineations originating after October 2, 1992.⁴⁴ Not surprisingly, controversy and confusion remain as to which manual and what standards are to be used regarding wetlands delineations in legal disputes arising before the Appropriations Act was enacted into law.

35. ENVTL. LAB., *supra* note 8, at 13.

36. *See* Mulberry Hills Dev. Corp. v. United States, 772 F. Supp. 1553, 1555 (D. Md. 1991) (mem.).

37. *Id.* at 1556.

38. *Id.*

39. *See, e.g.,* Mulberry Hills, 772 F. Supp. at 1556. As one commentator notes, "Changes in identification methods have been controversial because they have resulted in increases and decreases in the size of areas considered subject to [the Corps'] jurisdiction." CYLINDER, *supra* note 5, at 1-2.

40. Mulberry Hills, 772 F. Supp. at 1556-1557.

41. *Id.* at 1557; *see also* FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS, *supra* note 8, at 1-3.

42. Energy and Water Development Appropriations Act of 1993, Pub. L. No. 102-377, 106 Stat. 1315 (1992).

43. *Id.* at 1324.

44. *Id.*

B. Relevant Federal Case Law

1. *Mulberry Hills Development Corp. v. United States*

In *Mulberry Hills Development Corp. v. United States*,⁴⁵ a developer challenged the constitutionality of the Corps' authority to define federal wetlands.⁴⁶ In *Mulberry*, a developer received zoning authority to develop and construct 161 single family homes on sixty-two acres of land.⁴⁷ During the initial development phase, a Corps employee performed a field review.⁴⁸ The field review revealed the presence of cattails, sweetgum, red maple, blackgum and willow oak — all wetlands species (i.e., obligate or facultative *hydrophytic plants*), as well as standing water and a wetlands *hydric soil* (of the "Pocomoke and Fallsington Series").⁴⁹ As noted, the Corps employee observed standing water and saturated soil conditions, examples of *wetlands hydrology*.⁵⁰ Therefore, the Corps, in accordance with the 1989 Manual, concluded a portion of the sixty-two acre tract was a federal wetlands.⁵¹

As a result, the Corps issued a cease-and-desist order stating, "[p]lacement of fill material in waters of the United States of an adjacent wetlands without prior approval of plans by the Department [of the Army] constitutes a violation of Section 404 of the Clean Water Act."⁵² The cease-and-desist letter warned, "No further work is to be performed at this or any other location in a waterway or on wetlands without compliance with the laws. . . ."⁵³

In response, the developer retained an environmental consultant to determine whether a federal wetlands did indeed exist.⁵⁴ The consultant was asked to delineate and depict the boundaries of the wetlands on a plan that was to be submitted to the Corps for approval.⁵⁵ However, at an initial meeting between the environmental consultant and the Corps, the consultant was instructed by the Corps to follow the standards set forth in the 1989 Manual.⁵⁶ Predictably, a dispute arose regarding which wetlands delineations procedures should be utilized.⁵⁷

45. 772 F. Supp. 1553 (D. Md. 1991) (mem.).

46. *Id.* at 1555. The 1989 Manual is a federal interagency publication by the Federal Interagency Committee for Wetland Delineation. It represents a joint effort by (1) the EPA; (2) U.S. Army Corps of Engineers; (3) the U.S. Fish & Wildlife Service; and (4) the U.S.D.A. Soil and Conservation Service.

47. *Id.* at 1555.

48. *Id.*

49. *Mulberry Hills*, 772 F. Supp. at 1555.

50. *Id.*

51. *Id.* at 1555.

52. *Id.* (Section 404 is codified at 33 U.S.C. § 1344 (1994)).

53. *Id.* at 1556.

54. *Mulberry Hills*, 772 F. Supp. at 1556.

55. *Id.*

56. *Id.*

57. *Id.*

Under the 1989 Manual, approximately twenty-one of the sixty-two acres of land qualified as a federal wetlands.⁵⁸ However, seven of the twenty-one acres consisted of fields that had been disturbed by human activity when they were used as farmland to grow soy beans, wheat, and corn.⁵⁹ Moreover, the seven acres had been used as a farmland for the past thirty years.⁶⁰ Although it was undisputed that the seven acres in question contained two of the three parameters necessary to delineate a wetland — a *hydric soil* and *wetlands hydrology* — the parties disagreed whether the site contained *hydrophytic vegetation*.⁶¹

The government argued had the site not been disturbed by farming, a human activity, hydrophytic vegetation would have flourished and since farming had ceased, hydrophytic vegetation had indeed emerged.⁶² The developer, however, argued the seven-acre area would not likely be designated a wetlands under the 1987 Manual, either by a no-wetlands finding or by delineating less acreage a wetlands.⁶³ “In particular, [Mulberry Hills Development Corporation] argue[d] that the 1989 Manual relaxed the definition of wetlands so that only two of the three [VHS] parameters established by the regulation are necessary to characterize lands as wetlands if the property has been disturbed by human agency.”⁶⁴ Moreover, the developer argued if the 1989 Manual were to be literally applied “perhaps 50 percent of the Eastern Shore of Maryland, including farmlands, could be defined as wetlands.”⁶⁵ The developer further challenged the Corps’ authority to define federal wetlands, claiming the existing regulatory process was unconstitutional.⁶⁶

Therefore, the central issues in *Mulberry* were: (1) Does Congress have the authority to define and regulate federal wetlands?⁶⁷ (2) If so, may Congress delegate this regulatory authority to a federal agency such as the Corps?⁶⁸ (3) If so, did the Corps properly use the 1989 Manual as an *interpretive rule* for delineating wetlands?⁶⁹ and, (4) If so, must a developer challenging the Corps’ process or results exhaust the available administrative processes before suing the Corps in federal district court?⁷⁰

The *Mulberry* court answered these four questions affirmatively, and therefore, never reached the question of what damages, if any,

58. *Mulberry Hills*, 772 F. Supp. at 1556.

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.*

63. *Id.*

64. *Id.*

65. *Id.*

66. *Id.* at 1556, 1561-62.

67. *Id.* at 1560.

68. *Id.*

69. *Id.* at 1558.

70. *Id.* at 1559.

were recoverable by the developer. Although the developer argued the 1989 Manual was not an interpretative tool, but instead an illegal rule adopted without proper notice, the court refused to address this issue because the agency ruling was not final and the developer had not exhausted his administrative remedies.⁷¹ Accordingly, the court ruled the Clean Water Act does not provide for pre-enforcement review, and because the Corps had not attempted to enforce its cease and desist order, the court held the case was not ripe for judicial review.⁷²

2. *United States v. Riverside Bayview Homes, Inc.*

In *United States v. Riverside Bayview Homes, Inc.*,⁷³ the United States Supreme Court upheld Congress' delegation of authority to the Corps and the EPA for wetlands determinations.⁷⁴ In *Riverside Bayview Homes*, the Corps filed suit to enjoin a developer from placing fill materials on property near Lake St. Clair, Michigan.⁷⁵ The trial court held the property was a wetlands, thus subject to the Corps' permit process, but the court of appeals reversed, construing the Corps' authority to regulate "waters of the United States" excluded adjacent wetlands not subject to flooding by adjacent navigable waters in an amount sufficient to support the growth of aquatic vegetation.⁷⁶ The court of appeals found the Corps' authority under the Clean Water Act should be narrowly construed to avoid a taking without just compensation in violation of the Fifth Amendment.⁷⁷ Consequently, the Supreme Court granted certiorari to determine the proper scope of the Corps' jurisdiction under the Clean Water Act.⁷⁸

In a unanimous opinion, the Supreme Court reviewed portions of the Clean Water Act regarding "waters of the United States" as defined in the Federal Water Pollution Control Act Amendments of 1972.⁷⁹ The Court stated, in accordance with the Clean Water Act, "any discharge of dredged or fill materials into 'navigable waters' - defined as the 'waters of the United States' - is forbidden unless authorized by a permit issued by the Corps of Engineers. . . ."⁸⁰ Although the Court determined that the Corps had initially construed the Act to cover only navigable waters, the Court found that the

71. *Id.* at 1556, 1559.

72. *Id.* at 1557-58.

73. 474 U.S. 121 (1985).

74. *Id.* at 129.

75. *Id.* at 124.

76. *Id.* at 121.

77. *Id.*

78. *Id.* at 126.

79. *Id.* at 123 (The relevant Clean Water Act provisions originated in the Federal Water Pollution Control Act Amendments of 1972, codified at 33 U.S.C. §§ 1311, 1362 (1994)).

80. *Id.*

Corps had later redefined *waters of the United States* "to include not only actually navigable waters but also tributaries of such waters, interstate waters and their tributaries, and nonnavigable intrastate waters whose use or misuse could affect interstate commerce" and freshwater wetlands.⁸¹

The Court noted this redefinition had sparked congressional debate and opposition.⁸² Furthermore, the Court noted past opponents had alleged that this redefinition constituted governmental over-regulation and had proposed a House bill to redefine and limit the Corps' authority to actual navigable waters and adjacent wetlands.⁸³ Thus, wetlands preservation had previously been the center of congressional debate regarding narrowing the definition of navigable waters.⁸⁴ Ultimately, the House adopted a narrow definition of navigable waters, but the provision was later defeated in the Senate, and the Conference Committee subsequently adopted the Senate's broader version.⁸⁵

Although the *Riverside* Court acknowledged classifying "lands," wet or otherwise, as "waters" might appear unreasonable, the Court upheld the Corps' authority to regulate wetlands based upon the legislative history underlying the Clean Water Act.⁸⁶ The *Riverside* Court further found Section 404 of the Clean Water Act extended the Corps' authority to regulate wetlands adjacent to navigable or interstate waters and their tributaries.⁸⁷ Moreover, the Court noted neither the imposition of the permit process, nor the denial of a permit amounted to a taking in violation of the Fifth Amendment.⁸⁸

To support its conclusion, the *Riverside* Court reasoned the goal of the Clean Water Act was to maintain and improve water quality and to protect aquatic ecosystems.⁸⁹ The Court noted Congress had previously passed broad federal legislation regarding pollution control, and therefore the Court declined to limit the Corps' jurisdiction.⁹⁰ The Court reiterated that wetlands adjacent to navigable waters play an important role in water quality and in preservation of aquatic ecosystems.⁹¹ Accordingly, the *Riverside* Court held the Clean Water Act should be construed broadly and federal agencies have the power to define the parameters of wetlands regulation.⁹²

81. *Id.*

82. *Riverside Bayview Homes*, 474 U.S. at 135-37.

83. *Id.* at 136.

84. *Id.*

85. *Id.* at 136-37.

86. *Id.* at 132-39.

87. *Id.* at 129 (Section 404 is codified at 33 U.S.C. § 1344 (1994)).

88. *Riverside Bayview Homes*, 474 U.S. at 127. The court stated, "Only when a permit is denied and the effect is to prevent 'economically viable' use of the land in question can it be said that a taking has occurred." *Id.*

89. *Id.* at 132-33.

90. *Id.* at 133, 137.

91. *Id.* at 134-35.

92. *Id.* at 133-34.

3. *United States v. Mills*

In *United States v. Mills*,⁹³ a federal district court upheld Congress' power to define and regulate federal wetlands⁹⁴ and found Congress had properly delegated this authority to the Corps.⁹⁵ In addition, the Court held "U.S. waters" are part of interstate commerce under the Commerce Clause.⁹⁶ In *Mills*, a father and son were convicted of various felony counts for "discharging" unpermitted "pollutants."⁹⁷ The defendants were sentenced to twenty-one months in prison and fined \$5,000 followed by one year of supervised release.⁹⁸ The conviction resulted from the defendants' attempt to prepare a waterfront lot for development.⁹⁹ Although the waterfront lot contained no standing water and did not appear to be a marsh, swamp, or bog, the Corps deemed part of the lot a wetlands.¹⁰⁰

However, in a prior proceeding, it had been determined that at the time of the alleged Clean Water Act violation, the lot was likely not a wetlands because an old drain running through the lot had been partially blocked by a former developer as part of another construction plan that had led to a slow accumulation of water.¹⁰¹ Moreover, the blockage occurred before the defendants even purchased the lot and before enactment of the Clean Water Act.¹⁰² Unfortunately, the defendants, who represented themselves at trial, were never allowed to present this evidence.¹⁰³

Nevertheless, the *Mills* court acknowledged the term *waters of the United States* was determinative of where pollutants could be discharged.¹⁰⁴ The court determined the term was not defined in the Clean Water Act¹⁰⁵ and therefore concluded the "absence of a definition by Congress left the task of defining 'waters of the United States' to the entities charged with administering and enforcing the Act, the Army Corps of Engineers and the Environmental Protection

93. 817 F. Supp. 1546 (N.D. Fla. 1993), *aff'd per curiam*, 36 F.3d 1052 (11th Cir. 1994), *cert. denied*, 115 S. Ct. 1966 (1995).

94. *Id.* at 1554-55.

95. *Id.* at 1552-55 (citing *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 128 (1985)).

96. *Id.* at 1553 (noting Congress' use of the Commerce Clause to regulate wetlands because of the relationship between wetlands and U.S. waters).

97. Clean sand or fill dirt can be deemed a "pollutant" because they can change preexisting soil conditions.

98. *Mills*, 817 F. Supp. at 1548.

99. *Id.*

100. *Id.*

101. *Id.* at 1548-49.

102. *Id.* at 1549.

103. *Id.*

104. *Mills*, 817 F. Supp. at 1550.

105. *Id.*

Agency.”¹⁰⁶ The court then acknowledged these agencies had previously interpreted the term to include dry land.¹⁰⁷

The defendants, however, argued their convictions were invalid because Congress had unconstitutionally delegated the authority to regulate wetlands to the Corps.¹⁰⁸ However, the *Mills* court, after examining amendments to the Federal Water Pollution Control Act,¹⁰⁹ and citing *Riverside Bayview Homes*, recognized Congress’ broad power to delegate water quality control issues to regulatory agencies.¹¹⁰ But the court acknowledged this power was not unlimited.¹¹¹ The court distinguished the power to regulate from the power to set felony crimes, stating:

Despite its [the *Riverside Court*’s] blanket approval of the Corps’ regulatory authority over “wetlands,” it is doubtful that the Supreme Court realized that the Corps’ definition extends to land that appears to be dry, but which may have some saturated-soil vegetation, as is the situation here, or that it would define the elements of a felony offense.¹¹²

Therefore, the *Mills* court questioned whether the grant of power to define a regulatory term included the power to define the elements of a felony offense.¹¹³ It is this power, defining the parameters of the very regulations in which governmental agencies prosecute, that alarmed the court’s constitutional conscience.¹¹⁴ The court stated, “A

106. *Id.* at 1551.

107. *Id.*

108. *Id.*

109. 33 U.S.C. §§ 1251-1387 (1994) (commonly referred to as the “Clean Water Act”).

110. *Mills*, 817 F. Supp. at 1553.

111. *See, e.g.,* Northern Pipeline Constr. Co. v. Marathon Pipe Line Co., 458 U.S. 50 (1982) (ruling that Congress’ revised version of federal bankruptcy court system involves an unconstitutional delegation of powers to non-tenured Article I bankruptcy judges); *but see Mills*, 817 F. Supp. at 1552 (“[T]he principle that the Constitution prohibits Congress from delegating its legislative authority is essentially nugatory, for little is required of Congress when it wants to obtain the assistance of its coordinate branches.”); *Touby v. United States*, 500 U.S. 160, 165 (1991) (“So long as Congress ‘lays[s] down by legislative act an intelligible principle to which the person or body authorized to [act] is directed to conform, such legislative action is not a forbidden delegation of legislative power’”) (quoting *J. W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394, 409 (1928)).

112. *Mills*, 817 F. Supp. at 1554.

113. *Id.* at 1555.

114. Judge Vinson stated his concern:

Thus, the broad purpose of the [Clean Water] Act was to protect water quality and aquatic ecosystems. It was this broad purpose which guided the Army Corps [of Engineers] when it defined “waters of the United States” to include wetlands adjacent to what are commonly thought of as waters — bays, lakes, rivers, etc. . . .

Of course, to a layman, a “wetland” is land that is most often, if not mostly, under standing water or so saturated that it is, in fact, wet. That type of wetland is a logical extension of the adjacent body of water. Despite its blanket approval of the Corps’ regulatory authority over “wetlands,” it is

jurisprudence which allows Congress to impliedly delegate its criminal lawmaking authority to a regulatory agency such as the Army Corps — so long as Congress provides an intelligible principle to guide that agency — is enough to make any judge pause and question what has happened.”¹¹⁵ The court reasoned enabling statutes must contain the necessary criteria to determine whether an agency is acting within the scope of its congressionally delegated authority.¹¹⁶ Regrettably, concluding the state of the law existed where Congress had delegated this authority to the Corps, the court reluctantly denied the defendants’ motion to vacate the order and set aside the judgment.¹¹⁷

C. Policy Considerations

Current wetlands definitional standards are very broad. Wetlands are included in the legal definition of *U.S. waters* because wetlands are inextricably intertwined with the waters of the United States.¹¹⁸ Thus, because some wetlands are *adjacent* to *U.S. waters* — such that wetlands waters and their contents blend with *waters of the United States* — these *adjacent* wetlands are deemed to be legally merged with *U.S. waters*.¹¹⁹ Consequently, the term *adjacent wetlands* may include any lands whose waters ultimately drain into a tributary of a tributary of a

doubtful that the Supreme Court realized that the Corps’ definition extends to land that appears to be dry, but which may have some saturated-soil vegetation, as is the situation here, or that it would define the elements of a felony offense. . . .

A jurisprudence which allows Congress to impliedly delegate its criminal lawmaking authority to a regulatory agency such as the Army Corps [of Engineers] — so long as Congress provides an “intelligible principle” to guide that agency — is enough to make any judge pause and question what has happened. Deferent and minimal judicial review of Congress’ transfer of its criminal lawmaking function to other bodies, in other [governmental] branches, calls into question the vitality of the tripartite system established by our [U.S.] Constitution. It also calls into question the nexus that must exist between the law so applied and simple logic and common sense. Yet that seems to be the state of the law. Since this court must apply the law as it exists, and cannot change it, there is nothing further that can be done at this level.

817 F. Supp. at 1554-55.

115. *Id.* at 1555.

116. *Id.* at 1553 (citing *Riverside Bayview Homes*, 474 U.S. 123). In the case of wetlands, the Supreme Court has ruled that the delegation Congress made to the EPA and to the Corps is a proper delegation in light of the discernible statutory language and policies of the Clean Water Act as viewed against the legislative history of the Clean Water Act amendments. *Riverside Bayview Homes*, 474 U.S. at 139.

117. *Mills*, 817 F. Supp. at 1555.

118. *Riverside Bayview Homes*, 474 U.S. at 134.

119. *Id.* at 130-34 (The Court held the Corps validly construed wetlands *adjacent* to navigable waterways as waters of the United States because Congress recognized that water moves in hydrologic circles and granted broad authority to protect aquatic ecosystems and to control pollution). *Id.* at 134.

navigable river or onto a seashore of the United States.¹²⁰ As a result, because most wetlands ultimately drain into some navigable river or territorial water, this *hydrologically connected* qualification means that many (if not most) of America's wetlands may be deemed *adjacent wetlands*.¹²¹

In accordance with the Clean Water Act, federal courts have upheld Congress' broad power to delegate water quality control issues to regulatory agencies provided the delegation contains an *enabling statute* with discernible criteria allowing a subsequent reviewing court to decide whether the agency was acting within the proper scope of its congressional delegation.¹²² Therefore, litigants challenging the propriety of the 1989 standard argue if federal agencies intended to change the legal standards for defining wetlands, any such amendment must have complied with the procedure specifically defined in the enabling statute which Congress used to delegate the quasi-legislative powers to the agency. If no such procedure was defined in the agency's enabling statute, then the amendment procedure must have complied with the rule-making process as defined in section 553 of the Administrative Procedures Act,¹²³ which is the federal *catch-all* statute that governs rule-making by administrative regulatory agencies.¹²⁴

120. *Mills*, 817 F. Supp. at 1550-1553; *United States v. Pozsgai*, 999 F.2d 719, 732 (3d Cir. 1993), *cert. denied*, 510 U.S. 1110 (1994) (holding the interstate commerce nexus required for jurisdiction under the CWA is established if wetlands are adjacent to a tributary of a waterway); *United States v. Tilton*, 705 F.2d 429, 431 (11th Cir. 1983); *United States v. Banks*, 873 F. Supp. 650, 658 (S.D. Fla. 1995) (mem.) ("Adjacent means bordering, contiguous, or neighboring."). Courts have even held *isolated* wetlands may be regulated under Congress' broad grant of authority under the Commerce Clause, provided a nexus exists to interstate waters, such as migratory birds. *See, e.g.*, *Leslie Salt Co. v. United States*, 55 F.3d 1388 (9th Cir.), *cert. denied sub nom. Cargill, Inc. v. United States*, 116 S. Ct. 407 (1995) (holding the Corps' jurisdiction under the CWA to regulate waters of the United States extends to *isolated* wetlands created by seasonal rains filling excavated salt pits and where migratory birds form the nexus to interstate waters); *Cf. Hoffman Homes, Inc. v. EPA*, 999 F.2d 256, 260-61 (7th Cir. 1993) (holding a CWA violation must be supported by substantial evidence which must include more than a mere theoretical possibility that migratory birds will use an *isolated* wetland); *Rueth v. EPA*, 13 F.3d 227, 231 (7th Cir. 1993) (holding isolated waters may be regulated under the CWA if they support migratory birds).

121. *Slagle v. United States*, 809 F. Supp. 704, 708-09 (D. Minn. 1992) (noting that 33 C.F.R. § 328.3(5) includes tributaries which allow an inland body of water to be "*hydrologically connected*" to a U.S. navigable water body or territorial sea, and thus fit the jurisdictional definition of "U.S. waters"); *see United States v. Riverside Bayview Homes*, 474 U.S. 121 (1985); *United States v. Pozsgai*, 999 F.2d 719 (3d Cir. 1993); *United States v. Banks*, 873 F. Supp. 650 (S.D. Fla. 1995) (mem.).

122. In the case of wetlands, the Supreme Court has ruled the delegation Congress made to the EPA and to the Corps is a proper delegation in light of the discernible statutory language and policies of the Clean Water Act as viewed against the legislative history of the Clean Water Act amendments. *Mills*, 817 F. Supp. at 1553.

123. 5 U.S.C. §§ 551-559 (1994).

124. *E.g.*, *Mulberry Hills*, 772 F. Supp. at 1577; *Avoyelles Sportsmen's League, Inc. v. Marsh*, 715 F.2d 897, 917 (5th Cir. 1983).

Regarding the process for *amending* wetlands regulations, Congress did not provide a specialized enabling statute.¹²⁵ Therefore, the validity of the 1989 standard for wetlands identifications, *as new law regarding the technical identification and delineation of federal wetlands*, depends upon whether the new standard was issued via a valid quasi-legislative process of administrative agency rule-making.¹²⁶ In order for the new standard to be universally applicable and authoritatively binding upon the public, it had to be promulgated through this legal process.¹²⁷

Although a challenge to the Corps' use of the 1989 Manual seems simple because the manual resulted from a negotiated committee meeting between four federal agencies, and not from the proper *notice and comment* process as required under the Administrative Procedures Act, the *interpretive rule* exception to the Administrative Procedures Act may actually validate the Corps' action.¹²⁸ The *interpretive rule* exception authorizes regulatory agencies to issue their own *internal*, policy-oriented interpretive rules, allowing federal agencies to adopt uniform approaches to interpreting their own enabling statutes and regulations.¹²⁹ Such interpretive rules are necessary for agencies to execute their statutory missions. Since *interpretive rules* are not considered the same as public rule-making, they need not follow the same *notice and comment* process in order to be legally valid.¹³⁰ Thus, if the Corps only used the 1989 Manual as an interpretive rule, the

125. *See Marsh*, 715 F.2d at 904. "Since the Clean Water Act does not set forth the standards for reviewing the EPA's or the Corps' decisions, we look to the Administrative Procedures Act ("APA"), 5 U.S.C. §§ 701 *et seq.* (1976) [now 5 U.S.C. §§ 551-559 (1994)], for guidance. . . . [T]he APA provides that a court shall set aside agency findings, conclusions, and actions that are 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,' or that fail to meet statutory, procedural or constitutional requirements. *Id.* (citations omitted).

126. *Mulberry Hills*, 772 F. Supp. at 1556-57.

127. 5 U.S.C. § 553 (1994).

128. The interpretive rule exception to the Administrative Procedures Act is codified at 5 U.S.C. § 553(b)(3)(A) (1994).

129. *Mulberry Hills*, 772 F. Supp. at 1557. This general principle applies to federal regulatory agencies but not necessarily to state regulatory agencies.

130. The rulemaking procedures of the Administrative Procedures Act do not apply to "interpretive rules, general statements of policy, or rules of agency organization, or procedure, or practice. . . ." 5 U.S.C. § 553(b)(3)(A) (1994). This is as opposed to any quasi-legislative standard, arising from a legislative delegation, and promulgated by an administrative body after the APA's "notice and comment" process is followed.

In *Batterton v. Marshall*, 648 F.2d 694 (D.C. Cir. 1980), the court highlighted the differences between legislative rules and interpretive rules. The court stated, "Legislative rules . . . grant rights, impose obligations, or produce other significant effects on private interests. They also narrowly constrict the discretion of agency officials by largely determining the issue addressed. Finally, legislative rules have substantive legal effect." *Id.* at 701-02 (footnotes omitted). However, interpretive rules are "not determinative of issues or rights addressed. They express the agency's intended course of action, its tentative view of the meaning of a particular statutory term, or internal house-keeping measures organizing agency activities. They do not . . . fore-

agency was not required to comply with the notice and comment rule-making process. Interpretive rules are not quasi-legislative in the sense of being literally binding upon the public, although they can function like promulgated law if they are standards by which the agency usually acts.¹³¹ Accordingly, federal courts are likely to require final agency rulings before they will consider whether the 1989 Manual was properly adopted.¹³²

II. WETLANDS CONSERVATION

Historically, America's interest in wetlands is rooted in the policy of preserving its limited and special resources.¹³³ Conservation is defined as the "planned management of a natural resource to prevent exploitation, destruction, or neglect."¹³⁴ Thus, wetlands conservation may be defined as the discipline and practice of conservatively using, managing, protecting, and preserving wetlands natural resources and environments.

Two assumptions underlie wetlands conservation programs: (1) all wetlands are worth preserving, and (2) land has greater value as a wetlands ecosystem than it has as an altered, developed, or disturbed state.¹³⁵ At one extreme are preservationists who argue that each and every existing wetlands is indispensable and must be preserved in its natural condition regardless of cost, and at the other extreme are developers and private landowners who argue the government should compensate them for land use restrictions resulting from wetlands delineations.¹³⁶

close alternative courses of action or conclusively affect rights or private parties." *Id.* at 702 (citations omitted).

Despite these distinctions, the court in *Avoyelles* noted that the line between legislative rules and interpretative rules is not distinct. *Avoyelles*, 715 F.2d at 909 (5th Cir. 1983). "Further, an agency has the discretion to proceed through case-by-case adjudications and interpretative orders, rather than through the rulemaking process, for the agency will often confront special problems necessitating a flexible approach to their resolution." *Id.* The court further noted that the critical question in cases challenging the method by which an agency adopts a standard centers on whether the procedure satisfies the purpose of the APA, and affords a procedure that is fair to affected parties. *Id.* at 909-10. Thus, if an agency merely interprets its own flexible standard, it is not required to proceed through the public notice and comment process of the APA.

131. See generally *Avoyelles*, 715 F.2d at 907-914 (discussing a challenge to the Corps wetland definitions based on APA issues).

132. See *Mulberry Hills*, 772 F. Supp. at 1556, 1559.

133. ANDERSON, *supra* note 2, at 7.

134. MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 246 (10th ed. 1994).

135. See generally Virginia S. Albrech, *Federal Regulation of Wetlands*, ABA Continuing Legal Education ALI-ABA Course of Study 251 (1995); 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, 875 (1993); Virginia C. Veltman, Comment, *Banking on the Future of Wetlands Using Federal Law*, 89 Nw. U. L. REV. 654, 659 (1995).

136. See generally 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.

However, current federal regulations reveal a more pragmatic approach. Presently, federal regulations are based on the assumption that all wetlands need not be preserved so long as the net acreage of all wetlands does not decrease — and thus the preservation of any particular wetland is not always necessary. For example, under the government's *no net loss* policy,¹³⁷ new wetlands acreage can be artificially created and substituted for natural wetlands acreage being destroyed by pollutants discharged in compliance with the Clean Water Act's Section 404 regulatory program.¹³⁸ The purpose of the government's *no net loss* policy is to maintain net wetlands acreage.¹³⁹ Mitigation banking is one program used to accomplish this conservation policy.

Mitigation banking is "the restoration, creation, enhancement, and, in exceptional circumstances, preservation of wetlands or other aquatic habitats."¹⁴⁰ Under the government's mitigation banking program, the Corps issues permits for the destruction of existing wetlands acreage if a permittee first provides an adequate amount of substitute wetlands acreage.¹⁴¹ However, in some cases, the provision of substitute acreage may not be adequate to justify the destruction of existing wetlands as not all newly created wetlands qualitatively rise to the ecological stature of old wetlands.¹⁴² As a result, this qualitative imbalance often leads the Corps to implement its leveraged mark-up policy where wetlands acreage is quantitatively increased, not merely maintained.¹⁴³ In effect, this policy attempts to balance the qualitative

873, 875 (1993); Michael K. Braswell & Stephen L. Poe, *Private Property vs. Federal Wetlands Regulation: Should Private Landowners Bear the Cost of Wetlands Protection?*, 33 AM. BUS. L. J. 179, 179-182 (1995).

137. Veltman, *supra* note 135, at 655-660.

138. *Id.* at 657.

139. *Id.* The *no net loss* policy is implemented through a sequence of three regulatory considerations: avoidance, minimization, and compensatory mitigation. *Id.* at 664. First, adverse impacts on wetlands are to be avoided, if practicable. Second, unavoidable impacts are to be minimized. Third, where minimization procedures fail to prevent adverse impacts on wetlands, the Corps is to consider compensatory mitigation proposals. *Id.* at 664-65.

140. Albrech, *supra* note 135, at 267 (citing Regulatory Guidance Letter No. 93-2, Guidance on Flexibility of the 404(b)(1) Guidelines and Mitigation Banking (Aug. 23, 1993), reprinted in Fed. Reg. 5182, 5193 (1994)).

141. *Id.*

142. See, e.g., *Mulberry Hills Dev. Corp. v. United States*, 772 F. Supp. 1553 (D. Md. 1991).

143. Although *mitigation banking* provides a means by which developers may purchase necessary credits in order to develop a particular wetland track, the program has been highly criticized by developers, environmentalists and regulators as being administered on an unpredictable, ad hoc basis because credit evaluation has not been standardized. See Veltman, *supra* note 135, at 659. Under the federal scheme, developers may be required to provide a one for one functional replacement if wetlands acreage has comparable value. However, if the functional value of filled wetlands is greater than that of replacement acreage, a developer may be required to provide more than one new acre per acre of wetlands lost. Albrecht, *supra* note 135, at 266. Because of the uncertainty of wetland valuation, "many environmentalists have re-

loss of wetlands to an ecosystem with a gain in quantity through creation of new wetlands. Therefore, conservation policies such as mitigation banking are particularly important to commercial and residential developers because credits from newly created wetlands may be purchased and substituted to offset destruction of existing wetlands.

Various other socio-economic benefits also result from the government's wetlands conservation program. For instance, wetlands have an extraordinary ability to shelter fish and wildlife, cleanse polluted and silt-laden water, and provide protection from floods.¹⁴⁴ Further, "[w]etlands are among the most biologically productive natural ecosystems in the world."¹⁴⁵ They exhibit a remarkable knack for capturing and storing sunlight and for efficiently recycling nutrients. In addition, wetlands provide groundwater recharging, improve water quality, increase fish and bird populations and habitats, provide nutrient recycling, flood control,¹⁴⁶ and provide products for human consumption such as food, timber, and fossil fuels.¹⁴⁷

A. Groundwater Recharge

Wetlands assist in maintaining adequate water supply levels for urban and suburban communities. For instance, wetlands replenish groundwater in aquifers supplying fresh-water wells.¹⁴⁸ "In Massachusetts, the 2,700-acre Lawrence Swamp recharges the shallow aquifer under it at a rate of eight million gallons of water daily. This wetland recharges a 10,000-acre area and is the main water source for the city of Amherst."¹⁴⁹ Similarly, swamps in the Midwest, the South and the Northeast replenish groundwater wells.¹⁵⁰ Therefore, because wetlands assist in maintaining adequate levels of fresh groundwater, destruction of wetlands may result in shortages of fresh water supplies.

B. Water Quality

Wetlands also act as *ecosystem kidneys*, by filtering out pollutants through absorption of waste, thereby improving water quality.¹⁵¹ The

sisted mitigation banking, fearing this ad hoc approach will lead to natural wetlands being destroyed in return for less valuable mitigated wetlands. Among developers, few are willing to risk investing large sums of money in such an unpredictable venture." Veltman, *supra* note 135, at 659.

144. ANDERSON, *supra* note 2, at 7.

145. ENVIRONMENTAL PROTECTION AGENCY, WETLANDS FACT SHEETS NO. EPA843-F-95-001b (Feb. 1995).

146. WILLIAM A. NIERING, WETLANDS OF NORTH AMERICA 22-25 (Rebecca Ball Barns ed., 1991).

147. ANDERSON, *supra* note 2, at 7.

148. NIERING, *supra* note 146, at 22-23.

149. *Id.* at 24.

150. *Id.*

151. ANDERSON, *supra* note 2, at 7.

dense vegetation found in wetlands acts as a nutrient trap to absorb phosphates and nitrates from agricultural run-off and sewage.¹⁵² Further, wetlands vegetation traps hazardous pollutants such as heavy metals, thereby preventing them from entering the water supply.¹⁵³

For instance, in the Tinicum Marshes found along the Delaware River near Philadelphia, the concentration of sewage in the water was dramatically reduced as a result of the water being purified as it flowed over a 500-acre freshwater tidal marsh.¹⁵⁴ Researchers noted a significant reduction of pollutants in sewage flowing through the wetlands: biological oxygen demand was reduced by fifty-seven percent;¹⁵⁵ nitrates were reduced by sixty-three percent; and phosphates were reduced by fifty-seven percent.¹⁵⁶ Similarly, in Florida, cypress swamps have served as pollution filters for decades.¹⁵⁷ Furthermore, scientific research in Florida demonstrated some wetlands swamps retained ninety-seven percent of coliform bacteria, heavy metals, and nutrients found in sewage.¹⁵⁸ In Georgia, bottomland swamps along the Flint and Alcovy Rivers have also demonstrated a filtering capacity which improves water quality.¹⁵⁹

In addition, wetlands soils play a significant role in absorbing hazardous contaminants and pollutants.¹⁶⁰ "Toxics and pollutants are transformed or removed by wetlands as water passes through them"¹⁶¹ In Michigan, a 1,700-acre experimental peat bog received sewage for over a decade and functioned as a highly effective filtration system.¹⁶² In California, a town restored or created more than one hundred acres of marsh which functioned as a filter for sewage waste water entering the Humboldt Bay.¹⁶³ Notably, the waters exiting the marsh proved cleaner than similar waters exiting the conventional sewage treatment plant.¹⁶⁴ More importantly, this sewage water purification function is beneficial to both ecosystems and to the wetlands themselves. Ecosystems benefit when wetlands purify sewage water through absorption of contaminants,¹⁶⁵ and wetlands benefit because sewage contains nutrients which enhance plant growth.¹⁶⁶

152. NIERING, *supra* note 146, at 24.

153. *Id.*

154. *Id.*

155. *Id.* BOD is the standard measurement for processing sewage concentration levels.

156. NIERING, *supra* note 146, at 24.

157. *Id.* at 25.

158. *Id.* Coliform bacteria is an indicator bacteria of the presence of human sewage.

159. *Id.* at 24-25.

160. NIERING, *supra* note 146, at 25.

161. CYLINDER, *supra* note 5, at 2.

162. NIERING, *supra* note 146, at 25.

163. *Id.*

164. *Id.*

165. *Id.*

166. See NIERING, *supra* note 146, at 24.

C. Fish and Bird Populations and Habitats

Fish depend on wetlands as spawning grounds. Birds depend on wetlands as nurseries for their young. Moreover, commercial fishing, sporting and hunting industries will suffer grave economic loss if fish and bird populations are reduced because their natural habitats are destroyed. For instance, in the Southeast, ninety-six percent of commercial and fifty percent of recreational fish and shellfish rely on coastal marshes for spawning and nursery grounds.¹⁶⁷

Migratory birds also depend on wetlands for shelter, feeding, breeding and nesting during migration.¹⁶⁸ For example, the playa lakes region, consisting of portions of Colorado, Kansas, New Mexico, Oklahoma, and Northern Texas, are the winter breeding area for many migratory birds.¹⁶⁹ Furthermore, wetland habitats in the playa lakes region are utilized by several endangered species such as the bald eagle.¹⁷⁰ In addition, many migrant birds such as the American avocet, lark bunting, killdeer, long-billed curlew, the American kestrel, ducks, and geese depend on the playas.¹⁷¹ In sum, "[w]etlands provide essential nesting, migratory and wintering areas for more than 50% of the country's migratory bird species."¹⁷² Thus, wetlands play an important role in the life cycle of many species of fish and migratory birds.

D. Geobiochemical Nutrient Recycling

Wetlands constitute six percent of the earth's surface and exercise a life sustaining nutrient recycling function.¹⁷³ For instance, animals breathe oxygen and exhale carbon dioxide as waste. Wetland plants absorb carbon dioxide and produce oxygen.¹⁷⁴ In this balanced system, animals and wetland plants absorb essential gases produced as waste by the other. Furthermore, wetlands retain carbon from dead plant and animal tissue, thus preventing the release and buildup of carbon dioxide in the atmosphere.¹⁷⁵ Additionally, wetlands produce unusually large amounts of oxygen because of their distinctive vegetation.¹⁷⁶ The photosynthetic process of wetland plants aids in stabilizing global temperatures.¹⁷⁷ Wetlands vegetation also traps nutrients such as phosphates, nitrates, ionized calcium salts, and ionized sodium

167. ENVIRONMENTAL PROTECTION AGENCY, WETLANDS FACTS SHEETS NO. EPA843-F-95-001b (Feb. 1995).

168. ANDERSON, *supra* note 2, at 10, 13.

169. *Id.* at 10.

170. *Id.*

171. *Id.*

172. *Id.* at 13.

173. NIERING, *supra* note 146, at 15.

174. *Id.*

175. *Id.* at 16.

176. *See generally* NIERING, *supra* note 146, at 15-16.

177. NIERING, *supra* note 146, at 16.

salts and prevents them from washing out to sea.¹⁷⁸ Consequently, wetlands environments are rich in nutrients and food supplies and thus serve an important role in the recycling of those nutrients.¹⁷⁹

E. Flood Control

Scientists increasingly recognize that wetlands play a valuable role in the human environment.¹⁸⁰ Wetlands help minimize flood damage by slowing and storing flood water, thereby reducing flood peaks.¹⁸¹ For instance, a mere one-foot rise in water level over a one-acre wetland may temporarily store 300,000 gallons of water without harming plant or animal life.¹⁸² This flood control ability is measurable in dollars:

When considering how to control flood damage along the Charles River in Massachusetts, the U.S. Army Corps of Engineers concluded that saving the wetlands was the solution. Losing 40 percent of the basin's wetlands would increase flood damage by at least \$3 million annually, and losing all the wetlands would incur annual flood damages of \$17 million.

Rather than constructing dams, the Corps of Engineers acquired or protected by easements 8,000 acres of wetlands along the river. The average annual cost was \$617,000, and the annual benefits have averaged \$2.4 million — obviously a sound economic and ecological investment.¹⁸³

F. Erosion Control

Wetlands protect stream shorelines and shorelines banks from erosion.¹⁸⁴ "Erosion of soils can be caused by increases in water velocities from upstream construction sites, unvegetated ground or agricultural fields. Wetlands vegetation provides an important buffer to adjacent waterbodies by filtering and holding sediments that would otherwise enter lakes and streams and eventually fill them."¹⁸⁵ Absent wetlands vegetation, topsoil rich in nutrients from decaying plant and animal life would be washed away. Therefore, wetlands play an important role in preventing soil erosion during flooding.

178. *Id.*

179. *Id.* at 15.

180. NIERING, *supra* note 146, at 25.

181. CYLINDER, *supra* note 5, at 2; ANDERSON, *supra* note 2, at 12. Notably, "The 1993 Flood disaster in the midwestern United States is partially attributed to the conversion of Mississippi and Missouri flood plains to farmland. Converted flood plains could no longer absorb rising waters." Veltman, *supra* note 135, at 655, n.12 (citing Peter Annin, *To the River, the Spoils*, NEWSWEEK, Apr. 11, 1994, at 71).

182. NIERING, *supra* note 146, at 22.

183. *Id.*

184. CYLINDER, *supra* note 5, at 2.

185. ANDERSON, *supra* note 2, at 12.

G. Recreation

Wetlands provide opportunities for boating, hunting, fishing, hiking, photography, and wildlife observation.¹⁸⁶ "For example, an estimated 50 million people spend approximately \$10 billion each year observing and photographing wetlands-dependent birds."¹⁸⁷

H. Education

Wetlands provide a biologically diverse outdoor laboratory/observatory for ecologists and other environmental scientists to study, test, and prepare educational materials for purposes of advancing environmental research and/or for teaching environmental education subjects.¹⁸⁸ This educational use of wetlands is often intertwined with field studies of wetlands ecology and/or wetlands wildlife, especially birds.¹⁸⁹

III. ELVIS/AELVIS - A NEW APPROACH

*Regulatory takings*¹⁹⁰ through wetland designations is an area of

186. CYLINDER, *supra* note 5, at 2; ANDERSON, *supra* note 2, at 13; ENVIRONMENTAL PROTECTION AGENCY, WETLANDS FACTS SHEET NO. EPA843-F-001B (Feb. 1995).

187. ENVIRONMENTAL PROTECTION AGENCY, WETLANDS FACTS SHEET NO. EPA843-F-001B (Feb. 1995).

188. In fact, one of the Texas Natural Resource Conservation Commission-approved purposes for the Rock Dove Society's water quality monitoring plan in Denton County, Texas was for purposes of facilitating the study/teaching of doxological ecology. Historically, doxological ecology is an education-related approach to environmental stewardship which is historically grounded in Judaeo-Christian concepts including ecosystem dynamics (such as food-chain relationships and reproductive success), balanced with the needs and values of human welfare. *See, accord, Deuteronomy 22:6-7* (King James) (wildlife protection rule promoting avian conservation); *Deuteronomy 20:19-20* (King James) (ban on timber harvest, designed to promote fruit-bearing tree conservation); *Jonah 4:1-11* (King James) (providing axiological principle for positing relative values of people, plants, and animals).

189. For example, the first-named author of this article has taught (or co-taught) various college courses involving palustrine wetland sites [in conjunction with teaching wetland-related conservation law], including *Introduction to Ecology & Environmental Studies*, *Introduction to Ornithology & Avian Conservation*, and *Water Quality Monitoring & Environmental Limnology* — teaching such courses from a doxological ecology/environmental stewardship perspective. *See, accord, James J. S. Johnson, His Eye Is On The Sparrow: A Year-to-Date Birding Report*, 35 WOODS WINGS WATER 1-2 (1996) (illustrating doxological ecology themes applied to avian bio-diversity studies).

190. The Fifth Amendment mandates payment of compensation when private property is taken for public use. U.S. CONST. amend. V. Regulatory takings or inverse condemnation occurs when landowners recover compensation for private property taken for public use absent institution of condemnation proceedings. *Agins v. City of Tiburon*, 447 U.S. 255, 258 n.2 (1980). In contrast, "Eminent domain refers to a legal proceeding in which a government asserts its authority to condemn property." *Id.*

growing concern.¹⁹¹ Today private property may be deemed a *federal jurisdictional wetland* in situations where the result is highly questionable, if not jurisprudentially outrageous.¹⁹² In fact, cases exist where *ordinary citizens* have disturbed wetlands ecosystems located on their own private lands resulting in felony jail-time,¹⁹³ contempt rulings,¹⁹⁴

191. *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985) (unanimously holding the requirement that a private landowner obtain a permit prior to filling a wetland did not constitute a taking in violation of the Fifth Amendment); *Creppel v. United States*, 41 F.3d 627 (Fed. Cir. 1994) (holding regulatory takings claims must be analyzed using three criteria: character of governmental action, economic impact of regulation on a landowner and extent that regulation interferes with the landowner's investment expectations); *Tabb Lakes, Ltd. v. United States*, 10 F.3d 796 (Fed. Cir. 1993) (holding a cease and desist order to stop filling a wetlands absent a permit from the Corps did not constitute a regulatory taking); *Deltona Corp. v. United States*, 657 F.2d 1184 (Ct. Cl. 1981), *cert. denied*, 455 U.S. 1017 (1982) (landowner unable to recover compensation for taking because permit denial did not deprive him of all economic use of the land); *Jentgen v. United States*, 657 F.2d 1210 (Ct. Cl. 1981) (landowner failed to establish that a Fifth Amendment taking occurred when the Corps denied a permit to develop forty out of eighty acres); *Ciampetti v. United States*, 22 Cl. Ct. 310 (1991) (no regulatory taking because permit denial did not deprive landowner of all economic viable use of land); *Dufau v. United States*, 22 Cl. Ct. 156 (1990), *aff'd*, 940 F.2d 677 (Fed. Cir. 1991) (delay of sixteen months in permit process did not constitute a taking); *1902 Atlantic Ltd. v. United States*, 26 Cl. Ct. 575 (1992); *Formanek v. United States*, 18 Cl. Ct. 785 (1989) (takings claim arises where landowner's property value has been reduced by a regulatory wetland delineation and permit denial such that it has no remaining economically viable use); *Loveladies Harbor, Inc. v. United States*, 28 F.3d 1171 (Fed. Cir. 1994) (where landowner is deprived of all economically viable use of a wetland, a regulatory taking has occurred); *Florida Rock Indus. v. United States*, 18 F.3d 1560 (Fed. Cir. 1994), *cert. denied*, 115 S. Ct. 898 (1995) (landowner recovered compensation for taking when permit denial diminished the value of his land by ninety-five percent); *Bowles v. United States*, 31 Fed. Cl. 37 (1994) (Texas property owner awarded compensation for taking when Corps denied permit to fill lot).

192. The case of Marinus Van Leuzen, a resident of Port Boliver, Texas, is illustrative. Mr. Van Leuzen, a seventy-three year old immigrant from Holland built a retirement home on a beach lot he had owned for twenty years. Jonathon Tolman, *A Sign of the Times*, WALL ST. J., SEPT. 20, 1994, at A20. Unfortunately, the Corps and the EPA determined that Mr. Van Leuzen's property was a federal wetland. *Id.* Consequently, the Corps and the EPA prosecuted Mr. Van Leuzen for building his house on his own property because he failed to obtain a permit. *Id.* Further, the U.S. District Court ordered Mr. Van Leuzen to post a large sign on his property, facing the highway, announcing he was restoring the area to its natural wetland status and forced him to pay \$350 a month for eight years. *Id.* "In effect, the governments is forcing Mr. Van Leuzen to pay rent on a house that he already owns so that it may be relocated. In addition, during the intervening years Mr. Van Leuzen must spend a significant portion of his life savings to 'restore' the land to its 'pre-adulterated' condition." *Id.* Perhaps the irony is that the wetlands had been adulterated long before Mr. Van Leuzen built his retirement home. *Id.* A muddy bait camp equipped with latrines and scattered beer cans previously existed at the site and was regarded as a local eyesore. *Id.* See *United States v. Van Leuzen*, 816 F. Supp. 1171 (S.D. Tex. 1993).

193. *Mills v. United States*, 36 F.3d 1052, 1054 (11th Cir. 1994), *cert. denied*, 115 S. Ct. 1966 (1995) (citing felony convictions and related procedural histories of felony prosecutions for disturbing wetlands). See also *United States v. Pozsgai*, 999 F.2d 719 (3d Cir. 1993), *cert. denied*, 510 U.S. 1110 (1994) (upholding criminal convictions on forty counts of violating wetland regulations); *United States v. Phelps Dodge, Inc.*, 391 F. Supp. 1181 (1975).

and heavy fines.¹⁹⁵ Presently, any recurring mud puddle with cattails may potentially be deemed a federal wetlands with fines and jail sentences imposed on unwary defendants who decide to build or use their own private property.

For example, in a recent article, the *Dallas Morning News* outlined how one small town unwittingly created a federally protected wetland by disposing of its residents' garbage.¹⁹⁶ Several years ago, Mount Pleasant, a small East Texas town, set itself on a course that eventually ran afoul of federal wetlands regulation.¹⁹⁷ Initially, the town excavated land fill dirt to cover garbage accumulated in other areas of a dump.¹⁹⁸ Over time, however, the excavated area accumulated water, and vegetation proliferated.¹⁹⁹

Thus, the town's own garbage-dumping conduct, in effect, *created* the very *wetland* which it then had to abandon — or else immediately apply for and acquire a U.S. Army-approved permit, authorizing the city to continue utilizing its own landfill, since the city dump was now definitionally transmogrified into a *federal jurisdictional wetland*.

The town admittedly created the *wetland* situation. Yet, the problem was not discovered until the town attempted to update its landfill permit in response to new EPA rules.²⁰⁰ The Texas Natural Resources Conservation Commission ("TNRCC"), the state agency in charge of permit issuance, required the area to be examined for a wetlands determination.²⁰¹ After environmental consultants hired by the town identified the possible existence of wetlands, the town contacted the Corps, which confirmed the town's suspicions that the area met the definition of a wetland.²⁰²

Consequently, the town was required to obtain Corps approval before the TNRCC would allow development of the proposed land-

194. *United States v. Van Leuzen*, 816 F. Supp. 1171 (S.D. Tex. 1993); *see also United States v. Pozsgai*, 999 F.2d 719 (3d Cir. 1993), *cert. denied*, 510 U.S. 1110 (1994) (contempt violation upheld on appeal). The Pozsgai cases' convoluted history is summarized in *CYLINDER*, *supra* note 5, at 78-79.

195. *See cases cited supra* note 194. Under the CWA, civil penalties may be awarded of up to \$25,000 per day per violation. The CWA does not provide a statute of limitations for civil actions. However, a court typically applies a five-year statute of limitations, which begins when the government learns of a violation, not on the date that the violation occurred. *CYLINDER*, *supra* note 5, at 79. "Negligent violations carry misdemeanor sanctions, including penalties of \$2,500 to \$25,000 per day and imprisonment of up to one year. Knowing violations carry felony sanctions, including penalties of \$5,000 to \$50,000 per day and imprisonment of up to three years." *Id.* at 80.

196. Seago, *supra* note 10, at A45.

197. *Id.*

198. *Id.*

199. *Id.*

200. *Id.* at A48.

201. *Id.*

202. *Id.*

fill.²⁰³ However, obtaining requisite approval is expensive. The town engaged a consulting firm at a cost of \$10,000 to prepare a wetlands mitigation banking plan to replace the six point six acre wetlands proposed as a landfill.²⁰⁴ Replacement was required under the government's *no net loss* policy.²⁰⁵ In accordance with the government's policy, the town was required to replace the inadvertently created wetlands acreage before it could use the landfill as originally intended.²⁰⁶ To date, the town has no estimates of how much it will actually cost to create the new wetlands or how long it will take.²⁰⁷

Nonetheless, the town is in no hurry to move due to a bill entitled the Wetlands Regulatory Reform Act of 1995, a bill which seeks to redefine wetlands.²⁰⁸ If passed, the bill would remove many areas currently defined as wetlands from the jurisdiction of regulatory agencies

203. *Id.*

204. *Id.*

205. *Id.*

206. *Id.*

207. *Id.* at A48-A49.

208. *Id.* Senator Johnson, speaking to the COMM. ON ENVTL. AND PUBLIC WORKS, introducing the Wetlands Regulatory Reform Act of 1995:

Mr. President, I am pleased today to introduce the Wetlands Regulatory Reform Act of 1995. This bill will reform the section 404 "wetlands" permitting program under the Clean Water Act by introducing balance, common sense, and reason to a federal program that is causing unnecessary problems for my constituents-and I believe for many of our citizens around the Nation.

I am introducing this legislation in the closing days of this Congress so that interested persons may review the legislation in the coming months and recommend improvements. My intent is to reintroduce this legislation early in the next Congress, with any modification that seem appropriate, and to press vigorously for its enactment. Reforming this regulatory program will be one of my highest priorities in the coming Congress.

Mr. President, the current section 404 regulatory program has been designed less by the elected representatives of the people in Congress than by officials of the Corps of Engineers and the Environmental Protection Agency and by federal judges. In 1972, the Congress enacted the Federal Water Pollution Control Act. Section 404 of that act prohibited "discharges of dredged or fill material" into "waters of the United States" and was thought to be limited to the navigable waters of the Nation.

From this narrow beginning has come a rigid regulatory program that is devaluing property and preventing the construction of housing, the extension of airport runways, the construction of roads-often on lands that rarely have water on the surface but which, nevertheless, are viewed as "wetlands" within the definition of "waters of the United States." And I might add, Mr. President, that seventy-five percent of the land that is being regulated through the section 404 program as "wetlands" or "waters of the United States" is privately owned property.

I do not believe that we, in Congress, intended for the section 404 program to become a rigid, broad federal land use program that affects primarily privately owned land. Yet, the evidence is clear to me that the section 404 program has become just that. Therefore, Mr. President, I believe that the time has come for the Congress to reform this program to focus federal regulatory authority on those wetlands, to ensure that our citizens can obtain permits through a reasonable process within a reasonable period of time, and to ensure that this program is not denying people the use of their property unless there is an overriding reason to do so.

Mr. President, the Wetlands Regulatory Reform Act of 1994 proposes several key changes to the current 404 program:

First, this legislation will require that federal jurisdictional wetlands be classified into three categories; high-, medium-, and low-valued wetlands, based on the relative wetlands functions present. Today, the section 404 program regulates all wetlands equally rigidly, whether the wetlands is a pristine, high-value wetland or a wet spot in a field. This treatment of wetlands defies logic and common sense.

My legislation will require the Corps of Engineers to classify wetlands based on their functions, and then regulate them accordingly. Class A-high-value wetlands will be regulated under the current sequencing methodology, which first seeks to avoid adverse effects on wetlands, then attempts to minimize those adverse effects that cannot be avoided or minimized. Class B-medium-value-wetlands will be regulated under a balancing test, which does not require the avoidance step. Finally, Class C-low-value-wetlands will not be regulated by the federal government, but may be regulated by the States if they so choose.

Second, this legislation removes the dual agency implementation of this program, an aspect of the program that is particularly confusing and troublesome to our constituents. Today, the Army Corps of Engineers issues section 404 permits, but the Environmental Protection Agency may veto the decision of the Corps to issue the permit. Although EPA actually exercises its veto power infrequently, I understand that veto is threatened often, causing undue delays and repeated multi-agency consultations. My legislation removes the EPA veto, and instead simply requires the Corps to consult with EPA before acting.

Similarly, the EPA currently may veto permit decisions made by States that have assumed responsibility for the section 404 program. My bill deletes this authority as unnecessary interference with State administration of the program. If EPA determines that the State is not implementing the program appropriately, the EPA has the authority, which my bill does not change, to withdraw approval of the State program and return the program to federal hands. But as long as the State is in charge, its individual permit decisions should not be subject to veto from Washington.

Third, mitigation banking is authorized and encouraged by the bill as a sound means to return wetland functions to the environment. There are a number of mitigation banking projects now around the Nation. The experience with these projects is proving that mitigation banking holds great promise as a means of restoring, enhancing, reclaiming, and even creating wetlands to offset the wetlands disturbances that are permitted under the section 404 program. Mitigation banking is the type of market driven mechanism that I believe we must incorporate in our national environmental laws if we are to achieve our national environmental goals.

Finally this legislation will require that steps be taken to provide notice to our citizens regarding the location of federal jurisdictional wetlands. Remarkably, Mr. President, the federal government is regulating over 100 million acres of land, over seventy-five million acres of which is privately owned, yet there are no maps posted to inform citizens about the location of these lands. Perhaps this would not be a problem if federal jurisdictional wetlands were only swamps, marshes, bogs and other such areas that are wet at the surface for a significant portion of the year. But land that is dry at the surface all year long can also be a federal jurisdictional wetlands.

Without maps and other notices, only the most highly trained technicians amongst our citizens can identify the subtle differences between lands that are not subject to the section 404 program and those that are. Thus, many people have bought a federal jurisdictional wetland and cannot obtain a permit to build their house. We owe our citizens better than that.

My legislation will require the Corps of Engineers to immediately post notices about the section 404 program near the property records in the courthouses around the Nation, and to post maps of federal jurisdictional wetlands as those maps become available, including the National Wetlands Inventory maps that are being developed by the National Biological Survey.

Mr. President, there are many other improvements of the current program in my legislation including time limits on the issuance of section 404 permits, an administrative appeals process, the expansion of the program to cover drainage and excavation

and place them under state control.²⁰⁹ Therefore, the Mount Pleasant wetlands are likely to fall within the new regulations because they are a man-made activity.²¹⁰ Meanwhile, the town is caught in a quagmire. Fortunately, before the town moves too far into the wetlands area, the problem may be resolved through the legislative process.²¹¹ However, further governmental wetlands takings are likely as public concern expands concerning maintaining a clean and healthy environment.²¹² Clearly, these cases and the current controversies surrounding the proper test for wetlands delineations signal a need for legislative change.

Today, for instance, if property is deemed a wetlands, there is no clear method of land valuation. Neither wetlands delineation manual provides guidance for land value determinations. Therefore, appraising wetlands value and compensating landowners' losses are problematic, but essential to wetlands conservation.

In the past, the federal government passed legislation regulating and protecting national waters.²¹³ Although regulation of wetlands was included in the Clean Water Act²¹⁴ and the National Environmental Policy Act ("NEPA"),²¹⁵ these acts were specifically designed only to assess the effects of pollution and provide environmental protection to U.S. waters, including wetlands.²¹⁶ "While NEPA does not specifically require their protection, wetlands are mentioned as a resource to be evaluated when determining whether a project will have a signifi-

of wetlands, and the designation of the Soil and Conservation Service to delineate wetlands on agricultural wetlands. The legislation I am introducing today is similar to the Comprehensive Wetlands Conservation and Management Act of 1993, H.R. 1330, which was introduced in the House of Representatives by my colleagues from Louisiana, Representative Hayes and Representative Tauzin. That bill has 170 co-sponsors representing congressional districts in forty states.

However, my legislation varies from the House reform legislation in at least one important aspect. My legislation does not provide a mechanism for obtaining compensation from the federal government when private property is taken through the operation of the 404 program. I believe that the impact of the section 404 program on private property rights is a very important issue. However, rather than address the compensation issue at this time, I believe that it is preferable to include provisions in the legislation that will help ensure that the section 404 program does not result in takings of private property in the first place. Therefore, in addition to the many provisions of the bill that will make wetlands programs more balanced and rational, it also directs the Secretary of the Army and the Administrator of the Environmental Protection Agency to implement the program in a manner that minimizes the adverse effects on the use and value of privately owned property.

140 CONG. REC. S14242-03, S14253-54 (1994).

209. Kate Seago, *Bogged Down — Town Creates Wetland, Headache at Dump Site*, DALLAS MORNING NEWS, Dec. 3, 1995, at A45, A48.

210. *Id.*

211. *Id.*

212. *Id.*

213. CYLINDER, *supra* note 5, at 81-82.

214. *See supra* notes 26-27 and accompanying text.

215. 42 U.S.C. §§ 4321-4370d (1994).

216. CYLINDER, *supra* note 5, at 81.

cant effect on the human environment.”²¹⁷ However, in some instances, this protection requires an assessment of a project’s effect on wetlands and wastewater discharges.

For instance, the Food Security Act of 1985 prohibits farmers from planting on drained or altered wetlands.²¹⁸ Amended in 1990, the Food Security Act “authorizes a voluntary program for farmers to reduce water pollution from agricultural practices. Those reducing pesticide, fertilizer, and other pollutant drainage may get federal cost-sharing assistance.”²¹⁹ Likewise, the Conservation Reserve Program pays “landowners to take highly erodible land out of crop production and to plant vegetation that controls soil erosion and helps wildlife. . . .”²²⁰ Similar programs designed for wetlands valuation would provide similar benefits.

However, income-producing property which contains wetlands, and property intertwined with wetlands ecosystems, require different methods of valuation. Although research has been conducted assessing landowners’ losses in property values caused by the Endangered Species Act,²²¹ no comparable research has ever been conducted regarding lost tax revenues of privately owned wetlands where development has been banned or limited. Lost tax revenues would provide a meaningful measurement of land usage value. Using lost tax revenues as a measure of economic value has the advantage of addressing both the loss to private landowners as well as the pecuniary loss to society because society uses tax revenues arising from productive use of private lands.

For example, if a *wetlands* property has a potential low future income, then a ban on using that land will result in a very low economic loss to landowners and taxing authorities. Presumably, a land’s low income potential is reflected in its low real estate market value. Alternatively, however, if land is capable of producing high future income, then a ban on land use will result in significant declines in income tax revenues to state and local taxing authorities. Therefore, economic interests of private landowners, as measured by potential future income, should coincide with the economic interests of the public at large, as presumably the public benefits from governmental expenditures of property-related tax revenues.

Congress should address the lack of a proper method to evaluate the loss of income to landowners and governmental taxing authorities

217. *Id.* at 81-82.

218. 16 U.S.C. §§ 3801-3862 (1994).

219. *CYLINDER*, *supra* note 5, at 83.

220. *Id.*

221. *See, e.g.*, Charles E. Gilliland, *An Analysis of the Impact of the Endangered Species Act on Texas Rural Land Values* (Texas A & M Univ. Real Estate Ctr. 1995) 8-11, 14, 18-21 (documenting environmental restrictions resulting in a taxable property base loss of 43% in the Travis County Central Appraisal District — representing a loss of \$74,000,000.00 in Travis County tax revenues).

resulting from current wetlands delineation procedures. Congress should employ a cost-benefit analysis to adjust the *balance* between the value of preserving a site as a wetlands ecosystem against its value for economic, utilitarian, or other use. If Congress were to use some type of cost-benefit test, as a condition precedent to governmental *freezes* on development of privately owned wetlands, quantitative measurements could be used to measure the socio-economic value of the land involved before a decision was made to designate land a wetlands.

For example, if property was capable of producing income for landowners from economic uses such as farming, ranching, hunting, fishing, or through other recreational activities without significant impact on wetlands ecosystems, then the Corps could prepare an Economic Land Value Impact Statement ("ELVIS").²²² An ELVIS would document estimated future landowner income, thus providing a standard for applicable taxing authorities.

Landowners could then challenge the accuracy of the ELVIS by preparing an Alternative Economic Land Value Impact Statement ("AELVIS").²²³ An AELVIS would provide economic data and analysis of land use by: (1) examining the maximum realistic use and future income production of the land; and (2) identifying economic alternatives for land use based upon current financial arrangements available to the landowner. In the AELVIS, the landowner could provide an expert estimate of the loss in land value and profits from a wetlands use restriction or taking. Thus, the AELVIS would identify all possible land uses including wetlands preservation. If the land identified as a wetlands needs preserving, a landowner could be adequately compensated and not suffer loss of future income. Last, Congress could make the cost of preparing the AELVIS tax-deductible because it directly relates to a landowner's efforts in obtaining just compensation for the taking and loss of future income.

In the first scenario, it is assumed that the economic land use would destroy the wetlands ecosystems. In other words, the use of the land

222. Just as the National Environmental Policy Act requires Environmental Impact Statements for large federal actions affecting the human health and/or the natural environment, the ELVIS presumes that any federal wetland regulatory action banning or conditioning use of private property is a significant federal action which justifies an ELVIS that "counts the cost" to both the landowner and to the local taxing authorities — due to the regulation's economic impact.

To accomplish speedy processing and resolution of wetland land use restrictions controversies, the statutory concepts used in bankruptcy for processing lift-stay motions (under 11 U.S.C. § 362 (1994) could be cloned. Thus, if the government failed to promptly process a section 404 (33 U.S.C. § 1344 (1994)) permit application within a statutorily defined time-frame (e.g., 30 days; 45 days; etc.), the elapsed time would be deemed approval of the permit application in a manner functionally similar to the Bankruptcy Code's automatic lift-stay of 11 U.S.C. § 362(e) (1994).

223. Presumably, this new acronym would be pronounced "A-Elvis," like "Elvis" with a heavy Southern accent.

would be so inextricably intertwined with the wetland's ecosystem that any economic use of that land would destroy the wetlands. The agency's ELVIS and the landowner's AELVIS would be used to measure the value of that land requiring the government to pay the landowner for a *regulatory* taking. A complete prohibition of a land's economic use is the legal and regulatory equivalent of a *regulatory* taking.

Compensation for the *regulatory* taking would consist of the potential realizable income calculated according to the ELVIS/AELVIS land use evaluations. This system would provide incentives to governmental agencies to remove from private economic usage only those properties whose ecological value truly justified government protection and purchase. If society benefits from preservation of wetlands, then the cost belongs to society, and therefore should not be borne alone by individual landowners. Compensation paid landowners under the ELVIS/AELVIS land value evaluation method would prevent landowners from solely bearing the costs of wetlands conservation policies where society is the primary beneficiary.

After the governmental regulatory agency reviewed the agency's ELVIS and the landowner's AELVIS, the agency would balance the socio-economic value of regulating the property with the socio-economic value of allowing the development of the land. This approach is consistent with the Fifth Amendment's takings requirement.²²⁴ If an agency's regulatory actions constituted a taking, the government would be required to pay the landowner the difference between the land's value based upon its market uses and the land's value as a preserved wetlands ecosystem. The government would be required to compensate landowners for public takings of land as the ecological benefits of preserving wetlands ecosystems presumably benefits the public at large.

In the second scenario, landowners would be compensated for the economic loss caused by any use restriction. Here, the landowner would be required to acquiesce to the government's economic use alternatives thereby preserving the wetlands ecosystem. This just compensation approach is similar to taking easements historically granted to railroads and utility companies where use easements benefitting society have required landowner compensation. Therefore, wetlands use restrictions may be viewed as conservation easements. A landowner compensated for lost opportunity costs would be able to maintain and work the portion of land not designated a wetlands or continue a use of the land that does not disturb the wetlands ecosystems.

Use of ELVIS and AELVIS land evaluation methods will produce a more accurate estimate of the actual costs of designating land pro-

224. U.S. CONST. amend V.

tected wetlands. The value of a land use restriction imposed on private property owners to further governmental conservation programs should be assessed by evaluating all possible costs and benefits. Thus, a landowner's loss of future income, lost tax revenues, and the ecological value to society of preserving land as wetlands should be included in any decision to restrict the use of land by delineating a piece of property a wetlands. Unless the ecological value of land designated a wetlands outweighs the value of the land as income producing developed land, the benefits of designating the land a wetlands does not justify the costs. Use of ELVIS/AELVIS evaluations minimizes lost tax revenues, thus benefitting society because unless ecological values surpass and justify the economic costs of designating lands protected wetlands, the land should be privately developed and tax revenues collected.

Wetlands delineations disputes arise because federal wetlands law mistakenly interprets the purely scientific definition of what constitutes a wetlands under the VHS test to mean that any land meeting the scientific criteria should be delineated by governmental agencies such as the Corps or the EPA, as a federally protected wetlands. However, this restriction on the use of private property has left private landowners uncompensated for loss of income caused by the restrictions. In effect, a *value-neutral* scientific definition is being used to demarcate private property as being in the public domain, and to justify improper governmental takings. Governmental agencies often presume that all lands meeting the scientific criteria for wetlands must be preserved in their natural states for the benefit of society and at the expense of individual landowners.

However, the existence of mitigation banking, or wetlands substitution, illustrates that not all wetlands should be preserved in their natural state because doing so imposes unacceptable social costs. Therefore, even governmental agencies recognize that not all wetlands should be preserved in their natural state. Accordingly, the law recognizes the need to balance costs and benefits of ecosystem preservation. Thus, after determining that a particular tract of land meets the scientific definition of a wetlands, a second determination should focus on whether a particular wetlands should be regulated by utilizing a social cost-benefit analysis. Therefore, *environmental value* should be added as an additional factor to the VHS formula. Before land is delineated a federally protected wetlands, it should meet the VHS test *and* its environmental value should outweigh its value as income producing developed land. The Corps or the EPA should have to prove a site has environmental value by showing that one or more of the following ecological benefits result from the wetlands site: groundwater recharging maintains a water supply; water quality is improved downstream because of pollution filtration; the area functions as a habitat for fish, shellfish, or birds; the area provides a geochemi-

cal recycling function; or plays an important role in flood control; or provides some other valuable ecological benefit. The greater the number of ecological benefits contained in a particular site, the more likely environmental value will outweigh the land's value as income producing/developed land, perhaps in a manner similar to the proposal described (hereinabove at *supra* note 208) by Senator Johnson, as he argued for a proposed wetlands regulatory reform bill.

CONCLUSION

The inadvertent creation of an artificially-formed wetland from a township's landfill — triggering federal jurisdiction and an uncompensated ban on continued use of that township's own landfill (except with a U.S. Army-approved wetland permit) — is an example of governmental science-controlling-society at the typically uncompensated expense of private sector landowners. This control prohibits effective use of land and often invites expensive inverse condemnation litigation (and resultant "takings" awards). Thus, a cost/benefit economic balancing test should be utilized *before* the use of private property is restricted or prohibited through wetlands delineations. Therefore, adding an environmental value test based on ELVIS/AELVIS land evaluations would improve the current wetlands environment by transforming the definition from one of science-*controlling*-society to science-*serving*-society.

What will the future of wetlands regulation be — if Congress were to pass a reform act mandating an ELVIS process prior to delineating land as a "wetland?" One thing is certain — there would surely be "a whole lotta shakin' going on."

