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The Minnesota Wetland Conservation Act of 1991: Balancing Public and Private Interests

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THE MINNESOTA WETLAND CONSERVATION ACT OF 1991: BALANCING PUBLIC AND PRIVATE INTERESTS

DAVID C. FORSBERG[†]

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"Progress cannot abide that farmland and marshland, wild and tame, exist in mutual toleration and harmony." 1

I. Introduction

Since this nation's settlement, nearly 50% of its wetlands have been lost to human activity. Between 80% and 87% of these losses were due to drainage and agricultural filling.² As recognition of the many values of wetlands gradually developed, coastal and inland wetlands gained protection under a variety of federal and state laws and regulations.

The Minnesota Wetland Conservation Act of 1991,³ the first comprehensive wetland protection legislation ever passed by the Minnesota legislature, was signed into law on June 4, 1991 by Governor Arne Carlson. It prohibits the draining and filling of protected wetlands unless replaced by restored or created wetlands of equal public value under an approved replacement plan.⁴ It designates as "scientific and natural areas" (SNA) about 150,000 acres of specifically described

^{1.} ALDO LEOPOLD, A SAND COUNTY ALMANAC 162 (1949).

^{2.} WILLIAM L. WANT, LAW OF WETLANDS REGULATION § 2.01[4] (1990).

^{3.} Ch. 354, 1991 Minn. Laws 2794 (codified at Minn. Stat. §§ 84 & 103 (Supp. 1991)).

^{4.} Id. art. 6, § 8, 1991 Minn. Laws at 2815.

peatlands in northern Minnesota.⁵ The Act restricts a variety of activities in SNA peatlands including construction of new drainage systems, exploration for and removal of peat, oil, gas and other minerals and commercial logging.

The Act is not a wetland management plan in and of itself. Rather, it creates the means and defines the process for developing such a plan. The Act provides for a rule-making process to identify and protect wetland values. It also serves as a reporting system to inform legislators of the importance of wetlands and their current status under the law.

The passage of the Wetland Conservation Act is part of an ongoing, rancorous battle that is taking place on a national level. Farmers, developers, oil interests, sportsmen, scientists, environmentalists and concerned citizens are lobbying state legislatures and Congress over the future of this diminishing, yet still immense, resource. Controversies regarding the definition of wetlands are receiving national press. A fundamental question is posed: under what circumstances does wetland regulation constitute the compensable taking of private property for public use?

Minnesota, having the fourth-largest wetland area in the United States after Alaska, Florida and Louisiana,⁶ has a great stake in wetland management. Presently, 7.5 million acres of Minnesota's original 18.6 million acres of wetlands remain.⁷ These remaining wetlands include "prairie potholes", one of the most important wetland types in the world. Primarily freshwater marshes formed by glacial action during the Pleistocene epoch, they are found in a 300,000 square mile region of North and South Dakota, Minnesota, Iowa, Manitoba, Saskatchewan, and Alberta. Up to 75% of all North American waterfowl are produced in this region. Because they are typically found in rich, flat prairie regions, many of these potholes have been drained or altered for agriculture. As of 1981, only 40% to 50% of the original continental acreage of prairie potholes were untouched. One hundred ninety square miles

^{5.} Id. art. 8, § 1(4), 1991 Minn. Laws at 2826.

^{6.} See William J. Mitsch & James G. Gosselink, Wetlands 36-37 (1986).

^{7.} MINNESOTA DEP'T OF NATURAL RESOURCES, WETLAND FACT SHEET (1991); see also MITSCH & GOSSELINK, supra note 6, at 36-37. Another inventory indicates that Minnesota originally had 15 million acres of wetlands, and 8.75 million acres remain. Interview with Thomas Landwehr, Wetland Wildlife Program Leader, Division of Fish and Wildlife, Minnesota Department of Natural Resources (Sept. 25, 1991).

were lost between 1964 and 1968 alone.⁸ Minnesota alone has lost nearly 80% of its prairie potholes (localized losses exceed 95% in parts of Minnesota.)⁹

Minnesota also has extensive and important peatlands which are one form of wetlands.¹⁰ In estimated peat reserves in the United States, Minnesota is second only to Alaska.¹¹ In the lower 48 states, the deep peat deposits of the northern temperate regions of North America are limited primarily to Wisconsin, Michigan, Minnesota, and the glaciated northeast.¹² One of the most-studied bog ecosystems in the United States is the Lake Agassiz region in northern Minnesota.¹³

The Wetland Conservation Act can be understood only in the historical context of the growing awareness of wetland values and concern over their continuing loss. This Article first addresses the historic changes in attitudes toward wetlands, from the archaic perception that they are noxious swamps to the present belief that they have values critically important to society. The Article next describes congressional recognition of those values and the resulting expansion of federal legislation that extended protection to coastal and inland wetlands. Further, it discusses the administration and the jurisdictional

^{8.} MITSCH & GOSSELINK, supra note 6, at 48 (citing M.W. WELLER, FRESHWATER MARSHES 146 (1981)). Pothole marshes are usually small areas found in depressions formed by glacial action. They are found in great abundance in moraines of undulating glacial till, especially west of the Great Lakes in Wisconsin, Minnesota and the Dakotas. Id. at 262-63.

^{9.} WETLAND FACT SHEET, supra note 7; Landwehr Interview, supra note 7. Nearly 74% of Minnesota's remaining wetlands consist of shrub swamps, wooded wetlands and peatlands which lie largely in northern and eastern Minnesota where there is little farming. Most of the remaining 26% of wetlands consist of deep and shallow water marshes and fresh meadows found in the pothole country of western and southwestern Minnesota. Extensive agriculture has destroyed most of the original prairie wetlands. Interview with Ronald Harnack, Executive Director, Minnesota Board of Soil and Water Resources (April 21, 1992).

^{10.} MITSCH & GOSSELINK, supra note 6, at 306. Peat is the remains of plants in various stages of decomposition. It has 50% or more organic matter and is usually waterlogged. Peat develops when decomposition is less than the addition of organic matter. Waterlogging results in low oxygen, low temperatures, and high acidity, that all result in reduced decomposition. Peat is commercially important in many parts of the world, particularly for fuel, but has been only marginally exploited in Minnesota. Id. at 307-15, 425.

^{11.} Id. at 426.

^{12.} Id. at 29.

^{13.} Id. at 291 (citing M.L. Heinselman, Forest Sites, Bog Processes, and Peatland Types in the Glacial Lake Agassiz Region, Minnesota, 33 ECOL. MONOGR. 327-74 (1963)).

reach of section 404 of the Clean Water Act, the most important federal tool for wetland protection.

The Article discusses in detail the provisions of the Minnesota Wetland Conservation Act. This is followed by a critique of the Act's effectiveness in carrying out the legislative goals of protecting Minnesota wetlands from further destruction, increasing their quantity and enhancing their quality. Finally, the Article examines the largely unresolved question of the extent to which wetland regulation constitutes a governmental taking of property for which just compensation must be paid to the owner.

II. THE HISTORICAL CHANGE IN ATTITUDES TOWARD WETLAND VALUES

From the settlement of this country until the last few decades, it was almost uniformly believed that the public interest was served by draining and filling wetlands and converting them to pasture, cropland and development sites. The public values of wetlands were unknown. It has been observed, "For most of recorded history, wetlands were regarded as wastelands if not bogs of treachery, mires of despair, homes of pests, and refuges for outlaw and rebel. A good wetland was a drained wetland free of this mixture of dubious social factors." Congress once shared this belief, and by the Swamp Lands Acts of 1849, 1850 and 1860, it granted 15 states nearly 65 million acres for swamp reclamation.

This low opinion of wetlands and shallow-water environments led to the destruction of an estimated 30% to 50% of the total wetlands in the lower 48 states. ¹⁶ Between 1940 and 1977, 57 million acres of wetland were drained under the U.S. Department of Agriculture's Agriculture Conservation Program for conversion to farmland. ¹⁷ Like the rest of the nation,

^{14.} MITSCH & GOSSELINK, supra note 6, at 416 (citing J.S. LARSON & J.A. KUSLER, WETLAND FUNCTIONS AND VALUES: THE STATE OF OUR UNDERSTANDING, preface, (P.E. Greeson et al. eds., 1979)).

^{15.} See Want, supra note 2, at § 2.02 n.29 (citing U.S. FISH AND WILDLIFE SERVS., U.S. DEP'T. OF THE INTERIOR, CIRCULAR No. 39, WETLANDS OF THE UNITED STATES 5 (1956)). Due to pervasive fraud in nineteenth century land grant programs, not all of the 65 million acres were wetlands, and much of what were wetlands were never reclaimed. MITSCH & GOSSELINK, supra note 6, at 416 (citing E. DICK, THE LURE OF THE LAND 358 (1970)).

^{16.} MITSCH & GOSSELINK, supra note 6, at 416.

^{17.} Id.

Minnesota's original approach to wetland management was to eliminate wetlands. Until recently, drainage of Minnesota wetlands for agricultural use has been common.¹⁸

By the 1930s, some persons had begun to question whether wetlands were noxious and useless. Hunters who recognized that sharply declining populations of ducks and geese depended on this habitat were the first group to actively promote the conservation, restoration and even the creation of wetlands. The sale of federal "Duck Stamps" to waterfowl hunters and the use of the revenues to acquire wetlands reflected early governmental recognition of the importance of wetlands. Between 1934 and 1984, over 1.4 million hectares (3.5 million acres) of wetlands were preserved through this program. 1

In 1951, Minnesota initiated the Small Wetlands Program, which authorized the purchase of wetlands as wildlife management areas. The program was funded with a portion of hunting license fees.²² The Water Bank Act,²³ enacted in 1957, authorized the Commissioner of Conservation to acquire lands, including marshes and other wetlands, and develop them for wildlife habitat purposes.²⁴

During the last several decades, understanding of wetland

^{18.} See Mark J. Hanson, Damming Agricultural Drainage: The Effect of Wetland Preservation And Federal Regulation on Agricultural Drainage in Minnesota, 13 WM. MITCHELL L. REV. 135, 137-48 (1987); Note, Preserving Minnesota Wetlands: Plugging The Leaks in the Minnesota Water Management Law, 6 WM. MITCHELL L. REV. 137, 139 (1980).

^{19.} The value of wetlands as wildlife habitats, particularly for waterfowl, was recognized in the first half of this century by some fish and game managers, to whom wetland management often meant the maintenance of hydrologic conditions to optimize fish or waterfowl populations. Only relatively recently have other values . . . been recognized.

MITSCH & GOSSELINK, subra note 6, at 415.

^{20.} Id. at 7-10.

^{21.} Id.

^{22.} Landwehr Interview, supra note 7. The current legislative authorization for this program is MINN. STAT. § 97A.145 (1990).

^{23.} Water Bank Act, ch. 644, 1957 Minn. Laws 875 (codified as amended at MINN. STAT. § 103F.601 (1990)).

^{24.} The Water Bank Act was initially codified in 1957 as MINN. STAT. § 97.481. (repealed by 1986 Minn. Laws, ch. 386, art. 4, § 33). The acquisition of wetlands required approval of the Board of County commissioners, counseled by the Soil and Water Conservation District. This became known as the Water Bank Program, and exists today as MINN. STAT. § 103F.601. It was effectively repealed when its funding was allocated to the Permanent Wetland Preserve Program under the Wetland Conservation Act. See Minnesota Wetland Conservation Act of 1991, ch. 354, 1991 Minn. Laws at 2794-95.

values has rapidly increased. Such values go far beyond the furnishing of habitat for wildlife, and include even the critical value of preserving and purifying the nation's water supplies. One authority observed:

[W]ater . . . may well be the most precious resource the earth provides to humankind . . . [y]et people in countries throughout the world have been remarkably shortsighted and negligent in this respect. Indeed, the future of the human species and many others may be compromised unless there is significant improvement in the management of the earth's water resources.²⁵

Wetlands have been described as "the kidneys of the landscape" for their impressive water purification capabilities. They have demonstrated an ability to clean polluted waters which pass through them. They contribute directly to the water quality of lakes and streams by acting as buffers, filtering the water which ultimately passes into them.²⁶ By furnishing a habitat for microbial populations and sediment and nutrient entrapment, constructed wetlands are being used for treatment of wastewater, failed septic tank drain fields, acid mine drainage and agricultural pollution.²⁷

Wetlands also retain rainwater and snowmelt, permitting them to percolate into underground aquifers.²⁸ In the absence of the wetland, the water would rapidly find its way into streams and rivers and ultimately the sea, where its availability to human communities is lost.²⁹ Because of their ability to re-

^{25.} J.W. Maurits la Riviere, Threats to the World's Water, Sci. Am., Sept. 1989, at 80.

^{26.} See MITSCH & GOSSELINK, supra note 6, at 404-05. A Georgia state agency study showed that water heavily polluted with human and animal wastes emerged clean after passing through 2.75 miles of swamp. Want, supra note 2, § 2.01[3] (citing N.Y. Times, Nov. 29, 1989, at C4, col. 1). Minnesota spends between three and five million dollars annually to clean up its lakes and streams. Harnack Interview, supra note 9.

^{27.} See William A. Niering, Wetlands of North America 24, 25 (1991).

^{28.} Want, supra note 2, §§ 2.01[3]-2.01[4]. Worldwide, some 41,000 cubic kilometers of water are annually returned to the sea from the land. About two-thirds of this (27,000 Km³) flows to the sea as flood runoff. Five thousand cubic kilometers return to the ocean in uninhabited areas, and the remainder (9,000 Km³) is theoretically "readily available" to humans. It is, however, unevenly distributed, much of it is polluted, and water shortages are being experienced with greater frequency. Maurits la Riviere, supra note 25, at 80.

^{29.} Areas of western Minnesota which have experienced the most extensive loss of potholes suffered particularly severe water shortages during the 1988-89 drought. This was manifested by an increased number of interference complaints (complaints of domestic users that commercial water use has reduced the amount available to

tain water, wetlands are indispensable to effective flood control. Flood damage is extremely costly, and wetland retention and restoration are cost-effective methods of reducing the damage.³⁰

Wetlands also support a large proportion of all endangered and threatened species. Congress has found that 35% of rare, threatened and endangered plant and animal species depend on wetlands for their survival.³¹

Government attitudes toward wetland values have changed, and the new awareness is expressed in recitals in state and federal statutes.³² Congress has recognized wetlands' importance in maintaining habitats for the nation's migratory and resident fish and wildlife;³³ contributing to an annual commercial marine harvest valued at over \$10 billion; contributing to a major portion of the nation's multimillion dollar annual fur and hide harvest; increasing recreational areas and activities; enhancing water quality and supply; and controlling flooding and erosion.³⁴ Additionally, Congress has found that wetland destruction has contributed to the alarming decline of migra-

them) and early suspension of irrigation permits. Some opine that during this period, if as little as 50% of the original potholes were still present, irrigation could have been extended 2 to 3 weeks during late July and early August, a period critical to crop maturation. Harnack Interview, *supra* note 9.

^{30.} Flood damage costs Minnesota an average of \$130,000,000 annually; direct flood damage costs average \$70,000,000. Landwehr Interview, supra note 7. The other \$60,000,000 is spent on indirect costs, such as public assistance to those adversely affected by flooding. In addition, Minnesota has a grant program to help local governments impound waters for floodwater storage and retention, paying \$300 for each acre foot of storage. It is inconsistent to incur this expense while destroying wetlands which naturally store and retain floodwaters. Harnack Interview, supra note 9. The Army Corps of Engineers determined that the loss of 8,422 acres of wetlands in the Charles River basin near Boston would result in average annual flood damage of more than \$17,000,000. Want, supra note 2, at § 2.01[3].

^{31.} North American Wetland Conservation Act, 16 U.S.C. § 4401 (1988 & Supp. II 1990).

^{32.} Congress has noted that "wetlands play an integral role in maintaining the quality of life through material contributions to our national economy, food supply, water supply and quality, flood control, and fish, wildlife, and plant resources, and thus to the health, safety, recreation, and economic well-being of all our citizens of the Nation." Emergency Wetlands Resources Act of 1986, 16 U.S.C. § 3901 (1988).

^{33.} Congress created the Migratory Bird Conservation Commission with authority to purchase or rent land or water. 16 U.S.C. § 715(a) (1988). An appropriation of \$200,000,000 was intended to "promote the conservation of migratory waterfowl and to offset or prevent the serious loss of important wetlands and other waterfowl habitat essential to the preservation of such waterfowl." 16 U.S.C. § 715k-3 (1988).

^{34.} Emergency Wetlands Resources Act of 1986, 16 U.S.C. § 3901 (1988).

tory bird populations.35

III. WETLAND DEFINITIONS

An understanding of what constitutes a "wetland" is important to the ensuing discussion. Numerous definitions exist, some of which are relevant to this article.

Wetlands often blend into uplands without any clear line of separation. There are many different types of wetlands, with differences due to hydrology, nutrients, types of vegetation, soil conditions and the like.³⁶ They are commonly known as marshes, bogs, fens, potholes, swamps and sloughs.³⁷ More precise wetland definitions are needed for scientists who classify, inventory and research wetlands and for managers who have the responsibility to protect them.³⁸

A. Early Definitions

An early definition prepared by the U.S. Fish and Wildlife Service in 1956 stated,

The term "wetlands"... refers to lowlands covered with shallow and sometimes temporary or intermittent waters. They are referred to by such names as marshes, swamps, bogs, wet meadows, potholes, sloughs, and river-overflow lands. Shallow lakes and ponds, usually with emergent vegetation as a conspicuous feature, are included in the definition, but the permanent waters of streams, reservoirs, and deep lakes are not included. Neither are water areas that are so temporary as to have little or no effect on the development of moist-soil vegetation. So

The U.S. Fish and Wildlife Service Circular 39 definition, issued in 1956, includes twenty types of wetlands, eight of which are freshwater wetlands.⁴⁰ These freshwater wetland types are

^{35.} North American Wetlands Conservation Act, 16 U.S.C. § 4401 (1988 & Supp. II 1990).

^{36.} See Mitsch & Gosselink, supra note 6, at 16. "Because wetland characteristics grade continuously from aquatic to terrestrial, any definition is to some extent arbitrary." Id.

^{37.} See generally MITSCH & GOSSELINK, supra note 6, at 15-20.

^{38.} Id. at 16-17.

^{39.} MITSCH & GOSSELINK, *supra* note 6, at 17 (citing S.P. SHAW & C.G. FREDINE, WETLANDS OF THE UNITED STATES, THEIR EXTENT, AND THEIR VALUE FOR WATERFOWL AND OTHER WILDLIFE, U.S. DEP'T. OF THE INTERIOR, FISH AND WILDLIFE SERVICE, Circular 39, 67 (1956)).

^{40.} Id. at 452-53. The following table, containing the Circular No. 39 definitions

currently used in Minnesota wetland statutes, including the 1991 Wetland Conservation Act.⁴¹ In developing the Circular

of freshwater wetlands, is adapted from the Minnesota Department of Natural Resources, Division of Waters brochure on Wetland Types and Definitions:

- Type 1 Seasonally flooded basins or flats. Soil is covered with water or is waterlogged during variable seasonable periods but usually is well-drained during much of the growing season. Vegetation varies greatly according to season and duration of flooding: from bottom-land hardwoods as well as herbaceous growths.
- Type 2 Inland fresh meadows. Soil is usually without standing water during most of the growing season but is waterlogged within at least a few inches of surface. Vegetation includes grasses, sedges, rushes and various broad-leaved plants. Meadows may fill shallow basins, sloughs, or farmland sags, or these meadows may border shallow marshes on the landward side.
- Type 3 Inland shallow fresh marshes. Soil is usually waterlogged early during growing season; often covered with as much as six inches or more of water. Vegetation includes grasses, bulrushes, spikerushes and various other marsh plants such as cattails, arrowheads, pickerelweed and smartweeds. These marshes may nearly fill shallow lake basins or sloughs, or may border deep marshes on landward side. Also common as seep areas on irrigated lands.
- Type 4 Inland deep fresh marshes. Soil is usually covered with six inches to three feet or more of water during growing season. Vegetation includes cattails, reeds, bulrushes, spikerushes and wildrice. In open areas, pondweeds, naiads, coontail, watermilfoils, waterweeds, duckweeds, waterlilies or spatterdocks may occur. These deep marshes may completely fill shallow lake basins, potholes, limestone sinks and sloughs, or they may border open water in such depressions.
- Type 5 Inland open fresh water. Shallow ponds and reservoirs are included in this type. Water is usually less than ten feet deep and fringed by a border of emergent vegetation similar to open areas of type 4.
- Type 6 Shrub swamps. Soil is usually waterlogged during growing season and is often covered with as mush [sic] as six inches of water. Vegetation includes alders, willows, buttonbush, dogwoods, and swamp-privet. Occur mostly along sluggish streams and occasionally on flood plains.
- Type 7 Wooded swamps. Soil is waterlogged at least to within a few inches of surface during growing season and is often covered with as much as one foot of water. Occur mostly along sluggish streams, on flood plains, on flat uplands and in shallow basins. Trees include tamarack, arborvitae, black spruce, balsam, red maple and black ash. Northern evergreen swamps usually have a thick ground cover of mosses. Deciduous swamps frequently support beds of duckweeds, smartweeds.
- Type 8 Bogs. Soil is usually waterlogged and supports a spongy covering of mosses. Occur mostly in shallow basins, on flat uplands And along sluggish streams. Vegetation is woody or herbaceous or both. Typical plants are heath shrubs, sphagnum moss and sedges. In the north, leatherleaf, Labrador-tea, cranberries, carex and cottongrass are often present. Scattered, often stunted, black spruce and tamarack may occur.

Id.

41. Minnesota Wetland Conservation Act of 1991, ch. 354, 1991 Minn. Laws 2794 (codified at MINN. STAT. §§ 84 & 103 (Supp. 1991)).

39 definitions, the U.S. Fish and Wildlife Service considered only those wetlands important for waterfowl, and consequently, many wetlands in the United States were ignored.⁴²

Subsequent wetland definitions are based almost entirely on the presence of three components: hydrophytic vegetation,⁴³ hydric soils,⁴⁴ and hydrological conditions giving rise to saturation for certain lengths of time.⁴⁵

In 1979, after years of review, scientists in the U.S. Fish and Wildlife Service adopted the following definition of wetlands:

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water Wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes, (2) the substrate is predominantly undrained hydric soil, and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year. 46

This definition has been described as "the most widely accepted by wetland scientists in the United States today." 47

B. The Section 404 Definition

Because of its importance in wetland management, special

^{42.} MITSCH & GOSSELINK, supra note 6, at 34.

^{43.} Hydrophytic refers to "a plant growing in water or in soil too waterlogged for most plants to survive." Webster's Ninth New Collegiate Dictionary 590 (1986). Wetland organisms, including plants, are subject to stresses, the most severe of which is the absence of oxygen in flooded soils. This prevents the plant from respiring through the normal metabolic pathways. Hydrophytes have evolved various mechanisms to deal with this condition. See MITSCH & GOSSELINK, supra note 6, at 126-27.

The Federal Manual for Identifying and Delineating Jurisdictional Wetlands defines hydrophytic vegetation as "macrophytic plant life growing in water, soil, or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content." Federal Interagency Comm. For Wetland Delineation, Federal Manual for Identifying and Delineating Jurisdictional Wetlands 5 (1989) [hereinafter Manual].

^{44.} Hydric soil is defined as "a soil that in its undrained condition is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation." MITSCH & GOSSELINK, *supra* note 6, at 89 (citing U.S. SOIL CONSERVATION SERV., SOILS—HYDRIC SOILS OF THE UNITED STATES 1 (1985) (Natural Bulletin No. 430-5-9).

^{45.} Id. at 18.

^{46.} Id. (citing Classification of Wetlands and Deepwater Habitats of the United States 3 (Cowardin et al. eds., 1979)).

^{47.} Id.

mention should be made of the definition used by the Army Corps of Engineers (Corps) and the EPA in their management under section 404 of the Clean Water Act.⁴⁸ Corps regulations define wetlands as follows:

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.⁴⁹

This definition relies heavily on vegetation to determine the presence of a wetland, allowing regulators to make rapid identification of wetlands, which is not possible where information regarding soil and water conditions is required.⁵⁰

Between 1989 and 1991, the Federal Manual for Identifying and Delineating Jurisdictional Wetlands was the technical guideline used by the Corps, the EPA, and the U.S. Fish and Wildlife Service in determining wetland boundaries for purposes of section 404 and other regulatory programs.⁵¹ The Manual describes attributes of three parameters, namely, hydrology, soil, and/or vegetation as the basis for identifying wetlands and establishing their boundaries. An area has wetland hydrology if the soil is inundated or saturated for at least a week during the growing season.⁵²

The 1989 Manual established a rating system which classifies plants on the basis of the frequency of their occurrence in wet-

Id.

^{48. 33} U.S.C. § 1344 (1988).

^{49. 33} C.F.R. § 323.2(c) (1984). The definition used by the Soil Conservation Service varies from that used by the Corps:

Wetlands are defined as areas that have a predominance of hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

^{50.} MITSCH & GOSSELINK, supra note 6, at 19.

^{51.} The 1989 Manual is currently under review and revision and is not being used. Although the U.S. Soil Conservation Service is one of the signatories of the Manual, it has never adopted it. Robert J. Pierce, Redefining Our Regulatory Goals, NATIONAL WETLANDS NEWSLETTER (Envtl. L. Inst.) 12 (Nov.-Dec. 1991).

^{52.} The week long saturation requirement was adopted because it was believed to be the minimum duration of saturation needed to deoxygenate the soil. In 1991, the Bush Administration proposed a change which would require that the area be continually wet at the ground surface for at least 21 days or inundated for a minimum of 15 consecutive days. It has been estimated that this would reduce the amount of

lands. When the dominant species in an area have a high probability of occurrence in wetlands, the vegetation is said to be hydrophytic.⁵³

The Minnesota Wetland Conservation Act of 1991⁵⁴ employs a definition of wetlands that is to some extent a hybrid between the U.S. Fish and Wildlife Service definition and that used by the Army Corps of Engineers. It requires that all three

federally protected wetlands by 50% nationwide. See Marguerite Holloway, High and Dry, New Wetlands Policy is a Political Quagmire, Sci. Am., Dec. 1991, at 16, 20.

According to the 1989 Manual, the mandatory technical criterion for wetland hydrology are the following:

- Saturation to the surface normally occurs when soils in the following natural drainage classes meet the following conditions:
 - In somewhat poorly drained mineral soils, the water table is less than 0.5 feet from the surface for usually one week or more during the growing season; or
 - In low permeability (less than 6.0 inches per hour), poorly drained or very poorly drained mineral soils, the water table is less than 1.5 feet from the surface for one week or more during the growing season; or
 - C. In more permeable (6.0 inches per hour or greater), poorly drained or very poorly drained mineral soils, the water table is less than 1.0 feet from the surface for usually one week or more during the growing season; or
 - In poorly drained or very poorly drained organic soils, the water table is usually at a depth where saturation to the surface occurs more than rarely.
- 2. An area is inundated at some time if ponded or frequently flooded with surface water for one week or more during the growing season.

Manual, supra note 43, at 7.

- 53. The system makes the following classifications:
- 1. Obligate Wetland Plant (OBL)-Species whose estimated probability of occurrence in wetlands is greater than 99% under natural conditions (e.g., cattails, redstem aster);
 - 2. Facultative Wetland Plant (FACW) Species whose estimated probability of occurrence in wetlands is 67% to 99% under natural conditions (e.g., green ash, silver maple, red-osier dogwood);
 - 3. Facultative Plant (FAC) Species whose estimated probability of occurrence in wetlands is 33% to 67% under natural conditions (e.g., red maple, yellow birch);
- Facultative Upland Plant (FACU) Species whose estimated probability of occurrence in wetlands is 1% to 33% under natural conditions:
- 5. Upland Plant (UPL) Species whose estimated probability of occurrence in wetlands is 0% to 1% under natural conditions;
- Drawdown (DRA) Plants that are typically associated with the drier stages of wetlands, such as mudflats.

MANUAL, supra note 43, at 5; STEVE D. EGGERS & DONALD M. REED, WETLAND PLANTS AND PLANT COMMUNITIES OF MINNESOTA AND WISCONSIN 172-76 (U.S. Army Corp of Engineers, St. Paul Dist., 1986).

For identification of the indicator status of numerous plant species in Minnesota, see EGGERS & REED, at 172-76.

54. Ch. 354, 1991 Minn. Laws 2794 (codified at MINN. STAT. §§ 84 & 103 (Supp. 1991)); MINN. STAT. § 103G.005(19) (Supp. 1991).

wetland attributes be present in order to find a wetland, namely, hydrophytic vegetation, hydric soil and the requisite degree of saturation. The federal manual is used in making wetland definitions.

IV. THE EXPANSION OF FEDERAL LEGISLATION

A. Coastal Wetland Protection

The expansion of federal legislation protecting wetlands began in the coastal regions and expanded inland. Coastal wetlands are immensely important:

In the United States, it is estimated that half of the commercial harvest of the Pacific and two thirds of the harvest of the Atlantic and Gulf of Mexico depend on the coastal wetlands and estuaries (areas where rivers enter the ocean) at some stage of life. These areas also serve as nesting, feeding, and resting spots for migratory waterfowl, and they act as buffers against erosion and flooding farther inland.⁵⁵

Coastal wetlands are the marine zone of highest biological productivity. Aquaculture in this zone produces 10% of the world's fish harvest.⁵⁶ Mangrove swamps⁵⁷ are important in exporting nutrients to adjacent food chains, stabilizing shoreline, protecting inland areas from damage during hurricane and tidal waves and providing sinks for nutrients and carbon.⁵⁸

Dredging and filling for navigation and development has taken an enormous toll on coastal wetlands, causing deterioration of water quality and destroying fisheries and wildlife habitat.⁵⁹ Losses of coastal wetlands from 1954 to 1974 are

^{55.} KAREN ARMS & PAMELA S. CAMP, BIOLOGY 990 (3d ed., 1987).

^{56.} Maurits la Riviere, supra note 25, at 88. Dr. la Riviere writes:

The 240,000 square kilometers of coastal mangrove forest are essential habitats for many economically important fish species during part of their life cycle, and they also provide timber and firewood; reed and cypress swamps are other examples of biologically rich coastal wetlands. Finally, of course, coastal zones support a highly profitable tourist industry and include a growing number of protected areas, such as the Great Barrier Reef Marine Park in Australia.

Id.

^{57.} Mangroves include some 40 kinds of trees which can grow in both salt and fresh water. They have particular value in stabilizing shoreline and sheltering wildlife, and are the home of many endangered species. In the United States, they are largely confined to the Florida coastline. See NIERING, supra note 27, at 92-101.

^{58.} MITSCH & GOSSELINK, supra note 6, at 231; NIERING, supra note 27, at 92-101.

^{59.} MITSCH & GOSSELINK, supra note 6, at 415; Maurits la Riviere, supra note 25, at 89.

estimated at 920,000 acres. 60

To stem this loss, a variety of federal programs incorporated coastal wetland protection. The National Flood Insurance Program offered subsidies to states which enacted legislation protecting flood plains.⁶¹ A federal Coastal Zone Management Program provides funding to those states which set up their own management programs.⁶² Estimates show that dramatic reductions in loss of coastal wetlands occurred where states established coastal wetland management plans.⁶³

The U.S. Fish and Wildlife Coordination Act⁶⁴ directed federal agencies involved in the alteration of a water body to consult with the Fish and Wildlife Service for the purpose of conserving wildlife resources. This Act brought the Army Corps of Engineers into the arena of wetland protection. In the late 1960s, for the first time, the Army Corps issued regulations protecting coastal wetlands.⁶⁵ It did so under authority of the River and Harbors Appropriation Act of 1899.⁶⁶

B. Wetland Protection Turns Inland

The 1970s and 1980s saw an enormous expansion of federal legislation designed to protect inland as well as coastal wetland areas. A detailed discussion of federal wetland legislation is beyond the scope of this Article; however, an awareness of it is important to the background of the Minnesota Wetlands Conservation Act.

In 1977, President Carter issued two executive orders which

^{60.} MITSCH & GOSSELINK, supra note 6, at 40-41.

^{61. &}quot;The National Flood Insurance Program offers some protection to riparian and coastal wetlands by offering federally subsidized flood insurance to state and local governments that enact local regulations against development in flood-prone areas." MITSCH & GOSSELINK, supra note 6, at 445-46.

^{62. &}quot;The Coastal Zone Management Program, established by the Coastal Zone Management Act of 1972, has provided up to 80% matching funding grants to states to develop plans for coastal management, with wetland protection given a high priority." *Id.* at 445.

^{63.} After the passage of state coastal wetland protection laws, the rate of wetland loss decreased enormously. For example, the loss rate of New Jersey's coastal marshes fell from 3,084 acres per year to 50 acres per year; Maryland coastal wetlands loss rate dropped from 1,000 acres per year to 20 acres per year; and the loss rate of Delaware's coastal marshes fell from 444 acres per year to 20 acres per year. *Id.* at 44.

^{64. 16} U.S.C. § 662 (1988).

^{65.} Want, supra note 2, § 2.02[1].

^{66. 33} U.S.C. § 403 (1988); see also WANT, supra note 2, § 2.02.

established protection of wetlands and riparian systems as the official policy of the federal government. These orders required all federal agencies to consider protection of wetlands and floodplains in carrying out their responsibilities.⁶⁷ The variety, breadth and scope of ensuing congressional action to protect wetlands are reflected in the comments of Senator George Mitchell, who noted:

The 1982 Coastal Barrier Resources Act, the 1985 Food Security Act, and the 1986 Tax Reform Act, all removed incentives that had encouraged wetlands destruction. Through the Conservation Reserve Program, the Food Security Act also has begun to provide incentives for farmers to protect wetlands. The Emergency Wetlands Resources Act of 1986 doubled the amount of guaranteed funding for federal wetlands acquisition.⁶⁸

In 1985, Congress enacted the Food Security Act, Title XII of which is known as the Erodible Land and Wetland Conservation and Reserve Program.⁶⁹ The Act originally provided that after December 23, 1985, any person who, in any crop year, produced an agricultural commodity on land that had been a wetland which had been drained or filled to produce agricultural commodities, was ineligible to receive Department of Agriculture benefits. Popularly known as the Swampbuster provision, this portion of the Act is administered by the Secretary of Agriculture and enforced by the Agriculture Stabilization and Conservation Service (ASCS).⁷⁰ The Act was amended in 1990 to provide, among other things, for graduated sanctions and for application of sanctions to wetland conversion rather than to agricultural production.⁷¹

^{67.} Exec. Order No. 11,990, 28 C.F.R. § 63 (1991); Exec. Order No. 11,988, 28 C.F.R. § 63 (1991); see also MITSCH & GOSSELINK, supra note 6, at 441-42.

^{68.} George Mitchell, Foreword to Wetland Creation and Restoration, The Status of the Science, at ix (Jon A. Kusler & Mary E. Kentula, eds. 1990).

^{69.} See Pub. L. 99-198, 99 Stat. 1354, as amended, 16 U.S.C. § 3801(a)(16), § 3821 (1988).

^{70.} See 16 U.S.C. § 3822(a) (1988). This section exempts a person who produces crop on a wetland where a natural condition such as drought makes such production possible, and the producer is not guilty of action which destroys the natural wetland characteristic. Id.; see also 16 U.S.C. § 3822(f) (1988), which permits the secretary to exempt a person for an action associated with production of commodities having minimal wetland effect "on the hydrological and biological aspect of wetland." Id.

^{71.} See 16 U.S.C. §§ 3821-3823 (1988); James T.B. Tripp & Daniel J. Dudek, The Swampbuster Provisions of the Food Security Act of 1985: Stronger Wetland Conservation if Properly Implemented and Enforced, 16 Envtl. L. Rep. 10,120 (May 1986); see also National Wildlife Fed'n v. Agricultural Stabilization & Conservation Serv., 941 F.2d 667 (8th

Legislation, treaties and management plans providing for the protection of migratory birds, wildlife and endangered species also have furnished important incentives to wetland protection. Wetlands provide essential habitat; if wetlands are not protected, attempts to protect and preserve wildlife will be futile. The Migratory Bird Treaty Act,⁷² enacted in 1918, the North American Waterfowl Management Plan signed in 1986, the 1988 Tripartite Agreement between Mexico, Canada and the United States and the Fish and Wildlife Conservation Act, to name a few, require protection of wetlands to ensure preservation of bird and animal habitat.

The Wetlands Emergency Resources Act provides for the establishment of a national wetlands priority conservation plan, specifying the types of wetlands which should be given priority with respect to federal and state acquisition.⁷³ The North American Wetland Conservation Act⁷⁴ establishes a North American Wetlands Conservation Council which recommends wetland conservation projects to the Migratory Bird Conservation Commission.⁷⁵ Upon approval by the commission, federal funding of the project is made available.

C. The Administration and Jurisdictional Reach of Section 404 of the Federal Clean Water Act of 1972

The most important federal tool for wetland protection is section 404 of the Clean Water Act,⁷⁶ which prohibits the discharge without a permit of dredge and fill into the waters of the United States.⁷⁷ Section 404 is administered by the Army Corps of Engineers, assisted by, and subject to the veto power of, the EPA.⁷⁸ Although section 404 does not mention "wet-

Cir. 1991) (holding that the amendment providing for graduated sanctions applied retroactively to a judgment entered prior to the amendment). The good faith exemption permits imposition of a graduated fine between \$750 and \$10,000 if the person is actively restoring the drained wetlands by agreement with the Secretary determines that the person has not otherwise violated section 3821 in the past 10 years, and the person has converted the wetland in good faith and without intent to violate the statute. 16 U.S.C.A. § 3822(h)(1)-(2) (1992).

^{72. 16} U.S.C. §§ 703-712 (1988).

^{73. 16} U.S.C. § 3921 (1988).

^{74.} Id. § 4403 (1988 ed., Supp. II 1990).

^{75.} Id. § 715(a) (1988).

^{76. 33} U.S.C. § 1344 (1988).

^{77.} Id.

^{78.} Id. § 1334(c)-(d).

lands," by name, following judicial decisions extending the Act to nonnavigable waters and wetlands, ⁷⁹ the Corps amended its regulations to state, "as environmentally vital areas, [wetlands] constitute a productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest." Federal jurisdiction is established by the amended regulations, which define "waters of the United States" in a broad sense, not limited by the traditional tests of navigability. The Corps exercises jurisdiction over approximately 60 million hectares of wetlands. ⁸²

Corps regulations provide for a balancing test in determining whether a permit will be granted. A permit to discharge dredge or fill into a wetland will not be granted if the wetland performs important functions for the public, unless "the benefits of the proposed alteration outweigh the damage to the wetlands resource and the proposed alteration is necessary to realize those benefits." 83

Guidelines to section 404(b)(1)⁸⁴, developed by the EPA and the Corps, provide that a permit application must be denied

- 81. Navigable waters of the United states are:
 - All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
 - (2) All interstate waters including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) from which fish or shellfish are or could be taken or sold in interstate or foreign commerce; or (iii) which are used or could be used for industrial purpose by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (5) Tributaries of waters identified in paragraphs (a)(1) through (4) of this section;
- (6) The territorial seas;
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.
- 33 C.F.R. § 328.3(a) (1991).
 - 82. MITSCH & GOSSELINK, supra note 6, at 444.
- 83. Regulatory Programs of the Corps of Engineers, 42 Fed. Reg. 37,122, 37,137 (1977).
 - 84. See 40 C.F.R. § 230.1-.77 (1991); see also William K. McGreevey, Note, A Pub-

^{79.} See, e.g., Natural Resources Defense Council, Inc. v. Callaway, 392 F. Supp. 685 (D.D.C. 1975).

^{80.} Permits for Activities in Navigable Waters or Ocean Waters, 40 Fed. Reg. 31,320, 31,328 (1975).

when a "practicable alternative" is available which would have a "less adverse impact on the aquatic ecosystem."

Significant doubt exists regarding the Corps' ability to protect wetlands. The Corps is hampered by inadequate staffing for permit review and enforcement, resulting in few permit applications even where regulated activity is involved.⁸⁵ The Government Accounting Office has noted that the Corps has failed to control most wetland loss.⁸⁶ Furthermore, because of its origin as a law to prevent water pollution, section 404 prohibits only the discharge of dredge and fill into wetlands, and does not bar their drainage.

There is considerable question regarding the extent of the jurisdiction of the Corps and the EPA over wetlands. Section 404 jurisdiction includes areas periodically inundated by the waters of the United States, as well as areas saturated by groundwater and adjacent to waters of the United States. Congress intended that the term "waters of the United States" be interpreted as broadly as constitutionally possible under the Commerce Clause.⁸⁷ A question which remains is, to what extent can the Corps and EPA in their administration of section 404 exercise constitutional authority over the so-called "isolated" wetlands, those not adjacent to waters of the United States?⁸⁸

EPA regulations define waters of the United States to include waters which are or would be used as habitat by birds protected by Migratory Bird Treaties or other migratory birds which cross state lines; and which are or would be used as habitat for endangered species.⁸⁹ This apparent extension of jurisdiction has not received kind treatment by the courts.⁹⁰

lic Availability Approach to Section 404(b)(1) Alternatives Analysis: A Practical Definition for Practicable Alternatives, 59 GEO. WASH. L. REV. 379, 383 n.23 (1991).

^{85.} See Ted Griswold, Comment, Wetland Protection Under Section 404 of the Clean Water Act: An Enforcement Paradox, 27 SAN DIEGO L. REV. 139 (1990).

^{86.} Id. at nn. 5, 77, 79 (citing General Accounting Office, Wetlands: The Corps of Engineers Administration of the Section 404 Program 3 (1988)).

^{87.} United States v. Zanger, 767 F. Supp. 1030 (N.D. Cal 1991).

^{88.} See United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985); see also Griswold, Comment, supra note 85, at 143.

^{89. 51} Fed. Reg. 41,206, 41,217 (Nov. 13, 1986).

^{90.} In Hoffman Homes, Inc. v. Administrator, 961 F.2d 1310 (7th Cir. 1992), the Seventh Circuit rejected the EPA's claim that jurisdiction under the Commerce Clause could be based solely on the grounds that migratory birds could potentially use the area involved. See also Tabb Lakes, Ltd. v. United States, 715 F. Supp. 726 (E.D. Va. 1988) in which the court expressed "grave doubts" that the expectancy of

One court stated that "[n]o federal court has ever held that the mere presence of wildlife—actual or potential, interstate or intrastate—is enough to invoke the Commerce Clause power." Nevertheless, the federal government has power to protect migratory birds, and their habitat, and the issue would seem to be far from resolved.

To stop the alarming decline in migratory birds by slaughter, the United States in 1916 entered into a migratory bird treaty with Great Britain (acting on behalf of Canada). ⁹² To implement the treaty, Congress enacted the Migratory Bird Treaty Act which made criminal the destruction of migratory birds contrary to the regulations of the Secretary of Agriculture. ⁹³ The Supreme Court upheld the Act's constitutionality in *Missouri v. Holland*, calling the preservation of migratory birds, "a national interest of very nearly the first magnitude." ⁹⁴ The Supreme Court based its decision squarely on the treaty powers of the constitution. ⁹⁵ In *Cerritos Gun Club v. Hall*, ⁹⁶ the Ninth Circuit upheld the validity of the Migratory Treaty Act under the Commerce Clause. The United States entered into similar treaties with Mexico in 1936, with Japan in 1972, and with the U.S.S.R. in 1976.

While the Migratory Bird Act was at the outset principally concerned with preventing the uncontrolled killing of migratory birds, congressional focus was later broadened to acquiring and protecting the habitat of migratory birds.⁹⁷ Congress created the Migratory Bird Conservation Commission with authority to purchase or rent land or water,⁹⁸ "[i]n order to promote the conservation of migratory waterfowl and to offset or

becoming migratory bird habitat could create a sufficient nexus between isolated waters and interstate commerce to invoke federal jurisdiction.

^{91.} Hoffman, 967 F.2d at 1320. Cf. National Wildlife Fed'n v. Laubscher, 662 F. Supp. 548 (S.D. Tex. 1987) (holding that a wetland visited by migratory birds is a wetland within the jurisdiction of the federal government).

^{92. 39} Stat. 1702 (1916).

^{93. 16} U.S.C. § 703 (1988).

^{94. 252} U.S. 416, 435 (1920).

^{95.} Id. at 383. Until Missouri v. Holland was decided, it was believed that migratory birds were the property of the states for the benefit of their people in common and Congress had no power to regulate them. See United States v. Shauver, 214 F. 154 (E.D. Ark. 1914); see also United States v. McCullagh, 221 F. 288 (D.C. Kan. 1915).

^{96. 96} F.2d 620 (9th Cir. 1938).

^{97.} See, e.g., Migratory Bird Conservation Act, 16 U.S.C. § 715 (1929).

^{98. 16} U.S.C. § 715(a) (1988).

prevent the serious loss of important wetlands and other waterfowl habitat essential to the preservation of such waterfowl." 99

Given Congress's demonstrated power to protect migratory birds, until the Supreme Court rules otherwise, it should not be assumed that the federal government is without Commerce Clause jurisdiction over migratory bird habitat, actual or potential.

V. An Examination and Critique of the Minnesota Wetland Conservation Act of 1991

A. Overview of the Act

The Minnesota Wetland Conservation Act of 1991 ("The Act") is comprehensive in scope. 100 It contains a strong recital of legislative findings of wetland values. The legislature declares an intent to achieve "no net loss" of existing wetlands and to increase the quantity, quality and biological diversity of Minnesota wetlands by restoration and enhancement. 101 The Wetlands Conservation Act of 1991 was not codified into an integrated statute regulating wetlands. Rather, it amends the water laws of Minnesota 102 and incorporates wetland management into the planning requirements of the state's water resources.

Id.

^{99.} Id. § 715(k-3).

^{100.} Minnesota Wetland Conservation Act of 1991, ch. 354, 1991 Minn. Laws 2794 (codified at MINN. STAT. §§ 84 & 103 (Supp. 1991)).

^{101.} MINN. STAT. § 103A.201(2) (Supp. 1991). This statute states:

The legislature finds that the wetlands of Minnesota provide public value by conserving surface waters, maintaining and improving water quality, preserving wildlife habitat, providing recreational opportunities, reducing runoff, providing for floodwater retention, reducing stream sedimentation, contributing to improved subsurface moisture, helping moderate climatic change, and enhancing the natural beauty of the landscape, and are important to comprehensive water management, and that it is in the public interest to:

⁽¹⁾ achieve no net loss in the quantity, quality, and biological diversity of Minnesota's existing wetlands;

⁽²⁾ increase the quantity, quality, and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands:

⁽³⁾ avoid direct or indirect impacts from activities that destroy or diminish the quantity, quality, and biological diversity of wetlands; and

⁽⁴⁾ replace wetland values where avoidance of activity is not feasible and prudent.

^{102.} Minn. Stat. §§ 103A-103G (1990) (protecting state waters).

The Act relies heavily on local control. Permits to drain and fill wetlands must be submitted to cities, counties or watershed management organizations with right of appeal to the Board of Water and Soil Resources ("the Board"). The legislative recognition of wetland values is critically important to wetland protection. The Act requires the Board, in consultation with the Commissioner of Natural Resources ("Commissioner") to adopt rules establishing criteria to determine the public value of wetlands and to govern the approval of wetland value replacement plans. ¹⁰³ These rules must consider the public benefit and use of the wetlands. ¹⁰⁴

The Act provides for broad-based participation in wetland management. It establishes a Wetland Heritage Advisory Committee¹⁰⁵ made up of representatives of agricultural, environmental, sporting, land development and local government organizations. The Heritage Committee "shall advise the board on the development of rules under this section and, after rule adoption, shall meet twice a year to review implementation of the program, to identify strengths and weaknesses, and to recommend changes to the rules and the law to improve the program."¹⁰⁶

The Act provides for continuous monitoring of the wetlands program. It requires the Board and the Commissioner to report annually to the legislative committees which have jurisdiction over matters relating to agriculture, environment and natural resources. The report must discuss implementation of laws relating to the quantity, quality, acreage, types, and public value of wetlands in the state.¹⁰⁷

B. Wetland Protection in Minnesota Before the Act

Before passage of the Wetland Conservation Act, the principle vehicle for wetland protection in Minnesota was the Public Waters Act. ¹⁰⁸ The protection given by this Act is limited. First, it extends protection to only three of the eight types of freshwater wetlands, namely, inland shallow fresh marshes (type 3), inland deep fresh marshes (type 4), and inland open

^{103.} Id. § 103B.3355 (Supp. 1991).

^{104.} Id. § 103B.3355(a).

^{105.} Id. § 103G.2242(11).

^{106.} Id.

^{107.} Id. § 103G.2373.

^{108.} See generally id. § 103G.

fresh water wetlands (type 5).¹⁰⁹ Second, it protects only type 3, 4 and 5 wetlands which are ten or more acres in size if located in an unincorporated area, and 2.5 or more acres if located in an incorporated area.¹¹⁰

Other means of wetland protection have included the acquisition of wetlands by the state, either by purchasing fee title or conservation easements. The Water Bank Program¹¹¹ authorized the commissioner to acquire wetlands whether or not they are public waters wetlands.¹¹² State law prohibited, and still prohibits, the sale of state-owned wetlands unless their status is protected by a conservation easement.¹¹³

The Conservation Reserve Program has also proved important in protecting Minnesota wetlands.¹¹⁴ As part of the Reinvest in Minnesota Resources Law, its purpose is to keep certain marginal agricultural land out of crop production to protect soil and water quality and support fish and wildlife habitat.¹¹⁵ This carries out state policy to encourage the retirement of marginal, highly erodible land, particularly land adjacent to public waters and drainage systems, and to reestablish a cover of perennial vegetation.¹¹⁶

^{109.} Id. § 103G.221(1) (1990) (prohibiting drainage of wetlands); see also id. § 103G.005(18) (Supp. 1991) (defining wetlands). The Public Waters Act uses the U.S. Fish and Wildlife, Circular 39, 1971 wetland definitions. See supra notes 39-40 and accompanying text.

^{110.} Id. § 103G.005(18) (Supp. 1991).

^{111.} Id. § 103F.601 (1990).

^{112.} Id. § 103F.601(1). Funding for the Water Bank has been transferred to the Wetland Reserve Acquisition program established by the 1991 Wetland Conservation Act. See supra note 24 and accompanying text.

^{113.} MINN. STAT. § 103F.535 (1990) provides that marginal land and wetlands are withdrawn from sale by the state unless use of the marginal land or wetland is restricted by a conservation easement. Before state land is sold, the authority selling the land must determine and delineate the marginal land and wetlands to be reserved or restricted by a conservation easement. See also Minn. STAT. § 282.018 (Supp. 1991) (concerning tax-forfeited lands).

^{114.} Id. § 103F.515 (1990).

^{115.} Id. § 103F.515(1); see also id. § 103F.505.

^{116.} Id. § 103F.515; see also id. § 84.95. This section creates a resources fund as a separate fund in the state treasury. It may be spent only for specified purposes, including the "enhancement of fish and wildlife habitat on lakes, streams, wetlands, and public and private forest lands." Id. § 84.95(2); see also id. § 84.943. Section 84.943 establishes a Minnesota critical habitat private sector matching account separate from the RIM resources fund and administered by the Commissioner. The account consists of contributions from private sources and appropriations.

C. The Scope of the Minnesota Wetland Conservation Act

For several reasons, it is difficult to estimate with accuracy the quantity of Minnesota wetlands which will be protected by the Act. First, considerable wetland acreage is already owned and protected by the state and federal governments, and it is not likely to be a candidate for development or agriculture; second, state legislative protection already exists for protected waters wetlands;¹¹⁷ third, a substantial amount of wetlands are exempted from the Act;¹¹⁸ and fourth, waters used as transport in interstate commerce and adjacent wetlands are under the exclusive jurisdiction of the federal government and are already protected.¹¹⁹ It is estimated that approximately two million acres of Minnesota's existing wetlands will receive protection from the Wetlands Conservation Act. ¹²⁰

In defining the wetlands covered, the Act largely discards the U.S. Fish and Wildlife Circular 39 definitions, and adopts a three-part definition based on the area's hydrology, the presence of hydrophytic plants, and the presence of hydric soils. The Act states,

- (a) "Wetlands" means lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this definition, wetlands must have the following three attributes:
 - (1) have a predominance of hydric soils;
 - (2) are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and
 - (3) under normal circumstances support a prevalence of such vegetation.
- (b) Wetlands does not include public waters wetlands as defined in subdivision 18. 121

This definition likely includes all of the eight freshwater wetland types defined by Circular 39, thereby extending the

^{117.} Approximately 262,000 acres of types 3, 4 and 5 wetlands are protected by the Public Waters Act. Wetland Fact Sheet, supra note 7; see also supra note 40.

^{118.} See infra part V.F.2.

^{119.} See 33 U.S.C. § 1344(g) (1988). While states cannot regulate discharges into the waters of the United States, they can regulate drainage.

^{120.} Harnack Interview, supra note 9.

^{121.} MINN. STAT. § 103G.005(19) (Supp. 1991).

boundaries of wetland protection far beyond the limited protection afforded by the Public Waters Act. Moreover, the Act redesignates wetlands covered by the Public Waters Act as "public water wetlands," and specifically exempts them from its provisions, and it extends protection to types 3, 4 and 5 wetlands which are less than ten acres in unincorporated areas and under 2.5 acres in incorporated areas. As a result, Minnesota now has two major systems of wetland protection: that provided by the Public Waters Act to types 3, 4 and 5 wetlands above a certain size, which are regulated by the Department of Natural Resources (DNR); and that provided by the Wetland Conservation Act to wetlands within its coverage, which are regulated by local units of government under the overview of the Board.

Prior to the enactment of the Wetland Conservation Act, the DNR was the principal agency charged with Minnesota wetland protection. While it continues to be responsible for the protection of public waters wetlands, the legislature made the Board and local units of government the key "players" in the management of wetlands under the Act. The DNR's role in carrying out the mandate of the Act is largely limited to consultation and enforcement, to peatlands protection and to administration of the permit program under section 404.

D. Interim Prohibition

On January 1, 1992, an interim prohibition on draining and filling wetlands went into effect.¹²⁵ The Act prohibits the draining, burning or filling of wetlands until July 1, 1993, when the provisions of the Act become effective.¹²⁶ The interim pro-

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122. Id. § 103G.005(19)(b).
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126. Id. The schedule of the Act's critical dates is as follows:

June 5, 1991	The Provisions of article 8 on Peatland Protection went into
-	effect. Minnesota Wetland Conservation Act of 1991, ch. 354,
	art. 8, § 4, 1991 Minn. Laws at 2826.

July 1, 1991 Article 11 of the Act providing for appropriations went into effect. *Id.* art. 11, § 3, 1991 Minn. Laws at 2841.

Jan. 1, 1992 Interim prohibition on draining, filling or burning a wetland begins. *Id.* art. 7, § 2, 1991 Minn. Laws at 2826.

Jan. 1, 1992 Deadline for the Board and DNR to have developed a plan to coordinate state and federal wetland regulations. *Id.* art. 6, § 20, 1991 Minn. Laws at 2824.

^{123.} See supra note 40.

^{124.} MINN. STAT. § 103G.005(18) (Supp. 1991).

^{125.} Minnesota Wetland Conservation Act of 1991, ch. 354, art. 7, 1991 Minn. Laws 2794, 2825-26.

hibition prohibits the state or any local unit of government from issuing a permit for such activity. Exceptions to the interim prohibition include activities exempted by the Act from regulation and "activities for which the local soil and water conservation district or other local permitting authority certifies that any loss of wetland area resulting from the activity will be replaced." 129

E. State Acquisition of Conservation Easements on Wetlands

The Act extends protection to wetlands in two ways. First, the Act facilitates state acquisition of conservation easements on wetlands. Second, the Act prohibits the draining and filling of wetlands without a replacement plan.

1. Article 3—Permanent Wetland Preserves

Article 3 of the Act provides for the establishment of permanent wetland preserves by authorizing the Board upon application of the owner to acquire permanent easements on land containing types 1, 2 or 3 wetlands. The easement may in-

Feb. 1, 1993	Deadline for the DNR to have filed copies of national wetland inventory maps with each soil and water conservation district.
	Id. art. 6, § 21, 1991 Minn. Laws at 2824.
Feb. 1, 1993	Commissioner of Natural Resources shall adopt rules that provide adequate authority for administering the section 404 program and report to the environmental and natural
	resources committees of the legislature on existing laws that are inconsistent with the authority necessary for administering the section 404 programs. <i>Id.</i> art. 9, § 3(3), 1991 Minn. Laws at 2832.
March 1, 1993	Deadline for the Board to have submitted draft rules on the public value of wetlands and on the content of wetland replacement plans to the legislature. <i>Id.</i> art. 6, § 22, 1991 Minn. Laws at 2825.
March 1, 1993	The Governor shall make submission to the administrator of the EPA to obtain authority to administer the section 404 program. <i>Id.</i> art. 9, § 3(3)(b), 1991 Minn. Laws at 2832.
July 1, 1993	Deadline for the Board to have completed and adopted rules on (1) the criteria to determine the public value of wetlands; (2) the wetland value replacement plans; (3) criteria for high priority wetland areas; and (4) the Wetland Establishment and Restoration Program. MINN. STAT. § 103G.2242(a) (Supp. 1991).
July 1, 1993	Interim prohibition ends; prohibition on draining or filling any non-exempt wetland without a replacement plan begins. <i>Id.</i> § 103G.2369; <i>id.</i> § 103G.2242.
ld.	

Id.

^{127.} MINN. STAT. § 103G.2369(2)(b) (Supp. 1991).

^{128.} Id. § 103G.2369(3)(1).

^{129.} Id. § 103G.2369(3)(3).

clude the wetland and four adjacent upland acres for each acre of wetland enrolled.¹³⁰ Compensation for the easements is based on a percentage of the township estimated market value of agricultural property, as established by the commissioner of revenue, at the time of the easement application.¹³¹

2. Article 4—Wetland Preservation Areas

Article 4 permits an owner of wetlands to apply to the county to have any kind of wetland designated as a wetland preservation area. The wetland must be located in an area designated as high priority for wetland preservation, enhancement, restoration and establishment. Is a wetland is designated as a preservation area, no easement is conveyed, the land in the preservation area becomes subject to a restrictive covenant, and is exempt from real estate taxation and protected from some types of eminent domain action. The state reimburses the county for any lost revenue. The land must be designated as protected for a minimum of eight years.

3. Article 5—Wetland Establishment and Restoration Program

Article 5 permits a landowner to apply to a local unit of government to establish or restore a wetland in an area designated as a high priority wetland region.¹³⁷ Notice and a public hear-

^{130.} See id. § 103F.516.

^{131.} Id. § 103F.516(3). Compensation is payable as follows:

^{50%} of the township average equalized estimated market value of agricultural property:

on wetlands located outside the metropolitan area; and on wetlands located on agricultural property within the metropolitan area;

^{20%} of such value on wetlands located on nonagricultural land within the metropolitan area;

^{90%} of such value for adjacent upland acreage of cropped land;

^{60%} of such value for adjacent upland acreage of noncropped land.

Id. § 103F.516(3)(a)(l)-(b).

Article 11, section 1, subd. l(b), of the Act appropriates funds from the bond proceeds fund for acquisition of conservation easements on wetlands. Article 11, section 2 provides for the sale of bonds to provide the funds appropriated. Wetland Conservation Act of 1991, ch. 354, art. 11, §§ 1-2, 1991 Minn. Laws.

^{132.} MINN. STAT. § 103F.612(2)(a) (Supp. 1991).

^{133.} See id. § 103B.155(17).

^{134.} Id. § 103F.613(3).

^{135.} Minnesota Wetland Conservation Act of 1991, ch. 354, art. 4, § 6(1), 1991 Minn. Laws at 2805; see Minn. Stat. § 103F.614.

^{136.} Id. § 103F.613(1).

^{137.} Id. § 103F.902(1).

ing are required.¹³⁸ If the application is approved, the local unit of government must pay the cost of the project and the Board *may* reimburse for it up to \$20,000 or 50% of the cost, whichever is less.¹³⁹ If the Board does so, the local unit of government must order the establishment or restoration of the wetland, and the Board "acquire(s) a permanent conservation easement" on the wetland.¹⁴⁰

F. Article 6—The Prohibition Against Draining and Filling Wetlands

The heart of the Act is found in sections 8, 10 and 11 of Article 6.¹⁴¹ These sections provide that no wetlands shall be drained or filled unless a replacement plan is first approved by the local unit of government.¹⁴² The decision by the local government may be appealed to the disputes committee of the Board and then to the courts. If a replacement plan is not approved, the landowner is entitled to compensation in the amount of 50% of the market value of agricultural property for the wetland acreage. An owner who is entitled to, but does not receive, compensation, may drain and/or fill the wetland without a replacement plan.

1. The Permitting System

The Act provides, "After the effective date . . . wetlands must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetland areas of at least equal public value under . . . a replacement plan approved as provided in section 103G.2242" As a guide to replacement, the Act borrows the concepts of mitigation and sequencing from the federal section 404 administration. The Act provides cer-

^{138.} Id. § 103F.902(2).

^{139.} Id. § 103F.903.

^{140.} *Id.* § 103F.903(3).

^{141.} Id. §§ 103G.222, .2241, .2242.

^{142.} Id. § 103G.222(a).

^{143.} Id.

^{144.} On February 6, 1990, the EPA and the Corps signed a Memorandum of Agreement which articulates the policy and procedures required in determining the type and level of mitigation necessary to demonstrate compliance with § 404(b)(1) guidelines. The Memorandum states that mitigation should occur in a clear sequence of avoidance of wetland impacts through the evaluation of practicable alternatives, minimization as the second step in the sequence, and lastly, compensation of unavoidable impacts through restoration or creation. 55 Fed. Reg. 9210 (1990).

tain principles which guide the development of a replacement plan. 145

Consistent with the Act's goal of increasing the quantity of wetlands, it provides that "for wetlands located on nonagricultural land replacement must be in the ratio of two acres of replaced wetland for each acre of drained or filled wetland." ¹⁴⁶ If located on agricultural land, however, replacement must be on a one-to-one ratio. ¹⁴⁷

After wetland value replacement plan rules are adopted by the Board, "a replacement plan must be approved by a resolution of the governing body of the local government unit." Outside the seven-county metropolitan area, "local governmental unit" is defined as a city council or county board of commissioners. Within the seven-county area, it is defined as a city council, a town board or a watershed management organization. 149

When an application for a replacement plan is submitted, questions concerning the public value, location, size or type of the wetland under consideration must be submitted to and determined by a technical evaluation panel. The panel shall be composed of a technical professional employee of the board, a technical professional employee of the local soil and water conservation district and an engineer for the local government unit. The panel shall provide determinations to the local government unit and recommend approval or denial of the re-

^{145.} MINN. STAT. § 103G.222(b)(l)-(5) (Supp. 1991). This statute states: Replacement must be guided by the following principles in descending order of priority: (1) avoiding the direct or indirect impact of the activity that may destroy or diminish the wetland; (2) minimizing the impact by limiting the degree or magnitude of the wetland activity and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected wetland environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the activity; and (5) compensating for the impact by replacing or providing substitute wetland resources or environments.

Id.

^{146.} Id. § 103G.222(f).

^{147.} Id. § 103G.222(g). A likely rationale for the difference in treatment of agricultural and nonagricultural land is that unlike developers, farmers do not have the ability to raise prices to cover the additional cost of replacing drained or filled wetlands on a two for one acre basis. Harnack Interview, supra note 9.

^{148.} MINN. STAT. § 103G.2242(1)(b) (Supp. 1991).

^{149.} Id. § 103G.005(10)(a); see also id. § 103B.211 (defining watershed management organizations).

^{150.} MINN. STAT. § 103G.2242(2).

^{151.} Id.

placement plan.¹⁵² The local government unit must consider and include the decision of the technical evaluation panel in its approval or denial of a plan but is not required to follow it.¹⁵³

Within ten days of receiving a copy of the application for approval of a replacement plan, the plan must be submitted to the Board for publication in the Environmental Quality Board Monitor and separate copies must be provided as required by the statute.¹⁵⁴ Additionally, the local government must give public notice in a general circulation newspaper within the area affected.¹⁵⁵ Before approval or denial of a replacement plan, comment may be made by the public to the local government unit for thirty days.¹⁵⁶ The local governmental unit must act on the application within sixty days.¹⁵⁷ Notice of decision must be sent to all persons to whom notice of the application was sent.¹⁵⁸

Appeal may be taken by any of the persons required to be given notice of the application or decision or by 100 residents of the county in which a majority of the wetland is located. The committee for dispute resolution is required to hear all appeals, and it must make its decision within sixty days from the filing of the appeal. Further, "The decision must be considered the decision of an agency in a contested case for purposes of judicial review under sections 14.63 to 14.69" of the Minnesota Statutes. 160

An owner whose replacement plan is not approved must be

^{152.} Id.

^{153.} Id.

^{154.} Id. § 103G.2242(6). This statute requires that copies be provided to "individual members of the public who request a copy, the board of supervisors of the soil and water conservation district, the managers of the watershed district, the board of county commissioners, the commissioner of agriculture, and the mayors of the cities within the area watershed." Id.

^{155.} Id.

^{156.} Id. § 103G.2242(8).

^{157.} Id. § 103G.2242(4).

^{158.} Id. § 103G.2242(7).

^{159.} Id. § 103G.2242(9).

^{160.} Id. § 103G.2242(9). Under the scope of review set forth in MINN. STAT. § 14.69 (1990), the court may affirm, remand for further proceedings, or

reverse or modify the decision if the substantial rights of the petitioners may have been prejudiced because the administrative finding, inferences, conclusion, or decisions are:

⁽a) In violation of constitutional provisions; or

compensated. 161 An owner who is eligible for, but does not receive, compensation, may drain or fill the wetland without an approved plan. 162 Compensation shall be 50% of the average equalized estimated market value of agricultural property in the township as established by the commissioner of revenue at the time application for compensation is made. 163

Exemptions 2.

The Act contains numerous exemptions from the prohibition against draining and filling. 164 Many are insignificant, merely exempting necessary ongoing activities in wetland areas, such as routine maintenance of utility and pipeline rightsof-way, silvicultural activities, highway maintenance and the like. 165 Other exemptions "grandfather in" projects that had already reached a certain stage of completion at the time of the passage of the Act. 166 All exempted activities must be conducted in such a way as to ensure appropriate erosion control measures in accordance with accepted management practices and water resource protection requirements. 167

Some exemptions remove a significant amount of wetlands from protection of the Act. Draining and filling farmed wetlands is largely exempted from the Act. Type 1 wetlands (except for bottomland hardwoods) and type 2 wetlands (two acres or less in size) are exempted only when located on agricultural lands. 168 Most significantly, acreage which was "planted with annually seeded crops, was in a crop rotation seeding of pasture grasses or legumes, or was required to be set aside to receive price support [under] United States Code,

Id.

⁽b) In excess of the statutory authority or jurisdiction of the agency; or

⁽c) Made upon unlawful procedure; or(d) Affected by other error of law; or

⁽e) Unsupported by substantial evidence in view of the entire record as submitted; or

⁽f) Arbitrary or capricious.

^{161.} MINN. STAT. § 103G.237(1) (Supp. 1991).

^{162.} See id.

^{163.} Id. § 103G.237(4).

^{164.} Id. § 103G.2241(1).

^{165.} Id.

^{166.} See, e.g., id. § 103G.2241(1)(a)(4) (exempting activities where it has been determined that drainage of the wetland had been commenced prior to December 23, 1985).

^{167.} Id. § 103G.2241(1)(b).

^{168.} Id. § 103G.2241(1)(7)-(8).

Title 7, sections 1421 to 1469, in six of the last ten years prior to January 1, 1991" is exempt from the Act. 169 The United States Code provides that land qualifies to be set aside if seeded with crops two out of five years. 170 Thus, the literal effect of the Act is to exempt land from regulation even though planted with annually seeded crops only three of the ten years preceding January 1, 1991. 171

A literal interpretation of this exemption leads to an inappropriate result. This language literally immunizes the exempted wetlands from regulation under the Act, regardless of the use to which they are put after January 1, 1991. As presently worded, the exemption does not apply to land according to its current use, but rather applies to land which was used in a particular way during the ten years prior to January 1, 1991. The exemption would therefore continue even if the use of the land changed after January 1, 1991. Considering the legislature's explicitly stated goals of protecting wetlands, this result is clearly unintended.

G. A Critique of the Wetland Conservation Act of 1991

By enacting the Wetland Conservation Act of 1991, the Minnesota legislature has made important progress toward its goal of protecting, increasing and enhancing important wetland values. The Act's comprehensive approach to wetland management, its provisions for ongoing monitoring of wetlands, and particularly its provisions for broad citizen involvement are

^{169.} Id. § 103G.2241(1)(a)(1).

^{170. 7} U.S.C. §§ 1421-69 (1988).

^{171.} The issue of set-asides was hotly debated in the legislature because set-aside land often contains wetlands which conservationists believe are worthy of protection. Although farmers prevailed in the language of the Act, the conferees informally agreed that the Board and the DNR would draft special protection for wetlands in set-aside lands. Landwehr Interview, *supra* note 7.

Even if these provisions did not completely exempt agriculture from the Act, § 103G.2241(i)(a), further exempts those activities which are exempted from federal regulation under section 404. This exemption includes, among other things, normal farming and the maintenance of drainage ditches.

^{172.} It was understood among conference committee participants that continued "agricultural" use was the intent of exemptions 1, 2, 4, 7, 8 and 23. It is expected that this will be clarified at the rulemaking stage. Interview with Greg Larson, Administrator, Wetlands and Reinvestment in Minnesota, Board of Soil and Water Resources (Jan. 30, 1992). This would remove the problem noted here by making it clear that only agricultural drain and fill activities are exempted by this provision. The legislature should amend the exemptions to make the language consistent with its intent.

laudatory. Yet the Act contains defects which must be addressed if the legislative findings of the values of wetlands and the public interest in their protection are to be given effect.

1. The Multiplicity of Laws, Regulations and Regulators

The time-worn adage that too many cooks spoil the broth could well pertain to wetland management in Minnesota. It is divided between the DNR, the Board, cities, counties, watershed districts, local soil and water conservation districts, the Army Corps of Engineers, the ASCS and the EPA. One seeking approval to develop a wetland area may encounter as many as six sets of laws and related regulations: the Minnesota Wetland Conservation Act of 1991, the Public Waters Act, city and county ordinances, section 404 of the Federal Clean Water Act and the regulations promulgated pursuant to it, the "Swampbuster Act," and the requirements of the local watershed districts.

Recognizing this complexity, the legislature directed the Board and the DNR, in consultation with the appropriate federal agencies, to develop a plan to simplify and coordinate state and federal regulatory procedures regarding wetland use. This inaccurately suggests that the complexity is created by the dual management of state and federal agencies. On the contrary, much of the Act's complexity arises because it authorizes local governments to administer permitting procedures in addition to providing roles to the DNR, the Board and local soil and water conservation districts. The Board and the DNR will not be able to resolve these complexities because, among other things, they have limited jurisdiction over local units of government.

As part of the simplification effort, the Act directs the DNR to take the steps necessary to obtain authority from the EPA to administer the permit program under section 404 of the federal Clean Water Act.¹⁷⁴ The provision in section 404 authorizing such action has seldom been used.¹⁷⁵ The intent of the provision is to provide for "one-stop permitting," thus simpli-

^{173.} Minnesota Wetland Conservation Act of 1991, ch. 354, art. 6, § 20, 1991 Minn. Laws at 2824. The Board and the DNR are required to have developed a plan to coordinate state and federal wetland regulations by January 1, 1992. *Id.*

^{174.} MINN. STAT. § 103G.127 (Supp. 1991).

^{175.} Robin O'Malley, State Roles In Wetlands Protection, 5-6 (1991 Wetlands Regulation Conf., Wash. D.C., May 21-22, 1991).

fying and coordinating activities of the state and federal agencies. Only a few states have applied for such authority, and it has been granted only to Michigan.¹⁷⁶ No federal funds are available to a state which obtains such authority.¹⁷⁷ Furthermore, it is not clear that states can even accomplish any meaningful regulation under section 404. The section provides that states do not have the authority to regulate waters used as a means to transport interstate commerce or waters subject to the ebb and flow of the tide and adjacent wetlands.¹⁷⁸

The Act contemplates that the DNR, rather than the Board, will obtain such authority and adopt the necessary rules to establish the section 404 permit program. This suggests that if the authority is granted, the DNR would administer the program. Thus, there would be three separate systems in Minnesota: the section 404 program, the protected waters program administered by the DNR, and the Wetlands Conservation Act administered by the Board and local units of government. This structure would retain the current complexity and would not accomplish the objective of "one-stop permitting."

2. Regulation by Local Units of Government

The Act places the burden of processing applications for replacement plans on local units of government. One justification for this is that wetland management raises land use issues, and local units of government are historically the chief arbiters of such issues. However, because it defines "local government unit" to include cities and counties, the Act invites conflicting wetlands management within the state and even within the same watershed.

A possible solution might be to place the burden of wetland management on watershed districts where they exist, or on local soil and water conservation districts. Either of these approaches seems likely to alleviate the lack of uniformity which

^{176.} Id.

^{177.} Id. at 6.

^{178. 33} U.S.C. § 1344(g) (1988).

^{179.} MINN. STAT. § 103G.127 (Supp. 1991).

^{180.} Harnack Interview, supra note 9.

^{181.} MINN. STAT. § 103G.005(10a) (Supp. 1991).

^{182.} Neither watershed districts nor soil and water conservation districts are presently included in the definition of "local government unit[s]" outside the metropolitan area, however, watershed management organizations are included. *Id.*

is bound to result from having cities and counties administer the Act. Management of state watershed districts is not a fit subject for cities and counties which have numerous other, often conflicting, responsibilities. Further, placing the burden on cities and counties for wetland management might result in wetland expertise being spread over a large number of government units instead of concentrating it in the agencies which are already responsible for water resource management.

Because both watershed districts and soil and water conservation districts are under the control of the Board, the use of either agency in wetland management would give an additional measure of uniformity. Both agencies have responsibilities in the management and conservation of water resources, and wetland management properly falls within their duties. Watershed districts, however, cover only a small part of the state. While the Board has power to establish watershed districts, it can do so only upon the filing of a petition signed by counties, cities or resident owners within the proposed watershed district. Furthermore, while watershed districts in metropolitan areas often have the capabilities of handling complex hydrological problems, those in the rural areas often do not. 186

On the other hand, soil and water conservation districts cover the entire state. Some local units of government are in the process of negotiating with local soil and water conservation districts to administer the Act in their area. ¹⁸⁷ This seems to be a sensible approach, and if the practice is widely adopted, it should enhance a professional approach to wetland management at the local government level.

The key issue is whether wetlands will be managed expertly or politically. It may be politically difficult for a city or county to disapprove a project that will benefit it economically. Thus, wetland management left in the hands of local government has an uncertain future. Certainly, in light of the diverse interests involved and the contentious history of wetland management,

^{183.} Id. §§ 103B.10, subd. 9, 103D.101 (1990).

^{184.} The powers and responsibilities of both agencies include, among other things, soil and water conservation, watershed protection and flood prevention and control. See MINN. STAT. §§ 103C.005,.331, subd. 7, 103D.201. Soil and water conservation districts have no regulatory authority.

^{185.} Id. § 103D.205.

^{186.} Landwehr Interview, supra note 7.

^{187.} Harnack Interview, supra note 9.

a political solution was necessary. But this has already been provided for not only by the compromises that led to the enactment of the legislation, but in the provisions for ongoing involvement of the legislature, broad citizen participation in appeals and the role of the Heritage Committee. If cities and counties administer the key provisions of the Act, decisions will often be political even at the permitting level. This would give politics too much weight in the matter and downgrade the role of professionalism in wetland management.

3. Can the Act Achieve Its Goals?

The goal of the Act is twofold: to achieve no net loss in the quantity, quality and biological diversity of Minnesota's existing wetlands; and to increase the quantity, quality and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands. Despite these laudatory goals, there is reason to believe that under the present Act, Minnesota wetlands will continue to diminish, albeit at a reduced rate. The multiplicity of regulators and laws gives rise to the danger that the Act will often be ignored, and wetlands will be drained and filled without the owner making any attempt to develop a replacement plan. Furthermore, it is unlikely that a wetland protection measure which broadly exempts agricultural activity can accomplish either goal. 188

The Act contemplates that even if it is complied with, wetlands will be lost and modified. Theoretically, this will be offset by the creation and restoration of substitute wetlands. However, scientists do not agree on whether wetlands can be successfully created or restored. Many wetlands have been constructed in coastal and estuarine areas along the eastern seaboard, but much less is known about restoring or creating inland wetlands.¹⁸⁹ There has been little monitoring of those wetlands that have been restored or created.¹⁹⁰ Total duplication of a naturally-occurring wetland is considered impossible, but "certain wetland functions can be restored, created or en-

^{188.} A justification for exempting agriculture from the Act is that about 91% of wetlands on farmland are already covered by the USDA Swampbuster Program. Landwehr Interview, supra note 7.

^{189.} Jon A. Kusler & Mary E. Kentula, Executive Summary to WETLAND CREATION AND RESTORATION, THE STATUS OF THE SCIENCE, at xvii (Kusler & Kentula, eds., 1990).

^{190.} Id.

hanced in particular contexts."¹⁹¹ Fifty percent of the attempts to create wetlands have failed to even grow wetlands vegetation.¹⁹² Clearly, the best way to achieve the Act's goal of no net loss is to emphasize avoidance of wetland destruction or modification through successful management.

VI. THE QUESTION OF REGULATORY TAKING 193

A. Introduction

Approximately 95% of the country's wetlands are inland, and the vast majority of these are privately owned. The federal government's attempts to regulate inland wetlands has led to heated encounters with farmers and developers who found they could not freely convert wetlands to agricultural and development uses. The attitude of the farmer is best expressed in the hand-written testimony of one who said, "I bought my farm, and if the Government wants it, they should acquire it the good old American way—buy it." 194

The area of "regulatory takings" is highly relevant to wetlands protection. Regulation of wetlands necessarily deprives the owner of some of the uses to which he or she may devote his or her wetland area, diminishing or perhaps even destroying its economic value. The constitutional prohibition against takings without just compensation is based on the principle that the public, rather than a single owner, should bear the burden of the government's exercise of power to further the public interest. A compensable taking is clearly present where the government has taken physical possession of private property for public purposes; it may also be found when a legitimate government regulation involves a significant restric-

^{191.} Id. at xviii.

^{192.} Holloway, supra note 52, at 20.

^{193.} The complexity of the regulatory takings question makes a full treatment here impossible. This discussion will be confined to an overview of the current status of the law and the principal factors considered by the courts in deciding whether taking has been effected.

^{194.} William K. Stevens, Efforts To Halt Wetland Loss Turn Their Attention Inland, N.Y. TIMES, Mar. 13, 1990, at B5.

^{195.} The Fifth Amendment to the United States Constitution, which prohibits the taking of private property for public use without just compensation, is applicable to the states through the Due Process Clause of the Fourteenth Amendment. Hawaii Housing Auth. v. Midkiff, 467 U.S. 245 (1984). The Minnesota Constitution also provides "Private property shall not be taken, destroyed or damaged for public use without just compensation therefor, first paid or secured." MINN. CONST. art. I, § 13.

tion on the owner's use of property. 196

At what point and under what circumstances can we say that a regulation has resulted in a taking so that the owner is entitled to just compensation? "[T]he question necessarily requires a weighing of private and public interests." If every diminution in economic use results in a compensable taking, the expense to government might well make it doubtful that wetland protection could continue. Justice Holmes, in his succinct style, articulated this quandary in the following language: "Government could hardly go on if to some extent values incident to property could not be diminished without paying for every such change in the general law." [W]hile property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."

When the degree of regulation is within the permissible "certain extent," and when it has gone "too far" so as to be a taking are questions which the Supreme Court has never answered with anything close to precision. While the complexity of this issue makes a full treatment here impossible, a discussion of selected United States Supreme Court cases will demonstrate that, in the words of one commentator, regulatory taking is "the most perplexing area of land use law." 200

All property is subject to inherent limitations upon its use. The law of nuisance, based on the common-law maxim sic utere two ut alienum non laedas, proscribes those uses of land which injure others.²⁰¹ One may not, for example, conduct a land-filling operation on one's land which results in the flooding of the land of another.²⁰² This doctrine, together with the state's property law in effect when one acquires property, inheres in the title to one's land and do not result in a taking. The question of regulatory taking deals with the right of the state to enact new legislation which diminishes the uses to which one may devote his property without payment of compensation.

^{196.} See Keystone Bituminous Coal Ass'n v. DeBendictis, 480 U.S. 468 (1987); see also Hodel v. Virginia Surface Mining & Reclamation Ass'n, Inc., 452 U.S. 264 (1981).

^{197.} Agins v. City of Tiburon, 447 U.S. 255, 261 (1980).

^{198.} Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 413 (1922).

^{199.} Id. at 415.

^{200.} See generally Richard L. Settle, Regulatory Taking Doctrine in Washington: Now You See It, Now You Don't, 12 U. PUGET SOUND L. REV. 339 (1989).

^{201.} Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886, 2901 (1992); see RESTATEMENT (SECOND) OF TORTS (APP. VOL.) §§ 826-830 (1978-June 1987). 202. Lucas, 112 S. Ct. at 2900-01.

A line of Supreme Court cases has held that in some circumstances, the government has the power to enact new regulations prohibiting certain uses of property without payment of compensation even though the regulations severely diminish the property's value. These cases are based on the state's police power to enact legislation to promote the health, safety, morals and general welfare of the public. In Mugler v. Kansas, 203 a distiller who built a brewery challenged a later-enacted statute prohibiting the manufacture and sale of intoxicating liquors. The Court recognized that the statute had caused plaintiff's buildings and machinery to be reduced to little value. Yet it held, a "prohibition simply upon the use of property for purposes that are declared, by valid legislation, to be injurious to the health, morals, or safety of the community, cannot, in any just sense, be deemed a taking or an appropriation of property."204 Mugler was followed by a line of cases in which the Court upheld regulations designed to prevent "noxious" uses of property, without compensation to the owner, even though the regulation resulted in the property being diminished in value. 205

However, in *Pennsylvania Coal Co. v. Mahon*,²⁰⁶ the Court held that the use of the police power to avoid payment of compensation had its limits. The Court there held that an Act which prohibited mining that caused subsidence under certain structures was an unconstitutional taking without just compensation. The Act made it commercially impracticable to mine certain coal in the areas affected by it. The Court noted that the Act served only private interests, not the health or safety of the public, and could not be sustained as an exercise of the police power.²⁰⁷ The Court stated, "The greatest weight is given to the judgment of the legislature but it always is open to interested parties to contend that the legislature has gone be-

^{203. 123} U.S. 623 (1887).

^{204.} Id. at 668-69.

^{205.} See Goldblatt v. Town of Hempstead, 369 U.S. 590 (1962) (law effectively preventing continued operation of quarry in residential area); Miller v. Schoene, 276 U.S. 272 (1928) (order to destroy diseased cedar trees to prevent infection of nearby orchards); Hadacheck v. Sebastian, 239 U.S. 394 (1915) (law barring operation of brick mill in residential area); Powell v. Commonwealth of Pennsylvania, 127 U.S. 678 (1888) (legislation prohibiting the manufacture of oleomargarine).

^{206. 260} U.S. 393 (1922).

^{207.} Id. at 414.

yond its constitutional power."208

Mahon did not offer any clear guide as to when and under what circumstances a regulation would result in a compensable taking. In Kaiser Aetna v. United States, 209 the Supreme Court described its approach to regulatory taking questions:

[T]his Court has generally "been unable to develop any 'set formula' for determining when 'justice and fairness' require that economic injuries caused by public action be compensated by the government, rather than remain disproportionately concentrated on a few persons." Rather, it has examined the "taking" question by engaging in essentially ad hoc, factual inquiries that have identified several factors—such as the economic impact of the regulation, its interference with reasonable investment backed expectations, and the character of the governmental action—that have particular significance. ²¹⁰

In Agins v. City of Tiburon, ²¹¹ the Court formulated what has come to be the governing principle of regulatory taking: that land use regulation will effect a taking if it "does not substantially advance legitimate state interests... or denies an owner economically viable use of his land." Despite the Agins formulation, it was not clear until the very recent case of Lucas v. South Carolina Coastal Council ²¹³ whether denial of all economically viable uses of an owner's land necessarily results in a taking. That issue has now been categorically answered in the affirmative.

^{208.} Id. at 413. Any perception that Pennsylvania Coal overruled the authority of Mugler was dispelled by the Supreme Court's decision in Miller v. Schoene. In Miller, the Court upheld a statute which required owners of certain cedar trees to destroy the trees, without compensation, because they produced a rust which was fatal to apple trees. Miller, 276 U.S. at 279-80. The Court later expressly held that Pennsylvania Coal did not overrule Mugler. See Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 488-90 (1987).

^{209. 444} U.S. 164 (1979).

^{210.} Id. at 175. See also Penn Central Transp. Co. v. City of New York, 438 U.S. 104 (1978). Plaintiff was denied permission to erect a 50-story office building over Grand Central Terminal because the existing building was a designated historical landmark. The Court held that denial of the use of the air space above the Terminal was not a compensable taking. It focused on the extent to which the regulation interfered with the "distinct" investment-backed expectations of the claimant, and the character of the government action. It examined the parcel as a whole and determined that restriction of the air space did not amount to a taking as to the whole parcel.

^{211. 447} U.S. 255, 260 (1980).

^{212.} Id.

^{213. 112} S. Ct. 2886 (1992).

In Lucas, the Supreme Court held that a regulation which deprives the landowner of all economic or productive use of his property is always a compensable taking, regardless of whether it is a legitimate exercise of the state's police power. The Court also articulated the proof necessary to show such a complete deprivation. Five separate opinions were written, revealing a thoroughly divided Court, which not only differed on what the rule should be, but also differed on the proper interpretation to be given past Supreme Court cases.

After congressional enactment of the federal Coastal Zone Management Act of 1972,²¹⁴ the South Carolina legislature enacted its own Coastal Zone Management Act requiring permits to put land in "critical areas" to new uses. The purpose of the Act was to protect against shoreline erosion and coastal hazards. In 1986, Lucas bought two lots both of which were zoned for single-family residence. No portion of the lots qualified as a critical area under the Act. Lucas intended to erect single-family residences and commissioned architectural drawings for that purpose.

In 1988, the South Carolina legislature enacted the Beachfront Management Act which fixed a baseline and prohibited any construction seaward of it. This prohibition included Lucas' property, thereby preventing Lucas' planned construction.

Lucas filed suit, claiming that the Act deprived his property of all economic value, and it was therefore a compensable taking. The trial court found that the prohibition of construction "deprived Lucas of any reasonable economic use of the lots . . . and rendered them valueless." It found that Lucas' property had been taken and ordered the Coastal Council to compensate him. 216

The Supreme Court of South Carolina reversed.²¹⁷ It determined that the regulation under consideration "prevented a use seriously harming the public"²¹⁸ and was a valid exercise of the state's police power; therefore, no regulatory taking occurred. It relied for this proposition on the *Mugler* line of cases²¹⁹ and upon the legislative findings and statement of pol-

^{214.} See supra note 62.

^{215.} Lucas, 112 S. Ct. at 2890.

^{216.} Id

^{217.} Lucas v. South Carolina Coastal Council, 404 S.E.2d 895 (S.C. 1991).

^{218.} Id. at 899.

^{219.} See supra notes 203-205 and accompanying text.

icy as to the purposes of the Act, which Lucas did not attack and which the court deemed to be binding on it.

The United States Supreme Court reversed and remanded the cause for a determination of whether Lucas had suffered a total deprivation of economic value of his property by reason of the regulation.²²⁰ For the purpose of its rulings, the Court accepted as true the trial court's holding that the regulation totally deprived Lucas' property of all economic value.²²¹ The Court's essential holdings are:

- 1. Regulations that deny the property owner all economically viable use of his land require compensation; noxious-use logic of the "Mugler line of cases" cannot be the basis for departing from the "categorical" rule that total deprivation of economic value must be compensated.²²²
- 2. However, no compensation is owed if the regulation "simply makes explicit what already inheres in the title itself, in the restrictions that background principles of the State's law of property and nuisance already place upon land ownership."
- 3. In the lower court, the Council cannot simply rely on the

The United States Supreme Court nevertheless held that the matter is ripe for review even though, under the legislative amendment, Lucas might still obtain permission to build on his property, since Lucas is precluded from asserting any takings claim with respect to his preamendment deprivation. The Court's ruling therefore applies only for the interim period after the 1988 Act went into effect until the State amended the Beachfront Management Act.

221. On remand, however, Lucas will have to produce proof of total deprivation under the tests laid down by the Court.

222. The Court conceded that "the rule does not make clear the 'property interest' against which the loss of value is to be measured." Lucas, 112 S. Ct. at 2894. It posed the question of whether a regulation requiring a developer to leave 90% of his land in its natural state deprives the owner of 100% of the value of the 90%, or whether it merely diminishes the value of the entire tract. Id. This is a question of first importance in determining whether regulation of land containing protected wetlands results in a total deprivation of economic value of the wetland itself, or diminishes the value of the entire tract.

That "deprivation of all economically beneficial [or productive] use" of land always results in a taking, does not mean that less than total deprivation is never a taking. The economic impact of the regulation on the landowner's investment-backed expectations is always relevant to the taking question. *Id.* at 2895 n.8.

^{220.} After briefing and argument before the South Carolina Supreme Court, but before the court rendered its decision, the legislature amended the Beachfront Management Act to authorize the Council to issue in certain circumstances special permits for the construction of dwellings seaward of the baseline. The South Carolina Supreme Court expressly declined to address the issue of whether Lucas could build a dwelling under the provisions of this amendment.

legislative findings that Lucas' intended construction is inconsistent with the public interest or that they violate principles of nuisance. It will have to "identify background principles of nuisance and property law that prohibit the uses Lucas now intends in the property's present circumstances."²²³

Justice Kennedy concurred in the Court's disposition. He shared the doubts expressed by others that Lucas' lots lost all value because of the restriction on building. He further said, "The finding of no value must be considered under the Takings Clause by reference to the owner's reasonable, investment-backed expectations,"224 considered in light of "the whole of our legal traditions."225 He regarded the common law of nuisance as too narrow a confine for the exercise of regulatory power, and stated, "Coastal property may present such unique concerns for a fragile land system that the State can go further in regulating its development and use than the common law of nuisance might otherwise permit."226

Justice Blackmun disagreed with the majority in every respect. He stated that Lucas' property was not totally deprived of economic value, and charged that the Court has never before held that total diminution in value alone can establish a taking. He read the cases to say that government in certain circumstances has the right to regulate property without compensation regardless of how adverse the economic effect on the owner may be.²²⁷ He described the critical importance of regulations protecting coastline areas in reducing threats to life and property destruction.

^{223.} In a separate statement, Justice Souter asserted that the Court should dismiss the writ of certiorari as having been granted improvidently. He regarded as "highly questionable" the assumption that the state by its regulation had deprived Lucas of his entire economic interest in the property. The issue had received in his opinion "only the most superficial and one-sided treatment", and the Court should refuse to take it up. He regarded it as imprudent for the court under these circumstances to proceed to the merits. *Id.* at 2925-26.

^{224.} Id. at 2903.

^{225.} Id.

^{226.} Id. While it would seem that the majority would not agree with this expanded concept of what are reasonable investment-backed expectations, it nevertheless appeared to leave itself some flexibility in this regard. In identifying the extent of the "total taking" inquiry to be conducted on remand, it conceded that "changed circumstances or new knowledge may make what was previously permissible no longer so." *Id.* at 2901.

^{227.} Id. at 2910.

Justice Stevens agreed with Justice Blackmun, adding that the Court's decision "effectively freezes the State's common law, denying the legislature much of its traditional power to revise the law governing the rights and uses of property."²²⁸ He stated that appreciation of the importance of endangered species, wetlands and the vulnerability of coastal areas "shapes our evolving understandings of property rights."²²⁹

B. Regulatory Taking As Applied To Wetland Regulation Section 404 Cases

Under the assumptions of the *Lucas* case, the operation of the South Carolina Act resulted in a taking, and the Act was therefore unconstitutional on its face if just compensation was not paid. This is not the case with section 404 which requires that a permit be applied for and an administrative disposition made. The taking question will not be reached before the administrative decision is made, and may not be reached at all. In one of its rare unanimous decisions, the United States Supreme Court held that the existence of section 404 of the Clean Water Act does not constitute a *prima facia* unconstitutional taking without just compensation, because it is a system based upon permit application and approval. In *United States v. Riverside Bayview Homes, Inc.*, 230 the Court said:

A requirement that a person obtain a permit before engaging in a certain use of his or her property does not itself 'take' the property in any sense: after all, the very existence of a permit system implies that permission may be granted, leaving the landowner free to use the property as desired. Moreover, even if the permit is denied, there may be other viable uses available to the owner. Only when a permit is denied and the effect of the denial is to prevent 'economically viable' use of the land in question can it be said that a taking has occurred.²³¹

A discussion of section 404 wetland taking cases helps to understand how the courts have dealt with the taking issue in the context of a permitting system.

A regulatory taking of property will not be found simply because a permit denial prevents the owner from putting prop-

^{228.} Id. at 2921.

^{229.} Id. at 2921-22.

^{230. 474} U.S. 121 (1985).

^{231.} Id. at 127.

erty to its highest and best use.²³² Similarly, if other uses for the property are feasible, or if there remains a portion of the property which can be developed, there is no taking.²³³

However, the Court of Claims recently held that denial of a permit under section 404 of the Clean Water Act may result in a taking of property.²³⁴ In Loveladies Harbor Inc. v. United States, the court held there was a taking where the property's value decreased 99% after the Corps denied a permit to fill wetlands. 235

Several cases have considered the question of regulatory measures which affect only a part of the total wetland. There is a notable lack of consistency.

In Deltona Corp. v. United States, the claims court held that denial of section 404 permits for less than 20% of the total property was not a taking despite clear evidence of the owner's frustrated investment-backed expectations.²³⁶ In Jentgen v. United States, the claims court held that denial of a permit to dredge and fill 80% of a 101.8 acre parcel in Florida was not a taking.237

However, in Loveladies, the claims court held that denial of a section 404 permit as to 12.5 acres constituted a taking, even though the owner's parcel of land consisted of 250 acres when purchased in 1956. The court cited the drastic economic effect of the permit denial and the existence of other regulatory restraints on the remaining acreage.238 Similarly, in Florida Rock Industries, Inc. v. United States, 239 the court found a taking where the owner had been denied a permit to mine 98 acres in a tract of 1,560 acres. The court considered the reasonable investment-backed expectations of the property owner in determining whether a regulatory taking had occurred. The court found there was no other feasible use for the property, and the owner's opportunity to recover its investment or gain a profit

^{232.} Deltona Corp. v. United States, 657 F.2d 1184 (Cl. Ct. 1981).

^{233.} United States v. Rivera Torres, 826 F.2d 151 (1st Cir. 1987); Hubbard Broadcasting, Inc. v. City of Afton, 323 N.W.2d 757 (Minn. 1982).

^{234.} Loveladies Harbor, Inc. v. United States, 21 Cl. Ct. 153 (1990).

^{235.} In Loveladies, just compensation amounted to \$2,658,000, plus interest from the date of the permit denial. *Id.* at 161.

^{236. 657} F.2d 1184 (Cl. Ct. 1981).

^{237. 657} F.2d 1210 (Cl. Ct. 1981).

^{238.} Loveladies, 21 Cl. Ct. at 157.

^{239. 791} F.2d 893 (Fed. Cir. 1986).

was important to consider.²⁴⁰ In 1902 Atlantic Ltd. v. Hudson, the court found a taking where the Corps of Engineers denied a permit to fill a partially inundated pit.²⁴¹ The court found that the denial rendered the pit commercially worthless.²⁴² The court also noted that since the mudflats in question had little environmental value, no legitimate governmental interest was advanced by the permit denial.

When a taking is found by the courts, reversal of the permit denial is not an adequate remedy. The property owner is entitled to damages from the time of the permit denial as just compensation.²⁴³ The measure of damages is the difference between the fair market value before and after the taking occurs.²⁴⁴

C. Minnesota Wetland Takings Cases

The Minnesota Supreme Court has shown that it regards wetland protection as an important state interest. Furthermore, it has applied a stricter standard for an owner to meet in obtaining compensation for a regulatory taking than dicta in *Lucas* would seem to permit.

On at least two occasions, the Minnesota Supreme Court has clearly shown in eloquent language that it regards the protection of wetlands as an important legislative goal. In County of Freeborn v. Bryson,²⁴⁵ a farmer brought an action under the Minnesota Environmental Rights Act²⁴⁶ to enjoin the county from building a highway across a natural wildlife marsh. The supreme court found that the proposed highway would "seriously and adversely affect a unique marshland"²⁴⁷ and held that if there is a feasible alternative to the county's proposed route, it must use it.²⁴⁸ In the course of its opinion, the Court

^{240.} *Id.* at 904. The court stated that the owner should not be compelled to support "a permanent obligation to maintain property for public benefit, to carry the taxes and other expenses, and not to receive business income from the property in return." *Id.*

^{241. 574} F. Supp. 1381 (E.D. Va. 1983).

^{242.} Id. at 1405.

^{243.} First English Evan. Luth. Church of Glendale v. Los Angeles County, 482 U.S. 304 (1987).

^{244.} Loveladies, 21 Cl. Ct. at 153.

^{245. 243} N.W.2d 316 (Minn. 1976).

^{246.} MINN. STAT. § 116B (1987).

^{247. 243} N.W.2d 316, 317 (Minn. 1976).

^{248.} Id.

paid tribute to wetland values.249 Again, in Application of Christenson, 250 the court upheld the Department of Natural Resources' order denying an application for permit to drain a wetland. The taking issue was not expressly raised, but the court clearly held that the matter was within the state police power.²⁵¹ The court underscored its belief in the importance of wetland preservation by echoing its remarks in Bryson: "Vanishing wetlands require, even more today than in 1976 when Bryson was decided, the protection and preservation that

249. Writing for the majority, Justice Yetka extolled the environmental and aesthetic importance of wetlands:

To some of our citizens, a swamp or marshland is physically unattractive, an inconvenience to cross by foot and an obstacle to road construction or improvement. However, to an increasing number of our citizens . . . a swamp or marsh is a thing of beauty. To one who is willing to risk wet feet to walk through it, a marsh frequently contains a springy soft moss, vegetation of many 2varieties, and wildlife not normally seen on higher ground. It is quiet and peaceful—the most ancient of cathedrals—antedating the oldest of manmade structures. More than that, it acts as nature's sponge, holding heavy moisture to prevent flooding during heavy rainfalls and slowly releasing the moisture and maintaining the water tables during dry cycles. In short, marshes and swamps are something to protect and preserve.

Id. at 322.

250. 417 N.W.2d 607 (Minn. 1987).

251. Several states have held that the filling and draining of wetlands is within the State's police power and is not a compensable taking. In Carter v. South Carolina Coastal Council, 314 S.E.2d 327 (S.C. 1984), the South Carolina Supreme Court held that a state statute controlling and restricting the filling of wetlands was within the scope of the state's police power and thus did not constitute a taking. The court noted that the state's police power "rests upon the fundamental premise that every citizen must use his property so as not to wrong or injure others." Id. at 329. The court stated:

While unquestionably respondent's wetland would have greater value to him if it were filled, "An owner of land has no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others."

Id. at 329.

See also Sibson v. State of New Hampshire, 336 A.2d 239 (N.H. 1975) (controlling and restricting the filling of wetlands is clearly within the State's police power); Just v. Marinette County, 201 N.W.2d 761 (Wis. 1972) (changing of wetlands and swamps is upsetting to the natural environment and is not a reasonable use of land; state regulation is within the legitimate exercise of its police power).

Other Minnesota cases dealing with regulatory takings include: Spaeth v. City of Plymouth, 344 N.W.2d 815 (Minn. 1984) (conversion of wetlands to holding ponds constituted a taking); Pratt v. State, 309 N.W.2d 767 (Minn. 1981) (reclassification of private to public waters may have constituted a taking); Krahl v. Nine Mile Creek Watershed District, 283 N.W.2d 538 (Minn. 1979) (prevention of encroachment into the flood plain held to not constitute a taking); In re Determining the Natural Ordinary High Water Level of Lake Pulaski, 384 N.W.2d 510 (Minn. Ct. App. 1986) (selection of the ordinary high water level for a lake was not an unconstitutional taking).

environmental legislation was intended to provide."252

The Minnesota Supreme Court said in Czech v. City of Blaine that in order to claim compensation for a regulatory measure, a landowner "must demonstrate that he has been deprived . . . of all the reasonable uses of his land."253 This proposition was cited in Krahl v. Nine Mile Creek Watershed District. 254 where the court held that prevention of encroachment into the floodplain was not a taking where other reasonable uses remained for the property, and where the interference with the landowner's property was not physical or permanent. The court noted, "floodplain and wetland regulations such as these have generally been held not to constitute takings of private property by other courts which have addressed the question."255 The proposition that a landowner must demonstrate deprivation of all reasonable use of his or her land before claiming compensation for a regulatory taking is a more severe test for the landowner than Lucas would seem to require. The Lucas Court said in dicta that there may be a taking when there has been less than a complete deprivation of economic uses.²⁵⁶

In Parranto Bros., Inc. v. City of New Brighton, 257 the rezoning of an area containing a wetland resulting in its unavailability for commercial use was not a compensable taking where it was shown that the property in question still had economic value. 258

D. Does the Wetland Conservation Act Resolve the Takings Question?

Like section 404 of the Clean Water Act, the Minnesota Wet-

^{252.} The Court's full statement included the following:

Over ten years ago this court cited the conservationist Aldo Leopold for his espousal of a "land ethic" which envisions a community of interdependent parts. "The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land." We affirm our statement there that the state's environmental legislation had given this land ethic the force of law, and imposed on the courts a duty to support the legislative goal of protecting our state's environmental resources.

Christenson, 417 N.W.2d at 615.

^{253.} Czech v. City of Blaine, 253 N.W.2d 272, 274 (Minn. 1977).

^{254. 283} N.W. 2d 538 (Minn. 1979).

^{255.} Id. at 543-44.

^{256.} Lucas, 112 S. Ct. at 2895 n.8.

^{257. 425} N.W.2d 585 (Minn. Ct. App. 1988).

^{258.} Parranto Bros., Inc. v. City of New Brighton, 425 N.W.2d 585 (Minn. Ct. App. 1988).

lands Conservation Act of 1991 utilizes a permit procedure. Thus, while the Act is not facially unconstitutional, a permit denial may result in a taking if the circumstances in which the owner is left meet the test of *Lucas* or the other United States Supreme Court cases treated earlier.

The Wetlands Conservation Act addresses the issue of compensation for owners of regulated wetlands, but its approach differs significantly from the principles enunciated in the case law discussed above. Under the Act, an owner who applies for permission to drain or fill a wetland and whose replacement plan is not approved is eligible for compensation under certain conditions.²⁵⁹ The owner must appeal the disapproval of the replacement plan,²⁶⁰ and the proposed use must be otherwise allowed under federal, state and local laws, rules, ordinances, and other legal requirements.²⁶¹

In order to be eligible to receive compensation, the landowner must show that he or she has suffered, or will suffer, damages.²⁶² There is no requirement that there be no remaining viable use of the property, that the damages be significant, or even that the damages equal or exceed the amount of the statutory award of compensation expressed by the Wetlands Conservation Act.

"An eligible landowner is entitled to compensation in an amount equal to fifty percent of the average equalized estimated market value of agricultural property in the township . . . at the time application for compensation is made." This formula bears no relationship to the compensation formula applied by the courts, which is the diminution in fair market value resulting from the permit denial. The Act does not address the question of whether the compensation award pertains only to the wetland property or to the entire parcel, the value of which may also be affected by the presence of a protected wetland.

The right to statutory compensation under the Wetlands

^{259.} MINN. STAT. § 103G.237 (Supp. 1991).

^{260.} Id. § 103G.237(2)(3). There is no statutory requirement that the appeal be finally adjudicated before compensation is awarded.

^{261.} Id. § 103G.237(2)(4). It is not clear whether this imposes a requirement on the owner to seek permits from other levels of government which impose wetland development regulations in order to find out if the proposed use would be allowed even though such application would be futile, the state already having disallowed the proposed use.

^{262.} Id. § 103G.237(2)(5).

^{263.} Id. § 103G.237(4).

Conservation Act is a separate remedy from the right to just compensation for a taking. The two remedies bear little resemblance to one another. It is doubtful that the legislature can preempt the constitutional remedy by providing a monetary remedy, nor has it attempted to do so.

Does the right to obtain compensation from the State avoid the takings question? Unless the compensation when compared with the actual loss is so minimal as to be meaningless, the right to receive it should result in a finding that the regulation has not totally deprived the owner's property of all economic value, and the owner is therefore not entitled to compensation on the basis of the categorical rule of *Lucas*. Such a finding does not necessarily end the matter, because a regulation which causes less than total deprivation of economic value may nevertheless be a taking. The economic impact on the owner's investment-backed expectations is always relevant to the takings issue.²⁶⁴

Can the owner seek both remedies? If a wetland owner's application is denied, and he or she accepts compensation under the Wetlands Conservation Act, can the owner then seek a determination that there has been a taking and claim compensation in addition to what has been received? The Act does not provide the answer, but it is arguable that the landowner will be able to pursue both remedies, deducting from any award the value received under the formula.

Suppose, however, that the state, upon awarding statutory compensation, takes from the owner a conservation easement on the wetland from the landowner. Will the landowner be deemed to have waived the constitutional right to just compensation? By giving the easement, the landowner will have agreed that in return for the statutory compensation he or she will not use the land in any way inconsistent with the easement. The practitioner might well regard this as a waiver of the right to just compensation.

VII. CONCLUSION

In contrast to Aldo Leopold's somber pronouncement at the beginning of this Article, there is now hope that progress can and will abide the coexistence of farm and marshland. Like all

^{264.} See Lucas, 112 S. Ct. at 2895 n.8.

resources, wetlands are subject to the laws of supply and demand. As their quantity has declined, their perceived value has increased, and this has led to the enactment of conservation legislation like the Minnesota Wetland Conservation Act. Nevertheless, the Fifth Amendment right to just compensation, while one of the most basic protections Americans have against overbearing government, threatens to make wetland protection discouragingly expensive. Much is at stake in the outcome; development is rapidly using resources to meet the needs of an expanding population, and wetlands, once lost, are largely irreplaceable. The balancing of public and private interests in wetlands will go on in the courts, legislatures and agencies. In the balancing process, it is critical that we add to the factors to be weighed, a keen understanding and appreciation of the many values that wetlands afford.