



University of Arkansas System Division of Agriculture NatAgLaw@uark.edu | (479) 575-7646

An Agricultural Law Research Article

Land Use Regulatory Power of Conservation Districts in the Midwestern States for Controlling Nonpoint **Source Pollutants**

Part One

by

Dean T. Massey

Originally published in DRAKE LAW REVIEW 33 DRAKE L. REV. 35 (1984)

www.NationalAgLawCenter.org

LAND USE REGULATORY POWER OF CONSERVATION DISTRICTS IN THE MIDWESTERN STATES FOR CONTROLLING NONPOINT SOURCE POLLUTANTS

Dean T. Massey*

TABLE OF CONTENTS

I.	Introduction	36	
II.	Nonpoint Source Pollution Problems and Conservation tricts		
	A. Sources of Nonpoint Pollutants		
	B. Soil and Water Conservation Districts		
III.	Administrative Structure for State Support		
IV.	District Organization, Geographical Jurisdiction, and Govance	vern-	
V.		point	
	A. Districts as Corporate Bodies		
	B. Districts' Authority to Regulate Land Uses	52	
	C. Implementation of Areawide Water Quality Manager	ment	
	Plans	54	
VI.	Operation of Land Use Regulations to Control Nonpoint Source		
	Pollutants	55	
	A. Adoption Procedure for Land Use Regulations		
	1. Permissive Regulatory Powers	56	
	2. Mandatory Regulatory Powers	62	
	B. Geographical Jurisdiction of Land Use Regulations	68	
	C. Conservation Practices Covered by Land Use Regula	tions 71	
	1. Permissive Regulatory Powers	73	
	2. Mandatory Regulatory Powers	78	
	D. Administration of Regulations	91	
	1. Permissive Regulatory Powers	91	
	2. Mandatory Regulatory Powers	92	
	E. Administrative Appeal Procedures	97	
	F. Enforcement of Regulations	99	

^{*}B.S. 1954, LL.B. 1958, M.S. 1961, University of Wisconsin. Member of the State Bar of Wisconsin. General Attorney, Natural Resource Economics Division, Economic Research Service, U.S. Department of Agriculture. Lecturer, University of Wisconsin Law School, Madison, Wisconsin.

		1. Permissive Regulatory Powers	99
		2. Mandatory Regulatory Powers	102
	G.	Cost-Sharing Requirements	108
VII.	Sun	nmary and Conclusions	109

I. Introduction

Unlike point source pollutants, which originate from discrete, localized points of discharge, nonpoint source water pollutants originate from nondiscrete, diffuse locations on the land's surface, and are generally more difficult to precisely identify and control.¹ Precipitation runoff,² when exposed to various types of land use activities,³ carries eroded soil, nutrients, pesticides, herbicides, animal wastes, and other pollutants into lakes, rivers, streams, and groundwater.⁴ Estimates indicate that approximately two billion tons of sediment enter the nation's waterways each year, more than seven hundred times the amount of suspended solids that reach the water through the discharge of sewage annually.⁵ Consequently, nonpoint sources of water pollutants can negate water quality improvements gained from point source pollutant control efforts,⁶ and are a substantial impediment to the achievement of water quality goals.²

Many technical means, including the use of appropriate production methods and practices and engineering operations, are available to control soil erosion, thereby minimizing sediment and other nonpoint source pollutants which result from erosion.* Most of the responsibility for controlling nonpoint source pollutants lies at the local level, with the federal and state governments establishing water quality standards and guidelines and soil

^{1.} See U.S. Environmental Protection Agency, EPA-430/9-73-015, Methods and Practices for Controlling Water Pollution from Agricultural Nonpoint Sources 1 (1973) [hereinafter cited as Methods and Practices].

^{2.} See Hines & Schantz, Improving Water Quality Regulations in Iowa, 57 Iowa L. Rev. 231, 353 n.375 (1971).

^{3.} Such activities include agricultural production, mining operations, forestry, construction, and urban runoff. U.S. Environmental Protection Agency, Guidelines for State and Areawide Water Quality Management Program Development 7-3 (1976) [hereinafter cited as Guidelines].

^{4.} Id. at 7-1.

^{5. 2}D SENATE COMM. ON PUBLIC WORKS, 93D CONG., 1ST SESS., A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972 1457 (COMM. Print 1973).

^{6.} Comment, Areawide Planning Under the Federal Water Pollution Control Act Amendments of 1972: Intergovernmental and Land Use Implications, 54 Tex. L. Rev. 1047, 1054-55 (1976) [hereinafter cited as Land Use Implications]. See Methods and Practices, supra note 1, at 1.

^{7.} See Methods and Practices, supra note 1, at 1.

^{8.} See id. at 1, 2, 8-22, 49-51; Note, A Procedural Framework for Implementing Nonpoint Source Water Pollution Control in Iowa, 63 Iowa L. Rev. 184, 191 (1977) [hereinafter cited as Nonpoint Source Water Pollution Control in Iowa].

loss limits, and providing technical and financial assistance. Soil and water conservation districts are the only local agencies whose primary responsibility is to control soil erosion and reduce sediment and other nonpoint source pollutants resulting from soil erosion. 10

This article deals solely with the thirteen midwestern states: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. Its purpose is to describe the regulatory powers of soil and water conservation districts in those states, and to evaluate the effectiveness of those regulatory powers in abating nonpoint sources of pollution in both rural and urban areas. The legislative authority governing soil and water conservation districts and giving them land use regulatory powers, as well as the powers of the state committees and agencies administering the districts, will be discussed. Statutes and administrative regulations in the thirteen states will be surveyed to determine the geographical jurisdiction of the districts and of the land use regulations, the engineering operations and conservation practices and methods that may be covered by the regulations, and the cost-sharing requirements that provide a prerequisite for enforcing the regulations. District regulatory powers will be evaluated to determine their effectiveness in providing the local regulatory programs required to implement the nonpoint source pollution portion of the areawide water quality management plans developed under section 208 of the Clean Water Act of 1977. Separate evaluations will be made of the adoption, administration, and enforcement procedures, the permissible conservation practices and measures that may be included in the regulations, and the cost-sharing prerequisites required for the enforcement of the regulations, to determine their effectiveness in each state. For example, it will be demonstrated that the effectiveness of the districts' regulatory powers diminishes with the difficulty of adopting regulations and the lack of enforcement powers. The districts' regulatory powers, as provided by the states' statutes, will also be compared with the powers provided in the United States Soil Conservation Service's (SCS) proposed Standard State Soil Conservation Districts Law¹² (Standard Districts Law), and with the Model State Act for Soil Erosion and Sediment Control (Model State Act), 18 which was developed for the Council of State Govern-

^{9.} See M. Powell, W. Winter, & W. Bodwitch, Community Action Guidebook for Soil Erosion and Sediment Control G4-G5 (Nat'l Ass'n of Counties Research Found. 1970) [hereinafter cited as Community Action Guidebook].

^{10.} Id.

^{11.} Pub. L. No. 95-217, §§ 4(e), 31-32, 33(a), 34-35, 91 Stat. 1566, 1576-79 (current version at 33 U.S.C. §§ 1288(b)(2)(C), (F), (H), (J)-(K) (1976 & Supp. V 1981).

^{12.} U.S. SOIL CONSERVATION SERVICE, DEP'T OF AGRICULTURE, A STANDARD STATE SOIL CONSERVATION DISTRICTS LAW (1936) [hereinafter cited as STANDARD DISTRICTS LAW].

^{13.} National Symposium on State Environmental Legislation, Model State Act for Soil Erosion and Sediment Control, in Council of State Governments, 32 Suggested State Legislation for 1973 11 (1972) [hereinafter cited as Model State Act].

ments by the National Symposium on State Environmental Legislation.

II. Nonpoint Source Pollution Problems and Conservation Districts

A. Sources of Nonpoint Pollutants

Nonpoint source water pollution is a major environmental problem in much of the United States.¹⁴ The most important nonpoint sources of pollution are agricultural activities, urban storm water, construction site and mining runoff, silviculture, and individual wastewater disposal systems.¹⁵ Agricultural activities are the most widespread cause of nonpoint source problems,¹⁶ affecting sixty-eight percent of the drainage basins in the country and over one-half of the basins in each geographic region.¹⁷ Pollution due to agricultural activities can come from runoff and irrigation return flows. The resulting pollutants include sediment, pesticides, dissolved solids, mineral plant nutrients, organic material, and bacteria.¹⁶ Urban runoff is a significant cause of water quality degradation in heavily populated areas.¹⁹ Runoff from construction sites in urban and urban-fringe areas can also contribute large loadings of sediments to nearby waters.²⁰

Sediment from erosion is the major nonpoint source pollutant.²¹ Over one-half of both the mass and the volume of such sediment is contributed by agriculture.²² The SCS has estimated that the average national loss of soil from water-induced surface sheet and rill erosion exceeds four billion tons annually.²³ Soil erosion can decrease the production capacity of agricultural land, obstruct drainage, fill reservoirs,²⁴ and carry plant nutrients and

^{14.} COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY - THE TENTH ANNUAL REPORT OF THE COUNCIL ON ENVIRONMENTAL QUALITY 148 (1979) [hereinafter cited as Tenth Annual Report].

^{15.} Id.

^{16.} Id.; U.S. Environmental Protection Agency, EPA-440/4-78-001, National Water Quality Inventory - 1977 Report to Congress 16 [hereinafter cited as National Water Quality Inventory].

^{17.} TENTH ANNUAL REPORT, supra note 14, at 149, table 2-22; NATIONAL WATER QUALITY INVENTORY, supra note 16, at 15, table II-1.

^{18.} Tenth Annual Report, supra note 14, at 148-49, 389; National Water Quality Inventory, supra note 16, at 16.

^{19.} NATIONAL WATER QUALITY INVENTORY, supra note 16, at 18.

^{20.} Id.

^{21.} COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY - THE NINTH ANNUAL REPORT OF THE COUNCIL ON ENVIRONMENTAL QUALITY 118-19 (1978) [hereinafter cited as Ninth Annual Report].

^{22.} Id. "Sediments from nonpoint sources are estimated to be 360 times the quantities discharged from municipal and industrial point sources after treatment." Id. at 119. See also COMMUNITY ACTION GUIDEBOOK, supra note 9, at G2; Nonpoint Source Water Pollution Control in Iowa, supra note 3, at 138, 188 n.47.

^{23.} Tenth Annual Report, supra note 14, at 389.

^{24.} Methods and Practices, supra note 1, at 3.

pesticides into rivers and streams.²⁵ "Many of the factors that determine the levels of soil erosion and water runoff, and thus the levels of agricultural nonpoint water pollution, are natural physical conditions that can vary considerably between nonpoint source locations."²⁶ Rainfall amounts and intensity, type of crop, soil conditions, topography, and conservation practices may influence the quantity of runoff or erosion.²⁷ Pesticide levels in the water may be affected by application practices and by the solubility, potency, and persistence of the pesticide.²⁸

Cropland is the source of almost one-half of the quantity of sediment from agriculture.²⁰ Large-scale, specialized farming has caused many contour terraces to become outdated and impractical to install, and has reduced the use of land treatment practices such as strip cropping and crop rotation as methods of erosion control.³⁰ Nearly one-half of the cropland currently cultivated consists of soils classified as having a high potential for erosion.³¹ Well-managed forestland, which has an erosion rate of less than one-fourth of the erosion rate for cropland, represents a minimal risk of soil loss from sheet and rill erosion.³² Pastures, when not severely over-grazed, are also normally well-protected from erosion.³³ Rangeland, on the other hand, contributes significantly to national soil losses from sheet and rill erosion, although less than cropland contributes.³⁴

Extensive land disturbances in suburban areas for housing development, road and highway construction, schools, businesses, industries, and other improvements, also yield large amounts of sediment. Acre for acre, construction activities are the foremost contributor of sediment, averaging 1,100 tons per acre per year. In fact, sediment yields in areas undergoing suburban development can be as much as five to five hundred times greater than in rural areas. Teven after development has been completed, erosion and sediment continue to plague both urban and suburban areas. Flat surfaces, such as roads, roofs, parking lots, and lawns, which replaced the natu-

^{25.} Hines, Agriculture: The Unseen Foe in the War on Pollution Control in Iowa, 55 CORNELL L. Rev. 740, 747-53 (1970).

^{26.} Nonpoint Source Water Pollution Control in Iowa, supra note 8, at 189.

^{27.} METHODS AND PRACTICES, supra note 1, at 7, 39-41.

^{28.} Id. at 46-47.

^{29.} Tenth Annual Report, supra note 14, at 389-90, tables 6-3, 6-4.

^{30.} See Contemporary Studies Project: Impact of Local Governmental Units on Water Quality Control, 56 Iowa L. Rev. 804, 893-94 (1971) [hereinafter cited as Contemporary Studies Project].

^{31.} TENTH ANNUAL REPORT, supra note 14, at 389.

^{32.} Id. at 389-90, tables 6-3, 6-4.

^{33.} Id.

^{34.} Id. at 389-90, table 6-3.

^{35.} COMMUNITY ACTION GUIDEBOOK, supra note 9, at G3-G4.

^{36.} NINTH ANNUAL REPORT, supra note 21, at 119.

^{37.} Community Action Guidebook, supra note 9, at G3.

^{38.} Id.

ral vegetation, permit more water to run off the entire suburban area much faster, thereby causing flooding and erosion downstream.³⁹

B. Soil and Water Conservation Districts

An attack upon the entire soil erosion problem was provided for in the Soil Conservation Act of 1935,40 which created the Soil Conservation Service (SCS)41 and authorized the United States Department of Agriculture (USDA), through the SCS, to provide federal financial and other assistance for erosion control on nonfederal land. 42 Such assistance is subject to conditions which might be imposed by the USDA, including agreements or covenants as to permanent land use, contributions in money, services, or materials, and "the enactment and reasonable safeguards for the enforcement of State and local laws imposing suitable permanent restrictions on the use of such land and otherwise for the preventing of soil erosion "43 Pursuant to this authority, the SCS developed, and proposed to the states, a Standard State Soil Conservation Districts Law⁴⁴ (Standard Districts Law), which was intended to provide the responsible state and local authorities with a guide for achieving the cooperation required by the SCS's new program of soil conservation improvements on private lands. 45 The Standard Districts Law was widely distributed among the states during the latter part of 1936.46 Concurrently, the USDA made it known that appropriations to the SCS to carry out the Soil Conservation Act would be allocated for use only in those states which adopted suitable land use legislation. 47 The result was rapid and widespread enactment of state legislation patterned after the Standard

^{39.} Id. at G4.

^{40.} Act of Apr. 27, 1935, ch. 85, §§ 1-5, 49 Stat. 163-64 (1935) (current version at 16 U.S.C. §§ 590a-590e (1976)).

^{41. 16} U.S.C. § 590e (1976). The objective of the SCS is to bring about desirable physical adjustments in land use with a view to bettering human welfare, conserving natural resources, establishing a permanent and balanced agriculture, and reducing the hazards of floods and siltation. W. Parks, Soil Conservation Districts in Action 3 (1952). Its central program is that of conserving basic soil and water resources by extending sound land use practices to all private land vulnerable to soil erosion and public lands, in cooperation with other agencies. Id.

^{42.} See W. Parks, supra note 41, at 3.

^{43. 16} U.S.C. §§ 590a, 590c (1976). See Contemporary Studies Project, supra note 30, at 889 and Ferguson, Nationwide Erosion Control: Soil Conservation Districts and the Power of Land-Use Regulation, 34 Iowa L. Rev. 166, 166-68 (1949) for discussions of earlier efforts by the federal government to control soil erosion.

^{44.} STANDARD DISTRICTS LAW, supra note 12.

^{45.} B. Holmes, Institutional Bases for Control of Nonpoint Source Pollution Under the Clean Water Act - With Emphasis on Agricultural Nonpoint Sources 57 (U.S. Environmental Protection Agency No. WH-554, 1979). See 16 U.S.C. §§ 590a, 590c (1976).

^{46.} McGowen, Wyoming's Proposed Soil Conservation Act, 13 Rocky Mtn. L. Rev. 115, 120 (1941).

^{47. 2} Lyon & Abramson, Government and Economic Life 920 (1940). See McGowen, supra note 46, at 120.

Districts Law. 48 All thirteen Midwestern states had enacted legislation by 194349 which created soil and water conservation districts 50 and defined their powers and duties.

The Standard Districts Law proposed by the SCS gave the governing bodies of soil and water conservation districts the authority to adopt and enforce land use regulations to conserve soil and soil resources and to prevent and control soil erosion.⁵¹ Ten of the thirteen midwestern states (except for Iowa, Missouri, and Ohio) inserted some portions of the land use regulations provisions contained in the Standard Districts Law into their statutes when they adopted legislation that created conservation districts.⁵² Missouri never did adopt legislation giving conservation districts land use

^{48.} Twenty-two states enacted such legislation in 1937, the number had increased to 38 by 1940, and all 48 states in the country had adopted soil conservation district legislation by 1945. Ferguson, supra note 43, at 168. See id. at 168 n.22 for citations to early state legislation creating soil conservation districts. For citations to state legislation later enacted, see W. Davey, Conservation Districts and 208 Water Quality Management 200-02 (Nat'l Ass'n of Conservation Dist. 1977). See also W. Parks, supra note 41, at 8.

^{49.} Ch. 10, §§ 1-34, 1937 Ill. Laws ______ (codified at Ill. Ann. Stat. ch. 5, §§ 106-38 (Smith - Hurd 1947)); ch. 232 §§ 1-18, 1937 Ind. Acts ______ (codified at Ind. Code Ann. tit. 15, ch. 18 (Burns Supp. 1947)); ch. 92, §§ 1-14, 1939 Iowa Acts _____ (codified at Iowa Code ch. 160 (1946); ch. 5, §§ 1-19, 1937 Kan. Sess. Laws _____ (codified at Kan. Stat. Ann. §§ 2-1901 to -1918 (Supp. 1945)); ch. 8, §§ 1-17, 1940 Ky. Acts _____ (codified at Ky. Rev. Stat. Ann. ch. 262 (1943)); §§ 1-18, 1937 Mich. Pub. Acts 297 (codified at Mich. Comp. Laws ch. 44A (1940)); §§ 1-12, 1943 Mo. Laws 839 (codified at Mo. Rev. Stat. §§ 14431.1-.10 (Supp. 1948)); ch. 8, §§ 1-15, 1937 Neb. Laws _____ (codified at Neb. Rev. Stat. §§ 2-1501 to -1547 (1943)); ch. 9, §§ 1-18, 1937 N.D. Sess. Laws _____ (codified at N.D. Rev. Code ch. 4-22 (1943)); §§ 1-10, 119 Ohio Laws 812 (codified at Ohio Gen. Code Ann. §§ 375-13 to -21 (1946)); ch. 19,]§ 1-]16, 1937 S.D. Sess. Laws _____ (codified at S.D. Code §§ 4.1501 - .1516 (1939)); ch. 341, § 1, 1937 Wis. Laws _____ (codified at Wis. Stat. ch. 92 (1947)).

^{50.} States in the Midwest, when enacting the district legislation, followed the designation in the Standard Districts Law and designated their districts "soil conservation districts." Standard Districts Law, supra note 12, §§ 3(1), 5. Iowa, Michigan, and North Dakota still retain the designation of "soil conservation districts." Iowa Code §§ 467A.3(1), .5 (1983); Mich. Comp. Laws §§ 282.3(1), .4 (1979); N.D. Cent. Code §§ 4-22-02(3), -26 (Supp. 1983). Illinois, Indiana, Kentucky, Minnesota, Missouri, Ohio, and Wisconsin have changed the designation to "soil and water conservation districts." Ill. Rev. Stat. ch. 5 § 108(1) (Supp. 1983); Ind. Code Ann. §§ 13-3-1-3(1), -5 (Burns Supp. 1983); Ky. Rev. Stat. §§ 262.010(1), .020 (Supp. 1982); Minn. Stat. §§ 40.01(2), .04 (1981); Mo. Stat. Rev. §§ 278.060, .070(5) (1978); Ohio Rev. Code Ann. § 1515.01(A) (Supp. 1982); Wis. Stat. §§ 92.03(1), .05-.08 (1979-1980). Wisconsin later changed its designation to "land conservation committees." Wis. Stat. §§ 92.06-.07 (1981-1982). Kansas and South Dakota changed the designation to "conservation districts." Kan. Stat. Ann. §§ 2-1901, -1903(1) (1982); S.D. Codified Laws Ann. §§ 38-7-2(4), -8A-1(3) (1977). Nebraska changed to "natural resources districts." Neb. Rev. Stat. §§ 2-1503(7), -1529 (1977).

^{51.} STANDARD DISTRICTS LAW supra note 12, 9.

^{52. §§ 23-25, 1937} Ill. Laws 10; ch. 232, §§ 9-12, 1937 Ind. Acts _____; ch. 5, §§ 9-12, 1937 Kan. Sess. Laws _____; ch. 8, §§ 9-12, 1940 Ky. Acts _____; §§ 9-12, 1937 Mich. Pub. Acts 297; ch. 441, §§ 8-11, 1937 Minn. Laws _____; ch. 8, § 9, 1937 Neb. Laws _____; ch. 9, §§ 8-11, 1937 N.D. Sess. Laws _____; ch. 19, §§ 9-11, 1937 S.D. Sess. Laws _____; ch. 341, § 1, 1937 Wis. Laws

regulatory power, but Iowa⁵³ and Ohio⁵⁴ later adopted legislation for land use regulations based on soil loss tolerances to control erosion.

Three of the ten states that adopted the land use regulations contained in the Standard Districts Law (Illinois, ⁵⁶ Kentucky, ⁵⁶ and North Dakota ⁵⁷) retained at least a portion of those regulations. Seven states Indiana, ⁵⁶ Kansas, ⁵⁹ Michigan, ⁶⁰ Minnesota, ⁶¹ Nebraska, ⁶² South Dakota, ⁶³ and Wisconsin ⁶⁴) repealed the land use statutes that they had adopted under the Standard Districts Law. ⁶⁵ Of these seven states, Indiana, Kansas, and Minnesota have not adopted new land use regulations, ⁶⁶ while Michigan has adopted a new statute based on land-disturbing activities, ⁶⁷ and South Dakota has adopted a new statute based on conservation standards. ⁶⁸ Wisconsin's new statute provides for the regulation of harmful land use and land management practices. ⁶⁹ The new land use statutes adopted by Nebraska at the time when it created its natural resources districts are similar to those provided in the Standard Districts Law. ⁷⁰ In addition to retaining the land use regulations previously adopted under the Standard Districts Law, ⁷¹ Illinois enacted additional legislation to establish conservation standards for land-

^{53.} Conservancy Districts Law, ch. 227, §§ 29-40, 1971 Iowa Acts 448-81 (current version at Iowa Code §§ 467A.42-.53 (1983)).

^{54.} Soil and Water Conservation Districts Law, ch. 134, § 1, 1972 Ohio Laws 518, 526-28 (current version at Ohio Rev. Code Ann. § 1511.02 (Page Supp. 1982)).

^{55.} ILL. REV. STAT. ch. 5, §§ 128-30 (Supp. 1983).

^{56.} Ky. Rev. Stat. §§ 262.350-.520 (1981).

^{57.} N.D. CENT. CODE §§ 4-22-27 to -39 (1975).

^{58.} Ch. 171, §§ 1-16, 1965 Ind. Laws ____.

^{59.} Ch. 6, § 1, 1949 Kan. Sess. Laws _____

^{60.} Ch. 280, § 2, 1945 Mich. Pub. Acts _____

^{61.} Ch. 553, § 2, 1955 Minn. Laws _____

^{62.} Ch. 9, § 73, 1969 Neb. Laws _____.

^{63.} Ch. 242, § 21, 1976 S.D. Sess. Laws ____

^{64.} Ch. 346, § 34, 1981 Wis. Laws _____.

^{65.} See supra note 12.

^{66.} Legislation has been proposed in Indiana, Kansas, and Minnesota, however, that deals with land-disturbing activities and is patterned after the Model State Act for Soil Erosion and Sediment Control. See Model State Act, supra note 13. For a discussion of the proposed legislation in these three states see U.S. Environmental Protection Agency, EPA-600/5-78-005, Alternative Policies for Controlling Nonpoint Agriculture Sources of Water Pollution 14-16, 212, 215, 217 (1978) [hereinafter cited as Alternate Policies].

^{67.} Soil Erosion and Sedimentation Control Act of 1972, 1972 Mich. Pub. Acts 197 (current version at Mich. Comp. Laws §§ 282.101-.117 (1979)).

^{68.} Act to Regulate Land-Disturbing Activities Within the State Resulting in Soil Erosion and Sediment Damage, ch. 242, §§ 1-18, 1976 S.D. Sess. Laws _____ (current version at S.D. Codified Laws Ann. §§ 38-8A-1 to -21 (1977 & Supp. 1982)).

^{69.} Ch. 346, § 34, 1981 Wis. Laws _____ (codified at Wis. STAT. § 92.11 (1981-1982)).

^{70.} Ch. 9, §§ 44-50, 1969 Neb. Laws _____ (codified at Neb. Rev. Stat. §§ 2-3244 to -3250 (1977)).

^{71.} ILL. REV. STAT. ch. 5, §§ 128-30 (1975).

disturbing activities.72

III. Administrative Structure for State Support

The organizational and administrative structure for state support and coordination of soil and water conservation district activities varies in the thirteen midwestern states. Soil and water conservation district legislation has generally provided for the establishment of state soil conservation committees, ⁷⁸ commissions, ⁷⁴ or boards. ⁷⁵ These committees, commissions, or boards normally consist of from five ⁷⁶ to twelve ⁷⁷ members, with most having either seven ⁷⁸ or nine. ⁷⁹ They are generally composed of individuals appointed either by the governor ⁸⁰ and/or by others by virtue of their positions

^{72. § 1, 1977} Ill. Laws 80-159 (codified at ILL. Rev. Stat. ch. 5, §§ 111(8), 138.3, 138.5-.10 (Supp. 1983)).

^{73.} Ind. Code § 13-3-1-4(a) (1982) (State Soil and Water Conservation Committee); Iowa Code § 467A.4(1) (1983) (State Soil Conservation Committee); Mich. Comp. Laws § 282.4(a) (1979) (State Soil Conservation Committee); N.D. Cent. Code § 4-22-03 (1975) (State Soil Conservation Committee). See Standard Districts Law, supra note 12, at § 4(A) (State Soil Conservation Committee).

^{74.} Kan. Stat. Ann. § 2-1904(A) (Supp. 1981) (State Conservation Commission); Mo. Rev. Stat. § 278.080(1) (Supp. 1982) (State Soil and Water Conservation Districts Commission); Ohio Rev. Code Ann. § 1515.02 (Page Supp. 1982) (Ohio Soil and Water Conservation Commission); S.D. Codified Laws Ann. § 38-7-3 (1977) (State Conservation Commission). The Soil and Water Conservation Commission in Kentucky is different from the committees in other states in that it was created as part of the Division of Soil and Water Conservation which is within the Department for Natural Resources and Environmental Protection, and the Commission's membership is appointed in a different manner. Ky. Rev. Stat. § 146.080 (1980). See Ky. Rev. Stat. § 146.090 (1980) for provisions concerning the appointment of the commission membership. The Nebraska Natural Resources Commission was created as a state agency to perform other functions in addition to soil and water conservation and assumed the duties of the former Nebraska Soil and Water Conservation. Neb. Rev. Stat. §§ 2-1504(1), -3260 (1977). See id. § 2-1504(2) for the provisions governing the commission's composition.

^{75.} ILL. Rev. Stat. ch. 5, § 109 (Supp. 1983) (State Soil and Water Conservation Districts Advisory Board); Minn. Stat. § 40.03(1) (1982) (State Soil and Conservation Board); Wis. Stat. § 15.135(4) (1981-1982) (Land Conservation Board).

^{76.} Mo. Rev. Stat. § 278.080(2) (Supp. 1982).

^{77.} Iowa Code § 467A.4(1) (1983); Minn. Stat. § 40.03(1) (1982). The Standard Districts Law does not specify a number, but suggests not less than three nor more than five members. Standard Districts Law, supra note 12, at § 4(A) n.4. The Nebraska Natural Resources Commission consists of 15 members. Neb. Rev. Stat. § 2-1504(2) (1977).

^{78.} ILL. Rev. Stat. ch. 5, § 109 (Supp. 1983); Ind. Code § 13-3-1-4(a) (1982); Mich. Comp. Laws § 282.4(a) (1979); N.D. Cent. Code §§ 4-22-03(1)-(2) (1975); Ohio Rev. Code Ann. § 1515.02 (Page Supp. 1982); Wis. Stat. § 15.135(4)(b) (1981-1982).

^{79.} KAN. STAT. ANN. § 2-1904(A) (Supp. 1981); Ky. Rev. STAT. § 146.090(2) (1980); S.D. CODIFIED LAWS ANN. § 38-7-4 (Supp. 1982).

^{80.} ILL. REV. STAT. ch. 5, § 109 (Supp. 1983) (five persons who are owners and active operators of farms and who have been actively engaged in farming for at least the past five years, with consideration given to geographical location and district experience); IND. CODE § 13-3-1-4(a) (1982) (four freeholders with an interest in farming); IOWA CODE § 467A.4(1) (1983) (eight members, six of whom are engaged in actual farming to represent each of the six conser-

with land-grant universities (such as the dean of the college of agriculture, ⁸¹ director of the state agricultural experiment station, ⁸² or director of the state cooperative extension service ⁸³), or state agencies (such as the head of the state department of agriculture, ⁸⁴ or the heads of the state departments dealing with natural resources, ⁸⁵ conservation, ⁸⁶ pollution control, ⁸⁷ or administration ⁸⁸). A member of the board of directors of the Ohio federation of

vancy districts, with no more than one resident from any one county, one member from the state-at-large to be a representative of the cities, and one member from the state-at-large to be a representative of the mining industry); MICH. COMP. LAWS § 282.4(a) (1979) (four practical farmers from among the directors of the several soil conservation districts); MINN. STAT. § 40.03(1) (1981) (seven elected soil and water conservation district supervisors recommended by the state association of soil and water conservation districts, with one member appointed from each Department of Natural Resources region, except that two members shall be appointed from region one); Mo. Rev. Stat. § 278.080(2) (Supp. 1982) (three farmers); N.D. Cent. Code § 4-22-03(2) (1975) (two who represent interests in the state not already represented by committee members who are elected); Ohio Rev. Code Ann. § 1515.02 (Page Supp. 1982) (four individuals); S.D. Codified Laws Ann. § 38-7-4 (Supp. 1982) (eight members, four persons who must be farmers, one from each of the three specified areas of the state and one at-large, and all four from names submitted by the state association of conservation districts; one person from a list of three recommended by the state municipal league to represent urban interests; one person from a list of three recommended by the directors of the conservancy subdistricts; and two persons engaged in the surface mining industry); Wis. STAT. § 15.135(4)(b)(3) (1981-1982) (two public members).

- 81. MICH. COMP. LAWS § 282.4(a) (1979); MINN. STAT. § 40.03(1) (1982); OHIO REV. CODE ANN. § 1515.02 (Page Supp. 1982). The dean is invited to serve as an advisory member in Wisconsin. Wis. STAT. § 15.135(4)(c) (1981-1982).
- 82. ILL. REV. STAT. ch. 5 § 109 (Supp. 1983); IND. CODE § 13-3-1-4(a) (1982); IOWA CODE § 467A.4(1) (1983) (nonvoting member); KAN. STAT. ANN. § 2-1904(A) (Supp. 1981); MINN. STAT. § 40.03(1) (1982); Mo. REV. STAT. § 278.080(2) (Supp. 1982); STANDARD DISTRICTS LAW, supra note 12, § 4(A). The director is invited to serve as an advisory member in Wisconsin. Wis. STAT. § 15.135(4)(c) (1981-1982).
- 83. KAN. STAT. ANN. § 2-1904(A) (Supp. 1981); Mo. Rev. STAT. § 278.080(2) (Supp. 1982); STANDARD DISTRICTS LAW, supra note 12, § 4(A).
- 84. ILL. REV. STAT. ch. 5 § 109 (Supp. 1983) (Director of State Department of Agriculture); IND. CODE § 13-3-1-4(a) (1982) (Commissioner of Agriculture); IOWA CODE § 467A.4(1) (1983) (Secretary of Agriculture, nonvoting member); MICH. COMP. LAWS § 282.4 (1979) (Commissioner of Agriculture); MINN. STAT. § 40.03(1)(a) (1982) (Commissioner of Agriculture); OHIO REV. CODE ANN. § 1515.02 (Page Supp. 1982) (Director of Agriculture); WIS. STAT. § 15.135(4)(b)(1) (1981-1982) (Secretary of Agriculture, Trade and Consumer Protection).
- 85. IND. CODE § 13-3-1-4(a) (1982) (Director of the Indiana Department of Natural Resources); IOWA CODE § 467A.4(1) (1983) (Director of the Iowa Natural Resources Council, non-voting member); MINN. STAT. § 40.03(1) (1982) (Commissioner of the Department of Natural Resources). The Secretary of Wisconsin's Natural Resources Department is invited to serve as an advisory member. Wis. STAT. § 15.135(4)(c) (1981-1982).
- 86. Iowa Code § 467A.4(1) (1983) (Director of State Conservation Commission, nonvoting member); Mich. Comp. Laws § 282.4(a) (1979) (Director of State Department of Conservation).
- 87. Minn. Stat. § 40.03(1) (1982) (Director of the Minnesota Pollution Control Agency). The Director of the Iowa Department of Water, Air and Waste Management is an ex-officio nonvoting member. Iowa Code § 467A.4(1) (1983).
 - 88. Wis. Stat. § 15.135(4)(b)(1) (1981-1982).

soil and water conservation districts serves on that state's soil and water conservation commission.⁸⁹

In lieu of the governor's appointing members to the Kansas State Conservation Commission, one member is appointed by the United States Secretary of Agriculture, and another is appointed by the Kansas Board of Agriculture. A portion of the state organization membership in Kansas, North Dakota, 2 and Wisconsin is also composed of soil and water conservation district supervisors elected by the supervisors themselves under procedures specified in the statutes.

Committees or commissions in five midwestern states, Indiana,⁹⁴ Kansas,⁹⁵ Michigan,⁹⁶ Missouri,⁹⁷ and North Dakota,⁹⁸ are independent of other state agencies and perform their own administrative functions and duties. State soil and water conservation commissions or boards in Kentucky,⁹⁹ Minnesota,¹⁰⁰ and Ohio¹⁰¹ are established within another state agency, but

^{89.} Ohio Rev. Code Ann. § 1515.02 (Page Supp. 1982).

^{90.} KAN. STAT. ANN. § 2-1904(A) (Supp. 1981).

^{91.} Id. (Five conservation district supervisors elected by the supervisors from each of the five areas into which the state is divided).

^{92.} N.D. CENT. CODE § 4-22-03(1) (1975) (five members of the soil conservation district board of supervisors elected by the supervisors from each of the five areas into which the state is divided).

^{93.} Wis. Stat. § 15.135(4)(b)(2) (1981-1982).

^{94.} See Ind. Code § 13-3-1-4(b) (1982) (State Soil and Water Conservation Committee).

^{95.} See Kan. Stat. Ann. §§ 2-1904(B), (D) (Supp. 1981) (State Conservation Commission).

^{96.} See Mich. Comp. Laws §§ 282.4(b), (d) (1979) (State Soil Conservation Committee).

^{97.} See Mo. Rev. Stat. §§ 278.080(1), (3), (5) (Supp. 1983) (State Soil and Water Conservation Districts Commission).

^{98.} See N.D. CENT. CODE §§ 4-22-05, -06 (1975) (State Soil Conservation Committee. See also STANDARD DISTRICTS LAW, supra note 12, at §§ 4(B)-(D) (State Soil Conservation Committee).

^{99.} Ky. Rev. Stat. § 146.080 (1981) (State Soil and Water Conservation Commission). A Division of Soil and Water Conservation was created within the Department of Natural Resources and Environmental Protection, and one of the agencies within the Division is the Soil and Water Conservation Commission, whose function is to assist soil and water conservation districts. Id. The Commission is composed of nine members, with no more than five from the same political party. Id. § 146.090(1)-(3). One member is appointed by the Secretary of the Department for Natural Resources and Environmental Protection, with the approval of the governor, from a list of two names of soil and conservation district supervisors from each of the nine soil and water conservation areas into which the state has been divided. Id. The Secretary of the Department of Natural Resources and Environmental Protection, the Commissioner of Agriculture, the Director of the Agricultural Experiment Station, the Director of Vocational Education, and the State Conservationist for the United States Soil Conservation Service serve as advisory members of the Commission. Id. § 146.090(6). When created within the Division of Soil and Water Conservation, the Commission assumed the functions formerly performed by the State Soil Conservation Committee. Id. §§ 146.110(2), 262.025. See id. §§ 146.110, 262.090 for the Commission's powers and functions.

^{100.} MINN. STAT. § 40.03(1) (1982). The State Soil and Water Conservation Board was established to serve as an agency within the Department of Natural Resources. Id. See id. §

independently perform their own administrative functions. In Iowa, the Iowa Soil Conservation Committee administers the Department of Soil Conservation, which in turn has the powers and performs the duties normally assigned to a state soil and water conservation committee. 102 The Illinois Department of Agriculture, 103 and similarly, the Division of Conservation within the South Dakota Department of Agriculture, 104 administer the state boards or commissions and perform the functions usually delegated to such boards or commissions, while the boards or commissions serve as advisors to their respective departments. The Nebraska Natural Resources Commission was established to administer several activities at the state level formerly administered by separate committees or commissions, 108 including the functions previously performed by the Nebraska Soil and Water Conservation Commission. 106 Natural Resources Districts were created throughout the state by the Natural Resources Commission to assume the functions of several special service districts, including those of the soil and water conservation districts.107 Wisconsin recently abolished its independent Board of Soil and Water Conservation Districts and created a Land Conservation Board subordinate to the Department of Agriculture, Trade and Consumer Protection. 108

The powers and duties of state soil and water conservation committees, commissions, or boards vary among the states. They all have general powers to offer appropriate assistance to district supervisors, 100 to keep supervisors of each district informed about the activities and experiences of other districts, and to facilitate the interchange of advice and experience between the

^{40.03(4)} for the Board's powers and duties.

^{101.} Ohio Rev. Code Ann. § 1511.02 (Page Supp. 1982). The Ohio Soil and Water Conservation Commission was established within the Ohio Department of Natural Resources. *Id. See id.* for the Commission's powers and duties.

^{102.} See IOWA CODE §§ 467A.4(1), (3)-(4) (1983).

^{103.} See Ill. Rev. Stat. ch. 5, §§ 108.17, 111 (Supp. 1983) (State Soil and Water Conservation District Advisory Board).

^{104.} S.D. Codified Laws Ann. §§ 38-7-2.1, -2.3, -3.1 (1977) (State Conservation Commission).

^{105.} Neb. Rev. Stat. §§ 2-1502, -1504(1) (1977). The Nebraska Natural Resources Commission is composed of 15 members, consisting of one natural resources district director or former district director from each of the 12 specified river basins and three members appointed by the governor who represent municipal users of water, surface water irrigators, and groundwater users. *Id.* § 2-1504(2).

^{106.} Id. § 2-3260.

^{107.} See id. §§ 2-3201, -3203, -3203.01.

^{108.} Wis. Stat. § 15.1354(a) (1981-1982). See id. § 92.05.

^{109.} ILL. Rev. Stat. ch. 5, § 111(1) (Supp. 1983); Ind. Code § 13-3-1-4(d)(1) (1982); Iowa Code § 467A.4(4)(a) (1983); Kan. Stat. Ann. § 2-1904(D)(1) (1982); Mich. Comp. Laws § 282.4(d)(1) (1979); Minn. Stat. § 40.03(4)(2) (1982); Mo. Rev. Stat. § 278.080(5)(7) (Supp. 1982); N.D. Cent. Code § 4-22-06(1) (1975); S.D. Codified Laws Ann. § 38-7-15 (1977). See also Standard Districts Law, supra note 12, § 4(D)(1).

districts.¹¹⁰ Additionally, they coordinate district programs insofar as can be done by advice and consultation,¹¹¹ secure the cooperation and assistance of federal, state, local agencies in the districts' work,¹¹² and disseminate information throughout the state concerning the activities and programs of the districts.¹¹³ In some states, conservation district committees, commissions, or boards are empowered to prepare and administer rules, regulations, and guidelines,¹¹⁴ prepare and recommend budgets,¹¹⁵ render financial assistance to districts,¹¹⁶ approve or disapprove district plans and programs for district use of state funds,¹¹⁷ and advise, review, and approve or disapprove district programs and plans.¹¹⁸ A few state statutes have provided additional powers to control district operations.¹¹⁹ With a few exceptions, however, the primary responsibility of state soil and water conservation committees, commissions, or boards is to provide informational, planning, and financial assistance to the districts.

In states that have enacted new legislation relating to soil loss limits and land disturbing activities, additional powers have been delegated to the

^{110.} ILL. Rev. Stat. ch. 5, § 111(2) (Supp. 1983); Ind. Code § 13-3-2-4(d)(2) (1982); Iowa Code § 467A.4(4)(b) (1983); Kan. Stat. Ann. § 2-1904(D)(2) (1982); Mich. Comp. Laws § 282.4(d)(2) (1979); Minn. Stat. § 40.03(4)(3) (1982); N.D. Cent. Code § 4-22-06(2) (1975); Ohio Rev. Code Ann. § 1515.02(B) (Page Supp. 1982); S.D. Codified Laws Ann. § 38-7-16 (1977). See also Standard Districts Law, supra note 12, § 4(D)(2).

^{111.} ILL. Rev. Stat. ch. 5, § 111(3) (Supp. 1983); Ind. Code § 13-3-1-4(d)(3) (1982); Iowa Code § 467A.4(4)(c) (1983); Kan. Stat. Ann. § 2-1904(D)(3) (1982); Minn. Stat. § 40.03 (4)(4) (1982); N.D. Cent. Code § 4-22-06(3) (1975); S.D. Codified Laws Ann. § 38-7-17 (1977). See also Standard Districts Law, supra note 12, § 4(D)(3).

^{112.} ILL. Rev. Stat. ch. 5, § 111(4) (Supp. 1983); Ind. Code §§ 13-3-1-4(d)(4), (6) (1982); Iowa Code § 467A.4(4)(d) (1983); Kan. Stat. Ann. §§ 2-1904(D)(4), (8) (1982); Ky. Rev. Stat. § 262.090(3) (1981); Mich. Comp. Laws § 282.4(d)(4) (1979); Minn. Stat. § 40.03(4)(6) (1982); Mo. Rev. Stat. § 278.080(5)(5) (Supp. 1982); N.D. Cent. Code § 4-22-06(4) (1975); Ohio Rev. Code Ann. § 1515.02(c) (Page Supp. 1982); S.D. Codified Laws Ann. § 38-7-18 (1977). See also Standard Districts Law, supra note 12, § 4(D)(4).

^{113.} ILL. Rev. Stat. ch. 5, § 111(5) (Supp. 1983); Ind. Code § 13-3-1-4(5) (1982); Iowa Code § 467A.4(4)(e) (1983); Kan. Stat. Ann. § 2-1904(D)(5) (1982); Mich. Comp. Laws § 282.4(d)(5) (1979); Minn. Stat. § 40.03(4)(7) (1982); N.D. Cent. Code §§ 4-22-06(5), (9) (1975); S.D. Codified Laws Ann. § 38-7-19 (1977). See also Standard Districts Law, supra note 12, § 4(D)(5).

^{114.} ILL. Rev. Stat. ch. 5, § 111(6) (Supp. 1983); Ky. Rev. Stat. § 262.090(4) (1981); Mo. Rev. Stat. § 278.080(5)(8) (Supp. 1982); N.D. Cent. Code § 4-22-06(14) (1975); Ohio Rev. Code Ann. § 1515.02(D) (Page Supp. 1982).

^{115.} ILL. Rev. Stat. ch. 5, § 111(7) (Supp. 1983); Minn. Stat. § 40.03(4)(1) (1982); N.D. Cent. Code § 4-22-06(8) (1975).

^{116.} IOWA CODE § 467A.4(4)(f) (1983); S.D. CODIFIED LAWS ANN. § 38-7-22 (1977).

^{117.} Minn. Stat. \S 40.03(4)(5) (1982); Ohio Rev. Code Ann. \S 1515.02(F) (Page Supp. 1982).

^{118.} Mo. Rev. Stat. § 278.080(5)(4) (Supp. 1982); N.D. Cent. Code § 4-22-06(6) (1975).

^{119.} The extreme cases are Minnesota and Missouri, where the state committee has the authority to supervise practically every phase of district programs. See Minn. Stat. § 40.03(4) (1983); Mo. Rev. Stat. § 278.080(5) (Supp. 1982).

conservation committees, commissions, or boards, or to the state agencies performing their functions. For example, the Illinois Department of Agriculture is responsible for developing and coordinating a comprehensive state erosion and sediment control program, including the preparation of guidelines to be used by districts, ¹²⁰ and the South Dakota State Conservation Commission is responsible for the development and implementation of state policy concerning land conservation and development. ¹²¹ In Michigan, the unified statewide soil erosion and sedimentation control program, under the Soil Erosion and Sedimentation Control Act of 1972, is prepared by the Michigan Department of Agriculture and Water Resources Commission within the Michigan Department of Natural Resources, rather than by the State Soil Conservation Committee. ¹³²

When Wisconsin enacted its new soil and water conservation legislation which created the Land Conservation Board within the Wisconsin Department of Agriculture, Trade and Consumer Protection, it changed the functions of the new board from those previously assigned to the State Board of Soil and Water Conservation Districts. 123 Powers and duties are now divided between the Land Conservation Board and the Department of Agriculture, which under the new legislation is the central state agency responsible for setting and implementing statewide soil and water conservation policies and for administering the state's soil and water conservation programs.¹²⁴ The Department of Agriculture's duties are to keep the county land conservation committees informed on soil and water conservation activities, assist in the development and coordination of annual and long-range land conservation and erosion control plans for each county, review and approve such plans, 186 promulgate rules to implement state statutes governing soil and water conservation, advise the University of Wisconsin on developing research and educational programs relating to soil and water conservation, undertake studies and investigations, and make reports and recommendations with re-

^{120.} ILL. REV. STAT. ch. 5, § 111(8) (Supp. 1983). See also Model State Act, supra note 13, § 3.

^{121.} S.D. CODIFIED LAWS ANN. § 38-7-20 (1977).

^{122.} Mich. Comp. Laws §§ 282.104-.105 (1979).

^{123.} Ch. 346, § 34, 1981 Wis. Laws ____ (codified at Wis. Stat. § 92.05(1) (1981-1982).

^{124.} Wis. Stat. § 92.05(1) (1981-1982).

^{125.} County land conservation committees are empowered to develop "long-range and annual plans for the development, use, conservation and management of soil, water and related resources within the county" and to have such plans approved by the Department. Id. § 92.08. In addition, each county land conservation committee must prepare an annual soil erosion central plan specifying the maximum acceptable rates of soil erosion, identifying parcels where these standards are not being met, identifying the land use changes or management standards that would bring these areas into compliance with the standards, and specifying procedures to be used to assist landowners or land users in controlling soil erosion. Id. § 92.10(5)(a). These plans must also be reviewed and approved by the department. Id. § 92.10(4). State funds may not be allocated for cost-sharing unless the plans are approved. Id. § 92.10(3)(c).

spect to state soil and water conservation program needs.¹²⁶ The duties of the Land Conservation Board include reviewing county annual and longrange conservation plans, county soil erosion control plans, financial aid applications, and departmental rules relating to soil and water conservation.¹²⁷ The staff of the Land Conservation Board is provided by the Wisconsin Department of Agriculture, except that educational and research services are provided by the University of Wisconsin under contract.¹²⁸

IV. DISTRICT ORGANIZATION, GEOGRAPHICAL JURISDICTION, AND GOVERNANCE

All of the thirteen midwestern states have soil and water conservation districts, or their equivalent, that, except for Iowa¹³⁹ and Nebraska,¹³⁰ coincide with county boundaries.¹³¹ Iowa has one hundred soil conservation districts, but only ninety-nine counties.¹³² The Nebraska Natural Resources Commission was mandated by statute to divide the state into not less than sixteen nor more than twenty-eight natural resources districts with related resources problems and to establish their boundaries based on hydrologic patterns and recognized river basins.¹³³ A recent Ohio amendment provided that each county must have a soil and water conservation district coextensive with the geographical area of the county.¹³⁴ Wisconsin recently abolished soil and water conservation districts and created a land conservation committee within each county with countywide authority.¹³⁶

Traditionally, lands lying within the boundaries of incorporated cities and villages have not been considered a part of soil and water conservation districts.¹³⁶ Realizing that urban areas also have soil erosion problems,¹³⁷

^{126.} Id. §§ 92.05(3)(a)-(e). The department must prepare a biennial report on state soil and water conservation needs. Id.

^{127.} Id. §§ 92.04(2)-(3).

^{128.} Id. §§ 92.05(2)(c), (3)(i).

^{129.} See IOWA CODE § 467A.5(1) (1983).

^{130.} See Neb. Rev. Stat. § 2-3203 (1977).

^{131.} See Ill. Rev. Stat. ch. 5, § 113 (1975); Ind. Code § 13-3-1-5 (1981); Kan. Stat. Ann. § 2-1905 (1982); Ky. Rev. Stat. §§ 262.100-.140 (1980); Mich. Comp. Laws § 282.5 (1979); Minn. Stat. § 40.04 (1981); Mo. Rev. Stat. § 278.100 (1978); N.D. Cent. Code § 4-22-08 (1975); Ohio Rev. Code Ann. § 1515.03 (Page Supp. 1982); S.D. Codified Laws Ann. § 38-8-1 (1977); Wis. Stat. § 92.04 (1981-1982).

^{132.} IOWA CODE § 467A.5(1) (1983). An amendment to the Iowa statute provided that those districts in existence on July 1, 1975 would continue in existence with boundaries in effect on that date. Soil Conservation Act, ch. 229, § 3, 1975 Iowa Acts 510 (codified at Iowa Code § 467A.5(1) (1983)).

^{133.} Neb. Rev. Stat. § 2-3203(4) (1977). The Nebraska Natural Resources Commission has established 24 natural resources districts.

^{134.} Ohio Rev. Code Ann. § 1515.03 (Page Supp. 1982).

^{135.} Ch. 346, §§ 25, 34, 1981 Wis. Laws _____ (codified at Wis. Stat. §§ 59.80, 92.06(1) (1981-1982)).

^{136.} See N.D. Cent. Code §§ 4-22-02(8), -22, -27 to -30 (1975); Standard Districts Law,

nine midwestern states have amended their statutes to permit district boundaries to encompass incorporated areas. Illinois statutes have always permitted an area within the boundaries of a municipality to be added to a district's territory, and a 1977 amendment specifically provided that all lands lying within the boundaries of a district on the effective date of the amendment, including municipalities that had been previously added to the district's territory, would remain under its jurisdiction. Municipalities in Illinois and Ohio were provided a specified period of time in which to remove themselves from the district.

Governing bodies of the natural resources districts usually consist of five elected owners or occupiers of land. ¹⁴³ Boards of directors of natural resources districts in Nebraska consist of from five to twenty-one members chosen by the Nebraska Resources Commission, based on the number recommended by the first board of directors selected by the commission when

supra note 12, § 9.

^{137.} See Contemporary Studies Project, supra note 30, at 900-01.

^{138.} See Ill. Rev. Stat. ch. 5, § 122 (1975); Ind. Code § 13-3-1-5 (1981); Ky. Rev. Stat. §§ 262.020, .705 (1980); Mich. Comp. Laws § 282.5(j) (1979); Minn. Stat. § 40.04(6) (1981); Mo. Rev. Stat. § 272.100 (1978); Neb. Rev. Stat. § 2-3203 (1977); Ohio Rev. Code Ann. § 1515.03 (Supp. 1982); Wis. Stat. § 92.04 (1981-1982).

^{139.} ILL. REV. STAT. ch. 5, § 122 (Supp. 1983).

^{140. § 1, 1977} Ill. Laws 80-159 (codified at Ill. Rev. Stat. ch. 5, § 138.7 (Supp. 1983)).

^{141.} ILL. Rev. Stat. ch. 5, § 138.7 (Supp. 1983) (the removal period expired on December 31, 1980).

^{142.} Ohio Rev. Code Ann. § 1515.03 (Page Supp. 1982) (a municipality may remove itself from a district's territory "by filing a resolution of its legislative authority with the soil and water conservation commission at least sixty days before the effective date of removal").

^{143.} ILL. REV. STAT. ch. 5, §§ 124, 124.1, 125 (Supp. 1983) (five directors, who are owners or occupiers of land within the district; only owners or occupiers of land are eligible to vote in the election for directors); IND. CODE § 13-3-1-7 (1982) (five supervisors, who are by training and experience qualified to perform the services; all land occupiers are eligible to vote in an election for supervisors); IOWA CODE § 467A.5(2) (1983) (five commissioners, no more than one from each township; all electors are eligible to vote in an election for commissioners); KAN. STAT. ANN. §§ 2-1906, -1907 (1982) (five supervisors, who must be land occupiers; all land occupiers are eligible to vote in an election for supervisors); Mich. Comp. Laws § 282.7(b) (1979) (five directors elected at an annual meeting of land occupiers); MINN. STAT. §§ 40.05(1), .06(1) (1982) (five supervisors elected by all eligible voters); Mo. Rev. Stat. § 278.110(1) (Supp. 1982) (five supervisors, four elected by land representatives, and the county agricultural extension agent); N.D. Cent. Code §§ 4-22-16, -21 (1975) (three supervisors, who must be land occupiers; all eligible voters may vote in election for supervisors); Ohio Rev. Code Ann. §§ 1515.05, .07 (Page Supp. 1981) (five supervisors who are electors; all eligible electors may vote in election for supervisors); S.D. Codified Laws Ann. § 38-8-39 (1977) (five supervisors, three must be owners or occupiers of land, one an urban area resident, and one a real property taxpayer; all eligible electors may vote in an election for supervisors). See also STANDARD DISTRICTS LAW, supra note 12, §§ 6, 7 (five supervisors who are land occupiers; only land occupiers are eligible to vote in an election for supervisors). Restricting the eligibility to landowners to vote in an election for supervisors may be unconstitutional in light of constitutional provisions providing that qualified electors are entitled to vote in all elections for officers, whether local or general. See Coggeshall v. City of Des Moines, 138 Iowa 730, 117 N.W. 309 (1908).

the districts were first established.¹⁴⁴ The number was increased after 1982 to include the former members of the board of directors of the dissolved groundwater conservation districts as advisory members.¹⁴⁵

Members of each land conservation committee in Wisconsin are appointed by the county board of supervisors and consist of two persons who are members of the county board's agriculture and extension committee, and the chairperson of the county agricultural stabilization and conservation committee, or an alternate committee member designated by the chairperson. The county board of supervisors may also appoint any member of other county boards to the committee, and up to two persons who are not members of the county board of supervisors. The county board of supervisors.

V. DISTRICT AUTHORITY TO REGULATE LAND USE TO CONTROL NONPOINT SOURCE POLLUTANTS

A. Districts as Corporate Bodies

Soil and water conservation districts are generally considered governmental subdivisions of the state and public bodies, corporate and public, exercising public powers.¹⁴⁸ State legislatures have the power to create soil and water conservation districts as additional municipalities or new governmental subdivisions of the state as deemed necessary or appropriate.¹⁴⁹ Governmental subdivisions of the state are authorized to exercise, over the territory committed to them, the complete range of governmental powers which

^{144.} Neb. Rev. Stat. § 2-3213 (1977 & Supp. 1981).

^{145.} Id. § 2-3213(1) (Supp. 1981).

^{146.} Wis. Stat. §§ 92.06(1)(b)(1)-(2) (1981-1982).

^{147.} Wis. Stat. §§ 92.06(b)(3), (4). In addition, the county board of supervisors must "designate a representative of each county committee with responsibilities related to natural resource management to serve as an advisor to the committee, and at a minimum, representatives from any county zoning or land use, forestry, parks, and solid waste committees." Id. § 92.06(2). Also, the committee may invite any federal, state, or local agency "with which the county or committee has a memorandum of understanding to designate a representative to advise the land conservation committee." Id.

^{148.} ILL. Ann. Stat. ch. 5, §§ 119, 127 (Supp. 1983); Ind. Code §§ 13-3-1-5(f), -8 (1982); Iowa Code § 467A.3(1) (1983); Kan. Stat. Ann. § 2-1905(F) (Supp. 1981); Ky. Rev. Stat. § 262.200(1) (1981); Mich. Comp. Laws. §§ 282.3(1), .8 (1979); Minn. Stat. § 40.04(6) (1982); Mo. Rev. Stat. § 278.120(1) (Supp. 1982); N.D. Cent. Code § 4-22-13 (1975); S.D. Codified Laws Ann. § 38-8-15 (1977). See also Standard Districts Laws, supra note 12, § 8(intro.). See 1977 Op. Ill. Att'y Gen. 155, 157. See also Ferguson, supra note 43, at 172; Memorandum on Constitutionality of Standard State Soil Conservation Districts Laws, appended to U.S. Soil Conservation Service, Dep't of Agriculture, A Standard State Soil Conservation Districts Law (1936), at 47-51 [hereinafter cited as Memorandum on Constitutionality]. Land conservation committees in Wisconsin are created by the county board of supervisors and have powers delegated to them by statute subject to the county board's approval. Wis. Stat. §§ 59.80, 59.81(1), 92.06(1), 92.07(1) (1981-1982).

^{149.} See supra note 148 and accompanying text.

the state itself may exercise over the territory of the state. 150 It is within the state legislature's authority to confer broad or narrow powers upon governmental subdivisions as they see fit.151

Governmental powers are traditionally considered to be divisible into legislative, executive, and judicial powers.¹⁶² Since soil and water conservation districts are governmental subdivisions, and not merely administrative boards, all three types of powers may be conferred upon them. 168 The requirements of separation of powers contained in the state constitutions have been held applicable only to state governments and not applicable to governmental subdivisions of the state.¹⁶⁴ A single governing body of a governmental subdivision, therefore, may exercise legislative, executive, and judicial powers. 186 Under the typical midwestern state's statutes, soil and water conservation district boards of supervisors are authorized to act as both a legislative body 166 and as the executive officer 167 of the district, but the judicial powers within the district are exercised through the existing local courts.158

B. Districts' Authority to Regulate Land Uses

Controlling sources of nonpoint pollutants is generally the best method of preventing sediment and plant nutrients from reaching water resources. 160 There are two possible institutional tools for controlling the sources of nonpoint pollutants, land use prohibition and the regulation of permitted uses. 160 The first tool, land use prohibition, involves the legal control of land

^{150.} See Memorandum on Constitutionality, supra note 148, at 48. See also Schwartz, ADMINISTRATIVE LAW, § 11 (1976).

^{151.} See Schwartz, supra note 150, § 11.

^{152.} See id.

^{153.} See id. See also note 148.

^{154.} See Memorandum on Constitutionality, supra note 148, at 48 for examples.

^{155.} See Memorandum on Constitutionality, supra note 148, at 48.

^{156.} See, e.g., Ill. Ann. Stat. ch. 5, §§ 128, 138.5 (Supp. 1983); Iowa Code § 467A.44 (1983); Ky. Rev. Stat. §§ 262.350-.400 (1981); Neb. Rev. Stat. §§ 2-3244 to -3249 (Reissue 1977); N.D. CENT. CODE §§ 4-22-27 to -31 (1975); S.D. CODIFIED LAWS ANN. §§ 38-8A-5 to -11 (1977). See STANDARD DISTRICTS LAW supra note 12, § 9. Land conservation committees in Wisconsin do not have regulatory power; regulations are adopted by the county boards of supervisors. Wis. Stat. §§ 59.81(4), 92.11(3) (1981-1982).

^{157.} See, e.g., Ill. Ann. Stat. ch. 5, §§ 129, 138.6, 138.8 (Supp. 1983); Iowa Code §§ 467A.47, .51 (1983); Ky. Rev. Stat. § 262.420(2) (1981); N.D. Cent. Code § 4-22-33 (1975); S.D. CODIFIED LAWS ANN. § 38-8A-18 (1977). See also STANDARD DISTRICTS LAW, supra note 12, § 10.

^{158.} See, e.g., ILL. REV. STAT. ch. 5, § 130 (Supp. 1983); IOWA CODE §§ 467A.49, .50 (1983); Ky. Rev. Stat. §§ 262.430-.450 (1981); N.D. Cent. Code § 4-22-34 (1975); S.D. Codified Laws Ann. § 38-8A-21 (1977). See also Standard Districts Law, supra note 12, § 11.

^{159.} See supra text accompanying notes 14-39.

^{160.} Federman, The 1972 Water Pollution Control Act: Unforeseen Implications for Land Use Planning, 8 URB. LAW 140, 143 (1976); Land Use Implications, supra note 6, at 1056-57.

uses permitted at a particular source location by restricting certain types of agricultural activity on land adjacent to water courses.¹⁶¹ In addition, certain lands, because of extreme slope, may be deemed unsuitable for cultivation because of the impossibility of controlling soil erosion and preventing sedimentation and plant nutrient runoff.¹⁶² This type of restriction may be necessary on lands with severe erosion problems and would require that such highly erosive areas be retired from cultivation and converted to pasture or forestry uses.¹⁶³

The second possible institutional tool for controlling nonpoint source pollution is the regulation of land use activities at a nonpoint source location to reduce the amount of pollutant runoff.¹⁶⁴ A number of management practices are available to control soil erosion, and thus sediment and transport of plant nutrients and pesticides. These involve farming techniques that limit the physical disruption of the soil and reduce the rate and amount of surface water runoff.¹⁶⁵ In addition, the installation of structures that control and limit surface runoff can greatly reduce soil losses.¹⁶⁶ Both the Standard Districts Law and Model State Act for Soil Erosion and Sediment Control contain provisions applicable to land use prohibition¹⁶⁷ and to the regulation of land use activities.¹⁶⁸

A state's police power has been defined as that power which is exercised to protect and promote the public health, safety, and morals, and the community's general prosperity. Land use regulations for erosion control are considered to be within the state's police power because they are similar to regulations that conserve natural resources and food supply, aid in preserving wildlife, protect public lands and highways, conserve water supplies, and prevent impairment of dams and reservoirs. Such regulations have been held to be an appropriate use of police powers.

^{161.} Federman, supra note 160, at 143; Land Use Implications, supra note 6, at 1056-57.

^{162.} See, e.g. Ky. Rev. Stat. § 262.350(2)(d) (1981); N.D. Cent. Code § 4-22-30(d) (1975); Wis. Stat. § 92.11(2)(b) (1981-1982).

^{163.} METHODS AND PRACTICES, supra note 1, at 20.

^{164.} Federman, supra note 160, at 143; Land Use Implications, supra note 6, at 1056.

^{165.} See Methods and Practices, supra note 1, at 8, 10. See also Ky. Rev. Stat. § 262.350(2)(c) (1981); N.D. Cent. Code § 4-22-30(c) (1975); and Standard Districts Law, supra note 12, § 9(3), which provide that the district land use regulations may contain specifications on cropping programs and tillage practices to be observed.

^{166.} See METHODS AND PRACTICES, supra note 1, at 10, 15, 18. See also Ky. Rev. Stat. § 262.35(2)(a) (1981); N.D. Cent. Code § 4-22-30(a) (1975); and Standard Districts Law, supra note 12, § 9(1), which provide that district land use regulations may contain provisions requiring the carrying out of necessary engineering operations.

^{167.} Model State Act, supra note 13, § 5; STANDARD DISTRICTS LAW, supra note 12, § 9(4).

^{168.} Model State Act, supra note 13, §§ 3(b)(3), 5; STANDARD DISTRICTS LAW, supra note 12, §§ 9(1)-(3), (5).

^{169.} Memorandum on Constitutionality, supra note 148, at 37.

^{170.} Id. at 43; Ferguson, supra note 36, at 178-79.

^{171.} There is ample precedent in the exercise of the police power for requiring landown-

C. Implementation of Areawide Water Quality Management Plans

Section 208 of the Clean Water Act¹⁷² provides a mechanism to control nonpoint sources of water pollution.¹⁷³ It authorizes a program of areawide waste treatment management planning that integrates the Act's various pollution prevention efforts.¹⁷⁴ One water pollution control program under section 208 provides for the identification of agricultural, urban, construction, and mining-related nonpoint sources of pollution and sets forth procedures and methods, including land use requirements, to control such sources.¹⁷⁸

The first step in initiating the planning development process under section 208 requires the governor of each state, after consulting with local officials, to identify and designate areas within the state that have substantial water quality control problems resulting from urban-industrial concentrations or other factors. The Governors are also directed to designate a single representative organization that includes elected officials from local governments, such as a regional planning agency, to develop an effective waste treatment management plan for each designated area. The state then acts as the planning agency for all areas of the state which have not been specifically designated.

ers at their own expense to effect particular operations on their land. See, e.g., Perley v. North Carolina, 249 U.S. 510 (1919) (upholding a statute requiring owners to remove brush and debris conducive to fires); Missouri, Kan. & Tex. Ry. v. May, 194 U.S. 267 (1904) (upholding a statute requiring property owner to destroy weeds); Davis v. State, 126 Ark. 260, 190 S.W. 436 (1916) (upholding a statute requiring farmers to dip cattle to destroy ticks); Chambers v. McCollum, 47 Idaho 74, 272 P. 707 (1928) (upholding a statute requiring owners to patrol forest lands); Chaput v. Demars, 120 Kan. 273, 243 P. 311 (1926) (upholding a statute requiring property owners to trim hedges abutting public highways). For further discussion on the constitutionality of land use regulations to control nonpoint sources of pollution, see Memorandum on Constitutionality, supra note 148, at 36-44.

- 172. 33 U.S.C. § 1288 (1976 & Supp. V 1981).
- 173. Section 208 represents the only mechanism in the Clean Water Act to control nonpoint source pollutants. Land Use Application, supra note 6, at 1056 n.50. For a complete discussion of the authority under section 208 to control nonpoint source pollution, see Guidelines, supra note 3, at ch. 7; W. Davey, supra note 48; B. Holmes, supra note 45, at 11-32; Federman, supra note 161; Land Use Implications, supra note 6; Nonpoint Source Water Pollution in Iowa, supra note 8.
- 174. 33 U.S.C. § 1288 (1976 & Supp. V 1981); Land Use Implications, supra note 6, at 1052; Nonpoint Source Water Pollution Control in Iowa, supra note 8, at 186.
 - 175. 33 U.S.C. §§ 1288(b)(2)(F)-(K) (1976 & Supp. V 1981).
- 176. Id. § 1288(a)(2) (1976). See B. Holmes, supra note 45, at 12; Land Use Implications, supra note 6, at 1052-53; Nonpoint Source Water Pollution Control in Iowa, supra note 8, at 194.
- 177. 33 U.S.C. § 1288(a)(2) (1976). See B. HOLMES, supra note 45, at 12; Land Use Implications, supra note 6, at 1053; Nonpoint Source Water Pollution Control in Iowa, supra note 8, at 194-95. This organization serves as a planning agency and must have waste treatment planning jurisdiction for the entire designated area. 33 U.S.C. § 1288(a)(2)(1976).
- 178. 33 U.S.C. § 1288(a)(6) (1976). Most predominantly agricultural areas with no substantial urban or industrial component fall into this category. B. HOLMES, supra note 45, at 13.

Under the second step of the section 208 planning process, the governor's designated regional planning agency, or the state planning agency, must identify agriculturally and silviculturally related nonpoint sources of pollutants and develop regulatory procedures and methods, including land use requirements, to control pollutants from those sources.¹⁷⁹ The third step in the process involves the approval of the plans and the designation of agencies to implement them.¹⁸⁰ The governor must submit completed plans to the federal Environmental Protection Agency (EPA) for approval,¹⁸¹ and must designate one or more state, regional, or local management agency to execute the plans.¹⁸² The EPA must disapprove any plan that does not satisfy the statutory requirements, and may also disapprove any proposed designation of a management agency that does not possess sufficient power to implement the plan.¹⁸³ Soil and water conservation districts may possibly be designated as management agencies.¹⁸⁴

VI. OPERATION OF LAND USE REGULATIONS TO CONTROL NONPOINT SOURCE POLLUTANTS

Statutes in four midwestern states, Kentucky, 185 Nebraska, 186 North Dakota, 187 and Wisconsin, 188 are similar to the proposed Standard Districts Law provisions 189 in that the soil and water conservation districts or counties have permissive power to adopt land use regulations for the control of soil erosion and sedimentation. Nevertheless, these states, and others with permissive enabling legislation, have almost universally neglected to exercise their power by adopting land use regulations. 180 Districts have championed the voluntary approach to nonpoint source pollution control by specializing in programs of persuasion, education, technical assistance, and cost-

^{179. 33} U.S.C. § 1288(b)(2)(F) (Supp. V 1981). Agriculture and forestry nonpoint sources of pollution include "return flows from irriga[tion], runoff from manure disposal areas, and from land used for livestock and crop production" Id. § 1288(b)(2)(F)(i). See Land Use Implications, supra note 6, at 197; Nonpoint Source Water Pollution Control in Iowa, supra note 8, at 1053.

^{180. 33} U.S.C. § 1288(b)(4), (c) (1976 & Supp. 1981).

^{181.} Id. § 1288(b)(3) (1976).

^{182.} Id. § 1288(c)(1).

^{183.} Id. § 1288(c)(2). See Land Use Implications, supra note 6, at 1053-54; Nonpoint Source Water Pollution Control in Iowa, supra note 8, at 197-98.

^{184.} See W. Davey, supra note 48, for discussion.

^{185.} See Ky. Rev. Stat. §§ 262.350-.520 (1981).

^{186.} See Neb. Rev. Stat. §§ 2-3244 to -3250 (1977).

^{187.} See N.D. CENT. CODE §§ 4-22-27 to -39 (1975).

^{188.} See Wis. STAT. § 92.11 (1981-1982). See also infra note 189.

^{189.} See STANDARD DISTRICTS LAW, supra note 12, §§ 9-12. Only the county board of supervisors can adopt regulations in Wisconsin. Wis. STAT. §§ 59.81(4), 92.11(3) (1981-1982).

^{190.} Glick, The Coming Transformation of the Soil Conservation District, 22 J. Soil & WATER CONSERVATION 44 (1967); Hines & Schantz, supra note 2, at 370; B. Holmes, supra note 45, at 71.

sharing.191

Iowa, 192 Michigan, 193 and Ohio 194 statutes provide for mandatory adoption of statewide land use regulations or standards, based on soil loss limits, land-disturbing activities (similar to those provided in the Model State Act 196) or acceptable management and conservation practices. These statutes also give more authority to the state administrative agencies in the nonpoint source pollution control process. 196 South Dakota statutes provide for the adoption of conservation standards that are based on soil loss tolerance limits on a district by district basis. 197 The South Dakota statutes will be further discussed below with those states having mandatory regulatory powers. 198

Soil and water conservation districts in Illinois have two statutes available to them to enforce control of erosion and sediment.¹⁹⁹ One statute gives permissive power to the districts to adopt land use regulations and is similar to the Standard Districts Law.²⁰⁰ The other statute requires the state Department of Agriculture and the districts to establish soil erosion and sediment control programs and standards.²⁰¹ Illinois will be further discussed below with both the permissive and the mandatory regulatory power states.²⁰²

A. Adoption Procedure for Land Use Regulations

1. Permissive Regulatory Powers

Soil and water conservation district supervisors or directors in Illinois, 205 Kentucky, 204 Nebraska, 205 and North Dakota, 200 which have permissive land use regulatory powers patterned after the Standard Districts

^{191.} See Contemporary Studies Project, supra note 30, at 895-96; W. DAVEY, supra note 48, at 140; Hines & Schantz, supra note 2, at 369-70.

^{192.} IOWA CODE ch. 467A (1983).

^{193.} Mich. Comp. Laws §§ 282.104, .105 (1979).

^{194.} Ohio Rev. Code Ann. § 1511.02(E) (Page Supp. 1982).

^{195.} Model State Act, supra note 13.

^{196.} IOWA CODE §§ 467A.42-.53 (1983); Mich. Comp. Laws §§ 282.101-.117 (1979); Ohio Rev. Code Ann. § 1511.02 (Page Supp. 1982).

^{197.} S.D. Codified Laws Ann. §§ 38-8A-1 to -21 (1977 & Supp. 1982).

^{198.} See infra text accompanying notes 277-85, 294-98.

^{199.} ILL. REV. STAT. ch. 5, §§ 111(8), 128-30, 138.3, 138.5-.10 (Supp. 1983).

^{200.} Id. ch. 5, §§ 128-30; STANDARD DISTRICTS LAW, supra note 12, § 9-11.

^{201.} ILL. REV. STAT. ch. 5, §§ 111(8), 138.3, 138.5-.10 (Supp. 1983).

^{202.} See infra text accompanying notes 203-26, 242-53, 261, 276-93.

^{203.} ILL. REV. STAT. ch. 5, § 128 (Supp. 1983).

^{204.} Ky. Rev. Stat. § 262,350(1)(1981).

^{205.} Neb. Rev. Stat. § 2-3244 (1977). The natural resources districts in Nebraska have these powers. Id. § 2-3203.

^{206.} N.D. CENT. CODE § 4-22-27 (1975).

Law,²⁰⁷ may develop and propose regulations to govern the use of lands²⁰⁸ lying within the district in the interest of conserving soil and water resources and preventing and controlling soil erosion.²⁰⁹ After the district supervisors or directors develop proposed regulations, they may conduct meetings and hold public hearings on the regulations as they deem necessary to assist them in their work.²¹⁰ Following the meetings and hearings, the proposed regulations are embodied by the district supervisors or directors in a proposed ordinance for submission by them to a referendum of those qualified to vote in the district on the question.²¹¹ The supervisors or directors are required to give proper notice of their intentions to submit the proposed ordinances to a referendum for approval or disapproval by the qualified voters,²¹² and to provide copies of the proposed ordinances to the voters prior to the referendum.²¹³ What constitutes a vote varies from state to state, and may include all landowners,²¹⁴ occupiers of land,²¹⁵ or qualified electors²¹⁶ within the district.

District supervisors or directors may not enact the land use regulation unless the proposed ordinance has been approved by the required number of

^{207.} STANDARD DISTRICTS LAW, supra note 12, § 9.

^{208.} Soil and water conservation districts supervisors in Kentucky lands must first determine that "uncontrolled soil erosion on some within the district is causing damage to other lands within the district" before it can propose regulations. Ky. Rev. Stat. § 262.350(1) (1981).

^{209.} Illinois has amended its statutes to emphasize more than soil erosion. See Ill. Rev. Stat. ch. 5, § 128 (Supp. 1983). Regulations may also be promulgated in the interest of preventing and controlling floodwater and sediment damages. Id. Statutes in Kentucky and North Dakota and under the Standard Districts Law are limited to conserving soil and soil resources and preventing and controlling soil erosion. Ky. Rev. Stat. § 262.350(1) (1981); N.D. Cent. Code § 4-22-27 (1975); Standard Districts Law, supra note 12, at § 9. Nebraska natural resources districts may propose regulations "in the interest of conserving soil and water resources and preventing and controlling soil erosion." Neb. Rev. Stat. § 2-3244 (1977).

^{210.} Ky. Rev. Stat. § 262.350(1) (1981); Neb. Rev. Stat. § 2-3244 (1977); N.D. Cent. Code § 4-22-27 (1975); Standard Districts Law, *supra* note 12, § 9. Public hearings are mandatory in Illinois. Ill. Rev. Stat. ch. 5, § 128 (Supp. 1983).

²¹¹ ILL. REV. STAT. ch. 5, § 128 (Supp. 1983); Ky. REV. STAT. § 262.360 (1981); N.D. CENT. CODE § 4-22-27 (1975); STANDARD DISTRICTS LAW, supra note 12, § 9. See B. Holmes, supra note 45, at 61; Ferguson, supra note 43, at 177.

^{212.} ILL. REV. STAT. ch. 5, § 128 (Supp. 1983); Ky. REV. STAT. § 262.360 (1981); Neb. Rev. STAT. § 2-3244 (1977); N.D. CENT. CODE § 4-22-28 (1975); STANDARD DISTRICTS LAW, supra note 12, at § 9. In Illinois a copy of the proposed ordinance is filed with the Department of Agriculture so that it can issue an opinion prior to the referendum. ILL. Rev. STAT. ch. 5, § 128 (Supp. 1983).

^{213.} ILL. Rev. Stat. ch. 5, § 128 (Supp. 1983); Ky. Rev. Stat. § 262.370(1) (1981); Neb. Rev. Stat. §§ 2-3244, -3245 (1977); N.D. Cent. Code § 4-22-27 (1975); Standard Districts Law, supra note 12, § 9.

^{214.} ILL REV. STAT. ch. 5, § 128 (Supp. 1983); Ky. REV. STAT. § 262.380(1) (1981); Neb. Rev. STAT. §§ 2-3244, -3246 (1977).

^{215.} STANDARD DISTRICTS LAW, supra note 12, § 9.

^{216.} N.D. CENT. CODE § 4-22-28 (1975).

qualified voters on the referendum.²¹⁷ A favorable vote of seventy-five percent of those landowners in the district voting on the referendum is required in Illinois for approval;²¹⁸ ninety percent of the landowners in the district voting is required in Kentucky;²¹⁹ seventy-five percent of the landowners in the district voting is required in Nebraska;²²⁰ seventy-five percent of the qualified electors in the district voting is required in North Dakota;²²¹ and a majority of the occupiers of land in the district voting is required under the Standard Districts Law.²²² Approval by the required number of qualified voters on the referendum does not required the adoption of the proposed ordinance by the district supervisors or directors in Illinois,²²³ Kentucky,²²⁴ and Nebraska,²²⁶ or under the Standard Districts Law.²²⁶ An affirmative vote on the referendum in North Dakota, however, does require the district supervisors to enact the land use regulations in the approved ordinance.²²⁷

Soil and water conservation district supervisors or directors act as legislative bodies in adopting land use regulations.²²⁸ Districts are subdivisions of the state and are not administrative bodies.²²⁹ As such, their governing bodies have legislative powers; and the constitutional provisions proscribing the delegation of legislative power to administrative bodies do not apply.²³⁰ In addition, there are no constitutional prohibitions against holding referendums upon particular issues if the legislative body wishes to ascertain public opinion on those issues.²³¹ Questions of improper delegation of legislative power to eligible voters have been avoided by the procedures adopted for

^{217.} ILL. Rev. Stat. ch. 5, § 128 (Supp. 1983); Ky. Rev. Stat. § 262.390(1) (1981); Neb. Rev. Stat. § 2-3246 (1977); N.D. Cent. Code § 4-22-29 (1975); Standard Districts Law, supra note 12, § 9. See B. Holmes, supra note 45, at 61, 63-65; Ferguson, supra note 43, at 177.

^{218.} ILL. REV. STAT. ch. 5, § 128 (Supp. 1983).

^{219.} Ky. Rev. Stat. \S 262.390(1) (1981). In addition, the 90% of the landowners casting their vote in the referendum to enact the proposed ordinance must own at least 80% of the land within the district. Id.

^{220.} Neb. Rev. Stat. § 2-3246 (1977).

^{221.} N.D. CENT. CODE § 4-22-29 (1975). See N.D. CENT. CODE §§ 4-22-02(11), -28 (1975) for provisions identifying voters on the referendum as qualified electors.

^{222.} STANDARD DISTRICTS LAW, supra note 12, at § 9. See B. HOLMES, supra note 45, at 61, 64-65; Ferguson, supra note 36, at 177.

^{223.} ILL. REV. STAT. ch. 5, § 128 (Supp. 1983).

^{224.} Ky. Rev. Stat. §§ 262.360, .380(1), .390(1) (1981).

^{25.} Neb. Rev. Stat. §§ 2-3244, -3246 (1977).

^{226.} STANDARD DISTRICTS LAW, supra note 12, § 9. The district boards of supervisors or directors may adopt the ordinances on an affirmative vote of the required number of qualified voters on the referendum. ILL. Rev. Stat. ch. 5, § 128 (Supp. 1983); Ky. Rev. Stat. §§ 262.360, .380(1), .390(1) (1981); Neb. Rev. Stat. §§ 2-3244, -3246 (1977); STANDARD DISTRICTS LAW, supra note 12, § 9.

^{227.} N.D. CENT. CODE § 4-22-29 (1975).

^{228.} See supra text accompanying notes 148-58.

^{229.} See Schwartz, supra note 150, § 11.

^{230.} See Memorandum on Constitutionality, supra note 148, at 48.

^{231.} Memorandum on Constitutionality, supra note 148, at 55.

adopting land use regulations in all midwestern states patterned after the Standard Districts Law (except in North Dakota²³²) because a favorable referendum vote has only an advisory effect upon the district supervisors or directors.²³³

Procedures for adopting land use regulations in Wisconsin are different than those in force in other midwestern states with permissive regulatory powers. A county land conservation committee may develop a proposed county ordinance for the regulation of land use and land management practices²³⁴ that is applicable either throughout the county or to any part of the county.235 After developing the proposed ordinance, the land conservation committee must present it to the county board of supervisors, together with a report on the need for the ordinance and its expected economic and environmental impacts.236 The county board must give public notice of a proposed ordinance within two weeks after its receipt of the ordinance by publishing it in a local newspaper and by then holding at least one public hearing.²³⁷ After the public hearings, the county board of supervisors may then adopt, adopt with revisions, or disapprove the proposed ordinance.²³⁸ The adopted or revised ordinance will not become effective in the affected area until it has been placed before the electors in a referendum and has been approved by a majority of all votes cast on the ordinance within the affected area.339 The ordinance also will not become effective if it is disap-

^{232.} See supra text accompanying note 227.

^{233.} Ferguson, supra note 43, at 179; Memorandum on Constitutionality, supra note 148, at 55-56. Provisions calling for the submission of a regulatory statute to a referendum and providing that the statute will not go into effect unless it is approved by a stated number of votes in the referendum have been held to be an improper delegation of legislative power to the eligible voters. In Olinger v. People, 140 Colo. 397, 400-01, 344 P.2d 689, 691-92 (1959) the Colorado Supreme Court held that the adoption of a land use ordinance by a soil conservation district prohibiting the breaking of virgin sod for cultivation was an unconstitutional delegation of legislative authority because the statute under which the ordinance was adopted did not give the board of supervisors discretionary power over adopting the ordinance, even if it received a favorable vote on the referendum. Land use ordinances adopted by soil conservation districts in North Dakota could probably also be challenged successfully because the enabling legislation does not give district boards discretionary power in adopting ordinances after a favorable vote on the referendum. See N.D. Cent. Code § 4-22-29 (1975).

^{234.} Wis. STAT. § 92.11(1) (1981-1982). The purpose of the proposed ordinances are to promote soil and water conservation or nonpoint source water pollution abatement. *Id*.

^{235.} Id. § 92.11(2)(a). Unlike other states, proposed ordinances in Wisconsin need not be countywide, but may be applicable to a smaller area of a county, such as an entire town or all of a village or city within a county. See id. § 92.11(4)(a).

^{236.} Id. § 92.11(3).

^{237.} Id. § 92.11(3). County boards in Wisconsin, rather than the land conservation committee (which is somewhat equivalent to district supervisors in other states), hold the public hearings. Id. Hearings are only held in the area affected by the proposed ordinance. See id.

^{238.} Id. See also id. § 59.879. The county boards, rather than the district supervisors or directors, adopt ordinances in Wisconsin. Id. § 92.11(3).

^{239.} Id. §§ 92.11(4)(b), (d). The affected area is only that part of a county in which the ordinance is applicable and may be the entire county, an entire town, or all of a village or city

proved by the electors.²⁴⁰ This statute may be unconstitutional on the ground of improper delegation of legislative power to the voters because an ordinance must be approved by referendum before it can become effective.²⁴¹

Even though soil and water conservation districts or county boards in Illinois,²⁴² Kentucky,²⁴³ Nebraska,²⁴⁴ North Dakota,²⁴⁵ and Wisconsin²⁴⁶ are authorized to adopt ordinances regulating land use to control soil erosion and sediment,²⁴⁷ the adoption of such ordinances has been made almost impossible in all of these states except for Wisconsin.²⁴⁸ This is due to statutes that require the approval of proposed ordinances by referendums of eligible voters as a prerequisite to the adoption of such ordinances.²⁴⁹ Requiring a referendum, especially where more than fifty-one percent of the vote is required for the adoption of a proposed ordinance, can effectively prevent the enactment of meaningful regulations.²⁵⁰ This problem is further compounded if the voting is limited to the landowners within the district because such a requirement grants the power to veto regulations that may be in the public interest to the very group to be regulated.251 "The purpose of land use regulations . . . should be to protect the [public interest], rather than the interests of the regulated group, in the soil and water resources of the state."252

Therefore, even though districts have permissive regulatory authority in

within a county if the ordinance is an original one; however, in an ordinance revision the affected area may include only parts of a town, village, or city. Id. § 92.11(4)(a). See id. § 92.11(4)(c) for the ballot form and referendum procedures. Note that in Wisconsin, the ordinance is adopted before the referendum. Effectiveness of the ordinance is dependent upon the vote in the referendum. Id. § 92.11(3)-(4).

- 240. Id. § 92(4)(d).
- 241. See supra note 233.
- 242. ILL. REV. STAT. ch. 5, § 128 (Supp. 1983).
- 243. Ky. Rev. Stat. § 262.350(1) (1981).
- 244. NEB. REV. STAT. § 2-3244 (1977). See supra note 205.
- 245. N.D. CENT. CODE § 4-22-27 (1975).
- 246. Wis. Stat. § 92.11 (1981-1982).
- 247. See supra note 209.
- 248. See B. Holmes, supra note 45, at 64-65; Contemporary Studies Project, supra note 30, at 896. This is particularly true in Kentucky where the landowners voting on the referendum to adopt the proposed regulations must own at least 80% of the land within the district. Ky. Rev. Stat. § 262.390(1) (1981).
- 249. ILL. Rev. Stat. ch. 5, § 128 (Supp. 1983); Ky. Rev. Stat. § 262.350(1) (1981); Neb. Rev. Stat. § 2-3244 (1977); N.D. Cent. Code § 4-22-27 (1975).
- 250. B. Holmes, supra note 45, at 64. See Ill. Rev. Stat. ch. 5, § 128 (Supp. 1983) (75% of the landowners in the district voting); Ky. Rev. Stat. § 262.390(1) (1981) (90% of the landowners in the district voting); Neb. Rev. Stat. § 2-3246 (1977) (75% of the landowners in the district voting); N.D. Cent. Code § 4-22-29 (1975) (75% of the qualified electors in the district voting); W. Parks, supra note 41, at 149-51; Contemporary Studies Project, supra note 30, at 898.
 - 251. Contemporary Studies Project, supra note 30, at 898.
 - 252. Id.

these five states, it is impractical to assume under the present legislation that these states could effectively provide the necessary regulatory programs for nonpoint source pollution control provided for in the areawide water quality management plans developed under section 208 of the Clean Water Act.²⁵³

Soil and water conservation district supervisors or county boards may thus find it necessary to develop land use regulations that excuse many owners and occupiers of land from compliance with the proposed regulations in order to improve the prospects of gaining an affirmative vote on the referendum. In addition, management practice requirements for compliance with the proposed land use regulations may have to be made very simple and easy to perform. For example, only agricultural activities on land with a six percent or greater slope, or on parcels consisting of one acre or more in size, are subject to the land use regulation ordinance adopted in Vernon County. Wisconsin by the Vernon County Board of Supervisors for the Town of Sterling.²⁶⁴ The ordinance provides that agricultural lands comply with the ordinance if they are being cultivated in contour strips or managed to meet SCS Technical Guide Standards²⁸⁵ or in accordance with any other conservation management system acceptable to the district.256 Also, agricultural or forestry lands comply with the ordinance if their use is being conducted in accordance with a conservation plan prepared by the district,257 or when a cooperative agreement has been signed by the land occupier and approved by the district.²⁵⁸ Occupiers engaged in land-disturbing activities on lands used for purposes other than agriculture or forestry need not obtain a permit to be in compliance with the ordinance, but need only prepare an ero-

^{253. 33} U.S.C. § 1288 (1978 & Supp. IV 1980).

^{254.} Vernon County, Wisconsin, Soil and Water Conservation District Land Use Regulation Ordinance for the Town of Sterling § 3.01(a) (June 21, 1977) [hereinafter cited as Vernon County Ordinance]. At the time this ordinance was adopted, county boards of supervisors in Wisconsin could adopt the land use regulation ordinance proposed by the soil and water conservation district supervisors after an affirmative vote by the qualified electors on a referendum. Wis. Stat. § 92.09(1) (1979-1980). Adopted ordinances could apply only to lands within the district lying outside of incorporated cities or villages, and the applicable areas were to be designated in the proposed ordinance. *Id.* Only electors in the area proposed to be covered by the regulations were eligible to vote in a referendum to approve the ordinance. *Id.* § 92.09(1).

^{255.} The Technical Guide Standards is a document developed by the United States Soil Conservation Service and localized for each soil and water conservation district in the state and it has been adopted by the district and sets forth design standards and specifications for the protection and use of cropland, pasture, hayland, woodland, wildlife land, recreation land, urban land, and other lands. U.S. Soil Conservation Service, Dep't of Agriculture, Soil Conservation Service Technical Guide (1979) [hereinafter cited as SCS Technical Guide Standards].

^{256.} Vernon County Ordinance, supra note 254, §§ 2.20, 3.01.

^{257.} Id. § 3.01(b)(2).

^{258.} Id. § 3.01(b)(3). A cooperative agreement need not be implemented if technical and cost-sharing assistance is unavailable. Id. §§ 3.01(b)(3)(aa)-(cc).

sion control plan.²⁵⁹ Even though many occupiers of land were excused from compliance with the proposed Vernon County Ordinance, and the performance of management practices requirements was made simple and easy to comply with, the qualified electors in the Town of Sterling approved the proposed ordinance by only four votes over the required fifty percent.²⁶⁰

2. Mandatory Regulatory Powers

Five states, Illinois,²⁸¹ Iowa,²⁸² Michigan,²⁸³ Ohio,²⁸⁴ and South Dakota,²⁸⁵ have enacted erosion and sediment control statutes that involve a joint effort by state agencies, local governments, and soil and water conservation districts.²⁶⁸ The provisions for establishing soil erosion and sediment controls in these states fall into three categories.

The Iowa provisions fall into the first category. Iowa soil conservation districts are required to adopt regulations and have the regulations approved by a state agency.²⁶⁷ The Iowa soil conservation district commissioners, as required by the Iowa Soil Conservation Districts Law,²⁶⁸ have adopted regulations with the approval of the State Soil Conservation Committee,²⁶⁹ to establish and implement soil loss limits²⁷⁰ for each of the one hundred conservation districts in the state.²⁷¹ At the time that these regulations were proposed, the district commissioners also classified the land

^{259.} Id. § 3.02(b). See id. § 4.0 for erosion control plans. See B. Holmes, supra note 45 at 80-81 for further discussion of the Vernon County Ordinance.

^{260.} The referendum was held on the general election on November 2, 1976. The county board of supervisors exercised its discretion and adopted the ordinance for the town of Sterling on June 21, 1977; An affirmative vote in the referendum did not make adoption of a proposed ordinance by the board compulsory. See Wis. Stat. § 91.09(1) (1979-1980).

^{261.} See Ill. Rev. Stat. ch. 5, §§ 108-19, 127, 127.1-.3, 138.3 (Supp. 1983).

^{262.} See IOWA CODE §§ 467A.44-.46 (1983).

^{263.} See Mich. Comp. Laws §§ 282.104-.117 (1979 & Supp. 1983-1984).

^{264.} See Ohio Rev. Code Ann. §§ 1511.02, 1515.02, 1515.08 (Page Supp. 1982).

^{265.} See S.D. Codified Laws Ann. §§ 38-8A-3, to -6, -9 to -11 (1977).

^{266.} See W. Davey, supra note 48, at 145. For a discussion of mandatory implementation of soil conservation plans, see Alternatives Policies, supra note 66, at 178-84.

^{267.} IOWA CODE §§ 467A.44-.46 (1983).

^{268.} Id. §§ 467A.42-.53. In addition, the Iowa Soil Conservation Districts Law created six conservancy districts responsible for preserving and protecting public interests in soil and water resources of the state. Id. ch. 467D.

^{269.} The State Soil Conservation Committee is the administrative agency for the lowa Department of Soil Conservation. See id. § 467A.4.

^{270. &}quot;'Soil loss limit' means the maximum amount of soil loss due to erosion by water or wind, expressed in terms of tons per acre per year, which the commissioners of the respective soil erosion conservation districts shall determine is acceptable to meet the objectives of the conservancy district law." Id. § 467A.42(1). See id. ch. 467D for the Conservancy District Law.

^{271.} Id. § 467A.5(1). For a discussion of the Iowa Soil Conservation Districts Law, see ALTERNATIVES POLICIES, supra note 66, at 11, 213-14; B. Holmes, supra note 45, at 85-92; Hines & Schantz, supra note 2, at 370-72.

within their districts in relation to the soil loss limit requirements.²⁷² The regulations were submitted to and approved by the State Soil Conservation Committee.²⁷³ After approval by the state committee, the district commissioners gave notice and held a public hearing²⁷⁴ and at the conclusion of the public hearing, adopted the proposed regulations for their districts.²⁷⁵

Illinois²⁷⁶ and South Dakota²⁷⁷ statutes fall into the second category. The state agency is required to prepare statewide erosion and sediment control programs and guidelines, and the soil and water conservation districts are required to adopt conservation standards and regulations based on the state agency program and guidelines.²⁷⁸ The Illinois Soil and Water Conservation Districts Act,²⁷⁹ and the South Dakota Act to Regulate Land-Disturbing Activities within the State Resulting in Soil Erosion and Sediment Damage²⁸⁰ both require a state agency to prepare guidelines for erosion and sediment control and require the soil and water conservation districts to adopt regulations or standards based on the state agency guidelines. Both acts are similar to the Model State Act in this respect.²⁸¹ The Illinois Department of Agriculture and the South Dakota Conservation Commission have developed comprehensive statewide erosion and sediment control programs and guidelines²⁸² to be used by the soil and water conservation districts for implementing and administering the statewide program.²⁸³ Guide-

^{272.} Id. § 467A.44(1). Maximum soil loss on agricultural land is specified in tons per acre per year, depending on the soil type, as specified by the "T values" in Table V, section IIIB, column 2, of the "SCS Work Unit Technical Guides." ALTERNATIVE POLICIES supra note 66, at 213.

^{273.} See IOWA CODE § 467A.45 (1983).

^{274.} IOWA CODE § 467A.45 (1983).

^{275.} Id. § 467A.46 (West 1971). Any amendments or modifications to the regulations must be approved in the same manner as the original regulations.

^{276.} ILL. REV. STAT. ch. 5, §§ 138.3, .5 (Supp. 1983).

^{277.} S.D. Codified Laws Ann. §§ 38-8A-3, -6 to -11 (1977).

^{278.} ILL. Rev. Stat. ch. 5, §§ 128, 138.3 (Supp. 1983); S.D. Codified Laws Ann. §§ 38-8A-3, -6 (1977). See Model State Act, supra note 13, §§ 3-4 for similar provisions.

^{279.} ILL. REV. STAT. ch. 5, §§ 111(8), 138.3, 138.5-.9 (Supp. 1983). This act is not concerned with agricultural pollution, but with erosion and sedimentation damage from land disturbing activities, including both development related and agricultural activities. See *id.*; B. Holmes, *supra* note 45, at 122.

^{280.} S.D. CODIFIED LAWS ANN. §§ 38-8A-1 to -21 (1977 & Supp. 1981).

^{281.} Model State Act, supra note 13, §§ 3-4.

^{282.} In Illinois "guidelines" mean "a guide or recommendation to be used by districts in developing a program and standards for erosion and sediment control." ILL. REV. STAT. ch. 5, § 108.16 (Supp. 1983). "Guidelines" in South Dakota are "recommendations of the commission not possessing the force or effect of rules, regulations, or standards." S.D. Codified Laws Ann. § 38-8A-1(5) (1977).

^{283.} ILL. Rev. Stat. ch. 5, §§ 111(8), 138.3 (Supp. 1983); S.D. Codified Laws Ann. § 38-8A-3 (1977). See Model State Act, supra note 13, §§ 3(a)-(b). See S.D. Codified Laws Ann. ch. 1-26 (1980) for the procedures to adopt administrative rules. For the guidelines, see Illinois Dep't of Agriculture, State Erosion and Sediment Control Guidelines (April 18, 1980) [hereinafter cited as Illinois Erosion & Sediment Guidelines] and South Dakota State Con-

lines were based on relevant physical and developmental information concerning the watersheds and drainage basins of the state, including, but not limited to, data relating to land use, soils, hydrology, geology, size of land area being disturbed, proximate water bodies and their characteristics, transportation, public facilities, and services.²⁸⁴ Before adopting the proposed guidelines, the Illinois Department of Agriculture and the South Dakota Conservation Commission each gave notice and held public hearings.²⁸⁵

Each soil and water conservation district in Illinois had two years²⁸⁶ after the Illinois Department of Agriculture adopted the state program and guidelines to develop and adopt a soil erosion and sediment control program and standards²⁸⁷ that were technically feasible, economically reasonable, and consistent with the state program and standards.²⁸⁸ To assist in developing its program and standards, each district had to name an advisory committee of not less than eight members representing "a wide variety of interests, including, but not limited to, agriculture, business, commerce, financing, local government, housing, industry, and recreation."²⁸⁹ Districts had to give due notice²⁹⁰ and hold a public hearing before adopting their conservation standards.²⁹¹ Upon adoption of the standards by the districts, they submit-

SERVATION COMM'N & S.D. DEP'T OF AGRICULTURE, SUGGESTED GUIDELINES FOR LOCAL EROSION AND SEDIMENT CONTROL PROGRAM (1977) [hereinafter cited as S.D. Erosion & SEDIMENT GUIDELINES].

284. ILL. Rev. Stat. ch. 5, § 138.3(a) (Supp. 1983); S.D. Codified Laws Ann. § 38-8A-5(1) (1977). See State Model Act, supra note 13, § 3(b)(1). In developing the Illinois program, the department consulted with the requested technical assistance from local, state, and federal agencies, including soil and water conservation districts. ILL. Rev. Stat. ch. 5, § 111(8) (Supp. 1983). Under the Model State Act the commission developing the program must name an advisory board consisting of between seven and eleven persons representing such interest as "housing, financing, industry, agriculture, recreation, and local governments." Model State Act, supra note 13, § 3(a). Local government interests include local government planning, transportation, health, public works, and zoning commissions or agencies. Id.

285. ILL. Rev. Stat. ch. 5, § 138.3 (Supp. 1983) (30-day notice). See S.D. Codified Laws Ann. § 38-8A-3 (1977), which provides that the guidelines were to be "developed with full opportunity for citizen participation." See S.D. Codified Laws Ann. §§ 1-26-4 to -14 (1980) for the procedure for adopting regulations. At least a 20 day notice is required. *Id.* § 1-26-4(3). See Model State Act, supra note 13, § 3(b) (due notice). For a discussion of the Model State Act and the Illinois and South Dakota acts, see Alternative Policies, supra note 66, at 13-14, 210-11, 224-25; B. Holmes, supra note 45, at 92-101, 122-33.

286. Districts had until April, 1982. ILL. Rev. Stat. ch. 5, § 138.5 (Supp. 1983). See Guidelines, supra note 3 (adopted April 18, 1980).

287. "'Conservation standards' or 'standards' mean any standard adopted by the Department or districts." Id. ch. 5, § 108.15.

288. Id. ch. 5, § 138.5.

289. Id. The Department of Agriculture, upon request of the districts, was required to assist in preparing the district programs and standards. Id. For similar provisions, see Model State Act, supra note 13, § 4(a).

290. See Ill. Rev. Stat. ch. 5, § 136 (Supp. 1983) for notice requirements.

291. ILL. REV. STAT. ch. 5, § 138.5 (Supp. 1983). For similar hearing requirements, see Model State Act, supra note 13, § 4(b).

ted their programs and standards to the Department of Agriculture for review and approval.²⁹² If any district failed to adopt a program and standards and to submit them to the Department for review and approval within the specified time, the Department, after giving notice and holding public hearings, and consulting with the various local governments in the district, was required to develop an appropriate program and standards for the district.²⁹³

All conservation districts in South Dakota, except two, have developed and adopted district conservation standards in cooperation and consultation with counties, municipalities, and other affected local governments.²⁹⁴ After the districts developed their proposed conservation standards, they were forwarded to the State Conservation Commission for review and comment.²⁹⁵ The Commission had six months to review their proposals and to recommend any changes it deemed necessary.²⁹⁶ Each district then had three months after the proposed conservation standards were reviewed by the Commission to give notice, to conduct a public hearing,²⁹⁷ and to adopt the standards "consistent with the control of erosion and sediment resulting from land-disturbing activities."²⁹⁸

The Michigan²⁹⁹ and Ohio³⁰⁰ statutes fall into the third category. The Michigan Soil Erosion and Sedimentation Control Act of 1972³⁰¹ and the Ohio Soil and Water Conservation District Law³⁰² both require state agen-

^{292.} ILL. REV. STAT. ch. 5, § 138.5 (Supp. 1983).

^{293.} Id. For similar provisions see Model State Act, supra note 13, at § 4(a). See also ALTERNATIVE POLICIES supra note 66, at 14, 210-11; B. HOLMES, supra note 45, at 125.

^{294.} See S.D. Codified Laws Ann. § 38-8A-6 (1977), which provided that the districts had 12 months to develop standards after the adoption of state guidelines. The State Conservation Commission was empowered to grant a variance to a conservation district to allow it additional time to carry out its responsibilities. S.D. Codified Laws Ann. § 38-8A-7 (1977).

^{295.} Id. § 38-8A-9.

^{296.} Id. § 38-8A-10.

^{297.} Id. § 38-8A-8. See id. for notice requirements.

^{298.} Id. § 38-8A-11. Districts are not required to accept the commission's recommendations and there is no provision that the commission can adopt standards for districts if the district fails to do so. B. Holmes, supra note 45, at 131.

[&]quot;Land-disturbing activity" . . . means any land alteration resulting in soil erosion from water or wind and the movement of sediments:

⁽¹⁾ Into any and all waters, public or private, on the ground, which are contained within, flow through or border lands in the state; or

⁽²⁾ Onto lands in the state, including, but not limited to, clearing, tilling, grading, excavating and transporting and filling of land.

S.D. Codified Laws Ann. § 38-8A-2 (1977).

^{299.} Mich. Comp. Laws §§ 282.104-.108 (1979).

^{300.} Ohio Rev. Code Ann. §§ 1511.02 (E)-(F), (H)-(I) (Page Supp. 1982).

^{301. 1972} Mich. Pub. Acts 347 (codified as amended at Mich. Comp. Laws §§ 282.101-.117 (1979 & Supp. 1983-1984)). See Mich.Comp. Laws § 282.104(1) (1979) for the development of an unified statewide soil erosion and sedimentation control program.

^{302.} Ohio Rev. Code Ann. \S 1511.02 (Page Supp. 1982). See id. $\S\S$ 1511.02(E)(1), (3)-(4) (Page Supp. 1982) for the requirements for the adoption of the rules.

cies to adopt land use regulations that are then enforced by the state agencies and local governments.

The Michigan Department of Agriculture, with assistance of the soil conservation districts, and in consultation with the appropriate state and local agencies, prepared and submitted a unified statewide soil erosion and sedimentation control program to the Water Resources Commission of the Michigan Department of Natural Resources for its approval.303 The Department received information from the Commission on the effects of sediments on water quality, and the damages to water resources that may be attributed to it, the locations of those waters in the state that had been degraded or had a potential for being degraded by sedimentation and water quality standards to assist it in preparing the programs. 304 The Water Resources Commission of the Department of Agriculture then prepared and adopted rules for a unified soil erosion and sedimentation control program that became effective on January 1, 1975.305 The rules included provisions for the review and approval of site plans, land use plans³⁰⁶, and permits relating to erosion and sediment control.307 Prior to their adoption the commission sent copies of the proposed rules to the state, local,308 county,309 and public agencies310 for review and comment.311 Rules for the implementation of agricultural practices³¹² did not take effect until January 1, 1979.³¹³

^{303.} Telephone interview with John Kennaugh, Soil Erosion and Sedimentation Control Section, Land Resource Program Division, Michigan Department of Natural Resources, Lansing, Mich., Feb. 5, 1981. See Mich. Comp. Laws § 282.104(1) (1979).

^{304.} Mich. Comp. Laws §§ 282.104(2)(a)-(c) (1979). This program was primarily background and guidelines for the Water Resources Commission to formulate rules.

^{305.} Telephone Interview with John Kennaugh, supra note 303. See Mich. Comp. Laws § 282.105(1) (1979). For the rules, see Mich. Admin. Code R. 323.1701-.1704 (Supp. 1981). The Soil Erosion and Sedimentation Control Section was formerly under the Water Resources Commission, but is now part of the Land Resources Program Division of the Michigan Department of Natural Resources. Telephone Interview with John Kennaugh, supra note 303. That section now performs all soil erosion functions previously assigned to the commission. Id.

^{306. &}quot;'Land use' means a use of land which may result in an earth change, including but not limited to subdivision, residential, commercial, industrial, recreational or other development, private and public highway, road and street construction, and drainage construction." MICH. COMP. LAWS § 282.102(8) (1979).

^{307.} Id. § 282.105(1).

^{308. &}quot;'Local agency' means a county, city, village, or chartered township." Id. § 282.102(9).

^{309. &}quot;'County agency' means an office, board, commission, department, or other entity of county government." Id. § 282.102(4).

^{310. &}quot;'Public agency' means a general law township, a school board, or any other local or regional public body, authority, board, or commission which is not a state, local, or county agency." Id. § 282.102(12).

^{311.} Id. § 282.105(1).

^{312. &}quot;'Agricultural practices' means all land farming operations except the plowing or tilling of land for the purpose of crop production or the harvesting of crops." Id. § 282.102(1).

^{313.} Mich. Comp. Laws § 282.104(1) (1979). See Alternative Policies, supra note 66, at 12.

In Ohio, the Division of Soil and Water Districts,³¹⁴ with the approval of the Ohio Soil and Water Conservation Commission, adopted standards to abate soil erosion and degradation of state waters from agricultural, urban, and livestock feeding activities, after giving notice and holding a public hearing. 318 One of the three rules adopted established technically feasible and economically reasonable standards in order to achieve a level of management and conservation practices in farming of silvicultural operations that will abate wind and water erosion of soil, and attached substances, or abate the degradation of the state waters by soil sediment, and established criteria for determining the acceptability of such management and conservation practices. 316 Another set of rules established similar standards with regard to the activities of land grading, excavating, filling, or other soil-disturbing activities on land used for, or being developed for, nonfarm purposes, and establish criteria for determining the acceptability of such management and conservation practices. 317 The third rule established "technically feasible" and "economically reasonable" standards to achieve a level of management of concentrated animal feeding operations on farms which are intended to abate the degradation of the state waters by animal waste, and to establish criteria for the determination of the acceptability of such management practices.318

Because an easier mechanism is available for adopting regulations and

^{314.} The Division of Soil and Water Districts is within the Ohio Department of Natural Resources and provides leadership to local soil and water conservation districts and staff to the Ohio Soil and Water Conservation Commission and coordinates the development and implementation of cooperative programs and working agreements between the districts and division. Ohio Rev. Code Ann. §§ 1511.02(A)-(D) (Page Supp. 1982).

^{315.} See id.]§ 151]1.02(E)(1)-(2), (4); B. Holmes, supra note 45, at 111-13. Notice must be given by mail to statewide organizations representing persons or local governmental agencies affected by the proposed rules. Ohio Rev. Code Ann. § 1511.02(E)(7)(a) (Page Supp. 1982). In addition, a copy of the proposed rules must be mailed to any person requesting a copy. Id. § 1511.02(E)(7)(b). Also, the division must consult with appropriate state and local governmental agencies, including statewide organizations of local governmental officials, industrial representatives, and other interested persons. Id. § 1511.02(E)(7)(c).

^{316.} Id. § 1511.02(E)(1). See Ohio Division of Soil & Water Districts, Dep't of Natural Resources, Agricultural Sediment Pollution Abatement Rules, R. 1501:15-3-01 to -3-09 (Nov. 1, 1979) (codified at Ohio Admin. Code R. 1501:15-3 (1980)) [hereinafter cited as Ohio Agricultural Rules] for the rules and regulations pertaining to agricultural pollution abatement.

^{317.} Ohio Rev. Code Ann. § 1511.02(E)(2) (Page Supp. 1982). See Ohio Division of Soil & Water Districts, Dep't of Natural Resources, Urban Sediment Pollution Abatement Rules, R. 1501:15-1-01 et. seq. (Nov. 1, 1979) (codified at Ohio Admin. Code R. 1501:15-1 (1980)) [hereinafter cited as Ohio Urban Rules] for the rules and regulations pertaining to urban sediment pollution abatement.

^{318.} Ohio Rev. Code Ann. § 1511.02(E)(4) (Page Supp. 1982). See Ohio Division of Soil & Water Districts, Dep't of Natural Resources, Animal Waste Pollution Rules, R. 1501:15-05-01 et seq. (Nov. 1, 1979) (codified at Ohio Admin. Code R. 1501:15-05 (1980)) [hereinafter cited as Ohio Animal Waste Rules] for the rules and regulations pertaining to animal waste pollution abatement.

standards, these midwestern states with a more mandatory approach to soil erosion and sediment control come closer to meeting the necessary regulatory program requirements of the nonpoint source pollution portion of areawide water quality management plans developed under section 208 of the Clean Water Act³¹⁹ than do states that use a permissive approach.³²⁰ In Michigan³²¹ and Ohio³²² the soil erosion and sediment control rules or standards are adopted at the state level. Soil and water conservation districts are unable to independently adopt local land use regulations, and are restricted to an advisory role in the statewide adoption procedure. 328 Illinois 324 Iowa, 326 and South Dakota 326 give soil and water conservation districts the most authority in the land use regulation process. Districts in these three states have the authority to adopt their own soil erosion and sediment control programs, regulations, or standards, and to have them approved by a state agency to assure compliance with the state wide program. 327 Problems exist with Michigan's and Ohio's use of districts to satisfy the regulatory agency requirement of a section 208 area-wide water quality management plan because of the minor role played by the districts in the regulation adoption process. South Dakota statutes have also created a problem with the use of districts to satisfy section 208, as they fail to provide any recourse for districts that fail to adopt conservation standards. 330

B. Geographical Jurisdiction of Land Use Regulations

The regulatory powers of soil and conservation districts to control soil erosion, sediment, and other nonpoint pollutant sources must be extended to urban areas in order to be effective in providing local regulatory programs to implement the nonpoint source pollution portion of areawide water quali-

^{319. 33} U.S.C. § 1288 (1976 & Supp. V 1981).

^{320.} See supra text accompanying notes 203-260.

^{321.} See Mich. Comp. Laws § 282.105(1) (1979). See also Mich. Admin. Code R. 323.1710 (Supp. 1981), which provides that soil conservation districts are to prepare soil erosion and sedimentation control standards and specifications.

^{322.} Ohio Rev. Code Ann. §§ 1511.02(B)-(D) (Page Supp. 1982).

^{323.} Mich. Comp. Laws §§ 282.104-.105 (1979); Ohio Rev. Code Ann. §§ 1511.02, 1515.08 (Page Supp. 1982).

^{324.} See Ill. Rev. Stat. ch. 5, § 106-38.9 (Supp. 1983).

^{325.} See IOWA CODE §§ 467A.42-.66(1983).

^{326.} See S.D. Codified Laws Ann. §§ 38-8A-3 to -7, -9 to -11 (1977).

^{327.} See Ill. Rev. Stat. ch. 5, § 138.5 (Supp. 1983); Iowa Code §§ 467A.44, .45 (1983); S.D. Codified Laws Ann. §§ 38-8A-6, -10, -11 (1977).

^{328.} See Mich. Comp. Laws §§ 282.104-.105 (1979).

^{329.} See Ohio Rev. Code Ann. §§ 1511.02, 1515.08 (Page Supp. 1982).

^{330.} S.D. Codified Laws Ann. § 38-8A-11 (1977) provides that districts shall adopt conservation standards, but does not state what would happen if they failed to do so. See also Ill. Rev. Stat. ch. 5, § 138.5 (Supp. 1983), which provides that if a district fails to develop and adopt a soil erosion and control program and standards within a specified period of time, the State Department of Agriculture will do so for the district.

ty management plans developed under section 208 of the Clean Water Act.³³¹ Enabling legislation must permit land lying within the boundaries of incorporated areas to be included within the territory of soil and water conservation districts³³² and must authorize districts to enact land use regulations that will be applicable throughout its entire territorial jurisdiction. Soil and water conservation districts that include incorporated areas within their territories will then have no jurisdictional problems in applying land use regulations to such areas.

Land use regulations or conservation programs or standards adopted by soil and water conservation districts in Illinois, 333 Iowa, 334 Kentucky, 385 Nebraska,386 and South Dakota,887 by county boards in Wisconsin,388 or by state agencies in Michigan⁸³⁹ and Ohio⁸⁴⁰ may apply to both incorporated an unincorporated areas. Incorporated areas in Illinois lying within a district on January 1, 1978 had until December 31, 1980 to remove themselves from the district's territory, thereby making the district's land use regulation inapplicable.341 Ohio statutes also permit the removal of incorporated area from a district's territory.342 Exemptions to applying the regulations in incorporated areas, and even in unincorporated areas in some instances, are provided for by the statutes of four states.348 The rules adopted by the Michigan Water Resources Commission for a unified soil erosion and sedimentation control program are administered and enforced by the county; however, the county may not enforce the rules within a city, village, or charter township with a soil and sedimentation control ordinance in effect that conforms to the statewide unified program⁸⁴⁴ or on lands owned by

^{331.} See Contemporary Studies Project, supra note 30, at 900-01.

^{332.} See supra notes 129 to 147 and accompanying text for a discussion of the geographical jurisdiction of districts.

^{333.} ILL. REV. STAT. ch. 5, §§ 128, 138.5, .7 (Supp. 1983).

^{334.} IOWA CODE §§ 467A.5(1), .44 (1983).

^{335.} Ky. Rev. Stat. §§ 262.180(1), .350(1), .400(1981).

^{336.} Neb. Rev. Stat. § 2-3244 (1977).

^{337.} S.D. CODIFIED LAWS ANN. §§ 38-8A-11, -16 (1977).

^{338.} Wis. Stat. § 92.11(2)(a) (1981-1982).

^{339.} Mich. Comp. Laws §§ 282.5(5), .106(1) (1979).

^{340.} Ohio Rev. Code Ann. §§ 1511.02(E)(2), (3) (Page Supp. 1982).

^{341.} ILL. REV. STAT. ch. 5, § 138.7 (Supp. 1983).

^{342.} Ohio Rev. Code Ann. § 1515.03 (Page Supp. 1982). Removing incorporated areas from a district does not, however, affect the application of the state agency adopted land use regulations in incorporated areas. See id.

^{343.} Mich. Comp. Laws § 282.107(1) (1979); Neb. Rev. Stat. §§ 2-3244, -3249 (1977); Ohio Rev. Code Ann. § 1515.03 (Page Supp. 1982); Wis. Stat. § 92.11(2)(a) (1981-1982).

^{344.} Mich. Comp. Laws § 282.106(1) (1979). See id. § 282.107(1) which authorizes cities, villages, and charter townships to adopt ordinances providing for soil erosion and sedimentation control. Any city, village, or charter township may adopt an ordinance providing for soil erosion and sedimentation control on public and private land uses within its boundaries, except that a charter township ordinance is inapplicable within a village that has an ordinance providing soil erosion and sedimentation control in effect. Id. A city, village, or township ordinance

public agencies where the use of such lands has been approved by the Commission.³⁴⁵ Land use regulations adopted by the natural resource districts in Nebraska may not conflict with municipal, county, or regional land use regulations that have been adopted or that will be adopted at some future date in accordance with appropriate state enabling legislation.³⁴⁶ The rules adopted in Ohio by the Division of Soil and Water Districts of the Department of Natural Resources pertaining to urban sediment pollution abatement³⁴⁷ do not apply in municipalities or counties that adopt ordinances or rules for urban sediment control.³⁴⁸ The new Wisconsin Soil and Water Conservation District Law provides that land use ordinances adopted by a county board may apply to both incorporated an unincorporated areas, but the applicable area of the ordinance is to be determined by the land conservation committee when proposing the ordinance, and by the voters when approving it in a referendum.³⁴⁹

Soil and water conservation districts in only three midwestern states, Iowa, 350 Kentucky, 351 and South Dakota, 352 meet the criteria for providing an effective regulatory program to implement the nonpoint source pollution portion of the areawide water quality management plans developed under section 208 of the Clean Water Act, 353 since they are able to include incorporated areas within their boundaries and to adopt land use regulations which are applicable to the incorporated areas. Some other midwestern states meet

may be more restrictive, but may not make lawful that which is unlawful under the commission's rules and regulations. Id. The ordinance may adopt all or part of the rules and regulations by reference, shall designate a local enforcing agency responsible for administration and enforcement of the ordinance, and may set forth such other matters as the legislative body deems necessary or desirable. Id. The ordinance is applicable to and must be enforced with regard to all private and public land uses within the city, village, or charter township, except for land uses of an authorized public agency designated by the commission. Id. The city, village, or charter township may consult with a soil conservation district for assistance or advice in the preparation of the ordinance. Id. Michigan has approximately 90 municipalities with their own soil erosion and sedimentation control ordinances. Telephone interview with John Kennaugh, supra note 303.

- 345. Mich. Comp. Laws § 282.106(1) (1979). See id. § 282.111.
- 346. Neb. Rev. Stat. § 2-3244 (1977). Municipal, county, and regional land use regulations take precedence over district rules and regulations in any instances where there is a conflict. Id.
- 347. See Ohio Rev. Code Ann. §§ 1511.02(E)(2), (3) (Page Supp. 1982). See Ohio Urban Rules, supra note 317 (codified as Ohio Admin. Code ch. 1501:15-1) for the rules and regulations pertaining to urban sediment pollution abatement.
- 348. Ohio Rev. Code Ann. §§ 1511.02(E)(2), (9) (Page Supp. 1982); Ohio Urban Rules, supra note 317, R. 1501:15-1-01(A), -02(B)(4) (codified at Ohio Admin. Code §§ 1501:15-1-01(A), -02(B)(4)).
 - 349. Wis. Stat. §§ 92.11(4)(a), (b) (1981-1982).
 - 350. See IOWA CODE §§ 467A.5(1), .44 (1983).
 - 351. See Ky. Rev. Stat. §§ 262.180(1), .350(1), .400 (1981).
 - 352. See S.D. Codified Laws Ann. §§ 38-8A-6, -11, -16 (1977).
 - 353. 33 U.S.C. § 1288 (1976 & Supp. 1981).

these criteria, but their statutes permit methods by which to circumvent the requirement of subjecting urban areas to district land use regulations, thereby lessening their effectiveness in the section 208 regulatory program. District land use regulations in Illinois are applicable to urban areas within soil and water conservation districts, but incorporated areas within a district on January 1, 1978 had two years to withdraw their territory from the district. 364 Even though municipalities are included within district boundaries in Nebraska, other local units of government may adopt soil erosion and sediment control ordinances that will take priority over district land use regulations. 355 Michigan's 356 and Ohio's 357 land use regulations are statewide programs adopted by a state agency, and are applicable to urban areas, but have very little to do with soil and water conservation districts. Local soil erosion and sediment control ordinances that conform to the statewide program take priority. 358 District land use regulations in North Dakota do not apply to incorporated areas,359 while districts in Indiana,360 Kansas,361 Minnesota,362 and Missouri363 do not have regulatory powers. The inclusion of incorporated areas in a Wisconsin land use ordinance is optional with the county land conservation committee and the ordinance is subject to approval by the voters in a referendum before it becomes effective.³⁶⁴

C. Conservation Practices Covered by Land Use Regulations

Conservation treatment is site specific, and the application of a single practice will seldom achieve all desired effects. The combination of conservation practices selected to meet the needs of a particular land and water problem, and to achieve the desired effects, is referred to as a "resource management system." Management practices for nonpoint source control are correlative to this and include those agronomic, managerial, and structural practices that are used either singly or in combination to reduce nonpoint source pollutants to a level compatible with water quality goals. Technical standards can serve as a basis for planning and applying conservation and management practices.³⁸⁵

^{354.} ILL. REV. STAT. § 138.7 (Supp. 1983).

^{355.} Neb. Rev. Stat. § 2-3244 (1977).

^{356.} Mich. Comp. Laws § 282.106(1) (1979).

^{357.} Ohio Rev. Code §§ 1511.02(E)(2)-(3) (Page Supp. 1982).

^{358.} Mich. Comp. Laws Ann. § 282.106(1) (1979); Ohio Rev. Code § 1511.02(E) (9) (Page Supp. 1982).

^{359.} N.D. CENT. CODE §§ 4-22-02(8), -22, -27 to -30 (1975 & Supp. 1983).

^{360.} See Ind. Code § 13-3-1-8 (1982). Incorporated areas in Indiana are within the district boundaries. Id. § 13-3-1-5(h).

^{361.} See Kan. Stat. Ann. § 2-1908 (1982).

^{362.} See MINN. STAT. § 40.07 (1982).

^{363.} See Mo. Rev. Stat. § 278.120 (1978).

^{364.} Wis. Stat. §§ 92.11 (2)(a), (4)(a)-(b) (1982-1982).

^{365.} W. Davey, supra note 48, at 94.

Because of the variability in sources, topography, climate, and soils, no one single management practice will be applicable to all activities or situations. Management practices must be tailored to the needs of the particular source and to the physical conditions that will govern their application.³⁶⁶ State legislation should be sufficiently broad to enable statewide and conservation district land use regulations for soil erosion and sediment control to include a variety of management practices from which the most appropriate practice or combination of practices for each situation or type of condition can be selected.³⁶⁷

Criteria or tests used in selecting management practices include ability to manage pollutants generated from nonpoint sources, achievement of water quality goals, effectiveness in preventing or reducing the amount of pollutants generated, and practicability.³⁶⁸ To adequately control soil erosion and sediment, land use regulations should include agricultural, silvicultural, mining, construction activities, and urban runoff.³⁶⁹ Target levels of nonpoint source pollution abatement should be chosen, and management practices should be selected in terms of meeting those targets.³⁷⁰ Pollutants subject to control must be determined by the state agencies or soil and water conservation district supervisors, and the final selection of management practices to achieve water quality goals should be related to those pollutants.³⁷¹

Management practices must be technically capable of preventing or reducing runoff, seepage, or percolation of pollutants to be effective. Tonsideration should be given to those management practices, or combination of practices, that have been shown to be effective during their past use. Toiteria for erosion reduction (pounds/tons per acre/square mile/basin) should be selected so that the effectiveness of management practices can be related to it. The criteria should be related to the reduction of pollutant loadings and to the achievement of water quality goals. The practices should be feasible not only from a technical standpoint, but also from acceptance, economic, legal, and institutional standpoints. The practicability of securing early implementation should be

^{366.} Id. at 95.

^{367.} For examples of management practices for various land uses, see id. at 99-100 and METHODS AND PRACTICES, supra note 1, at ch. 2.

^{368.} W. DAVEY, supra note 48, at 99-101.

^{369.} Id. at 96-101.

^{370.} Id.

^{371.} See Guidelines, supra note 3, at 7-2 to -3; W. Davey, supra note 48, at 96-97.

^{372.} W. DAVEY, supra note 48, 96-101.

^{373.} Id.

^{374.} Id.

^{375.} Id.

^{376.} Id.

evaluated in selecting management practices. 577

1. Permissive Regulatory Powers

None of the five midwestern states whose permissive land use regulatory powers are patterned after the Standard Districts Law, 378 Illinois, 379 Kentucky, 380 Nebraska, 381 North Dakota, 382 and Wisconsin, 383 require the inclusion of specific provisions in their land use regulations. The enabling legislation in four of these states (all but Wisconsin) closely follow the Standard Districts Law, which provides that district regulations may contain any one or a combination of the following: (a) "provisions requiring the performance of necessary engineering operations, including the construction of terraces and terrace outlets, check or soil saving dams, sediment traps, ditches, dikes, ponds, diversions, channels, and other necessary structures;"384 (b) "provisions requiring observance of particular methods of cultivation, including contour cultivating, contour or lister furrowing, sowing, seeding, planting, strip cropping, planting or sowing water-conserving and erosionconserving plants, trees, and grasses, and forestation and reforestation;"885 (c) "specifications on cropping programs and tillage practices to be observed;"386 (d) "provisions requiring treatment from cultivation of highly erosive areas or areas on which erosion may not be adequately controlled if cultivated;"887 and (e) "provisions for other means, measures, operations, and programs as may assist in the conservation of soil resources and prevent or control soil erosion, runoff, and sedimentation in the district."888 Wiscon-

^{377.} Guidelines, supra note 3, at 7-4 to 7-5; W. Davey, supra note 48, at 97-98.

^{378.} See Standard Districts Law, supra note 12.

^{379.} See Ill. Rev. Stat. ch. 5, § 128 (Supp. 1983).

^{380.} See Ky. Rev. Stat. §§ 262.270, .350 (1981).

^{381.} See Neb. Rev. Stat. §§ 2-3201 to -3275 (1977 & Supp. 1979, 1981, 1983).

^{382.} See N.D. CENT. CODE §§ 4-22-27, -30 (1975).

^{383.} Wis. Stat. § 92.11(2)(b) (1981-1982).

^{384.} ILL. Rev. Stat. ch. 5, § 128(1) (Supp. 1983); Ky. Rev. Stat. § 262.350(2)(a) (1981); Neb. Rev. Stat. § 2-3248(1) (1977); N.D. Cent. Code § 4-22-30(1) (1975); Standard Districts Law, supra note 12, § 9(1).

^{385.} ILL. Rev. Stat. ch. 5, § 128(2) (Supp. 1983); Ky. Rev. Stat. § 262.350(2)(b) (1981); Neb. Rev. Stat. § 2-3248(2) (1977); N.D. Cent. Code § 4-22-30(2) (1975); Standard Districts Law, supra note 12, § 9(2).

^{386.} Ky. Rev. Stat. § 262.350(2)(c) (1981); Neb. Rev. Stat. § 2-3248(3) (1977); N.D. Cent. Code § 4-22-30(3) (1975); Standard Districts Law, supra note 12, § 9(3). The Illinois statutes do not contain this provision.

^{387.} ILL. REV. STAT. ch. 5, § 128(3) (Supp. 1983); KY. REV. STAT. § 262.350(2)(d) (1981); Neb. Rev. STAT. § 2-3248(4) (1977); N.D. Cent. Code § 4-22-30(4) (1975); STANDARD DISTRICTS LAW, supra note 12, § 9(4). The Illinois provision goes further by providing for the permanent retirement of the land. Ill. Rev. Stat. ch. 5, § 128(3) (Supp. 1983).

^{388.} ILL. Rev. Stat. ch. 5, § 128(4) (Supp. 1983); Ky. Rev. Stat. § 262.350(2)(e) (1981); Neb. Rev. Stat. § 2-3248(5) (1977); N.D. Cent. Code § 4-22-30(5) (1979); Standard Districts Law, supra note 12, § 9(5). See B. Holmes, supra note 45, at 61-62; Contemporary Studies Project, supra note 30, at 896; Ferguson, supra note 43, at 177.

sin's new soil and water conservation district law provides that county ordinances proposed by the land conservation committees for the regulation of land use and management practices³⁸⁹ "may prohibit land uses and land management practices which cause excessive soil erosion, sedimentation, nonpoint source water pollution, or storm water runoff."³⁹⁰

The four midwestern states that have adopted the permissive regulatory powers of the Standard Districts Law have similar provisions that require land use regulations in a district ordinance to have uniform application throughout the district.³⁹¹ Lands within the district, however, may be classified with reference to such factors as soil type, degree of slope, degree of threatened or existing erosion, crop and tillage practices in use, and other relevant factors.³⁹² The districts may adopt regulations that vary by the type or class of land affected, but that are uniform as to all lands within each class or type.³⁹³ The Wisconsin statutes do not have such a provision.

Kentucky,³⁹⁴ North Dakota,³⁹⁵ and Wisconsin³⁹⁶ statutes, and the Standard Districts Law,³⁹⁷ provide that the land use regulations adopted by either the district or county boards of supervisors apply to all publicly-owned lands and must be observed by the agencies administering such lands. Illinois or Nebraska statutes have no provisions which indicate whether public lands are subject to the district land use regulations, but the definition of persons in Illinois includes governmental agencies.³⁹⁶

Section 208 of the Clean Water Act requires the development of procedures and methods, including land use requirements, to control nonpoint source pollution. Enabling legislation in the five midwestern states patterned after the Standard Districts Law is agriculturally oriented, and applies primarily to soil erosion control to conserve soil resources. Land use regulations which may be adopted by the soil and water conservation dis-

^{389.} Wis. Stat. § 92.11 (1981-1982).

^{390.} Id. § 92.11(2)(b).

^{391.} ILL. REV. STAT. ch. 5, § 128 (Supp. 1983); Ky. REV. STAT. § 262.400 (1981); Neb. REV. STAT. § 2-3249 (1977); N.D. CENT. CODE § 4-22-31 (1975); STANDARD DISTRICTS LAW, supra note 12, § 9.

^{392.} ILL. Rev. Stat. ch. 5, § 129 (Supp. 1983); Ky. Rev. Stat. § 262.400 (1981); Neb. Rev. Stat. § 2-3249 (1977); N.D. Cent. Code § 4-22-31 (1975); Standard Districts Law, *supra* note 12. § 9.

^{393.} ILL. Rev. Stat. ch. 5, § 128 (Supp. 1983); Ky. Rev. Stat. § 262.400 (1981); Neb. Rev. Stat. § 2-3249 (1977); N.D. Cent. Code § 4-21-31 (1975); Standard Districts Law, supra note 12, § 9.

^{394.} Ky. Rev. Stat. § 262.380(4) (1981).

^{395.} N.D. CENT. CODE § 4-22-41 (1975).

^{396.} Wis. Stat. § 92.13 (1981-1982).

^{397.} STANDARD DISTRICTS LAW, supra note 12, § 14.

^{398.} ILL. REV. STAT. ch. 5, § 108.11 (Supp. 1983).

^{399.} See 33 U.S.C. § 1288(b)(2)(F) (Supp. V 1981); Nonpoint Source Water Pollution Control in Iowa, supra note 8, at 198-200.

^{400.} See supra notes 364-77 and accompanying text.

tricts in Illinois,⁴⁰¹ Kentucky,⁴⁰⁸ North Dakota,⁴⁰⁸ and Nebraska⁴⁰⁴ would probably be too narrow to fulfill the regulatory requirements of the section 208 areawide water quality management plans,⁴⁰⁸ since they would only adequately manage nonpoint pollutants derived from agricultural soil erosion. In Wisconsin the enabling legislation has been broadened to permit land use regulations to include provisions to control storm water runoff.⁴⁰⁸ Wisconsin's statute also has the strongest provision concerning the prohibition of land uses and land management practices which cause excessive soil erosion, sedimentation, and nonpoint source water pollution.⁴⁰⁷

Enabling legislation should be amended to permit soil and water conservation district regulations to cover land use activities in addition to agricultural and to deal with more sources of agricultural-oriented nonpoint source pollutants than mere soil erosion.⁴⁰⁸ The present legislation in all five states should be amended to provide that land use regulations may include provisions concerning use of management practices to abate pollutants resulting from winter storage of manure and animal waste, fertilizer, pesticide, and herbicide application, and land disturbing activities.⁴⁰⁹

Wisconsin, under its former statutes, was the one midwestern state following the Standard Districts Law that enabled district land use regulations to require performance of management practices on lands used for nonagricultural purposes. A couple of examples currently exist in Wisconsin which illustrate possible coverage of land use activities in erosion control regulations in the Vernon County Ordinance and the Wisconsin Model Ordinance.

Several alternatives for complying with the Vernon County Ordinance are available to occupiers of agricultural and forest lands.⁴¹⁸ Such lands are deemed in compliance if they are in contour strips⁴¹⁴ acceptable to the dis-

^{401.} See ILL. REV. STAT. ch. 5, § 129 (Supp. 1983).

^{402.} See Ky. Rev. Stat. §§ 262.270, .350 (1980).

^{403.} See N.D. CENT. CODE §§ 4-22-27, -30 (1975).

^{404.} See Neb. Rev. Stat. §§ 2-3248 to -3249 (1977).

^{405. 33} U.S.C. § 1288 (1976 & Supp. 1981).

^{406.} Wis. STAT. § 92.11(2)(b) (1981-1982).

^{407.} Id.

^{408.} See B. Holmes, supra note 45, at 70.

^{409.} See id.

^{410.} See Wis. Stat. § 92.08 (1979-1980).

^{411.} Vernon County Ordinance, supra note 254.

^{412.} WISCONSIN STATE BOARD OF SOIL AND WATER CONSERVATION DISTRICTS, A MODEL ORDINANCE FOR WISCONSIN SOIL AND WATER CONSERVATION DISTRICTS ADOPTING LAND USE REGULATIONS FOR SEDIMENT CONTROL (Feb. 1973) [hereinafter cited as WISCONSIN MODEL ORDINANCE].

^{413.} Vernon County Ordinance, supra note 254, §§ 2-3.

^{414.} Contour strip cropping is the layout of crops in comparatively narrow strips in which the farming operations are performed approximately on the contour. Id. § 2.18. Usually strips of grass, close-growing crops, or fallow ground are alternated with those in cultivated crops. Id.

trict; if they are managed to meet the SCS Technical Guide Standards⁴¹⁶ or other conservation system acceptable to the district;⁴¹⁶ if uses are being conducted in accordance with a conservation plan⁴¹⁷ prepared by the district;⁴¹⁸ or if a cooperative agreement⁴¹⁸ for such land has been signed by the occupier, approved by the district, and is on file with the district.⁴²⁰ A cooperative agreement need not be implemented if technical assistance is not available from the district to develop the conservation plan or to install nonstructural measures specified in the plan,⁴²¹ or if technical or financial cost-sharing assistance is unavailable to install the structural measures⁴²⁸ specified in the plan.⁴²⁸

Land-disturbing activities⁴²⁴ on nonagricultural and nonforestry public or private lands are covered under the Vernon County Ordinance when an area of 10,000 square feet or more is disturbed by excavation,⁴²⁶ grading,⁴²⁶ filling,⁴²⁷ or other earth-moving activities,⁴²⁸ or by destroying its protective ground cover.⁴²⁹ In addition, any construction or substantial reconstruction of any state, county, town, or private road,⁴³⁰ or any change or enlargement

^{415.} See supra note 255.

^{416.} Vernon County Ordinance, supra note 254, § 3.01(b)(1).

^{417.} A conservation plan is a document developed by the district in consultation with the land operator and land user which sets forth methods for the conservation of soil and water resources of a unit of land or group of units of land. Id. A conservation plan includes, but is not limited to: (a) appropriate maps; (b) appropriate soil, water, plant inventory, and management information with needed interpretation; or (c) a record of decisions contributing to sound land use and conservation treatment of the entire unit of land. Id. § 2.04.

^{418.} Id. § 3.01(b)(2).

^{419.} Cooperative agreement is a document wherein a land user enters into a mutual understanding with the district to work together in planning, and carrying out soil and water resources use, development, and conservation on a specific land area. *Id.* § 2.05.

^{420.} Id. § 3.01(b)(3).

^{421.} Id. §§ 3.01(b)(3)(aa)-(bb).

^{422.} Structural measures are works of improvement for land stabilization measures to prevent sediment damage which include, but are not limited to, gully control structures, waterways, riprap, sediment basins, flood retention dams, diversions, or lining channels with grass, rock, concrete, or other materials. *Id.* § 2.21. Contour strip cropping is not a structural measure. *Id.*

^{423.} Id. § 3.01(b)(3)(cc).

^{424.} Land disturbing activities are any land changes which may result in soil erosion, including but not limited to tilling, clearing, removal of ground cover, grading, excavating, and filling of land, except that the term shall not include such minor land disturbing activities as home gardens and repair and maintenance of private roads. Id. § 2.17.

^{425.} Excavating is any act by which soil or rock is cut into, dug, quarried, uncovered, removed, displaced, or relocated. Id. § 2.08.

^{426.} Grading is any stripping, filling, stockpiling, or any combination thereof and shall include the land in its excavated or filled condition. Id. § 2.10.

^{427.} Filling is the depositing of soil and other materials to fill or partly fill a channel, valley, sink, or other depression or to raise the level of the ground. Id. § 2.19.

^{428.} Id. § 3.02 (a)(1).

^{429.} Id. § 3.02 (a)(2).

^{430.} Id. § 3.02 (a)(3).

of any watercourse or materials removed from street or lake beds is covered by the ordinance.431 Land occupiers or users must prepare an erosion control plan prior to the beginning of the land disturbing activities, submit it to the district, receive approval from the district, and implement the plan in order to comply with the ordinance. 432 Such a plan must include a description of the activity, a time schedule, and such other information as the district may require to determine the nature of the operation, erosion hazards, proposed erosion control measures, and effects of the proposed activity on the surrounding area. 433 Districts may require that all land disturbances be mulched, seeded, sodded, rip-rapped, or otherwise protected, so that erosion and sedimentation are controlled in accordance with specifications established by the district based on the SCS Technical Guide. 434 Districts may also require that road ditches, open channels, storm sewers, water-retention structures, settling basins, and similar structures be installed to accommodate potential volumes of water flow, and that the design of criteria for such structures be in accordance with the SCS Technical Guide. 436

The Wisconsin Model Ordinance was prepared under the state's former statutes for the soil and water conservation districts by the State Board of Soil and Water Conservation Districts. The ordinance covers both general land-disturbing uses, and agricultural, forestry, and conservancy uses fland. Owners or occupiers of public and private land used for constructing, reconstructing, or enlarging any county, town, or private road, who are engaged in any land disturbing activities that will alter existing terrain or destroy existing forest or vegetative ground cover, or other use of land exceeding 10,000 square feet in size, must prepare and submit an erosion, runoff, and sediment control plan to the district for approval and obtain a permit. Land-disturbing activities include, but are not limited to, excavating or grading for construction sites. Owners or occupiers of land engaged in agricultural, forestry, or conservancy used on more than one acre of such

^{431.} Id. § 3.02 (a)(4).

^{432.} Id. § 3.02 (b). See id. § 4.0.

^{433.} Id. § 4.01(d)-(f).

^{434.} Id. § 4.03(a).

^{435.} Id. § 4.03(b).

^{436.} WISCONSIN MODEL ORDINANCE, supra note 412. See Wis. Stat. ch. 92 (1979-1980).

^{437.} General land disturbing use is an activity on land for construction and development. Wisconsin Model Ordinance, supra note 412, § 2.11.

^{438.} A conservancy use is a type of land use pertaining to land areas used for the purpose of scenic, historic, scientific, biological, and/or wildlife habitat. Id. § 2.04.

^{439.} Id. § 3.01(b).

^{440.} Id. § 3.01(a).

^{441.} Id. § 3.01. A "'[p]ermit' is a signed, written statement issued by the County or their designated representative authorizing the applicant to engage in general land disturbing use or agriculture, forestry and conservancy uses specified and for a specified period of time." Id. § 2.18.

^{442.} Id. § 3.01(a).

land⁴⁴⁸ must either secure a permit from the county zoning administrator that the use has been approved by the soil and water conservation district as being in compliance with the SCS Technical Guide,⁴⁴⁴ or sign a cooperative agreement that has been approved by, and is on file with, the district.⁴⁴⁵ The land must be covered by a conservation plan if a land occupier or user chooses the cooperative agreement alternative.⁴⁴⁶ Such a plan must be approved by the district, implemented, and maintained.⁴⁴⁷ The plan implementation requirement, however, is contingent on the availability of technical assistance from the district for both structural and nonstructural measures, and on cost-sharing assistance for the installation of structural measures on private land.⁴⁴⁶

A permit application under the Wisconsin Model Ordinance for land-disturbing activities and agricultural, forestry, and conservancy uses must be accompanied by a site plan, a soil survey map of the site location, and a topographic map of the site location showing contiguous properties within 250 feet of the site boundaries. Site plans are to include a time schedule of the development sequence, amap indicating the topography and locations of all proposed soil disturbing activities, and plans of all temporary and permanent structural measures or other protective devices to be constructed, showing estimated surface runoff of the area for various storm frequencies, estimated rate of discharge at discharge points from the site for the various storm frequencies, and proposed provisions to carry runoff to the nearest adequate outlet.

2. Mandatory Regulatory Powers

Conservation practices that may be included in the land use regulations of the five midwestern states with more mandatory-type erosion and sediment control programs vary. Iowa's control program is based on soil loss limits, and the programs in Michigan and the Model State Act are based on land-disturbing activities. A combination of soil loss tolerances and

```
443. Id. § 3.02(a).
```

^{444.} Id. § 3.02(b).

^{445.} Id. § 3.02(c).

^{446.} Id. § 302(c)(1).

^{447.} Id.

^{448.} Id. §§ 3.02(c)(1)(aa), (bb).

^{449.} Id. §§ 4.01(a)-(c).

^{450.} Id. § 4.01(c)(2).

^{451.} Id. § 4.01(c)(3).

^{452.} Id. §§ 4.01(c)(4)(aa)-(bb), (dd).

^{453.} See supra text accompanying notes 364-77.

^{454.} IOWA CODE §§ 467A.42, .44 (1983).

^{455.} See Mich. Admin. Code R. 323.1701-1714 (1981).

^{456.} See Model State Act, supra note 13, § 1.

conservation standards for land disturbances form the basis of the Illinois, ⁴⁵⁷ Ohio, ⁴⁵⁸ and South Dakota ⁴⁵⁹ programs.

Soil conservation districts in Iowa, with the approval of the State Soil Conservation Committee, are responsible for adopting reasonable regulations establishing a soil loss limit or limits for each district. In doing so, district commissioners may classify land in the district on the basis of topography, soil characteristics, current use, and other factors affecting propensity for soil erosion. Different soil loss limits for each class may be established if in the judgment of the district commissioners and the State Soil Conservation Committee a lower soil loss limit should reasonably be applied to some lands in the district.

Owners of real property in Iowa districts are required to employ either soil and water conservation practices⁴⁶³ or soil erosion control practices⁴⁶⁴ on their land.⁴⁶⁵ District commissioners may not specify the particular practices to be employed so long as the owners voluntarily comply with the applicable soil loss limits established for the district.⁴⁶⁶ In addition, commissioners may not require the employment of erosion control practices on land used in good faith for only agricultural or horticultural purposes.⁴⁶⁷ They may not require the employment of soil and water conservation practices or erosion control practices on the portion of any public street, road, or highway, completed or under construction within the corporate limits of any city, which is, or will become, the traveled or surfaced portion of such street, road, high-

^{457.} ILL. REV. STAT. ch. 5, § 128 (Supp. 1983); Guidelines, supra note 3.

^{458.} Ohio Rev. Code Ann. §§ 1511.02(E)(1)-(2) (Page Supp. 1982).

^{459.} S. D. CODIFIED LAWS ANN. § 38-8A-4 (1977).

^{460.} IOWA CODE §§ 467A.44-.45 (1983). See supra notes 270, 272.

^{461.} IOWA CODE § 467A.44(1) (1983).

^{462.} Id. § 467A.44(2). It was the intent of the legislature that no land would be assigned a soil loss limit that could not be reasonably attained using reasonable soil conservation practices. See B. HOLMES, supra note 45, at 86.

^{463. &}quot;'Soil and water conservation practices' means any of the practices . . . which serve to prevent [soil erosion] by wind or water, in excess of applicable soil loss limits, from land use for agricultural or horticultural purposes only." IOWA CODE § 467A.42(2) (1983). There are both permanent and temporary soil and water conservation practices. See id. §§ 467.42(2)(a)-(b).

^{464. &}quot;Erosion control practices" means the construction or installation and maintenance of structures or devices necessary to carry to a suitable outlet from four or more residential unit building sites, commercial or industrial developments, or publicly or privately-owned recreational or service facilities any water which would otherwise cause erosion in excess of the applicable soil loss limit. Id. § 467A.42(3)(a). "Erosion control practices" also means the employment of temporary devices, structures, or measures, or the establishment and maintenance of vegetation, in conjunction with the construction of any public or private street, road, or highway, or any residential, commercial, or industrial building or development, at all times prior to completion of construction, in order to prevent erosion in excess of the applicable soil loss limits from the site. Id. § 467A.42(3)(b).

^{465.} Id. § 467A.44(3).

^{466.} Id. § 467A.44(3)(a).

^{467.} Id. § 467A.44(3)(c)(1).

way. 488 In addition, district commissioners may not require any owner or operator of agricultural land to refrain from fall plowing of land on which he intends to raise a crop during the next growing season. 469

In Michigan, where the conservation practices in the land use regulations are based on land-disturbing activities, the Michigan Department of Agriculture prepared and submitted a unified statewide soil erosion and sedimentation control program to the Water Resources Commission for its approval.⁴⁷⁰ The program identified land uses that are governed by statutes, and included recommendations, guidelines, and specifications for the control of soil erosion for the identified land uses to prevent sedimentation of the waters of the state.⁴⁷¹ In addition, it set forth the means by which agricultural practices may comply with the guidelines and specifications. 473 After the program was submitted, the Water Resources Commission of the Department of Natural Resources prepared rules to implement the unified soil erosion and sedimentation program, including provisions for the review and approval of site plans, land use plans, 473 and permits. 474 Under the rules, which were adopted, 475 all persons engaged in earth changes 476 requiring a permit under the rules,477 must design, implement, and maintain acceptable soil erosion and sedimentation control plans that effectively reduce accelerated soil erosion. 478 Permits are required when engaging in earth changes in connection with several land use activities that "disturb [one] or more acres of land or if the earth change is within 500 feet of a lake or stream "470 Land use activities that require a permit include transportation facilities, subdivision or lot development, industrial or commercial development, ser-

^{468.} Id. § 467A.44(3)(c)(2).

^{469.} Id. § 467A.44(3)(c)(3). On those lands that are prone to excessive wind erosion the district commissioners may require that reasonable temporary measures be taken to minimize the likelihood of wind erosion so long as such measures do not unduly increase the cost of operation of the farm on which the land is located. Id. See B. Holmes, supra note 45, at 87.

^{470.} See Mich. Comp. Laws § 282.104(1) (1979); Mich. Admin. Code R. 323.1701-.1704 (1981).

^{471.} See Mich. Comp. Laws § 282.104(1) (1979).

^{472.} See id. § 282.104(1).

^{473. &}quot;'Land use' means a use of land which may result in an earth change, including but not limited to subdivision, residential, commercial, industrial, recreational, or other development, private and public highway, road and street construction, drainage construction." *Id.* § 282.102(8).

^{474.} Id. § 282.105(1).

^{475.} See Mich. Admin. Code, R. 273.1701-.1714 (1981).

^{476. &}quot;'Earth change' means a man-made change in the natural cover or topography of land, including cut and fill activities, which may result in or contribute to soil erosion or sedimentation of the waters of the state. Earth change . . . shall not apply to the practice of plowing and tilling soil for the purpose of crop production." MICH. COMP. LAWS § 282.102(7) (1979).

^{477.} See Mich. Admin. Code, R. 323.1704 (1981) for earth changes requiring a permit.

^{478.} Id. R. 323.1702(2). "'Accelerated soil erosion' means the increased loss of the land surface that occurs as a result of man's activities." Id. R. 323.1701(1)(a).

^{479.} Id. R. 323.1704(1).

vice facilities such as shopping centers or schools, recreational facilities, utilities, oil, gas, and mineral wells, water impoundments, and waterway construction or improvements.⁴⁸⁰

The soil erosion and sedimentation control plan prepared for any earth change must be designed to effectively reduce accelerated soil erosion and sedimentation and must identify factors contributing to soil erosion or sedimentation or both. The plan must include at least the following information: a map of the site that shows the proximity of any proposed earth change to lakes or streams, predominant land features, contour intervals, or slope description, soil survey or a written description of the soil types of exposed land area contemplated for the earth change, and the details for the proposed earth changes, including a description of and the location of all existing and proposed on-site drainage facilities, the timing and sequence of each proposed earth change, a description and the location of all proposed temporary soil erosion control measures, a description of and the location of all proposed permanent soil erosion control measures, and a program proposal for the continued maintenance of all permanent soil erosion control facilities that remain after project completion.

Specific prescribed soil erosion and sedimentation control procedures and measures must also be incorporated into the soil erosion and sedimentation control plan and must be applied to all earth changes. Procedures and measures incorporated into the plans require that all earth changes must "be designed, constructed, and completed in such a manner which shall limit the exposed area of any disturbed land for the shortest possible period of time . . ."489 "Sediment caused by accelerated soil erosion must be removed from runoff water before it leaves the site of the earth change."490 "Any temporary or permanent facility designed and constructed for the conveyance of water around, through or from the earth change area [must] be

^{480.} Id. R. 323.1704(1)(a)-(h).

^{481.} Id. R. 323.1703(1).

^{482.} Id. R. 323.1703(1)(a).

^{483.} Id. R. 323.1703(1)(b).

^{484. &}quot;'Temporary soil erosion control measures' means interim control measures which are installed or constructed to control soil erosion and which are maintained after project completion." *Id.* R. 323.1701(g).

^{485. &}quot;'Permanent erosion control measures' means those control measures which are installed or constructed to control soil erosion and which are maintained after project completion." Id. R. 323.1701(h).

^{486. &}quot;'Soil erosion control facility' means a facility or measure placed or constructed as necessary for the successful control or abatement of accelerated soil erosion." *Id.* R. 323.1701(c).

^{487.} Id. R. 323.1703(1)(c).

^{488.} Id. R. 323.1708.

^{489.} Id. R. 323.1709(1).

^{490.} Id. R. 323.1709(2).

designed to limit the water flow to a nonerosive velocity."⁴⁹¹ "Temporary soil erosion control facilities [must] be removed after permanent soil erosion measures have been implemented."⁴⁹² "Permanent soil erosion control measures for all slopes, channels, ditches, or any disturbed land area [must] be completed within [fifteen] calendar days after final grading or the final earth change has been completed."⁴⁹³ In addition, "current local soil and water conservation district soil erosion and sedimentation control standards and specifications [that have been] approved by the local or county enforcing agency [must] be followed and utilized as they apply to an individual earth change, which requires an erosion and sedimentation control plan."⁴⁹⁴

The Michigan rules did not take effect for agricultural practices until January 1, 1979.⁴⁹⁶ Earth changes for agricultural practices after that date, except for plowing and tilling, which are exempt from the rules, are subject to the permit and plan requirements, although farmers who have cooperative agreements with the soil and water conservation districts are exempt from the permit of requirements for all agricultural practices.⁴⁹⁶

Conservation practices incorporated in the land use regulations in Illinois, ⁴⁹⁷ Ohio, ⁴⁹⁸ and South Dakota ⁴⁹⁹ are based on a combination of soil loss tolerances and conservation standards for land disturbances. The guidelines for erosion and sediment control prepared and adopted by the Illinois Department of Agriculture ⁵⁰⁰ for use by the soil and water conservation districts in preparing and adopting their own erosion and sediment control program and standards ⁵⁰¹ were developed using the same pattern as used in the Model State Act. ⁵⁰² Under the state guidelines all conservation systems and practices applied to agricultural land must seek to reduce soil losses to levels at or below the soil loss tolerance ("T values") established by the Soil Conservation Service of the United States Department of Agriculture. ⁵⁰³ Soil

^{491.} Id. R. 323.1709(3). "'Non-erosive velocity' means a speed of water movement which is not conducive to the development of accelerated soil erosion." Id. R. 323.1701(d).

^{492.} Id. R. 323.1709(4).

^{493.} Id. R. 323.1709(5).

^{494.} Id. R. 323.1710. For further discussion, see Dunn, Real Property Law, 22 WAYNE L. REV. 553, 583 (1976).

^{495.} Mich. Comp. Laws § 282.104(1) (1979).

^{496.} Telephone Interview with John Kennaugh, supra note 303. See Mich. Comp. Laws §§ 282.102, .104(1) (1979).

^{497.} ILL. REV. STAT. ch. 5, § 128 (Supp. 1983).

^{498.} Ohio Rev. Code Ann. §§ 1511.02(E)(1)-(2) (Page Supp. 1982).

^{499.} S.D. Codified Laws Ann. §§ 38-8A-4, -5(3) (1977).

^{500.} See Ill. Rev. Stat. ch. 5, § 138.3 (Supp. 1983). The guidelines were adopted on April 18, 1980. See Illinois Erosion & Sediment Guidelines, supra note 283.

^{501.} See ILL. REV. STAT. ch. 5, §§ 138.5 (Supp. 1983). Districts had two years from the date of adoption of state guidelines to adopt their erosion and sediment control program and standards. Id.

^{502.} See id. ch. 5, §§ 138.5(a)-(c); Model State Act, supra note 13.

^{503.} Illinois Erosion & Sediment Guidelines, supra note 283, R. 3.1(I). "'T values'

erosion on agricultural land is not to exceed double soil loss tolerance regardless of its use or its soil type.⁵⁰⁴ The guidelines specify future time periods during which annual soil losses on all lands must be kept at or below multiples of the "T value".⁵⁰⁵ Policies and specifications for various erosion and sediment control devices, structures, and practices which apply to agricultural lands,⁵⁰⁶ and conservation practices for controlling excessive erosion on nonagricultural land⁵⁰⁷ and construction sites⁵⁰⁸ are set forth in the guidelines.

Soil and water conservation districts in Illinois are responsible for developing and adopting soil erosion and sediment control programs and conservation standards for various types of soils and land uses that are "technically feasible, economically reasonable, and consistent with the State" Department of Agriculture statewide program and guidelines. District programs are to include "criteria, guidelines, techniques, and methods for

means the average annual tons per acre soil loss a given soil may experience and still maintain its productivity over an extended period of time. Both physical and economic factors are considered." Id.

504. Id. R. 4.1.

505. Id. R. 4.1. Annual soil losses are to be kept at or below four "T value" for the period January 1, 1983 to January 1, 1988, and by January 1, 2000, the annual soil loss on all land should meet "T value." Id. The Universal Soil Loss Equation is "used to predict the rate of soil erosion loss or to predict the rates of soil erosion losses expected under different land uses or treatments." Id. R. 5.1. That equation is "a formula which identifies the factors upon which the rate of soil erosion depends and is used to predict average annual soil losses from specific soils." Id. R. 3.1(J).

506. See id. R. 7.1 to 7.13. To qualify for cost-sharing funds, "erosion and sediment control devices, structures, and practices must be constructed and/or conform with the procedures established in the Soil Conservation Service Technical Guide. . . ." Id. R. 6.2; SCS TECHNICAL GUIDE STANDARDS, supra note 255. Policies and specifications for devices, structures, and practices eligible for cost-sharing assistance that are set forth in the guidelines include permanent vegetative cover establishment, terrace systems, diversions, permanent vegetative cover on problem areas, sediment retention and erosion or water control structures, conservation tillage systems, stream or lake protection, and sod waterways. Illinois Erosion & Sediment Guidelines, supra note 283, R. 7.2-.9.

507. "'Non-agricultural lands' means lands in public parks, highways, urban areas, public and private recreational areas, streets, country roads, industrial parks, airports and other such public and private lands." *Id.* R. 3.1(D).

508. Id. R. 4.3. "'Construction site' means an area currently undergoing the erection, alteration, repair, renovation, demolition or removal of any building or structure, or the clearing, stripping, excavating, filling or grading of an area." Id. R. 3.1(C). Criteria to be met include: (1) the smallest practical area is to be exposed at any one time, (2) the time of exposure is to be the shortest possible period, (3) the natural features enhancing erosion control are to be preserved, (4) development is to be fitted to the topography and the soils in order to create the least possible erosion potential, (5) temporary vegetation and mulching is to be used to protect exposed critical areas, (6) permanent final vegetation and structures are to be installed as soon as practicable, (7) provisions are to be made to effectively accommodate increased runoff, and (8) sediment is to be reasonably retained on the site. Id. R. 4.3.

509. ILL. Rev. Stat. ch. 5, § 138.5 (Supp. 1983). See Illinois Erosion & Sediment Guidelines, supra note 283, R. 10.1.

[controlling] erosion and sediment resulting from land disturbing activities."⁵¹⁰ Specific information which is to be included in district erosion and sediment control programs includes "physical and developmental information concerning the watersheds and drainage basins in the district;" "[d]ata relating to land use, soils, hydrology, geology, size of land area being disturbed, water bodies and their characteristics," "maximum soil loss standards," "recommended erosion and sediment control management practices which are suitable for controlling erosion within the district," "erosion and sediment control devices, structures and practices" eligible for district costsharing assistance," "cost sharing rates [that] apply to various . . . devices, structures and practices" "and information on how interested persons may obtain information or make submissions on the district program, standards, and activities." "⁵¹¹

Conservation district supervisors in South Dakota are responsible for preparing and adopting conservation standards or soil loss tolerance limits⁵¹² consistent with the control of erosion and sediment resulting from land disturbing activities and in accordance with the state Conservation Commissions' guidelines. 518 The state Conservation Commission guidelines consist of recommendable soil loss limits and suggested conservation practices.⁵¹⁴ Such guidelines are based on "relevant physical and developmental information concerning the watersheds and drainage basins," including land use data, soils, hydrology, geology, size of the land area being disturbed, proximate water bodies and their characteristics, transportation and public facilities and services, existing surveys of land and waters as may be deemed appropriate by the commission or be required by any applicable law to identify areas with critical erosion or sediment problems, and "conservation standards for various types of soils and land uses," including "criteria, techniques, and methods for the control of erosion and sediment resulting from land disturbing activities."515

The South Dakota guidelines include standards and specifications of

^{510.} ILL. REV. STAT. ch. 5, § 138.5 (Supp. 1983). See B. Holmes, supra note 45, at 126. "'Land disturbing activity' means any change in land, which may result in soil erosion from water or wind and the movement of sediments into state waters or on to lands in the State, including but not limited to, the tilling, clearing, grading, excavating, rehabilitating, transporting, depositing or filing of land, other than federal lands. 'Land disturbing activity' does not include such minor activities as home gardens, individual home landscaping, repairs, maintenance or any plat of subdivision approved by municipal or county units of government." ILL. REV. STAT. ch. 5, § 108.12 (Supp. 1983).

^{511.} Illinois Erosion & Sediment Guidelines, supra note 283, R. 10.2.

^{512.} S.D. CODIFIED LAWS ANN. § 38-8A-1(2) (1977).

^{513.} Id. §§ 38-8A-6, -11 (1977). See id. § 38-8A-3.

^{514.} Id. § 38-8A-4. See S.D. Erosion & Sediment Guidelines, supra note 283.

^{515.} S.D. Codified Laws Ann. § 38-8A-5(1) to -5(3) (1977). See Alternative Policies, supra note 66, at 13; B. Holmes, supra note 45, at 130. The same factors form the basis for the guidelines in Illinois and under the Model State Act. See Ill. Rev. Stat. ch. 5, §§ 138.3(a)-(c) (Supp. 1983); Model State Act, supra note 13, §§ 3(b)(1)-(3).