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**Natural
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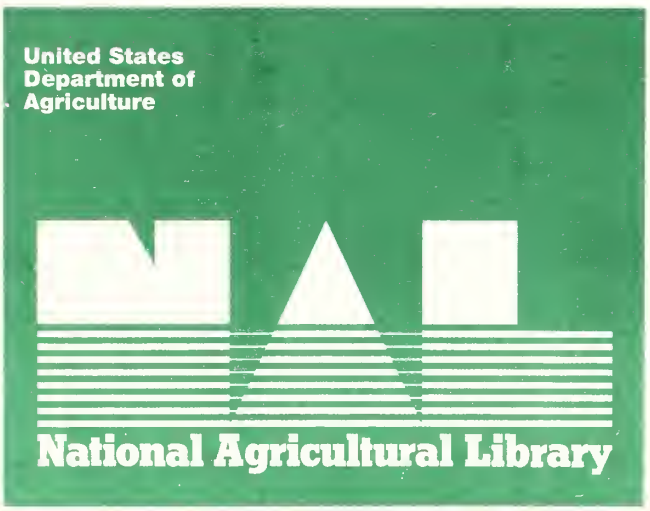
July 1999

Natural Resources Conservation Laws

A Report on 17 States and Their Selected Counties and Townships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Natural Resources Conservation Laws

A Report on 17 States and Their Selected Counties and Townships

Dear Kathie & staff,
Thanks for all the great help to make this possible.
Liu-Hsiung
2/2/2000

Huong N. Tran, attorney in private practice
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Resource Economics and Social Sciences Division
Natural Resources Conservation Service
U.S. Department of Agriculture

July 1999

Foreword

The Natural Resources Conservation Service (NRCS) assists people conserving, improving, and sustaining the Nation's natural resources. To do that, we work with partners from all levels of government and from the private sector.

The process of how we form partnerships is based on legal and institutional innovations. The conservation district movement was founded on a Standard State Conservation District Law or the Model Law that was drafted by USDA. The Model Law prescribed the authorities and responsibilities of a local conservation district, and proposed a method for the conservation district to cooperate and receive assistance from USDA.

In February 1937, President Roosevelt sent the Model Law to State governors to urge States to pass individual laws based on the Model Law. Based on the state conservation district law, farmers and ranchers, primarily at a county level, organized districts. By the end of World War II, conservation districts had become key links in a nationwide, community-based delivery system for resource conservation. As a result, NRCS, conservation districts, and state conservation agencies formed a partnership for conservation.

This NRCS publication, prepared under the authority of the Soil and Water Resources Conservation Act of 1977 (RCA), examines the development and variation of conservation district laws of the states. Analysis of these state conservation district laws, and the functions of conservation districts, contributes greatly to our knowledge of the commonality and individuality of conservation districts.

The major contributions of this publication are the compilation and review of recent natural resources laws of 17 states and numerous counties and townships. Included are laws governing resource concerns in the areas of soil erosion control, water quality and water management, ground water and wetlands protection, prime farmland protection, wildlife habitat protection, requirements and limitations on the use of pesticides, fertilizer, and other farm inputs, as well as requirements and limitations on mining and organic waste. This body of information provides a balanced understanding of diverse state and local laws and ordinances, and should be a useful reference document for persons who are interested in legal and institutional innovation.

By highlighting the legal and institutional diversity among State and local laws, this publication provides a basis for further legal and institutional innovations for resource conservation. With conservation partners working together, we can better fulfill the natural resource needs of people and exercise proper care of the global ecosystem on which we rely.

Pearlie S. Reed
Chief, the Natural Resources Conservation Service
U.S. Department of Agriculture

Preface

Laws are social institutions that guide social functions, declare social programs, and even project the visions of a governed society. In a democracy like the United States of America, laws exist at every level of government. Federal, state, and local agencies that have related missions work together as partners, and their staffs need to understand the legal requirements and limitations to better serve the constituents. Private citizens can also benefit from being aware of the laws of other jurisdictions that might serve as models for improving their laws and regulations. With this awareness the public spirit can be enhanced and the quality of life improved.

The basic research for this report was completed in 1996. The criteria for selecting counties within each of the 12 study regions are based on each individual region's representation in resource problems, data availability, geographical balance, levels of use of USDA conservation programs, and similarity in major economic activities of counties within a region. Direct requests were made to all NRCS state offices within the selected region for information concerning state and county conservation laws and regulations, and also to a limited number of district offices in the counties located in the selected state and region. Because of budget constraints the report is restricted to 17 states, and within those states to a limited number of counties and townships.

The Natural Resources Conservation Service (NRCS, formerly the Soil Conservation Service) enjoys a long-standing productive relationship with an array of partners, ranging from Federal, state, and local entities to private concerns. This publication is a compilation and analysis of state and local laws, regulations, and rules in natural resource conservation to help all the partners gain a better understanding of legal authorities.

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Liu-hsiung Chuang, program analyst, NRCS, led a Resources Conservation Act (RCA) assessment team to study the effects of conservation on rural America. This publication is one of the reports of that study.

Great thanks are due Huong N. Tran, who gave her creative, effective, and tireless effort to research, organize, and compile the early draft reports of this study during her tenure with NRCS. She was a part-time research assistant from 1994 to 1996.

Carolyne L. Guss provided editorial, organizational, and update support for the completion of this report.

Deep appreciation is particularly to Larry C. Frarey, formerly a policy analyst for the Texas Institute for Applied Environmental Research at the Tarleton State University, Stephenville, Texas, who provided a copy of the Soil and Water Conservation Laws of the 50 states. The material was organized into the RCA III working paper No. 3, *State Conservation District Laws—Development and Variations*. The information served as the foundation for the ensuing legal research of this study.

Appreciation is also to Richard Duesterhaus, retired; Fee Busbee, Tom Weber, Lawrence Clark, and Peter Smith, NRCS, for providing continuous support and advice to the project; to Anne Henderson and Lovell Glasscock for editing the manuscript; Suzi Self for providing editorial assistance; Patsy Hocker for designing the cover; and John Massey for providing the map. Special thanks are also to Peter Machare, director of the USDA law library, and David Esenbergh, law librarian, for their constant efforts to help research information for this study.

We also would like to thank NRCS regional conservationists and state conservationists in the 17 states surveyed for their assistance and support in providing information for this study. Special thanks are to NRCS district conservationists and state conservationists in the 17 states who made a special effort to respond to the study team's request for information. At the time of the study those who were state conservationists and involved included Jeri Berc, LeRoy Brown, Ronnie Clark, Elesa K. Cottrell, Earl Cosby, Robert Graham, Luana E. Kiger, Patricia S. Leavenworth, Jerry Lee, Ronnie D. Murphy, Janet L. Oertly, Harry W. Oneth, Phillip J. Nelson, Jr., Hershel R. Read, Rosendo Trevino, Thomas H. Wehri, and Homer L. Wilkes. Those who were district conservationists included Warren Archibald, Cliff Bienko, Daymond Broyles, Gary Chandler, Williams Clifton, Richard Cooke, Don Evenson, Charles Fultz, Thomas J. Heisler, Albert Jones, Mark Klish, James Napier, Andy Neal, Russ Mader, Jr., Mike McElhiney, Ronny McCandless, Lyndon McCavitt, Frank J. Menezes, Mike Permenter, Thomas Reed, Merito Rigor, Margaret Rhodes, Kristi L. Schleif, Donald E. Ulrich, and Jim Wist.

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General Overview of the State and Local Statutory Relations

The genesis of state and local resources conservation laws came after the U.S. Soil Conservation Act of 1935 and the 1937 Standard Soil Conservation District Law that served as a model or foundation for many State and local legislation on resources conservation.

The statutory requirements and limitations may vary, but almost all the 17 states covering the 12 selected regions of this study have established laws on soil and erosion control, water quality and management, ground water protection, wetlands protection, prime farmland protection, wildlife habitat protection, requirements and limitations on the use of pesticides, fertilizer, and other farm inputs, requirements and limitations on mining, and organic waste.

The state resources conservation laws declare state conservation policies and serve as foundations for states to set up conservation programs, allocate funds, and provide technical, financial, and educational assistance to citizens in the states. State laws confer power to state governments or their agents to cooperate with Federal entities or with agencies of other states. In addition, they generally serve as legal bases on resources policies for local governments.

In general, most local governments (of counties) are authorized by state governments to enact laws, regulations, rules, and ordinances concerning most natural resource areas except issues related to nutrients, pesticides, and seeds. The county or local laws on resources conservation are consistent with states' statutory requirements and limitations, though some may allow for more flexibility in implementations.

The state soil and water conservation district laws are enabling acts that provide a mechanism for creating soil conservation districts (SCD's) to conserve soil, water, and related resources. As a state governmental subdivision and public body corporate and politic, (or as an agency of a state, like Georgia and Maine), the SCD helps Federal and State Governments deliver much of the conservation assistance to farmers and land users in the local districts; thus, SCD's become the building blocks of a nationwide, locally led, community-targeted service delivery system for resources conservation.

However, as President Jefferson once said, "human institutions shall face the challenges of the time and adopt them to meet the needs of the society." The number of U.S. farms and farmers has been declining along with the expansion of farm size since the 1930's. The stakeholders of the environmental effects of farm operations have not been limited to agriculture, but have involved the entire community. Therefore, how SCD's adjust their management direction, focus, and resources to better serve the interests of a more diverse community has become an important issue.

Wide divergences exist among the laws, regulations, rules, and ordinances of the 17 states and the subset of selected counties surveyed in this study. Some states and counties are much more progressive in enacting laws and ordinances, but some are not. This report might provide a fruitful ground for people from different states, or counties within a state, to compare their legal requirements for various resources conservation issues and to learn from each other.

Executive Summary of the State Resources Conservation Laws

Applications of the Standard Soil Conservation Districts Laws—In 1937, President Roosevelt sent a model law to all state governors encouraging them to grant authority to farmers and ranchers to organize soil conservation districts. These districts provide a structured system to ensure effective resources conservation activities at the community level. The model law makes a declaration of the condition of the land, its necessary corrective measures, and a declaration of policy to conserve the natural resources on land. Most states follow the basic principles of the model law with slight variations according to their state constitutions and interpretation of the law.

The soil conservation districts are responsible for developing and implementing district-wide conservation plans, adopting land-use regulations, reviewing sub-division land disturbance plans, providing assistance, distributing funds received from the state and Federal Government, conducting research, and cooperating with other districts.

State Erosion and Sediment Controls—In 1973 the Council of State Governments issued a Model State Act for Soil Erosion and Sediment Control (called the Model Act) designed to provide the basic requirements for an effective state soil erosion and sediment control law and amend state soil and water conservation districts' laws to strengthen and extend their existing programs.

Among the 17 states, 4 states—Delaware, Maryland, Georgia, and Nebraska—control erosion and sediment problems through enactment of separate Erosion and Sediment Control Laws; 11 states—Alabama, Arkansas, Mississippi, Wisconsin, Iowa, Texas, Idaho, Oregon, California, Utah, and Tennessee—authorize erosion and sediment control practices under the original conservation districts laws, and 2 states—Pennsylvania and New Mexico—regulate their soil erosion and sediment problems under water quality and watershed district type laws.

Although these acts take different forms, they have the following common features:

All 17 states require their conservation districts to adopt district-level erosion and sediment control programs based on their states programs and district conservation standards for various kinds of soil and land uses. As a method of control, states generally choose one or more among the following three methods: approved erosion and sediment control plans required for land disturbances, establishment of soil loss limits, and permits on the basis of an approved plan.

Most states require state conservation agencies to prepare a comprehensive program to control soil erosion and sedimentation resulting from land disturbances, to identify critical erosion and sedimentation areas, and to provide guidelines for conservation districts to follow in developing regulatory programs.

All 17 states provide some flexibility in exemption from the state laws, though they are different from state to state because exemptions are designed to fit the different geographic traits and conservation needs of each state.

For the enforcement of state soil erosion and sedimentation control programs, all 17 states authorize the responsible conservation districts to inspect land-disturbing activities for violation of required plans or conservation standards and to issue administrative orders for remedial measures.

Most states allow some sort of cost-sharing and loan programs for farmers and land user to cover the cost of resources conservation activities.

Violations of administrative orders are subject to injunctions and criminal penalties.

Ground water laws—All 17 surveyed states give priority to reasonable and beneficial use of ground water and authorize the responsible agency to adopt rules and regulations to implement the ground water acts so that states can remedy water misuse and contamination problems. Most states' legislatures enacted the ground water laws to preserve water and ground water in general. Arkansas is unique because its Ground Water Protection and Management Act deals with "critical ground water area." Unlike other states, the Maryland laws specifically prohibit any municipality, county, or other political subdivision from the right to adopt and enforce any additional rules or regulations that relate to the construction of wells.

The laws of all states surveyed require the responsible state agencies to provide some sort of regulatory programs and plans to preserve ground water. For example, Mississippi Legislature requires the Commission on Natural Resources to study existing water resources and formulate a state water management plan. Moreover, Wisconsin is unique because it—one of the few states—controls its underground water through systematic numeral standard regulatory programs and sets forth a specific provision regarding the participation of American Indian tribes and bands. Similarly unique, New Mexico created an early response team that is responsible for requests from municipalities or counties for advice and technical assistance concerning alleged releases from underground storage tanks owned or operated by the municipalities or counties.

All the 17 states provide some sort of exemption mechanism, whether by allowing exemptions from the general ground water laws or from the specific permit requirements for activities in connection to well constructions.

All the states surveyed require permits, which generally last for 10 years or less, before engaging in any activities involving ground water. However, Georgia is unique in that its act provides separate provisions for withdrawal or use of ground water for farm uses.

All states set forth regulations concerning wells. The common features of all 17 states laws concerning wells include: licenses are required for all well drillers and well bumpers; an abandoned well or test hole must be sealed and filled; and a record of drilling must be kept.

All states impose civil penalties on violations of the ground water laws. However, the following states impose civil or criminal penalties or both: Delaware, Maryland, Pennsylvania, and Georgia.

All 17 states also allow the authorities to seek temporary restraining orders or permanent injunctions on any individuals who apply for variance from any rules or regulations.

Water quality laws—Seventeen states surveyed—Alabama, Arkansas, California, Delaware, Georgia, Idaho, Iowa, Maryland, Mississippi, Nebraska, New Mexico, Oregon, Pennsylvania, Tennessee, Texas, Utah, and Wisconsin—enacted the water quality control laws requiring the state water resources to be used cautiously for the maximum benefit of the people, to restore and maintain a reasonable degree of purity in state water, and adequate supply of such water. To effectuate this policy, these state laws require the state government to establish the water quality control program. These state laws designate an agency to implement and enforce these laws. For example, Georgia law designates the Environmental Protection Division of the Department of Natural Resources; Oregon names its Department of Agriculture to be the authoritative agency. Moreover, under these 17 states laws, the director (or commissioner) of the authoritative agency is granted both mandatory and nonmandatory duties and powers.

All 17 states require permits for regulated activities. For example, Georgia requires permits for construction of facilities that discharge pollutants into water and discharge dredged or fill materials; and it requires permits for withdrawal, diversion, or impoundment of surface water. Moreover, the laws of these states also provide exemptions from the permit requirement.

Before adopting or amending water quality standards, the authoritative agencies of all states are required to hold public hearings and consult with appropriate agencies. Furthermore, to effectuate the state policy, all 17 states impose both monetary and prison term penalties on those who violate any provision of the Water Quality Acts or any promulgated regulations pursuant to such acts.

Although the laws of the 17 states require the director (or commissioner) of the agency to establish water quality standards, each state law is unique in that the type of establishment of such standards is different. For example, Maryland law provides that the department must adopt water quality standards that specify the maximum permissible short-term and long-term concentration of pollutants in the water, the minimum permissible concentrations of dissolved oxygen and other desirable matters in the water, and the temperature range for the water. In addition, the department must develop a water quality standard for the concentration of tributyltin in the water that is sufficient for the protection of aquatic life, and regulate point sources of release of tributyltin according to the developed water quality standard.

California water quality law provides for a two-tier control of water quality on state and regional levels. At the state level, the law creates the State Water Resources Control Board. In adopting state policy for water quality control, the State Board must consider—

- ◊ water quality principles and guidelines for long range resource planning,

- ◊ water quality objectives at key locations for planning and operations of water resource development projects and for water quality control activities, and
- ◊ other principles and guidelines considered necessary by the state board for water quality control.

At the regional level, in establishing its water quality objectives, each of the nine regional boards must consider a number of factors, including future beneficial uses of water, environmental characteristics of the hydrographic unit, particularly its quality of water, overall water quality conditions in the area, economic considerations, the need for housing development, and the need for recycled water.

Of the 17 states surveyed, only Oregon has a specific Removal Fill law, which protects, conserves, and best uses the state water resources. As a way to implement this concern, it regulates removal of material from beds and banks of the state water that may create hazards to the health, safety, and welfare of the people of Oregon. It requires individuals or a government body to acquire a permit from the director of State lands before removing materials from beds or banks or filling any state water.

Flood plain and stormwater control—Of the 17 states surveyed, 15 states have laws concerning flood plain and stormwater control. These states specifically designate authoritative agencies to implement and enforce their state laws and any rules or regulations adopted pursuant to these laws. For example, Wisconsin designates the Department of Natural Resources; Pennsylvania designates the Department of Environmental Resources; and Utah names its Division of State Land and Forestry to be the authoritative agency. Furthermore, under all of these 15 states' laws, the director (or commission, council, or board) of the authoritative agency is granted both mandatory and nonmandatory duties and powers.

Moreover, all 15 states laws authorize the counties, with their right of eminent domain, to acquire public or private property for the purpose of providing flood control and water outlets.

Although all of these laws authorize the municipalities or counties to adopt municipal or local flood plain management regulations or ordinances and require the authoritative agencies to review and approve all municipal flood plain management regulations, each state law is unique in this authorization. For example, Pennsylvania law requires each municipality, which has been identified as having an area(s) subject to flooding, to participate in the National Flood Insurance Program. The authoritative agency must promulgate regulations prohibiting the construction or substantial improvements of structures in an area that has been designated as a flood hazard area. Each municipality having an area subject to flooding must adopt flood plain management regulations. Flood plain management regulations will be considered minimum standards for the management of flood plains. However, these laws do not limit the municipality's power to adopt more restrictive ordinances, codes, or regulations for the management of flood plains.

Alabama controls flood plains through a land-use management plan. Its law authorizes the county commission to adopt zoning ordinances and building codes for flood-prone areas. Moreover, the county commission is granted zoning powers that allow it to divide the portion of the county within the county flood prone area into districts to control flood plains more effectively.

Wetlands conservation—Of the 17 states surveyed, 10 states have laws specifically to conserve wetlands. These 10 states' legislatures enacted the wetlands conservation laws that have the primary state policy of preserving and protecting the wetlands and preventing their degradation and destruction. To effectuate this policy, these state laws offer certain mechanisms to protect wetlands. However, each state law is unique in describing these mechanisms.

For example, Delaware and Mississippi protect their wetlands through a permit system. The laws require that before engaging in any activity involving wetlands, each person must obtain a permit from their authoritative agencies. Maryland legislature enacted separate provisions protecting state wetlands and private wetlands. However, similar to Delaware and Mississippi, Maryland conserves its wetlands through a permit and license system. All of these states allow some exemptions from the permit requirement.

Georgia law authorizes its Department of Natural Resources to develop minimum standards and procedures to protect wetlands. The minimum standards and procedures must include, but are not limited to, land use activities, land development densities, and activities that involve alteration of wetlands. However, the department can adopt different minimum standards and procedures for wetlands protection based on the size or type of wetlands, the need to protect endangered or protected species or other unusual resources, and the need for a particular land use activity that will affect a wetland. Similarly, Wisconsin requires its Department of Natural Resources to prepare maps identifying the individual wetlands that have an area of 5 acres or more. Each city must zone by ordinance all unfilled wetlands of 5 acres or more that are shown on the final wetland inventory maps prepared by the department.

Iowa requires its Department of Natural Resources to develop and implement a program for the acquisition of wetlands and conservation easements on and around wetlands that result from the closure or change in the use of agricultural drainage wells. It must inventory the wetland and marshes of each county and make a preliminary designation as to which constitute protected wetlands. In addition, it also requires each person to obtain a permit before draining a protected wetland.

Farmland preservation—Of the 17 states surveyed, 6 states have laws specifically to preserve farmland. These legislatures enacted the farmland preservation laws with the primary policy of preserving and protecting the farmland to serve the long-term needs of the agricultural community and the citizens of the respective state. To effectuate this policy, these state laws offer different mechanisms to protect farmland.

However, each state law is unique in describing these mechanisms. For example, the Delaware Farmland Preservation Act provides for the establishment of agricultural preservation districts. All farmland or forest lands, or both, included in the district are subject to a number of restrictions, including prohibiting rezoning or major subdivisions and limiting activities on the real property to agricultural and related uses. The act also creates the Agricultural Land Preservation Foundation. Among other important duties and powers, it must adopt criteria for establishing and maintaining the Agricultural Preservation Districts, set forth criteria of agricultural lands preservation easement, and administer and supervise the Delaware Farmland Preservation Fund. The Foundation can use the Fund to acquire,

maintain and enforce agricultural lands preservation easements for lands that are located in the districts.

Pennsylvania establishes similar agricultural security areas. The authoritative agency is required to administer a program for the purchase of agricultural conservation easements. Under Tennessee law, owners of farmland can voluntarily enroll land in an agricultural district.

To assist the local governing bodies to preserve agricultural land, Wisconsin law requires the Department of Agriculture to prepare maps locating lands that are considered for preservation because of their agricultural significance. Counties can establish agricultural preservation plans and exclusive agricultural use zoning ordinances that are subject to review and certification by the Land Conservation Board to determine whether the county plans and ordinances meet the applicable standards. Under the current law, any owner can apply for a farmland preservation easement if the county in which the land is located has a certified agricultural preservation plan in effect, or the land is in an area zoned for exclusive agricultural use under an ordinance.

In California, the authoritative agency is required to acquire fee title, development right, easements, or other interests in the land located in the coastal zone to prevent loss of agricultural land and to assemble such agricultural lands into parcels of adequate size for continued agricultural production. In acquiring interest in agricultural land, the agency must give the highest priority to urban fringe areas where the impact of urbanization on agricultural lands is greatest.

Rangeland protection—Of the 17 states surveyed, New Mexico and Utah have laws specifically to protect rangeland, and each state has unique features. New Mexico protects its rangeland by assigning to its Department of Agriculture a series of broad powers and duties. For example, among other duties and powers, the department must establish a contract with ranchers, Indian tribes and pueblos, local soil and water conservation district boards, and appropriate State and Federal agencies to determine interest for participation in brush and weed control management programs. The department must also prepare and implement a plan for each of these projects under the guidelines established by the Rangeland Protection Advisory Committee. Under the New Mexico Rangeland Protection Act, this committee is responsible for developing mutually acceptable general guidelines to be followed for all rangeland protection projects conducted by the Department of Agriculture. On the contrary, the Utah Management of Range Resources Law bases the success of rangeland management on sound conservation principles, which include practices to improve range conditions.

Surface mining—Of the 17 states surveyed, 14 states—Alabama, Arkansas, Georgia, Idaho, Iowa, Maryland, Mississippi, New Mexico, Oregon, Pennsylvania, Tennessee, Texas, Utah, and Wisconsin—have surface mining laws.

The common features of these laws are:

- Surface mining laws enacted with the state policy of protecting and conserving the state natural resources and the reclamation of areas of land affected by surface mining.

- Each person required to obtain a surface mining license, unless being statutorily exempted, before engaging in any surface mining operations.
- All licensees must obtain a permit; application must be accompanied by a mining and reclamation plan and map.
- Applicant after receiving approval must file with the agency before commencing mining a performance bond for each mining operation.
- Permitee is required to file an annual mining and reclamation operations and progress report with the agency.

Furthermore, these state laws create the Surface Mining Land Reclamation Fund to protect and conserve natural resources and reclaim areas affected by surface mining operations.

The state surface mining laws have several unique features. Maryland has two additional provisions in its Surface Mining Law to remedy the dewatering in karst terrain. These provisions protect the affected property owners in Baltimore, Carroll, Frederick, and Washington Counties where karst terrain is located. The law requires the agency to establish zones of dewatering influence around surface mines in karst terrain and to administer programs requiring permitees to mitigate or compensate affected property owners in those counties.

Pennsylvania law is unique in that it specifically prohibits surface operations in certain areas, such as national parks and wildlife refuge and preservation area. The Pennsylvania law requires its authoritative agency to establish a Remining Operator's Assistance Program that will assist and pay for the preparation of applications for licensed mine operators otherwise eligible to obtain a permit for remining abandoned mine land, including remining of land subject to bond forfeitures and coal refuse piles. Furthermore, the Pennsylvania law requires that the Commonwealth of Pennsylvania be arranged into mine land and water conservation districts, each of which will have a mine conservation inspector.

Wisconsin law allows the governing body of a county, city, village, or town to adopt, by ordinance, regulations for the reclamation of nonmetallic mining sites. A county nonmetallic mining reclamation ordinance applies to each town area and does not require approval of the town board. However, the county ordinance does not apply to a town where there is a town nonmetallic ordinance, which is at least as restrictive as the county ordinance.

Confined animal feeding operations laws—Of the 17 states surveyed, only Iowa and Oregon have laws dealing with confined animal feeding operations specifically.

Iowa law is broad in its requirement of all persons who operate feedlots to comply with the applicable departmental rules and zoning requirements.

Oregon law is more detailed and comprehensive in regulating confined animal feeding operation (CAFO) and water quality. Under this law, all CAFO operations with a waste water disposal system having no direct discharge of pollutants to water of the State must be covered under a water pollution control facility permit (WPCF). The Oregon Department of Environmental Quality also issues a general permit to all CAFO facilities that comply with the rules. Those that do not must obtain the more costly and restrict WPCF permit. This permit is also necessary for

anyone interested in establishing a new CAFO facility. To obtain this permit, a person must submit plans and specifications for the facility and operations along with other information necessary to give a complete and descriptive proposal to the Department for approval. Furthermore, Oregon CAFO law specifies that any CAFO facility, which has a direct discharge of wastewater to surface water of the state is not eligible for coverage by a WPCF permit. Anyone engaging in this type of operation must obtain an individual National Pollutant Discharge Elimination System permit.

Nutrient, pesticide, and seed control laws—All of the 17 states surveyed have detailed nutrient, pesticide, and seed control laws with several notable similarities. They mandate that any person engaging in the sale, offering for sale, or distributing any of these materials require a license and permit. All containers or bags of such material must comply with the labeling requirements. Furthermore, a violation of the rules or regulations concerning nutrient, pesticide, or seed distribution is cause for seizure of the specified material.

Nutrient control—In addition to the fertilizer permit and license requirement, all those interested in selling or distributing commercial fertilizer must pay an inspection fee. Each brand and grade of commercial fertilizer must be registered before distribution. All licensees must furnish to the authority an official report showing the number of tons of each grade of fertilizer sold in each county of the state. The authority official has the mandatory duty to sample, inspect, and test commercial fertilizer or soil condition distributed within the states. To carry out the duty, the official is allowed to enter upon public or private premises or carriers to determine compliance with the laws. If the analysis shows that the commercial fertilizer is deficient in one or more of its guaranteed primary plant nutrients beyond the *investigational allowances* as established by regulation, a penalty will be imposed. In the event of violation of the law or promulgated rule or regulation pursuant to such laws, the official can issue and enforce a *stop sale, use, or removal* order. However, persons aggrieved or adversely affected by the authoritative person's decision can appeal such decision to the court of competent jurisdiction.

Despite these similarities, all states laws are slightly different in their allowed percentage of *primary plant nutrients guaranteed analysis.* For example, for Georgia, the super phosphate cannot contain less than 18 percent of available phosphoric acid. Mixed fertilizer cannot contain less than a total of 20 percent of nitrogen, available phosphoric acid, and potash whereas, for Wisconsin, the mixed fertilizer must have the sum of the guarantees for nitrogen, available phosphoric acid, and soluble potash totals of 24 percent or more.

Pesticide control—All of the 17 states' pesticide control laws are quite similar to each other. Their common characteristics are as follows:

All of these laws were enacted with the primary purpose of regulating in the public interest, the labeling, distribution, storage, transportation, use, and application of pesticides. In general, these laws require that every pesticide must be registered before distribution. Licenses will not be issued unless the license applicant is certified or has a certified applicator in his employment at all times. The license applicant must also furnish to the authoritative agency evidence of financial responsibility consisting either of a surety bond or a liability insurance policy or certification.

All of these state pesticide control laws provide that any pesticide or device, which is unlawfully distributed, will be liable for seizure and forfeiture by the agency upon application to the court of competent jurisdiction. Both monetary and imprisonment term penalties will be imposed for violation of any provision of the Pesticide Laws or any rules or regulations adopted pursuant to such laws.

However, these laws provide for a number of exemptions from the penalties, including—

- any carrier while lawfully engaged in transporting a pesticide or device, if upon request, must allow the agency to copy all records showing the transaction in and movement of the pesticide or device;
- any person who prepares or packs any pesticide or device intended solely for export to a foreign county according to the specifications or directions of the purchaser; and
- any manufacturer or shipper of pesticides for experimental use.

Any county, municipal, corporation, or other political subdivision is prohibited from adopting or continuing in effect any ordinance, rule, regulation, or resolution regulating the use, sale, distribution, storage, transportation, disposal, formulation, labeling, registration, manufacturing, or application of pesticides.

Seed control laws—All of the 17 states surveyed have seed control laws. These laws are similar to each other in many ways. They require each person engaging in the business of a wholesale seed seller to obtain an annual permit. Each container of seed sold or distributed must comply with the labeling requirement. Each person whose name appears on the label as handling agricultural or vegetable seed (*labeler*) must secure a seed labeler's license and keep complete records of each lot handled for 2 years, and keep a file sample of each lot of seed after final disposition of the lot for 1 year.

Noncompliant lots of seed will be subject to seizure on complaint of the authority official to a court of competent jurisdiction. If the court finds the seed to be in violation of the law and orders condemnation of the seed, such seed will be denatured, processed, destroyed, relabeled, or otherwise disposed. However, before disposition of noncompliant seeds, the court must give the claimant an opportunity to apply to the court for the release of the seed or permission to condition or relabel it to bring it into compliance with the laws.

However, the laws provide for exemptions from the application of these pesticide control laws, including—

- seed or grain not intended for sowing purposes;
- seed in storage, or being transported, or consigned to a cleaning or processing establishment;
- any carrier in respect to any seed transported or delivered in the ordinary course of its business as a carrier;
- seed sold by one farmer to another if the seed has neither been advertised for sale nor delivered through a carrier; and
- grain sold by farmers for cover crop purposes and not delivered through a common carrier.

Interestingly, only the laws of Alabama, Idaho, and Texas provide for arbitration to assist farmers and other seed purchaser, and seed dealers to determine the validity of complaints of the seed purchasers against seed dealers relating to the quality of the seeds.

Wildlife and wildlife habitat protection laws—To preserve wildlife, most States' legislatures enacted Wildlife Preservation laws, mirroring the Federal Endangered Species Act. Under the Wildlife Preservation provisions, it is unlawful to import, transport, possess, sell, or offer for sale any species or subspecies of wildlife appearing on two particular lists. The first is the list of wildlife indigenous to a particular state and considered endangered within that state as set forth by the authoritative agency. The second is the U.S. list of endangered species as set forth in the Federal Endangered Species Act of 1973 as endangered or threatened species, when the latter is adopted by regulations of the agency. Individuals who violate the statutory prohibition or any regulations promulgated pursuant to the statute will be guilty of a misdemeanor and upon conviction will be fined or imprisoned, or both. Different states impose different amounts of fine and periods of imprisonment.

Recognizing that maintenance of wildlife habitat is essential to the survival of wildlife species, state legislatures also enacted laws and appropriated funds to preserve and restore wildlife habitat. Under these provisions, states' authoritative agencies are required to establish wildlife management areas and promulgate rules and regulations for the protection and management of such areas.

These wildlife management areas vary in their rules and functions among the states. For example, Alabama law requires anyone who wishes to hunt game in these areas during designated hunting seasons to obtain a permit and pay a fee for this privilege. The law also gives the Commissioner of the Department of Conservation and Natural Resources the right to search without a warrant any vehicle or person to ensure that they have not seized or killed any protected animal in these designated wildlife management areas.

In Arkansas, upon petition to the State Game and Fish Commission, owners of suitable land can have the area set apart as a refuge for game and wildlife animals. The landowner must indicate that he or she will strictly enforce the prohibition of hunting in these areas. The Commission, after proper investigation of the land, enters into agreement with the landowner and declares the land a state game refuge. The Commission is then responsible for public notification of the land as a wildlife refuge.

State agencies are also authorized to acquire lands, water or interests to conserve, manage and restore wildlife habitat. However, agencies' designation is not the only way to establish wildlife habitat. Owners of agricultural lands can apply to the applicable agency to designate an area, not exceeding the specified acres of land, as wildlife habitat. As an incentive to encourage private landowners to designate their lands as wildlife habitat, some states, such as Oregon, offers tax exemptions for certified wildlife habitat.

Individuals who violate the provisions regarding the management of wildlife areas or any rule or regulations promulgated by the agency will be guilty of a misdemeanor and upon conviction, will be fined or imprisoned, or both. Different states impose different amounts of fine and periods of imprisonment.

Most states, by statute, agree to cooperate with Federal wildlife restoration projects, fishery restoration and management projects, and the establishment of migratory bird reservations. They also place certain restrictions on state lands and state, county, or municipal parks. Delaware prohibits the hunting of game on such lands and Arkansas designates these lands as bird sanctuaries. Mississippi declares states lands as forest reserves and wildlife refuges and prohibits the capture or hunting of wildlife on these lands.

Executive Summary of Local Laws Concerning Resources Conservation

Erosion and sediment control—Fourteen counties in 6 states responded to the study team's request for information on county laws and regulations on resources conservation. These include Anne Arundel, Baltimore, and Carroll Counties, Maryland; Lee and Worth Counties, Georgia; Polk, Nebraska; Chicot, Arkansas; Fresno and San Joaquin Counties, California; and Haywood, Greene, Shelby, Tipton, and Washington Counties, Tennessee.

Of these counties, Haywood, Shelby, and Chicot Counties do not have soil erosion and sediment control ordinances. Washington County's soil erosion and sediment control ordinance only applies to the construction of new roads. In Greene County, Tennessee, a soil erosion and sediment control ordinance exists, but it only applies to land developers, not individual landowners or operators.

The soil erosion and sediment control ordinances of the remaining counties—Anne Arundel, Baltimore, Carroll, Lee, Worth, Polk, Fresno, San Joaquin, and Tipton—have the following common features:

- The ordinances' primary purpose is to establish minimum requirements for clearing, grading, and the control of soil erosion and sediment.
- Persons cannot perform grading of land or create burrow pits, soil areas, quarries, material processing plants, or related facilities without obtaining a permit from the appropriate authority.
- Permit applicants must meet a number of requirements, one of which is the submission of a soil erosion and sedimentation control plan.

However, there are a number of exemptions from the permit requirement:

- Ordinances allow a number of mechanisms to be used as structured erosion and sediment control measures. Some examples include diversions, bench terraces, sediment basins, or sediment traps.
- Upon issuance of a permit, the authority has the power to enter periodically for inspection to determine compliance.
- Variance may be sought from and approved by the appropriate authority.

Despite these similarities, these counties' ordinances have unique features, which set them apart. For example, the Anne Arundel County (Maryland) Ordinance specifically prohibits all persons from performing grading on land that lies within the 100-year flood plain of a nontidal stream or watercourse, unless the ordinance provides otherwise. Because Polk County's (Nebraska) erosion and sediment control activities are covered under the Central Platte Natural Resource District, the county board adopts soil loss limits for various kinds of soils in the district. Permitted soil loss for particular lands cannot exceed the T-value set forth by the standard. Cost-

share assistance is also available. Although these counties provide for exemptions from the permit requirement, the exemptions differ slightly from county to county.

Ground water protection—The counties that provided information—Armstrong, Hutchinson, and Palmer Counties, Texas; and Polk, Nebraska—all belong to different ground water conservation districts, in which all water well drilling and ground water irrigation are subject to rules and regulations as set forth by these districts. For example, Palmer County belongs to the High Plains Underground Water District, which regulates runoff from furrow irrigation or privately owned cropland. The district has an aggressive water conservation program.

Because Polk County belongs to the Central Platte Natural Resources District, it is subject to the Groundwater Management and Protection Act adopted by the Board of Directors of the Central Platte RC&D in 1992. This act allows the district to designate a Groundwater Supply Management Area, which can manage the ground water supply within the area in a number of ways, including—

- ◊ allocating the total permissible withdrawal of ground water,
- ◊ rotating the use of ground water,
- ◊ instituting well-spacing requirements, or
- ◊ requiring the use of flow meters on wells.

In addition, the district can manage the activities that affect the ground water quality by requiring—

- ◊ the use of best management practices,
- ◊ the attendance at educational programs designed to protect water quality, and
- ◊ the submittal of reports or forms.

Moreover, the act prohibits a number of activities, including—

- ◊ operation of an irrigation system in a manner that allows for improper ground water irrigation runoff, and
- ◊ construction or operation of an illegal well.

Flood plain control—Lee County, Georgia, prevents flood hazard through its Land Development Ordinance, which sets forth a number of provisions applicable to all county's areas of special flood hazard. Before beginning of any development activities, a flood damage prevention permit is required. All areas of special flood hazards in Lee County are subject to a set of *general* and *specific* standards.

Clark and Adams Counties, Wisconsin, have identical flood plain zoning ordinances. These ordinances regulate all areas within the unincorporated limits of the counties covered by the *regional flood* and *flood plain islands* as designated on the official map. All cities, villages, and towns must comply with the ordinances. These ordinances provide that in all flood plain districts (including floodway districts, floodfringe districts, and general flood plain districts), no development is allowed in flood plain areas that can cause an obstruction to flow or an increase in regional flood height equal to or exceeding 0.01 feet because of loss of flood plain storage area.

Stormwater management—The Anne Arundel (Maryland) Stormwater Management Ordinance requires each person who wants to develop land for residential, commercial, recreational, industrial, or any other purpose to provide appropriate stormwater management measures that control or manage runoff. The ordinance requires a stormwater management plan to be submitted to the Department of Planning and Code Enforcement for review and approval. Land development activities can begin only pursuant to a proper building permit or grading permit. However, there are a number of exemptions from the ordinance for land development. Moreover, the applicant can also seek a waiver from the Department of Planning and Code Enforcement (the waiver provision does not apply to the critical area).

Wetlands conservation—Geographically allocated around the Chesapeake Bay Area, Anne Arundel, Baltimore, and Harford Counties, Maryland, enacted Chesapeake Bay Critical Area and Wetlands Ordinances to protect the estuarine system. Within the Chesapeake Bay area, there are provisions for grading and sediment control, stormwater management, and zoning.

All persons, who want to perform clearing, stripping, excavating, or grading on land or create burrow pits, spoil areas, quarries, material processing plants, or related facilities must obtain permits. In addition to other requirements, the ordinances provide that there must be a minimum 100-foot buffer landward from the mean high-water line of tidal water, tributary streams, and tidal wetlands. The ordinances also require the permit applicants to install or construct storm management facilities for a proposed development for managing increased runoff. Furthermore, the purpose of the zoning provisions is to divide the counties into zoning districts to minimize adverse impacts on water quality, conserve land, fish, and wildlife habitat, and foster more sensitive development activity for shoreline areas. These districts include critical area district, industrial, and maritime group district.

Animal waste management—Geographically located in Wisconsin, both Clark and Adams Counties have similar ordinances concerning animal waste management. All individuals who design or construct, install, reconstruct, enlarge, or substantially alter any animal waste facility on land, or who employ others to do the same, are subject to these ordinances. Before commencing any of these described activities, these individuals must procure permits from the zoning administrators. Permit application must include an animal waste storage facility plan, the sketch of the facility and its location, and the location of any wells within 300 feet. However, exemption from the permit requirement is available when one performs emergency repairs affecting the structural integrity of the equipment.

Pesticide control—All state pesticide control laws prohibit counties from adopting or continuing in existence any ordinances regarding pesticides.

Agricultural land preservation—Local governments, which are responsible for land use planning and zoning use planning as a process to make decisions. For the purpose of regulating private land use, they use zoning ordinances to guide the division of a municipality, county or town into districts. The principal elements of a zoning ordinance consist of a map and a zoning text. The zoning text outlines the land use activities and structures allowed in each zone, the standards governing the uses in each zone, and the procedures citizens and officials must follow.

The soil and water conservation standards are land management standards that must be met in both ongoing land uses (agriculture and forestry) and in construction. Although these districts are independent entities (not agencies of local governments), in most states, they are not allowed to enact any regulatory ordinances. The special-purpose local conservation district is the main institution that ensures the compliance of the land management related to soil and water conservation in a county.

The ordinances and laws of the surveyed counties, those of Baltimore, Maryland; Adams, Decatur, Lee, and Mitchell Counties, Georgia; De Baca, New Mexico; Lancaster and York Counties, Pennsylvania; and Adams, Wisconsin, illustrate features of these legal mechanisms.

The Baltimore County, Maryland, law permits county council to create agricultural land preservation districts within which only primary agricultural activities are permitted, such as—

- ◊ farm use of the land,
- ◊ operation of machinery used in farm production or the primary processing of agricultural products,
- ◊ normal agricultural activities and operations conducted in compliance with good husbandry practices, and
- ◊ sale of farm products on farm where the sales are made.

The council must approve sales of any development rights easement over any land included in the district. Moreover, farm owners within the district can apply for tax credit if qualified.

To preserve farmlands, Adams County, Pennsylvania, enacted the Interchange Zoning Ordinance, which establishes eight districts—Employment Center District, Highway Commercial District, Agricultural Preservation I District, Agricultural Preservation II District, Rural Residential District, Mixed Density Residential District, and Land Conservation District. Within a district, various types of activities are permitted. For example, in Agricultural Preservation District I, the permitted principal uses include farm buildings and agricultural uses, forestry uses, horticultural activities, and single family detached dwellings.

To regulate certain poultry related agricultural operations, the Decatur County (Georgia) Ordinance requires all individuals interested in erecting, constructing, or enlarging any agricultural structure for poultry operation to obtain a building permit from the county building department. Permit application must include a site plan indicating the proposed location for the poultry operation structure, and how it is related to adjacent property lines and residential, commercial, and industrial properties. However, waiver is obtainable. Adams County, Wisconsin, has one of the most extensive zoning ordinances, which creates 16 types of zoning districts.

Districts concerned with agricultural and natural resources conservation include:

A-1 Exclusive Agricultural District,

A-2 Agricultural Transition District,

A-3 Secondary Agricultural District,

R-5 Rural Single-Family Residential District,

C-1 Uplands Conservancy,

C-2 Shoreland Protection Overlay, and

C-3 Landfill Conservancy.

The De Baca County, New Mexico, Subdivision Regulations provide that all applications for approval of a subdivision plan must submit to the De Baca County Board a water quality plan, a water supply plan, a liquid waste management plan, a solid waste management plan, and a terrain management plan. However, the regulations exempt the subdivisions containing parcels of land, where the smallest of which is less than 50 acres. Moreover, variance from the regulations may be sought and approved by the commission.

Shoreland protection—Belonging to Clark and Adams Counties, Wisconsin, are similar Shoreland/Wetland Zoning Ordinances regarding shoreland protection. The regulated areas include all shorelands that are within 1,000 feet of the ordinary high water mark (OHWM) of navigable lakes, ponds or flowages; and within 300 feet of OHWM of navigable rivers or streams, or to the land-ward site of the flood plain, whichever distance is greater.

All cities, villages, towns, and counties must comply with these ordinances and secure the necessary permits. Permits are specifically required before any new development, or any change in the use of an existing building or structure is initiated, or before any land use is substantially altered. To protect shoreline/wetland, these ordinances contain a number of provisions concerning the dimensions of building sites, setbacks, removal of shore cover, and filling, grading, lagooning, dredging, ditching, and excavating. In addition, the counties' shorelands are divided into three particular districts: shoreland-wetland districts, recreational-residential districts, and general-purpose districts.

Forest conservation—Baltimore County, Maryland, forest conservation law applies mainly to individuals requesting development, subdivision, project plan, building, grading, or erosion and sediment control approval on units of land 40,000 square feet or greater. Individuals seeking permit approval must submit to the department a forest land delineation and a forest conservation plan for the land on which the project is located, and use methods approved by the department to protect retained forest and trees.

However, a number of activities are exempted from these requirements. Unless exempt, applicants must conduct afforestation and retention on the land. All land use categories (unless being exempted) are subject to a forest conservation threshold. The forest conservation law also sets up priorities and time requirements for afforestation and reforestation. Furthermore, a forest conservation fund is also established to fund costs related to reforestation, afforestation, permanent preservation of priority forests, and implementation of the forest conservation laws.

Executive Summary of Township Laws Concerning Conservation

Erosion and sediment control—West Hempfield Township, Lancaster County, Pennsylvania, controls soil erosion and manages stormwater through its Stormwater Management and Erosion Control Ordinance of 1980. The ordinance requires municipal approval before any person, partnership, business, or corporation undertakes any of the regulated activities, including—

- ◊ earth disturbing activity involving 1 acre or more (except agricultural activity);
- ◊ diversion or piping of any natural or constructed stream channel;
- ◊ installation of stormwater system or appurtenances;
- ◊ placement of fill, structures, or pipes in the flood plain or natural drainage ways; and
- ◊ installation of impervious cover, 10,000 square feet or more in an area.

This ordinance also requires an erosion and sedimentation control plan for any of the described activities (unless the exception applies). All erosion control facilities must be designed at a minimum to meet the design standards and specifications.

Animal waste control—Geographically located within Lancaster County, Pennsylvania, the surveyed townships include Bart Township, Brecknock Township, Caernarvon Township, East Lampeter Township, Eden Township, Ephrata Township, Little Britain Township, Pequea Township, Salisbury Township, and Warwick Township.

These townships' ordinances concerning animal waste control have a number of common features:

- First, waste storage facilities are permitted as an accessory use on a farm.
- Second, manure storage cannot be established closer than a number of feet to any property line.
- Third, all inground manure pits are required to have fence enclosing them.
- Fourth, all persons who erect or construct animal waste storage facilities must obtain permits from the appropriate authority.
- Fifth, all persons who wish to install, erect, or construct animal waste storage facilities and the owners of the land where such facilities are placed must comply with a set of regulations.

However, there are a number of unique features among these ordinances. For example, the East Lampeter Township ordinance requires the waste storage facilities to be located no closer than 300 feet of any property and right-of-way lines, the Caernarvon Township ordinance requires 200 feet from any property line or rights-of-way, and the Eden Township ordinance only requires that such facilities be located no closer than 150 feet from all property lines and street right-of-way lines.

Although the Brecknock Township ordinance requires all inground manure pits to have a 6-foot fence enclosing them, the Caernarvon Township ordinance only specifies that such barriers must not be less than 4 feet high.

Agricultural and open space zoning—Because most of the township zoning ordinances of all townships within Lancaster County, Pennsylvania, mirror the county's, they have a number of common features:

- First, each township is divided into a number of districts, such as Agricultural District and Floodplain Conservation District, within which different categories of uses are allowed.
- Second, the ordinances prescribe area, height, and yard regulations for all buildings or structures constructed for any permitted uses in the agricultural district.
- Third, applicants may seek variance from the provisions of the ordinances. In variance proceeding, the burden of proof is always placed on the applicant.

However, there are a number of unique features among these townships. For example, although the Conestoga Township ordinance categories family daycare facilities for not more than six children per permit use, the East Cocalico ordinance categorizes the similar use as a special exception use that may be allowed only after the authorization by the zoning hearing board. The Conestoga ordinance allows double-family dwellings as a permit use, while the East Cocalico ordinance does not categorize these dwellings as such. Moreover, each township ordinance imposes different area, height, and yard regulations for all buildings and structures within any prescribed districts

Chapter 1: Introduction

NRCS initiated a study of the conservation effects on rural America in 1993. An interagency team was organized to provide guidance on this study. Although the original goal of the study team was to analyze the impact of conservation activities on all rural areas of the Nation using a representative sample of counties, the study team soon recognized the limitations of resources. Therefore, the team made a decision to limit the study to some selected regions of the country for a more focused study. The criteria for selecting a study region were finally agreed upon as follows:

Representation in resources problems
Data availability of the selected regions
Regional representation in geography
Various levels of using current USDA conservation programs
Similarity of counties within a region in overall economic activities

A subcommittee of the study team was responsible for identifying and selecting regions according to the above criteria. The study team used Rand-McNally's U.S. map to mark the regions or areas having the desired attributes, and then recommended 31 regions. However, because of funding limitations, the team decided to further reduce the scope of research to 10 regions. In addition, because there is a need for pilot testing the study methodology developed and used by the University of Tennessee, two more regions from Tennessee were added.

Therefore, the study involves 12 multicounty regions, which cover a total of 204 counties. To understand the statutory requirements and limitations on the environmental resources conservation programs activities, a subcommittee of the study team did a review of Federal conservation legislative history. However, the team agreed that conservation activities of farmers and land users were also highly guided or influenced by the state and local laws and regulations. Therefore, a recommendation was made that if resources were available, the team should review and document at least the laws and regulations of the states within the regions being selected for the study.

Based on the 12 selected multicounty regions, in 1995 a subcommittee of the study team initiated a special study on the state and local legal requirements for resources conservation. It started with a direct survey of the state and local laws on conservation by using the existing administrative structure of the NRCS. A letter was mailed to individual NRCS state offices and selected district offices requesting cooperation in providing documents and materials on existing soil and water conservation laws and regulations. The key requests include the following:

- A list of county laws, rules, regulations, and ordinances guiding resources conservation activities in the district.
- A list of the applicable state laws, rules, and regulations on conservation activities in the district and state.
- A list of known statutes or rules and regulations not covered in the two items above (i.e. regional statutes, rules, or regulations) that are used to guide conservation activities in the district and state.

Basically, three stages were applied in conducting the research on conservation laws and regulations. The first stage was to conduct a comparison of the 50 states' implementation of the Standard Soil and Water Conservation District Laws by

examining the individual states' modified statutes and applications of the standard district law. That report was first completed and reported as the *No. 3 Working Paper of the Third RCA*. It details the differences in names for the soil and water conservation organization in the state bureaucracy and the districts, the organization, functions and powers, and financing of the conservation district in each state, including Puerto Rico and the Pacific Basin Islands.

The second stage was to analyze the statutes, and regulations provided by the NRCS state and district offices. These responses and state statutes were further classified into the following major categories:

State Soil and Water Conservation District Laws

State and Selected County Erosion and Sediment Control Laws

State and Selected County Ground Water Laws

State Water Quality and Management Laws

State and Selected County Flood Plain and Stormwater Control Laws

State and Selected County Wetlands Conservation Laws

State and Selected County Prime Farmland, Rangeland Protection, and Forest Land Conservation Laws

State Surface Mining Laws

State and Selected County Organic Waste and Confined Animal Feeding Operations Laws

State Nutrient, Pesticide, and Seed Laws

State Wildlife and Wildlife Habitat Protection Laws

Additional research was then conducted by using the existing data bases on state laws for each of the above major state statutory categories. Because limited county or NRCS district offices were selected to respond to the letter for legal information, only a limited number of district offices were able to provide information of county laws and regulations. Therefore, the reports on county laws should be considered as selective rather than comprehensive examples of these counties where information on county laws and regulations was provided.

The overall report is organized according to the sequence of the above topics in chapters. For easy reference, each chapter generally begins with a summary section and then follows with the contents. This first provides an analyzes of the common and unique features of the 17 state statutes, and then information is given on the local laws and ordinances of those counties where legal requirement information is available (fig. 1).

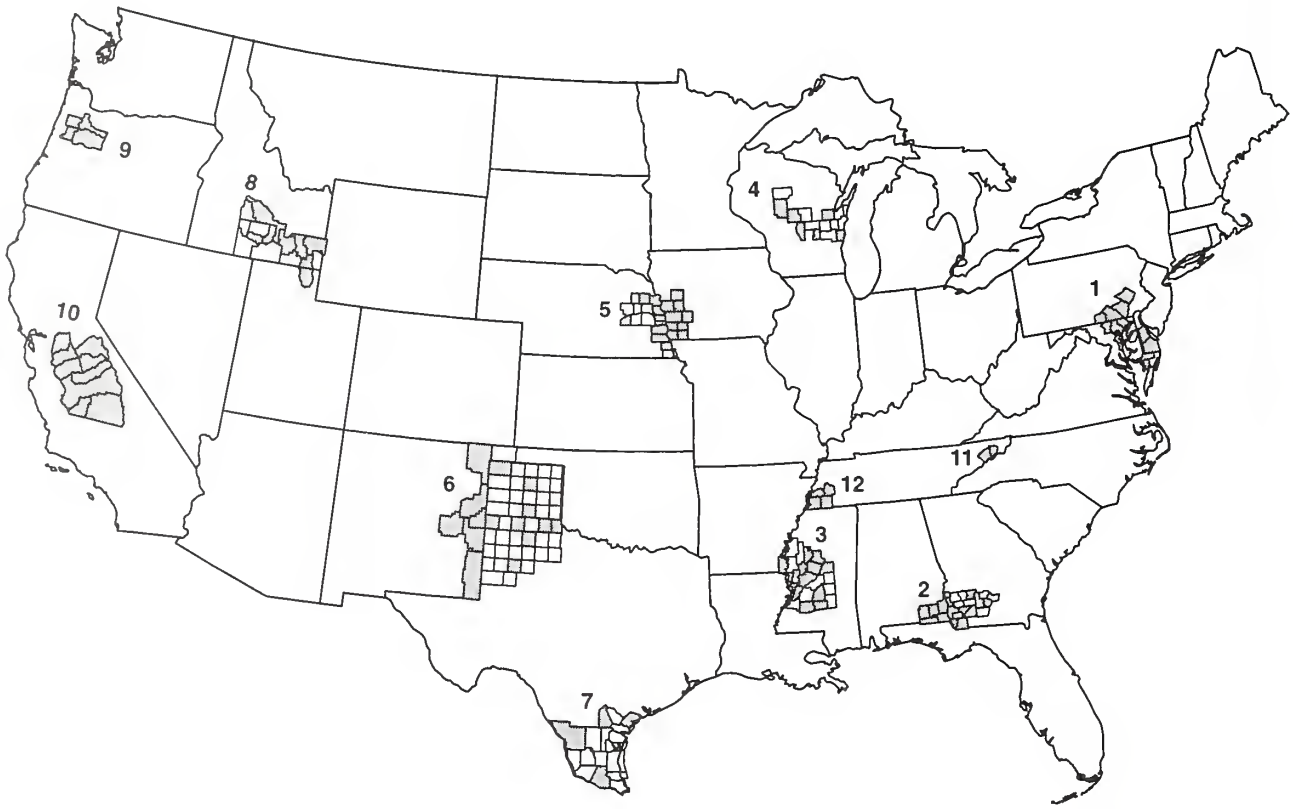

Figure 1. Regions (numbered), states, and counties in report. Counties that were selected and responded to the survey are shaded on the map.

Region	State	County
1	**Delaware**	Kent
		Sussex
	Maryland	Anne Arundel
		Baltimore
		Carroll
		Harford
		Kent
		Somerset
		Wicomico
	Pennsylvania	Adams
		Berks
		Lancaster
		York
2	**Alabama**	Coffee
		Dale
		Geneva
		Henry
		Houston
	Georgia	Baker
		Clay
		Decatur
		Early
		Lee
		Mitchell
		Seminole
		Tift
		Worth
3	**Arkansas**	Chicot
	Mississippi	Attala
		Carroll
		Copiah
		Holmes
		Issaquena
		Leflore
		Rankin
		Sharkey
		Smith
		Warren
		Yazoo
4	**Wisconsin**	Adams
		Clark
		Green Lake
		Outagamie
		Sheboygan
		Wood
5	**Iowa**	Cass
		Crawford
		Fremont
		Harrison
		Mills
		Montgomery
		Page
		East Pottawatamie
		West Pottawatamie
		Shelby

Region	State	County
5	**Nebraska**	Burt
		Cass
		Cuming
		Douglas
		Otoe
		Polk
		Sarpy
		Washington
6	**New Mexico**	Curry
		De Baca
		Lea
		Quay
		Roosevelt
		Union
	Texas	Armstrong
		Childress
		Dallam
		Floyd
		Hall
		Hutchinson
		Lynn
		Parmer
		Swisher
7	**Texas**	Aransas
		Hidalgo
		Live Oak
		Webb
8	**Idaho**	Bannock
		Blaine
		Caribou
		Franklin
		Jerome
		Minidoka
		Power
	Utah	Cache
9	**Oregon**	Benton
		Linn
		Marion
		Polk
10	**California**	Calaveras
		Fresno
		Kings
		Madera
		Mariposa
		Merced
		San Joaquin
		Stanislaus
		Tulare
		Tuolumne
11	**Tennessee**	Greene
		Washington
12	**Tennessee**	Fayette
		Haywood
		Shelby
		Tipton

Chapter 2: State Soil and Water Conservation District Laws

On August 25, 1933, the Soil Erosion Service was first created in the U.S. Department of the Interior.[1] On March 25, 1935, this Service was transferred to the U.S. Department of Agriculture (USDA), and it was later renamed the Soil Conservation Service (SCS).[2] On April 27, 1935, after unanimous passage by the House and the Senate, President Roosevelt signed the Soil Conservation Act of 1935.[3] This Act recognized that "soil erosion is a menace to the national welfare and that it is hereby declared to be a policy of Congress to provide permanently for the control and prevention of soil erosion . . . ."[4] Moreover, this Act specifically established a SCS within USDA to develop and supplement ongoing programs of soil and water conservation for the Nation.[5] In April 1995, SCS was renamed Natural Resources Conservation Service (NRCS) with broadened responsibility.

In February 1936, Congress amended Public Law 74-46 by enacting Public Law 74-461.[6] Public Law 74-461, also known as the "Soil Conservation and Domestic Allotment Act," authorized the Secretary of Agriculture to make payments and grants of aid to support approved soil and water conservation measures.[7]

The Soil Conservation Service addressed the challenge by setting up a number of large-scale demonstration projects around the country.[8] Although these projects were themselves successful, this approach was not far-reaching enough. It was not only too costly and too slow to achieve the desired results, but it lacked grass-roots support and participation and did not provide long-lasting conservation treatment.[9]

A local organization was necessary through which conservation can be accomplished.[10] On June 5, 1935, the Secretary of Agriculture's Committee on Soil Conservation recommended that "all erosion control work on private lands, including new demonstration projects' would be undertaken by SCS only through 'legally constituted Soil Conservation Associations . . . ."[11] From this recommendation, the soil conservation district was born. On February 1937, a Standard Soil Conservation District law was developed for consideration by each of the states.[12] Along with a letter from President Roosevelt, this model enabling act was sent to each of the state governors, suggesting that farmers and ranchers be granted the authority to establish districts specifically for conservation of soil and water resources.[13] The states responded, but with varying degrees of speed. Twenty-

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[1]Soil and Water District Commissioner Handbook, March 1991. Iowa Department of Agriculture & Land Stewardship. Dale M. Cochran, Secretary of Agriculture, p. 5 (noting that this program was the first of its kind anywhere (hereafter, Soil and Water Handbook)).
[2]Id.
[3]Public Law No. 74-46, 49 Stat. 163, 16 U.S.C. 590 (a)-(f).
[4]Id.
[5]Soil and Water Resources Conservation Act: 1980 Appraisal Part II, Soil, Water, and Related Resources in the United States: Analysis of Resources Trends, USDA. Issued August 1981, at 209 (hereafter Soil and Water Resources Appraisal).
[6]Public Law No. 74-461, 49 Stat. 1148, 16 U.S.C. 590 (g, h, i-k, l-q).
[7]Soil and Water Resources Appraisal.
[8]Soil and Water Handbook.
[9]Id.
[10]Id.
[11]Soil and Water Resources Appraisal.
[12]Id.
[13]Soil and Water Resources Appraisal.

two states passed enabling legislation within the same year. Ultimately all 50 states, plus Puerto Rico and the Virgin Islands, adopted the enabling laws.[14]

In the 1950's, most states amended their state conservation district laws to put more emphasis on water conservation and to confer authority to carry out watershed projects.[15] Recent amendments granted authorities to further district participation in state water quality management and erosion and sediment control programs, critical area land use management programs, and administration of special soil and water conservation funds, including funds which provide state financial assistance for installing soil and water conservation practices.[16]

The following section will discuss the soil and water conservation laws of the 50 states. It is further divided into two subsections: a general discussion of the state soil and water conservation laws and a comparison between the standard law and the state laws.

General: State Soil and Water Conservation Districts Laws

As mentioned earlier, in 1937 the President sent a model state act for forming soil conservation districts to each state governor. All states have enacted legislation based on this model. These state laws are enabling acts, which provide a mechanism for creating soil conservation districts (SCD's) to conserve soil, water, and related resources. A locally elected or appointed board of officials, usually called directors, commissioners, or supervisors governs each district. Although SCD boundaries generally coincide with county boundaries, there are SCD's that cover more than one county and SCD's that cover only part of one county.

Generally, SCD's have the power to plan and carry out programs for soil conservation, flood prevention, water management, recreation, and other purposes

[14]See ALA. CODE § 9-8-20 et seq. (1987); ALASKA. STAT. § 41.10.010 et seq. (1988); ARK. CODE ANN. § 14-125-101 et seq. (1987 & Supp. 1991); ARIZ. REV. STAT. ANN. § 37-1001 et seq. (1993); CAL. PUB. RES. CODE § 9074 et seq. (1977); COLO. REV. STAT. § 35-70-101 et seq. (1995); CONN. GEN. STAT. § 22a-314 et seq. (1983 & Supp. 1993); D.C. CODE ANN. § 1-2801 et seq. (1981); DEL. CODE ANN. tit. 7 § 3901 et seq. (1991); FLA. STAT. ANN. § 582.01 et seq. (1987 & Supp. 1994); GA. CODE ANN. § 2-6-20 et seq. (1982); HAWAII REV. STAT. § 180-1 et seq. (1985 & Supp. 1992); IDAHO. CODE § 22-2715 et seq. (1977 & Supp. 1994); ILL. COMP. STAT. ANN. tit. 70 et seq. § 405/1 et seq. (Smith-Hurd 1993); IND. CODE ANN. § 13-3-1-1 et seq. (1990 & Supp. 1992); IOWA CODE ANN. § 467A.1 et seq. (1991); KAN. STAT. ANN. § 2-1901 et seq. (1991 & Supp. 1992); KY. REV. STAT. ANN. § 262.010 et seq. (1981 & Supp. 1992); LA. REV. STAT. ANN. § 3:1201 et seq. (1987 & Supp. 1993); MD. CODE ANN., AGRIC. §8-101 et seq. (1985 & Supp. 1994); ME. REV. STAT. ANN. tit. 12, §§ 1 to 158 (West 1981 & Supp. 1992); MICH. STAT. ANN. § 13.1781 et seq. (1987 & Supp. 1993); MIN. STAT. § 103C.001 et seq. (1990 & Supp. 1993); MISS. CODE ANN. §69-27-1 et seq. (1991 & Supp. 1993); MO. REV. STAT. § 278.060 et seq. (1993); MONT. CODE ANN. § 76-15-101 et seq. (1995); N.C. GEN. STAT. §139-1 et seq. (1992); N.D. CENTURY CODE § 4-22-01 et seq. (1987); NEB. REV. STAT. § 2-1575 et seq. (1987); NEV. REV. STAT. *reprinted* 548.010 et seq. (1994); N.J. STAT. ANN. § 4:24-1 et seq. (West 1973 & Supp. 1993); N.H. REV. STAT. ANN. § 432:1 et seq. (1991); N.M. STAT. ANN. § 73-20-25 et seq. (1978 & Supp. 1987); N.Y. SOIL & WATER CONSERVATION. DIST. book 52-B § 1 et seq. (Consol. 1949 & Supp. 1996); OHIO REV. CODE ANN. § 1515.01 et seq. (1986 & Supp. 1992); OKLA. STAT ANN. tit. 27A, § 3-1-101 et seq. (West Supp. 1995); ORE. REV. STAT. § 568.210 et seq. (1991); PA. STAT. ANN. tit. 3 § 849 et seq. (1963 & Supp. 1993); P.R. LAWS ANNO. tit. 5, § 241 et seq. (1981); R.I. GEN. LAW ANN. § 2-4-1 et seq. (1987 & Supp. 1992); S.C. CODE ANN. §48-9-10 et seq. (Law. Co-op. 1987 & Supp. 1992); S.D. CODIFIED LAWS ANN. § 38-8-1 et seq. (1985 & Supp. 1992); TEN. CODE ANN. § 43-14-201 et seq. (1987); TEXAS AGRIC. STAT. CODE ANN. § 201.001 et seq. (1995); UTAH CODE ANN. § 4-18-1 et seq. (1995); WA. CODE ANN. § 89.08.010 et seq. (1992 & Supp. 1996); WIS. STAT. § 92.01 et seq. (1990); VA. CODE § 10.1-500 et seq. (1993 & Supp. 1995); VERMONT STAT. ANN. tit. 10 § 701 et seq. (1984 & Supp. 1990); W.VA. CODE § 19-21A-1 et seq. (1991 & Supp. 1993); WYO. STAT. § 11-16-101 et seq. (1994).

[15]Beatrice H. Holmes, *Legal Authorities for Federal (USDA), State and Local Soil and Water Conservation Activities, Second RCA Appraisal (1987)*, p. 33 [hereafter Holmes].

[16]Holmes.

within their boundaries. Most SCD's have the authority to acquire property, enter into contracts/agreements, cooperate with other districts and agencies, conduct surveys, and receive funds. However, because most states modified the Model Act to some degree, there is a certain amount of diversity in the authorities and administrative mechanisms under which districts operate.

The soil conservation districts cover almost the entire Nation. The SCD's are based on relatively uniform state laws, local initiatives and governance, and cooperation with Federal agencies. It provides a mechanism for delivering much of the conservation assistance authorized under the Federal laws. In addition, many Federal conservation assistance programs that are less formally tied to SCD's use the local districts as an important part of their delivery system.

Comparison between standard Model Law and state laws

The modeling enabling act mainly consists of a number of sections, including—

- ◊ the statement of purpose and policy of law,
- ◊ the organization and authorized activities of the state soil conservation committee,
- ◊ the organization of the conservation district,
- ◊ the functions and powers of the district, and
- ◊ the conservation district governance.[17]

Although most of the state laws follow this general scheme, they vary in certain areas. A discussion of each section follows.

Statements of purpose and policy of law

The Model Law makes a legislative declaration about the condition of the state's lands, the consequences, the corrective methods, and a declaration of policy concerning the soil and natural resources and their conservation. The legislative determination and declaration of policy both are broaden in scope.

Most of the state laws follow this approach. However, there are some variations (table 1). Illinois, Kentucky, Massachusetts, Nevada, New Mexico, Oklahoma, Oregon, Rhode Island, South Dakota, Vermont, Virginia, Washington, Wisconsin, and Wyoming, a total of 14 states, extend their purpose and policy to include renewable natural resources. Alaska, Arizona, Colorado, and Michigan give only a declaration of policy. Moreover, Connecticut, Hawaii, Missouri, Ohio, and Tennessee do not even have the statement of purpose and the policy of law section.

Organization of the state soil conservation committee

The Model Law divides the organization of the state soil conservation committee into four subsections (table 1). They cover—

- ◊ name,

[17]A STANDARD STATE SOIL CONSERVATION DISTRICTS LAW § 2 (U.S. Government Printing Office, 1936) (hereafter Model Law).

- ◊ position within state government,
- ◊ membership and cooperation, and
- ◊ authorized activities.

Each of these subsections will be discussed in turn.

The Model Law suggests that the committee be called the State Soil Conservation Committee.[18] However, only 10 states (Colorado, Idaho, Iowa, Maryland, New Hampshire, New Jersey, North Dakota, Tennessee, Utah, and West Virginia) keep this particular name. Most other states change this name to reflect the broadened scope of the law. For example, Alabama, Arkansas, Florida, Georgia, Indiana, Louisiana, Maine, Minnesota, Mississippi, Nevada, New Mexico, New York, North Carolina, Ohio, Oregon, Texas, and Virginia, a total of 17 states, call this committee the State Soil and Water Conservation Commission. Eight states—Kansas, Kentucky, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Washington, and Wyoming call this committee the State Conservation Commission (or committee). Massachusetts calls this committee the Committee for Conservation of Soil, Water, and Related Resources.

The Model Law does not specify the committee's position within a state government. However, most state laws indicate their committees' position within a state government. For example, the state soil conservation commission of Idaho is created in the Department of Lands.[19] For North Carolina, the commission belongs to the Department of Natural and Economic Resources. Furthermore, for Alaska, California, Colorado, Delaware, Hawaii, Indiana, Minnesota, Montana, Nevada, Ohio, and Rhode Island, the committee's position is within the State Department of Conservation or Natural Resources.

The Model Law recommends that the committee consist of a chairman and between 3 to 5 members. Also, certain members shall serve in an ex officio capacity.[20] The total number of members varies from state to state, ranging from 3 to 13 members. For example, for Georgia, there are 5 committee members and 13 ex officio members; the Virginia committee has only 3 members and Ohio has 13. Moreover, the law of each state usually requires that the members must be appointed or elected, or both. Some state laws also require that these members be farmers or ranchers, officers of other state agencies, or district supervisors, or both. Most state laws also require that a number of individuals serve as advisors for the committee.

The Model Law provides that the committee members receive no compensation for services other than expenses such as traveling expenses.[21] Although most states follow this standard, 17 states—Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Nebraska, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Texas, Vermont, and Wisconsin—allow compensation in salaries in addition to expenses.[22]

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[18]Model Law § 4(A).
[19]Idaho Code § 4(A)
[20]Model Law § 4(A).
[21]Model Law § 4(C).
[22]For example, for Indiana, a supervisor is allowed to be paid a salary per diem for any part of a day that the supervisor is engaged in the official business of the supervisor's district. The Indiana Soil and Water Conservation Districts Act, IND. CODE § 13-3-1-7 (1990).

A number of authorized activities are provided for the state soil conservation committee throughout the Model Law. The authorized activities are as follows—

- ◊ assisting districts in preparing and carrying out programs,
- ◊ facilitating interchange of information between districts,
- ◊ reviewing and coordinating programs of districts,
- ◊ requesting state appropriations for state agencies and districts,
- ◊ receiving and distributing funds to districts,
- ◊ enlisting cooperation of state, Federal, and other agencies,
- ◊ making information available to the public, and
- ◊ providing for an annual audit of the accounts of receipts and disbursement.

Most states' committees have the authorized activities listed (page 11). However, a number of states extend their authorized activities to include reviewing agreement or agreement forms for district use,[23] facilitating arrangements for districts to serve as local operating agencies,[24] cooperating in coordination of other agencies' plans affecting renewable natural resources,[25] assisting in resolving conflicts of programs,[26] making studies and analyses of most states' committees have the authorized activities listed above. However, a number of states extend their authorized activities to include reviewing agreement or districts' programs,[27] carrying out state policies at state level for conservation of renewable natural resources, and representing the state in matters affecting such resources,[28] assisting districts in obtaining legal assistance,[29] requiring annual reports by districts,[30] and carrying out the same activities as districts.[31] In 1993, Mississippi amended the general duties and powers of commission provision to include among other powers, the authority to demonstrate to landowners and operators within the state the equipment that will demonstrate energy and soil and water conservation.[32]

[23]Arizona, Florida, Illinois, Louisiana, North Dakota, Oklahoma, Oregon, Rhode Island, and Washington include this activity.
[24]Arizona, Arkansas, Kansas, Louisiana, Nevada, North Dakota, Oklahoma, Rhode Island, Washington, and Wyoming include this activity.
[25]Arkansas, California, Louisiana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oklahoma, Rhode Island, South Carolina, South Dakota, Virginia, Washington, and Wisconsin include this activity.
[26]Arkansas, Colorado, Louisiana, Nebraska, Nevada, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Vermont, Virginia, Washington, Wisconsin, and Washington include this activity.
[27]Arkansas, California, Delaware, Florida, Louisiana, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, North Dakota, Oklahoma, Oregon, Rhode Island, South Carolina, Washington, and Wisconsin include this activity.
[28]Arkansas, California, Louisiana, Nebraska, Nevada, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Virginia, and Wyoming include this activity.
[29]California, Colorado, Delaware, Georgia, Oklahoma, Rhode Island, Washington, Wisconsin, and Wyoming include this activity.
[30]Alabama, Arizona, Arkansas, California, Colorado, Florida, Indiana, Kentucky, Louisiana, Minnesota, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, Wisconsin, and Wyoming include this activity.
[31]Alaska, Connecticut, Delaware, and Maine include this activity.
[32]Soil Conservation District Law, MISS. CODE ANN. § 69-27-13(k) (Supp. 1994).

Table 1. State conservation district law: purposes and policies of laws; state agency administration

State	Statement of purpose and policy of law						Administrator: State Soil Conservation Board or Commission											
							Name	Position in state government					Membership					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Alabama	✓	✓	✓	✓			✓b	✓					9		3		6	
Alaska			✓			✓c				✓c			3	3			3	
Arizona						✓d						✓e	✓d					
Arkansas	✓	✓	✓	✓			✓b					✓f	7				7	
California	✓	✓	✓	✓			✓			✓			9				9	
Colorado			✓			✓				✓			9				1	8
Connecticut											✓h		✓h					
Delaware			✓	✓h		✓i				✓			7					
Florida	✓	✓	✓	✓					✓				9	9			9	
Georgia	✓		✓				✓b	✓					5				5	
Hawaii						✓k				✓								
Idaho	✓		✓			✓						✓l	5				5	
Illinois			✓	✓	✓	✓m			✓									
Indiana	✓	✓	✓	✓			✓b			✓			9	✓	3	2	9	
Iowa		✓	✓			✓		✓					9	6		2	9	
Kansas	✓	✓	✓	✓			✓o	✓					9		2		2	5
Kentucky		✓	✓	✓	✓		✓o				✓		9				✓	
Louisiana	✓	✓	✓	✓			✓b	✓					7	5	2			5
Maine			✓	✓			✓b	✓					11		5		2	✓
Maryland	✓		✓	✓		✓			✓				11		✓		5	
Massachusetts		✓			✓		✓q				✓		7		3		✓	
Michigan			✓						✓				7	✓	3		✓	
Minnesota	✓		✓	✓			✓b			✓			9		✓		5	
Mississippi	✓	✓	✓	✓			✓b	✓					11		6			5
Missouri							✓w	✓					5	3	2		5	
Montana	✓		✓	✓						✓								
Nebraska		✓	✓	✓			✓r	✓					15			1	3	12
Nevada	✓	✓	✓	✓	✓		✓b			✓			9		2		7	
New Hampshire		✓	✓	✓		✓		✓					9		✓		5	
New Jersey			✓	✓		✓			✓				11		✓		2p	6
New Mexico	✓	✓	✓	✓	✓		✓b	✓					12				7	
New York			✓	✓			✓b		✓				5	2		1	3	
North Carolina	✓	✓	✓	✓			✓b					✓x	7				1	
North Dakota			✓	✓		✓		✓					7				2	5
Ohio							✓b			✓			7	2	2		✓	
Oklahoma	✓	✓	✓	✓	✓		✓o	✓					5	3			5	
Oregon		✓	✓	✓	✓		✓b	✓					7	5		2	7	
Pennsylvania			✓	✓			✓o				✓		9	✓	3	2	6	
Rhode Island	✓	✓	✓	✓	✓		✓o			✓			7		3s		1	
South Carolina	✓	✓	✓	✓			✓v	✓					5				5	
South Dakota		✓	✓		✓		✓o		✓				9	✓	1	✓	8	
Tennessee						✓		✓					10	3	3			
Texas	✓	✓	✓				✓b						5		✓			5
Utah	✓	✓	✓	✓		✓			✓				12		5		7	
Vermont			✓	✓	✓		✓v				✓		7	✓	3		✓	
Virginia	✓	✓	✓	✓	✓		✓b	✓					11-12	6	✓		7	
Washington	✓	✓	✓	✓	✓		✓o	✓					7	3	2		2	3
West Virginia	✓	✓	✓	✓		✓		✓					7		✓		3	
Wisconsin		✓	✓	✓	✓		✓t		✓				8	✓			✓	✓
Wyoming		✓	✓	✓	✓		✓o	✓o	✓				10		5			5

See column head explanations and footnotes on page following this table.

Table 1. State conservation district law: purposes and policies of laws; state agency administration—Continued.

Administrator: State Soil Conservation Board or Commission—*Continued.*																			
Membership				Authorized activities															
(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(36)	(38)
	6		✓	✓		✓			✓		✓						✓		
																			✓c
			✓	✓	✓	✓	✓	✓	✓	✓	✓						✓		
			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
			✓	✓		✓	✓	✓	✓		✓	✓		✓	✓	✓	✓		
✓	8			✓		✓	✓	✓	✓				✓			✓	✓	✓	
			✓			✓	✓	✓	✓										✓h
			✓	✓		✓	✓	✓	✓					✓		✓			✓
			✓	✓	✓	✓		✓	✓		✓			✓			✓		
13	5		✓	✓		✓	✓	✓	✓		✓					✓			
			✓	✓		✓	✓		✓		✓								
3p			✓	✓		✓	✓	✓	✓		✓								
8p			✓	✓	✓	✓	✓	✓	✓		✓								
✓n		✓	✓	✓		✓	✓	✓	✓		✓						✓		
2p		✓	✓	✓		✓	✓	✓	✓		✓								
2		✓	✓	✓		✓		✓	✓	✓	✓								
5	9								✓								✓		
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
✓p	✓		✓	✓		✓	✓	✓	✓		✓								✓
2	5		✓	✓		✓		✓	✓		✓								
3						✓		✓	✓		✓								
✓p	✓	✓	✓	✓		✓			✓		✓								
	5	✓	✓	✓		✓		✓	✓		✓						✓		
2	5	✓	✓	✓		✓		✓	✓		✓			✓					
			✓				✓	✓	✓					✓					
			✓	✓		✓			✓		✓								
13	12	✓	✓	✓		✓			✓		✓	✓	✓	✓	✓				
			✓	✓		✓			✓	✓	✓	✓	✓	✓	✓				
✓n.o	5		✓	✓		✓	✓	✓	✓		✓	✓		✓					
	6		✓			✓		✓	✓		✓								
5	6		✓	✓		✓		✓	✓		✓	✓							
5		✓		✓		✓			✓		✓								
✓p	6	✓	✓	✓		✓		✓	✓		✓								
6		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
1			✓	✓		✓	✓	✓	✓		✓	✓					✓		
	5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3p		✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓			✓		
2		✓	✓	✓		✓		✓	✓		✓						✓	✓	
9	3		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
9	5		✓	✓		✓	✓	✓	✓		✓	✓		✓	✓				
5p			✓	✓		✓	✓	✓	✓		✓	✓	✓		✓				
	✓		✓	✓		✓			✓		✓								
5		✓	✓			✓		✓	✓		✓								
	7		✓	✓		✓			✓		✓							✓	
✓p	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓				✓		
✓p			✓	✓		✓	✓	✓	✓		✓	✓	✓		✓				
	3		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
✓p			✓	✓		✓		✓	✓		✓								
5p	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓		✓	✓		
✓p	5		✓	✓		✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	

See column head explanations and footnotes on page following this table.

Table 1 column headings

(1) Legislative declaration.
(2) Broadened scope.
(3) Declaration of policy.
(4) Broadened program.
(5) Extended to include renewable natural resources.
(6) State Soil Conservation Committee.
(7) Name changed to reflect broadened scope of law.
(8) Independent agency.
(9) Responsible to or associated with State Department of Agriculture or State university.
(10) State Department of Conservation or Natural Resources.
(11) State Environmental Department.
(12) Other state department or agency.
(13) Total number.
(14) Farmers or ranchers.
(15) Officers of other state agencies.
(16) Urban or other nonfarmer representation required.
(17) Appointed.
(18) Elected.
(19) Advisory.
(20) District supervisors.
(21) Compensation authorized in addition to expenses.
(22) Assist districts to prepare and carry out programs.
(23) Facilitate interchange between districts.
(24) Review agreements or agreement forms for district use.
(25) Review and coordinate programs of districts.
(26) Request state appropriations for state agency and districts.
(27) Receive and distribute funds to districts.
(28) Enlist cooperation of state, federal and other agencies.
(29) Facilitate arrangements for districts to serve as local operating agency.
(30) Make information available to public.
(31) Cooperate in coordination of other agencies' plans affecting renewable natural resources.
(32) Help to resolve programs' conflicts.
(33) Make studies and analyses of districts' programs.
(34) Carry out states' policies at state level and represent state in matters concerning conservation of renewable natural resources.
(35) Assist districts in obtaining legal assistance.
(36) Require annual report by district.
(37) Set up uniform accounting and auditing procedures for districts.
(38) Carry out same activities as districts.

Table 1 footnotes

[a] Includes conservation districts, soil and water conservation districts, etc.
[b] State Soil and Water Conservation Commission.
[c] Powers are in the Commissioner of Natural Resources; Soil Conservation Board advises the Commissioner and governs the district, which includes the entire state.
[d] State Natural Resource Conservation Commission.
[e] State Land Department.
[f] Division of Soil and Water Resources, Department of Commerce.
[g] State Resource Conservation Commission establishes policies for Division of Resource Conservation, the administering agency.
[h] Powers are in the Commissioner of Environmental Protection who appoints council and establishes soil and water districts and boards.
[i] Responsibility in the Division of Soil and Water Conservation, Department of Natural Resources and Environmental Control.
[j] Ex officio.
[k] Department of Land and Natural Resources.
[l] Department of Lands.
[m] Department of Agriculture exercises power.
[n] Governor may appoint advisory members.
[o] State Conservation Commission or committee.
[p] Committee may invite Secretary of Agriculture to appoint a member.
[q] Committee for Conservation of Soil, Water, and Related Resources.
[r] Natural Resources Commission.
[s] Includes two members of legislature.
[t] Board of Soil and Water Conservation Districts.
[u] State Land Resources Conservation Commission.
[v] Natural Resources Conservation Council.
[w] State Soil and Water Districts Commission.
[x] Department of Natural and Economic Resources.

Conservation district organization

The Model Law identifies the district as the Soil Conservation District.[33] Although a number of states maintain this identification (table 2),[34] most change the name to Soil and Water Conservation District,[35] Conservation District,[36] Natural Resources District,[37] or Resource Conservation District.[38]

The Model Law defines the district as a governmental subdivision of the state and a public body corporate and politic.[39] Most of the state enabling acts maintain this definition. However, Georgia and Maine define it as an agency of the state. Only Missouri defines it as a body corporate.

The Model Law provides that land occupiers—defined to include both owners and nonowning operators—may file a petition to the state to request creation of a conservation district. The state committee must hold hearings and cause a referendum to be voted by land occupiers. It only requires a majority, i.e. 51 percent, and vote in favor to create a district.

Although states generally follow this scheme, there are variations in the individuals permitted to file a petition, the individuals allowed to vote in the referendum, and the percentage of vote necessary to permit creation of a district. Eleven states—Alabama, Arizona, Arkansas, Florida, Illinois, Indiana, Mississippi, Nevada, North Carolina, Utah, and Washington—allow only landowners to petition and to vote. Some states, such as California, Colorado, Idaho, Montana, North Dakota, Oregon, and Washington, are even stricter because they allow only electors, i.e. qualified voters, to vote. For example, North Dakota law defines a *qualified voter* as a person of the age of 18 or older who is a United States citizen and who has resided in the state and in the precinct 30 days before any election, whether or not the person is living in a rural or urban area.[40] Clearly, this definition would exclude landowners that are not U.S. citizens.

Most follow the model rule in requiring a simple majority of votes to create a district. However, Alabama, Arkansas, South Dakota, and Texas require a two-thirds (67 percent) vote in favor of creation; Arizona, Iowa, and Ohio require 65 percent in favor; and West Virginia requires 60 percent. Two states—Arizona and New Jersey—are even stricter in the demand that the vote percentage figure must represent a certain percentage of acreage in the district. For example, in addition to the 65 percent vote requirement, Arizona demands that voting landowners must own not less than 50 percent of privately owned land lying within the proposed district.[41]

Four states—California, New York, Pennsylvania, and Wisconsin—allow the county governing body to organize conservation districts.

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[33]MODEL LAW § 5.
[34]Alaska, Arkansas, Colorado, Idaho, Iowa, Maryland, Michigan, New Jersey, North Dakota, Tennessee, Utah, and West Virginia.
[35]Alabama, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Louisiana, Maine, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Oregon, South Carolina, Texas, Virginia, and Wisconsin.
[36]Arkansas, Kansas, Kentucky, Massachusetts, Montana, Nevada, New Hampshire, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Washington, and Wyoming.
[37]Arizona, Nebraska, New Mexico, and Vermont.
[38]California.
[39]MODEL LAW § 3(1), p.3.
[40]N.D. CENTURY CODE § 4-22-02(8) (Supp. 1994).
[41]ARIZ. REV. STAT. ANN. § 37-1035 (1993).

Table 2. Conservation district organization

State	District identification					District defined as			Power to create district							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Alabama		✓			✓	✓		✓	✓			✓	✓			67
Alaska	✓															
Arizona				✓[k]			✓[g]	✓	✓			✓	✓			65[b]
Arkansas	✓		✓		✓	✓		✓	✓			✓	✓			67
California				✓[a]					✓		✓	✓			✓	51
Colorado	✓					✓		✓	✓			✓	✓[j]			51
Connecticut		✓						✓[c]								
Delaware		✓			✓											
Florida		✓			✓	✓		✓	✓			✓	✓			51
Georgia		✓					✓[d]	✓								
Hawaii		✓			✓	✓		✓		✓		✓		✓		51
Idaho	✓				✓	✓		✓	✓			✓			✓	51
Illinois		✓				✓			✓			✓	✓			51
Indiana		✓			✓	✓		✓	✓			✓	✓			51
Iowa	✓				✓	✓		✓	✓			✓	✓			65
Kansas			✓		✓	✓		✓		✓		✓		✓		51
Kentucky			✓		✓	✓		✓	✓			✓	✓			51
Louisiana		✓			✓	✓		✓	✓			✓	✓			51
Maine		✓				✓	✓[d]	✓		✓		✓		✓		
Maryland	✓				✓	✓										
Massachusetts			✓					✓		✓						
Michigan	✓				✓	✓		✓		✓		✓		✓		51
Minnesota		✓			✓	✓		✓		✓		✓		✓		51
Mississippi		✓			✓	✓		✓	✓			✓	✓			51
Missouri		✓					✓[g]	✓	✓[h]			✓		✓[h]		51
Montana			✓		✓	✓		✓[i]		✓[j]		✓			✓	51
Nebraska				✓[k]	✓	✓		✓[l]								
Nevada			✓		✓	✓		✓		✓		✓		✓		51
New Hampshire			✓		✓	✓										
New Jersey	✓				✓	✓		✓	✓			✓	✓			51[b]
New Mexico				✓[k]	✓	✓		✓	✓			✓	✓			51
New York		✓									✓					
North Carolina		✓			✓	✓		✓		✓		✓	✓			51
North Dakota	✓				✓	✓		✓		✓[j]		✓			✓	51
Ohio		✓			✓			✓	✓			✓		✓		65
Oklahoma			✓		✓	✓										
Oregon		✓			✓	✓		✓	✓			✓			✓	51
Pennsylvania			✓			✓					✓					
Rhode Island			✓		✓			✓[n]								
South Carolina		✓			✓	✓		✓	✓			✓	✓			51
South Dakota			✓		✓	✓		✓	✓			✓	✓			67
Tennessee	✓				✓			✓	✓			✓	✓			51
Texas		✓			✓	✓		✓	✓			✓	✓			67
Utah	✓				✓	✓		✓		✓		✓		✓		51
Vermont				✓[k]	✓	✓		✓	✓			✓	✓			51
Virginia		✓			✓	✓		✓	✓[o]							
Washington			✓		✓	✓		✓		✓		✓			✓	51
West Virginia	✓				✓			✓	✓			✓	✓			60
Wisconsin		✓			✓	✓					✓					
Wyoming			✓		✓	✓		✓	✓			✓		✓		51

See column head explanations and footnotes at end of table.

Table 2. Conservation district organization—Continued.

District boundaries		Changes in boundaries and name					Subarea	Discontinuance		
(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
		✓	✓	✓	✓	✓		3	✓	51
✓						✓				
		✓	✓		✓			5[p]	✓	65
		✓	✓		✓		✓	5	✓	51
		✓	✓		✓				✓	51
		✓	✓		✓		✓	3	✓	51
✓	✓									
		✓	✓		✓	✓			✓	67
✓[e]		✓[e]	✓[e]		✓[e]			5	✓	51
		✓	✓						✓	51
		✓	✓	✓	✓			5	✓	51
		✓	✓	✓	✓	✓		3	✓	51
	✓			✓	✓			2	✓	51
		✓			✓	✓		5	✓	65
		✓							✓	51
		✓		✓		✓		5	✓	67
		✓	✓	✓	✓			5	✓	51
		✓						5	✓	51
✓	✓[f]		✓	✓						
		✓	✓						✓	51
		✓	✓	✓	✓			2	✓	51
		✓	✓	✓	✓		✓	5	✓	51
		✓	✓	✓					✓	51
						✓			✓	51
		✓	✓		✓		✓		✓	51
✓		✓	✓	✓	✓		✓			
		✓	✓	✓	✓				✓	51
✓	✓									
		✓	✓						✓	51[b]
		✓	✓			✓			✓	51
	✓							5		
		✓	✓	✓	✓	✓		5	✓	51
		✓	✓					5	✓	51
		✓	✓	✓	✓		✓		✓	51
✓			✓	✓	✓			5		
		✓	✓		✓			5	✓	67
	✓							5	✓[m]	
✓	✓		✓	✓					✓	
		✓	✓			✓		5	✓	51
		✓	✓		✓			5	✓	51
		✓						5	✓	51
		✓	✓					5	✓	51
		✓	✓					5	✓	51
		✓	✓		✓			5	✓	51
		✓	✓	✓	✓	✓		5	✓	51
		✓	✓	✓	✓			5	✓	51
		✓	✓		✓	✓		5	✓	51
✓	✓								✓[m]	
		✓	✓	✓	✓	✓		5	✓	51

See column head explanations and footnotes on next page.

Table 2 Column head explanations

(1) Soil conservation district.
(2) Soil and water conservation district.
(3) Conservation district.
(3) Other.
(5) Governmental subdivision of state.
(6) Public body corporate and politic.
(7) Other.
(8) Vested in state committee [board or commission].
(9) Petition by owners.
(10) Petition by owners and non-owning operators [occupiers].
(11) Organized by county governing body.
(12) Reference on creation of district.
(13) Vote in referendum by owners.
(14) Vote in referendum by owners and non-owning operators [occupiers].
(15) Vote in referendum by electors.
(16) Percentage of vote necessary to permit creation of district.
(17) Established by state law.
(18) Conterminous with county lines.
(19) Provisions for adding territory.
(20) Provisions for changing boundaries.
(21) Provisions for including urban areas.
(22) Provisions for changing name.
(23) Subdistricts authorized.
(24) Project areas authorized.
(25) Years required after creation.
(26) By petition and referendum.
(27) Percentage of vote making discontinuance mandatory.

Table 2 Footnotes

[a] Resource conservation district.
[b] Required to represent certain percentage of acreage in district.
[c] Required to represent a specified percentage of acreage in district.
[d] Agency of the State.
[e] Law fixed boundaries as of 7/1/73 with provisions for alteration.
[f] Except Frederick County.
[g] Body corporate.
[h] Or land representatives.
[i] Department of Natural Resources and Conservation.
[j] Must be electors [qualified voters].
[k] Natural resources district.
[l] Specific number of districts and boundaries determined by state commission, not less than 16 nor more than 28.
[m] Action of county board.
[n] Committee determines whether district shall function.
[o] Petition may be by voters, or by governing body of a district, county, or city.
[p] Not more than once in 3 years thereafter.

Although the Model Law does not specify district boundaries, it provides for inclusion of territory.[42] Most states have this provision in addition to others, which allow change of boundaries, inclusion of urban areas, and change of the district's name. Furthermore, although the Model Law does not require that the boundaries be conterminous with county lines, Delaware, Indiana, Maryland (except Frederick County), New Hampshire, New York, Pennsylvania, Rhode Island, and Wisconsin require this.

The Model Law allows discontinuance of a district at any time from 5 years after the organization of the district if it is done by petition and referendum and obtains a majority vote (51 percent).[43] Although most states follow this scheme for discontinuance, there are variations. Alabama, Colorado, and Illinois require only a minimum of 3 years after organization; Indiana and Michigan require only 2 years. Instead of the required petition and referendum, Pennsylvania is unique because its law allows discontinuance action by the county board. Regarding the percentage of vote required for discontinuance, Florida, Kentucky, and Oregon require a 67 percent vote; Arizona, Iowa, and Ohio require 65 percent.

Functions and powers of the conservation districts

The Model Law lists the following as district functions (table 3). The functions (items 1 through 11) follow:

- soil conservation
- drainage
- irrigation
- flood prevention
- water supply
- sediment prevention

Most states adopt these functions. However, there are a number of unique states. Although Alabama's district has only two functions, soil conservation and drainage, other functions-flood prevention, irrigation, and sediment prevention-are in the hands of its subdistricts. Missouri's district functions are similar to Alabama's, except that the function of drainage also belongs to Missouri's subdistricts. Some states extend this list of functions by including recreation[44] and soil and water pollution control. The Model Law lists a number of powers (items 12 through 34) entrusted to the conservation districts. These powers are:

- entering into contracts
- providing assistance
- constructing and maintaining structures
- acquiring and administering projects
- suing and being sued
- conducting surveys, investigation and research
- receiving money from the United States
- use regulations
- acquiring and disposing of property
- developing districtwide plans
- cooperating with other districts and maintaining structuresies
- imposing conditions for furnishing assistance
- adopting land
- receiving money from the state
- receiving income from property by sales[45]

[42]MODEL LAW § 5(H), p. 12.
[43]MODEL LAW § 15, p. 26.
[44]Most states' districts have this function.
[45]MODEL LAW § 8, p. 15.

Table 3. Functions, powers, and financing of conservation districts

State	Functions								Powers							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Alabama	✓	✓[a]	✓	✓[a]				✓[a]	✓	✓	✓	✓	✓	✓		✓
Alaska	✓								✓		✓	✓	✓	✓		
Arizona	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓		✓		
Arkansas	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
California	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Colorado	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Connecticut [d/]	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓[a]	✓	✓	✓
Delaware	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		
Florida	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Georgia	✓	✓		✓					✓	✓	✓	✓	✓	✓		✓
Hawaii	✓							✓[e]	✓	✓	✓	✓	✓	✓		
Idaho	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Illinois	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Indiana	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Iowa	✓	✓	✓[a]					✓	✓	✓	✓	✓	✓	✓		
Kansas	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓		✓
Kentucky	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Louisiana	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓		✓
Maine	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Maryland	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓		✓
Massachusetts	✓	✓	✓	✓	✓	✓			✓[g]	✓	✓	✓	✓			
Michigan	✓	✓						✓	✓	✓	✓	✓	✓	✓		✓
Minnesota	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Mississippi	✓	✓	✓		✓			✓	✓	✓	✓	✓	✓	✓		✓
Missouri	✓	✓[a]	✓[a]	✓[a]	✓[a]			✓[a]	✓		✓		✓[a]	✓		
Montana	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Nebraska	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nevada	✓			✓					✓	✓	✓	✓	✓	✓	✓	✓
New Hampshire	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
New Jersey	✓	✓							✓	✓	✓	✓	✓	✓		✓
New Mexico	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
New York	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
North Carolina	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
North Dakota	✓	✓							✓	✓	✓	✓	✓	✓		✓
Ohio	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Oklahoma	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Oregon	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Pennsylvania	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓		
Rhode Island	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
South Carolina	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
South Dakota	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Tennessee	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓		✓
Texas	✓			✓					✓	✓	✓	✓	✓	✓		✓
Utah	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓		✓
Vermont	✓	✓	✓						✓	✓	✓	✓	✓	✓		✓
Virginia	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Washington	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
West Virginia	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Wisconsin	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
Wyoming	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓

Explanations for column heads and footnotes appear at the end of table.

Table 3. Functions, powers, and financing of conservation districts —Continued

Powers—*Continued*									Financing sources			Financing powers					
(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)
	✓	✓[a]		✓				✓		✓	✓	✓		✓[a]	✓[a]		
								✓		✓	✓	✓					
✓	✓							✓		✓	✓	✓					
✓	✓	✓		✓				✓	✓	✓	✓	✓	✓	✓	✓		
✓	✓							✓	✓	✓	✓	✓	✓	✓[b]	✓[b]	✓	✓[c]
✓	✓	✓[b]		✓				✓	✓	✓	✓	✓	✓	✓			
✓	✓	✓						✓	✓	✓	✓	✓		✓			✓
✓	✓							✓	✓	✓	✓	✓				✓	
✓	✓			✓				✓		✓	✓	✓	✓	✓			
✓		✓[b]		✓	✓[e]	✓[e]	✓[e]	✓		✓	✓	✓					
✓	✓				✓[e]			✓		✓	✓	✓					
✓	✓							✓	✓	✓	✓	✓					
✓	✓	✓	✓	✓				✓		✓	✓	✓	✓[a]	✓[a]	✓[a]		
✓	✓							✓	✓	✓	✓	✓					
✓	✓	✓[a]		✓[f]	✓[f]		✓	✓		✓	✓	✓	✓[a]	✓[a]	✓[a]		
✓	✓							✓	✓	✓	✓	✓				✓	
✓	✓	✓[b]						✓	✓	✓	✓	✓	✓[a]	✓[a]	✓[a]		✓
✓	✓			✓					✓	✓	✓	✓					
✓	✓								✓	✓	✓			✓	✓		
✓	✓		✓	✓	✓[e]	✓[e]	✓[e]	✓	✓	✓	✓	✓		✓			
✓	✓							✓		✓	✓	✓					
✓	✓				✓[e]	✓[e]	✓[e]	✓	✓	✓	✓	✓					
✓	✓			✓				✓	✓	✓	✓	✓	✓	✓	✓		
		✓[a]							✓	✓	✓		✓[a]	✓[a]	✓[a]		
✓	✓			✓	✓[e]	✓[e]	✓[e]	✓	✓	✓	✓	✓	✓	✓	✓		
✓	✓	✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓			✓				✓	✓	✓	✓	✓					
✓								✓	✓	✓	✓	✓					
✓	✓	✓		✓	✓[e]	✓[e]	✓[e]	✓	✓	✓	✓	✓	✓				
	✓	✓[a]	✓					✓		✓	✓		✓	✓	✓[a]		
✓	✓				✓[e]	✓[e]		✓	✓	✓	✓	✓					
✓	✓	✓[a]		✓	✓[e]	✓[e]	✓[e]	✓	✓	✓	✓	✓	✓[a]	✓[a]	✓[a]		
✓	✓			✓				✓	✓	✓	✓	✓		✓			
✓	✓				✓			✓	✓	✓	✓	✓					
✓	✓							✓		✓	✓	✓					✓
✓	✓			✓				✓		✓	✓	✓		✓			
✓	✓				✓[e]	✓[e]	✓[e]	✓	✓	✓	✓	✓					
✓	✓							✓	✓	✓	✓	✓		✓			
✓	✓	✓[a]	✓	✓	✓[e]	✓[e]	✓[e]	✓	✓	✓	✓	✓	✓[a]	✓[a]	✓[a]		
✓	✓			✓	✓[e]	✓[e]	✓[e]		✓	✓	✓	✓		✓			✓
✓	✓			✓				✓		✓	✓	✓					
✓	✓			✓						✓	✓	✓		✓[b]			
✓	✓			✓				✓		✓	✓	✓		✓			
✓	✓			✓				✓		✓	✓	✓		✓			
✓	✓	✓[a]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓[a]	✓[a]	✓[a]		
✓	✓							✓	✓	✓	✓	✓		✓			
✓	✓	✓		✓				✓	✓	✓	✓	✓					
✓	✓	✓		✓				✓	✓	✓	✓	✓		✓		✓	
✓	✓	✓[a]		✓				✓		✓	✓	✓	✓[a]	✓[a]	✓[a]		

Explanations for column heads and footnotes appear on next page.

Table 3 column headings

(1) Soil conservation.
(2) Flood prevention.
(3) Drainage.
(4) Irrigation.
(5) Recreation.
(6) Water supply.
(7) Pollution control.
(8) Sediment prevention.
(9) Enter into contracts.
(10) Acquire and dispose of property.
(11) Provide assistance.
(12) Develop district wide plants.
(13) Construct and maintain structures.
(14) Cooperate with other districts and agencies.
(15) Cooperate with districts in other states.
(16) Acquire and administer projects.
(17) Impose condition for furnishing assistance.
(18) Sue and be sued.
(19) Exercise its public powers.
(20) Review subdivision or other earth-moving plans.
(21) Adopt land-use regulations.
(22) Carry out state/county erosion and sediment control program.
(23) Adopt erosion and sediment control plans.
(24) Enforcement provision in erosion and sediment control program.
(25) Conduct surveys, investigations and research.
(26) Receive money from a county.
(27) Receive money from the state.
(28) Receive money from the United States.
(29) Receive income from property.
(30) Levy taxes and assessments.
(31) Borrow money.
(32) Issue bonds.
(33) Receive matching funds.
(34) Receive revolving funds.

Table 3 footnotes

[a] Power in subdistricts.
[b] Power limited.
[c] Development fund.
[d] Powers are vested in Commissioner of Environmental Protection, who has authority to establish districts.
[e] Authority for this activity is granted in a state law other than the district law.
[f] Districts are required to establish and enforce soil loss limits.
[g] No real property.

Most states give similar powers to their districts. However, 10 states—Arkansas, California, Connecticut, Minnesota, Nebraska, Nevada, Oklahoma, Rhode Island, Washington, and Wyoming—allow districts to cooperate with districts in other states. Nineteen states—Alabama, Arkansas, Colorado, Connecticut, Georgia, Illinois, Iowa, Kentucky, Missouri, Nebraska, New Jersey, New Mexico, North Carolina, Oklahoma, South Carolina, Virginia, West Virginia, Wisconsin, and Wyoming—permit the districts to exercise public powers.[46] Among these states, the public powers of Colorado, Georgia and Kentucky are limited.[47]

Illinois, Maryland, New Mexico, South Carolina, and Virginia are special because the state laws allow the districts to review subdivision or other plans. Virginia is the only state that allows the districts to carry out state/county erosion and sediment control programs, to adopt erosion and sediment control plans, and to have an enforcement provision in erosion and sediment control programs.[48] California and Nebraska are unique in that they allow districts to have further powers such as levying taxes and assessments, borrowing money, issuing bonds, receiving matching funds, and receiving revolving funds.

Conservation district governance

Although most states follow the Model Law by identifying the governing body members as supervisors, a number of states identify the members as directors[49] or commissioners (table 4).[50] The Model Law provides that the governing body of the district consists of five elected or appointed supervisors.[51] Most states follow this scheme. Three states are unique—California, Kentucky, and Pennsylvania. In 1992, California added some provisions that allowed Resources Conservation Districts (RCD's) to have elected or appointed five, seven, or nine directors rather than being limited to just five directors per board. These directors are to be elected or appointed by division within each district.[52] Kentucky and Pennsylvania call for seven supervisors. Contrary to the Model Law's suggestion that a vacancy is filled as the retiring member was selected,[53] most states require vacancies to be filled by appointment.

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[46]The term "public powers" denotes the governmental power to take private property for public use. For an example of "public powers" authorization, see Soil and Water Conservation District Law, N.C. GEN. STAT. § 139-8 (1992).
[47]For an example of a state with limited power authorization, see COLO. REV. STAT. CODE, art. 70, § 35-70-108(1) (1989). This power is limited in the sense that it is subjected to rules, regulations, and bylaws adopted by district or special meeting called by qualified voters. Id.
[48]Georgia, Maryland, Michigan, Montana, New Jersey, North Carolina, Pennsylvania, South Carolina, and South Dakota, have these three similar powers. However, the authority for these powers is contained in state laws other than the district laws.
[49]Arkansas, California, Hawaii, Illinois, Michigan, Nebraska, New York, Oklahoma, Oregon, Pennsylvania, Rhode Island, Texas, and Virginia use the term "director".
[50]The states using the term "commissioner" in lieu of "supervisor" are: Iowa, Mississippi, and South Carolina.
[51]MODEL LAW § 7, p. 14.
[52]Resource Conservation, CAL. PUBL. RES. CODE § 9301 (West 1977 & Supp. 1995).
[53]The states which follow the model rule in filling vacancies are: Georgia, Hawaii, Indiana, Iowa, Maine, Nevada, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, and Wisconsin.

Table 4. Conservation district governance

State	Governing body member know as—				Selection and qualification of governing body members								Vacancie filled
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Alabama	✓			5[a]				5	✓				✓
Alaska	✓[b]					5					5		
Arizona	✓			2[c]		3				5			✓
Arkansas		✓		2		3				3			✓
California		✓			5[x]				5[e]				✓
Colorado	✓			2		3			3				✓
Connecticut	✓[g]												
Delaware	✓			2		4	✓[h]						✓
Florida	✓				5					5			✓
Georgia	✓			✓[i]		✓[j]						✓	
Hawaii		✓		2		3						✓	
Idaho	✓					✓[v]			✓[g]				✓
Illinois		✓				✓[v]			5				✓
Indiana	✓			2		3						✓	
Iowa			✓			5				5		✓	
Kansas	✓			2		3				5	5		✓
Kentucky	✓				7		3						✓
Louisiana	✓			2		3			5	5	5		✓
Maine	✓			2		3						✓	
Maryland	✓			5									✓
Massachusetts	✓					5					5		✓
Michigan		✓				5							✓
Minnesota	✓				5					5			✓
Mississippi			✓	2		3							✓
Missouri	✓			✓[u]		4					4[k]		✓
Montana	✓			2		5	2						✓
Nebraska		✓			5-12[l]								✓
Nevada	✓			1-2		5	1-2			5		✓	
New Hampshire	✓			5[c]							5		✓
New Jersey	✓			3-5					3-5				✓
New Mexico	✓			2		5		4	4				✓
New York		✓		5			1					✓	
North Carolina	✓			2[o]	3								✓
North Dakota	✓			2[p]	3						3		✓
Ohio	✓					5						✓	✓
Oklahoma		✓		2		3				3			✓
Oregon		✓			5-7			3-5	3-5		1-2		✓
Pennsylvania		✓		7			2-4					✓	
Rhode Island		✓		5							5	✓	
South Carolina			✓	2		3				3			✓
South Dakota	✓				5		1		1		3		✓
Tennessee	✓			2		3						✓	
Texas		✓				5		5	5				✓
Utah	✓			2		3							✓
Vermont	✓					5				5			✓
Virginia		✓		2	3[r]					3			✓
Washington	✓			2		3			3				✓
West Virginia	✓			2		✓[s]			2				✓
Wisconsin	✓			✓[t]								✓	
Wyoming	✓				5		1		3	1			✓

Explanations of column heads and footnotes appear at end of this table.

Table 4. Conservation district governance—Continued

Eligibility to nominate and vote					Term of office					Governing body functions			
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
				3		✓	✓				✓		
		✓											
			✓	2	6	✓	✓	✓	✓				✓
			✓[d]	3	3	✓	✓			✓	✓		
			✓		4	✓			✓	✓[f]	✓	✓	
			✓[d]	2	3	✓				✓	✓		
				3	4		✓		✓				
			✓								✓		
			✓	2	3	✓	✓				✓		
		✓		3	3	✓							
					4	✓	✓				✓		
					2	✓					✓	✓	✓
		✓				✓	✓				✓		
			✓			✓	✓			✓	✓[q]		
		✓		3	3	✓	✓				✓		
			✓		4	✓	✓						✓
			✓	3	3	✓	✓		✓		✓		✓
		✓		3	3	✓				✓			✓
				4			✓	✓	✓		✓		✓
		✓			5	✓					✓		✓
	✓	✓			3	✓			✓	✓	✓		
			✓		6	✓	✓			✓[f]	✓		✓
✓				3	3	✓			✓		✓		
	4[k]				4	✓					✓		
			✓	3	3		✓		✓	✓	✓		
			✓		4	✓	✓				✓		
	✓			2	4	✓	✓	✓	✓		✓		
				3		✓					✓		
				✓[m]									✓
✓				1	3				✓		✓		
				✓[n]		✓	✓	✓			✓		✓
			✓	4	4	✓	✓			✓	✓		✓
			✓	1	6	✓	✓			✓			
	✓				3	✓	✓		✓		✓		
			✓	2	3	✓	✓		✓	✓	✓	✓	
			✓		4	✓	✓	✓		✓	✓		
				4[w]		✓		✓	✓		✓		
		✓		3	3	✓			✓	✓	✓	✓	
			✓	3	3		✓			✓	✓		
			✓		4	✓	✓		✓	✓	✓		✓
✓				3	3	✓	✓			✓	✓		
✓					5	✓					✓[q]		✓
		✓		3	3	✓	✓						✓
✓					5	✓	✓		✓	✓	✓	✓	✓
			✓	3	3	✓	✓				✓	✓	
			✓	3	3	✓	✓			✓	✓	✓	
✓				3	3	✓	✓				✓		✓
				2							✓		✓
	✓		✓		4	✓	✓			✓			

Explanations of column heads and footnotes appear on next page.

Table 4 column headings

(1) Supervisors.
(2) Directors.
(3) Commissioners.
(4) Appointed (number).
(5) Elected at general election (number).
(6) Elected at special election (number).
(7) Representatives of urban or non-farm interests (number).
(8) Representative of designated areas (number).
(9) Landowners (number).
(10) Electors.
(11) Land occupiers (number).
(12) As retiring member was selected.
(13) By appointment.
(14) Owners.
(15) Owners and non-owning operators.
(16) Occupiers.
(17) Electors.
(18) Appointed members (years).
(19) Elected members (years).
(20) Terms expire at different times.
(21) Removal for misfeasance, malfeasance, nonfeasance.
(22) Removal for failure to attend meetings.
(23) Governing body to organize annually and elect chairman among members.
(24) May call on state commissioner or attorney general for legal services.
(25) Governing body to provide annual audit.
(26) Governing body may appoint advisory committees for coordination with other agencies.
(27) Governing body may receive compensation in addition to expenses.

Table 4 footnotes

[a] One member to represent each county, but not less than five.
[b] Governing body of subdistricts created by Commissioner of Natural Resources.
[c] Additional advisory members may be appointed.
[d] Must also be landowner or agent of landowner who resides in the district.
[e] Or agent of landowner who resides in the district.
[f] May call on county attorney.
[g] The Commissioner of Environmental Protection is authorized to issue.
[h] In two districts, four elected must be farmers; in third district, two elected must be farmers, two must be nonfarmers.
[i] One for each county in district, except two appointed for single county district.
[j] One elected for each county in district, but not less than three for each district.
[k] Land representative resident tax paying citizen.
[l] Number determined by state commission.
[m] Serve at pleasure of state committee.
[n] Two serve 1 year, 3 serve 3 years.
[o] One additional supervisor may be appointed in districts composed of 4 or more counties.
[p] The elected supervisor appoints two supervisors.
[q] Biennially.
[r] Increased if district contains more than 1 county or city.
[s] One from each county or portion of a county in district, plus 1 for county or portion thereof having over 800 cooperators.
[t] County Agriculture and Extension Education Committee and not more than two additional persons appointed by the County Board of Supervisors.
[u] One ex officio member, the county agricultural extension agent.
[v] Or occupiers, farmers, operators.
[w] Except 1 county commissioner who serves 1 year.
[x] RCD's may elect or appoint 5, 7, or 9 directors per board.

The Model Law provides that each supervisor serves for a term of 3 years. However, the supervisors who are first appointed are designated to serve for terms of 1 and 2 years respectively. The terms expire at different times, and supervisors may be removed for neglect of duty or malfeasance in office, not any other reason. Although most state laws follow this design, there are a few variations regarding terms of office and cause for removal. For example, Arizona, Iowa, Minnesota, and North Dakota allow the elected members to serve for 6 years; Illinois law allows the elected members to serve for only 2 years. In addition, Arizona, Maryland, Nevada, New York, Oregon, and Pennsylvania provide that failure to attend meetings in conjunction with malfeasance or nonfeasance, or both, can be cause for removal.

The Model Law lists a number of governing body functions for the district. They are—

- ◊ the governing body must organize annually and elect a chairman among its members,
- ◊ the district can call on the state commissioner or attorney general for legal services,
- ◊ the governing body must provide an annual audit, and
- ◊ the governing body can appoint an advisory committee for coordination with other agencies.

Most states follow the majority of these governing body functions. Contrary to the model rule, a few states provide that the governing body may receive compensation in addition to expenses.[54] California is unique in a sense because although the RCD directors are not allowed to receive compensation for their services, the law provides that the RCD's may properly use their funds to pay premiums for major medical group insurance plans for the directors through the *California Special District Associations*.[55]

[54]Arizona, Illinois, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, New York, North Carolina, South Dakota, Texas, Utah, Vermont, West Virginia, and Wisconsin.
[55]Resource Conservation Law, CAL. PUBL. RES. CODE § 9303 (West 1977).

Soil and water conservation laws in selected counties

York County, Pennsylvania (region 1).—No known county laws affect conservation in the county of York, Pennsylvania.[56]

Otoe County, Nebraska (region 5).—Because Otoe County belongs to Nemaha Natural Resource District (NRD), Otoe County is subject to the Soil and Water Conservation Program (SWCP) adopted by the Nemaha NRD. Under this program, all SWCP/NRD cost-share program funds are distributed as a percentage to each county according to land treatment plan as identified through the Natural Resources Conservation Service field office support computer program. Moreover, it allows the manager of the NRD to redistribute unobligated SWCP funds by October 1 of each year to use SWCP funds in a timely manner.

Under this program, any landowner—whether as an individual, a partnership, a corporation, or other legal entity—within the Nemaha NRD is eligible to apply for SWCP funds. If a landowner's application is approved, the District will pay 50 percent of the county average for that particular activity or 50 percent of actual cost, whichever is less. Moreover, the landowner is eligible to receive a maximum of $3,500 within any program year. Such landowner may also apply for additional funds. If the requested overruns are for $2,000 and under, the manager may approve it automatically; however, if the overruns are more than $2,000, the landowner must complete a form and send it to the district for approval. If land is sold after it has been approved for SWCP funds, the new landowner may use those funds if the installation work has not been started.

The district program categorizes practices into eligible and ineligible practices. Eligible practices are further categorized into high and low priority practices. High priority practices include—

- ◊ standard broad base (gradient) terraces,
- ◊ push-up-broad base terraces,
- ◊ cut and fill and narrow base terraces,
- ◊ cost-share on all other NRCS terrace systems (parallel, or non-NRCS recommended storage terraces) will receive the cost-share rate of a standard broad based,
- ◊ grassed waterways,
- ◊ rile terrace system,
- ◊ diversions and storage diversions with underground outlet,
- ◊ establishing trees and shrubs, warm or cool season grasses on cropland, and
- ◊ installation of terraces on land coming out of CRP.

Low priority practices include—

- ◊ rebuilding obsolete/nonfunctional terrace system over 10 years old,
- ◊ planned grazing system, and
- ◊ irrigation water reuse pits.

[56]Letter from William H. Clifton, District Conservationist, York Field Office to Liu Chuang, Natural Resource Inventory Division, dated August 14, 1995 (on file with Liu Chuang).

Nemaha NRD has different cost-share guidelines for different types of conservation. Each shall be discussed in turn.

Nemaha NRD Cost-share Guideline for Tree Planting.—The guideline specifies that SWCP cost-share assistance applies only to the Nemaha NRD trees, shrubs, and planting. It does not apply to site preparation or chemical weed control. The cost-share funds for trees and shrubs may be combined with other Federal, state, and local cost-share moneys. It is required that eligible plantings must have a minimum row length of 500 feet or equivalent, must consist of at least 3 rows, and contain a minimum of three species of trees or shrubs, or both. Site preparation on ground that is in sod must be completed in the fall/winter prior to January 1 of the year in which trees are to be planted. Weeds must be controlled at least 3 feet on both sides of tree and shrub rows during the first 3 years after planting. In addition, eligible planting must be for windbreaks, wildlife enhancement, or CRP acres. Trees may not be resold with the roots attached.

Guidelines for Planned Grazing Systems under SWCP.—The guidelines that are applicable to all planned grazing systems in all areas of the Nemaha NRD are as follows:

- Planned grazing systems must have at least 80 acres of connecting grassland to be developed into at least 2 grazing cells with planned rest periods.
- Applicants must have a planned grazing system for a minimum of 10 years developed by the NRCS.
- Applicants are required to sign a 10-year cost-share agreement with the Nemaha NRD.
- All approved cost-share items must meet NRCS specifications.
- CRP lands are not eligible for State SWCP funds.
- The amount and type of eligible practices used will be determined by the overall grazing system plan and the most cost effective alternative available.
- Cost-share on eligible practices must be based on 50 percent of actual or county average costs, whichever is less. A landowner is eligible to receive up to $3,500 within any program year.

The guideline provides that eligible cost-share practices for planned grazing systems include—

◊ cross fencing (only fencing designed to facilitate cell division, not boundary fences, is eligible for cost-share),

◊ livestock water dugouts (must be sized by daily animal needs and meet Nebraska Engineering Handbook Standards),

◊ livestock well installation (livestock wells will be sized to provide a maximum of 15 animals within each cell; no cost-share is available for domestic, irrigation wells or well test holes),

◊ livestock water tanks (only tanks with a concrete base are eligible),

◊ livestock water pipeline installation, and

◊ spring development.

Nemaha NRD Watershed Structure Cost-Share Program.—This program was created with the purpose of encouraging landowners and counties in the district to construct structures that provide grade stabilization, flood control, erosion and sediment control, road protection, livestock water, recreation, and wildlife habitat.

Under this program, the NRD cost-share assistance will be no less than 25 percent or more than 75 percent of the project not exceeding $50,000. The district must evaluate each project to determine the specific cost-share rate. Eligible practices include watershed structures, county roads, dams, water and sediment control basins, and farm ponds. Eligible project costs include site preparation, construction, engineering, and inspection costs during construction, seeding the dam and emergency spillway, and fencing when required.

Moreover, a watershed structure may also qualify as a floodwater control structure and be eligible for cost-share above the 50 percent limit if a number of criteria are satisfied, including—

- ◊ the structure site must have a minimum of 100 acres of drainage;
- ◊ the structure must control either a 25-year, 24-hour frequency rainstorm or have a release rate of not more than 20 CFS per square mile; and
- ◊ landowners will be required to donate land rights (easements).

Nemaha NRD Abandoned Well Program.—In August 1994, the Nemaha NRD Board of Directors adopted some changes to the Abandoned Well Program. Under the new Abandoned Well Program, the cost-sharing assistance rate is 75 percent, with a maximum cost-share amount of $300 for cased wells and $700 for hand-dug wells. All wells are required to be decommissioned by a licensed water well contractor or pump installation contractor. Moreover, the person decommissioning the well must sign a notarized affidavit that the well is properly decommissioned.

Chapter 3: Erosion and Sediment Control Laws

State model soil erosion and sediment control act

Erosion control and flood prevention practices have been used by conservation districts to keep sediment and analogous pollutants generated by agriculture and forestry out of waterways.[57] In the late 1960's, some local governments started to enact ordinances that were based on district expertise to deal with erosion-caused pollution from urban development. In the 1970's, almost all states turned to the districts for help in controlling erosion-caused water pollution from agricultural and other land-disturbing activities, such as construction and mining. Some states specifically amended their conservation district laws to authorize the state conservation agency and the districts to participate in the state water quality management programs. These were initiated by Section 208 of the Federal Clean Water Act, while others allowed such participation under the original authorities granted by the state conservation district laws.

In 1973, adopting the model prepared by a task force after the March 1972 meeting of the Workshop on Soil Erosion sponsored by the National Association of Conservation Districts, the Council of State Governments issued a model state act for soil erosion and sediment control (hereinafter, Model Act).[58] The Model Act was designed to set down the basic requirements for an effective state soil erosion and sediment control law and amend state soil and water conservation district laws to strengthen and extend their existing programs. The principal provisions of the Model Act follow.

First, the Model Act requires the state conservation agency to prepare a comprehensive program to control soil erosion and sedimentation resulting from land-disturbing activities. The program must identify critical erosion and sedimentation areas and include guidelines for conservation districts to use in developing regulatory programs. Land-disturbing activities are defined to include agricultural and nonagricultural activities that cause accelerated soil erosion but not to include minor activities such as home gardens, landscaping, and repairs.

Second, all conservation districts are required to adopt district-level erosion and sediment control programs (based on the state programs) and district conservation standards for various kinds of soil and land uses. The conservation standards are performance standards that may include soil-loss limits, erosion control practices, and water quality management practices.

Third, because a district-approved erosion and sediment control plan must be obtained for all nonagricultural land-disturbing activities, local or state agencies that issue permits for grading, building, or similar land-disturbing activities must require applicants to submit a district-approved erosion and sediment control plan with the application.

Fourth, under the Model Act, users of agricultural and forest land must either obtain and implement a district farm conservation plan or implement the district

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[57]Holmes, *Second Appraisal, supra* note 16, at 34.

[58]For a thorough discussion of the Model state act for Soil Erosion and Sediment Control, COMMITTEE ON SUGGESTED STATE LEGISLATION, COUNCIL OF STATE GOVERNMENTS, MODEL STATE ACT FOR SOIL EROSION AND SEDIMENT CONTROL (1972).

conservation standards for their type of operations. It may be necessary for them to install any erosion and sediment control measures included in their conservation plans or to comply with district conservation standards, but only if cost-sharing assistance of at least 50 percent or adequate technical assistance is made available to them.

Fifth, the Model Act gives the permit-issuing authorities (for activities requiring permits) and conservation districts (for agricultural activities) the authority to inspect land-disturbing activities for violation of required plans or conservation standards and to issue administrative orders requiring specific remedial measures. However, the administrative orders are not final but subject to judicial review.

Sixth, the Model Act allows county attorneys to bring enforcement actions on request of permit-issuing authorities or conservation districts. Violations of administration orders are subject to injunctions and/or criminal penalties.

Finally, the Model Act authorizes necessary appropriations.

All states, as well as the U.S. Virgin Islands and the District of Columbia, have enacted laws that use district-type erosion control plans in statewide programs of erosion and sediment control for water quality management purposes.

In the twelve regions, most state soil erosion and sediment control laws passed since 1973 follow the Model Act to some extent. The state erosion and sediment control laws are generally amendments to the conservation district law or new sections added to the code following the conservation district law. Moreover, they usually require the state programs to identify critical sedimentation areas and to provide guidelines for local programs on district erosion control standards. They also require local authorities to confirm erosion and sediment control methods before granting permits for urban development activities.

State erosion and sediment control laws

As a response to the issuance of the Soil Erosion and Sediment Control Model Act, all states, including the U.S. Virgin Islands, and the District of Columbia have committed to control soil erosion and sedimentation problems, whether through their erosion and sediment control laws, conservation districts laws, or water quality and stream control laws. Among the 17 states surveyed, Delaware, Georgia, Maryland, and Nebraska control erosion and sediment problems through enactment of separate Erosion and Sediment Control laws; 11 states—Alabama, Arkansas, California, Idaho, Iowa, Mississippi, Oregon, Tennessee, Texas, Utah, and Wisconsin—authorize erosion and sediment control practices under the original conservation districts laws; and Pennsylvania and New Mexico regulate their soil erosion and sediment problems under the water quality and watershed district-type laws. Although these acts take different forms, they have many common features.

All of the surveyed states require their conservation districts to adopt district-level erosion and sediment control programs (based on the state programs) and district conservation standards for various kinds of soil and land uses.

However, as methods of control, states generally choose one or more among the following three methods—

- ◊ approved erosion and sediment control plan required for land disturbances,

- ◊ establishment of soil loss limits, and
- ◊ permits on the basis of an approved plan.

Most of the states surveyed require the state conservation agency to prepare a comprehensive program to control soil erosion and sedimentation resulting from land-disturbing activities.

The program must identify critical erosion and sedimentation areas and include guidelines for conservation districts to use in developing regulatory programs. They choose to exempt certain activities from regulation by defining land-disturbing activities to include agricultural and nonagricultural activities that cause accelerated soil erosion but not to include minor activities such as home gardens, landscaping, and repairs. Among the states in this group, Pennsylvania is unique in a sense that an acceptable plan is required at the site of activity. Delaware and Pennsylvania require both an approved erosion and sediment control plan for land disturbance and permits on the basis of the approved plan, whereas Iowa, Nebraska, and Wisconsin, control soil erosion and sediment problems by establishing soil loss limits.

To provide some flexibility, all 17 states provide exemptions from the state laws. Exemptions are different from state to state because they are designed to fit different geographical traits and conservation concerns of each state. For example, Maryland exempts certain agricultural land management practices, construction of agricultural structures, or construction of single-family residences or their accessory buildings that disturb an area of less than one-half acre and occur on lots of 2 acres or more (Calvert County is excepted from this exception). Delaware exempts utility projects disturbing less than 5,000 square feet of land from its laws. For Georgia, exemptions from the laws include agriculture and horticulture, mining, home or small sites, highways or railways, and minor land disturbances.

To enforce soil erosion and sedimentation control programs, all 17 states authorize the responsible districts to inspect land-disturbing activities for violation of required plans or conservation standards and to issue administrative orders requiring specific remedial measures. Violations of administration orders are subject to injunctions or civil penalties, or both. However, administrative orders are not final but subject to judicial review.

Delaware (region 1).—In 1977, Delaware added to its statutes a new chapter titled Erosion and Sediment Control. In 1990, this law was revised and became effective on June 15, 1990. However, the 1990 Act has not provided any detailed explanation of the changes.[59]

The 1990 Act authorizes a comprehensive and coordinated statewide erosion and sediment control program to conserve and protect land, water, air, and other resources.[60] In cooperation with the local and state agencies, it named the Department of Natural Resources and Environmental Control to be the controlling agency responsible for establishing and implementing the legislative policy.[61]

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[59]The revised version substituted the present § 4001 to 4016 for the former § 4001 to 4017.
[60]Erosion and Sedimentation Control, DEL. CODE ANN. tit. 7, § 4001 (1991).
[61]Id. § 4001(b) (1991).

The department has a number of powers including—

- ◊ providing technical and other assistance to districts, counties, municipalities, and State agencies;[62]
- ◊ developing and publishing minimum standards, guidelines, and criteria for implementing sediment and stormwater program components, and model sediment and stormwater ordinances for use by districts, counties, and municipalities;[63]
- ◊ reviewing the implementation of all components of the statewide sediment and stormwater programs;[64]
- ◊ requiring that appropriate sediment and stormwater management provisions be included in erosion and sediment control plans;[65]
- ◊ cooperating with appropriate agencies of the United States or other states;[66]
- ◊ conducting studies and research regarding stormwater runoff;[67]
- ◊ conducting and supervising education programs regarding sediment control and stormwater management;[68]
- ◊ reviewing and approving designated watersheds for the purpose of this chapter;[69] and
- ◊ performing enforcement functions.[70] Moreover, the law imposes monetary penalties for all violators.[71]

After July 1, 1991, unless exempted, all persons engaging in land-disturbing activities must submit a sediment and stormwater management plan to the appropriate plan approval authority to obtain a permit to proceed.[72] Utility projects disturbing less than 5,000 square feet of land are exempt from this law.[73]

Maryland (region 1).—Maryland enacted the Erosion and Sediment Control law,[74] that requires an approved erosion and sediment control plan for land disturbance and allows methods of control only on the basis of an approved plan. The Maryland law covers a number of resources including land, water, and other natural resources.[75] In addition, it exempts certain agricultural land management practices, construction of agricultural structures, or construction of single-family residences or their accessory buildings that disturb an area of less than one-half acre and occur on lots of 2 acres or more (Calvert County is excluded from this exception).[76] However, it requires all local governments to withhold building and grading permits from urban

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[62]MD. CODE ANN., ENVIR. § 4006(b)(1).
[63]Id. § 4006(b)(2).
[64]Id. § 4006(b)(3).
[65]Id. § 4006(b)(4).
[66]Id. § 4006(b)(5).
[67]Id. § 4006(b)(6) (1991).
[68]Id. § 4006(b)(7).
[69]Id. § 4006(b)(9).
[70]Id. § 4012(c).
[71]Id. § 4015.
[72]Id. § 4003(a) (1991).
[73]Id. § 4004(c).
[74]Id. § 4-101 et seq. (1993).
[75]Id. § 4-101.
[76]MD. CODE ANN., ENVIR. § 4-102.

developers until the local conservation district has approved the developer's sediment control plan.[77]

The only participating State agency is the Department of Natural Resources. This agency's responsibilities include developing criteria, standards, and guidelines; reviewing and approving local programs or plans; and performing enforcement functions. Also, it assists local agencies with ordinances, regulations, and programs and enforces and approves State and Federal agency plans.

Local agencies such as the conservation districts, the counties, the cities, and the towns or townships may also participate. The conservation districts have a few responsibilities including—

- ◊ reviewing and approving erosion and sediment control plans;
- ◊ assisting county or other local agencies to develop ordinances or regulations;
- ◊ adopting standards, criteria, and guidelines; and
- ◊ performing enforcement functions.

In addition, the county, city, town, or township also has a number of responsibilities such as reviewing and approving plans (in municipalities not within a district), adopting ordinances, issuing permits on the basis of an approved plan, performing enforcement functions, and issuing rules and regulations.

Pennsylvania (region 1).—Pennsylvania regulates its soil erosion and sedimentation under its water quality laws. As methods of control, it requires an approved erosion and sediment control plan for land disturbance. An acceptable plan is required at the site of activity and permits methods only on the basis of an approved plan. Because its sedimentation law is under State water quality laws, the covered resources are water, streams, and streambanks. The State controlling agency is the Department of Environmental Resources that has a number of responsibilities including developing policies; developing criteria, standards, and guidelines; adopting rules and regulations; reviewing and approving local programs or plans; and performing enforcement functions.

Local agencies including conservation districts, counties, and cities can participate. The conservation district has two particular responsibilities: reviewing and approving erosion and sediment control plans, and performing enforcement functions. In addition, the participating county or city has a few responsibilities, including adopting programs, reviewing and approving plans, issuing permits on the basis of an approved plan, and performing enforcement functions.

Alabama (region 2).—Alabama has enacted a district-type erosion and sediment control law that authorizes the state conservation agency and the districts to develop and execute soil erosion and sediment control plans or programs.[78]

Georgia (region 2).—In 1975, Georgia enacted the Control of Soil Erosion and Sediment law, which has not been significantly revised since then.[79] It covers land, water, and

[77]MD. CODE ANN., ENVIR. § 4-103.
[78]ALA. CODE § 9-8-51 (1987).
[79]Control of Soil Erosion and Sedimentation, GA. CODE ANN. § 12-7-1 et seq. (1992). The Act of 1992 (74 G.A.) ch. 1184 § 11 repealed section 161A.75 regarding financial incentive for soil conservation on forest lands.

other resources, such as air.[80] As methods of control, it provides that the approved erosion and sediment control plan is required for land disturbance and allows methods of control only on the basis of an approved plan.[81] In addition, the law allows exemptions, meaning that local ordinances may not regulate land-disturbing activities that are expressly excluded from the regulation.[82] These exemptions are agriculture and horticulture, mining, home or small site development, highways or railways, and minor land disturbances.[83]

The participating agencies include the soil and water conservation district, the Department of Natural Resources, and the Division of Environmental Protection of the Department of Natural Resources. These agencies have the responsibility to develop policies; develop criteria, standards, and guidelines; adopt rules and regulations;[84] review and approve local programs or plans;[85] and perform enforcement functions, which may include permits, inspections, complaints, violation procedures, fines, and other legal actions.[86] These agencies also may assist local agencies in adopting a plan where local agencies fail to do so.

The law also requires the participation of local agencies such as conservation districts, counties, and cities. A conservation district's one main responsibility is to review and approve erosion and sediment control plans. On the other hand, the county, city, town, or township has a number of responsibilities such as adopting ordinances, issuing permits on the basis of an approved plan, and performing enforcement functions that may include permits, inspections, complaints, violation procedures, fines, and other legal actions.

Arkansas (region 3).—The Conservation District Law of Arkansas, which is similar to Georgia's, also authorizes the implementation of soil erosion control practices.[87]

Mississippi (region 3).—The Soil Conservation District Law of Mississippi, which is similar to Georgia's, also authorizes the implementation of soil erosion control practices.

Wisconsin (region 4).—In 1981, Wisconsin revised its soil and water conservation law to replace the independent conservation districts that have county land conservation committees (hereinafter CLCC's) and establishing a State erosion control program including control of nonpoint-source pollution.[88] The Wisconsin law has adjusted the State program considerably to meet local conditions. Furthermore, it can be considered a statewide erosion and sediment control law because it provides statewide erosion control planning and cost sharing and enforcement in most areas of the State.[89] The Wisconsin law is unique in that it sets a specific time by which the statutory soil erosion control goals must be met. It provides that the soil erosion rate on each individual cropland field in Wisconsin is not to exceed the tolerable erosion level on or after January 1, 2000.[90]

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[80]GA. CODE ANN.§ 12-7-2.
[81]Id. § 12-7-7.
[82]Op. Att'y Gen. No. 87-20 (1987).
[83]GA. CODE ANN. § 12-7-17 (1992).
[84]Id. § 12-7-5.
[85]Id. § 12-7-8.
[86]Id. § 12-7-8(d), § 12-7-15.
[87]Conservation Districts Law, ARK. CODE ANN. § 14-125-101 et seq. (Michie 1987).
[88]WIS. STAT. ANN. § 92.02(1) (West 1990 & Supp. 1993).
[89]Id. § 92.02-92.18.
[90]Id. § 92.025.

The Department of Agriculture, Division of Agricultural Resource Management is required to allocate soil erosion control planning funds among the CLCC's.[91] The division has a number of responsibilities including—

- ◊ assisting the committees in preparing soil erosion control plans,
- ◊ reviewing and developing recommendations to improve such plans,
- ◊ approving or disapproving the plans, and
- ◊ concentrating state resources in areas that have the most severe erosion or nonpoint source pollution problems.

Moreover, the division allocates funds for up to 70 percent of the cost of conservation practices to CLCC's that have approved soil erosion control plans.

Each CLCC must prepare a detailed erosion control plan that specifies maximum acceptable soil erosion rates and identifies the land parcels where soil erosion standards are not being met.[92] This plan must also specify the necessary changes in land use or management practices to bring these parcels into compliance with the standards and identify the methods used to assist landowners and land users to control erosion, including technical assistance and practices chosen for cost sharing under contract with the CLCC.[93] In addition, the contracts require the landowner or land user to return cost-share payments if the practices are not maintained or if title to the land is transferred to an owner who does not agree to comply with the requirements of the CLCC plan.

The Wisconsin law also authorizes the CLCC's to develop erosion and sediment control ordinances for enactment by the county. The local ordinances may regulate or prohibit land uses and land management practices that cause excessive soil erosion, sedimentation, nonpoint source water pollution, or stormwater runoff.[94] However, before any ordinance is enacted, it must be approved by the county board of supervisors and by majority vote of a referendum open to all voters in the affected area. Furthermore, the ordinances are applicable throughout the county.

The county erosion and sediment control ordinances also prescribe necessary enforcement procedures, including injunctions and civil forfeitures. Counties that enact such ordinances must provide enforcement personnel. Before an enforcement action can be brought against any violator, he or she is entitled to at least 1 year's notice of the violation together with a management plan, explaining all reasonable options for achieving acceptable soil erosion rates and the technical assistance and financial assistance—including cost-sharing, loans, or tax incentives—available for taking such options.

Wisconsin law is unique in the sense that it allows counties to regulate land use and land management practices. Although the counties already had authority to regulate urban land development under their existing land-use regulatory powers, it has not

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[91]WIS. STAT. ANN. § 92.06-92.07.
[92]Id. § 92.10(6).
[93]Id.
[94]Wisconsin is one of the few states which have adopted statutory language that includes stormwater management among the purposes of local erosion and sediment control laws. In other states, such as Virginia, the state conservation agency has amended its erosion and sediment control standards and guidelines to ensure that local ordinances require developers to include stormwater runoff management features in their already required erosion and sediment control plans.

been the custom until recently to regulate agricultural land management practices. Wisconsin's old conservation district law had previously given this authority to the districts, not the counties.

Iowa (region 5).—Iowa authorizes participation in the soil erosion and sediment control plan in its original authority conferred by the State conservation district law. Iowa's 1971 amendment to its conservation district law was the first agricultural erosion and sediment control law.[95] As a method of control, it requires that all conservation districts set soil loss limits for different classes of land and requires landowners to comply with the soil loss limits. If landowners' failure to comply with the requirement results in damages to other land or to State interests in navigable and meandering streams and lakes, the district may issue administrative orders to those landowners to install remedial soil and water conservation practices. These administrative orders are legally enforceable, provided that cost-sharing assistance is available.

The Iowa law covers only soil and water resources and applies to all public land that is used for horticultural or agricultural purposes. However, it allows for exemption from this law for land used for study, evaluation, understanding, and control of erosion, sedimentation, and runoff water that is carried out by or in conjunction with institutions governed by the Board of Regents.[96] The participating State agencies are the Soil and Water Conservation District, and the Department of Natural Resources, which have a number of responsibilities such as developing policies and reviewing and approving local programs or plans. They may also assist local agencies with ordinances, regulations and programs, and cost-sharing.

Local conservation districts may also participate. They have responsibilities such as reviewing and approving erosion and sediment control plans; adopting rules and regulations; and performing enforcement functions, which may include permits, inspections, complaints, violation procedures, fines, and other legal actions.

Nebraska (region 5).—In 1986, Nebraska enacted its Erosion and Sediment Control Act.[97] Nebraska is one among a few states that has taken a stance regarding soil conservation and control of nonpoint sources of water pollution. The Nebraska law directs the Department of Natural Resources and the Department of Environmental Control to be the participating state agencies, with a few responsibilities such as developing criteria, standards, and guidelines; reviewing and approving local programs or plans; assisting districts, cities, and counties in the implementation of the State and local erosion and sediment control programs; and performing enforcement functions.

The Nebraska law requires the Director of Natural Resources, in cooperation with the Nebraska Natural Resources Commission and other State or Federal agencies, to develop a detailed erosion and sediment control program that specifies the soil-loss limits for the various types of soils in the State. The program must specify the goals and strategy to reduce soil losses on all lands in the State to the indicated soil-loss limit. The program must also indicate guidelines for establishing priorities for the program's implementation and specify the types of assistance to be provided by

[95]Iowa's sediment control law (House File 73) was passed by the 64th Iowa General Assembly in 1971. This bill provided that soil erosion should be declared a nuisance and abated as such after due process.
[96]IOWA CODE ANN. § 161A.54 (West 1993).
[97]Erosion and Sediment Control Act, NEB. REV. STAT. §§ 2-4601 to 2-4613 (1987).

the State to the districts, cities, or counties in implementing the soil erosion and sediment control program.[98]

Natural resources districts, counties, municipalities, other local governments and political subdivisions of the State, and other public and private entities may also participate in the Nebraska Act.[99] However, if the county or municipality has not assumed jurisdiction, the act authorizes the district to inspect any land within the district after receiving a written and signed complaint alleging a violation of erosion units.[100] Complaints may be filed by any landowner or land operator or any other public or private entity whose land is being damaged by sediment.[101] Inspections following the complaint can be carried out only if the owner or operator-violator is given notice of the complaint and the opportunity to accompany the inspector.[102] The owner or operator of land and the district may enter into a legally enforceable agreement to eliminate excess erosion.[103] However, if no agreement is reached, the findings of the inspector are presented to the district's board of directors and the owner or operator is given reasonable opportunity to be heard in a public hearing.[104] The district is required to issue an administrative order if it finds that alleged excessive soil erosion or sedimentation, or both, is occurring.[105] Furthermore, the district may specify alternative practices for soil and water conservation or erosion or sediment control, which the owner or operator may use to comply with the administrative order.[106]

New Mexico (region 6).—New Mexico has enacted the Watershed District Act, a district-type erosion and sediment control law, which authorizes the State conservation agency and the districts to develop and execute soil erosion and sediment control plans or programs.[107]

Texas (region 6 & 7).—The Soil and Water Conservation Districts Law of Texas authorizes soil erosion and sedimentation control practices.

Idaho (region 8).—Idaho includes in its conservation district law the authorization for the State conservation agency and the districts to participate in soil erosion and sediment control plans or programs.

Utah (region 8).—Utah authorizes participation in soil erosion and sediment control plans under the Soil Conservation Commission Act.[108]

Oregon (region 9).—Oregon allows conservation districts to participate in soil erosion and sedimentation control programs under the original authorities granted by Oregon Soil and Water Conservation District laws.[109]

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[98]NEB. REV. STAT. § 2-4604.
[99]Id. § 2-4602.
[100]Id. § 2-4608(1).
[101]Id.
[102]Id.
[103]Id. § 2-4608(2).
[104]Id.
[105]Id.
[106]Id. § 2-4608(3).
[107]NEW MEXICO STAT. ANN. § 73-20-1 et seq. (Michie 1978).
[108]Soil Conservation Commission Act, UTAH CODE ANN. § 4-18-1 et seq. (1988).
[109]Oregon Soil and Water Conservation District Laws, OR. REV. STAT. §§ 568.210 et seq.

California (region 10).—California authorizes participation in the soil erosion and sediment control plans in its Resource Conservation Districts law.[110]

Tennessee (region 11 & 12).—Tennessee allows conservation districts to participate in soil erosion control programs under the original authorities granted by the Tennessee Soil and Water Conservation District laws.[111]

Erosion and sediment control laws in selected counties

The counties that responded to the questionnaire include: Chicot, Arkansas; Fresno, and San Joaquin, California; Lee and Worth, Georgia; Anne Arundel, Baltimore, and Carroll, Maryland; Polk, Nebraska; Greene, Haywood, Shelby, Tipton, and Washington, Tennessee.

Of these counties, Haywood, Shelby, and Chicot Counties do not have soil erosion and sediment control ordinances. Washington County's soil erosion and sediment control ordinance only applies to the construction of new roads. Moreover, in Greene County, a soil erosion and sediment control ordinance exists, but it only applies to land developers, not individual landowners or operators.

The soil erosion and sediment control ordinances of the remaining counties—Anne Arundel, Baltimore, Carroll, Lee, Worth, Polk, Fresno, San Joaquin, and Tipton—have the following common features:

- The ordinances' primary purpose is to establish minimum requirements for clearing, grading, and the control of soil erosion and sediment.
- Persons cannot perform grading of land or create borrow pits, soil areas, quarries, material processing plants, or related facilities without obtaining a permit from the appropriate authority.
- The ordinances allow a number of mechanisms to be used as structured erosion and sediment control measures. Some examples include diversions, bench terraces, and sediment basins or traps.
- The controlling authority may enter periodically to determine compliance upon issuance of the permit.
- Variance may be sought from and approved by the appropriate authority.

Despite all of these similarities, these counties' ordinances have unique features, which set them apart. For example, the Anne Arundel County, Maryland, ordinance prohibits all persons from performing grading on land that lies within the 100-year flood plain of a nontidal stream or watercourse, except under certain provisions of the ordinance. Because Polk County's (Nebraska) erosion and sediment control activities are covered under the Central Platte Natural Resource District, the county board adopts soil-loss limits for various kinds of soils in the district. Moreover, although these counties provide for exemptions from the permit requirement, the exemptions differ slightly from county to county.

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[110]Resource Conservation Districts Law, CAL. PUB. RES. CODE § 9001 et seq. (West 1977).
[111]Soil and Water Conservation District Laws, TENN. CODE ANN. § 43-14-201 et seq. (1987 & Supp. 1993).

Anne Arundel County, Maryland (region 1).—In 1990, the Anne Arundel County Council repealed the Grading and Sediment Control Ordinance that was enacted in 1985.[112] A new ordinance's primary purpose is to establish minimum requirements for clearing, grading, and the control of soil erosion and sediment.[113] It specifically provides that a person may not perform grading of land or create borrow pits, soil areas, quarries, material processing plants, or related facilities without first obtaining a grading permit from the Department of Natural Resources.[114] The department can also impose conditions to prevent the creation of a nuisance or unreasonable hazard to persons or property on the issuance of a grading permit.[115] Once a permit is granted, the permittee is strictly responsible for ensuring that all work on a site is properly undertaken with the grading permit, approved plan, stormwater management plan, and other requirements set forth in the ordinance.[116] The permittee is also responsible for all action or inaction taken by employees, agents, or contractors.[117]

However, the permit requirement may be exempted. These exemptions are as follows:

- Grading activities associated with commercial or residential construction on a lot, provided that the applicable conditions are met.
- Accepted agricultural land management practices and construction of agricultural structures.
- The stockpiling of raw or processed soil, sand, stone, or gravel that has slopes at a natural angle of repose at quarries, and operations that are performed on cleared or unstabilized sites at concrete, asphalt, and material processing plants and construction storage yards, provided that the applicable conditions are met.
- Clearing and grading activities that are under State law, including rubble fills, sanitary landfills, and surface mines, if those activities have State permitting or licensing required.
- Grading and trenching for utility installations, provided that no more than 5,000 square feet of land is disturbed; the grading or trenching does not change the natural contour; and damaged, destroyed, or disturbed erosion and sediment control measures are restored to their original conditions.
- Grading and related earthwork incidental to an individual water well and individual sewage disposal system installed under a permit from the appropriate public authority, provided that the grading and related earthwork does not change the natural contour and disturbed areas are stabilized to prevent erosion within 72 hours of the initial disturbance.
- Grading on an existing developed lot or parcel for maintenance of landscaping purposes only, provided that the applicable conditions are met.
- An authorized county capital improvement project or public improvements installed or constructed by, or under the supervision of, the Department of Public Works or the Department of Utilities, provided that if such project

[112]County Council of Anne Arundel County, Maryland, Grading and Sediment Control, Legislative Session 1989, Legislative Day No. 36, Bill No. 90-89, amended final on Jan. 17, 1990.
[113]Id. § 2-102.
[114]Id. § 2-201(a).
[115]Id.
[116]Id. § 2-211.1.
[117]Id.

disturbs more than 5,000 square feet of land, the erosion and sediment control plan must be approved by the Anne Arundel Soil Conservation District.

Regarding the erosion and sediment control, the Grading and Sediment Control Ordinance provides that:

- Grading plans must comply with the Erosion and Sediment Control provisions.[118]
- Temporary vegetation or mulching must be used to protect areas exposed during the time of development.[119]
- Development and grading activities in the critical area on legally existing lots and legally platted parcels of land occurred on or before August 22, 1988, which would otherwise be subjected to critical area regulations, are permitted if they comply with the applicable requirements.[120]

The ordinance allows development to occur within steep slope areas, conditioned on two requirements, including—

◊ a minimum of 30 percent of the lot or parcel on which the principal structure is to be situated, is less than 15 percent of the slope and contiguous to an approved county standard road; and

◊ the extent of cutting and filling allowed on a lot must be based on the soil conditions at the site and in compliance with the recommendation of the Department of Public Works and the Anne Arundel Soil Conservation District.[121]

Within the natural steep slope areas, roads and streets must be placed as nearly parallel to the contour as possible to minimize cutting or filling. Furthermore, in the event that a single lot development within an area where a central storm drainage system does not exist, runoff from driveways, roofs, and other improved surfaces must be diverted and carried to acceptable outlets to minimize scouring and control erosion. Erosion control methods include: filtration beds; subsurface dry wells; and storm drainage systems, underground conduit systems, or other adequate or protected outlets.[122]

The ordinance permits the following mechanisms to be used as structural erosion and sediment control measures:

- Diversions.
- Bench terraces.
- Outlet channels for the disposal of storm runoff from diversions, bench terraces and other structures.
- Water stabilization structures such as drop structures, grade stabilization structures, and channel liners.
- Channel bank stabilization such as riprap, rock cribs, groins, gabbros, jetties, and fencing and piling to provide a barrier that will withstand erosive forces

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[118]County Council of Anne Arundel County, Maryland, Grading and Sediment Control, Legislative Session 1989, Legislative Day No. 36, Bill No. 90-89, amended final on Jan. 17, 1990 § 2-301(a).
[119]Id. § 2-301(f).
[120]Id. § 2-301(j).
[121]Id. § 2-302(b).
[122]Id. § 2-302(e).

exerted by flowing water or to create a bank roughness which will reduce erosive power by dissipating energy of the water as it moves along the bank line.

- Stream channel improvement to straighten, realign, or construct a new channel, to design a cross-section and to grade as necessary.
- A sediment basin or sediment trap.
- Installation and maintenance of specified erosion and sediment control measures in compliance with the provisions of this ordinance.[123]

Regarding load-bearing fills, the ordinance prohibits ice, snow, and organic or other material that may be subject to decay.[124] However, rock or broken concrete free of any other material that have a dimension greater than 8 inches and fly ash may be placed in fills only under the direction and supervision of a professional engineer in compliance with standard engineering practices.[125] Rock and broken concrete, however, may not be buried or placed in any load-bearing fill at an elevation higher than 2 feet below finished grade or below the foundation base.[126]

Sand and gravel operations and borrow pits are not permitted in a number of critical areas, including—

- ◊ areas containing important natural resources such as rare, threatened, and endangered species; or areas of tidal and nontidal wetlands, areas of scientific value;
- ◊ areas where highly erodible soil exists;
- ◊ areas within the buffer or within 100 feet of the mean high-water line of tidal water or the edge of streams; or
- ◊ areas where use would result in the substantial loss of long range productivity of forest and agriculture, a degrading of water quality, or loss of vital habitat.[127]

The ordinance prohibits all persons from performing grading on land that lies within the 100-year flood plain of a nontidal stream or watercourse, unless, the State Department of Natural Resources has authorized the grading; and all necessary county permits have been secured.[128] Moreover, it strictly prohibits individuals from depositing debris or other materials in a flood plain, habitat protection area, watercourse, wetland, public street, highway, sidewalk, or other public thoroughfare. Construction debris, building rubble, and clearing rubble must be removed to an approved landfill.[129]

Furthermore, upon issuing a grading permit, the department has the power to enter periodically to inspect for compliance with the grading permit and other

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[123]County Council of Anne Arundel County, Maryland, Grading and Sediment Control, Legislative Session 1989, Legislative Day No. 36, Bill No. 90-89, amended final on Jan. 17, 1990.§ 2-304(b).
[124]Id. § 2-306(b).
[125]Id. § 2-306(c)-(d).
[126]Id. § 2-306(c).
[127]Id. § 2-314(e).
[128]Id. § 2-401.
[129]Id. § 2-402.

requirements set forth in the ordinance. This power remains in effect until all site work is completed and in compliance, and a certificate of completion is issued.[130]

Baltimore County, Maryland (region 1).—The County Council of Baltimore County enacted the Excavations, Grading, Sediment Control, and Forest Management Ordinance,[131] with the main purpose of controlling accelerated soil erosion and offsite resultant sedimentation to minimize damage to public and private property and attain and maintain water quality standards.[132]

The ordinance provides that a valid grading or building permit is required for any activities that change the natural ground level of any lot or parcel.[133] Such permit is granted only if the following requirements are met:[134]

- A grading plan must be submitted to and approved by the Department of Natural Resources.
- A sediment control plan must be submitted to and approved by the department.
- A forest establishment agreement, if applicable, and accompanying forest establishment plan, must be submitted to and approved by the department.

However, the requirements for grading and sediment control plans may be exempted if the concerned activity falls within one of the following exemptions:[135]

- Agricultural land management practices and construction of agricultural structures that occur outside of existing wetlands, watercourses, and flood plain areas, provided that the applicable conditions are met.
- Grading activities that do not include any watercourses, flood plains, wetland areas, or forest buffers, and that disturb less than 5,000 square feet of land area and less than 100 cubic yards of earth.
- Grading activities that are subject exclusively to State approval and enforcement under State law and regulations, provided that the applicable conditions are satisfied.

Moreover, the grading permit requirement for all land-disturbing activities may be exempted if such activity falls within one of the following categories:[136]

- Individual residential lots for which a building permit has been issued and sediment and erosion control measures are used to protect against offsite damage according to the standard sediment control plan approved by the district.
- Stockpiling of sand, stone, and gravel at concrete, asphalt, and material processing plants or storage yards.
- County sanitary landfill areas operated by the county, provided that sediment and erosion control measures are used in accordance with a plan approved by the district.

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[130]County Council of Anne Arundel County, Maryland, Grading and Sediment Control, Legislative Session 1989, Legislative Day No. 36, Bill No. 90-89, amended final on Jan. 17, 1990.§ 2-501.
[131]Excavations, Grading, Sediment Control, and Forest Management, Bill No. 173-91, § 14-191 et seq. (1991).
[132]Id. § 14-191(a).
[133]Id. § 14-194(b).
[134]Id. § 14-195(a).
[135]Id. § 14-195(b).
[136]Id. § 14-221.

- The filling of areas for which a county rubble landfill or solid waste processing facility permit has been issued and sediment and erosion controls have been installed in accordance with an approved grading or sediment control plan, or both.
- Grading undertaken by or on behalf of the Federal Government and State by its agencies and instrumentalities.
- The temporary stockpiling of fill material must be allowed with the approval of a stockpile permit issued by the county, subject to the requirements of the department.

The department and/or the department of public works must approve the method of disposal of surface or ground water.[137] Moreover, all grading and the installation of sediment control measures must comply with the approved grading and sediment control plans.[138]

Upon notification, owner(s) of property on which any clearing, filling, or grading activity is undertaken in a watercourse, wetland area, flood plain, or forest buffer in violation of the ordinance must restore such areas following the requirements of the department.[139]

Upon notification, owner(s) of any shorefront property on which there exist any eroded areas or deteriorated bulkheads that have detrimental effects on the adjacent shoreline or waterway must take necessary action required by the department.[140] Moreover, forest harvest activities outside of the critical area must have sediment control measures installed according to a plan approved by the district;[141] and if such activities are within the critical area, a forest management plan approved by the county conservancy district board is required.[142]

The Department of Environmental Protection and Resource Management is required to inspect sediment control measures and devices installed on all county capital improvement and public works maintenance projects.[143] If the inspection shows that the approved sediment control plan is inadequate, the plan must be modified accordingly.[144] To further the purpose of this ordinance, upon conviction, violators of any provision of this ordinance can be imposed a fine not exceeding $1,000 or imprisonment not exceeding 90 days, or both.[145] The agency may also seek an injunction against violators of this ordinance.[146]

Carroll County, Maryland (region 1).—In 1992, the County Commissioners of Carroll County adopted the Grading and Sediment Control Ordinance.[147] This ordinance provides that before clearing, grading, grubbing, excavating, or filling land; creating borrow pits, or mineral resource recovery operations; or modifying the existing topography of the land, a person must have a soil erosion and sediment

[137]Excavations, Grading, Sediment Control, and Forest Management, Bill No. 173-91§ 14-194(b).
[138]Id. § 14-194(a).
[139]Id. § 14-196(a).
[140]Id. § 14-197.
[141]Id. § 14-198(a).
[142]Id. § 14-198(b).
[143]Id. § 14-192(a).
[144]Id. § 14-192(b).
[145]Id. § 14-193(a).
[146]Id. § 14-193(b).
[147]Grading and Sediment Control, Ordinance No. 100, Carroll County, Maryland, adopted on July 13, 1992, to be effective on September 1, 1992.

control plan approved by the district and must obtain a grading permit.[148] Moreover, before beginning any forest harvest operation or timber removal, a person must also obtain an approved Standard Erosion and Sediment Control Plan for Forest Harvest Operations from the district, and a grading permit.[149]

However, the ordinance allows a number of exemptions from the grading permit requirement.

First, an applicant must have a soil erosion and sediment control plan that meets the requirements of the State law and is approved by the district. In the plan no grading permit is required for grading of individual residential lots, and for grading or trenching for utility installation on sites covered by an approved soil erosion and sediment control plan and grading permit.[150]

Second, neither a soil erosion and sediment control plan nor a grading permit is required for—

- ◊ accepted agricultural land management practices and construction of agricultural structures,
- ◊ clearing or grading activities that disturb less than 5,000 square feet of land area and less than 100 cubic yards of earth, and
- ◊ clearing or grading activities that are subject exclusively to State approval and enforcement under State laws and regulations.[151]

The ordinance provides that all soil erosion and sediment control plans must meet the requirements of the "1983 Standards and Specifications for Soil Erosion and Sediment Control."[152] However, an applicant may seek variance from the design requirements of the Standards and Specifications if strict adherence to the Standards and Specifications will result in unnecessary hardship and will not fulfill the intent of this ordinance.[153]

Furthermore, the Office of Environmental Services must inspect each site that has an approved soil erosion and sediment control plan to ensure that sediment control measures are installed and effectively maintained in accordance with the approved plan and permit requirements.[154]

A permit may be revoked or suspended for a number of reasons, including—

- ◊ noncompliance with the grading or soil erosion and sediment control or any other condition of the permit;
- ◊ violation of any provision of the ordinance or any other applicable Federal, State, or local laws;
- ◊ existence of any condition that creates a nuisance or hazard to life or property; or

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[148]Grading and Sediment Control, Ordinance No. 100, Carroll County, Maryland, adopted on July 13, 1992, to be effective on September 1, 1992,§ 2.2.A.
[149]Id. § 2.2.B.
[150]Id. § 2.3.A.
[151]Id. § 2.3.B.
[152]Id. § 5.1.
[153]Id. § 5.4.
[154]Id. § 9.2.

◊ failure of the approved soil erosion and sediment control plan to achieve required soil erosion and sediment control objectives.[155]

In addition to the revoking and suspending authority, the Office may also issue a stop work order.[156]

Upon conviction, all violators of this law are subjected to a fine not exceeding $5,000 or imprisonment. Each day's violation constitutes a separate offense.[157] Moreover, a person, who continues to work in or about the property for which a Notice of Violation has been issued, is subject to a fine not to exceed $1,000 or imprisonment not exceeding 30 days, or both.[158]

Lee County, Georgia (region 2).—The Land Development Ordinance of Lee County provides that all property owners or their agents, or both, must follow sound conservation and engineering practices to prevent and minimize erosion and sedimentation.[159] To further this goal, the property owners or their agents, or both, must meet the following minimum requirements:[160]

- Stripping of vegetation, or any other development activities, must be conducted in a manner so as to minimize erosion.
- Cut-and-fill operations must be kept to a minimum.
- Development plans must conform to topography and kind of soil so as to create the lowest practical erosion potential.
- Whenever possible, natural vegetation must be retained, protected, and supplemented.
- The disturbed area and the duration of exposure to erosive elements must be kept to a practicable minimum.
- Disturbed soil must be stabilized as quickly as possible.
- Temporary vegetation or mulching must be used to protect exposed critical areas during development.
- Permanent vegetation and structural erosion control measures must be installed as soon as feasible.
- To the extent necessary, sediment in runoff water must be trapped by using debris basins, sediment basins, silt traps, or similar measures until the disturbed area is stabilized.
- Adequate provisions must be in place minimizing damage from surface water to the cut face of excavations or the sloping surface of fills.
- Cut-and-fill operations may not endanger adjoining property.
- Fills may not encroach upon natural watercourses or constructed channels in a manner as to adversely affect other property owners.

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[155] Grading and Sediment Control, Ordinance No. 100, Carroll County, Maryland, adopted on July 13, 1992, to be effective on September 1, 1992 § 10.1.A.
[156] Id. § 10.1.B.
[157] Id. § 10.2.
[158] Id. § 10.3.
[159] Land Development Ordinance, Lee County, GA § 9.2.2.
[160] Id.

- Grading equipment must cross flowing streams by means of bridges or culverts except when such methods are not feasible, and in case of unfeasibility, crossings must be kept at minimum.
- Erosion and sedimentation control plans must include provisions for treatment to control any source of sediment and adequate sedimentation control facilities to retain sediments on site or preclude sedimentation of adjacent streams beyond specified levels.
- Land disturbing activities must not be conducted within 25 feet of the banks of any State water, unless provided otherwise by variance.
- Land disturbing activities must not be conducted within 100 horizontal feet of the banks of any State water classified as *trout streams*, unless provided otherwise by variance.

However, all erosion and sedimentation prevention requirements are exempted for the following activities:[161]

- Surface mining.
- Granite quarrying and land clearing for such quarrying.
- Minor land-disturbing activities, such as home gardens and individual home landscaping, repairs, maintenance work, and other related activities that result in minor soil erosion.
- The construction of a single-family residence when it is constructed or by under contract with the owner-occupant or the construction of single-family residences not a part of a larger project and not otherwise exempted.
- Agricultural operations, including raising, harvesting or storing of products of the field or orchard; feeding, breeding or managing livestock or poultry; producing or storing feed for use in the production of livestock; producing plants, trees, or animals; production of aquaculture; forestry land management.
- Any project carried out under the technical supervision of the USDA, NRCS.
- Any project involving land 11/10 acres or less.
- Construction or maintenance projects, or both, undertaken or financed, or both, in whole or in part by the Georgia Department of Transportation, the Georgia Highway Authority, or the Georgia Tollway Authority; or any road construction or maintenance project, undertaken by any county or municipality.
- Any land-disturbing activities conducted by any electric membership corporation or municipal electrical system or any public utility under the regulatory jurisdiction of the Public Service Commission.

In addition, discharges of stormwater runoff from disturbed areas must be controlled to the extent that turbidity of the stormwater runoff does not exceed 100 Nephelometric Turbidity Units (NTU) higher than the turbidity level of the receiving stream immediately upstream from the stormwater runoff discharge at the time of such discharge.[162] (*NTU is an abbreviation for Nephelometric Turbidity Unit. This turbidity measure is based on a comparison of the intensity of light scattered by a sample of water under defined conditions with the intensity of light scattered by a standard reference suspension.)*

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[161]Land Development Ordinance, Lee County, GA § 9.1.
[162]Land Development Ordinance, Lee County, GA § 9.1.

Worth County, Georgia (region 2).—In 1989, the City of Sylvester enacted the Soil Erosion and Sediment Control Ordinance,[163] which is applicable to Worth County.

Similar to the Soil Erosion and Sedimentation Prevention provisions of Lee County,[164] the Soil Erosion and Sediment Control Ordinance of Sylvester provides that the ordinance applies to all land-disturbing activities, except the following activities:[165]

- Surface mining.
- Granite quarrying and land clearing for such quarrying.
- Minor land-disturbing activities such as home gardens and individual home landscaping, repairs, maintenance work, and other related activities, which result in minor soil erosion.
- The construction of a single-family residence when such is not constructed by or under contract with the owner-occupant, or the construction is not part of a larger project that is not exempted from this ordinance.
- Agricultural practices regarding the establishment, cultivation, or harvesting of products of the field or orchard, the preparation and planting of pasture land; forest land management practices, including harvesting; farm ponds; dairy operations; livestock and poultry management practices; and the construction of farm buildings.
- Any project carried out under the technical guidance of the USDA, NRCS.
- Any project involving land 1 1/10 acres or less, provided that this exception will not apply to any land-disturbing activity within 200 feet of the bank of any State water.[166]
- Construction or maintenance projects, or both, undertaken or financed, or both, in whole or in part, by the Georgia Department of Transportation, the Georgia Highway Authority, or the Georgia Tollway Authority, or any road construction or maintenance project, or both, undertaken by any county or municipality; or construction and maintenance by any water or sewage authority;
- Any land-disturbing activities conducted by any airport authority, provided that such activities conform to the minimum requirements for erosion and sedimentation control.
- Any land-disturbing activities conducted by any electric membership corporation or municipal electrical system or any public utility under the regulatory jurisdiction of the Public Service Commission, provided that such activities conform to the minimum requirements for erosion and sedimentation control.

The ordinance provides that beginning any land-disturbing activities, all persons must obtain a permit from the Issuing Authority.[167] The applicant must include in the permit application the erosion and sedimentation control plan[168] with supporting

[163]Soil Erosion and Sediment Control Ordinance, City of Sylvester, GA, Ordinance No. 89-8, § 1 et seq. (1989).
[164]Land Development Ordinance, Lee County, GA § 9.1.
[165]Soil Erosion and Sediment Control Ordinance, City of Sylvester, GA, Ordinance No. 89-8 § III (1989).
[166]State water excludes channels and drainage ways that have water in them only during and immediately after rainfall events and intermittent streams which do not have water in them year-round. Id.
[167]Soil Erosion and Sediment Control Ordinance, City of Sylvester, GA, Ordinance No. 89-8 § V.B.
[168]For a detailed description of the requirements for the erosion and sedimentation control plan Id. § V.C.

data and the $25 fee.[169] Failure to obtain the required permit will result in revocation of the business license, work permit, or other authorization to conduct business and associated work activities within the jurisdictional boundaries of the Issuing Authority.[170]

To prevent and minimize erosion and resulting sedimentation, permittee must comply with a set of minimum requirements. They must do the following:[171]

- Conduct stripping of vegetation to minimize erosion with development activities.
- Keep cut-and-fill operations to a minimum.
- Conform all development plans to topography and kind of soil to create the lowest practical erosion potential.
- Retain, protect, and supplement natural vegetation, whenever feasible.
- Keep the disturbed area and the duration of exposure to erosive elements to a practicable minimum.
- Stabilize disturbed soil as quickly as practicable.
- Use temporary vegetation or mulching to protect exposed critical areas during development.
- Install permanent vegetation and structural erosion control as soon as feasible.
- Use debris basins, sediment basins, silt traps, or similar measures to trap sediment in runoff water until the disturbed area is stabilized.
- Provide adequate provisions to minimize damage from surface water to the cut face of excavations or the sloping surface of fills.
- Ensure that cut-and-fill operations will not endanger adjoining property.
- Ensure that fills will not encroach upon natural watercourses or constructed channels to adversely affect other property owners.
- Ensure that grading equipment crosses flowing streams by means of abridges or culverts.
- Include provisions for control or treatment of any source of sediments and adequate sedimentation control facilities in land-disturbing plans for erosion and sedimentation control.
- Disallow land-disturbing activities to be conducted within the 100-year flood plain, unless such is in compliance with any applicable local flood plain management ordinance.
- Retain an undisturbed natural vegetative buffer of 25 feet measured from the streambanks adjacent to any State water.
- Disallow any land-disturbing activities to be conducted within 100 feet (horizontal) of the banks of any State water classified as *trout streams.*
- Control discharges of stormwater runoff from disturbed areas to the extent that turbidity of the stormwater runoff will not exceed 50 NTU.

[169]Id. § V.C.
[170]Id. § VII.A.
[171]Id. § IV.B.

The ordinance requires the building inspector to inspect periodically the sites of land-disturbing activities for which permits have been issued to determine if—

- ◊ activities are being conducted in compliance with the plan, and
- ◊ measures in the plan are effective in controlling erosion and sedimentation.[172]

Furthermore, the building inspector is authorized to conduct investigations necessary to carry out duties set forth in the ordinance.[173] If noncompliance exists, a notice must be issued setting forth measures necessary to achieve compliance.[174] Upon such notice, work on any project that is done contrary to the provisions of the ordinance or in a dangerous or unsafe manner, will be immediately stopped.[175] However, the aggrieved party may seek administrative remedies by requesting a hearing before the Middle South Georgia Soil and Water Conservation District within 20 days after receiving the written notice of appeal.[176] If after exhausting the administration remedies, the aggrieved party may seek judicial review by requesting an appeal de novo to the Superior Court of Worth County.[177]

Chicot County, Arkansas (region 3).—No county laws, rules, regulations or ordinances exist that are related to conservation activities in Chicot County. The Arkansas Conservation District Law is the only State law that provides specific guidance to conservation activities in the State. However, the Natural Resource Conservation Service does offer assistance through conservation districts to assist cooperators to comply with a number of State environmental laws and regulations, such as the Arkansas Dam Permitting Law, the Arkansas Water and Air Pollution Act, the Arkansas Pesticide Control Act, and the Arkansas Disposal of Fowl Carcasses Act.

Polk County, Nebraska (region 5).—Because Polk County belongs to the Central Platte Natural Resources District (NRD), it is subject to the State Erosion and Sediment Control Act adopted by the Central Platte NRD. The main purpose of the Central Platte District rules and regulations is to provide for the conservation and preservation of the land, water, and other resources of the district.[178]

The district law applies to all lands within the district.[179] However, there are a number of exemptions from the application of the law, including—

- ◊ the land of the county or municipality which has adopted and is implementing erosion and sediment control regulations;[180] and
- ◊ lands on which some nonagricultural land-disturbing activities are occurring.[181]

Nonagricultural land-disturbing activity is defined to mean "a land change including, but not limited to, tilling, clearing, grading, excavating, transporting, or filling land which may result in soil erosion from wind or water and the movement

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[172]For a detailed description of the requirements for the erosion and sedimentation control plan, Id. § VI.A.
[173]Id. § VI.B.
[174]Id. § VI.A.
[175]Id. § VII.B.
[176]Id. § VIII.A.
[177]Id. § VIII.B. De novo means anew, afresh. In a de novo trial, the matter is heard as if it had never been heard before, and as if there had been no previous decision rendered. *Black's Law Dictionary*.
[178]Central Platte Natural Resources District, Rules and Regulations, Erosion and Sediment Control Act, Rule 2.
[179]Id. Rule 3.
[180]Central Platte Natural Resources District, Rules and Regulations, Erosion and Sediment Control Act, Rule 3.
[181]Id.

of sediment and sediment-related pollutants into the water . . . or onto lands of the state."[182] However, it does not include—

- ◊ activities related directly to the production of agricultural, horticultural, or silvicultural crops;
- ◊ installation of above ground public utility lines and connections, fence posts, sign posts, etc.;
- ◊ emergency work to protect life or property; and
- ◊ activities related to the construction of housing, industrial, and commercial developments.[183]

The board also adopts soil loss limits for the various types of soils in the district.[184] The permitted soil-loss for particular lands may not exceed the T-value set forth by the standard.[185] However, the committee may recommend and the board may approve a variance from the soil-loss limit if it determines that a limit of T cannot reasonably be applied to land.[186] Nevertheless, in no case can the permitted soil-loss limit exceed 2 T.[187]

The district law provides that the board must delegate the responsibility of administering the rules to the district manager.[188] The district manager has the duties and powers to:[189]

- Keep an accurate record of all complaints received, investigations made, and other official actions.
- Investigate all complaints made in writing to the district office regarding the application of these rules and regulations and report in writing all alleged violations to the board.
- Monitor compliance with all farm unit conservation plans approved and orders issued by the board.
- Enter upon any public or private lands to investigate complaints and to make inspections to determine compliance.
- Report to the board any violations of any administrative order or rules and regulations issued by the board.
- To commence any legal proceedings necessary to enforce these rules and regulations and any order issued by the board.

The district law lists four factors indicating whether a violation of the rules and regulations exists. A violation exists if—

- ◊ sediment damage is occurring;
- ◊ average annual soil losses on the land that is the source of that damage are exceeding the soil-loss limits indicated by the law;

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[182]Central Platte Natural Resources District, Rules and Regulations, Erosion and Sediment Control Act, Rule 4(f).
[183]Central Platte Natural Resources District, Rules and Regulations, Erosion and Sediment Control Act, Rule 2.
[184]Id. Rule 5.
[185]Id. T-value is defined to mean the "average annual tons per acre soil loss a given soil may experience and still maintain its productivity over an extended period of time." Id. Rule 4(h).
[186]Central Platte Natural Resources District, Rules and Regulations, Erosion and Sediment Control Act, Rule 12.
[187]Id.
[188]Id. Rule 6.
[189]Id.

- ◊ the activity causing the soil loss is not an exempted nonagricultural land disturbing activity; and
- ◊ the land that is the source of that damage is not in strict compliance with a conservation agreement approved by the district.[190]

The district law also allows cost-share assistance. It provides that if at least 90 percent cost-sharing assistance is not available to any owner or operator for the installation of permanent soil and water conservation practices to conform with agricultural, horticultural, and silvicultural practices to the applicable soil-loss limit, the owner or operator is not required to install such practices until such cost-sharing assistance is made available.[191]

Greene County, Tennessee (region 11).—A soil erosion and sediment control ordinance exists in the city of Greeneville and applies in this city only. This ordinance applies only to land developers, not individual landowners or operators.

Washington County, Tennessee (region 11).—A soil erosion and sediment control ordinance exists in Washington County. However, it only applies to the construction of new roads.

Haywood County, Tennessee (region 12).—In Haywood county, there is no soil erosion and sediment control ordinance.

Shelby County, Tennessee (region 12).—No soil erosion and sediment control ordinance exists in Shelby County.

Tipton County, Tennessee (region 12).—A soil erosion and sediment control ordinance exists in Tipton County. It provides that before approving the preliminary plan, the planning commission must determine whether there is a need for an erosion control plan to minimize erosion during construction of the subdivision. If an erosion control plan is required, such plan must be approved by both the planning commission and the NRCS representative. Moreover, if necessary, the Planning Commission may require structural or other improvements designed to prevent or minimize long-term erosion and siltation from within the subdivision. This ordinance emphasizes that in determining the appropriate improvements for controlling erosion and siltation, the NRCS must be consulted extensively.

Erosion and sediment control laws in a selected township

West Hempfield Township, Lancaster County, PA (region 1).—The Township of West Hempfield controls soil erosion and manages the stormwater through its Stormwater Management and Erosion Control Ordinance of 1980.[192] This ordinance was created under the authorization granted by the Act of July 31, 1968, Act 247, the Pennsylvania Municipalities Planning Code, which allows the governing body of each municipality to regulate subdivision and land developments.[193]

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[190]Central Platte Natural Resources District, Rules and Regulations, Erosion and Sediment Control Act, Rule 7.
[191]Id. Rule 17(a).
[192]Stormwater Management and Erosion Control Ordinance for West Hempfield Township, PA 1980 § 1.01 et seq.
[193]Id. § 1.02.

The ordinance provides that any persons, partnership, business, or corporation must seek municipal approval to undertake any of the following activities:[194]

- Land-disturbing activity involving 1/2 acre or more (except agricultural activity).
- Diversion or piping of any natural or constructed stream channel.
- Installation of stormwater system or appurtenances.
- Placement of fill, structures, or pipes in the flood plain or natural drainage ways.
- Installation of impervious cover, 10,000 square feet or more in an area.

Under this ordinance, an Erosion and Sedimentation Control Plan is required for all the activities described above.[195] However, there are exceptions to certain items of the Erosion Control Plan for plans that do not require dedication of additional rights-of-way.[196] Once the plan is approved, applicants must adhere to the approved plan.[197] This plan must consist of a map and a narrative.[198] For subdivision and land development activities, include it as part of the total land subdivision and development submission(s) to the municipality and include the following items:

- The general statement of the project.
- Topographic features of the project area to be shown on the map.
- The proposed alteration to the area to be shown on the map.
- All lots will be graded and houses constructed at such an elevation that they would not be flooded during a 50-year frequency storm.
- Runoff calculations.
- The staging of land-disturbing activities must be described in the narrative, detailing the sequence of erosion control installation in relation to the installation of improvements.
- Temporary and permanent control measures and facilities must be shown on the map and described in the narrative.
- The maintenance program for control facilities must be included in the narrative, describing the method of disposal of materials removed from the control facilities or the project area.[199]

Moreover, the ordinance also requires that all erosion control facilities meet the minimum design standards and specifications set forth in the *Erosion and Sedimentation Control Handbook for Lancaster County*.[200] This handbook includes the following:

- All temporary holding facilities must be designed to meet the minimum standards and specifications for *debris basin* as indicated by the Handbook.
- As a minimum, all permanent holding facilities must have the capacity to provide the required combination of storage and emergency spillway to

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[194]Stormwater Management and Erosion Control Ordinance for West Hempfield Township, PA 1980 § 1.03.
[195]Id. § 4.02.
[196]Id. § 4.01.A.
[197]Id. § 4.02.
[198]Id. § 3.01.
[199]Central Platte Natural Resources District, Rules and Regulations, Erosion and Sediment Control Act, Rule 2. § 3.01.
[200]Id. § 3.02.

accommodate the runoff from a 25-year storm frequency from drainage areas of one-half square mile or less.

- The peak discharge leaving the site from a 2-year frequency storm event after development must be limited to the peak discharge of a 2-year storm before development.
- Grassed waterways may be used in lieu of conduit piping in those areas where soil conditions permit recharge of ground water. As a minimum, such grassed waterways must be of sufficient size to confine the anticipated peak runoff from a 10-year frequency storm event. Moreover, the allowable velocities within the waterway must be limited to those values that would not cause erosion of the soil or cover material.

The ordinance provides that construction standards of erosion control facilities must be in accordance with the approved plan and accompanying specifications. The construction criteria listed in the handbook are considered the minimal acceptable standard.[201]

Because maintenance is an indispensable part of the successful functioning of a stormwater management system, the ordinance outlines certain maintenance criteria for erosion control practices.[202] Maintenance during development of a project will be the responsibility of the developer or landowner, or both, and must usually include, but is not limited to—

- ◊ removal of silt from all debris basins, traps, or other structures or measures when 60 percent of capacity is filled with silt;
- ◊ periodic maintenance of temporary control facilities such as replacement of straw bale dikes, straw filters, or similar measures;
- ◊ establishment or re-establishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation has not successfully been established;
- ◊ installation of necessary control to correct unforeseen problems caused by storm events within design frequencies; and
- ◊ contractor or developer will be responsible for removal of all temporary measures and installation of permanent measures upon completion of the project.

Furthermore, maintenance and supervision of developed areas is the duty of the party responsible for land development (this responsibility can be retained or assigned to third persons).[203] However, if the permanent erosion control facilities and necessary rights-of-way are dedicated to the municipality, it will be the municipality's responsibility to maintain these facilities.[204]

Furthermore, if a property owner fails to comply with the requirements of this ordinance, the ordinance provides that the municipality must issue a written notification of such violation.[205] Noncompliance will subject the violators to a fine or penalty of not less than $250 but not exceeding $1,000, plus the cost of

[201]Stormwater Management and Erosion Control Ordinance for West Hempfield Township, PA 1980 § 3.03.
[202]Id. § 3.04.
[203]Id. § 3.04.
[204]Id. § Art. 5, Ownership and Maintenance Provision.
[205]Id. § 4.04.

prosecution. Each day's violation constitutes a separate offense.[206] In case of default of payment, violators can be imprisoned in the county jail for not more than 60 days.[207]

In the event that any building, structure, or land is, or is proposed to be, erected, constructed, altered, converted, maintained, or used in violation of this ordinance, the government body, in addition to other remedies, may institute in the name of the municipality any appropriate action or proceeding to prevent such violation.[208]

[206]Stormwater Management and Erosion Control Ordinance for West Hempfield Township, PA 1980 § 4.05.A.
[207]Id.
[208]Id. § 4.05.B.

Chapter 4: Ground Water Laws

State ground water laws

For many years, state ground water rights law in both Eastern and Western States has been primarily concerned with settling property disputes and resolving well interference conflicts. In settling disputes, the Eastern and Midwestern States have consistently followed one of two common law doctrines: reasonable use and absolute ownership. The *reasonable use* doctrine has only a few restrictions because although the landowner may remove the ground water, he or she must remove and use it in a reasonable manner. The *absolute ownership* doctrine places no restriction on the landowner's right. The landowner can remove as much ground water as he or she can.

Unlike the Eastern and Midwestern States, the Western States adhere to the doctrine of prior appropriation, which is also known as the *first in time, first in right* doctrine. This doctrine considers water to be property of the state. In these states, water is allocated by various priority systems, subject to the state's definition of a beneficial use. Ground water rights may be acquired by obtaining a state appropriation permit. Disputes between ground water appropriators are resolved by requiring the junior appropriator to stop withdrawals when they interfere with those of senior appropriators. However, in many of these states, state engineers will refuse to issue a permit if the proposed appropriation will cause ground water levels to fall beyond the economic reach of senior appropriators because senior appropriators are entitled to a reasonable pumping depth.

Recently, some states have enacted legislation authorizing special ground water regulations in designated critical areas. These regulations aim at the situations of ground water mining (or ground water overdraft) and saline water pollution. Ground water mining is usually caused when ground water withdrawals from the aquifer exceed net recharge. The increase in ground water use for irrigation has led to ground water mining in several Western States and has also been associated with saline water pollution. These critical area laws have a number of general objectives, including slowing or stopping ground water mining, providing administrative means for solving well interference conflicts, and protecting existing irrigation-based economies.

In states that designate critical water use areas, criteria for designating critical areas vary from state to state. Generally, they may include withdrawals approaching or exceeding an aquifer's safe yield, decline of ground water level, conflict between users, water quality degradation, and land subsidence. The ground water controls authorized in critical areas vary notably and include—

- ◊ requiring state permits for new wells (in states where permits are required only in critical areas);
- ◊ restricting ground water supply development through permit denials, well spacing requirements, or well drilling moratoria; and
- ◊ reducing use of existing supplies by reducing withdrawals of junior appropriators or of all appropriators, rotating pumping, enforcing voluntary pumping agreements, and purchasing and retiring ground water pumping rights.

In general, state legislatures enact ground water laws to preserve water and ground water. To remedy the water misuse and contamination, all 17 surveyed states give priority to reasonable and beneficial use of ground water and authorize the responsible agency to adopt rules and regulations to implement the ground water acts. Unlike other states, Maryland is unique in that the laws specifically prohibit any municipality, county, or other political subdivision from adopting and enforcing any additional rule or regulations that relate to construction of wells.

All of the surveyed states require the responsible state agencies to provide some sort of regulatory program and plan to preserve ground water. For example, the Mississippi Legislature requires the Commission on Natural Resources to study existing water resources and formulate a state water management plan. Wisconsin is among the states that controls its ground water through a systematic numerical standard regulatory program. The state also sets forth specific provisions regarding the participation of American Indian tribes and bands. Furthermore, the New Mexico Act created an early response team that responds to requests from municipalities or counties for advice and technical assistance concerning alleged releases from underground storage tanks owned or operated by the municipalities or counties.

All 17 states provide some sort of exemption mechanism, whether by allowing exemptions from the general ground water laws or from the specific permit requirements for activities in connection with well construction. For example, Alabama allows several exemptions including surface impoundments constituting solid waste management units under the Resource Conservation and Recovery Act. Mississippi exempts from the permit requirement uses for domestic purposes, for surface water in impoundments that are not located on continuous watercourses, and for water obtained from a well with a surface casing diameter of less than 6 inches.

All 17 states require permits, which generally last for 10 years or less, before engaging in any activities involving ground water. All states set forth regulations concerning wells. The common features of all 17 states' laws concerning wells include: licenses are required for all well drillers and well pumpers; an abandoned well or test hole must be sealed and filled; and records of drilling must be kept.

All states impose civil penalties on violations of the ground water laws and allow enforcing authorities to seek a temporary restraining order or permanent injunction on any individuals who apply for variance from any rules or regulations.

Delaware (region 1).—Delaware Legislature regulates its ground water, in addition to other natural resources such as land, water, and air, through the enactment of the Environmental Control Act.[209] Recognizing that it is necessary to protect, conserve and control to assure the reasonable and beneficial use of these resources in the interest of the people of Delaware, the Legislature declares the following state policies:[210]

- The development, use, and control of all the land, water, ground water, and air resources must be directed to make the maximum contribution to the public benefit.

[209]Environmental Control, DEL. CODE ANN. § 6001 et seq. (1974 & Supp. 1992).
[210]Id. § 6001(b) (1974).

- The State, in the exercise of its sovereign power, acting through the Department of Natural Resources and Environmental Control, should control the development and use of the land, water, ground water, and air resources of the State.[211]

Although this act covers other natural resources, the ground water resource will remain the main focus of the following discussion.

Like other State laws, the Delaware Act requires all persons to obtain permits before undertaking any activity that—

- ◊ causes or contributes to the discharge of a pollutant into any surface or ground water, or
- ◊ causes or contributes to the withdrawal of ground water or surface water, or
- ◊ plans or constructs any highway corridor that may cause or contribute to the discharge of an air contaminant or discharge of pollutants into any surface or ground water.[212]

Furthermore, a permit is also required before anyone can construct, install, replace, modify or use any equipment or device or other article that—

- ◊ may cause or contribute to the discharge of a pollutant into any surface or ground water,
- ◊ is intended to prevent or control the emission of air contaminants into the atmosphere or pollutants into surface or ground water, or
- ◊ is intended to withdraw ground water or surface water for treatment and supply.[213]

The secretary can establish fees for permits with the concurrence and approval of the General Assembly.[214] However, since 1992 the secretary has been able to reduce the amount of any fee charged for any permit or license issued depending on the particular types of permits or classes or categories of permittees.[215]

The secretary has the mandatory duty to enforce this chapter.[216] Violations of the permit requirement of this chapter or any other rules and regulations will result in a civil penalty of between $1,000 and $10,000 for each day of violation.[217] If the violation continues, the secretary may impose a monetary penalty similar to that of the first offense. If the secretary perceives that a violation is threatened to begin, a temporary restraining order or permanent injunction may be applied.[218] Moreover, the secretary may impose an administrative penalty of not more than $10,000 for each day of violation[219] or a cease and desist order.[220] However, before imposing an administrative penalty, the violator is afforded a public hearing.[221] In addition,

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[211]DEL. CODE ANN. § 6001(b) (1974).
[212]Id. § 6003(a).
[213]Id. § 6003(b).
[214]Id. § 6003(f).
[215]Id. § 6003(h) (1974 & Supp. 1992). This provision was added by 68 Del. Laws, ch. 348, effective July 10, 1992.
[216]Id. § 6005(a) (1974).
[217]Id. § 6005(b)(1).
[218]Id. § 6005(b)(2).
[219]Id. § 6005(b)(3).
[220]Id. § 6018.
[221]Id. § 6005(b)(3) (1974). For thorough conduction of public hearings, Id. § 6006.

violations and noncompliance may also result in monetary penalties and imprisonment.[222]

Individuals may apply for variance from any rule or regulation promulgated.[223] The secretary may grant such variance if the secretary finds a number of factors are met, including—

- ◊ good faith efforts have been made to comply with this chapter;
- ◊ the applicant is unable to comply with the chapter because of unavailability of necessary technology or other alternative methods of control;
- ◊ any available alternative operating procedure or interim control measures are being or will be used to reduce the impact; and
- ◊ the continued operation of such source is necessary to national security or to the lives, health, safety, or welfare of the citizens of Delaware.[224] A variance is in effect for only 1 year or less and may be renewed.[225]

Furthermore, the secretary may grant a temporary variance for less than 60 days[226] if the secretary finds that—

- ◊ severe hardship will result from the time involved to seek a longer-period variance;
- ◊ the emergency was unforeseeable; and
- ◊ all other requirements for obtaining a longer-period variance are met.[227]

This temporary variance cannot be extended more than once.[228]
Among the above requirements, the Delaware Act specifies the following provisions that are applicable to wells in all areas of the State:

- All persons engaged in the drilling, boring, coring, driving, digging, constructing, installing, removing, or repairing of a water well or water test well must be licensed.[229]
- All persons engaged in installing or operating pumping equipment in or for a water well or water test well must be licensed.[230]
- Issuance of a license to any water well contractor, pump installer contractor, well driver, well driller, or pump installer is subject to a fee established by the secretary.[231]

Maryland (region 1).—Maryland Legislature regulates its ground water mainly through its Water and Water Resources law[232] that authorizes the Department of Natural Resources to adopt any regulation to further its general powers of supervision over Maryland's natural resources, and for appropriate conservation of the State ground water.[233] Before 1982, it also described a number of provisions applicable to

[222]DEL. CODE ANN.§ 6013 (1974).
[223]Id. § 6011(a).
[224]Id. § 6011(b).
[225]Id. § 6011(e).
[226]Id. § 6012(a).
[227]Id. § 6012(b) (1974).
[228]Id. § 6012(c).
[229]Id. § 6023(a)(1).
[230]Id. § 6023(a)(2).
[231]Id. § 6026.
[232]MD. CODE ANN., NAT. RES. § 8-101 et seq. (1990 & Supp. 1994).
[233]MD. CODE ANN., NAT. RES. § 8-602.

permits to drill wells, report of driller on completion of work, maintenance of wells, abandonment of wells, waste water, and well drillers. However, these provisions were repealed in 1982[234] and transferred to the Maryland Environment Code.

The Environmental Code has a number of provisions regarding wells. Provisions that are applicable to wells in all areas of the state are as follows:

- The subtitle regarding well drillings denies any municipality, county, or other political subdivision the right to adopt and enforce any additional rule or regulation that relates to constructions of wells.[235]
- All persons desiring to drill a well must obtain a permit from the department,[236] which is valid for 1 year.[237]
- All well drillers must be licensed by the board.[238]
- After completing the drilling of any well, the well driller must file a final report with the department, including—
  - ◊ the log of each well,
  - ◊ the size and depth of each well,
  - ◊ the diameters and lengths of casing and screen installed,
  - ◊ the static and pumping levels,
  - ◊ the yield of each well, and
  - ◊ any other information regarding the construction or operation of the well that the department requires.[239]
- Well owners must maintain wells in accordance with the rules and regulations set forth by the department.[240]
- Upon abandoning any existing well or test hole, well owners must notify the department and effectively seal and fill the well or test hole in accordance with rules and regulations of the department.[241]
- Violations of the provisions regarding wells and other rules and regulations promulgated will result in a fine not exceeding $500 or imprisonment not exceeding 3 months for the first offense, or both, and a fine not exceeding $1,000 or imprisonment not exceeding 1 year for a subsequent offense, or both.[242] For similar violations, the department may also seek an injunction against such violator.[243]

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[234]Provision regarding well drillers was repealed by Acts 1981, ch. 237, § 1, eff. July 1, 1981. Provisions regarding permit to drill well, driller's report on completion of work, wells' maintenance, wells' abandonment, and waste water were repealed by Acts 1982, ch. 240, § 1, effective July 1, 1982.
[235]MD. CODE ANN., ENVIR. § 9-1304.
[236]Id. § 9-1306. For the application process and conditions on permits, and fee, see Id. § 9-1307 (1990 & Supp. 1994).
[237]Id. § 9-1307(c).
[238]Id. § 13-301. For application process, see Id. § 13-303.
[239]Id. § 9-1308.
[240]Id. § 9-1309(a).
[241]Id. § 9-1309(b).
[242]Id. § 9-1311(a).
[243]Id. § 9-1311(b).

The department has the following mandatory duties and powers:

- To adopt rules and regulations for the construction of wells.[244] However, before adopting any rule or regulation, it must submit the proposed rule or regulation to the board for comment.[245]
- To adopt regulations that require water test results from a well used for domestic purposes to be given to a person who requests the test and to any other person for whose benefit the test is requested.[246]

Pennsylvania (region 1).—Pennsylvania Legislature regulates ground water partly through the enactment of the Water Well Drillers License Act.[247] It recognizes

> . . . [ground] water . . . is a renewable natural resource with a great potential for further development; and . . . it is imperative that this resource be developed . . . without waste, to assure sufficient supplies for continued population growth and industrial development . . . ."[248]

Furthermore, it declares that it is the state policy to "take such steps . . . necessary to encourage the orderly development of [ground water] resource and, to this end, it is imperative that persons engaged in water well drilling and the Commonwealth closely cooperate to procure detailed information on the ground water resources.[249]

The Water Well Drillers License Act provisions that are applicable to wells in all areas of the State are as follows:

- All water well drillers must be licensed. This requirement does not apply to—
  - ◊ a farmer performing any function on any land owned or leased by him or her for farming purposes; or
  - ◊ any natural person drilling a well on land owned by him or her or of which he or she is a lessee and used as his or her residence.[250]
- The department—the Bureau of Topographic and Geologic Survey in the State Planning Board[251]—may require a well owner to seal effectively or fill any abandoned well on his or her property according to departmental rules and regulations.[252]
- Every licensee must put his or her signature on and display license and must have the drilling permits in his or her possession at all times.[253]
- Every licensee must keep a record of each well upon a form, setting forth the exact geographic location and log of the well, which must be available to the department upon request.[254]
- Every licensee must file with the department, within 24 hours of making a contract to drill a water well, a report in the nature of a statement of intention to drill that must include the name and address of the well's owner, the township

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[244]MD. CODE ANN., ENVIR. § 9-1305(a).
[245]Id. § 9-1305(c).
[246]Id. § 9-1305.1.
[247]Water Well Drillers License Act, PA. STAT. ANN. tit. 32, § 645.1 et seq. (1967 & Supp. 1993).
[248]PA. STAT. ANN. tit. 32, § 645.1 (1967 & Supp. 1993).
[249]Id.
[250]Id.
[251]Id. § 645.3(4) (Supp. 1993).
[252]Id. § 645.5.
[253]Id. § 645.9.
[254]Id. § 645.10.

and county in which the well is to be located, and the approximate date on which the drilling is to commence.[255]

The department has the following mandatory duties and powers:

- To suspend or revoke the license of any well driller if the license is obtained through error or fraud, or for failure to file the reports or maintain the records required, and to grant new licenses to persons whose licenses have been revoked.[256]
- To make inspections and require the taking of records, which must not materially increase the drilling costs.[257]

Moreover, the department may do the following:

- Require licensees to file with the department reports containing data from the records.[258]
- Effectuate the provisions of this act and adopt, amend and rescind such reasonable rules and regulations as may be necessary to accomplish the purposes of this act.[259]

Like other State acts dealing with conservation of ground water, Pennsylvania law imposes a set of penalties on violators. Pennsylvania law imposes both monetary fines and jail time for violations.

Alabama (region 2).—Alabama has recently enacted the Alabama Water Resources Act, which became effective on February 23, 1993.[260] The act creates the Alabama Office of Water Resources as a Division of the Department of Economic and Community Affairs[261] and the Water Resource Commission.[262] The office and commission have the power and responsibility to develop plans and strategies for the management of the water.[263] However, the authority to implement and enforce the rules and regulations promulgated by the commission belongs to the Alabama Department of Environmental Management.[264]

The Office of Water Resources has a number of responsibilities including—

- ◊ developing long-term strategic plans for use of the water;
- ◊ acting through the commission, adopting and promulgating rules, regulations, and standards for the purpose of this chapter;
- ◊ implementing quantitative water resource programs and projects;
- ◊ serving as a repository for data regarding Alabama water;
- ◊ at its discretion, studying, analyzing, and evaluating the diversion, withdrawal, or consumption of water;

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[255]PA. STAT. ANN. tit. 32, § 645.1 (1967 & Supp. 1993). § 645.10(c).
[256]Id. § 645.8.
[257]Id. § 645.10(a).
[258]Id. § 645.10(b).
[259]Id. § 645.12.
[260]Alabama Water Resources, ALA. CODE § 9-10B-1 et seq. (Supp. 1993).
[261]Id. § 9-10B-4.
[262]Id. § 9-10B-12.
[263]Id. § 9-10B-2(5).
[264]Id. § 9-10B-23.

- ◊ preparing comprehensive plans, programs, and policies to encourage or require efficient use of State water;
- ◊ entering into agreements or contracts;
- ◊ issuing, modifying, suspending, or revoking orders, citations, or notices of violation;
- ◊ holding hearings relating to any provisions of this chapter;
- ◊ applying for, accepting, and disbursing advances, loans, grants, contributions, and other form of assistance;
- ◊ employing technical, professional, clerical, or other staff members;
- ◊ undertaking or participating in studies, surveys, analyses, or investigations of water resources;
- ◊ conducting a program of education and public enlightenment regarding State water;
- ◊ making an annual report to the Governor and the presiding officers of the State House and senate; and
- ◊ enforcing all provisions of this chapter and filing legal actions to prosecute, defend, or settle actions brought by or against the Office of Water Resources.[265]

In addition to the above responsibilities, the Office of Water Resources is also authorized to assess and issue civil penalties on any person in violation of—

- ◊ any provision of this act or
- ◊ any rule or regulation promulgated (except the rules and regulations under the enforcement of the Alabama Department of Environment Management).[266]

The Alabama Water Resources Commission consists of 19 members who must be Alabama citizens.[267] The commission has a number of duties including—

- ◊ advising the Governor and the presiding officers of the senate and house on matters related to State water;
- ◊ providing guidance to the director and the division chief on all matters within the commission's scope of authority;
- ◊ advising in the formulation of policies, plans, and programs of the Office of Water Resources;
- ◊ establishing, adopting, promulgating, modifying, appealing, and suspending any rules or regulations authorized pursuant to this act;
- ◊ advising the Office of Water Resources to implement policies, plans, and programs governing state water; and
- ◊ hearing and determining appeals of administrative actions of the Office of Water Resources.[268]

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[265]Alabama Water Resources, ALA. CODE § 9-10B-5.
[266]Id. § 9-10B-5(19).
[267]ALA. CODE § 9-10B-12. For specific requirement concerning membership of the commission Id. For terms of members of the commission, see Id. § 9-10B-13. For expiration of term or vacancy on commission, succession, and appointment, see Id. § 9-10B-14. For remuneration of the commission, meeting, division chief as ex officio secretary, see Id. § 9-10B-17.

This act recognizes that use of water for human consumption has priority and no limitation upon usage for human consumption will be imposed except in emergency situations.[269] However, there are exemptions from the law, including—

- ◊ impoundments or similar containments confined completely upon an individual's property that store water where the initial diversion, withdrawal, or consumption is acknowledged in a certificate of use;
- ◊ waste water treatment ponds and impoundments subject to regulation under the Clean Water Act, Mine Safety and Health Act, or Surface Mining Control Act; and
- ◊ surface impoundments constituting solid waste management units under the Resource Conservation and Recovery Act.[270]

The commission and the Office of Water Resources are required to promulgate and adopt rules and regulations governing declarations of beneficial use and certificates of use.[271] Moreover, a declaration of beneficial use must be submitted by each public water system that regularly serves more than 10,000 households and by each individual business which withdraws or consumes more than 100,000 gallons of water on any day within 90 days of the promulgation of rules and regulations, and 180 days of the promulgation if the public water system serves less than 10,000 households.[272]

However, a person does not have to submit a declaration if such person diverts or withdraws less than 100,000 gallons of water each day,[273] or uses water for purposes of irrigation and does not have the capacity to use 100,000 gallons of water or more on any day, unless the commission determines by regulation that submission of declaration is required to accomplish the purpose of this act.[274] However, a person who has the capacity to use 100,000 gallons or more of water on any day must submit a declaration of beneficial use to the Office of Water Resources.[275] The act does not require the submission of either declaration of beneficial use or certificate of use for—

- ◊ instream uses of water, including, but not limited to, recreation, navigation, water oxygenation system, and hydropower generation; or
- ◊ impoundments covering not more than 100 acres in surface area that are confined and retained completely upon the property of a person and used solely for recreational purposes, including sport fishing.[276]

Georgia (region 2).—In 1972, Georgia enacted the Groundwater Use Act of 1972[277] to put water resources to the most beneficial use while conserving these resources.[278] The act broadly defines the term *ground water* to include "water of underground streams, channels, artesian basins, reservoirs, lakes, and other water under the

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[268]Alabama Water Resources, ALA. CODE § 9-10B-16.
[269]Id. § 9-10B-2(2).
[270]Id. § 9-10B-2(7).
[271]Id. § 9-10B-19.
[272]Id. § 9-10B-20(a)-(b).
[273]Id. § 9-10B-20(c).
[274]Id. § 9-10B-20(d).
[275]Id. § 9-10B-20(d).
[276]Id. § 9-10B-20(c).
[277]In 1992, pursuant to § 28-9-5, "Ground-water" was substituted for "Ground Water". For an interesting article regarding this Act, see *The Ground Water Use Act of 1972: Protection for Georgia's Ground water Resource*, 6 GA. L. REV. 709 (1972).
[278]GA. CODE ANN. § 12-5-91 (1992).

surface of the earth, whether public or private, natural or artificial, which is contained within, flows through or borders upon this state or any portion thereof, including those portions of the Atlantic Ocean over which Georgia has jurisdiction."[279]

The act considers the Board of Natural Resources to be the controlling agency, with a number of authorities. The most important among these is the authority to adopt rules and regulations to implement the Groundwater Use Act.[280]

Under this act, a permit is required for any withdrawal or use of ground water in excess of 100,000 gallons per day.[281] If there is sufficient evidence provided by the applicant that the water withdrawn or used from the ground is *not consumptively used,* the division may issue a permit without a hearing.[282] The act is less rigid on *nonconsumptive use* because nonconsumptive use is defined to mean the use of water withdrawn from a ground water system or aquifer in such a manner that it is returned to the ground water system or aquifer from which it was withdrawn without substantial diminution in quantity or substantial impairment in quality at or near the point from which it was withdrawn.[283] Permits are allowed to last for 10 years or a period necessary for reasonable amortization of the applicant's water-withdrawal and water-using facilities.[284] Permit holders can renew permits at any time within 6 months before the expiration date[285] but may not transfer permits unless allowed by the division.[286]

The Environmental Protection Division of the Department of Natural Resources is authorized to grant a permanent (for maximum of 10 years) or temporary permit;[287] modify or revoke any permit following a written notice;[288] deny a permit if its use is contrary to public interest;[289] and enter upon property to conduct investigations.[290]

The act has separate provisions for withdrawal or use of ground water for farm uses.[291] In addition to other meanings, the term *farm uses* is also defined to mean the processing of perishable agricultural products and the irrigation of recreational turf. However, for the counties of Chatham, Effingham, Bryan, and Glynn,

irrigation of recreational turf is not considered a farm use.[292] The act imposes civil penalties for violating this law; intentionally or negligently failing or refusing to comply with the director's final order will result in civil penalties.[293] Moreover, such violations may also be subject to a criminal penalty (conviction of a violation

[279]GA. CODE ANN. § 12-5-92(6).
[280]Id. § 12-5-94.
[281]Id. § 12-5-96(a).
[282]Id. § 12-5-96(b).
[283]Id. § 12-5-92(7).
[284]Id. § 12-5-97(a) (1992).
[285]Id. § 12-5-97(b).
[286]Id. § 12-5-97(c).
[287]Id. § 12-5-96(c)(1)-(2).
[288]Id. § 12-5-96(c)(3) (1992).
[289]Id. § 12-5-96(c)(4).
[290]Id. § 12-5-98.
[291]Id. § 12-5-105.
[292]Id. § 12-5-92(5.1).
[293]Id. § 12-5-106.

constitutes a misdemeanor).[294] In addition to the Groundwater Use Act of 1972, Georgia also has its own Water Well Standards Act of 1985.[295]

Arkansas (region 3).—In 1991, Arkansas enacted the Arkansas Groundwater Protection and Management Act, which became effective on October 1, 1991.[296] The act acknowledges that it is necessary to reduce ground water use to protect ground water for future consumption. Reductions are to come from conservation or use of surface water, but in critical ground water areas, limiting ground water withdrawals through the use of water rights may become necessary.[297] However, all provisions apply only in critical ground water areas.[298]

This act was specifically designed to deal with *critical ground water areas*.[299] After the Soil and Water Conservation Commission designates a critical ground water area,[300] and when it determines that action is necessary within a critical area, it must declare that water rights are required for water withdrawal.[301] However, before initiating a regulatory program, the Commission must describe the proposed action, the reasons for such, and the recommended boundaries (if it is different from the previous critical area designation).[302] In addition, it must hold a public hearing in each county within the proposed critical area.[303]

By declaring an area a critical ground water area, all persons who want to withdraw ground water from an existing well or construct a new well within the critical ground water area must first obtain a water right.[304] A *water right* is defined to mean the authority or permission issued by the commission to use ground water within a critical ground water area.[305]

The Arkansas law creates the Arkansas Soil and Water Conservation Commission,[306] that is authorized to—

- ◊ promulgate rules and regulations for ground water classification and aquifer use, well spacing, issuance of ground water rights within critical ground water areas, and assessment of fees;
- ◊ issue subpoenas for any witness to require attendance and testimony;
- ◊ administer an oath to any witness in any hearing, investigation, or proceeding before the commission;
- ◊ enter upon property for purposes of conducting investigations, studies, or enforcing this law;
- ◊ reduce or suspend notice and hearing requirements under this act in times of an emergency;

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[294]GA. CODE ANN. § 12-5-107.
[295]Id. § 12-5-120 et seq. (1992)
[296]Arkansas Ground Water Protection and Management Act, ARK. CODE ANN. § 15-22-901 et seq. (Mite Supp. 1991).
[297]Id. §15-22-902 (Michie Supp. 1991).
[298]Id.
[299]Id. § 15-22-902 (Michie Supp. 1991).
[300]Id. § 15-22-908. Before designation of such area, the commission must describe the proposed action, the reasons, and the recommended boundaries. The act also requires a holding of a public hearing in each county within the proposed critical area. Id.
[301]Id. § 15-22-909(a)(1) (Michie Supp. 1991).
[302]Id. § 15-22-909(2).
[303]Id. § 15-22-909(3).
[304]Id. § 15-22-909(4).
[305]Id. § 15-22-903(12).
[306]Id. § 15-20-201 (Michie Supp. 1987).

- ◊ issue orders to implement or enforce any provisions of this act;
- ◊ delegate any powers under this act to districts within a critical ground water area;
- ◊ provide technical assistance and establish guidelines to be followed by districts;
- ◊ resolve disputes between districts to which the commission has delegated powers, approving regulations for them, and hearing appeals from their decisions;
- ◊ provide cost-share assistance from the Arkansas Water Development Fund, not to exceed 40 percent, to persons for the installation of approved water conservation and development practices; [307] and
- ◊ develop and implement an education and information program to encourage water conservation.[308]

However, the commission's powers have some limitations. The commission cannot—

- ◊ reduce or limit withdrawals of ground water from existing wells for which a water right is protected by the grandfathering existing wells provisions;[309]
- ◊ regulate withdrawals of ground water from existing or proposed wells that have a maximum potential flow rate of less than 50,000 gallons per day;[310]
- ◊ regulate withdrawals of ground water from individual household wells used exclusively for domestic use;[311] and
- ◊ restrict marketers of bottled water and public water supply systems in the place of use of ground water.[312]

Owner of an existing well can construct a replacement well after abandoning the existing well. However, the original well must be converted to a nonregulated use or plugged in the manner prescribed by the commission.[313]

Two particular ways are possible to obtain a water right. First, a water right may be issued if the applicant is protected by the "grandfathering existing wells" provision. Within 1 year of the initiation of the regulatory program, the commission is required to issue to any applicant a water right for existing wells equal to the average quantity of water withdrawn for beneficial use and reported over the past 3 water years.[314] Moreover, for new wells constructed during the first year of initiation of the regulatory program, the commission is required to issue a water right equal to the quantity of water requested to be withdrawn for beneficial use.[315] Second, an applicant may obtain a water right by applying directly to the

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[307]ARK. CODE ANN. § 15-22-904 (Michie Supp. 1991).
[308]Id. § 15-22-907 (Michie 1987 & Supp. 1991).
[309]Id. § 15-22-905(1)-(2), 15-22-910(a)(1) (Michie Supp. 1991).
[310]Id. § 15-22-905(3).
[311]Id. § 15-22-905(4).
[312]Id. § 15-22-905(6).
[313]Id. § 15-22-905(5).
[314]Id. § 15-22-910(a)(1) (Michie Supp. 1991).
[315]Id. § 15-22-910(a)(2).

commission, subject to the commission's decision to grant the application, deny the application, or grant the application subject to necessary reductions or conditions.[316]

Under this act, water rights are issued for beneficial uses[317] and limited to such time as designated by the commission.[318] In the water right, the commission may also reduce annual withdrawals.[319] In the event that two or more competing applications specifying the same priority are made, the act carefully details a precedence provision giving preference to a renewal over an initial application, and on all renewal applications, consideration must be given to reasonable beneficial use.[320]

A water right may also be canceled—

- ◊ if water is used for a purpose other than that for which the water right was issued;[321]
- ◊ for nonuse or failure to put the water to a reasonable beneficial use, if such nonuse is for a reason other than implementation of conservation measures, crop rotation, conversion to surface water sources, or climatic conditions;[322] or
- ◊ for failure to report water use or to pay the fee for two consecutive years.[323]

The act further emphasizes that in general the place of use described in the water right is the only realty on which the allocated water may be used.[324] A water right recipient acquiring or leasing additional realty, contiguous or noncontiguous, upon application is entitled to an amended water right so as to encompass such realty.[325] Because a water right attaches to and runs with the land, it may not be conveyed or marketed or transferred separate from the realty described in the water right.[326] In addition, a water right is considered to be automatically transferred, meaning that a water right is an incident of surface ownership of the realty and, upon notice to the commission, must be transferred to the new landowner.[327]

Mississippi (region 3).—After repealing the 1976 ground water provisions in 1988,[328] the Mississippi Legislature enacted the Water Resources law to conserve its water resource.[329] The legislature declares the policy that "conjunctive use of ground water and surface water [is] encouraged for the reasonable and beneficial use of all water resources of [Mississippi]."[330]

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[316]ARK. CODE ANN. § 15-22-910(b).
[317]Id. § 15-22-911(a).
[318]Id. § 15-22-911(b) (Michie Supp. 1991) (providing that in determining such time, the commission must give consideration to the time required to reasonably amortize the investments made by the water user for the use of water, the cost, and the useful life of the facility).
[319]Id. § 15-22-911(c) (Michie Supp. 1991).
[320]Id. § 15-22-911(d).
[321]Id. § 15-22-911(e)(1).
[322]Id. § 15-22-911(e)(2).
[323]Id. § 15-22-911(e)(3).
[324]Id. § 15-22-911(f) (Michie Supp. 1991). There are two exceptions to this general rule. They are: (1) replacement wells and (2) in times of emergency. Id.
[325]Id. § 15-22-911(f) (Michie Supp. 1991).
[326]Id. § 15-22-911(g).
[327]Id. § 15-22-911(h).
[328]The former MISS. CODE ANN.§ 51-4-1 through 51-4-19 pertaining to ground water was repealed by Laws, 1988, ch. 312, § 4, effective from and after July 1, 1988.
[329]Water Resources, Regulation and Control, MISS. CODE ANN. § 51-3-1 et seq. (1972 & Supp. 1993).
[330]Id. § 51-3-1 (1972).

In Mississippi, use of State water does not constitute absolute ownership or an absolute right to use such water. Water remains subject to the principle of beneficial use.[331] Beneficial use is defined to mean the "application of water to a useful purpose as determined by the commission, [but] excluding waste of water."[332] Thus, applications must be carefully examined to determine whether all requirements and standards are met.[333]

Like other states' laws regulating ground water, Mississippi Water Resources law also requires water users to obtain permits, unless exempted by the law.[334] Some of these exemptions include—

- ◊ use for domestic purposes,
- ◊ use of surface water in impoundments that are not located on continuous, free-flowing watercourses,
- ◊ use of water obtained from a well that has a surface casing diameter of less than 6 inches.[335]

However, these exemptions are not applicable to persons in the business of developing real property for resale.[336] Permit holders using more than 20,000 gallons per day may be required to file reports to the commission.[337] Because permits last for 10 years or less,[338] permit holders may seek reissuance of permits. However, the board may modify, terminate, or decline to reissue a permit upon a showing of good cause.[339]

The law provides that any person proposing to construct, enlarge, repair, or alter a dam or reservoir must obtain written authorization from the board before proceeding with the construction.[340]

The State Permit Board—serving as the authority to grant permits[341]—has the following powers:

- To grant a permit with conditions upon issuance as it reasonably deems necessary to effectuate the purposes of the Mississippi law.
- To grant any temporary or emergency permit for a period.
- To modify or revoke any permit upon not less than 60 days' written notice to the permittee affected.
- To impose sanctions as the board deems appropriate for failure to conform with permit conditions.
- To delegate authority to any joint water management district to receive, investigate, and make recommendations to the board regarding applications for permits.

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[331] MISS. CODE ANN. § 51-3-13.
[332] Id. § 51-3-3(e).
[333] Id. § 51-3-13.
[334] Id. § 51-3-5(1).
[335] Id. § 51-3-7(1) (1972).
[336] Id. § 51-3-7(1).
[337] Id. § 51-3-23.
[338] Id. § 51-3-9(1).
[339] Id. § 51-3-9(3).
[340] Id. § 51-3-39 (1972).
[341] Id. § 51-3-15(1).

- To require all abandoned bore holes and wells more than 25 feet deep to be properly plugged to prevent ground water contamination.[342]

In assisting waterway, river basin, and watershed authorities and districts,[343] the law provides a different set of duties and powers to the Bureau of Land and Water Resources through the Division of Regional Water Resources. They are as follows:

- To offer assistance, as deemed appropriate, to the various authorities and districts in the performance of any of their powers and programs.
- To inform authorities and districts of the activities and experiences of all other such authorities and districts, and to facilitate an interchange of experiences among such authorities and districts.
- To coordinate the programs of the various authorities and districts.
- To secure the cooperation and assistance of the United States and any of its agencies, and of other agencies of Mississippi in the work of such authorities and districts.
- To disseminate information throughout the state regarding the activities and programs of the various authorities and districts and to encourage the formation of such authorities and districts in areas where their organization is desirable.
- To seek and receive grants of moneys and other assets from any legitimate sources.
- To distribute any appropriated or other funds or assets in its custody or under its control, from State, Federal, or other governmental agencies or political subdivisions, or from private grants.
- To give guidance and overall supervision to districts when such assistance is required or acceptable.
- To receive, file, and review permit applications and notices of claims and any other documents regarding water uses and rights.
- To serve as the repository for information gathered or filed under the Mississippi Water Resources law.[344]

Through its Bureau of Land and Water Resources, the Commission on Natural Resources must study the existing water resources in Mississippi and formulate a state water management plan.[345] In formulating this plan, the commission must consider a number of factors, including—

- ◊ the attainment of maximum beneficial use of water;
- ◊ the maximum economic development of water resources, consistent with other uses;
- ◊ the control of such water for the purposes of environmental protection, drainage, flood control, and water storage;
- ◊ the quantity of water available for application to a beneficial use;
- ◊ the prevention of wasteful, uneconomical, impractical, or unreasonable uses of water resources, including free-flowing wells;

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[342]MISS. CODE ANN. § 51-3-15(2).
[343]For the list of the authorities and districts that are allowed to receive assistance from the Division of Regional Water Resources, Id. § 51-3-18.
[344]Id. § 51-3-16 (1972).
[345]Id. § 51-3-21(1)

- ◊ presently exercised domestic or exempted uses and permit rights;
- ◊ the preservation and enhancement of the water quality of the State and the provisions of the State water quality plan;
- ◊ the State water resources policy; and
- ◊ the allocation of surface water and ground water in those situations in which the Governor has declared an emergency situation.[346]

In addition to the above duty, the commission has the following duties and powers:

- To negotiate and recommend to the Mississippi Legislature compacts and agreements regarding the state's share of water flowing in watercourses where a portion of such water is contained within the territorial limits of a neighboring state.[347]
- To enter upon private or public lands for the purpose of inspecting waterworks, making surveys, or conducting tests or examinations necessary for the gathering of information on water resources or uses, subject to responsibility for any damage done to property entered.[348]
- To serve as the enforcement agency for the Permit Board when the board determines that sanctions available to it are not sufficient to achieve compliance with the laws.[349]

Well drillers must be licensed[350] and keep accurate records on each water well drilled and file a report containing such information to the State board of water commissioners.[351]

The board of water commissioners may revoke a driller's license if one of the numerated grounds is established, including—

- ◊ material misstatement in the application for license;
- ◊ willful violation of this chapter's provision;
- ◊ obtaining license by fraud or misrepresentation;
- ◊ guilty of fraudulent or dishonest practices;
- ◊ lack of competence as a well driller;
- ◊ failure to file reports as required; and
- ◊ willful disobedience of reasonable orders, rules, regulation of the board.[352]

Furthermore, like other state laws, the Mississippi law also imposes civil penalties on persons who violate the license requirement or the board's order.[353]

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[346]MISS. CODE ANN. § 51-3-21(1972 & Supp. 1993)
[347]Id. § 51-3-41 (1972).
[348]Id. § 51-3-43.
[349]Id. § 51-3-55(1).
[350]Id. § 51-5-1. For qualifications for license, Id. § 51-5-3.
[351]Id. § 51-3-13.
[352]Id. § 51-3-11.
[353]Id. § 51-5-17.

Wisconsin (region 4).—In 1983, Wisconsin enacted the Groundwater Protection Standards Law to regulate its ground water,[354] with the intent to minimize the concentration of polluting substances in ground water by using numerical standards in all ground water regulatory programs.[355] Wisconsin is among a few States that control ground water through systematic numerical standards for regulatory programs.

The Department of Natural Resources has responsibility to establish enforcement standard[356] and develop and operate a system for monitoring and sampling ground water[357] The Department of Health and Social Services, however, is responsible for making recommendations to the Department of Natural Resources regarding enforcement standards for public health concerns.[358]

Each regulatory agency submits to the department a list of those substances that are related to facilities, activities, and practices within its authority to regulate.[359] The department must consider these substances according to the three categories and rankings established by this law. The substances are classified in the following three categories:

Category 1—If a substance is detected in ground water in concentrations in excess of a Federal number for that substance.[360] Category 1 includes the following substances: aldicarb, arsenic, bacteria (as total coliform), barium, benzene, carbofuran, chloride, chromium, color, copper, cyanide, fluoride, foaming agents measured as methylene blue active substances (MBAS), hydrogen sulfide, iron, lead, manganese, methylene chloride, nitrate (including nitrite and nitrogen), odor, radioactivity (specifically radium 226 and 228 and uranium), selenium, sulfate, tetrachloroethylene, total residue, trichlorethylene, and zinc.[361]

Category 2—If the substance is detected in ground water and is of public health or welfare concern but is not detected in concentrations in excess of a Federal number, or is one for which there is no Federal number.[362]

Category 3—If the substance has a reasonable probability of being detected in ground water and is of public health or welfare concern.[363]

The substance within its category is ranked as follows: The substances that pose the greatest risks to the health or welfare of the Wisconsinites, taking into consideration, among other things, other characteristics including carcinogenicity, teratogenicity, mutagenicity, and interactive effects.[364]

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[354]Groundwater Protection Standards, WIS. STAT. ANN. § 160.001 (West 1989 & Supp. 1993).
[355]Id. § 160.001, For an interesting article about ground water contamination, see David A. Belluck & Sally L. Benjamin, *Groundwater Contamination*, 63 WIS. LAW. 17 (1990).
[356]Id. § 160.07.
[357]Id. § 160.27.
[358]Id. § 160.07(3).
[359]Id. § 160.05(1).
[360]Id. § 160.05(3)(a).
[361]WIS. STAT. ANN. ,1983 Act 410, § 2038(4).
[362]Id. § 160.07 (3) (a).
[363]Id. § 160.05(3)(c).
[364]Id. § 160.05(4).

In determining whether a substance is of public health concern, the Department of Natural Resources must take into account the degree to which the substance may—

- ◊ cause or contribute to an increase in mortality;
- ◊ cause or contribute to an increase in illness or incapacity, whether chronic or acute;
- ◊ pose a substantial present or potential hazard to human health because it
  - causes or contributes to other adverse human health effects or changes of a chronic or subchronic nature even if not associated with illness or physical, chemical or infectious characteristics; incapacity;[365] or
  - causes or contributes to other effects reasonably related to public health.[366]

In determining whether a substance is of public health concern, the department must take into account whether the substance may—

- ◊ influence the aesthetic suitability of water for human use;
- ◊ influence the suitability of water for uses other than human drinking water;
- ◊ have a substantial adverse effect on plant life or animal life,[367] or
- ◊ cause other characteristics reasonably related to public welfare.[368]

Moreover, each regulatory agency must promulgate rules, with public participation, according to the enforcement standard or a prevention action limit adopted by the Department of Natural Resources.[369]

The Wisconsin Underground Water Protection Standards Law is unique for setting forth a specific provision regarding the participation of American Indian tribes and bands. This provision provides that the Department of Natural Resources must cooperate with American Indian tribes and bands with the approval of the tribal governing body for the purposes of—

- ◊ providing advice and assistance to American Indians who wish to establish a ground water monitoring or regulatory program on the lands of any American Indian tribe or band;
- ◊ obtaining for state use any information on ground water quality which results from a monitoring program conducted by American Indians;
- ◊ using State resources to conduct ground water monitoring or regulatory activities on the lands of any American Indian tribe or band; and
- ◊ sharing with an American Indian tribe or band the results of ground water monitoring conducted by the department or other agencies that relate to the potential contamination of ground water under the lands of that American Indian tribe or band.[370]

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[365]WIS. STAT. ANN. § 160.05(6)(b).
[366]Id. § 160.05(6)(c).
[367]Id. § 160.05(6)(d).
[368]Id. § 160.05(6)(e).
[369]Id. § 160.21.
[370]Id. § 160.36.

Iowa (region 5).—In 1987, Iowa enacted the Groundwater Protection Act,[371] with the goal of "prevent[ing] contamination of ground water from point and nonpoint sources of contamination to the maximum extent practical, and if necessary . . . restor[ing] the ground water to a potable state, regardless of present conditions, use, or characteristics." [372]

The act states a number of ground water protection policies. They are as follows:

- Prevent further contamination of ground water from any source.[373]
- Require appropriate actions to prevent further contamination at the discovery of any ground water contamination. These actions may consist of investigation and evaluation or enforcement actions if necessary to stop further contamination as required under the ground water protection program evaluation.[374]
- All persons in the State have the right to have their lawful use of ground water unimpaired by the activities of any person which render the water unsafe or unpotable.[375]
- All persons in the State have the duty to conduct their activities so as to prevent the release of contaminants into ground water.[376]
- Documentation of any contaminant that presents a significant risk to human health, the environment, or the quality of life must result in either passive or active cleanup. In both cases, the best technology available or best management practices will be used. The Department of Natural Resources shall adopt rules that specify the general guidelines for determining the cleanup actions necessary to meet the goals of the State and the general procedures for determining the parties responsible. Until the rules are adopted, the absence of rules will not be raised as a defense to an order to clean up a source of contamination.[377]
- Adopting health-related ground water standards may be of benefit in the overall ground water protection or other regulatory efforts of the State. However, the existence of such standards, or lack of them, will not be construed or used in derogation of the ground water protection goal and protection policies of the State.[378]
- The department must take actions necessary to promote and assure public confidence and public awareness. In pursuing this goal, the department must make public the results of ground water investigations.[379]
- Education of the people of Iowa is necessary to preserve and restore ground water quality. The content of this ground water protection education must assign obligations, call for sacrifice, and change some current values. Educational efforts should strive to establish a conservation ethic among

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[371]Iowa Groundwater Protection Act of 1987, IOWA CODE ANN. § 455E.1 et seq. (West 1990 & Supp. 1993).
[372]Id. § 455E.4 (West 1990).
[373]Id. § 455E.5(1).
[374]Id. § 455E.5(2). Id. § 455E.8(1).
[375]Id. § 455E.5(3).
[376]Id. § 455E.5(4).
[377]Id. § 455E.5(5).
[378]Id. § 455E.5(6).
[379]Id. § 455E.5(7).

Iowans and should encourage each Iowan to go beyond enlightened self-interest in the protection of ground water policy.[380]

The Department of Natural Resources is designated as the primary agency to coordinate and administer ground water protection programs for Iowa.[381] The director of the department has a number of powers and duties including—

- ◊ developing and administering a comprehensive ground water monitoring network;[382]
- ◊ including in the annual report the number and concentration of contaminants detected in ground water;[383]
- ◊ reporting to the U.S. EPA any data concerning the contamination of ground water by a contaminant not regulated under the Federal Safe Drinking Water Act;[384]
- ◊ completing ground water hazard mapping of the State and making the results available to State and local planning organizations;[385]
- ◊ establishing system(s) within the department for collecting, evaluating, and disseminating ground water quality data and information;[386]
- ◊ developing and maintaining a natural resource geographic information system and comprehensive water resource data;[387]
- ◊ developing, and adopting by administrative rule, criteria for evaluating ground water protection programs;[388]
- ◊ taking any action authorized by law, including investigatory and enforcement actions;[389]
- ◊ disseminating data and information to the public to the greatest extent practical;[390] and
- ◊ developing a program, in consultation with the Department of Education and the Department of Environmental Education, regarding water quality issues that shall be included in the minimum program required in grades seven and eight.[391]

The Environmental Protection Commission is authorized to adopt rules to implement this law.[392] Moreover, political subdivisions are encouraged to implement ground water protection policies within their jurisdictions as long as the implementation is consistent with the department's rules.[393]

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[380]IOWA CODE ANN. § 455E.5(8).
[381]Id. § 455E.7. The Department of Natural Resources is created under § 455A.2.
[382]Id. § 455E.5(1).
[383]Id. § 455E.5(2).
[384]Id. § 455E.8(3).
[385]Id. § 455E.8(4).
[386]Id. § 455E.8(5).
[387]Id. § 455E.8(6) (West 1990).
[388]Id. § 455E.8(7).
[389]Id. § 455E.8(8).
[390]Id. § 455E.8(9).
[391]Id. § 455E.8(10).
[392]Id. § 455E.9 (West 1990). The Environmental Protection Commission was created under § 455A.6.
[393]Id. § 455E.10(2).

The Iowa Groundwater Act provides that a ground water protection fund is to be created in the state treasury.[394] From this fund, a number of accounts are created, including a solid waste account,[395] the agriculture management account,[396] a household hazardous waste account,[397] a storage tank management account,[398] and an oil overcharge account.[399]

Nebraska (region 5).—The Nebraska Ground Water Management Act and Protection Act covers three particular areas: ground water control areas, ground water management areas, and special protection areas.[400]

Under this act, the Nebraska Legislature emphasizes that ground water is one of the most valuable natural resources.[401] Following the *reasonable use* doctrine, every landowner is entitled only to a reasonable and beneficial use of the ground water underlying such person's land.[402]

The Nebraska Act provides that the director may designate a control area, following a hearing and evaluation.[403] The evaluation consists of a variety of parts, including—

- ◊ relevant hydrologic and water quality data;
- ◊ history of development; and
- ◊ projection of effects of current and new development, and whether such development and use of ground water supply has caused or is likely to cause an inadequate ground water supply or dewatering of an aquifer within the reasonably foreseeable future.[404]

In addition to the previously mentioned criteria, the director must consider other factors such as—

- ◊ whether conflicts between ground water users are occurring or may be reasonably anticipated; or
- ◊ whether ground water users are experiencing (or will experience within the foreseeable future) substantial economic hardship as a direct result of current or anticipated ground water development or use.[405]

At the hearing, all interested persons are permitted to appear and present testimony.[406] If the director determines that a control area shall be established, the director must consult with the State agencies, including Conservation and Survey Division of the University of Nebraska, the Nebraska Natural Resources

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[394]IOWA CODE ANN. § 455E.11(1).
[395]Id. § 455E.11(2)(a) (West 1990 & Supp. 1993). Id. § 455E.11(2)(b).
[396]Id. § 455E.11(2)(b).
[397]Id. § 455E.11(2)(c).
[398]Id. § 455E.11(2)(d) (West 1990).
[399]Id. § 455E.11(2)(e).
[400]Nebraska Ground Water Management And Protection Act, NEB. REV. STAT. § 46-656 et seq. For an interesting article regarding Nebraska's Groundwater Control Law and nitrate contamination control, see Susan A. Schneider, *The regulation of Agricultural Practices to Protect Groundwater Quality: The Nebraska Model for Controlling Nitrate Contamination,* 10 VA. ENVTL. L.J. (1990).
[401] Nebraska Ground Water Management And Protection Act, NEB. REV. STAT. § 46-656
[402]Id.
[403]Id. § 46-658(1).
[404]Id.
[405]NEB. REV. STAT. § 46-658(2)
[406]Id. § 46-658(4)(b).

Commission, the Department of Environmental Control, and affected district(s).[407] In determining the boundaries of the control area, the director must also consider a number of provided factors.[408] Once the boundaries have been determined, the director is required to issue an order designating such area as the control area and provide notice of the order.[409] The act allows the control area's modification or dissolution; however, it emphasizes that modification or dissolution may not be initiated more often than once a year.[410]

A permit is required to construct a well in a control or management area.[411] An application for a permit or a late permit is denied only if the district in which the proposed well is to be located finds that—

- ◊ the location or operation of the proposed or other work would conflict with any regulations or controls adopted by the district;
- ◊ the proposed use would not be a beneficial use of water for domestic, agricultural, manufacturing, or industrial purposes; or
- ◊ the applicant did not act in good faith in failing to obtain a timely permit (in the case of a late permit only).[412]

Moreover, when the permit is approved, the applicant must start construction as soon as possible after the date of approval. If the applicant fails to complete the project within the permit's terms, the district may withdraw the permit.[413]

Regardless of whether or not any portion of a district has been designated as a control, management, or special ground water quality protection area, a district has a number of powers to administer and enforce this act. These powers include—

- ◊ adopting and promulgating rules and regulations necessary to discharge the administrative duties assigned in the act;
- ◊ requiring such reports from ground water users as may be necessary;
- ◊ conducting investigations and cooperating or contracting with agencies of private corporations or any association or individual on any matter relevant to the administration of the act;
- ◊ reporting to and consulting with the Department of Environmental Control on all matters regarding the entry of contamination or contaminating materials into ground water supplies; and
- ◊ issuing cease and desist orders, following 10 days' notice to the person affected.[414] However, before any rule or regulation is adopted, a public hearing must be held.[415]

Following the designation of any area as a control area, the district must hold a public meeting to determine the type of control to be imposed within that control area.[416] The district may adopt one or more of the following types of control—

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[407]NEB. REV. STAT. § 46-658(4)(c).
[408]Id.
[409]Id. § 46-658(4)(e).
[410]Id. § 46-658(4)(b)
[411]Id. § 46-659(1).
[412]Id. § 46-660.
[413]Id. § 46-662.
[414]Id. § 46-663.
[415]Id. § 46-663.01
[416]Id. § 46-665.

◊ determine the permissible total withdrawal of ground water for each day, month, or year and allocate such withdrawal among the ground water users;

◊ adopt a system of rotation for use of ground water;

◊ adopt well-spacing requirements more restrictive than those provided by this act; and

◊ adopt and promulgate such other reasonable rules and regulations as are necessary to carry out the purpose for which a control area was designated.[417]

New Mexico (region 6).—In 1990, New Mexico enacted the Ground Water Protection Act, that was amended in 1992, to

> "provide substantive provision and funding mechanisms that will enable the state to take corrective action at sites contaminated by leakage from underground storage tanks." [418]

This act created a seven member underground storage tank committee, which consists of one secretary (or its designee) and six appointed members.[419] The membership of the committee reflects the New Mexico Legislature's great concern about contaminating leakage into ground water. The committee consists of individuals from different groups such as the fire protection districts, elected local government officials, wholesalers of motor fuels, independent retailers of motor fuels, individuals knowledgeable about corrective actions in connection with leaking underground storage tanks, and private citizens or interest groups.[420]

The six appointed members have staggered appointments, that is, two for 1 year, two for 2 years, and two for 3 years.[421] Staggered opportunities are used to ensure management continuity. For example, if the terms of two members expire and two new members are appointed to the board, the business of the board would still continue because four members' terms have not expired.

The act authorizes the committee to:

- Recommend proposed regulations to the board or the secretary.
- Establish procedures, practices, and policies governing the committee's activities.
- Review all proposed corrective action plans of the department and submit comments on the plans to the secretary.
- Review all proposed payments from the corrective action fund and submit its comments on the proposed payments to the secretary.[422]

The Environmental Protection Board is authorized to adopt regulations for establishing priorities for corrective action at sites contaminated by underground storage tanks, after recommendations from the underground storage tank

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[417]NEB. REV. STAT. § 46-666(1).
[418]Ground Water Protection Act, NEW MEXICO STAT. ANN. § 74-6B-2 (Michie Supp. 1993).
[419]Id. § 74-6B-4.A.
[420]Id. §
[421]Id. § 74-6B-4.B.
[422]Id. § 74-6B-4.C.

committee.[423] However, only the Department of the Environment can make expenditures from the corrective action fund in accordance with regulations adopted by the board or the secretary.[424]

The New Mexico Ground Water Protection Act also creates a corrective action fund.[425] From it an owner or operator who has or will perform corrective action, in accordance with applicable environmental laws and regulations, can apply to the department for payment of the costs of corrective action.[426] In 1992, the New Mexico Legislature appropriated $200,000 from the corrective action fund. However, this appropriation was made upon two contingencies—

- ◊ the Department of the Environment adopts regulations pursuant to the 1992 act, and
- ◊ any unexpended or unencumbered balance remaining at the end of this fiscal year will revert to the action fund.[427]

In 1993, the legislature also appropriated $2,000,000 from the State road fund and $3,000,000 from the corrective action fund to the Department of Finance and Administration to pay for studies, services, and corrective activities associated with the Terrero mine cleanup project and reclamation of the El Molino mill tailings site. The 1993 appropriation also demanded reversion of any unexpended or unencumbered balance to the fund from which the appropriation was made.[428]

The New Mexico Act is unique, for it created an early response team, responsible for requests from municipalities or counties for advice and technical assistance regarding alleged releases from underground storage tanks owned or operated by the municipalities or counties.[429]

Texas (regions 6 & 7).—Because ground water is an important resource in Texas,[430] Texas Underground Water Conservation Districts law is detailed and complete.[431] Under the general provision, it recognizes and declares that the ownership and rights of the ground water belong to the landowner and his or her lessees and assigns.[432] It further specifies that the laws and administrative rules regarding the use of surface water do not apply to ground water,[433] and the rules adopted by a district apply only within the boundaries of the districts.[434]

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[423]NEW MEXICO STAT. ANN. § 74-6B-7.B
[424]Id. § 74-6B-7.C.
[425]Id. § 74-6B-2 (Michie Supp. 1993).
[426]Id. § 74-6B-13
[427]Laws 1992, ch. 64, § 12, effective March 9, 1992.
[428]Laws 1993, ch. 366, § 3G, effective June 18, 1993.
[429]Id. § 74-6B-12 (Michie Supp. 1993).
[430]D.L. Reddell & J.M. Sweeten, *Management of Groundwater Through Underground Water Conservation Districts in Texas*, NON-POINT WATER QUALITY CONCERNS—LEGAL AND REGULATORY ASPECTS, 1989 National Symposium, American Society of Agricultural Engineers 100 (1989).
[431]Underground Water Conservation Districts Law, TEX. WATER CODE ANN. § 52.001 et seq. (West 1972 & Supp. 1995)
[432]Id. § 52.002 (West 1972). Under the common law of Texas, the owner of land owns soil and percolating water, which is part of soil. *U.S. v. Shurbert* (C.A. 1965), 347 F.2d 103. *Underground water* includes water percolating below surface and does not include subterranean streams or underflow of rivers. *Bartley v. Sone* (Civ. App. 1975), 527 S.W.2d 754.
[433]TEX. WATER CODE ANN. § 52.003 (West 1972).
[434]Id. § 52.004 (West Supp. 1995).

The act provides that the ground water conservation district may be created in one of three ways:

- By a special legislative act.[435]
- By petition to the Texas Water Commission by landowners or land operators in the proposed district.[436]
- By the Texas Water Commission identifying *critical* ground water areas of the State.[437]

The first mechanism is self-explanatory; the Texas Legislature may create a district on its own initiative.

The process of creating a district by petition by the landowners is similar to the creation of soil conservation districts: the petition requesting creation of a district must be filed and signed by a majority of landowners,[438] notice of the petition must be given, and a public hearing must be held;[439] findings of public benefit or utility must be completed,[440] and grant or denial of petition must follow.[441]

The provision establishing *critical* ground water areas provides that after an area is designated *critical* by the Texas Water Commission,[442] the voters have a number of options, including—

- ◊ voting to create a new ground water conservation district,
- ◊ voting to joint an existing ground water conservation district, or
- ◊ voting not to do anything.

However, if the voters reject the creation of a district after being designated as a critical area, the area becomes ineligible to receive State financial assistance (low-interest loans or grants) to develop water supplies or water treatment systems.[443]

The Texas law also provides for adding certain territory not included in a district into an already existing district by petition,[444] consolidating two or more districts into one district,[445] and dissolving a district.[446]
Districts may be formed to conserve, preserve, protect, recharge, and prevent waste of the underground water reservoirs or their subdivisions and to control subsidence caused by ground water withdrawals.[447] Districts are authorized with both mandatory and encouraged duties.

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[435]TEX. WATER CODE ANN. § 52.022.(1), *amended by* Acts 1985.
[436]Id. § 52.031, *added by* Acts 1985.
[437]Id. § 52.052 to 52.056 (West Supp. 1995), *added by* Acts 1985.
[438]Id. § 52.033. Id. § 52.031 (West Supp. 1995), *added by* Acts 1989. If there are more than 50 landowners in the proposed district, the petition must be signed by at least 50 of those landowners. Id.
[439]Id. § 52.032 (West Supp. 1995), *added by* Acts 1989.
[440]Id. § 52.033, *added by* Acts 1989.
[441]Id. § 52.033.
[442]Id. § 52.053 (West Supp. 1995), *added by* Acts 1989.
[443]Id. § 52.063, *renumbered* by the 1989 amendment from § 52.0611, *amended by* Acts 1991.
[444]Id. § 52.525, *added by* Acts 1989, and *amended by* Acts 1991, 72nd Leg., ch. 701, § 8, eff. Sept. 1, 1991.
[445]Id. § 52.541 (West Supp. 1995), *added by* Acts 1989.
[446]Id. § 52.501, *renumbered* from § 52.401 by Acts 1985, *amended by* Acts 1989. The 1989 amendment repealed subsec. (c) of the former § 52.401, which provided that the section did not apply to any district composed of territory in more than one county.
[447]Id. § 52.021 (West Supp. 1995).

Mandatory duties for ground water conservation districts include:

- Develop a comprehensive management plan for the most efficient use of ground water and for controlling and preventing waste of ground water and subsidence.[448]
- Keep records of drilling, equipping, and completing of water wells and of the production and use of ground water.[449]
- Require that accurate drillers' logs be kept of water wells and that copies of drillers' logs and electric logs be filed with the district,[450]
- Require a permit for the drilling, equipping, or completing of wells that produce more than 25,000 gallons per day,[451] or for substantially altering the size of wells or well pumps, or for all of these operations.[452]
- Provide information to the commission and water development board regarding its plans and activities in conserving and protecting ground water resources.[453]
- Perform an annual audit of financial records,[454] which must be open to inspection.[455]
- Operate on the fiscal year basis.[456]
- Prepare and approve an annual budget.[457]
- Hold a public hearing on the annual budget.[458]
- Publish all their rules and regulations.[459]

Encouraged activities of the ground water conservation districts are as follows:

- Make and enforce rules to conserve, preserve, protect, recharge, control subsidence, and prevent ground water waste.[460]
- Carry out research projects, develop information, and determine the limitations that should be made on withdrawing ground water.[461]
- Develop plans for the most efficient use of ground water.
- Collect information regarding the use of ground water and the practicability of recharging a ground water reservoir.[462]

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[448]TEX. WATER CODE ANN. § 52.160.
[449]Id. § 52.164. The 1985 amendment renumbered this section from former § 52.112 and in the text of this section substituted "shall" for "may". In other words, this duty was not mandatory before the 1985 amendment.
[450] Id. § 52.164. The 1985 amendment renumbered this section from the former § 52.112 and in the text substituted "shall" for "may". In other words, this duty was not mandatory before the 1985 amendment.
[451]Id. § 52.168. The 1985 renumbered this section from the former § 52.116 and substituted "25,000" for "100,000", meaning that, permit may be needed only if a well is expected to produce 100,000 gallons of water per day. For other exceptions from permit requirement, *see* § 52.170.
[452]TEX. WATER CODE ANN. § 52.166. The 1985 amendment renumbered this section from the former § 52.114 and it substituted "shall" for "may", meaning that, this duty was not mandatory before the 1985 amendment.
[453]Id. § 52.173.-This section is added by Acts 1985, 69th Leg., ch. 133, § 5.01 and was slightly amendment in 1989.
[454]Id. § 52.252 (West Supp. 1995), *added by* Acts 1985, 69th Leg., ch. 133, § 5.01.
[455]Id. § 52.253, *added by* Acts 1985.
[456]Id. § 52.251.
[457]Id. § 52.254, *added by* Acts 1985.
[458]Id. § 52.255.
[459]Id. § 52.152, *renumbered* from § 52.102 by Acts 1985.
[460]Id. § 52.151 (West Supp. 1995).
[461]Id. § 52.161.
[462]Id. § 52.162.

- Publish its plans and the information it develops, bring them to the attention of the users of ground water in the district, and encourage the users to adopt and use them.[463]
- Provide the spacing for water wells and regulate the production of water from wells.[464]
- Enforce the Underground Water Conservation District law and its rules by injunction, mandatory injunction, or other appropriate remedy in a court of competent jurisdiction.[465]
- Acquire land and construct facilities and equipment to recharge the aquifer.[466]
- Purchase, well, transport, and distribute surface water or ground water for any purpose.[467]
- Exercise the power of eminent domain to acquire by condemnation a fee simple or other interest in property located within the district if the property interest is necessary to the exercise of the authority conferred by the Underground Water Conservation District Law.[468]
- Make surveys of ground water reservoir or subdivision and surveys of facilities for development, production, transportation, distribution, and use of water.[469]
- Levy taxes annually to pay for bonds, operating, and maintenance expenses.[470]

In addition to the above powers, the ground water conservation districts which were created by the Texas Legislature for specific purposes (i.e., prevention of land subsidence or carrying out a specific recharge project) may have specific powers and duties that were given to them in their enabling legislation.[471]

The Texas law provides that the governing body of a district is the board of directors, which consists of not less than 5 and not more than 11 directors elected for a 4-year term.[472] These directors are elected according to the precinct method; that is, the residents in each elect one member to the board of directors.

precinct.[473] Midterm vacancies are filled by appointment of the board until the next election for directors.[474] The board of directors responsibilities include administering the district's programs, approving rules and regulations related to underground water, and approving the district's annual budget. It is also allowed to hire a staff to conduct daily affairs of the district. The staff may also include a

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[463]TEX. WATER CODE ANN. § 52.163.
[464]Id. § 52.169, *renumbered* from former § 52.117 by 1985 amendment.
[465]Id. § 52.153 (West Supp. 1995). The 1985 amendment renumbered this section from former § 52.103 and inserted "this chapter and".
[466]Id. § 52.155. This section is renumbered from § 52.104 and amended by Acts 1985.
[467]Id. § 52.156. This section is renumbered from § 52.105 and amended by Acts 1985.
[468]Id. § 52.157, *added by* Acts 1985.
[469]Id. § 52.159 (West Supp. 1995), *renumbered and amended by* the 1985 amendment.
[470]Id. § 52.351.
[471]D.L. Reddell & J.M. Sweeten, *Management of Ground water Through Underground Water Conservation Districts in Texas*, NON-POINT WATER QUALITY CONCERNS—LEGAL AND REGULATORY ASPECTS, 1989 National Symposium, American Society of Agricultural Engineers 103 (1989).
[472]TEX. WATER CODE ANN. § 52.1181 (West Supp. 1995), *added by* Acts 1989, eff. Sept. 1, 1989.
[473]Id. § 52.102 (noting that the precinct method is prescribed by Chapter 12, page 1105, Special Laws, Acts of the 46th Legislature, Regular Session, 1939).
[474]Id. § 52.110 (West Supp. 1995), *added by* Acts 1989.

general manager who has full authority in management and operations of the district's affairs, and is subject only to orders of the board.[475]

Idaho (region 8).—Idaho preserves its ground water through its Ground Water Management Districts law[476] that provides that a ground water conservation district may be formed by petition to the Department of Water Resources by landowners in the proposed district.[477]

According to this law, a 3-member board of directors will govern each district, where each must be a water user or a representative of a water user within the district.[478] The first board of directors will be appointed by the director of the Department of Water Resources, where one member will serve for 3 years, one for 2 years, and one for 1 year. Vacancies are filled by appointment.[479]

To manage ground water effectively, districts are charged with the following mandatory duties:

- Manage and conduct the business and affairs of the district.
- Employ and appoint agents, employees, or officers to perform the duties prescribed by districts or by this law.
- Incur indebtedness for the purpose of financing repair or abandonment of wells in the districts.
- Levy assessments for the retirement of indebtedness incurred.
- Contract with owners of wells in the district that require repair or abandonment as ordered by the director of the Department of Water Resources.
- Contract with the director to evaluate proposed contracts with well owners to evaluate the repairs or other work.
- Adopt rules and regulations.
- Accept gifts and grants in furtherance of the purposes of this law.
- Enter upon any land to make inventories, surveys, and monitoring or construction inspections.
- Do any and every lawful act necessary to carry out the provisions of this law.
- Report to the director concerning the operations of the district.
- Submit to the director an annual financial report.[480]

After the formation of a district, water users who are included within the district can file with the board a petition requesting exclusion from the district.[481] Water users must satisfy the grounds for exclusion set forth by the law. The water users

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[475]TEX. WATER CODE ANN. § 52.118, *added by* Acts 1989.
[476]Ground Water Management Districts Law, IDAHO CODE § 42-5101 et seq.
[477]Id. § 42-5102.
[478]Id. § 42-5104(1).
[479]Id. § 42-5104(2)-(3).
[480]Id. § 42-5112.
[481]Id. § 42-5128.

must show that they either will not be benefited by the functioning of the district[482] or have not benefited by the functioning of the district.[483]

Idaho also protects the quality of ground water through its Ground Water Quality Protection Act[484] This act maintains ground water for beneficial uses such as for drinking water and for industrial and agricultural water supplies.

The act designates the Department of Health and Welfare as the primary agency for coordinating and administering ground water quality protection programs for the State.[485] Together with the Department of Water Resources, the Department of Agriculture, and the Ground Water Quality Council, these agencies:[486]

- Implement a ground water monitoring plan.[487]
- Prepare an annual report detailing the amount and concentration of pollutants in ground water by location.[488]
- Establish a system or number of systems within the state departments and political subdivisions for collecting, analyzing, and distributing ground water quality data information.;[489]
- Develop water and natural resource information systems that are accessible to the public.[490]

Upon consultation with the Ground Water Quality Council, the Board of Health and Welfare may adopt ground water quality standards for contaminants for which the Administrator of the Environmental Protection Agency has fixed drinking water maximum contaminant levels.[491] The board may also adopt standards for contaminants for which the administrator has not established such drinking water maximum contaminant levels provided that they meet with the goals of this act.

The Ground Water Quality Council is responsible for developing and administering a ground water quality protection plan.[492] This plan shall outline the State's policy for protecting its ground water by considering existing beneficial uses of ground water[493] and by identifying programs that protect ground water quality.[494] The plan involves proposing legislation to protect ground water quality as well as establishing administrative and economic programs for this goal.[495] Furthermore, the plan includes recommendations for the establishment of a comprehensive ground water monitoring network and for instituting programs to foster public

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[482]IDAHO CODE § 42-5126 (1)(a). Petition based on this ground must be filed within 90 days after the adopting of a resolution to incur indebtedness. Petition filed after this period must show good cause for the delay to be considered.
[483]Id. § 42-5126(1)(b). It should be noted that petition based on this ground must be filed no later than 5 years after the adoption of a resolution to incur indebtedness.
[484]Id. § 39-102.
[485]Id. § 39-120(1).
[486]Id. § 39-120(2).
[487]Id. § 39-120(2)(a).
[488]Id. § 39-120(2)(b).
[489]Id. § 39-120(2)(c).
[490]Id. § 39-120(2)(d).
[491]Id. § 39-120(4).
[492]Id. § 39-123(1).
[493]Id. § 39-123(2)(b).
[494]Id. § 39-123(2)(c).
[495]Id. § 39-123(2)(d).

awareness of ground water protection. All State agencies must incorporate this ground water quality protection plan in their programs.[496]

Utah (region 8).—Utah Appropriation Law provides that appropriation of water must be for some useful and beneficial purpose, and, as between appropriators and relying on the doctrine of prior appropriation, the person first in time shall be first in rights.[497]

All persons must apply to the state engineer before commencing the construction, enlargement, extension, or structural alteration of any ditch, canal, well, tunnel, or other distributing works.[498] After receiving the application, the state engineer must examine and determine whether to issue a temporary permit to appropriate water for beneficial purposes,[499] or to approve or reject the application.[500] Moreover, before the application is granted or denied, any person interested in the appropriation may file protest with the state engineer.[501]

In addition, the Utah law sets up a priority standard among appropriators that gives appropriators priority among themselves according to the dates of their respective appropriations. Each appropriator is entitled to receive his or her whole supply before any subsequent appropriator can have any right. Furthermore, in times of scarcity, the use for domestic purposes, without unnecessary waste, has preference over use for all other purposes, and the use for agricultural purposes has preference over use for any other purpose except domestic use.[502]

The Utah Appropriation law provisions that are applicable to wells in all areas of the State are as follows:

- All well and tunnel drillers must report to the state engineer data relating to each well or tunnel failure to comply with this requirement is a class B misdemeanor.[503]
- All well drillers must be licensed.[504]
- Well drillers may replace an existing well with a replacement well within a radius of 150 feet from the existing well upon first approval by the state engineer.[505]
- All well drillers must comply with the rules enacted by the state engineer under the Appropriation law.[506]

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[496]IDAHO CODE § 39-126.
[497]Appropriation, UTAH CODE ANN. § 73-3-1 (1989 & Supp. 1994).-For a description of the early history of Utah's water laws, *see Little Cottonwood Water Co. v. Kimball*, 76 Utah 243, 289 P. 116 (1930). For an interesting article on the priority in ground water, *see* Water Quality Control: The Reality of Priority in Utah Ground water Management, 1992 UTAH L. REV. 491.
[498]UTAH CODE ANN. § 73-3-2 (Supp. 1994).
[499]Id. § 73-3-5.5 (1989).
[500]Id. § 73-3-8.
[501]Id. § 73-3-7.
[502]Id. § 73-3-21.
[503]Id. § 73-3-22.
[504]Id. § 73-3-25(1).
[505]Id. § 73-3-28 (1989).
[506]Id. § 73-3-25(2).

Oregon (region 9).—Oregon State Legislature controls ground water through the enactment of its Ground Water Act of 1955[507] that recognizes and declares that a reasonable control of water belongs to the public. To preserve public welfare, safety, and health, it states the following ground water protection policies:

- Provision must be made for the final determination of relative rights to appropriate ground water everywhere within Oregon and of other matters with regard thereto through a system of registration, permits, and adjudication.[508]
- Rights to appropriate ground water and priority thereof must be acknowledged and protected, except when, under certain conditions, the public welfare, safety, and health require otherwise.[509]
- Beneficial use without waste, within the capacity of available sources, must be the basis, measure, and extent of the right to appropriate ground water.[510]
- All claims to rights to appropriate ground water must be made a matter of public record.[511]
- Adequate and safe supplies of ground water for human consumption must be assured, while conserving maximum supplies of ground water for agricultural, commercial, industrial, thermal, recreational, and other beneficial uses.[512]
- The location, extent, capacity, quality, and other characteristics of particular sources of ground water must be determined.[513]
- Reasonable stable ground water levels must be determined and maintained.[514]
- Depletion of ground water supplies below economic levels, impairment of natural quality of ground water by pollution, and wasteful practices in connection with ground water must be prevented or controlled within practicable limits.[515]
- Whether wasteful use of ground water, impairment of or interference with existing rights to appropriate surface water, declining ground water levels, alteration of ground water temperatures that may adversely affect priorities or impair the long-term stability of the thermal properties of the ground water, interference among wells, thermal interference among wells, overdrawing of ground water supplies or pollution of ground water exists or impends, controlled use of the ground water concerned must be authorized. When such voluntary joint action is not taken or is ineffective, controlled use must be imposed under voluntary joint action by the Water Resources Commission, by the ground water users concerned whenever possible, and by the commission under the police power of the State.[516]
- Location, construction, depth, capacity, yield, and other characteristics of and matters in connection with wells must be controlled in accordance with the purposes set forth in this section.[517]

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[507]Ground Water Act of 1955, OR. REV. STAT. § 537.505 to 537.799 (1991).
[508]Id. § 537.525(1).
[509]Id. § 537.525(2).
[510]Id. § 537.525(3).
[511]Id. § 537.525(4).
[512]Id. § 537.525(5) (1991).
[513]Id. § 537.525(6).
[514]Id. § 537.525(7).
[515]Id. § 537.525(8).
[516]Id. § 537.525(9).
[517]Id. § 537.525(10).

- All activities in the State that affect the quality or quantity of ground water must be consistent with the goal set forth in Ground Water law.[518]

The act exempts the use of ground water from the law for—

- ◊ stockwatering purposes;[519]
- ◊ watering any lawn or noncommercial garden not exceeding one-half acre in size;[520]
- ◊ watering the lawns, grounds, and fields not exceeding 10 acres in area of schools located within a critical ground water area;[521]
- ◊ single or group domestic purposes in an amount not exceeding 15,000 gallons a day;[522]
- ◊ down-hole heat exchange purposes;[523] or
- ◊ 5,000 gallons a day.[524]

However, the use of the above exempt ground water use must be beneficial and constitute a right to appropriate ground water equal to that established by issuance of a ground water right certificate.[525] Moreover, after declaration of a ground water management area, all persons must apply for water permits even if the use of ground water falls within the exempt provisions (fee for such permit is not required).[526]

The Oregon law sets forth the following situations where the Water Resources Commission may designate an area a critical ground water area:[527]

- Ground water levels in the area in question are declining or have declined excessively.
- A pattern of substantial interference is present between wells within the area in question.
- A pattern of or potential interference exists between wells of ground water claimants or appropriators within the area in question with the production of geothermal resources from an area as regulated under the Water Improvement Districts Law.
- A pattern of substantial interference between wells within the area in question and—
  - ◊ an appropriator of surface water whose water right has an earlier priority date, or
  - ◊ a restriction imposed on surface water appropriation or a minimum perennial stream flow that has an effective date earlier than the priority date of the ground water appropriation.

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[518]OR. REV. STAT. § 537.525(11) (1991).
[519]Id. § 537.545(1)(a).
[520]Id. § 537.545(1)(b).
[521]Id. § 537.545(1)(c).
[522]Id. § 537.545(1)(d).
[523]Id. § 537.545(1)(e) (1991).
[524]Id. § 537.545(1)(f).
[525]Id. § 537.545(2).
[526]Id. § 537.545(4).
[527]Id. § 537.730.

- Ground water temperatures in the area in question are expected to be, are being, or have been substantially altered.
- The purity of the ground water in the area in question has been or reasonably may be expected to become polluted to an extent contrary to public welfare, health, and safety.
- The available ground water supply in the area in question is being or is about to be overdrawn.

The Oregon Ground Water Act provisions that apply to wells in all areas of the State are as follows:

- Registration is required and a permanent record must be kept. Failure of such registration statement creates a presumption that such claim has been abandoned.
- Permits are required for new and replacement wells in new locations.
- Water well constructors must be licensed.
- Well construction contractors must have a surety bond or an irrevocable letter of credit issued by a commercial bank.
- Well construction contractors must file a report to the Water Resources Commission before commencing the construction of the well.
- Well owners or operators must conduct a pump test at least once every 10 years and report the results of that test to the Water Resources Commission. Well owners or operators whose ground water use falls within the exempt uses provisions are exempt from this requirement.

The Oregon law is unique in that it declares that because the Oregon Legislative Assembly finds that ground water protection is a matter of statewide concern, no ordinance, order or regulation can be adopted by a local government to regulate the inspection of wells, construction of wells or water well constructors subjection to regulation by the Water Resources Commission or the Water Resources Department under the Water Well Constructions law.[528]

In addition to any other remedies provided by law, the Water Resources Commission may impose a civil penalty against any person who, in the construction of a well, violates any provision of the Oregon Ground Water Act.[529]

California (region 10).—Acknowledging that ground water is subject to impairment in quality and purity,[530] directly caused by improper construction and abandoned water, cathodic protection, and ground water monitoring wells,[531] the California Legislature enacted the Water Wells and Cathodic Protection Wells law to address this problem.[532]

[528]Water Well Constructors law is covered in OR. REV. STAT. § 537.747 to 537.795 (1991).
[529]Id. § 537.792.
[530]Water Wells and Cathodic Protection Wells, CAL. WATER CODE § 13700 (West 1992).
[531]Id. § 13701.
[532]Id. § 13700-13806.

The law defines *water well* as "any artificial excavation constructed by any method for the purpose of extracting water from, or injecting water into, the underground," and specifically excludes from the definition, thus exempts from the law—

- ◊ oil and gas wells, or geothermal wells constructed under the jurisdiction of the Department of Conservation, or
- ◊ wells used for the purpose of dewatering excavation during construction or stabilizing hillsides or earth embankments.[533]

However, all persons who engage in conversion of wells are subjected under this Water Wells and Cathodic Protection Wells law.[534]

Cathodic protection well is "any artificial excavation in excess of 50 feet constructed by any method for the purpose of installing equipment or facilities for the protection electrically of metallic equipment in contact with the ground." [535] Furthermore, *monitoring well* is "any artificial excavation by any method for the purpose of monitoring fluctuations in ground water levels, quality of ground water, or the concentration of contaminants in ground water." [536]

Under this law, all persons who intend to dig, bore, drill, deepen, or reperforate, abandon, or destroy a water well, cathodic protection well, or monitoring well must file a report to the department. The report includes—

- ◊ the well's description,
- ◊ proposed date of well's construction,
- ◊ the intended use of the well, and
- ◊ the work to be done and description of construction type.[537]

After completion of any of the described activities, such persons must also file a completion report, describing—

- ◊ the description of the well site,
- ◊ a detailed log of the well,
- ◊ the description of type of construction,
- ◊ the details of perforation,
- ◊ methods used for sealing off surface or contaminated water,
- ◊ methods for preventing contaminated water,
- ◊ well driller's signature, and
- ◊ other requirements the department may require.[538]

However, the law exempts all wells constructed for the purpose of monitoring the presence of ground water that has adversely affected, or threatens to adversely affect, crop root zones, from all reporting requirements.[539]

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[533]CAL. WATER CODE § 13710.
[534]Id. § 13753.
[535]Id. § 13711.
[536]Id. § 13712.
[537]Id. § 13750.
[538]Id. § 13751.
[539]Id. § 13712.5.

All persons must have a water well contractor's license before undertaking any activity such as digging, boring, drilling, deepening or reperforating, abandoning, or destroying a water well, cathodic protection well, or a monitoring well.[540]

After conducting mandatory studies and investigations,[541] the department must file a report, recommending standards for water well, protection well, and monitoring well construction, maintenance, abandonment, and destruction, to the appropriate regional water quality control board and to the State Department of Health Services.[542] Moreover, the State board is required to adopt a model water well, cathodic protection well, and monitoring well drilling and abandonment ordinance implementing the department's standards.[543] If such ordinance is not adopted, the State board will circulate the model ordinances to all cities and counties.[544]

After receiving such report, the regional board must hold a public hearing to establish well standards for the area involved.[545] Each county, city, or water agency must also adopt an ordinance that meets or exceeds such standards.[546] If an agency fails to do so, the model ordinance adopted by the State board will take effect and will be enforced by the county or city and have the same force and effect as if adopted as a county or city ordinance.[547]

If the regional board finds that the standards are necessary in any area to protect the quality of water used for any beneficial use, it will determine the area to be involved and report to each affected county and city in the area.[548] After receiving the report, the affected county and city must adopt an ordinance establishing standards for the area designated by the regional board.[549] If a county or city fails to do so, the standards will take effect and be enforced.[550]

The California Legislature also enacted the Pesticide Contamination Prevention Act to reduce ground water pollution[551] caused by pesticides because "pesticide contaminants and other organic chemicals are being found at an ever increasing rate in underground drinking water supplies."[552]

The law requires all persons registering an economic poison for agricultural use to submit to the director the following information[553]—

- ◊ water solubility;
- ◊ vapor pressure;
- ◊ the octanol-water partition coefficient;

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[540]CAL. WATER CODE § 13750.5.
[541]Id. § 13800.
[542]Id. § 13800.
[543]Id. § 13801(b).
[544]Id. § 13801(b).
[545]Id. § 13801(a). The regional board may hold a public hearing with respect to any area regardless of whether it has received the report or not, if it has the necessary information that standards may be needed. Id.
[546]Id. § 13801(c).
[547]Id. § 13801(d).
[548]Id. § 13802.
[549]Id. § 13803.
[550]Id. § 13805.
[551]Id. § 13141.
[552]Id. § 13141(c).
[553]Id. § 13143.

- the soil adsorption coefficient, is "a measure of the tendency of economic poisons, or their biologically active transformation products, to bond to the surfaces of soil particles";[554]
- Henry's Law constant, is "an indicator of the escaping tendency of dilute solutes from water and is approximated by the ratio of the vapor pressure to the water solubility at the same temperature";[555] and
- dissipation studies, including field dissipation, aerobic and anaerobic soil metabolism, hydrolysis, and photolysis.

This information must be submitted for each active ingredient in each registered economic poison.[556] This information must also be furnished if the State Department of Health Services submits a written request to the director specifying why they require this information. However, the director can deny the request of the State Department of Health Services if he or she does not feel that the information will further the purposes of this article.[557]

Any registrant of an economic poison whose information contains a ground water protection data gap shall be subject to a fine not to exceed $10,000 for each day that the gap exists.[558] The director determines if such gap exists if, upon examination, he or she concludes that each required study has not been submitted or that they are not valid, complete, and adequate.[559] To determine the fine, the director considers any circumstances that have prevented the registrant from submitting the necessary information and the extent to which the registrant has attempted to submit this information.

The law also requires the department to establish numerical values for water solubility, soil adsorption coefficient, aerobic and anaerobic soil metabolism, hydrolysis, and field dissipation. These values must be at least equal to the values fixed by the Environmental Protection Agency.[560] The department may revise these values as necessary to effectively protect ground water provided that the values remain as strict as those of the EPA.

The director is required to establish a Groundwater Protection List of all economic poisons that could potentially pollute ground water.[561] The director must monitor the use of those economic poisons intended to be injected or applied to the soil by chemigation or by ground-based application equipment. Any person who uses an economic poison on the list must submit a form to the agricultural commissioner detailing the use of such poison. Furthermore, all dealers of economic poisons must make quarterly reports to the director of all sales of these products.[562]

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[554]CAL. WATER CODE § 13142.
[555]Id. § 13142.
[556]Id. § 13143.
[557]Id. § 13143.
[558]Id. § 13145.
[559]Id. § 13142.
[560]Id. § 13144.
[561]Id. § 13145.
[562]Id. § 13143.

Tennessee (regions 11 & 12).—Tennessee legislature has controlled ground water activities partially by the Water Wells law.[563] To advise and assist the Commissioner of Health and Environment in preparing rules and regulations, it created a board of ground water management. The five members[564] include two ex officio members—the commissioner of Health and Environment and the director of Water Management—and three persons actively engaged in the drilling of water wells. The three are residences of one of the three geographical grand divisions—Middle Tennessee, East Tennessee, and West Tennessee. The Governor must appoint all five members.[565]

Under the original act, the board of ground water resources would be terminated in 1990. However, this section was amended to extend the board of ground water management's service to the 1999.[566] The Water Well law provisions that are applicable to wells in all areas of Tennessee are as follows:

- All well drillers and installers or repairers of water well pumps must be licensed.[567]
- All well drillers must, at all times during the drilling of wells, keep posted in a conspicuous location, at or near the wells being drilled, the appropriate certificate as furnished by the commissioner.[568]
- All well drillers, within 30 days after completion of drilling each water well, must report to the commissioner the location of the well, the completion date, and the log of the well.[569]
- Operations of any equipment or machinery in the drilling of water well must be under supervision and management of a licensed water well driller.[570]

Furthermore, to revoke a license,[571] the Tennessee law provides that it will be refused, suspended, or revoked if the license holder has—

- ◊ intentionally made a material misstatement in the license application;
- ◊ willfully violated any provision of this chapter or any promulgated rules or regulations;
- ◊ obtained, or attempted to obtain, the license by fraud or misrepresentation;
- ◊ been guilty of fraudulent or dishonest practices; or
- ◊ demonstrated lack of competence as a driller.[572]

The Commissioner of Health and Environment has authority to:

- Promulgate rules and regulations to effectuate the purposes of this chapter.
- Exercise general supervision over the administration and enforcement of this chapter and all promulgated rules and regulations.
- Make inspections and investigations, collect samples, and carry on research.

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[563]Water Wells Law, TENN. CODE ANN. § 69-11-101 et seq.
[564]Id. § 69-11-107 (1987). For the membership of this board, *see* Id.
[565]Id. § 69-11-107(a) (1987).
[566]Id. § 69-11-107 (Supp. 1993).
[567]Id. § 69-11-102 (1987 & Supp. 1993).
[568]Id. § 69-11-103(2).
[569]Id. § 69-11-103(3).
[570]Id. § 69-11-104 (1987).
[571]MISS. CODE ANN. § 51-5-11 (1972)
[572]TENN. CODE ANN. § 69-11-105(a) (1987).

- Enter or authorize his or her agents to enter at all reasonable times upon any property other than dwelling places for the purposes of conducting investigations or studies or enforcement any provisions of this chapter.
- Bring suit in the name of the department for any violation of the provisions of this chapter, rules and regulations, or orders of the commissioner seeking remedial action.
- Assess civil penalties for violations of the provisions of this chapter, rules, regulations, or standards issued by the commissioner.
- Issue orders as it deems necessary to secure compliance.
- Investigate any alleged or apparent violation of the chapter and to take necessary action to enforce the provision of this chapter.
- Issue licenses according to the provisions of this chapter.[573]

As in Pennsylvania,[574] noncompliance with remedial actions will result not only in monetary fines, but in imprisonment as well.[575]

However, the Tennessee law emphasizes that this chapter only applies to wells drilled for the production of water. It does not apply to wells or holes drilled, augured, cored, or dug for quarry blast holes or mineral prospecting, or any purpose other than water production. Moreover, it does not apply to any resident of Tennessee who personally digs a water well at his or her own residential use and the use of the family.[576]

Ground water laws in selected counties

The responding counties—Polk, Nebraska; Armstrong, Hutchinson, and Palmer Counties, Texas—all belong to different ground water conservation districts, in which all water well drilling and ground water irrigation are subject to rules and regulations of the districts.

Polk County, Nebraska (region 5).—Because Polk County belongs to the Central Platte Natural Resources District, it is subject to the Groundwater Management and Protection Act[577] adopted by the Board of Directors of the Central Platte NRD in 1992.

This act allows the district court in the county in which violations occur to issue cease and desist orders for a number of reasons, including—

- ◊ operation of an irrigation system in a manner that allows for improper ground water irrigation runoff;
- ◊ construction or operation of an illegal well;
- ◊ operation of an irrigation system in a quantity management area in non-compliance with the rotational or allocational use of ground water;
- ◊ operation of a cropping system in a designated quality management area in violation of the best management practices;

[573]TENN. CODE ANN. § 69-11-106.
[574]PA. STAT. ANN. tit. 32, § 645.11.
[575]TENN. CODE ANN. § 69-11-110 (1987 & Supp. 1993).
[576]ID. § 69-11-108 (1987).
[577]Groundwater Management and Protection Act, Central Platte (Nebraska) Natural Resources District, Rule 1, adopted in August 27, 1992.

- ◊ operation of a cropping system in a designated quality management area without the appropriate certification of completion of education programs as required; and
- ◊ operation of a cropping system in a designated quality or quantity management area without submitting such reports or forms as may be required.[578]

This act allows the district to designate a Groundwater Supply Management Area following a hearing.[579] It can manage the use of ground water within the Groundwater Supply Management Area by any of the following ways:[580]

- Allocating the total permissible withdrawal of ground water.
- Rotating the use of ground water.
- Instituting well-spacing requirements.
- Requiring the use of flow meters on wells.

In addition, the district can also designate a Groundwater Quality Management Area following a hearing.[581] Within this area, in addition to the means that the district can use to manage ground water in the Groundwater Supply Management Area, it can manage the activities that affect the ground water quality by the following ways:[582]

- Use of best management practices.
- Attendance at educational programs designed to protect water quality.
- Submittal of reports or forms.

The following individuals can file a written complaint against a landowner or operator who is allegedly violating any of these rules and regulations, or constructing an illegal well:[583]

- Person who owns land, leases land, or resides within the district.
- Any nonresident person who can show that the actions of any landowner or operator within the district directly affects him or her.
- District compliance officer.
- The board on its own motion.

In the event of a written complaint where the compliance officer finds that inspection is necessary to determine the validity of the complaint, he or she must inspect the land after giving proper notice to the landowner or operator of the land.[584] If the landowner or operator agrees that the inspector's findings are true, he or she must submit a schedule of compliance providing discontinuance or nonreoccurrence, or both, of the violation.[585] If he or she does not agree, a hearing will be conducted.[586] However, if the compliance officer finds that the inspection is

[578]Groundwater Management and Protection Act, Central Platte (Nebraska) Natural Resources District, Rule 1
[579]Id. Rule 3.
[580]Id. Rule 4.
[581]Id. Rule 5.
[582]Id. Rule 6.
[583]Id. Rule 7.
[584]Id. Rule 8.
[585]Id. Rules 9 and 10.
[586]Groundwater Management and Protection Act, Central Platte (Nebraska) Natural Resources District, Rule 9.

not necessary, the board must hold a hearing if requested. After the hearing, if the board determines that the landowner or operator of land has violated these rules and regulations, it must adopt an order directing such violator to cease and desist immediately from all activities determined by the board to be violations.[587]

Moreover, this regulation permits agreement between landowners to use irrigation runoff water.[588] By allowing this type of agreement, both the ground water user whose irrigation runoff water is capable of being captured and the person who is able to use the runoff water benefit from this agreement.

Hutchinson County, Texas (region 6).—About 25 percent of this county is included in the North Plains Water Conservation District. There are no specific county laws, rules, regulations, or ordinances regarding conservation activities within this county.[589]

Palmer County, Texas (region 6).—This county is within the High Plains Underground Water District. The district regulates irrigation water runoff from furrow irrigation of other specific county laws, rules, regulations, or ordinances regarding conservation activities within this county.[590]

[587]Id. Rule 12.
[588]Id. Rule 16.
[589]Memo from Richard Bennett, District Conservationist, Stinnett, Texas, dated 8/9/95 (on file with Liu Chuang, Natural Resource Inventory Division).
[590]Id.

Chapter 5: State Water Quality and Management Laws

Most state legislatures enacted the water quality control laws with the policy of requiring the state's water resources to be used cautiously for the maximum benefit of the people, to restore and maintain a reasonable degree of purity in state water and an adequate supply of such water. To effectuate this policy, these state laws require the state government to establish a water quality control program and designate an agency to implement and enforce their state laws. For example, Georgia designates the Environmental Protection Division of the Department of Natural Resources, and Oregon names its Department of Agriculture to be the authoritative agency.

Permits are generally required for regulated activities. For example, Georgia requires permits for—

- ◊ construction of facilities that discharge pollutants into water and discharge of dredged or fill materials; and
- ◊ withdrawal, diversion, or impoundment of surface water.

Iowa water quality law requires permits for—

- ◊ the construction, installation, or modification of any disposal system or public water supply system, or any part, extension or addition to such system (except sewer extensions and water supply distribution system extensions because they are subject to review and approval by a city or county public works department);
- ◊ the construction or use of any new point source for the discharge of any pollutant into any water of Iowa;
- ◊ the operation of any waste disposal system or public water supply system or any part of or extension or addition to the system.

Moreover, there are exemptions from the permit requirement.

Before adopting or amending water quality standards, the authoritative agencies of all states are required to hold public hearings and consult with appropriate agencies. Furthermore, to effectuate the state policy, state laws impose monetary or prison term, or both, penalties on those who violate any provision of the water quality laws or any promulgated rules or regulations.

Although these state laws require the agency to establish water quality standards, each state prescribes slightly different factors in establishing its water quality standards. For example, Maryland law requires the Department of Natural Resources to adopt water quality standards specifying the maximum permissible short-term and long-term concentrations of pollutants in the water, the minimum permissible concentrations of dissolved oxygen and other desirable matters in the water, and the temperature range for the water. California water quality law provides for two-tier control of water quality at state and regional levels, where the authority at each level must consider a different set of factors. Unlike other states' laws, New Mexico, Utah, and Tennessee water quality laws do not specify detailed factors for the authoritative agency when they adopt the water quality standards.

Delaware (region 1)—The Delaware Legislature enacted Water Quality laws under Title 7 on conservation. It has several parts including Forests, Agricultural and Soil Conservation; Drainage and Reclamation or Lowlands. The agencies responsible include the Department of Agriculture, Forest Service; the Department of Natural Resources and Environmental Control, Divisions of Air and Waste Management, Soil and Water Conservation, and Water Resources; and the Department of Health and Social Service, as well as the secretary of state, and the state geologist.[591]

The forest administrator provides for the protection of State water from pollution by sediment deposits resulting from silviculture activities. Duties include:

- Determining whether the activities of owner or operator of siliviculture are causing or likely to cause pollution.
- Advising the owner or operator of corrective measures needed to prevent or cease the pollution within a specific period.
- Failure to advise the owner or operators of correct measure will not impair the administrator to issue special orders to the owner or operators.[592]
- Such special orders are to be issued only after a hearing with notice the owner or operator, or both, of the time, place, and purpose, and will become effective not less than 5 days after service.[593]

This law provides for assessing a civil penalty to any owner or operator who violates, fails, or refuses to obey any special order. The penalty is not less than $200 or more than $2,000 for each violation. Each day the violation continues is deemed a separate violation for assessing penalties. The Delaware Superior Court has jurisdiction of the offenses.

Any person who intentionally, knowingly violates or refuses to comply with any notice issued that is related to this law should be fined not less than $500 or more than $10,000 for each offense.[594]

The forestry administrator in carrying out this law with municipal, county, State, and Federal agencies, and with representatives from operators and owners groups may —

- ◊ develop and publish guidelines on sediment control and stormwater management to the owner or operators;
- ◊ provide technical assistance to owners or operators doing silvicultural activities;
- ◊ conduct educational programs for silivilcultural activities;
- ◊ conduct studies and research for silvicultural activities;
- ◊ cooperate with appropriate agencies in silvicultural activities; and
- ◊ establish a means of communication with interested owners and operators.[595]

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[591] Water Quality laws, DEL. CODE. ANN. tit. 7, Conservation, Part III Forests, Chapter 29, State Forestry, Subch. VI. Water quality as it relates to silvicultural system and sedimentation and erosion control. § 2977
[592] Id. § 2979
[593] Id. § 2980
[594] Id. § 2982
[595] Id. § 2983

The policy of the Water Quality law is

> "To strengthen and extend the present erosion and sediment control activities and programs of this state for both rural and urban lands to provide control and management of stormwater runoff consistent with sound water and land use practices."[596]

Individuals engaged in land disturbing activities have the following duties:

- After July 1, 1991, no persons engaged in land disturbing activities would be allowed without submitting sediment and stormwater management plans and obtain a permit to proceed.
- Projects, which do not alter stormwater runoff characteristics, may be required to provide water quality enhancement.
- Each land developer should certify all activities performed are according to submitted plans.
- All approved land disturbing activities have at least one individual responsible for the land disturbing activities.

The secretary of state may, concerning rules and regulations—

- ◊ formulate, amend, adopt and implement, after public hearing, a statewide water pollution management plan; and
- ◊ develop, implement, and enforce, and may amend, modify and repeat, a State pretreatment program in compliance with the Federal Water Pollution Control Act, as amended.[597]

The state geologist serves as the representative of the State to the River Master of Delaware River according to the Supreme Court Decrees of 1954. The geologist is also responsible for matters relating to water quality, and others.[598]

The Department of Natural Resources and Environmental Contol, in addition to the secretary of state, supervises the installation of water quality protection devices by gas station owners or operators. The department also evaluates, establishes, recommends, and adopts a long-term plan for funding wastewater facility capital projects that cover no less than 6 years.

The Department of Health and Social Services regularly monitors water quality for all public water to provide for the sanitary protection of all water supplies in the State.

Delaware Surface Water Quality Standards spell out the water quality criteria for all the State water. These criteria are applicable to both fresh water and marine bodies of water as in the following paragraphs.

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[596]Water Quality laws, DEL. CODE. ANN. tit. 7, Conservation, Part IV Agricultural and Soil Conservation: Drainage and Reclamation or Lowlands, Ch. 40, Erosion and Sedimentation control. § 4001
[597]Id. § 6010
[598]Id. § 5505

For all ***fresh water*** outside the approved regulatory mixing zones (unless specified otherwise), the regulations regarding the Delaware water quality provide for various criteria.[599]

Temperature. Heat cannot be added to any fresh body of water in the amount that will elevate the natural temperature by more than 5 °F. The law does not allow for any human-induced heat that will increase the true daily mean temperature above 82 °F nor the daily maximum temperature above 86 °F. In addition to these standards, the Delaware Department of Natural Resources can mandate other limitations on a site-specific or seasonal basis to provide incremental protection for early life states of fish.

Dissolved oxygen. The average dissolved oxygen (DO) from June through September must not be less than 5.5 milligrams per liter. The minimum DO standard of 4.0 is mandatory. However, in cases where natural conditions deter attainment of these criteria, allowable reduction in DO levels as a result of human activities must be determined according to the requirements of the regulations. The department can also mandate other limitations on a site-specific or seasonal basis to provide incremental protection for early life states of fish.

pH. The pH of fresh bodies of water must be between 6.5 and 8.5 unless otherwise due by natural conditions. Where within this range, the maximum human-induced change from background must be 0.5 Standard Units. Where pH is below 6.5 or above 8.5 because of natural conditions, it must not be lowered (where below 6.5) or elevated (where above 8.5) more than 0.3 Standard Units because of human-induced changes.

Turbidity. In no case that any of such waste discharges or instream activity causes turbidity values to exceed 10 NTU. (*NTU is an abbreviation for Nephelometric Turbidity Unit. This turbidity measure is based on a comparison of the intensity of light scattered by a sample of water under defined conditions with the intensity of light scattered by a standard reference suspension.)*

The Delaware water quality standards regulation also set forth additional criteria for other fresh water designated uses. For example, for cold water fisheries, where criteria applies only during the period of the year designated for put-and-take trout fishing for each stream, outside the approved regulatory mixing zones, the maximum increase above natural conditions is limited to 5 °F and that the DO average cannot be less than 6.5 milligrams per liter although the minimum DO cannot be less than 5.0 milligrams per liter.[600]

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[599]Delaware Surface Water Quality Criteria § 11e.
[600]Id. § 11.2.

For ***marine bodies of water***, a set of criteria is applicable outside the approved regulatory mixing zones.

Temperature. From October through May, the maximum increase of temperature above natural conditions is 4 °F. Although temperature elevation from June through September is limited by two conditions, namely, (1) human-induced increase of the true daily mean temperature cannot be above 84 °F, and (2) human-induced increase of the daily maximum temperature cannot be above 87 °F.

Dissolved oxygen. The average dissolved oxygen (DO) from June through September must not be less than 5.0 milligrams per liter. The minimum DO standard of 4.0 is mandatory. However, in cases where natural conditions deter attainment of these criteria, allowable reduction in DO levels as a result of human activities must be determined according to the requirements of the regulations. The department can also mandate other limitations on a site-specific or seasonal basis in order to provide incremental protection for early life of fish.

pH. The pH of fresh bodies of water must be between 6.5 and 8.5 unless otherwise due by natural conditions. Where within this range, the maximum human-induced change from background must be 0.5 Standard Units. Where pH is below 6.5 or above 8.5 because of natural conditions, it must not be lowered (where below 6.5) or elevated (where above 8.5) more than 0.3 Standard Units because of human-induced changes.

Turbidity. In no case should any of such waste discharge or instream activity cause turbidity values to exceed 10 NTU.

The Delaware water quality standards were also created for harvestable shellfish water, the Delaware River/Bay (PA-DE line, RM 78.8 to Cape Henlopen, RM 0.0), and water of exceptional recreational or ecological significance (ERES Water).

Maryland (region 1).—Maryland water quality law is covered under its Water Pollution Control Law that was enacted with the following policy:[601]

- To improve, conserve, and manage the quality of water of the State.
- To protect, maintain, and improve the quality of water for public supplies; propagation of wildlife; fish and aquatic life; and domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.
- To provide that no waste is discharged into any water of the State without first receiving necessary treatment or other corrective action.
- To provide and promote prevention, abatement, and control of new or existing water pollution through innovative and alternative methods of waste and wastewater treatment.

Under this law, the department is authorized to adopt rules and regulations that set, for water of Maryland, water quality standards and effluent standards (effluent standards must be at least as stringent as those specified by the National Pollutant

[601]MD. CODE ANN., ENV. CODE § 9-302 (1993).

Discharge Elimination System). The rules and regulations must include, at the minimum, the following:[602]

- Water quality standards that specify the maximum permissible short-term and long-term concentrations of pollutants in the water, the minimum permissible concentrations of dissolved oxygen and other desirable matter in the water, and the temperature range for the water.
- Effluent standards that specify the maximum loading or concentrations and the physical, thermal, chemical, biological, and radioactive properties of wastes that may be discharged into the water of the State.
- Definition of technique for filling and sealing abandoned water wells and holes, for disposal wells, for deep mines and surface mines, and for landfills to prevent ground water contamination, seepage, and drainage into the water of the State.
- Requirements for the sale, offer, use, or storage of pesticides and other substances that the department finds to constitute water pollution hazards.
- Procedures for water pollution incidents or emergencies that constitute an acute danger to health or the environment.
- Provisions for equipment and procedures for monitoring pollutants, collecting samples, and logging and reporting of monitoring.

In addition, the department must—

◊ develop a water quality standard for the concentration of tributyltin in the water that is sufficient for the protection of aquatic life by December 1, 1988, and

◊ point sources of release of tributyltin according to the developed regulate water quality standard.[603]

The law creates the Maryland Clean Water Fund that the department can use for activities that are related to identifying, monitoring, and regulating the proper discharge of effluent into water of the State, including program development of these activities provided in the State budget. Priority must be given to activities pertaining to water quality of the Chesapeake Bay and its tributaries.[604]

The secretary of the Environment and the secretary of Natural Resources jointly must—

◊ develop and implement a comprehensive program to monitor the quality of water and living resources of the Chesapeake Bay;

◊ cooperate with the other states in the Chesapeake Bay region and with the U.S. EPA and other Federal and State agencies, when appropriate; and

◊ report to the Maryland General Assembly on the result of this monitoring program and the status of the resources of the Chesapeake Bay every 2 years.[605]

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[602]MD. CODE ANN., ENV. CODE § 9-314.
[603]Id. § 9-321.1.
[604]Id. § 9-320.
[605]Id. § 9-321.

Before constructing, installing, modifying, extending, altering, or operating—

- ◊ any industrial, commercial, or recreational facility or disposal system;
- ◊ a State-owned treatment facility; or
- ◊ any other outlet or establishment, any person must hold a valid discharge permit issued by the department.[606]

The Maryland law prohibits individuals from discharging any chlorine or chlorine products into the Chesapeake Bay or its tributaries in excess of a concentration that is allowed by the Department of the Environment. This prohibition does not apply to the owner of a vessel that is equipped with a compliant marine sanitation device. Moreover, in determining the allowable concentrations of chlorine or chlorine products, the Secretary of Natural Resources must adopt regulations that—

- ◊ use the best practicable management technologies and
- ◊ set forth approved monitoring technologies.[607]

However, the department can issue a permit that allows the use of chlorine or chlorine compounds in treatment of wastewater discharged from any publicly or privately owned sewage treatment plant to any surface water of the state, if the treatment of the wastewater includes dechlorination.[608]

The Maryland law also established a Water Pollution Control Fund, from which the Board of Public Works, upon the recommendation of the secretary, can award financial assistance to a number of projects, including—

- ◊ construction of a sewage system;
- ◊ industrial user pre-treatment project;
- ◊ best management practices to control or prevent agriculture-related nonpoint source pollution; and
- ◊ practices to reduce pollution from stormwater runoff in existing urbanized areas.

Moreover, to facilitate the financial assistance program, the secretary, with the approval of the Board of Public Works, is required to adopt rules and regulations that establish application procedures and criteria for awarding financial assistance, by setting forth project priority systems.[609]

Pennsylvania (region 1).—Pennsylvania water quality law is covered under its Water Pollution Act.[610] Under this law, the Department of Environmental Resources, in adopting rules and regulations, in establishing policy and priorities, in issuing orders or permits, and in taking any other action pursuant to the Water Pollution Act, must consider the water quality management and pollution control in the watershed as a whole.[611] Moreover, it has the following mandatory powers and duties:[612]

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[606]MD. CODE ANN., ENV. CODE § 9-323.
[607]Id. § 9-329.2.
[608]Id. § 9-329.
[609]Id. § 9-345.
[610]PENN. STAT. ANN. § 69.1 et seq. (1993 & Supp. 1993).
[611]Id. § 691.5(a)(1) (1993).
[612]Id. § 691.5(b).

- To formulate, adopt, promulgate, and repeal rules and regulations and issue orders as necessary to implement the provisions of this act.
- To establish policies for effective water quality control and water quality management, and to coordinate and be responsible for the development and implementation of comprehensive public water supply, waste management, and other water quality plans.
- To review all state research programs pertaining to public water supply, water quality control, and water quality management.
- To report from time to time to the legislature and to the Governor on the State's public water supply and water quality control program.
- To review and take appropriate action on all permit applications.
- To receive and act upon complaints.
- To issue such orders as are deemed necessary to implement the provisions of this act or the departmental rules and regulations.
- To inspect public or private property as necessary to determine compliance with the provisions of this act, rules and regulations, orders or permits issued pursuant to this act.

For further water quality standards, see 25 PA. CODE sec. 93.1 et seq.

Alabama (region 2).—The Alabama Legislature enacted the Alabama Water Resources Act[613] to conserve and manage bodies of water to realize the full beneficial use and maintain such water resources for future use.[614] The act covers all water, including surface water and under ground water.[615] The act defines the term *beneficial use* to mean "the diversion, withdrawal, or consumption of [state] water in such quantity as is necessary for economic and efficient utilization consistent with the interests of the state."[616]

The act established the Office of Water Resources and the Water Resources Commission to develop plans and strategies for the management of State water.[617] The Office of Water Resources or the Water Resources Commission is not authorized to restrict any individual's beneficial use of the water unless such beneficial use is within an area designated as a capacity stress area.[618] The Office of Water Resources was created as a division of the Department of Economic and Community Affairs.[619]

The Office of Water Resources is headed by the division chief, who is appointed by the director, with the approval of the Governor. The division chief must report to the director. The division chief must be knowledgeable in the fields of water resource management, development, and conservation. His or her salary is set in accordance with State law.[620] The division chief has the power and authority necessary to carry out the functions and duties of the Office of Water Resources.[621]

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[613]Act, ALA. CODE SUPP. 1998 § 9-10B-1 et seq.
[614]Id. § 9-10B-2).
[615]Id. § 9-10B-2(1).
[616]Id. § 9-10B-3(2).
[617]Id. § 9-10B-2(5).
[618]Id. § 9-10B-2(6).
[619]Id. § 9-10B-4.
[620]Id. § 9-10B-7.
[621]Id. § 9-10B-8.

The chief is authorized to recommend to the commission proposed rules and regulations.[622] The chief determines the number of employees necessary for the Office of Water Resources.[623]

The Office of Water Resources has the following duties:[624]

- Developing long-term strategic plans for the use of State bodies of water.
- Adopting and promulgating rules, regulations, and standards for the purposes of this act.
- Developing policy for the State regarding the bodies of water.
- Implementing quantitative water resource programs and projects for the coordination, conservation, development, management, use, and understanding of State water.
- Serving as a repository for data regarding State water.
- At its discretion, studying, analyzing, and evaluating the uses of State water.
- Participating in discussion between or among authoritative bodies regarding state water; floods, droughts, and other hydrologic events involving the State water; and water conservation programs.
- Entering into agreements or contracts with other authoritative bodies to accomplish the purposes of the act.
- Issuing, modifying, suspending, or revoking orders, citations, or notices of violation regarding the diversion, withdrawal, or consumption of the State water.
- Holding hearings.
- Applying for, accepting and disbursing advances, loans, grants, contributions, and any other form of assistance from the Federal Government or any other sources.
- Employing necessary professional, technical, clerical, and other staff to accomplish the objectives of the act.
- Monitoring, coordinating, and managing State water according to the provisions of the act.
- Sponsoring, encouraging, and facilitating plans, projects, policies, and programs for the conservation, coordination, protection, development, and management of State water.
- At its discretion, undertaking or participating in studies, surveys, analysis, or investigations of water resources.
- Conducting a program of education and public enlightenment with respect to the State water.
- Making an annual report to the Governor and presiding officers of the house and senate through the department regarding the activities and accomplishments of the Office of Water Resources.
- Enforcing all provisions of this act and filing legal actions in the name of the Office of Water Resources.

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[622]Act, ALA. CODE SUPP. 1998 § 9-10B-9.
[623]Id. § 9-10B-11.
[624]Id. § 9-10B-5.

- Prosecuting, defending, or settling actions brought by or against the Office of Water Resources or its agents.
- Recovering in a civil action from any person violating any provision of this act, in addition to other remedies provided by law.
- Issuing order assessing a civil penalty against any person in violation of this act.
- Requesting assistance from any other agency of Alabama.
- Recommending legislation necessary to coordinate, protect, conserve, develop, and manage the State water.
- Performing any other duty or taking any other action necessary for the implementation and enforcement of this act.

The Office of Water Resources is authorized to negotiate and conclude any compact with another state regarding the State water, provided that conclusion of any compact is confirmed by an act of the State Legislature and approval of the Governor.[625]

The act also created the Alabama Water Resources Commission, which is consisted of 19 members. Among these 19 members, the Governor appoints 7 with 1 member being a resident of each congressional district and with at least 1 member being a resident of each surface water region. Five members must be appointed by the Lieutenant Governor; the State Speaker of the House appoints 5. The Governor must also appoint 1 member from a list of 5 candidates submitted by an organization representing a majority of rural water systems and 1 member from a list of 5 candidates submitted by a statewide organization representing soil and water conservation districts in the state.[626] These members receive no salary or compensation, but they are reimbursed for expenses of travel, meals, and lodging while in the performance of their duties as members of the commission.[627]

The Governor selects the initial chairperson of the commission from among the 19 members, who serve for a 2-year term. After the expiration of the term of the initially appointed chairperson, the commission will elect a successor from among the members of the commission.[628] The commission has the following duties:[629]

- Advising the Governor and presiding officers of the senate and house on matters regarding State water.
- Providing guidance to the director and the division chief on all matters within the commission's scope and authority.
- Advising in the formulation of policies, plans, and programs of the Office of Water Resources in the performance of its functions and duties.
- Establishing, adopting, promulgating, modifying, repealing, and suspending any rules or regulations authorized pursuant to this act.
- Advising the Office of Water Resources to implement policies, plans, and programs regarding State water.

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[625]Act, ALA. CODE SUPP. 1998 § 9-10B-6.
[626]Id. § 9-10B-12. For more details regarding the terms, expiration and filling vacancies of these members, sections 9-10B-13 and 9-10B-14.
[627]Id. § 9-10B-17.
[628]Id. § 9-10B-15.
[629]Id. § 9-10B-16.

- Hearing and determining appeals of administrative actions of the Office of Water Resources.

The division chief will serve as ex officio secretary of the commission and is required to keep records of all meetings and proceedings of the commission.

The division chief receives no additional compensation for performance of these services.[630]

In consultation with the Office of Water Resources, the commission is required to promulgate and adopt rules and regulations governing declarations of beneficial use and certificates of use.

However, the provisions of this act do not apply to the following:[631]

- Impoundments or other similar containments confined and retained entirely upon the property of a person that store water where the initial diversion, withdrawal, or consumption of such water is acknowledged in a certificate of use.
- Waste water treatment ponds and waste treatment impoundments subject to regulation under the Federal Clean Water Act, the Mine Safety and Health Act, or the Surface Mining Control Act.[632]
- Surface impoundments constituting solid waste management units under the Resource and Recovery Act.[633]

In addition to the Alabama Water Resources Act, the legislature enacted the Alabama Water Management Act.[634]

The Alabama Legislature declared that improvement for the drainage promotes public health, aids agriculture, and is in the interest of the public welfare and convenience.[635] The State Soil and Water Conservation Committee is to cooperate with individuals wishing to form water management districts and is to aid and advise such development.[636]

Under the Alabama Water Management Act, the court of probate of any county has jurisdiction, power, and authority to establish water management districts for a number of purposes, including—

- ◊ locating and establishing levees, drains, or canals; and causing the construction, straightening, widening, or deepening of any ditch, drain, or watercourse;
- ◊ constructing for the purposes of flood prevention of the conservation, development, use, or disposal of water works for improvement; and
- ◊ providing maintenance for such installations.[637]

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[630]Act, ALA. CODE SUPP. 1998 § 9-10B-17(c).
[631]Id. § 9-10B-2(7).
[632]For more information on the Clean Water Act, see 33 U.S.C. Sections 1251 et seq.; for more information on the Mine Safety and Health Act, see 30 U.S.C. Section 801 et seq.; and for more information on the Surface Mining Control Act, see 30 U.S.C. sections 1201 et seq.
[633]For more information on the Resource Conservation and Recovery Act, see 42 U.S.C. sections 6901 et seq.
[634]Alabama Code § 9-91 et seq.
[635]Id. § 9-9-3.
[636]Id.
[637]Id. § 9-9-5.

In exercising its authority, the court of probate must keep a complete record of all its proceedings.[638]

A petition seeking for the organization of a water management district, signed by majority of the landowners owning more than one-third of the land in acreage in a proposed district or by at least one-third of persons owning more than one-third of the land in the proposed district must be filed with the court of probate of such county in which the lands are located.[639] The petition must indicate the specific body or district of land in the county. It must indicate the public benefit or utility or public welfare and convenience that will be promoted by drainage, ditching, or leveeing or by changing or improving natural watercourses. In addition, the owners must appoint an engineer to submit a writing stating why such district should not be organized and incorporated.[640]

Within 60 days after the establishment of the district, it is the duty of board of water management commissioners to appoint a competent civil or agricultural engineer as a district engineer. Services of the engineer are not required if a Federal, State, or local agency furnishes engineering services.[641]

On the day appointed for the hearing, the court will hear and determine in a summary manner any objection that may be offered to the sufficiency of the petition or to the report of the engineer or plan submitted by petitioners.[642] If the court finds that the purpose of this act will be served by the creation of the proposed water management district, the court shall declare the district organized as a body corporate and give it a corporate name.[643] If the court finds against the sufficiency of the petition or the improvement, it must dismiss the petition and proceedings at the cost of the petitioners.[644] However, the board or any owner of realty in the district may, within 20 days after the refusal of the court, appeal from the court order to the circuit court upon giving a bond in a sum to be fixed by the court, conditioned for the payment of costs if the appeal should be decided against the appellant.[645]

The order of the court has all the force of a judgment, and the court is required to levy a uniform tax of not more than $1.00 per acre on land owned by the landowners within such district.[646]

Upon the organization of the district, the court will appoint three water management commissioners to be designated as *board of water management commissioners* to control of the affairs of the district. Each commissioner must be an owner of the real property within the district and over 19 years old. One of the commissioners must be a resident of the county in which the proceedings are held. The court will determine the term of office for each commissioner; and upon the

[638]Alabama Code § 9-9-6.
[639]Id. § 9-9-7(a).
[640]Id. § 9-9-7(a).
[641]Id. § 9-9-23(a).
[642]Id.
[643]Id. § 9-9-7(b).
[644]Id. § 9-9-7(c).
[645]Id. § 9-9-12.
[646]Id. § 9-9-13

expiration of their terms, their successors will be appointed in like manner for the term of 6 years.[647]

The board of water management commissioners have the right and authority to enter into contracts or agreements with the Federal Government or any other agencies or persons. It also has the authority to borrow funds from governmental agencies or other lending institutions in lieu of or as a supplement to issuing bonds. However, such loan cannot exceed 40 years.[648] The board must elect a competent person, corporation, or partnership as district treasurer, whose duty is to receive moneys derived from tax collections, the sale of bonds, or from any other source and to disburse the same in accordance with the provisions of this article.[649]

In addition to other rights, the board of water management commissioners and agents have the right to enter lands to make surveys. Any person or corporation preventing such entrance will be guilty of a misdemeanor.[650]

Whenever the proposed improvement crosses the right-of-way of any railroad company, the board must notify the railroad company by serving written notice before adopting the plan of water management. The board and the railroad company are to agree, if possible, upon the place where and the manner in which such improvement will cross the right-of-way. If the board and the railroad company cannot agree, or if the company fail, neglect, or refuse to confer with the board, the board will determine the place and manner of crossing the right-of-way.[651]

Any body of land, however large, contiguous or adjacent to a water management district may be annexed to and made a part of the district upon petition of one-third or more of the landowners owning 50 percent or more in acreage of the real property to be annexed or upon the petition of one-half or more of the owners of property to be annexed owning more than one-third of the area to be annexed. Upon filing of such petition, the court will direct the district board to conduct surveys and the engineer to write the report concerning the purposes of the petition for annexation; what can be accomplished; and in what manner the works and property of the existing district would be affected. Upon filing of the report, notice will be given by the court for a hearing of the petition.[652]

The Alabama Water Management Act also allows for the organization of district over lands of watershed conservancy district.[653] Such organization is permissible if:

- The soil and water conservation district supervisors and the directors of the water conservancy district concerned file no objection to the organization.
- The water management district assumes any outstanding obligations and responsibilities of the watershed conservancy district.

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[647]Alabama Code § 9-9-14.
[648]Id. § 9-9-15.
[649]Id. § 9-9-16.
[650]Id. § 9-9-22.
[651]Id. § 9-9-24.
[652]Id. § 9-9-50.
[653]For more details regarding the organization of watershed conservancy district, Alabama Code, sections 9-8-50 through 9-8-67.

When such water management district is created, it will supersede the watershed conservancy district. The watershed district will be dissolved and no longer be in effect over the area covered by the water management district.[654]

The board of water management commissioners is authorized to join with adjoining states in works of improvement whenever it may be desirable.[655]

Any district organized under this article may be dissolved by the court of probate having jurisdiction whenever it appears to the court that the works need no further care or maintenance to preserve their efficiency and usefulness. The court will not consider dissolution except upon petition of two-third of the owners of real property owning not less than two-thirds of the area taxed. Moreover, upon the filing of such petition, notice will be served and opportunity will be given for objections to the dissolution of the district.[656]

Georgia (region 2).—The Georgia Water Quality Control Act[657] was enacted with the policy of requiring the State water resources to be used prudently for the maximum benefit of the people, to restore and maintain a reasonable degree of purity in State bodies of water and maintain an adequate supply of such water.[658] To further this policy, the State Government "will assume responsibility for the quality and quantity of water resources and the establishment and maintenance of a water quality and water quantity control program adequate for present needs and designed to care for the future needs of the State."[659]

Moreover, the act designates the Environmental Protection Division of the Department of Natural Resources to implement and enforce this act.[660]

The director is authorized to do the following:

- To enter into contracts and compacts regarding surface water management with the Federal Government, sister states, political subdivisions of Georgia, and public utilities of Georgia.[661]
- To require the owner or operator of a facility to cooperate with the division.[662]

The division is authorized to do the following:

- To enter private or public property at reasonable times to inspect or investigate conditions relating to pollution and to inspect the operating records.[663]
- To conduct or cooperate in research for the purpose of developing economical and practical methods of preventing and controlling pollution.[664]

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[654]Alabama Code § 9-9-51.
[655]Id. § 9-9-53.
[656]Id. § 9-9-57.
[657]Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-20 et seq. (1992 & Supp. 1993).
[658]Id. § 12-5-21(a)(1992).
[659]Id.
[660]Id. § 12-5-21(b).
[661]Id. § 12-5-24.
[662]Id. § 12-5-27.
[663]Id. § 12-5-26.
[664]Id. § 12-5-23(a)(1) (Supp. 1993), effective July 1, 1993.

- To cooperate with agencies of the Federal Government, State, and political subdivisions.[665]
- To enter into agreements and compacts with other states and with the United States regarding the prevention and control of pollution in any State bodies of water and on water quality matters.[666]
- To receive, accept, hold and use on behalf of Georgia gifts, grants, donations, devises, and bequests of real and personal property.[667]
- To give instruction and training to wastewater treatment plant operators and wastewater laboratory analysts; provide technical assistance for such instruction and training; and purchase the services of any individuals to render such instruction and training.[668]

The division is required to do the following:

- To make and file annual reports with the Governor and members of the General Assembly.[669]
- To exercise general supervision for the administration and enforcement of this act and all promulgated rules and regulations.[670]
- To restore and maintain a reasonable degree of purity in the water.[671]
- To encourage voluntary cooperation by all Georgians in restoring and maintaining a reasonable degree of purity in Georgian bodies of water.[672]
- To survey the State water to determine the extent, character, and effects of existing conditions of pollution.[673]
- To prepare and develop a general comprehensive plan for the prevention of any further pollution and reduction of existing pollution.[674]
- To administer and enforce the laws of Georgia relating to the prevention and control of pollution.[675]
- To hold hearings to determine whether or not an alleged pollution is contrary to the public interest.[676]
- To adopt rules and procedures for the conduct of meetings and hearings.[677]
- To establish or revise standards of water purity for any State bodies of water that specifies the maximum degree of pollution permissible.[678]
- To require any marine toilet or other disposal unit located on or within any boat to have securely affixed to the interior discharge toilet or unit, a suitable

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[665]Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-23(a)(2).
[666]Id. § 12-5-23(a)(3).
[667]Id. § 12-5-23(a)(4).
[668]Id. § 12-5-23(a)(5).
[669]Id. § 12-5-28 (1992).
[670]Id. § 12-5-23(b)(1) (Supp. 1993).
[671]Id. § 12-5-23(b)(2).
[672]Id. § 12-5-23(b)(3).
[673]Id. § 12-5-23(b)(4).
[674]Id. § 12-5-23(b)(5).
[675]Id. § 12-5-23(b)(6).
[676]Id. § 12-5-23(b)(7).
[677]Id. § 12-5-23(b)(8).
[678]Id. § 12-5-23(b)(9).

treatment device in operating condition, constructed and fastened according to the division's regulation.[679]

- To make investigations and inspections to ensure compliance with the Water Quality Act, any promulgated rules and regulations, and any orders that the division may adopt or issue.[680]
- To issue order(s) requiring any person(s) to secure within the specified time certain operating results as are reasonable and practical of attainment toward the control, abatement, and prevention of pollution.[681]
- To establish or revise, through rules and regulations or permit conditions, the effluent limitations.[682]
- To establish or revise, through rules and regulations or permit conditions, or both, the permissible limits of surface water usage for both consumptive and nonconsumptive purposes.[683]
- To perform any and all acts and exercise all incidental powers necessary to carry out the purposes and requirements of the act and of the Federal Water Pollution Control Act, relating to Georgia's participation in the National pollutant discharge elimination system.[684]

Water Quality Standards—The act requires the director of the division to establish water quality standards for each lake.[685] A multiple parameter approach for lake water quality standards must be adopted. For each lake, numerical criteria including, but not limited to the following, must be adopted:[686]

- pH (maximum and minimum).
- Fecal coliform bacteria.
- Chlorophyll A for designated areas determined as necessary to protect a specific use.
- Total nitrogen.
- Total phosphorus loading for the lake in pounds per acre-foot per year.
- Dissolved oxygen in the epilimnion during periods of thermal stratification.

In addition to these factors, the act requires the standards to take into consideration the geographic location of the lake within its watershed as well as horizontal and vertical variations of hydrological conditions within each lake.[687] Moreover, the director must also establish nutrient limits for each of the lake's major tributary streams.[688]

After the water quality standards are established for each lake and its tributary streams, the division must monitor each lake on a regular basis to ensure that the

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[679]Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-23(b)(10).
[680]Id. § 12-5-23(b)(11).
[681]Id. § 12-5-23(b)(12).
[682]Id. § 12-5-23(b)(13).
[683]Id. § 12-5-23(b)(14).
[684]Id. § 12-5-23(b)(15).
[685]Id. § 12-5-23.1(b). This section became effective on April 11, 1990. "Lake" is defined to mean any publicly owned lake or reservoir located wholly or partially within Georgia that has a normal pool level surface average of 1,000 or more acres. Id. § 12-5-23.1(a).
[686]Id. § 12-5-23.1(c).
[687]Id. § 12-5-23.1(d).
[688]Id.

lake reaches and maintains such standards.[689] Data from the monitoring must be public information.[690] However, before adopting standards, a comprehensive study of each lake must be made.[691]

Before the adoption of the standards, the act allows the public to comment on the standards within not less than 45 days or more than 60 days.[692] The Department of Natural Resources must evaluate the comments received and develop recommended final standards and criteria for submission to the Board of Natural Resources for consideration and approval.[693] The final recommendations of the director for the standards must be made to the board within 60 days.[694] The comment periods and deadlines can be extended only at the discretion of the director.[695]

Cleaning Agents.—The act prohibits the sale at retail or use of any cleaning agent containing phosphorus.[696] This prohibition does not apply to cleaning agents that are used—

- ◊ in agricultural or dairy production;
- ◊ to clean commercial food or beverage processing equipment or containers;
- ◊ as industrial sanitizers, metal brighteners, or acid cleaners;
- ◊ in industrial processes for metal, fabric, or fiber cleaning and conditioning;
- ◊ in hospitals, clinics, nursing homes, other health care facilities or veterinary hospitals or clinics;
- ◊ by a commercial laundry or textile rental service company or any other commercial entity;
- ◊ in the manufacture of health care or veterinary supplies;
- ◊ in any medical, biological, chemical, engineering, or other such laboratory;
- ◊ as water softeners, antiscale agents, or corrosion inhibitors; and
- ◊ clean hard surfaces including windows, sinks, counters, floors, ovens, food preparation surfaces, and plumbing fixtures.[697]

The prohibition does not apply to cleaning agents that—

- ◊ are manufactured, stored, sold or distributed for uses other than household laundry detergents or household or commercial dishwashing agents;
- ◊ contain phosphorus in an amount that does not exceed 0.5 percent by weight and which is incidental to manufacturing; or
- ◊ contain phosphorus in an amount not exceeding 8.7 percent by weight and are intended for use in a commercial or household dishwashing machine.[698]

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[689]Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-23.1(e).
[690]Id. § 12-5-23.1(f).
[691]Id. § 12-5-23.1(g).
[692]Id. § 12-5-23.1(g)-(h).
[693]Id. § 12-5-23.1(i).
[694]Id. § 12-5-23.1(j).
[695]Id. § 12-5-23.1(k).
[696]Id. § 12-5-27.1(c) (1992).
[697]Id. § 12-5-27.1(d)(1)-(10).
[698]Id. § 12-5-27.1(e).

In addition, the prohibition does not apply to any natural or commercial fertilizers.[699] The act requires that the local governments will be responsible for enforcing this prohibition.[700]

Sewage and Waste Disposal.—All individuals are required to obtain permits from the division before—

- ◊ constructing, installing, or modifying any sewage and waste disposal;
- ◊ increasing the volume or strength of any sewage and waste disposal; or
- ◊ constructing or using any new outlet for the discharge of any sewage or waste disposal.[701]

Moreover, vessels having a marine toilet are prohibited to operate on the water of Allatoona Lake, Lake Blackshear, Lake Blue Ridge, Clarks Hill Lake, Hartwell Lake, Lake Sidney Lanier, Lake Oconee, Lake Seminole, Lake Sinclair, Richard B. Russell Lake, Walter F. George Reservoir, and West Point Lake, unless—

- ◊ the marine toilet discharges only into a holding tank, and
- ◊ the vessel has a certificate for such holding tank issued by the department.[702]

The act requires all persons who own or operate a combined sewer overflow (CSO) on July 1, 1990, to devise and submit to the director for approval a detailed plan to eliminate or control sewage overflow. The discharges flowing from the CSO are not to violate the water quality standards in the receiving stream or permit limits for publicly owned wastewater treatment facilities.[703] Compliance with water quality standards and permit limits is required for all CSO discharges.[704]

Permits for construction of facilities that discharge pollutants into water and for discharge of dredged or fill material.—All individuals who own or operate, or desire to erect, modify, or commence operation of a facility that discharges pollutants from a point or nonpoint source into Georgian water are required to obtain from the director a permit to make such discharge.[705] The director is authorized to—

- ◊ impose effluent limitations as conditions to the issuance of the requested permit;[706]
- ◊ set schedules of compliance as conditions for permit;[707] and
- ◊ prescribe all necessary terms and conditions for such permits to assure compliance with applicable effluent limitations and water quality criteria.[708]

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[699]GA. CODE ANN. § 12-5-27.1(f).
[700]Id. § 12-5-27.1(g).
[701]Id. § 12-5-29(b) (Supp. 1993).
[702]Id. § 12-5-29(c).
[703]Id. § 12-5-29.1(b). A "CSO" is a sewage system designed or constructed as to allow surface water runoff to enter the conduit carrying sewage, industrial or other waste, when such conduit exceeds its maximum capacity, allows a discharge which bypasses the normal treatment works integral to such sewage system and allows untreated or incompletely treated sewage, industrial or other waste to flow, directly or indirectly, into the state waters. Id. § 12-5-29.1(a)(1).
[704]Id. § 12-5-29.1(a)(1).
[705]Id. § 12-5-30(a)-(b) (1992).
[706]Id. § 12-5-30(c).
[707]Id.
[708]Id. § 12-5-30(c).

Permits must have a fixed term set by the director, which is not to exceed 10 years. The director is authorized to revoke, suspend, or modify any issued permits for causes such as—

- ◊ violation of the conditions of the permit;
- ◊ obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; or
- ◊ change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.[709]

The director can also issue permits, after notice and opportunity for public hearing, for the discharge of dredged or fill material into the State water and wetlands according to standards set forth in the Federal Water Pollution Act Amendments of 1972, as amended by the Clean Water Act of 1977.[710] In addition, he or she may also issue general permits, which do not require individual applications, for discharges of pollutants from categories of point sources that are subject to the same permit limitations and conditions.[711]

Major spills by publicly owned treatment works (POTW).—By January 1, 1990, the board was required to provide rules and regulations for:[712]

- Immediate notification to the division of a major spill by a POTW.
- The POTW responsible for the major spill to be publishes a notice of such spill in the legal organ of the county.
- The division to provide notice of the major spill within 24 hours thereafter to every county, municipality, or other public agency whose public water supply is within a distance of 20 miles downstream, and to others that could be affected by the spill.
- Independent monitoring of water affected by the spill or consistently exceeding an effluent limitation.

Sludge land application systems.—All individuals who operate a sludge land application system must obtain the approval of the director.[713] The Board of Natural Resources is required to adopt technical regulations governing sludge land application and procedural regulations for approval of such systems.[714] Moreover, any person who does not comply with this requirement is subject to civil and criminal penalties.[715]

Permits for withdrawal, diversion, or impoundment of surface water.—Before a person makes any withdrawal, diversion, or impoundment of any State surface water, the individual must obtain a permit from the director. In issuing the permit, the division must consider whether the withdrawals, diversions, or impoundments are reasonably necessary to meet the applicant's needs and determine that the granting of such permit will not have unreasonable adverse effects upon other

[709]GA. CODE ANN. § 12-5-30(d).
[710]Id. § 12-5-30(e).
[711]Id. § 12-5-30(f).
[712]Id. § 12-5-30.1(b).
[713]Id. § 12-5-30.3(b) (Supp. 1993).
[714]Id. § 12-5-30.3(c).
[715]Id. § 12-5-30.3(e).

water uses in the area.[716] The permit may be granted for any period not less than 10 years or more than 20 years.[717] Moreover, the permittee may seek modification or any terms of the issued permit or renewal of the issued permit.[718]

However, a permit is not required if—

- ◊ the withdrawal does not involve more than 100,000 gallons per day on a monthly average;
- ◊ the diversion does not reduce the flow of the surface water at the point where the watercourse, before diversion, leaves the person's property on which the diversion occurred, by more than 100,000 gallons per day on a monthly average;
- ◊ the diversion is accomplished as part of construction for transportation purposes that does not reduce the flow of surface water in the diverted watercourse by more than 150,000 gallons per day on a monthly average; or
- ◊ the impoundment does not reduce the flow of the surface water immediately downstream of the impoundment by more than 100,000 gallons per day on a monthly average.[719]

Moreover, a permit is required neither for a reduction of flow of surface water during the construction period of an impoundment nor for farm ponds or farm impoundments constructed and managed for the sole purpose of fish, wildlife, recreation, or other farm uses.[720]

By rule or regulation, the Board of Natural Resources is required to establish a reasonable system of classification for application in situations involving competing uses for a supply of available surface water.[721] If there are two or more competing applicants or users who qualify equally for the use of the water, the director is allowed to grant permits to applicants or modify the existing permits of users for use of specified quantities of surface water on a prorated or other reasonable basis in the situations where such action is feasible. However, the director must give preference to an existing use over an initial application.[722]

In the event of an emergency period of water shortage, by emergency order, the director is authorized to impose restrictions on one or more permits previously issued to adequately protect the citizens or water resources.[723] Except as to farm uses, any change, suspension or other restriction will be effective immediately upon

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[716]GA. CODE ANN. § 12-5-31(g) (1992).
[717]Id. § 12-5-31(h).
[718]Id. § 12-5-31(i)-(j).
[719]Id. § 12-5-31(a)(1) (1992).
[720]Id. § 12-5-31(a)(2). "Farm uses" means "irrigation of any land used for general farming, forage, aquaculture, pasture, turf production, orchards, or tree and ornamental nurseries; provisions of water supply for farm animals, poultry farming, or any other activity conducted in the course of a farming operation. Farm uses also include the processing of perishable agricultural products and the irrigation of recreational tuft, except in the Chattahoochee River watershed upstream from Peachtree Creek, where irrigation or recreational turf is not considered a farm use." Id. § 12-5-31(b)(3).
[721]Id. § 12-5-31(e).
[722]Id. § 12-5-31(f).
[723]Id. § 12-5-31(l)(1).

receipt of such order by the permittee or his or her agent.[724] Farm use permittees may continue to make use of water to their permitted capacity during the appeal process, but failure to timely request a hearing will waive such right.[725] During the emergency periods of water shortage, the director must give first priority to providing water for human consumption and second priority to farm use.[726]

Aid to pollution control and surface water management.—The division is designated as the water pollution control and surface water resource management agency of Georgia for all purposes of any Federal water pollution control act or any other Federal act within the purview of the Georgia Water Quality Act.[727] It is authorized to—

- ◊ receive and expend Federal and State appropriations[728] and
- ◊ make grants, as funds are available, to any county, municipalities, or other public authority for water pollution control projects that qualify for Federal aid and assistance under the Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977.[729]

The State is also authorized to make State grants as funds are available to counties, municipalities, or any public authorities.[730] The State's contribution toward the construction of a water pollution control project, however, need not be limited to a given percentage. The State can make grants to counties, municipalities, or other public authorities in any amount up to the full cost of the construction of such projects where local need is shown and where such funds are available.[731] Moreover, the division must also be the agency for the administration of the funds granted by the State.[732] The administration of the State-granted funds must be done in conjunction with the administration of Federal funds granted for water pollution control projects.[733]

The division is authorized to—

- ◊ manage the construction grants programs set forth in the Federal Water Pollution Control Act Amendments of 1972 as amended by the Clean Water Act of 1977,[734] and
- ◊ develop and operate a continuing areawide waste treatment management planning process.[735]

The director is authorized to administer funds granted to the State by the EPA pursuant to the Federal Water Pollution Control Act, for the purpose of providing aid to counties, municipalities, or other public authorities.[736] All funds received from the EPA must be deposited in a water pollution control revolving fund

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[724]GA. CODE ANN. § 12-5-31(l)(2).
[725]Id.
[726]Id. § 12-5-31(l)(3).
[727]Id. § 12-5-32.
[728]Id.
[729]Id. § 12-5-33(a).
[730]Id. § 12-5-33(b).
[731]Id. § 12-5-34(a).
[732]Id. § 12-5-35.
[733]Id.
[734]Id. § 12-5-38.
[735]Id. § 12-5-39.
[736]Id. § 12-5-38.1(a).

established by the director.[737] In addition, the Board of Natural Resources is granted the power to adopt rules, regulations, and procedures necessary to administer the application of State grants.[738]

Whenever the division perceives that a person has engaged in or is about to engage in any act or practice which violates the Georgia Water Quality Act, the act allows the division to file for an injunctive relief to the superior court of the county where such person resides.[739]

The act provides that whenever a person is aggrieved or adversely affected by any action(s) or order(s) of the director, such person can file with the director a petition to an administrative hearing.[740] Moreover, when such person has exhausted all administrative available remedies and is aggrieved by a final decision in a contested case, the person is entitled to judicial review.[741]

However, if a person is guilty of violating any provision of this act or any permit condition or limitation, or negligently or intentionally failing or refusing to comply with any final or emergency order of the director, that person is subject to a civil penalty of a monetary amount not exceeding $50,000 per day for each violation. If a separate and later incident creating a violation occurs within 12 months of the previous violation, the violator is subject to a penalty not exceeding $100,000 per day.[742] Moreover, a person is subject to a fine who—

- ◊ violates any provision of this act;
- ◊ violates any permit condition or limitation;
- ◊ fails, neglects, or refuses to comply with the court's final order;
- ◊ violates any requirement imposed in a pretreatment program approved by the director; or
- ◊ introduces into a sewer system or into a POTW any pollutant or hazardous substance that causes or may cause personal injury or property damage or causes the treatment works to violate any effluent limitation or condition in the permit.

The fine is not less than $2,500 and not more than $25,000 per day of violation, or an imprisonment of at most 1 year, or both. If it is the person's second conviction, the fine is not more than $50,000 or imprisonment for not more than 2 years.[743] However, the act imposes more severe criminal penalties on individuals who knowingly violate the act.

Arkansas (region 3).—Arkansas water quality law is mostly covered under the Arkansas Water and Air Pollution Control Act.[744] However, to comply with the provisions of the Arkansas Water and Air Pollution Control Act as well as the provisions of the Federal Water Pollution Control Act, as amended, the Arkansas Commission on Pollution Control and Ecology promulgates the Regulation Establishing Water

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[737]GA. CODE ANN. § 12-5-38.1(b). This revolving fund also includes other non-Federal funds.
[738]Id. § 12-5-40.
[739]Id. § 12-5-48. If such person is a nonresident of Georgia, then the division can apply injunctive relief to the superior court of the county where he is engaged in or about to engaged in violable act or practice. Id.
[740]Id. § 12-5-43.
[741]Id. § 12-5-44.
[742]Id. § 12-5-52.
[743]Id. § 12-5-53.
[744]Act 472, as amended; ARK. CODE ANN. § 8-4-101 et seq. (1949).

Quality Standards for Surface Waters of Arkansas, as amended.[745] This regulation mainly establishes water quality standards for all surface water, interstate and intrastate in Arkansas.

In developing the water quality standards, the commission considers the use and value of the streams for public water supplies; commercial, industrial and agricultural uses; aesthetics; propagation of fish; and wildlife.[746] Because Arkansas has a phenomenal large volume of high quality water, substantial progress has been made in abatement if constructed pollution exists.

The commission reviews the water quality standards at least once every 3 years. Revisions will be made after considering the changing technology of waste production, treatment and removal, advances in knowledge of water quality requirements, and other relevant factors.[747]

Water of Arkansas has been substantially designated for specific uses. In the event where bodies of water are designated for multiple uses and different criteria are specified for each use, the criteria protects the most sensitive use will be applicable. Under the Arkansas Regulation, there are ten designated uses, namely, extraordinary resource waters, ecologically sensitive waterbody, natural and scenic waterways, primary contact recreation, secondary contact recreation, fisheries, domestic water supply, industrial water supply, agricultural water supply, and other uses.[748]

Under the regulation, there are two types of water quality standards, namely, general water quality standards and specific water quality standards.

General water quality standards.—General standards apply to all surface water of Arkansas at all times. They apply specifically to substances attributed to discharges, nonpoint sources or instream activities as opposed to natural phenomena.[749] The commission sets the methods of sample collection, preservation, measurements, and analyses in accordance with the EPA's Guidelines Establishing Test Procedures for the Analysis of Pollutants[750] or any other proven methods allowed by the department.

The effects of wastes on the receiving stream are determined after the wastes have been thoroughly mixed with the stream water. Outfall structures should be designed to minimize the extent of mixing zones[751] to ensure rapid and complete mixing. In larger streams[752] the zone of mixing cannot exceed one-fourth of the cross-sectional area or volume, or both, of the stream. The remaining three-fourths of the stream will be maintained as a zone of passage for swimming and drifting organisms and remain of such quality that stream ecosystems are not greatly affected. In smaller streams,[753] a site-specific determination is made on the percentage of river width required to allow passage of critical free-swimming and drifting organisms so that negligible or no effects are produced on their populations. As a guideline, no more

[745]Reg. 2, § 1 et seq.
[746]Reg. § 1(B).
[747]ARK. CODE ANN. § 1(C).
[748]For a complete description of each use, ARK. CODE ANN., Reg. § 4.
[749]Id. § 5(A).
[750]Id. § 5(C). For the EPA's Guidelines, see 40 CFR, part 136.
[751]A mixing zone will not include any domestic water supply intake.
[752]Larger streams are those that have Q7-10 flows equal to or greater than 100 ft^3/s.
[753]Smaller streams are those that have Q7-10 flows less than 100 ft^3/s.

than two-thirds of the width of smaller streams should be devoted to mixing zones. The remaining one-third of the cross-sectional area must be left free as a zone of passage. In lakes and reservoirs, the Department of Pollution Control and Ecology will define the size of mixing zones on a case-by-case basis, and the area will be kept at a minimum.[754]

Under the general water quality standards provision of the Arkansas Regulation, taste and order producing substances will be restricted in receiving water to concentrations that will not disturbed the production of potable water by reasonable water treatment processes, or impart unpalatable flavor to food, fish or reasonable use of the water. Receiving water will not have distinctly visible solids and floating material, formation of slime, bottom deposits, or sludge banks. In addition, there must be neither toxic substances nor oil, grease, or petrochemical substances in receiving water.[755]

Specific water quality standards.—Specific standards apply to all surface water of the State at all time except during period when flows are less than the applicable critical flow. Streams that have regulated flow are considered on an individual basis to maintain designated instream uses. These specific standards apply outside the mixing zone to conditions resulting in frequent, persistent, or long-term modification of occurring excursions outside the standards.[756]

Under the specific standards, heat must not be added to any waterbody in excess of the amount that will raise the natural temperature, outside the mixing zone, by more than 5 °F (2.8 °C). The temperature degree is based on the monthly average of the maximum daily temperatures measured at mid-depth or 3 feet (whichever is less) in streams, lakes, or reservoirs.

Different maximum allowable temperatures are set for specific bodies of water:[757]

Ozark Highlands, 84.2 °F (29 °C)
Arkansas River Valley, 87.8 °F (31 °C)
Springwater-influenced Gulf Coastal, 86.0 °F (30 °C)
Least-Altered Delta, 86.0 °F (30 °C)
White River (Dam #1 to mouth), 89.6 °F (32 °C)
Mississippi River, 89.6 °F (32 °C)
Ouachita River (Missouri R. to state line), 89.6 °F (32 °C)
Lakes and Reservoirs, 89.6 °F (32 °C)
Boston Mountains, 87.8 °F (31 °C)
Ouachita Mountains, 86.0 °F (30 °C)
Typical Gulf Coastal, 86.0 °F (30 °C)
Channel-Altered Delta, 89.6 °F (32 °C)
St. Francis River, 89.6 °F (32 °C)
Arkansas River, 89.6 °F (32 °C)
Red River, 89.6 °F (32 °C)
Trout waters, 68.0 °F (20 °C)

The temperature requirements do not apply to off-stream privately-owned reservoirs constructed mainly for industrial cooling purposes and financed in whole or in part by an entity using the lake for cooling purposes.[758]

Section 6 of the Regulation disallows any visible increase in turbidity of receiving waters attributable to municipal, industrial, agricultural, other waste discharges or instream activities. Different maximum turbidity values (NTU) are set for specific

[754]ARK. CODE ANN., Reg. § 5(D).
[755]Id. § 5(H), 5(I).
[756]Id. § 6(A).
[757]Id. § 6(B. For a detailed description of different waterbodies, please see § 4(C).
[758]Id. § 6(B) of the Regulation. For a detailed description of different waterbodies, § 4(C).

waterbodies. *(NTU is an abbreviation for Nephelometric Turbidity Unit. This turbidity measure is based on a comparison of the intensity of light scattered by a sample of water under defined conditions that have the intensity of light scattered by a standard reference suspension.)*[759] For example, for Ozark Highlands, waste discharge or instream activity cannot cause turbidity values exceeding 10 NTU, or for Arkansas River Valley, the turbidity values cannot exceed 21 NTU.[760]

Because waste discharges, the pH of water in streams or lakes cannot fluctuate in excess of 1.0 unit during 24 hours and pH values cannot be below 6.0 or above 9.0.[761]

In streams that have watersheds of less than 10 square miles, it is assumed that insufficient water exists to support a fishery during the critical season. Thus, during this time, the Dissolved Oxygen (DO) standard of 2 milligrams per liter will be used to prevent nuisance conditions.[762] For areas suspected of having significant ground water flows or enduring pools that may support unique aquatic biota, field verification is necessary. For such water, the critical season standard for the next size category of stream will apply. For various waterbodies, different DO standards are established.

The maximum permissible levels of radiation are limited by the rules and regulations for the Control of Sources of Ionizing Radiation of the Division of Radiological Health, Arkansas Department of Health. The levels of dissolved radium-226 and strontium-90 cannot exceed 3 and 10 piconuries/liter, respectively, in the receiving water after mixing. Gross beta concentration cannot exceed 1,000 picocuries/liter.[763]

The Arkansas Department of Health has the duty to approve or disapprove surface water for public water supply as well as the suitability of specifically delineated outdoor bathing places for body contact recreation. It has issued rules and regulations regarding such uses. However, for the purposes of this regulation, all streams that have watersheds less than 10 square miles must not be designated for primary contact unless and until site verification shows that such us is attainable. Based on a minimum of not less than five samples taken over not more than 30 days, the following fecal coliform levels control:

- For extraordinary resource bodies of water and natural scenic waterways, the fecal coliform content cannot exceed a geometric mean of 200/100 milliliters in any size of watersheds.
- For primary contact bodies of water between April 1 and September 30, the fecal coliform content cannot exceed a geometric mean of 200/100 milliliters and not more than 10 percent of the total samples during any 30 days exceed 400/100 milliliters.

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[759]ARK. CODE ANN., Reg. § 2

[760]Id. § 6(C) for the complete turbidity standards for different types of waterbodies.

[761]ARK. CODE ANN. § 6(D) pH is measured by the negative logarithm of the effective hydrogen-ion concentration in gram equivalents per liter. Id. § 2.

[762]Dissolved oxygen is a measure of the concentration of oxygen in solution in a liquid. ARK. CODE ANN., Reg. § 2.

[763]Id. § 6(F).

- For secondary contact bodies of water, the fecal coliform content cannot exceed a geometric mean of 1000/100 milliliters; not more than 10 percent of the total samples during any 30 days exceed 1000/100 milliliters.[764]

Under the Regulation Establishing Water Quality Standards for Surface Water of Arkansas, toxic substances cannot be present in receiving water, after mixing, in such quantities that would be toxic to human, animal, plant, or aquatic life. Acute toxicity values may not be exceeded outside the zone of initial dilution (ZID). Within the ZID, acute toxicity values may be exceeded but acute toxicity may not occur at all. Chronic toxicity cannot exist at, or beyond, the edge of the mixing zone. The Commission establishes different acute and chronic values for various substances. (*For specific acute or chronic values of any particular substance, please see section 6(H) of the Regulation.*) The Regulation also provides standards regarding nutrients, oil and grease, and mineral quality.

The director of the Arkansas Department of Pollution Control and Ecology has the authority to, with whatever conditions deemed necessary and without public notice, allow for short-term activities that might cause a violation of the Arkansas Water Quality Standards. However, this authorization is subject to the provisions that such activity is essential to the protection of the public interest and that no permanent impairment of beneficial uses is likely to result from such activity. Some of the activities for authorization include wastewater treatment facility maintenance, fish eradication projects, mosquito abatement projects, dredge and fill projects, and algae and weed control projects.[765]

Mississippi (region 3).—The Mississippi water quality law was created with the inherent policy of protecting, upgrading, and enhancing water quality within Mississippi. As general water quality standards, the law provides that water, whose existing quality is better than the established standards, must be maintained unless the commission finds that allowing lower water quality is essential to accommodate important economic or social development in the area in which the water is located. However, in no event that the degradation of water quality is allowed to interfere with or become injurious to existing instream water uses.[766]

The legislators of the Mississippi understand that certain State water may not fall within the prescribed limitations as outlined by the law. In those instances, the commission can authorize exceptions to these limits, if (1) the existing designated use is not attainable because of natural background condition; or (2) the existing designated use is not attainable because irretrievable human-induced conditions; or (3) the application of effluent limitations for existing sources is more stringent than those required pursuant to Section 301(b)(2)(A) and (B) of the Federal Water Pollution Control Act of 1972, as amended. Also to attain the existing designated use would result in substantial and widespread adverse economic and social impact.

The law sets limits of concentrations of mineral constituents for various bodies of water. For example, for bodies of water from the Mississippi-Tennessee border to Vicksburg, chlorides cannot exceed 60 milligrams per liter, sulfates cannot exceed

[764]ARK. CODE ANN., Reg. § 6(G)).
[765]Id. § 4(F).)
[766]WQCII Water Quality Criteria for Intrastate, Interstate and Coastal Water of Mississippi § I(1).

150 milligrams per liter, and total dissolved solids cannot exceed 425 milligrams per liter.[767]

Although recognizing that limited areas of mixing are sometimes unavoidable, the law specifies that mixing zones will not be used as a substitute for waste treatment. Mixing zones constitute an area whereby physical mixing of a wastewater effluent with a receiving body of water occurs. Application of mixing zones is made on an individual basis and only occurs in cases involving large surface bodies of water in which a long distance or large area is necessary for the wastewater to completely mix with the receiving body of water.

In addition to the provision regarding the general conditions of the bodies of water, the legislator sets forth minimum conditions that are applicable to all water.[768] Under the Mississippi water quality standards, all water must be free from the following:

- Substances attributable to municipal, industrial, agricultural or other discharges that will settle to form putrescence or otherwise objectionable sludge deposits.
- Floating debris, oil, scum, and other floating material.
- Toxic substances.
- Taste and order producing substances.

Moreover, the Mississippi turbidity provision notes that the turbidity outside the limits of a 750-foot mixing zone must not exceed the background turbidity at the time of discharge by more than 50 NTU. An exemption, however, may be granted in cases of emergency to protect the public health and welfare.

Dissolved oxygen concentrations must be maintained at a daily average of—

- ◊ not less than 5.0 milligrams per liter with an instantaneous minimum not less than 4.0 milligrams per liter in streams;
- ◊ not less than 5.0 milligrams per liter with an instantaneous minimum of not less than 4.0 milligrams per liter in estuaries and in the tidally affected portions of streams; and
- ◊ not less than 5.0 milligrams per liter with an instantaneous minimum of not less than 4.0 milligrams per liter in the epilimnion for lakes and impoundments that are not stratified. Epilimnion samples can be collected at the approximate mid-point of that zone.[769]

Regarding pH levels, the normal pH of the water must be 6.5 to 9.0 and must not vary more than 1.0 unit. However, if the natural background pH is outside the 6.5 to 9.0 limits, it must not be changed more than 1.0 unit unless after the change, the pH will fall within the 6.5 to 9.0 limits. The commission must ascertain that no detrimental effect on stream usage will occur as a result of the greater pH change.[770]

Heat cannot be added to any streams, lakes, and reservoirs that will elevate the natural temperate by more than 5 °F. The maximum water temperature for these bodies of water cannot exceed 90 °F, except in the Tennessee River where the

[767]WQCII Water Quality Criteria for Intrastate, Interstate and Coastal Water of Mississippi § n II(7).
[768]Id. § II.
[769]Id. § II(6).
[770]Id. § II(7).

water temperature cannot exceed 86 °F. In lakes and reservoirs, withdrawals from or discharge of heated water to the hypolimnion cannot be made unless it can be shown that such discharge is beneficial to the water quality.

In all water, the normal daily and seasonal temperature variations that were present before the addition of artificial heat must be maintained. The discharge of any heated waste into any coastal or estuarine waters cannot raise temperatures more than 4 °F above the natural from October through May nor more than 1.5 °F above the natural during from June through September. Unlike Arkansas water quality law that allows maximum daily temperatures to be measured at mid-depth or 3 feet (whichever is less), the Mississippi law requires that temperature will be measured at a depth of 5 feet in water of 10 feet or greater in depth; and for water of less than 10 feet in depth, temperature criteria will be applied at mid-depth.[771]

The law also provides for toxic substances concentration as it relates to the aquatic life and human health standards. Concentration of toxic substances for aquatic life cannot result in chronic or acute toxicity or impairment of the uses of aquatic life. Any levels in excess of these values are considered to result in chronic or acute toxicity. The concentration of toxic substances for human health cannot exceed the level necessary to protect human health through exposure routes of fish tissue consumption, water consumption, or other routes. Numeric criteria for all bodies of water are created for 34 toxic pollutants for which the EPA has published national criteria for the protection of aquatic life and human health pursuant to Section 304(a) of the Federal Clean Water Act and chlorine. For a complete list of the criteria, see appendix A of the WQCII Water Quality Criteria for Intrastate, Interstate, and Coastal Water of Mississippi. For a detailed definition of acute or chronic toxicity and application of the numeral criteria, please see section II (C) of the above-mentioned law.

For water being designated as public water supply, which is mainly used for drinking and food processing purposes, the Mississippi State Department of Health must approve the water treatment process. Water that meets the public water supply criteria is also suitable for secondary contact recreation, which is defined as incidental contact with the water, including wading and occasional swimming. In determining the acceptability of a proposed site for disposal of bacterially related wastewater in or near water that has this classification, the Permit Board must consider the relative proximity of the discharge to water supply intakes. The board must determine a number of matters such as bacteria, chlorides, specific conductance, dissolved solids, threshold order, phenolic compounds, radioactive substances, and specific chemical constituents. For example, regarding chlorides, the law provides that there cannot be substances added that will cause the chloride content to exceed 230 milligrams per liter in freshwater streams. No substances can be added that will cause the dissolved solids to exceed 500 milligrams per liter for freshwater streams.[772]

Bodies of water are also divided into different classifications, including shellfish harvesting, recreation, fish and wildlife, and ephemeral stream. For each of these classifications, different water quality standards must be observed.

Wisconsin (region 4).—The Wisconsin Legislature designates the Department of Natural Resources as the central agency to organize a comprehensive program to "protect,

[771]WQCII Water Quality Criteria for Intrastate, Interstate and Coastal Water of Mississippi § II(8).
[772]Id. § III(1).

maintain, and improve the quality and management of the water of the State . . . . "[773] The department has the general supervision and control over State water. It must not only carry out the planning, management, and regulatory programs, but also formulate plans and programs for the prevention and abatement of water pollution and for the maintenance and improvement of water quality.[774] In addition, the department is required to promulgate rules setting standards of water quality. In adopting or modifying any water quality criteria, it must do the following:[775]

- Publish annually and provide public notice of water quality criteria to be adopted, revised, or reviewed.
- Consider information reasonably available to the department on the likely social, economic, energy usage, and environmental costs associated with attaining the criteria and provide a description of the economic and social considerations used in the establishment of the criteria.
- Establish criteria, which are no more stringent than reasonably necessary, to assure attainment of the designated use for the water bodies in question.
- Employ reasonable statistical techniques, when appropriate, in interpreting the relevant water quality data.
- Develop a technical support document that identifies the scientific data used, the margin of safety applied, and any facts and interpretations of those data applied in deriving the water quality criteria.

The department is required, upon request, to consult with and advise owners who have installed or are about to install systems or plants, as to the most appropriate water supply and the best method of providing for its purity, or as to the best method of disposing of wastewater. It must supervise chemical treatment of water. It must promulgate rules establishing an examining program for the certification of waterworks and wastewater treatment plant operators. Moreover, it must make investigations and inspections to insure compliance with the law.

The department is authorized to do the following:[776]

- Issue general, specific, and temporary emergency orders.
- Conduct scientific experiments, investigations, waste treatment demonstrations, and research.
- Enter into agreements with the responsible authorities of other states, subject to approval of the governor, relative to methods, means, and measures to be used to control pollution of any interstate streams and other bodies of water.
- Order or cause the abatement of any nuisance affecting the water of the State.
- Accept gifts and grants from any private or public source.
- Prohibit the installation or use of septic tanks in any area in which the department finds the use of septic tanks will impair water quality.
- Establish, administer, and maintain a safe drinking water program no less stringent than the requirements of the Safe Drinking Water Act of 1974.

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[773]Water Quality, WIS. STAT. ANN. § 144.025(1) (West 1989).
[774]Id. § 144.025(2) (West 1989 & Supp. 1993).
[775]Id. § 144.025(2) (West 1989 & Supp. 1993)
[776]Id. § 144.025(2) (West 1989 & Supp. 1993).

- Order or cause the abatement of pollution that the department has determined to be significant and caused by a nonpoint source, in consultation with the Department of Agriculture, Trade and Consumer Protection.

The Wisconsin law provides that the department's approval is required for any construction, installation, or operation of wells which withdraw water from underground sources where the capacity and rate of withdrawal of all wells on one property exceeds 100,000 gallons per day.[777] Personnel of all State agencies just report any evidence of water pollution to the department.[778]

Iowa (region 5).—The Water Quality Law of Iowa[779] designates the Department of Natural Resources as the State agency to prevent, abate, or control water pollution and to conduct the public water supply program.[780] The department regulates the registration or certification of water well contractors.[781] The department has jurisdiction over and regulates direct discharge to all bodies of water in the State.[782] Moreover, the department must—

- ◊ carry out all responsibilities of the State regarding private water supplies and private sewage disposal systems;[783]
- ◊ adopt standards, by rule, for commercial cleaning of private sewage disposal facilities;[784]
- ◊ adopt standards and issue licenses;[785] and
- ◊ establish a well contractor certification program.[786]

Each county board of health must adopt standards for private water supplies and private sewage disposal facilities[787] and regulate the private water supply and private sewage disposal facilities located within the board's jurisdiction.[788] It must enforce all standards and licensing established by the department.[789] However, if the county board of health fails to fulfill its responsibilities, the department will retain concurrent authority to enforce State standards for private water supply and private sewage disposal facilities within a county and exercise its departmental authority.[790]

The Environmental Protection Commission must make grants to counties for purpose of conducting programs for the testing of private, rural water supply wells and for the proper closing of abandoned, rural, and private water supply wells

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[777]Water Quality, WIS. STAT. ANN. § 144.025(2) (West 1989 & Supp. 1993).
[778]Id.
[779]Water Quality, IOWA CODE ANN. § 455B.171 et seq. (West 1990 & Supp. 1993).
[780]Id. § 455B.172(1) (West 1990).
[781]Id. § 455B.172(7) (West Supp. 1993).
[782]Id. § 455B.172(5).
[783]Id. § 455B.172(2) (West 1990).
[784]Id. § 455B.172(5) (West Supp. 1993).
[785]Water Quality, IOWA CODE ANN. § 455B.172(5) (West Supp. 1993).
[786]Id. § 455B.190A(2) (West Supp. 1993). The Iowa water quality law also creates a well contractors' council. For a detailed description of the council. Id. § 455B.190A.3.
[787]IOWA CODE ANN. § 455B.172(3) (West 1990).
[788]Id. § 455B.172(4).
[789]Id. § 455B.172(5) (West Supp. 1993).
[790]Id. § 455B.172(5).

within the county's jurisdiction.[791] Among other duties,[792] the commission is required to establish, modify, or repeal water quality standards, pretreatment standards, and effluent standards.[793]

The director of the department is authorized to grant exemptions from a maximum contaminant level or treatment technique, or both. The director can also grant variances from—

- ◊ drinking water standards for public water supply systems, and
- ◊ the department's rules, if necessary and appropriate.

The director's denial of a variance or exemption is appealable to the commission.[794]

The Iowa water quality law requires written permits for the following activities:[795]

- The construction, installation, or modification of any disposal system or public water supply system, or any part, extension or addition to such system (except sewer extensions and water supply distribution system extensions since they are subject to review and approval by a city or county public works department).
- The construction or use of any new point source for the discharge of any pollutant into any water of Iowa.
- The operation of any waste disposal system or public water supply system or any part of or extension or addition to the system.

The law specifically prohibits all persons from disposing of a pollutant by dumping, depositing, or discharging it into any water of Iowa. This prohibition does not apply to discharge of adequately treated sewage, industrial waste, or other waste pursuant to a permit issued by the director.[796] The law also prohibits all persons from applying any pesticide into any water of Iowa that the department has classified as a class "A" or class "C", or high quality resource water. This prohibition does not apply to the application of such pesticide by a certified applicator who is trained in aquatic applications and who has received a permit from the department.[797]

All contractors must first register with or be certified by the department before engaging in any well construction or reconstruction activities.[798] Landowners must first obtain a permit before drilling for or constructing a new water well.[799] The department will not grant such permit unless the applicants register with the department all wells (including abandoned wells) on the property.[800] However, the county board of supervisors is authorized to grant an exemption from the permit requirements to a landowner if emergency drilling is necessary to meet an immediate need for water.[801]

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[791]IOWA CODE ANN. § 455B.172(5).
[792]Id. § 455B.175 (West 1990 & Supp. 1993).
[793]Id. § 455B.175(2) (West 1990).
[794]Id. § 455B.181.
[795]Id. § 455B.183.
[796]Id. § 455B.186(1) (West Supp. 1993).
[797]Id. § 455B.186(2).
[798]Id. § 455B.187.
[799]Id.
[800]Id. § 455B.187.
[801]Id. § 455B.187.

The Iowa water quality law requires that all abandoned wells must be plugged according to the department's schedule.[802] The department must adopt a prioritized closure program, a time frame for its completion, and rules for the implementation of such a program. All abandoned wells must be plugged no later than July 1, 2000.[803] Abandoned wells are divided into three classes: Class 1, Class 2, and Class 3.

Class 1 well is a well of 100 feet or less in depth and 18 inches or more in diameter.[804]

Class 2 well is a well of more than 100 feet in depth or less than 18 inches in diameter or a bedrock well.[805]

Class 3 well is a standpoint well or a well 50 feet or less in depth constructed by joining a screened drive point with lengths of pipe and driving the assembly into a shallow sand and gravel aquifer.[806]

Each of these must be plugged in a certain manner.[807] Those who fail to plug their wells properly are subject to civil penalty.[808]

Nebraska (region 5).—Under the Nebraska Environmental Protection Act,[809] the Environmental Control Council is required to adopt rules and regulations that will set forth standards of air, water, and land quality. It must classify air, water, and land contamination sources according to levels and types of discharges, emissions, and other characteristics.[810] Because water quality is the main focus of this section, only provisions regarding water quality will be discussed.

When adopting the classification of water quality standards, the council must consider the following:[811]

- The size, depth, surface, or underground area covered; the volume, direction, and rate of flow; the stream gradient; and the temperature of the water.
- The character of the area affected by such classification standards, its peculiar suitability for particular purposes, conserving the value of the area, and encouraging the most appropriate use of lands within such area for domestic, agricultural, industrial, or recreational, and aquatic life purposes.
- The uses of such water for agricultural, transportation, domestic, and industrial consumption; for fishing and aquatic culture; for the disposal of sewage, industrial, or other wastes; or for other uses.
- The extent of present pollution or contamination of such water that has already occurred or resulted from past discharges.
- The procedures pursuant to the Federal Clean Water Act for certification by the department of activities requiring a Federal license or permit and that may result in a discharge.

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[802]GA. CODE ANN. § 455B.190(2) (West Supp. 1993).
[803]Id.
[804]Id. § 455B.190(1)(a) (West 1990).
[805]Id. § 455B.190(1)(b).
[806]Id. § 455B.190(1)(c).
[807]Id. § 455B.190(3).
[808]Id. § 455B.190(6) (West Supp. 1993).
[809]Environmental Protection Act, NEB. REV. STAT. § 81-1501 et seq. (1987).
[810]Id. § 81-1505(1).
[811]Id. § 81-1505(2).

In adopting standards for performance concerning the discharge of pollutants, the council must consider what is achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives.[812]

When adopting effluent limitations or prohibitions, the council must consider a number of factors, including—

- ◊ the type, class, or category of discharges; and
- ◊ the quantities, rates, and concentrations of chemical, physical, biological, and other constituents that are discharged to point sources into navigable or other water of the State.[813]

When adopting toxic pollutant standards and limitations, the council is required to consider—

- ◊ the combinations of pollutants;
- ◊ the toxicity of the pollutant and its persistence and degradability;
- ◊ the usual or potential presence of the affected organisms in any body of water;
- ◊ the importance of the affected organisms; and
- ◊ the nature and extent of the effect of the toxic pollutant on such organisms.[814]

In adopting pretreatment standards, the council must consider—

- ◊ the prohibitions or limitations to noncompatible pollutants;
- ◊ prohibitions against the passage of pollutants through a publicly owned treatment works; and
- ◊ the prevention of the discharge of pollutants that are inadequately treated.[815]

In adopting treatment standards, the council must provide for processes to which wastewater can be subjected in a publicly owned wastewater treatment works to make such wastewater suitable for subsequent use.[816]

However, before adopting, amending or repealing any standards and classifications of water quality, the council must conduct public hearings after due notice.[817]

New Mexico (region 6).—The New Mexico Legislature enacted the Water Quality Act,[818] with a number of limitations.[819] The New Mexico Water Quality Act does not:

- Grant to the Water Quality Control Commission or to any other entity the power to take away or modify property rights in water.
- Take away or modify property rights in water.

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[812]Environmental Protection Act, NEB. REV. STAT. § 81-1505(4).
[813]Id. § 81-1505(3).
[814]Id. § 81-1505(5).
[815]Id. § 81-1505(6).
[816]Id. § 81-1505(7).
[817]Id. § 81-1505(17).
[818]Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-1 et seq. (Michie 1993).
[819]Id. § 74-6-12.

- Apply to any activity or condition subject to the authority of the environmental improvement board pursuant to the Hazardous Waste Act, the Ground Water Protection Act, or the Solid Waste Act except to abate water pollution or to control the disposal or use of septage and sludge.
- Authorize the commission to adopt any regulation regarding any condition or quality of water if the water pollution and its effects are confined entirely within the boundaries of property within which the water pollution occurs when the water does not combine with other water.
- Supersede or limit the applicability of any law relating to industrial health, safety, or sanitation.
- Apply to any activity or condition subject to the authority of the oil conservation commission under the Oil and Gas Act, and other laws giving power on the oil conservation commission to prevent or abate water pollution.

In addition to the above limitations, the act also allows reasonable degradation of water quality resulting from beneficial use. However, such degradation must not result in impairment of water quality to the extent that water quality standards are exceeded.[820]

The act creates a Water Quality Control Commission, which originally was to be effective until July 1, 2000; however, in 1993 when the Water Quality Act was amended, the Water Quality Control Commission was terminated pursuant to the Sunset Act. The commission continued to operate until 1994.[821] This commission is composed of 9 members.[822] A member is prohibited from accepting income directly or indirectly from permit holders or applicants for a permit upon the acceptance of his or her appointment.[823] This commission is administratively attached to the Department of the Environment.[824] Furthermore, it is considered the State water pollution control agency for New Mexico for all purposes of the Federal Water Pollution Control Act, the Water Quality Act of 1965, and the Clean Water Restoration Act of 1966.[825] The act prescribes the following mandatory duties and powers to the commission:

- To adopt a comprehensive water quality management program and develop a continuing planning process.[826]
- To adopt water quality standards for surface and ground water of New Mexico subject to the Water Quality Act.[827]
- To adopt, promulgate, and publish regulations to prevent or abate water pollution in New Mexico or in any specific geographic area, aquifer, or

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[820]Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-12.
[821]Id. § 74-6-17 (Michie 1993).
[822]Id. § 74-6-3(A) (Michie 1993) The Commission consists of (1) the director of the environmental improvement division of the health and environment department; (2) the director of the department of game and fish; (3) the state engineer; (4) the chairman of the soil conservation commission; (5) the director of the state park and recreation division of the energy, minerals, and natural resources department; (6) the director of New Mexico department of agriculture; (7) the chairman of the soil and water conservation commission; (8) the director of the bureau of mines and mineral resources at the New Mexico institute of mining and technology; and (9) one representatives of the public.
[823]Id. § 74-6-3(B).
[824]Id. § 74-6-3(F).
[825]Id. § 74-6-3(E) (1993).
[826]Id. § 74-6-4(B).
[827]Id. § 74-6-4(C).

watershed, any class of water in New Mexico, and to govern the disposal of septage and sludge and the use of sludge for various beneficial purposes.[828]

- To assign responsibility for administering its regulations to constituent agencies to assure adequate coverage and prevent duplication of effort.[829]
- To require a permit respecting the use of water in irrigated agriculture in the case of the employment of a specific practice, in connection with such irrigation, that documentation or actual case history has shown to be hazardous to public health or the environment.[830]
- To coordinate application procedures and funding cycles for loans and grants from the Federal Government and from other sources, public or private, with the local government division of the Department of Finance and Administration pursuant to the New Mexico Community Assistance Act.[831]
- To adopt regulations establishing procedures for certifying Federal water quality permits.[832]

The act encourages (does not mandate) the commission to do the following:

- To accept and supervise the administration of loans and grants from the Federal Government and from other sources, public, or private.[833]
- To enter into or authorize constituent agencies to enter into agreements with the Federal Government or other state governments for purposes consistent with the Water Quality Act and receive and allocate to constituent agencies funds made available to the commission.[834]
- To grant an individual variance from any regulation of the commission, whenever it finds that compliance with the regulation will impose an unreasonable burden upon any lawful business, occupation, or activity.[835]
- To adopt regulations to require the filing with it or a constituent agency of proposed plans and specifications for the construction and operation of new sewer systems, treatment works or sewerage systems or for extension, modifications of or additions to new or existing sewer systems, treatment works, or sewerage systems.[836]
- To adopt regulations requiring notice to it or a constituent agency of intent to introduce or allow the introduction of water contaminants into bodies of water of New Mexico.[837]
- To adopt regulations establishing pretreatment standards that prohibit or control the introduction into publicly owned sewerage systems of water contaminants that are not susceptible to treatment by the treatment works or that would interfere with the operation of the treatment works.[838]

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[828]Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-4(D).
[829]Id. § 74-6-4(E).
[830]Id. § 74-6-4(K).
[831]Id. § 74-6-4(L). For complete text of the New Mexico Community Assistance Act § 11-6-1 et seq. (Michie 1978).
[832]Id. § 74-6-5(B) (Michie 1993).
[833]Id. § 74-6-4(A).
[834]Id. § 74-6-4(F).
[835]Id. § 74-6-4(G).
[836]Id. § 74-6-4(H).
[837]Id. § 74-6-4(I).
[838]Id. § 74-6-4(J).

- To require persons to obtain from a constituent agency designated by the commission a permit for the discharge of any water contaminant or for the disposal or re-use of septage or sludge.[839]

The act provides that the commission must deny application for permit if it finds that—

- ◊ the effluent would not meet applicable state or Federal effluent regulations, standards of performance, or limitations;
- ◊ any provision of the act would be violated;
- ◊ the discharge would cause or contribute to water contaminant levels in excess of any State or Federal standard; or if
- ◊ the applicant, within 10 years immediately preceding the date of application submission, has
  - knowingly misrepresented a material fact in an application for a permit.
  - refused or failed to disclose required information;
  - been convicted of a felony or other crime involving moral turpitude;
  - been convicted of a felony in any court for any crime defined by State or Federal law as being a restraint of trade, price-fixing, bribery, or fraud;
  - exhibited a history of willful disregard for environmental laws of any state or the United States; or
  - had an environmental permit revoked or permanently suspended for cause under any environmental laws of any State or the United States.[840]

Moreover, permits are issued for the usual term of 5 years or less.[841] The commission is also authorized to impose reasonable conditions upon permits.[842]

Permits are also modifiable or terminable for any of the following causes:[843]

- Violation of any condition of the permit.
- Obtaining the permit by misrepresentation or failure to disclose fully all relevant facts.
- Violation of any provisions of this act, or any other applicable regulations, standards of performance or water quality standards.
- Violation of any applicable State or Federal effluent regulations or limitations.

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[839]Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-5(A).
[840]Id. § 74-6-5(E).
[841]Id. § 74-6-5(H).
[842]Id. § 74-6-5(I). These conditions may include—
(1) to install, use and maintain effluent monitoring devices;
(2) to sample effluents and receiving waters for any known or suspected water contaminants in compliance with methods and at locations and intervals as may be prescribed by the Commission;
(3) to establish and maintain records of the nature and amounts of effluents and the performance of effluent control devices;
(4) to provide any other information relating to the discharge or direct or indirect release of water contaminants; and
(5) to notify a constituent agency of the introduction of new water contaminants from a new source and of a substantial change in volume or character of water contaminants being introduced from sources in existence at the time of the issuance of the permit.
[843]N.M. STAT. ANN. § 74-6-5(L).

- Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

The affected party may appeal any decision entered by the commission or the constituent agency.[844]

Furthermore, the act authorizes the commission to require every applicant for a permit to dispose or use septage or sludge, to file with the appropriate constituent agency a disclosure statement.[845] Upon a request by the constituent agency, the department of public safety is required to prepare and transmit to the agency an investigative report on the applicant.[846] In preparing the investigative report, the department of public safety may request and receive criminal history information from any other law enforcement agency or organization.[847] However, the department of public safety must keep confidential all information received from the law enforcement agency.[848] All persons required to file a disclosure statement must provide any assistance or information requested by the constituent agency or the department of public safety.[849] Failure to do will result in denial or termination of permit.[850]

The act, however, provides that a person may be exempt from the disclosure statement requirement. These exemptions are as follows:[851]

- The application is for a facility owned or operated by the State, a political subdivision of the State or an agency of the Federal Government or for a permitted disposal or use of septage or sludge on the premises where the sludge or septage is generated.
- The person has submitted a disclosure statement pursuant to this section within the previous year and no changes have occurred that would require disclosure.
- The person is a corporation or an officer, director, or shareholder of that corporation and that corporation—
  - ◊ has on file and in effect with the Federal securities and exchange commission a registration statement;
  - ◊ submits to the constituent agency, with the application for a permit, evidence of such registration; and
  - ◊ submits to the constituent agency, on the anniversary date of the issuance of the permit, evidence of such registration.

The constituent agency has the mandatory duties to administer regulations adopted pursuant to the Water Quality Act, responsibility for the administration of which has been assigned to it by the commission.[852] In addition, it has the following nonmandatory powers:[853]

- To receive and expend funds appropriated, donated, or allocated to the constituent agency for purposes consistent with the Water Quality Act.

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[844]Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-5(N)-(P).
[845]Id. § 74-6-5.1(A).
[846]Id. § 74-6-5.1(B).
[847]Id.
[848]Id.
[849]Id. § 74-6-5.1(C).
[850]Id.
[851]Id. § 74-6-5.1(E).
[852]Id. § 74-6-8.
[853]Id. § 74-6-9.

- To develop facts and make studies and investigations, and to require the production of documents necessary to carry out the responsibilities assigned to the constituent agency.
- To report to the commission and to other constituent agencies water pollution conditions that are believed to require action where the circumstances are such that the responsibility appears to be outside the responsibility assigned to the agency making the report.
- To make every reasonable effort to obtain voluntary cooperation in the prevention or abatement of water pollution.
- To enter at reasonable times upon or through any premises in which an effluent source is located or in which are located any records required to be maintained by regulations of the Federal Government or the commission.
- Like any interested party, to recommend and propose regulations and standards for promulgation by the commission.
- Like any interested party, to present data, views, or arguments and examine witnesses and otherwise participate at all hearings conducted by the commission or any other administration agency.

Under the Water Quality Act, the water quality management fund is created and will be administered by the Department of the Environment.[854]

The act specifies that all regulations or water quality standards or amendments or repeals can be adopted only after a public hearing.[855] It allows an interested party to petition in writing to have the commission adopt, amend, or repeal a regulation or water quality standard.[856] Moreover, all hearings on regulations or water quality standards of a statewide application will be held in Santa Fe; all hearings on regulations or water quality standards that are not of statewide application will be held within the area which is substantially affected by the regulation or standard.[857] All interested parties are allowed to present data, views, or arguments and examine witnesses and otherwise participate at all hearings conducted by the commission or any other administration agency.[858]

In addition, the act imposes both civil[859] and criminal penalties[860] on violations of the Water Quality Act.

Texas (regions 6 & 7).—The Water Quality Control Law of Texas[861] requires the Texas Natural Resource Conservation Commission to administer the provisions of the Water Quality Control law to establish and control the quality of water of the State.[862]

Under the law, the commission is required to set water quality standards.[863] In developing water quality standards and related waste load models for water quality,

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[854]Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-5.2.
[855]Id. § 74-6-6(A).
[856]Id. § 74-6-6(B).
[857]Id. § 74-6-6(C).
[858]Id. § 74-6-6(D).
[859]Id. § 74-6-10.1, effective on June 18, 1993.
[860]Id. § 74-6-10.2, effective on June 18, 1993.
[861]TEXAS WATER CODE ANN. § 26.001 et seq. (West 1988 & Supp. 1995).
[862]Id. § 26.011 (West Supp. 1995).
[863]Id. § 26.023.

the commission must consider the existence and effects of nonpoint source pollution, toxic materials, and nutrient loading.[864] However, before setting or amending water quality standards, the commission must hold public hearings and consult with the executive administrator to ensure that the proposed standards are consistent with the objectives of the State water plan.[865]

To assure that the use of greywater will not damage the quality of water, the commission is also required to adopt and implement minimum standards for the use of greywater in irrigation and for other agricultural, domestic, commercial, and industrial purposes.[866]

The commission must ensure the comprehensive regional assessment of water quality in each watershed and river basin of the State.[867] Regional assessment involving agricultural or silvicultural nonpoint source pollution must be coordinated through the State Soil and Water Conservation Board.[868]

The executive director of the commission must develop and prepare comprehensive water quality management plans for the different areas of the State from time to time.[869] After preparation, each plan must be submitted to the commission, local governments, and other Federal, State, and local governmental agencies, which the commission deems to be affected by or to have a legitimate interest in the plan.[870] The plan is subject to a period for review and hearing. The commission must adopt the plan if it determines that the plan complies with objectives of the Water Quality Control law and any rules or regulations adopted by the commission.[871]

Under the Water Quality Control law, the commission can prescribe reasonable requirements for individuals who discharge waste or pollutants to monitor and report on their activities concerning collection, treatment, and disposal of the waste or pollutant.[872] It is authorized to apply against industrial users of publicly owned treatment works toxic effluent standards and pretreatment standards for the introduction of pollutants into treatment works. As conditions to issuance of permit for the discharge of pollutants from publicly owned treatment works, the commission must require the permittee to provide information concerning new introduction of pollutants or substantial changes in the volume or character of pollutants being introduced into treatment works.[873] The commission can adopt rules to prohibit discharge to a plant from a concentrated animal feeding operation.[874] Furthermore, it is authorized to administer a program for the regulation of pretreatment of pollutants that are introduced into publicly owned treatment works.[875]

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[864]TEXAS WATER CODE ANN. § 26.023.
[865]Id. § 26.024 (West 1988).
[866]Id. § 26.032 (West 1988). Greywater is defined to mean wastewater from clothes washing machines, showers, bathtubs, handwashing lavatories, and sinks that are not used for food preparation or disposal of chemical and biological ingredients.
[867]Id. § 26.0135 (West Supp. 1995).
[868]Id.
[869]Id. § 26.036 (West 1988).
[870]Id. § 26.037.
[871]Id.
[872]Id. § 26.042 (West 1988).
[873]Id. § 26.047.
[874]Id. § 26.048 (West Supp. 1995).
[875]Id. § 26.1211 (West Supp. 1995).

After public hearing, a county can adopt an order, resolution, or any other rule it deems appropriate to abate or prevent pollution or injury to public health.[876]

To encourage and promote the development and use of regional and areawide waste collection, treatment, and disposal systems to serve the waste disposal needs of Texans and to prevent pollution, maintain and enhance the quality of water, the commission is authorized to implement water quality control and management plans in regional or areawide systems.[877] However, before designating a regional or areawide system to serve a particular area, the commission must hold a hearing and notify the local government, which may be affected by the designation.[878] A person can be excluded from a regional or areawide system if the person will suffer undue financial hardship as a result of inclusion in the system.

Before making discharges of waste into water, each person must obtain a permit from the commission. However, any pollution or discharge of waste without a permit or in violation of a permit is not subject to prescribed penalties if such violation is caused by an act of God, war, strike, riot, or other catastrophe.[879]

The local government has the option to inspect the public water in its area and determine whether or not—

- ◊ the quality of the water meets the state water quality standards;
- ◊ persons discharging effluent into public water in the areas where the local government has jurisdiction have valid permits for such discharges; and
- ◊ persons who have permits are making discharge in compliance with the permit's requirements.[880]

The law requires that every city having a population of 5,000 or more must establish a water pollution control and abatement program for the city.[881]

The municipality is required to exercise the powers granted under state law to a municipality to adopt ordinances to control and abate nonpoint source water pollution or to protect threatened or endangered species.[882]

The Water Quality Control law imposes criminal prosecution on violations.[883]

The Water Quality Control law does not apply to discharges of oil.[884]

Furthermore, to maintain and protect the quality of water resources, the Water Quality Control law includes provisions regulating—

- ◊ underground and aboveground storage tanks;[885]
- ◊ coastal oil and hazardous spill prevention and control;[886]

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[876]TEXAS WATER CODE ANN. § 26.032 (West 1988).
[877]Id. § 26.081.
[878]Id. § 26.082.
[879]Id. § 26.132.
[880]Id. § 26.171.
[881]Id. § 26.077 (West 1988 & Supp. 1995).
[882]Id. § 26.178 (West Supp. 1995).
[883]Id. § 26.211 (West 1988).
[884]Id. § 26.011 (West Supp. 1995).
[885]Id. § 26.341 through 26.359 (West 1988 & Supp. 1995).
[886]Id. § 26.261 through 26.268 (West 1988).

- ◊ inactive hazardous substance, pollutant, and contaminant disposal facilities;[887] and
- ◊ ground water protection.[888]

Idaho (region 8).—The Idaho Legislature adopted its Water Quality law to provide direction for local watershed planning and management. Under this law, community-based advisory committees, appointed by the director of the Department of Health and Welfare, can make recommendations to the Idaho Division of Environmental Quality (DEQ) and other resource agencies on how to properly manage impaired watersheds. Moreover, the law identifies a monitoring process to determine the quality of the State's surface water and creates a process for development of pollution budgets (watershed action plans) on watersheds that do not meet State standards.

This law also creates the Citizen Advisory Committees. The Basin Advisory Groups are created in each of the six basins around the State, including Panhandle, Clearwater, Salmon, Southwest, Upper Snake and Bear. These groups are represented by members of the forest products industry, agriculture, mining, local government, livestock, water based recreation interests, environmental interests, non-municipal dischargers, Indian tribes, and the general public. The committees make recommendations to DEQ regarding monitoring, State water quality standard revisions, prioritization of impaired bodies of water, solicitation of public input, and development of pollution budgets throughout the basin. In conjunction with DEQ and EPA, and in compliance with the Clear Water Act and Idaho Code § 39-3613, these groups establish a priority order of watersheds that need pollution management most.

Moreover, DEQ has appointed Watershed Advisory Groups for each watershed designated by the Basin Advisory Group as a *high* priority. These Watershed Advisory Groups are composed of all parties that have an interest in the development and implementation of a watershed action plan. These groups represent a number of interests, including local and tribal governments, special purpose groups, affected parties, interested residents, and appropriate Federal and state agencies. In addition, these groups recommend specific actions within a watershed to address sources of pollution and restore water quality to support appropriate uses. This also includes development of pollution budgets and ensuring public involvement in the process.

The Idaho law also provides for a watershed monitoring process. It indicates that monitoring will be conducted to determine appropriate uses and the status of these uses in the watersheds. Methods to determine the appropriate uses and status must include water quality standards in conjunction with biological and aquatic habitat measures. Moreover, the new law requires those watersheds not supporting uses to be ranked by DEQ, in consultation with the Basin Advisory Group, as high, medium, and low. For watersheds designated as high, a Watershed Action Plan must be developed.

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[887]TEXAS WATER CODE ANN. § 26-301 through 26.308 (West 1988).
[888]Id. § 26-401 through 26.407 (West Supp. 1995).

The Idaho Water Quality law outlines the Watershed Action Plan Development, consisting of four phases.

Phase I—Watershed characterization. Watershed Advisory Group prepares a characterization of the watershed. This characterization not only identifies types and levels of nonpoint and point source pollutants, but also evaluates water quality, appropriate uses, and land use patterns. Moreover, sources of pollution addressed include farm practices, grazing, municipalities, stormwater runoff, onsite sewage disposal system, mining practices, forestry practices, road construction, and other sources.

Phase II—Action Plan Pollution Control Strategies. During this phase, the Watershed Advisory Group develops pollution control strategies to restore appropriate uses and enhance water quality. These control strategies address priority pollutants and sources through educational, voluntary, or regulatory approaches.

Phase III—Strategy for implementing the action plan. This group strategy includes actions required for each agency; an implementation schedule; estimated costs and budget; a strategy for coordination with ongoing planning and management programs within the watershed; provisions for public involvement; and a method for evaluating the effectiveness of the action plan.

Phase IV—Action Plan Review Phase. The group and the lead agency forward the completed draft of the plan to the Basin Advisory Group for review and comment. Subsequently, the Basin Advisory Group submits the draft to DEQ, implementing entities, and the public for review and comment. Furthermore, the final revised action plan is sent to the lead agency for review and submittal to DEQ for adoption as part of the state's water quality management plan.

Utah (region 8).—The Utah Water Quality Act[889] provides that the Water Quality Board[890] shall have the following powers and duties:[891]

- Develop programs for the prevention, control, and abatement of new or existing pollution of the water of the state.
- Advise, consult, and cooperate with other state agencies, the Federal Government, other states, interstate agencies, and with affected groups, political subdivisions, and industries.
- Encourage, participate in, or conduct studies, investigations, research, and demonstrations regarding water pollution and causes of water pollution as the board finds necessary to discharge its duties.
- Collect and disseminate information regarding water pollution and the prevention, control, and abatement of water pollution.
- Adopt, modify, or repeal standards of quality of water and classify that water accordingly to their reasonable uses.
- Make rules to—
  - ◊ implement awarding construction loans to political subdivisions and municipal authorities;

[889]UTAH CODE ANN. § 19-5-101 et seq. (1991 & Supp. 1995).
[890]Id. § 19-5-103 (Supp. 1995).
[891]Id. § 19-5-104.

- ◊ set effluent limitations and standards;
- ◊ implement or effectuate the powers and duties of the board; and
- ◊ protect the public health for the design, construction, operation, and maintenance of individual wastewater disposal systems, liquid scavenger operations, and vault and earthen pit privies.

- Issue, modify, or revoke orders that—
  - ◊ prohibit or abate discharges;
  - ◊ require the construction of new treatment works;
  - ◊ set standards of water quality, classifying water; and
  - ◊ require compliance with this act and rules made pursuant to this act.
- Review plans, specifications or other data relative to disposal systems.
- Issue, revoke, modify, or deny discharge permits.
- Give reasonable consideration in the exercise of its powers and duties to the economic impact of water pollution control on industry and agriculture.
- Exercise all incidental powers necessary to carry out the purposes of this act.
- Meet the requirements of Federal law related to water pollution.
- Establish and conduct a continuing planning process for control of water pollution including the specification and implementation of maximum daily loads of pollutants.
- Make rules governing inspection, monitoring, recordkeeping, and reporting requirements for underground injections.
- Make rules governing sewage sludge management.
- Adopt and enforce rules and establish fees.

Under this act, each individual is prohibited from discharging a pollutant into bodies of water of the State or causing pollution, which constitutes a menace to public health and welfare. The pollutant is harmful to wildlife, fish or aquatic life, or impairs domestic, agricultural, industrial, recreational, or other beneficial uses of water. The pollutant may place any waste in a location where it may cause a pollution.

Each individual must obtain a permit from the executive secretary of the board to—

- ◊ make any discharge or manage sewage sludge not authorized under an existing valid discharge permit; and
- ◊ construct, install, modify, or operate any treatment works.[892]

In addition, the board is authorized to enter upon private or public property to investigate and determine compliance. It can require a person who manages sewage sludge, or the owner of a disposal system to—

- ◊ establish and maintain reasonable records and make reports relating to the operation of the system or the management of the sewage sludge;
- ◊ install, use, and maintain monitoring equipment or methods;
- ◊ sample, and analyze effluents or sewage sludge; and

[892]UTAH CODE ANN. § 19-5-107.

- ◊ provide other information reasonably required.[893]

The act imposes both a monetary fine and a prison term for violation of this act or of any rule, permit, or order adopted pursuant to this act.[894]

Oregon (region 9).—The Oregon Legislature enacted the Agricultural Water Quality Management law[895] with the intention that local agencies will be allowed to contribute to the implementation of a water quality management plan.[896] Moreover, all agricultural activities conducted on agricultural lands within the boundaries of an area subject to the water quality management plan must be conducted in full compliance with the plan and rules implementing the plan.[897]

Under this law, the State Department of Agriculture is authorized to describe the boundaries of agricultural and rural lands that are subject to a water quality management plan.[898] In consultation with the State Board of Agriculture, it may adopt rules necessary to effectuate a water quality management plan,[899] and may require any landowner whose land is located within an area subject to a plan to perform a number of actions necessary to carry out the plan. These actions include—

- ◊ routine construction, maintenance and clearance of any works and facility;
- ◊ agricultural and cropping practices; and
- ◊ any other measure or avoidance necessary to prevent or control water pollution of the State bodies of water.[900]

After reasonable attempts to notify the landowner, the department or its designee may enter upon any lands within the area subject to a water quality management plan to determine whether the landowner is carrying out the required actions.[901] If it is determined that the landowner has failed to perform the required actions, the department must notify and direct the landowner to perform the work or take appropriate actions necessary to bring the condition into compliance with the plan.[902]

Oregon's laws on water quality, specifically on water pollution control, are in Title 36, Public Health and Safety, Chapter 468B.[903] These laws include a general section that—

- ◊ defines pollution to water;
- ◊ authorizes the Environmental Quality Commission to have control over water pollution (setting standards, rules, and cause the State to implement the Federal Water Pollution Control Act) and to spell out the overall policy on water quality of the State; and
- ◊ designates the Department of Environmental Quality to carry out the policy to prevent and abate pollution.

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[893]UTAH CODE ANN. § 19-5-113 (Supp. 1995).
[894]Id. § 19-5-115.
[895]Agricultural Water Quality Management, OR. REV. STAT. § 568.900 to 568.933 (1993).
[896]Id. § 568.906.
[897]Id. § 568.930.
[898]Id. § 568.909 (1993).
[899]Id. § 568.912(1).
[900]Id. § 568.912(2).
[901]Id. § 568.915.
[902]Id. § 568.918.
[903]OR. Title 36, Public Health and Safety, Chapter 468B

A second section concerned with surface water authorizes the Department of Environmental Quality to—

- ◊ certify any Federally licensed and permitted hydroelectric power project, or changes of these projects, or reauthorization of the projects for the water quality purposes;
- ◊ set conditions for the department to grant permits for applicable effluent limitations;
- ◊ approve all plans and specifications impacting water quality based on rules determined by the commission;
- ◊ conduct use attainability of certain water of the State and their follow-up assessment when waters exceed numeric temperature criteria, and to provide regular reports;
- ◊ grant permits for processors of shrimp and crab to discharge by-products in the State bodies of water; and
- ◊ permit for discharge of geothermal spring water to surface water.

Also, the same section authorizes the Environmental Quality Commission to—

- ◊ set the rules and standards of water quality and purity for the State;
- ◊ stipulate alternatives for water quality permit;
- ◊ set up rules for motor vehicle use of waters;
- ◊ specify the liability for damage to fish or wildlife or habitat;
- ◊ distribute the fines or compensation payable to State agencies based on assessed damage liability to the wildlife;
- ◊ stipulate for certain municipalities activities that might impact water quality, more particularly on prohibiting garbage or sewage dumping into State bodies of water; and
- ◊ assist in adoption of rules for use of sludge on agricultural, horticultural, or silvicultural land.

Upon request of the State Board of Forestry, the commission shall review any water quality standard that affects forest operations on forest land.

For forest operations, the law also authorizes the commission and department to establish and enforce water quality and instream water quality standards.

The Oregon Legislature also passed laws to set policy on reducing phosphate pollution. The State prohibits selling or distributing cleaning agents containing phosphorous and requires the Environmental Quality Commission to adopt rules governing the phosphate-cleansing agents. Any exemptions allowed by the law are to be monitored and approved by the Department of Environmental Quality.

Oregon has thorough laws and regulations on the ground water quality. The State goal is to prevent ground water contamination while striving to conserve and restore this resource and to maintain the high quality of the State's ground water for the current and future users.

Several sections of the statute cover the protection of all ground waters. These include—

- ◊ providing ground water management and use policies that emphasize education and research programs;
- ◊ maintaining consistent program and rules on ground water among State agencies;
- ◊ conducting ground water identification and characterization assessment;
- ◊ applying the best management practices; and
- ◊ taking appropriate actions when pollution is found to exceed certain levels.

Oregon law further requires the Department of Environmental Quality to—

- ◊ coordinate all activities on ground water protection to encourage Federal agency actions to be consistent with those of Oregon;
- ◊ adopt ground water resource protection strategies; and
- ◊ grant technical advisory committees to assist it in implementing these strategies.

Oregon law allows individuals, State agencies, subdivisions of the State, or ground water management committees to make requests for funds, advice, or assistance for ground water. Any grants awarded by the Department of Environmental Quality should follow the criteria and guidelines adopted by the Environmental Quality Commission.

Environmental Quality Commission develops rules to establish the maximum levels for contamination in ground water following the recommendations of the technical advisory committee as appointed by the Department of the Environmental Quality according to designated professionals specified in the laws.

When the monitoring and assessment of ground water data confirms the presence of contaminant in an area that is suspected to be from non-point source activities, the Department of Environmental Quality should declare it as an area of ground water concern. This information should be added to a report that has the laboratory tested results of the substance and the statement of impact it may have on the ground water area and aquifers.

The Department of Environmental Quality should cooperate with the State Water Resources Department and the Oregon State Agricultural Experiment Station to conduct on-going monitoring and assessment of the State ground water quality.

To trigger a declaration, the confirmed levels of nitrate and other contaminants should exceed certain levels specified by the law.

The Department of Environmental Quality should form a ground water management committee to research, educate, monitor the ground water and develop an action plan to address the problems if there is no existing management committee.

The department must designate a lead agency for the development of an action plan. The ground water management committee should be composed of at least seven members representing a balance of interest in the declared, impacted areas. Committee duties are to—

- ◊ evaluate the existing action plans;

- ◊ advise State agencies to develop one if there is none existing; and
- ◊ analyze the local action plan whether it is effective in improving the ground water conditions.

When an action plan is developed it should allow for public inputs and comments before it is accepted or rejected by the department. When the success in implementing the action plan is confirmed, the department can repeal the declaration of ground water management area while requiring the ground water management committee to substitute it with a local action plan for continuous maintenance of the ground water quality.

The Oregon Legislative declared a policy of the State to protect its water quality by preventing animal waste discharge into the waters of the State. The policy stipulates that all permits for confined animal feeding operations should specify the maximum number of animals housed in a facility, and any facility having 10 percent, or 25 animals, more than the maximum number permitted will be in violation of the law. Fees will be assessed for the costs of monitoring and inspection expenses, and permit could be revoked or modified by the director of the department or terminated by the holder of the permit.

The statute of Oregon stipulated that a memorandum of understanding should be done on or before January 1, 1994, between the Environmental Quality Commission and the State Department of Agriculture to allow for the State Department of Agriculture to operate a program for the prevention and control of water pollution from a confined animal feeding operation. Subject to the terms of the memorandum, it may allow—

- ◊ the State Department of Agriculture to perform any function of the Environmental Quality Commission or the Department of Environmental Quality relating to control and prevention of water pollution from a confined animal feeding operation; and
- ◊ the staff of the State Department of Agriculture to enter into and inspect a confined animal feeding operation or appurtenant land on a source of water pollution or to ascertain compliance with a statute, rule, standard, or permit condition.

The State Department of Agriculture shall have pertinent record of a confined animal feeding operation (AFO) for performing its duties.

An owner or operator of AFOs will be fined if they are found operating without a valid permit.

The State Department of Agriculture has responsibility to—

- ◊ initiate an investigation in response to written complaint from a citizen in the State;
- ◊ investigate a violation that presents immediate threat to public health and safety; and
- ◊ impose a civil penalty on the owner or operator of an AFO for failure to comply with a provision of the law, or any rule adopted under, or a permit issued under the law for the prevention of water pollution by the AFOs.

The Oregon law provides clear and detailed provisions regulating the hazardous material spillage impacting water quality. The hazardous material spillage law stipulates the following:

- Unless authorized or proved otherwise, it shall be unlawful for oil to enter the water of the State from any ship or any fixed or mobile facility or installation.
- The person who owns oil or has control over oil that enters the water of the State in violation of the law is strictly liable, without regard to fault, for the damages to persons or property, caused by such entry.
- The violators are obliged to collect and remove the oil immediately, or take all practical actions to contain, treat, and disperse the oil.

The director of the Department of Environmental Quality can prohibit or restrict any use of chemical detrimental to the water for the treatment of the oil spills. The following apply to expenses:

- Any expenses incurred by the department for collecting and removing, or treating oil will be borne by the violators.
- The director may enter the public or private property, premises or place to control, collect, remove, treat, contain, or disperse oil spills threatening imminent and unlawful entry into the State water, when the responsible parties fail to act upon the spills.
- Failure to pay for the State expenses, the director of the department can request the attorney general to bring action against the responsible persons to recover the State expense.

Understanding the seriousness of oil spills to the State water, and its difficulty in treating the material once it occurs, the Oregon laws have provisions to allow for contingency planning to prevent oil spills especially on the large, navigable water of the Columbia River, the Willamette River, and the Oregon coast. This law requires that unless an oil spill prevention and emergency response plan has been approved by the Department of Environmental Quality and implemented, no onshore or offshore facilities, covered vessels are allowed to operate in the navigable State bodies of water, and the plan should be renewed at least once every 5 years. In coordination with rules and regulations of Washington and the United States Coast Guard, the Environmental Quality Commission require the contingency plans to meet certain minimum standards stipulated by the laws on or prior to July 2, 1992. Schedules for submitting contingency plans are detailed for various facilities and vessels operated in the navigate bodies of water of the State. Once being submitted, the Department of Environmental Quality should review, determine the adequacy, and approve, or change the plan according to the criteria and procedures developed by the department as prescribed in the laws.

California (region 10).—The Porter-Cologne Water Quality Control Act[904] was enacted with a number of policy objectives, including—

- ◊ conserving, controlling, using water resources, and protecting the quality of State water;
- ◊ regulating the highest water quality that is reasonably attainable;
- ◊ establishing a statewide program for the control of the quality of bodies of water in the State; and
- ◊ administering water quality control regionally, within the framework of statewide coordination and policy.[905]

[904]CAL. WATER CODE § 1300 et seq. (West 1992 & Supp. 1996).
[905]Id. § 13000 (West 1992).

Within the California Environmental Protection Agency, the act creates the State Water Resources Control Board and the Regional Water Quality Control Board.[906] The State board is designated as the State water pollution control agency and is authorized to—

- ◊ give any certificate or statement required by any Federal agency pursuant to a Federal act and
- ◊ exercise any powers delegated to the State by the Federal Water Pollution Control Act.[907]

The State board is required to formulate and adopt State policy for water quality control[908] that must include one or more of the following:[909]

- Water quality principles and guidelines for long-range resource planning, including ground water and surface water management program and control and use of recycled water.
- Water quality objectives at key locations for planning and operation of water resource development projects and for water quality control activities.
- Other principles and guidelines considered necessary by the State board for water quality control.

In formulating and adopting State policy for water quality control, the board must consider State policies with respect to water quality as it relates to coastal marine environment.[910] Moreover, the State board must consult with and carefully evaluate the recommendations of concerned Federal, State, and local agencies.[911]

The State board is required to do the following:

- Annually determine State needs for water quality research and recommend projects to be conducted.[912]
- Administer any statewide program of research in the technical phases of water quality control.[913]
- Evaluate the need for and coordinate water-related investigations of State agencies.[914]
- Formulate, adopt, and revise general procedures for the formulating, adopting, and implementing by regional boards of water quality control plans.[915]
- Prepare and implement a statewide water quality information storage and retrieval program.[916]
- Implement a public information program on matters regarding water quality and maintain an information file on water quality research and other pertinent matters.[917]

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[906]CAL. WATER CODE § 13100.
[907]Id. § 13160 (West 1992).
[908]Id. § 13140.
[909]Id. § 13142 (West Supp. 1996).
[910]Id. § 13142.5.
[911]Id. § 13144 (West 1992).
[912]Id. § 13161.
[913]Id. § 13162.
[914]Id. § 13163.
[915]Id. § 13164.
[916]Id. § 13166.
[917]Id. § 13167.

- Allocate funds to the regional boards.[918]
- Consider all relevant management agency agreements before adopting water quality control plants.[919]
- Formulate and adopt a water quality control plan for ocean water (to be known as the California Ocean Plan).[920]
- Classify wastes and types of disposal sites and to adopt standards and regulations for hazardous waste disposal sites and discharges of mining waste.[921]

Under the Porter-Cologne Water Quality Control Act, California is divided into nine regions—North Coast, San Francisco Bay, Central Coast, Los Angeles, Santa Ana, San Diego, Central Valley, Lahontan, and Colorado River Basin.[922] Within each region, there is a regional board, consisting of nine appointed members.[923] Each regional board has the following duties:

- Adopt regulations to carry out its powers and duties.[924]
- Obtain coordinated action in water quality control, including the prevention and abatement of water pollution and nuisance.[925]
- Encourage and assist in self-policing waste disposal programs.[926]
- Require any State or local agency to investigate and report on any technical factors involved in water quality control or to obtain and submit analyses of water.[927]
- Request enforcement by appropriate Federal, State, and local agencies of their respective water quality control laws.[928]
- Recommend to the State board projects that the regional board considers eligible for any financial assistance.[929]
- Report to the State board and appropriate local health officer any case of suspected contamination within its region.[930]
- File with the State board, when requested, copies of the record of official action.[931]
- Take in consideration the effect of its action on the California Water Plan or any other general or coordinated governmental plan.[932]
- Encourage regional planning and action for water quality control.[933]

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[918]CAL. WATER CODE § 13168.
[919]Id. § 13170.1.
[920]Id. § 13170.2 (West 1992).
[921]Id. § 13172.
[922]Id. § 13200.
[923]Id. § 13201.
[924]Id. § 13222 .
[925]Id. § 13225(a).
[926]Id. § 13225(b) (West 1992).
[927]Id. § 13225(c).
[928]Id. § 13225(d).
[929]Id. § 13225(e).
[930]Id. § 13225(f).
[931]Id. § 13225(g) (West 1992).
[932]Id. § 13225(h).
[933]Id. § 13225(i).

- Review and classify any proposed or currently operating waste disposal site, except any sewage treatment plant or any site that primarily contains fertilizer or radioactive material.[934]
- Review the facility closure and post-closure plans to ensure that water quality is adequately protected during closure and post-closure maintenance period.[935]

Each region must formulate and adopt water quality control plans for all areas within the region.[936] In its water quality control plan, the regional board must also establish water quality objectives to ensure reasonable protection of beneficial uses and the prevention of nuisance. In establishing its water quality objectives, the region board must consider a number of factors, including—

◊ past, present, and probable future beneficial uses of water;

◊ environmental characteristics of the hydrographic unit under consideration, including the quality of water available;

◊ water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;

◊ economic considerations;

◊ the need for developing housing in the region; and

◊ the need to develop and use recycled water.[937]

The act's provisions allow the State board to make loans to local agencies from the State Water Quality Control Fund.[938] In applying for loans, the agency must indicate in its application—

◊ a description of the proposed facilities;

◊ a statement showing the necessity for the proposed facilities and showing that the funds of the public agency are not available for financing such facilities;

◊ a proposed plan for repaying the loan; and

◊ other information as required by the State board.[939]

The State board must determine whether to grant the loan or not in consultation with the State Department of Health.[940] Upon approval, the State board will not grant such loan, however, until the public agency executes an agreement in which it concedes to repay the amount of the loan, with interest. It is repaid within 25 years at 50 percent of the average interest rate paid by the State on general obligation bonds sold in the calendar year immediately preceding the year in which the loan agreement is executed.[941] Moreover, the State board cannot lend more than $200,000 to public agencies or more than $50,000 to a particular public agency in any fiscal year.[942]

By no means do any provisions of this act or any ruling of the State Water Resources Control Board or a Regional Water Quality Control Board restrict—

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[934]CAL. WATER CODE § 13226.
[935]Id. § 13227 (West 1992).
[936]Id. § 13240.
[937]Id. § 13241.
[938]Id. § 13401.
[939]Id. § 13410.
[940]Id. § 13411 (West Supp. 1996).
[941]Id. § 13412 (West 1992).
[942]Id. § 13415.

- ◊ the power of a city or county to adopt and enforce additional regulations, not in conflict with existing ones, imposing further conditions, restrictions or limitations in the disposal of waste or any other activity that might degrade the quality of water;
- ◊ the power of a city or county to declare, prohibit and abate nuisances;
- ◊ the power of the attorney general to bring action enjoining any pollution or nuisance;
- ◊ the power of the agency to enforce or administer any provision or law that it is specifically permitted or required to enforce or administer; and
- ◊ the right of any person to maintain at any time any appropriate action for relief against any private nuisance against any contamination or pollution.[943]

Tennessee (regions 11 & 12).—Pursuant to the Tennessee Water Quality Control Act of 1971, it is unlawful for any person to alter the physical, chemical, radiological, biological, or bacteriological properties of any body of water of Tennessee without a valid permit.[944] The term *water of the state* is defined to include any and all bodies of water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or are retained within the limits of private property in single ownership that do not combine or effect junction with natural surface or underground water .

All wetlands are also protected as a body of water of the State. A wetland is defined as an area which is inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated conditions. Wetlands are indicated by three criteria, including—

- ◊ wetland vegetation, either obligate or facultative;
- ◊ kind of soil (a gray mottled soil usually indicates wetland soil, that is, soil that is anaerobic or devoid of oxygen); and
- ◊ wetland hydrology.

A wet-weather conveyance is also defined as water of the State that—

- ◊ are not connected to a ground water source;
- ◊ flow only in direct response to precipitation or do not have continuous flow 7 days after any single rain event; and
- ◊ does not support fish and aquatic life.

In Tennessee, any activity that involves alteration of a stream, wet weather conveyance, or wetland will require some type of State or Federal permit. Federal 404 permits and subsequent State 401 certification are required for projects involving disposition of fill in wetlands. Aquatic Resource Alteration Permits (ARAP) are required for any alteration of a body of water of the State including wetlands (only when a 404 permit is not issued). A general permit is required for alteration of a wet-weather conveyance.

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[943]CAL. WATER CODE § 13002.
[944]Tennessee Water Quality Control Act of 1971, TENN. CODE ANN. § 69-3-108(b)(1).

Examples of stream alteration activities include—

- ◊ levee construction;
- ◊ dredging, widening, straightening or otherwise altering any water of the State;
- ◊ channel relocation;
- ◊ water diversions;
- ◊ water withdrawals; and
- ◊ flooding, excavating, or draining a wetland.

As of November 22, 1991, several general ARAP permits have become available for certain activities that involve alteration of aquatic resources. General ARAP permits authorize a statewide basis for activities that cause minimal individual or cumulative impacts to water quality. These permits expedite the process from the time when notification is submitted to issuance of authorization to go to work.

The regulations provide for specific, enforceable standards of pollution control for work authorized by them. General ARAP permits are available for a number of activities, including—

- ◊ construction of launching ramps;
- ◊ alteration of wet-weather conveyance;
- ◊ minor road crossings;
- ◊ utility line crossings;
- ◊ bank stabilization;
- ◊ sand and gravel dredging; and
- ◊ debris removal.

General ARAP permits can be obtained from the Division of Water Pollution Control. However, notification of intent must be made to any Division of Water Pollution Control field office or to the central office before works, excluding alteration of wet-weather conveyance, utility crossings, and debris removal. Each activity, however, has specific limitations for work. If the applicant's proposal is not within limitations, an individual Aquatic Resource Alteration Permit must be issued. Moreover, an individual permit requires that the applicant's proposal be made available for public comment for 30 days.

Section 404 of the Federal Clean Water Act requires that any applicant for the Federal license or permit to conduct an activity that may result in a discharge into bodies of water of the United States must provide the Federal agency from which a permit is a certificate from the State water pollution control agency. The certificate provides that any such discharge will comply with applicable water quality standards. Federal permits that require water quality certification from the Tennessee Division of Water Pollution Control include 404 permits from the U.S. Army Corps of Engineers for the discharge of dredged or fill material, and permits for hydroelectric projects from the Federal Energy Regulatory Commission.

The regulations provide that the construction and operation of an aquaculture facility may require a variety of State or Federal permits, or both. The permits depend upon the nature of construction of the facility (i.e. whether construction involves alteration of a stream or wetland or construction of a dam) and on the type of discharge.

Chapter 6: Flood Plain and Stormwater Control Laws

State flood plain and stormwater control laws

All of the states surveyed that have flood plain and stormwater control laws specifically designate authoritative agencies to implement and enforce their state laws and any rules or regulations adopted pursuant to these laws. Moreover, these state laws authorize the counties, with their right of eminent domain, to acquire public or private property for the purpose of providing flood control and water outlets.

Although all of these laws authorize the municipalities or counties to adopt municipal or local flood plain management regulations or ordinances, and require the authoritative agencies to review and approve all municipal flood plain management regulations, each state law is unique in this authorization. For example, Pennsylvania requires each municipality that has been identified as having an area(s) subject to flooding to participate in the National Flood Insurance Program. The authoritative agency must promulgate regulations prohibiting the construction or substantial improvements of structures in an area that has been designated a flood hazard area. Each municipality having an area subject to flooding must adopt flood plain management regulations. Flood plain management regulations will be considered minimum standards for the management of flood plains. These laws do not limit the municipality's power to adopt more restrictive ordinances, codes, or regulations for the management of flood plains.

Alabama controls flood plains through a land-use management plan. Its law authorizes the county commission to adopt zoning ordinances and building codes for flood-prone areas. Moreover, the county commission is empowered with zoning powers that allows it to divide the portion of the county within the flood-prone area into districts to control flood plains more effectively. The California legislature enacted a two-tier law regulating at the State and local levels, whereas the Tennessee legislature only enacted a law creating the Mill Creek watershed flood control authority to control flood water in the watershed of Mill Creek, located in Davidson, Williamson, and Rutherford Counties.

Georgia authorizes every county to exercise its power of eminent domain to acquire property or other interests to institute and accomplish flood control and prevention projects. Idaho, Mississippi, New Mexico, and Texas laws allow the establishment of flood control districts.

Pennsylvania and Wisconsin laws authorize the agencies to administer grants to municipalities and counties to assist or reimburse them for costs in preparing official plans, actual administration enforcement and implementation costs, and revision to official plans for flood plain management. However, these state laws are different in the percentage and rate of grants. For example, the grant administered by the Pennsylvania authoritative agency is limited in that the total of all state and Federal grants does not exceed 50 percent of the allowable costs incurred by the municipality or county. Although Wisconsin's authoritative agency can make available 75 percent of the mapping grant award, and the remaining 25 percent will be available at the time the applicant adopts the resultant map as approved by the department.

Maryland (region 1).—In 1982, Maryland enacted a separate stormwater management law.[945] This law provides that each county and municipality is required to adopt and implement a program that prohibits the granting of grading and building permits and land development for residential, commercial, industrial, or institutional use without an approved stormwater management plan. The law requires the Department of Natural Resources to establish State-level criteria and procedures for local stormwater management programs, which include the minimum content of local ordinances to be adopted, and to provide technical assistance to local governments. Furthermore, it authorizes counties and municipalities to provide by ordinance for the conservation district to review and approve stormwater management plans.

Pennsylvania (region 1).—The Floodplain Management Act[946] was enacted with the following policy and purpose:[947]

- To encourage planning and development in flood plains that are consistent with sound land use practices.
- To protect people and property in flood plains from the dangers and damage of floodwater and from the material carried by such floodwater.
- To prevent and eliminate urban and rural blight that results from the damages of flooding.
- To authorize a comprehensive and coordinated program of flood plain management, based upon the National Flood Insurance Program, designed to preserve and restore the efficiency and carrying capacity of the streams and flood plains of Pennsylvania.
- To aid municipalities in qualifying for the National Flood Insurance Program.
- To provide for and encourage local administration and management of flood plains.
- To minimize the expenditure of public and private funds for flood control projects and for relief, rescue, and recovery efforts.

The act requires that each municipality that has an area(s) subject to flooding must participate in the National Flood Insurance Program.[948] Each municipality having an area subject to flooding must adopt such flood plain management regulations as are necessary to comply with the requirements of the National Flood Insurance Program.[949] The flood plain management regulations adopted by the municipality will be considered minimum standards for the management of flood plains. Moreover, this act does not limit a municipality's power to adopt more restrictive ordinances, codes, or regulations for the management of flood plains.[950]

The Department of Community Affairs of Pennsylvania, in consultation with the Department of Environmental Resources, must review and approve all municipal flood plain management regulations to assure compliance with the requirements of the National Flood Insurance Program. Such regulations are coordinated and

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[945]MD. CODE ANN., ENVIR. § 4-201 et seq. (1993).
[946]PENN. STAT. ANN. § 679.101 et seq. (Supp. 1993).
[947]Id. § 679.103.
[948]Id. § 679.201.
[949]Id. § 679.202.
[950]Id. § 679.204 (Supp. 1993).

uniformly enforced throughout each watershed.[951] Each municipality participating in the program must comply with department regulations.[952]

The Department of Community Affairs must promulgate regulations prohibiting the construction or substantial improvements of structures in an area that has been determined by the Environmental Quality Board as a flood hazard area.[953] By regulation, the department is required to publish a list of obstructions that it considers special hazards to the health and safety of the public or occupants. However, a municipality administering flood plain management regulation may issue a special exception if the applicant demonstrates and the municipality determines that the structure will be located, constructed, or maintained in a manner that—

- ◊ fully protects the health and safety of the public or occupants;
- ◊ prevents any significant possibility of pollution, increased flood levels or flows, or debris endangering life and property; and
- ◊ complies with the requirements of the program.[954]

The act specifies that the Department of Environmental Resources will have exclusive jurisdiction to regulate—

- ◊ any obstruction otherwise regulated under the Water Obstruction Act;
- ◊ any flood control project constructed, owned, or maintained by a governmental unit;
- ◊ any highway or other obstruction constructed, owned, or maintained by Pennsylvania or its political subdivisions; and
- ◊ any obstruction owned or maintained by a person engaged in the rendering of a public utility service.[955]

The act also authorizes the Department of Community Affairs to administer grants to municipalities and counties to assist or reimburse them for costs in preparing official plans and actual administrative enforcement. The grants also are for implementation costs and revision to official plans for flood plain management required by this act. However, the grant must be limited in a way that the total of all State and Federal grants does not exceed 50 percent of the allowable costs incurred by the municipality or county.[956]

In addition, the Pennsylvania State legislature also enacted the Pennsylvania Flood Control Districts law.[957] The flood control district is established when the Water and Power Resources Board of the Department of Forests and Waters has the completed suitable flood control plans and adopts them as official plans.[958]

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[951]PENN. STAT. ANN.§ 679.205 (Supp. 1993).
[952]Id. § 679.206.
[953]Id. § 679.207.
[954]Id. § 679.301 (Supp. 1993).
[955]Id. § 679.302.
[956]Id. § 679.404.
[957]Id. § 653 et seq. (1967 & Supp. 1993).
[958]Id. § 658 (Supp. 1993).

The board is authorized to receive Federal moneys[959] and to enter into reciprocal compacts and agreements with other states in developing flood control projects and works.[960] Moreover, the Department of Highways and Municipalities can enter into agreements with the board, or Federal agencies upon the board's approval, to relocate roads, streets, and bridges.[961]

Furthermore, Pennsylvania legislature also enacted the Storm Water Management Act[962] that requires each county to prepare and adopt a watershed stormwater management plan for each watershed located in the county.[963] In conjunction with this plan, each county must also establish a watershed plan advisory committee that has a number of duties, including—

- ◊ advising the county throughout the planning process,
- ◊ evaluating policy and project alternatives,
- ◊ coordinating the watershed storm plan with other municipal plans and programs, and
- ◊ reviewing the plan before adoption.[964]

The act requires each landowner or any person engaged in the alternation or development of land that may affect stormwater runoff to implement such measures consistent with the provision of the applicable watershed stormwater plan as necessary to prevent injury to health, safety, or other property. Such measures must—

- ◊ assure that the maximum rate of stormwater runoff is not greater after development than before development activities; or
- ◊ manage the quantity, velocity, and direction of resulting stormwater runoff in a manner that adequately protects health and property from possible injury.[965]

Under the Storm Water Management Act, the Department of Community Affairs is also authorized to administer grants to municipalities and counties to assist or reimburse them for costs in preparing official plans, actual administrative enforcement and implementation costs and revisions to official plans for flood plain management. However, the grant must be limited in a way that the total of all State and Federal grants does not exceed 75 percent of the allowable costs incurred by the municipality or county.[966]

Alabama (region 2).—Acknowledging the great financial and economic loss and human suffering caused by floods and flooding, the Alabama Legislature provides in each county a comprehensive land-use management plan by:[967]

- Constricting the development of land that is exposed to flood damage in the flood-prone areas.

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[959]PENN. STAT. ANN. § 658 (Supp. 1993).
[960]Id. § 671.
[961]Id. § 666.
[962]Id. § 680.1 et seq. (Supp. 1993).
[963]Id. § 680.5.
[964]Id. § 680.6.
[965]Id. § 680.13.
[966]Id. § 680.17 (Supp. 1993).
[967]Comprehensive Land Use Management in Flood Prone Areas, ALA. CODE § 11-19-2 (1975).

- Guiding the development of proposed construction away from locations that are threatened by flood hazards.
- Assisting in reducing damage caused by floods.
- Improving the long-range management and use of flood-prone areas.

The law authorizes the county commission to adopt zoning ordinances and building codes for flood-prone areas.[968] The county commission has broad authority to:[969]

- Establish comprehensive land-use and control measures that specifically include the control and development of subdivisions in flood-prone areas.
- Establish building codes and health regulations incorporating such minimum standards as are necessary to reduce flood damage in flood-prone areas.
- Provide such standards of occupancy for the prudent use of flood-prone areas.
- Provide for the preparation of maps clearly delineating flood-prone areas and floodways in the county, and keep the same for public inspection.
- Conduct studies necessary for the purposes of this chapter.
- Employ technical or advisory personnel, or both, including the establishment of a county planning commission, as deemed necessary or expedient.
- Adopt ordinances for the enforcement of all such regulations.

The law requires land use and control measures to provide land use restrictions based on probable exposure to flooding. Measures must:

- Prohibit inappropriate new construction or substantial improvements in the flood-prone areas.
- Control land use and elevations of all new construction within the flood-prone areas.
- Prescribe land use and minimum elevations of the first floors of buildings and include consideration of the need for bulkheads, seawalls, and pilings for coastal flood-prone areas.
- Be based on competent evaluation of the flood hazard.
- Be consistent with existing flood-prone land management programs affecting adjacent areas and applicable to appropriate State standards.
- Prescribe such additional standards as necessary to comply with Federal requirements for making flood insurance coverage under the National Flood Insurance Act of 1968 available in Alabama.[970]

In addition to land-use restrictions commensurate with the degree of the flood hazards in various parts of the area, there must be subdivision regulations that—

◊ prevent the inappropriate development of flood-prone lands;

◊ encourage the appropriate location and elevation of streets, sewers, and water systems and the reservation of adequate and convenient open space for utilities;

[968] ALA. CODE § 11-19-3.
[969] Id.
[970] Id. § 11-19-4.

- ◊ provide for adequate drainage so as to minimize exposure to flood hazards and to prevent the aggravation of flood hazards; and
- ◊ require such minimum elevation of all new developments.[971]

Building codes and health regulations are required to—

- ◊ include all applicable State and local provisions and
- ◊ cover all public and private construction and development in flood-prone areas.[972]

A county commission that wants to participate in this program must require every person, firm, corporation, or agency to submit plans and specifications for all proposed construction and development of flood-prone areas.[973] Moreover, if the plans and specifications conform to the applicable specifications, rules, and regulations, the county commission must issue a permit.[974]

For the purpose of enforcing this law, the county commission, by resolution or ordinance, can create a county planning commission that is made up of not less than 5 nor more than 11 appointed members.[975]

Moreover, the county commission is authorized to enact an ordinance regulating the platting and recording of any subdivision of land lying within the county flood-prone area,[976] subject to approval or disapproval by the county planning commission.[977] Whoever transfers or sells lands in such a subdivision before approval of the plat is guilty of a misdemeanor.[978]

The county commission is empowered with zoning powers that allow it to divide the portion of the county within the county flood-prone area into districts of such number, shape, and area.[979]

Upon conviction of violation of any provision of the building code or zoning ordinances or other regulation, ordinance or code, a fine of not more than $500 or imprisonment of not more than 1 year, or both, will be imposed.[980]

The law provides that the county commission must appoint a board of adjustment, which consists of five appointed members who serve for a term of 3 years.[981] The board of adjustment has a number of powers, including—

- ◊ hearing and deciding appeals where it is alleged there is error in any order, requirement, decision, or determination made by an administrative body or an enforcement official;
- ◊ hearing and deciding requests for special exceptions to the terms or provision of the ordinance; and

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[971] ALA. CODE § 11-19-5.
[972] Id. § 11-19-6.
[973] Id. § 11-19-7.
[974] Id.
[975] Id. § 11-19-8.
[976] Id. § 11-19-11.
[977] Id. § 11-19-13.
[978] Id. § 11-19-15.
[979] Id. § 11-19-16
[980] Id. § 11-19-22.
[981] Id. § 11-19-19.

◊ authorizing upon appeal in special cases such variance from the yard, open space, bulk, and height requirements of the ordinance.[982]

The law also allows any party aggrieved by any final judgment to a decision of a board of adjustment to appeal to the court having jurisdiction, which will hear the case de novo.[983]

Georgia (region 2).—The Georgia legislature authorizes every county to exercise the power of eminent domain for the purpose of taking and acquiring the property or other interests necessary to enable the county to institute and accomplish flood control and prevention projects.[984]

Arkansas (region 3).—The Flood Control Law of Arkansas[985] was enacted in response to the "urgent need to mitigate or eliminate the destruction in loss of life and property resulting from the periodic floods in the stream basins . . . ."[986] The law prescribes the following mandatory powers and duties for the Arkansas Soil and Water Conservation Commission:[987]

- Study, consider, and determine with a sound public policy regarding the flood prevention, flood control, and flood protection.
- Compile figures on current and past flood damages and information and scientific data relative to the recurrence of floods.
- Clean out, widen, deepen, straighten, change, alter, divert, or eliminate in whole or in part the course or terminus of any natural or artificial water stream.
- Shape or protect streambanks for the improvement of hydraulic efficiency in the discharge of flood water.
- Acquire lands necessary for reservoir dam sites and lines.
- Construct, take over, maintain, and operate dams, reservoirs, holding or impounding basins, flood gates, and similar structures.
- Construct dikes, levees, or other artificial barriers to protect against inundation of property.
- Relocate or revise bridges, buildings, roads, streets, railroads, and similar structures.
- Acquire by donation, lease, purchase or condemnation and, to hold or own in the name of the state, real and personal property, easements, and the public works erected and constructed.

The commissioner, furthermore, is authorized to:

- Cooperate with the Department of Defense of the United States relating to flood control on any of the streams in Arkansas.[988]
- Apply for allotment or assistance from the Federal Government.[989]

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[982]ALA. CODE § 11-19-19
[983]Id. § 11-19-20. De novo means anew, afresh. In a de novo trial, the matter is heard as if it had never been heard before, and as if there had been no previous decision rendered. *Black's Law Dictionary.*
[984]Construction, Operation, etc., of Watershed Projects, Flood-Control Projects, etc., by Counties, GA. CODE ANN. § 22-3-100 (1982).
[985]Flood Control Law, ARK. CODE ANN. § 15-24-101 et seq. (1987).
[986]Acts 1937, No. 212, § 20.
[987]Id. § 15-24-102 (1987).
[988]Id. § 15-24-105.
[989]Id. § 15-24-105

- Enter into compacts with one or more states under any act or resolution of Congress, subject to the reservations regarding the levee or drainage district.[990]
- Receive on behalf of the state any Federal moneys, grants, contributions, gratuities or loans available for territory and projects within the jurisdiction of the commission.[991]

However, the State commission does not have the power to:[992]

- Control any levee or drainage district, district directors or commissioners, nor lake lands within the boundaries of any levee or drainage district.
- Acquire reports from districts or supervise or control them.
- Authorize the effect of the existence of any levee or drainage district in any manner.

Mississippi (region 3).—The 1936 Flood Control Law of Mississippi[993] allows for the establishment of flood control districts.[994] A petition is necessary for the chancery court of a majority of the members of the board of supervisors of the county for the lands to be included in the proposed district.[995] The court will appoint an engineer who is responsible for studying the feasibility of the proposed plan and ascertaining accurate description of the lands that will be included in the proposed district.[996] The engineer must obtain and file with the court a copy of the report of the chief of engineers of the Department of Defense (War Department), Army Corps of Engineering, recommending the flood control project, a copy of the plan for the control of floods in the proposed district, and any other reports relating to flood control projects.[997] With these reports and upon hearing, the chancellor will make determination whether to allow the establishment of such district or not.[998] The court or chancellor's decision to accept or dismiss the petition to establish the flood control district may be appealed by any qualified elector residing in the district.[999]

Upon its organization, the flood control district has the following mandatory powers:[1000]

- To contract and to be contracted with.
- To sue and be sued.
- To plead and to be impleaded.
- To exercise the right of eminent domain and of taxation.
- To borrow money and to issue notes.
- To do and perform in the name of the district all acts and things expressly authorized by the Flood Control law.

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[990]ARK. CODE ANN. § 15-24-106.
[991]Id. § 15-24-108.
[992]Id. § 15-24-102.
[993]MISS. CODE ANN. § 51-35-101 et seq. (1990 & Supp. 1993).
[994]Id. § 51-35-105 (1990).
[995]Id. § 51-35-109.
[996]Id.
[997]Id. § 51-35-113.
[998]Id. § 51-35-113 through 51-35-117.
[999]Id. § 51-35-119 (1990).
[1000]Id. § 51-35-121.

Upon organization of the district, a board of commissioners will also be established,[1001] who will not be liable for any damages sustained while performing their official duties unless the commission has acted willfully and with a corrupt and malicious intent.[1002] The board of commissioners must adopt the plan for flood control,[1003] which can be modified.[1004] Moreover, the board is authorized to acquire lands, flowage rights, rights of way, easements or premises, either by purchaser, grant, donation, condemnation, or otherwise, to repair or maintain flood control works and improvements[1005] and to enlarge or combine with other flood districts for the accomplishment of the purpose of the Flood Control law.[1006]

In addition to the 1936 Flood Control law, Mississippi Legislature also enacted the Urban Flood and Drainage Control law.[1007] It allows the organization of flood and drainage control districts, where any part of such district lies wholly or partially in or adjacent to any part of a municipality having a population of 100,000 or more.[1008] When authorized by a resolution of a majority of its governing authorities, any municipality that is a part of a proposed flood and drainage control district can petition the chancery court of competent jurisdiction to create such a district.[1009] Upon organization, such district is authorized to do the following:[1010]

- Impound, divert, change, alter, or control overflow water and the surface water of any river or its tributaries within the project area.
- Cooperate with the U.S. Government in the construction of flood and drainage control improvements.
- Furnish all lands, easements, and rights of way necessary for the construction of a project to be constructed by the Federal Government.
- Construct, acquire, and develop all facilities within the project area considered necessary or useful.
- Prevent or assist in the prevention of damage to person or property from the water of any river or any of its tributaries.
- Acquire by purchase, lease, gift, or condemnation any real, personal, or mixed property.
- Require the necessary relocation of bridges, roads, and highways, railroad, telephone and telegraph lines and properties, electric power lines, or gas pipe lines.
- Overflow and inundate any public lands and public property, including sixteenth section lands and in lieu lands, within the project area.
- Construct, extend, improve, maintain, and reconstruct to use and operate any and all facilities within the project area.
- Sue and be sued in its corporate name.
- Adopt use and alter a corporate seal.

[1001]MISS. CODE ANN. § 51-35-127.
[1002]Id. § 51-35-151 (1990).
[1003]Id. § 51-35-153.
[1004]Id. § 51-35-169.
[1005]Id. § 51-35-159 (1990).
[1006]Id. § 51-35-167.
[1007]Id. § 51-35-301 et seq. (1990 & Supp. 1993).
[1008]Id. § 51-35-305 (Supp. 1993).
[1009]Id. § 51-35-307.
[1010]Id. § 51-35-315.

- Make bylaws for the management and regulation of its affairs.
- Employ personnel.
- Make contracts and execute instruments necessary or convenient to the exercise of the powers, rights, privileges, and functions conferred upon it.
- Make surveys and engineering investigations relating to the project.
- Apply for and accept grants from the Federal Government.
- Do any and all other acts or things necessary or convenient to the exercise of the powers, rights, privileges, and functions conferred upon it.
- Make such contracts in the issuance of bonds.
- Lease, sell, or otherwise dispose of its property.
- Make changes in location of levees, channels, drains, or related facilities.
- Vary, alter, enlarge, diminish, or otherwise change the area included in the district.
- Purchase by bid all equipment, supplies, heavy equipment, contracts on lease purchaser agreement, and office supplies in excess of $200.

The law provides that the board of directors will exercise all powers of the district.[1011]

Wisconsin (region 4).—Under the Wisconsin Flood Control law,[1012] any 25 owners of land that have been recurrently flooded can file with the Department of Natural Resources a written petition for flood works.[1013] The department must publish notification of the nature of the petition and the time and place of the hearing in each county in which any portion is located.[1014] The hearing must focus on the question of whether the improvement requested in the petition is required for public health, safety, convenience, or welfare.[1015] If the department determines that public health, safety, convenience, or welfare does not require such improvement, it will dismiss the petition. If it finds the contrary, it will order the hearing to proceed.[1016] If the department's order directs the hearing to proceed, it must direct its engineering staff to make a preliminary survey and report.[1017] At any time before further hearings and final findings upon matters covered by the preliminary reports, owners who represent a majority of the lands owned by the original petitions can file a written petition requesting termination of such proceeding.[1018]

If the department directs the work of constructing the improvement to proceed, it must inform the governor of its order who in turn will appoint a flood control board to be responsible for the construction, maintenance, and operation of the improvement.[1019]

[1011]MISS. CODE ANN. § 51-35-317 (Supp. 1993).
[1012]WIS. STAT. ANN. § 87.01 et seq. (West 1990 & Supp. 1993).
[1013]Id. § 87.03 (West 1990).
[1014]Id. § 87.04 (West 1990 & Supp. 1993).
[1015]Id. § 87.05 (West 1990).
[1016]Id.
[1017]Id. § 87.07 (West 1990).
[1018]Id.
[1019]Id. § 87.12 (West 1990 & Supp. 1993).

The Wisconsin Flood Control law provides that if any county, city, or village does not adopt a reasonable and effective flood plain zoning ordinance within 1 year after hydraulic and engineering data adequate to formulate the ordinance become available, the department must determine and fix by order the limit of any or all flood plains within a county, city, or village within which serious damage may occur. After public hearing, the department is required to adopt a flood plain zoning ordinance applicable to a county, city, or village.[1020]

The department is required to administer a flood plain and shoreland mapping assistance program—

- ◊ to provide counties, cities, and villages that have financial aid to produce adequate topographical mapping of flood plain and shoreland areas;
- ◊ to delineate flood plain and floodway boundaries; and
- ◊ to assist in the establishment and administration of flood plain and shoreland ordinances.

The department must develop a statewide priority list for awarding mapping grants. Upon the department's approval and the applicant's acceptance, the department can make available 75 percent of the mapping grant award; the remaining 25 percent will be available at the time the resultant map is approved by the department as the official map and any necessary ordinances and amendments are complete. State funds will cease if the mapping grant recipient fails to adopt the map as the official zoning map or fails to adopt any necessary ordinances or amendments within 6 months after the department approves the map without adequate justification.[1021]

Iowa (region 5).—Iowa protects has enacted the Soil Conservation and Flood Control Districts Law.[1022] This law requires the board of supervisors of any county to establish districts to further the purposes of soil conservation and control of flood water.[1023] The board also has the authority to establish districts to conserve soil in the mining areas within the county.[1024]

These districts have the power to combine in their functions activities affecting soil conservation, flood control and drainage, or any combination of any of these activities.[1025] Moreover, if any drainage district wants to include in its activities soil conservation or flood control projects, upon petition, the board must establish a new district covering and including the old district together with any additional lands deemed necessary.[1026]

However, the board cannot establish a district unless—

- ◊ the organization of the district has been approved by the commissioners of the soil and water conservation district and the Department of Natural Resources; and
- ◊ the organization is contained in whole or in part within the district.[1027]

[1020]WIS. STAT. ANN. § 87.30 (West 1990).
[1021]Id. § 87.31.
[1022]Soil Conservation and Flood Control Districts law, IOWA CODE ANN. § 467C.1 et seq. (West 1990 & Supp. 1993).
[1023]Id. § 467C.2 (West 1990).
[1024]Id.
[1025]Id. § 467C.3.
[1026]Id. § 467C.4.
[1027]Id. § 467C.5.

Nebraska (region 5).—The Nebraska Legislature enacted the Nebraska Floodplain Management Act[1028] with various purposes, including—

- ◊ accelerating the mapping of flood-prone areas,
- ◊ assisting local governments in the promulgation and implementation of effective flood plain management regulations and practices,
- ◊ assuring that flood hazards be prevented, flood losses be minimized, and the State's eligibility for flood insurance be maintained, and
- ◊ encouraging local governments with flood-prone areas to qualify for participation in the national flood insurance program.[1029]

The act imposes the Nebraska Natural Resources Commission the following mandatory powers and duties:[1030]

- To coordinate flood plain management activities of local, State, and Federal agencies.
- To receive Federal funds intended to accomplish flood plain management objectives.
- To prepare and distribute information and to conduct educational activities that will help the public and local units of government in complying with the purposes of this act.
- To provide local governments having jurisdiction over flood-prone lands that have technical data and maps adequate to develop or support reasonable flood plain management regulations.
- To adopt and promulgate rules and regulations establishing minimum standards for local flood plain management regulations.
- To provide local governments and other state and local agencies with technical assistance, engineering assistance, model ordinances, assistance in evaluating permit applications and possible violations of flood plain management regulations, assistance in personnel training, and assistance in monitoring administration and enforcement activities.
- To serve as a repository for all known flood data within the State.
- To assist Federal, State, or local agencies in the planing and implementation of flood plain management activities, namely, flood warning systems, land acquisition programs, and relocation programs.
- To enter upon any lands and bodies of water in the State for the purpose of making any investigation or survey.
- To enter into contracts or other arrangements with any state or Federal agency.
- To adopt and enforce such rules and regulations as are necessary to carry out the duties and responsibilities.

The act specifies that once the commission, a Federal agency, or any other entity has provided a local government with sufficient data and maps with which to reasonably locate within its zoning jurisdiction any portion of the flood plain for the base flood of any watercourse or drainageway, it is the responsibility of the

[1028]Nebraska Flood Plain Management Act, NEB. REV. STAT. § 31-1001 et seq. (updated through 1994).
[1029]Id. § 31-1001.
[1030]Id. § 31-1017.

local government to adopt, administer, and enforce flood plain management regulations.[1031] If it fails to do so within 1 year after flood hazard maps have been provided, the commission has the authority to adopt flood plain management regulations and must adopt and promulgate regulations for the identified base flood within the zoning jurisdiction of such local government. All local ordinances or other laws that are contrary to the commission's adopted regulations will be null and void.[1032] Furthermore, the local government has a mandatory duty to administer and enforce any regulations adopted by the commission in the same manner as if the local government has enacted such regulations.[1033]

New Mexico (region 6).—The State legislature enacted a number of laws concerning flood control. Each shall be discussed in turn.

General flood control.—The New Mexico Flood Control law[1034] allows for the creation of the office of county flood commissioner within each county through which runs any river or stream that is subject to flood conditions destructive to property or dangerous to human life.[1035] The county flood commissioners are authorized to borrow funds through State or Federal agencies for flood control purposes and to levy tax for flood control projects.[1036] In addition, the commissioners can do a number of things, including—

- ◊ causing construction and maintenance of dikes, embankments, dams, ditches, or other structures or excavation necessary to control flood water and protect life and property;
- ◊ employing engineering and other personnel; and
- ◊ contracting for financing flood control projects from State or Federal agencies.[1037]

With their power of eminent domain, the county flood commissioners are authorized to condemn property for carrying the purpose of this law.[1038]

Moreover, the New Mexico Flood Control Law allows the establishment of emergency flood districts.[1039] The board of county commissioners must appoint an emergency flood superintendent for each district. In addition to other authorized powers and duties, the superintendent can, with consent of the county commissioners, call upon the able-bodied male persons under 60 years of age residing within his or her district and within 5 miles on each side of the flood river or stream, to work in the control and diversion of the flood water in cases where property or life is threatened by flood water.

[1031]NEB. REV. STAT. § 31-1019.
[1032]Id. § 31-1020.
[1033]Id. § 31-1021.
[1034]NEW MEXICO STAT. ANN. § 4-50-1 et seq. (Michie 1992).
[1035]Id. § 40-50-1.
[1036]Id. § 40-50-2.
[1037]Id. § 40-50-3.
[1038]Id. § 40-50-5.
[1039]Id. § 40-50-10.

Flood Control District Act.—Under the Flood Control District Act,[1040] a flood district may be formed by petition to the office of the clerk of the district court of competent jurisdiction by registered electors of the proposed district.[1041] The owners of real property may petition for inclusion of additional property[1042] or for exclusion from the district.[1043] Furthermore, when a majority of the district board of directors determines that it is in the best interests of the district to dissolve the district, the board must apply for its dissolution in the district court.[1044]

The district board has a number of powers, including—

- ◊ acquire, improve, equip, maintain, and operate any project or facility;
- ◊ protect the watercourses, watersheds, public highways, life and property in the district from floods or stormwater;
- ◊ exercise the right of eminent domain within the district and take property necessary to carry out any of the purposes of the act;
- ◊ borrow money and issue securities evidencing any loan to or amount due from the district;
- ◊ levy and cause to be collected a property tax on all property subject to property taxation within the district;
- ◊ acquire, improve, equip, hold, operate, maintain, and dispose of a flood control system, project, and appurtenant works; and
- ◊ sell any securities.[1045]

Southern Sandoval County Arroyo Flood Control Act.—The Southern Sandoval County Arroyo Flood Control Act[1046] creates a flood control authority,[1047] whose boundary of authority includes a portion of southern Sandoval County.[1048] In addition to its additional powers,[1049] the authority is authorized to acquire, equip, maintain and operate a flood control system for the benefit of the people.[1050]

The board of directors, the governing body of the authority,[1051] has the following implementing powers:[1052]

- To acquire, improve, equip, maintain, and operate any project or facility for the control of flood and stormwater.

[1040]Flood Control District Act, NEW MEXICO STAT. ANN. § 72-18-1 et seq. (Michie 1985 & Supp. 1993).
[1041]Id. § 72-18-5. Qualified registered elector means any person who (1) at the designated time or event is qualified to vote under the provisions of the New Mexico and U.S. constitutions, (2) is registered to vote under the provisions of the New Mexico Election Code, and (3) resides in the district or proposed district. Id. § 72-18-3(R).
[1042]Id. § 72-18-24.
[1043]Id. § 72-18-25, § 72-18-25.1.
[1044]Id. § 72-18-27. For process of dissolution, *see* Id. § 72-19-28 through § 72-18-34.
[1045]Id. § 72-18-20 (Michie Supp. 1993).
[1046]Southern Sandoval County Arroyo Flood Control Act, N.M. STAT. ANN. § 72-19-1 et seq., effective February 22, 1990 (Michie Supp. 1993).
[1047]Id. § 72-19-5.
[1048]Id. § 72-19-6. The boundary of authority includes a portion of southern Sandoval County bounded on the east by the Rio Grande, on the south by the Bernalillo and Sandoval County lines, on the west by the top of the Rio Puerco drainage and on the north by the top of the drainage that lies on the southern boundary of the Zia Indian reservation and state highway 44. Id.
[1049]Id. § 72-19-22.
[1050]Id. § 72-19-19.
[1051]Id. § 72-19-8 (providing that the board is composed of five qualified electors).
[1052]Id. § 72-19-20.

- To protect the water courses, watersheds, public highways, life, and property in the authority from such floods or stormwater.
- To exercise the right of eminent domain in the manner provided by law for the condemnation of private property for public use.

However, the board must dissolve the authority if it receives a remonstrance denying the board the power to acquire a flood control system if the first proposal for the issuance of bonds fails to receive a favorable vote by the majority of the qualified electors.[1053]

Texas (regions 6 & 7).—Under the Texas Stormwater Control Districts law,[1054] a stormwater control district may be created to control stormwater and floodwater and to prevent downstream flooding in all or part of a watershed.[1055] To create a stormwater control district, a person or the commissioners court in the counties in which all or part of the district will be located must petition with the executive director requesting such creation. The petition must be signed by at least 50 persons who reside within the boundaries of the proposed district or by the majority of the commissioners court.[1056] After notice and hearing,[1057] the Natural Resource Conservation Commission then decides whether to grant or deny such petition.[1058]

However, the commission's order of granting or denying such petition may be appealed as provided by the Administrative Procedure and Texas Register Act.[1059] If the petition is granted, thereby creating a stormwater control district, a board of directors, composed of five members of the district will be elected.[1060] After notice and hearing, the board is required to adopt rules to carry out the Texas Stormwater Control Districts law.[1061]

Under the Texas Stormwater Control Districts law, the district (nonmandatory) does the following:[1062]

- Acquire land to construct facilities for the district.
- Construct regional stormwater retention and detention pond facilities to retain stormwater runoff and to prevent area and downstream flooding in the district.
- Construct outfall drainage ditches and similar facilities to control stormwater and floodwater and prevent area and downstream flooding.
- Provide for and use the land on which regional stormwater retention and detention pond facilities are located for park and recreational areas when the area is not used for holding water.
- Provide financing for land and facilities and for construction of facilities from money obtained from different sources.

[1053]NEW MEXICO STAT. ANN. § 72-19-35.
[1054]Texas Stormwater Control Districts Law, TEXAS WATER CODE ANN. § 66.001 et seq. (West 1988 & Supp. 1995).
[1055]Id. § 66.012 (West 1988).
[1056]Id. § 66.014.
[1057]Id. § 66.018.
[1058]Id. § 66.019.
[1059]Id. § 66.020.
[1060]Id. § 66.023, § 66.104.
[1061]Id. § 66.118.
[1062]Id. § 66.201.

- Advise, consult, contract, cooperate with, and enter into agreements with the Federal Government and its agencies, the State and its agencies, local governments, and persons.
- Apply for, accept, receive, and administer gifts, grants, loans, and other funds available from any source.

Among other mandatory duties, the board must prepare and approve an annual audit of the financial condition of the district.[1063] Money may not be spent for an expense not included in the annual budget or the budget's amendment.[1064] Moreover, the board may—

- ◊ invest and re-invest the district's funds,[1065]
- ◊ borrow money for any purpose authorized under this law,[1066]
- ◊ issue and sell bonds in the name of the district to acquire land and construct facilities,[1067] and
- ◊ levy and collect an operating tax in the district to pay operating expenses of the district (subject to the approval of a majority of voters in the district).[1068]

The district must petition for dissolution after it has completed all construction of facilities provided in the plan and conveyed those facilities to the designated counties and after all bonds and other indebtedness of the district are paid in full.[1069] The commission must order the district dissolved if it finds that the work is completed and all bonds and indebtedness have been retired.[1070]

Texas, with its right of eminent domain, a county can acquire public or private real property for the purpose of providing for flood control and water outlets.[1071]

Idaho (region 8).—The Idaho Legislature enacted a Flood Control District Act[1072] for the "prevention of flood damage in a manner consistent with the conservation and wise development of [the State's] water resources...."[1073] The act provides that a flood control district, which will be divided into not less than three nor more than nine divisions to provide adequate representation to all of the interests within the proposed district,[1074] can be established[1075] by a petition signed by one-third or more of the qualified voters residing in the proposed district.[1076] Upon establishment of the flood control district, a board of commissioners is organized, where each

[1063]TEXAS WATER CODE ANN. § 66.303.
[1064]Id. § 66.305.
[1065]Id. § 66.307.
[1066]Id. § 66.309.
[1067]Id. § 66.310.
[1068]Id. § 66.323.
[1069]Id. § 66.410.
[1070]Id. § 66.402.
[1071]Id. § 411.001 (West 1988).
[1072]Flood Control District Act, IDAHO CODE ANN. § 42-3101 et seq. (Michie 1990 & Supp. 1993).
[1073]Id. § 42-3102 (Michie 1990).
[1074]Id. § 42-3106.
[1075]Id. § 42-3104.
[1076]Id. § 42-3105 (Michie 1990).

commissioner represents one division within the district.[1077] Moreover, the commissioners are entrusted with a series of powers and duties.[1078]

An existing district may be enlarged[1079] or consolidated upon petition.[1080] Qualified electors residing in a division of a flood control district can petition the director requesting to be excluded from a district; such a petition must be signed by at least one third of the qualified electors residing within the division.[1081]

In addition, a district may be dissolved by the district court of competent jurisdiction on complaint or petition of parties holding and owning—

- ◊ 50 percent or more of the issued, outstanding, unpaid bonds of such district;
- ◊ 50 percent or more of all land located within the boundaries of such district;
- ◊ claims, warrants, liens, or other legal obligations of such district in an amount of at least 30 percent of the issued, outstanding, and unpaid bonds of such district; or
- ◊ upon the complaint of the director of the department of water resources.[1082]

Utah (region 8).—The Utah Flood Control and Prevention law provides that the Division of State Lands and Forestry can authorize surveys of any State lands or other areas of the State for the purpose of controlling and preventing floods.[1083] After a survey, if the division concludes that floods are likely to affect any State lands and will endanger life and property, the division must take action necessary to control or to prevent the occurrence of those floods.[1084] For the purpose of controlling and preventing floods, the division can do the following:

- Cooperate with public and private entities.[1085]
- Authorize construction of necessary control works on a basis of equitable participation, and, for these purposes, acquire any additional lands necessary for the control or the prevention of floods either by purchase, exchange, lease, gift, or condemnation.[1086]
- Transfer these lands to any existing agencies or agencies created to maintain prevention or control works.[1087]
- Cooperate with the Federal Government in acquiring watershed lands becoming barren and susceptible to flooding.[1088]

[1077]TEXAS WATER CODE ANN. § 42-3109.
[1078]Id. § 42-3115 (Michie Supp. 1993).
[1079]Id. § 42-3120.
[1080]Id. § 42-3122 (Michie 1990).
[1081]Id. § 42-3127.
[1082]Id. § 42-3126 (1990).
[1083]UTAH CODE ANN. § 65A-11-1(1) (Supp. 1995).
[1084]Id. § 65A-11-1(2).
[1085]Id. § 65A-11-1(3).
[1086]Id. § 65A-11-1(4).
[1087]Id. § 65A-11-1(5).
[1088]Id. § 65A-11-1(6).

In addition to the Flood Control and Prevention law, the Utah Legislature also enacted a number of provisions pertaining to flood control projects and drought emergencies.[1089] Under these provisions, a county can do the following:

- Contract with the Federal Government to construct any flood control project within the county designed to abate or control flood water or any excessive or unusual accumulation of water.[1090]
- Contract to and acquire easements and rights of way to relocate public roads or bridges when the replacement is made necessary by the construction of any flood control project.[1091]
- Remove any obstacle, in anticipation of storm and flood water, from any neutral channels within the county and the incorporated municipalities in the county.[1092]
- Establish by ordinance the dimensions and location of channels, storm sewers, and drains; promulgate regulations to prevent the destruction or obstruction of these channels, storm sewers, and drains; and acquire, by right of eminent domain, necessary easement and rights of way in implementing the establishment, clearing, protection, and continued use of channels, storm sewers and drains.[1093]
- Provide by ordinance for the protection and use of flood channels and present flood plains on rivers, streams, and canals located within the county and the incorporated municipalities. The division can acquire lands, rights of way, easements, or other interests in property within the boundaries of these flood channels and present flood plains.[1094]
- Declare that an emergency drought exists in said county, and appropriate or levy tax to aid in any program to increase precipitation.[1095]

Oregon (region 9).—Under the Oregon Drainage and Flood Control law,[1096] the Water Resources Commission is required to carry out the State's participation in Federal flood control projects.[1097] To carry out its duty, the commission is authorized to do the following:

- Sign agreements with the Federal Government regarding the Federal flood project.[1098]
- Enter upon lands to gather information.[1099]
- Acquire property by purchase, donation, or condemnation.[1100]
- Sell, donate, exchange or lease, or grant easement of the acquired property, on terms, which are beneficial to the State and meet all Federal flood control project requirements.[1101]

[1089]UTAH CODE ANN.§ 17-8-1 et seq. (1991 & Supp. 1995).
[1090]Id. § 17-8-1 (Supp. 1995).
[1091]Id. § 17-8-2.
[1092]Id. § 17-8-5 (Supp. 1995).
[1093]Id.
[1094]Id. § 17-8-5.5.
[1095]Id. § 17-8-7 (Supp. 1995).
[1096]OR. REV. STAT. § 549.010 et seq. (1995).
[1097]Id. § 549.605.
[1098]Id.
[1099]Id. § 549.615.
[1100]Id. § 549.620.
[1101]Id. § 549.625.

- Maintain and operate a flood control project after it is completed and turned over by the Federal Government.[1102]
- Enter into agreements with the Federal Government, public and quasi-public bodies, including but not limited to drainage and irrigation districts, water control districts and subdistricts, district improvement companies, and other persons.[1103]

The Oregon law also gives powers to certain counties with respect to water conservation and flood control. If the county has a population of 50,000 or more, the county court or board of county commissioners can—

◊ carry out surveys and plan and engage in projects regarding water conservation and flood control;

◊ contract and cooperate with Federal and State agencies in making surveys and planning and engaging in projects regarding water conservation and flood control;

◊ provide lands and rights of way, operate and maintain flood control projects, and do things which are considered necessary for county participation in Federal flood control and water conservation projects; and

◊ remove or destroy drifts and drifting materials in rivers and streams or on land that has been flooded.[1104]

When removing or destroying drifts or drifting materials in rivers or streams or on land that has been flooded, the county has a number of mandatory powers, including—

◊ entering upon any land for purposes of inspection, removal, and destruction of drifts and drifting material;

◊ giving reasonable notice to owners of salvable materials that the county has salvaged their property and if such property has not been claimed within a defined period, such property will be disposed by sale.[1105]

Furthermore, the county court of each county can budget and appropriate money for water conservation and flood control.[1106]

California (region 10).—Among other provisions, the California Flood Control law[1107] provides for local flood control and state flood control. Each shall be discussed in turn.

Local flood control.—The local flood control provisions provide for flood control in cities and counties.

In cities.—Each city is allowed to incur indebtedness and liability (but not in excess of the income and revenue provided by it) to protect the city from overflow by water, to drain the city, and to secure an outlet for overflow water and drainage.[1108] The city council must have some competent persons to make general

[1102]OR. REV. STAT. § 549.630.
[1103]Id. § 549.635.
[1104]Id. § 549.710.
[1105]Id. § 549.720.
[1106]Id. § 549.730.
[1107]CAL. WATER CODE § 8000 through § 9250 (West 1992).
[1108]Id. § 8010.

plans and estimates of the cost of the contemplated works (including canals, ditches, levees, dikes, embankments, dams, machinery, and other appropriate or ancillary means of accomplishing flood control); these plans and estimates, after adoption, must be filed in the office of the city's clerk and adhered to.[1109] After filing the general plans and estimates, and by resolution or ordinance of intention, the city council must determine that the public good demands the construction, acquisition, and completion (or any of these) of the works.[1110]

The city council has a number of powers, including—

- ◊ making all necessary rules and regulations for acquisition, construction, and completion of the works;
- ◊ appointing all necessary agents, superintendents, and engineers to supervise and construct the works; and
- ◊ protecting and preserving the rights and interests of the city in respect to the works.[1111]

Each city within the limits of which any drainage improvement has been constructed and which drainage improvement also lies within the territorial limits of a flood control district, can transfer such drainage improvement to any flood control district in the county by a four-fifths vote of the legislative body of the city.[1112] Once transfer is made, the flood control district will assume and provide for the operation, maintenance, repair, and improvement of such drainage improvement.[1113]

In counties.—The board of supervisors of each county is authorized to appropriate and expend money from the county's general fund for a number of purposes, including—

- ◊ constructing works, improvements, levees, or check dams to prevent overflow and flooding;
- ◊ protecting and reforesting watersheds;
- ◊ conserving flood water;
- ◊ making of all surveys, maps, and plats necessary to carry out any work, construction, or improvement; and
- ◊ carrying out of authorized work, construction, or improvement outside the county if the rivers or streams affected flow in or through more than one county.[1114]

However, any work performed outside the county must be done with the consent of the legislative body of the county in which the work is to be done.[1115]

[1109]CAL. WATER CODE § 8013.
[1110]Id. § 8014.
[1111]Id. § 8050.
[1112]Id. § 8060.
[1113]Id. § 8061.
[1114]Id. § 8100.
[1115]Id. § 8106.

The board of supervisors can also provide by ordinance for the establishment and government of districts to carry out the following purposes:[1116]

- Protect and preserve banks of rivers and streams and lands lying contiguous from injury by overflow or washing.
- Provide for the improvement of rivers and streams.
- Prevent the obstruction of rivers and streams.
- To assess, levy, and collect within each district a tax for the district.[1117]

The board can provide for widening, deepening, straightening, removing obstructions from, and improving nonnavigable streams to control overflow, which interferes with highways, and for protection of the banks and adjacent lands from overflow of non-navigable streams.[1118] However, the board cannot direct improvements that interfere with the private rights or privileges of riparian owners, miners, or others.[1119]

Each county can transfer drainage improvements to any flood control district in the county by a four-fifths vote of the members of the board. Once transfer is made, the flood control district will have sole control and jurisdiction over such drainage improvements.[1120]

State flood control.—The Department of Water Resources is authorized to do the following:

- Make examinations of lands subject to inundation and overflow by flood water and of the water causing the inundation or overflow and make plans and estimates of the cost of works to regulate and control the flood water.[1121]
- Manage and control the work on any river or slough flowing into San Francisco Bay, San Pablo Bay, and Suisun Bay, or on the tide water flowing into such bays, if no other agency is specified.[1122]
- Purchase, construct, and operate one or more dredges or any other necessary appliances to promote or properly carry out the work of the department.[1123]
- Obtain or condemn any right-of-way for authorized construction.[1124]
- Cooperate with the Federal Government under a national flood insurance program. To do so, the department can do a number of things, including—

[1116]CAL. WATER CODE § 8110.
[1117]There are a number of flood control districts, including American River (see App. 37-1 et seq.), Contra Costa County (see App. 63-1 et seq.), Del Norte County (see App. 72-1 et seq.), Fresno Metropolitan (see App. 73-1 et seq.), Humboldt County (see App. 47- et seq.), Lake County (see App. 62-1 et seq.), Los Angeles County (see App. 28-1 et seq.), Marin County (see App. 68-1 et seq.), Mendocino County (see App. 54- et seq.), Napa County (see App. 61-1 et seq.), Orange County (see App. 36-1 et seq.), Riverside County (see App. 48-1 et seq.), San Benito County (see App. 70-1 et seq.), San Bernardino County (see App. 43-1 et seq.), San Diego County (see App. 105-1.5 et seq.), San Joaquin County (App. 79-1 et seq.), San Luis Obispo County (App. 49-1 et seq.), Santa Barbara County (App. 73-1 et seq.), Santa Clara County App. 60-1 et seq.), Santa Cruz County (App. 77-1 et seq.), Sonoma County App. 53-1 et seq.), Vallejo County (App. 67-1 et seq.), Ventura County (App. 46- et seq.), and Yolo County (App. 65-1 et seq.).
[1118]CAL. WATER CODE § 8126.
[1119]Id. § 8128.
[1120]Id. § 8156.
[1121]Id. § 8300.
[1122]Id. § 8301.
[1123]Id. § 8303.
[1124]Id. § 8304.

- ◊ carry out studies and investigations with respect to the adequacy of local measures in flood-prone areas as to land management and use, flood control, flood zoning, and flood damage prevention;
- ◊ review and comment upon application of local public agencies to the Federal Government for making flood insurance available in specific areas; and
- ◊ provide assistance to local public agencies by furnishing evidence on flood plains and in developing flood plain management plans.[1125]

- Supervise the maintenance and operation of the flood control works of the Sacramento River Flood Control Project.[1126]

The Cobey-Alquist Floodplain Management Act[1127] provides that within any area classified as *designated floodway,* the appropriate public agency (which is defined to mean any city, county, or district) must establish the necessary flood plain regulations within 1 year following notification by the department or board. However, the State will not pay for any of the cost of lands, easements, and rights-of-way associated with flood control project unless flood plain regulations for the designated floodway are adopted.[1128]

Before adoption of flood plain management regulations, the public agency can request and receive review of its flood plain management plans by the California Department of Water Resources or the State Reclamation board.[1129] Flood plain regulations, moreover, must meet the following criteria:[1130]

- Construction or structures in the designated floodway that may endanger life or significantly restrict the carrying capacity of the designated floodway will be prohibited.
- Development will be permitted within the restrictive zone in compliance with local agency policy, giving full consideration to the protection of human life and to the carrying capacity of the flood plain.

The department or board will review the adequacy of flood plain regulations established by a public agency and notify the public agency, in the event the flood plain regulations are held to be inadequate, to comply with the requirement. The department or board will recommend any provisions necessary to provide adequate flood plain regulations. Moreover, the public agency must adopt the new flood plain regulations within 180 days of receipt of the notice from the department or board.[1131] However, the public agency cannot revise the flood plain regulations nor grant variance from such regulations without the consent of the department or board and of the local flood control agency having jurisdiction over the project area.[1132]

[1125]CAL. WATER CODE § 8326.
[1126]Id. § 8360.
[1127]Id. § 8400 through 8415.
[1128]Id. § 8411.
[1129]Id. § 8403.
[1130]Id. § 8410.
[1131]Id. § 8412.
[1132]Id. § 8414.2.

Tennessee (regions 11 & 12).—The Mill Creek watershed flood control authority was created to control flood water in the watershed of Mill Creek located in Davidson, Williamson, and Rutherford Counties.[1133] The Mill Creek authority is a body politic and corporate that is governed by a board of directors.[1134]

The authority is authorized to do all things necessary or desirable in establishing and executing a comprehensive plan for controlling flooding in the Mill Creek watershed. It can cooperate with appropriate local, State, and Federal agencies in prosecuting adopted and authorized projects for the construction of dams, floodways, drainage canals, reservoirs, channel rectification, and other flood control and drainage works within Mill Creek watershed. Among other powers, the authority has the final ruling to disallow development within the 100-year flood plain along Mill Creek. Furthermore, property held by the authority is exempt from all taxes levied by the State or any of its political subdivisions.[1135]

Williamson, Rutherford, and Metropolitan Nashville-Davidson Counties can participate in the programs established by the authority by resolution passed with two-thirds vote of each county's general assembly.[1136] Moreover, Williamson and Rutherford Counties are authorized to contribute funds to the work of the Mill Creek watershed flood control authority.[1137]

Flood plain and stormwater control laws in selected counties

A few of the surveyed counties have flood plain and stormwater control laws.

Anne Arundel County, Maryland, requires each person who wants to develop land for residential, commercial, recreational, industrial, or any other purpose to provide appropriate stormwater management measures that control or manage runoff. The ordinance requires a stormwater management plan to be submitted to the Department of Planning and Code Enforcement for review and approval.

Lee County, Georgia, prevents flood hazard through its Land Development Ordinance that sets forth a number of provisions applicable to all county's areas of special flood hazard. Before commencement of any development activities, a flood damage prevention permit is required. All areas of special flood hazards in Lee County are subject to a set of *general* and *specific* standards.

Clark and Adams Counties of Wisconsin have identical flood plain zoning ordinances. These ordinances regulate all areas within the unincorporated limits of the counties covered by the *regional flood* and *flood plain islands* as designated on the official map. All cities, villages, and towns must comply with the ordinances. These ordinances provide that in all flood plain districts (including floodway districts, floodfringe districts, and general flood plain districts), no development is allowed in flood plain areas that can cause an obstruction to flow or an increase in regional flood height equal to or exceeding 0.01 foot due to loss of flood plain storage area.

[1133]TENN. CODE ANN. § 64-3-102 (1990).
[1134]Id. § 64-3-103.
[1135]Id. § 64-3-104.
[1136]Id. § 64-3-106.
[1137]Id. § 64-3-105.

Anne Arundel County, Maryland (region 1).—In 1994, the County Council of Anne Arundel County passed the amendment of Stormwater Management Ordinance, thereby repealing the existing stormwater management requirements, which were enacted in 1985.[1138] The ordinance provides that no person may develop land for residential, commercial, recreational, industrial, or any other purposes without providing appropriate stormwater management measures that control or manage runoff.[1139] Moreover, it requires a Stormwater Management Plan to be submitted to the Department of Planning and Code Enforcement for review and approval.[1140] This plan must:

- Include supporting computations, drawings, and sufficient information describing the manner, location, and type of measures in which stormwater runoff will be managed from the entire development.
- Comply with the provisions of this Ordinance and the Stormwater Management Technical Manual,[1141] which must be adopted and amended following public review and comment by the Director of the Planning and Code Enforcement.[1142]

Under this ordinance, a person must install or construct stormwater management facilities for a proposed development to meet the minimum performance requirement for managing increased runoff.[1143] It must be done in a way, so that,—

- ◊ the 2-year and 10-year development peak discharge rates are not exceeded and predevelopment volume is not exceeded in 36 hours for sites in the critical area;[1144]
- ◊ accelerated channel erosion will not occur as a result of the proposed development;[1145] and
- ◊ water quality will be improved for sites in the critical area.[1146]

When developing a Stormwater Management Plan, the following stormwater management practices must be investigated in the following order of preference:[1147]

1. Infiltration of runoff onsite;
2. Flow attenuation by use of open vegetated swales and natural depressions;
3. Stormwater retention structures;
4. Stormwater detention structures; and
5. A combination of the practices listed above.

[1138]County Council of Anne Arundel County, Maryland, Legislative Session 1994, Legislative Day No. 33, Bill No. 87-94, amended bill final on September 8, 1994.
[1139]MD. CODE ANN. § 3-103.
[1140]Id. § 3-201(A).
[1141]Id. § 3-201(B).
[1142]Id. § 3-104(B).
[1143]Id. § 3-202(A).
[1144]Id. § 3-202(A)(1).
[1145]Id. § 3-202(A)(2).
[1146]Id. § 3-202(A)(3).
[1147]Id. § 3-202(B).

Moreover, any development resource conservation areas, limited development areas, or intensely developed areas of the critical area must be undertaken only in compliance with the following:[1148]

- Permeable areas must be established in vegetation and innovation, development techniques must be used to the extent practicable to reduce impervious areas and to maximize areas of natural vegetation.
- Re-development must have pollutant loading reduced by at least 10 percent below the level of pollution from the site before re-development.
- New development must have pollutant loading reduced by at least 10 percent below the level of pollution from the site before development.
- New development activity and re-development within intensely developed areas must be undertaken only in compliance with the design manual and technical report called *A Framework for Evaluating Compliance with the 10 Percent Rule in the Critical Area.*
- All computations and data necessary to ensure that any development or re-development meets the 10 percent pollutant reduction requirement must be provided by the developer to the department for approval.
- Offsets allowed by the design manual and technical report may be used either onsite or offsite in the same critical area-watershed to reach the 10 percent pollutant reduction requirement.
- Development activity may not cause downstream property, watercourses, channels, or conduits to receive stormwater runoff at a higher volume or rate than permitted by the ordinance.
- All stormwater management facilities are designed with sufficient capacity to manage at a minimum the first one-half inch of runoff from impervious surfaces or extended detention of a 1-year storm for 24 hours to achieve water quality improvement.

Before engaging in activities subject to this ordinance, a person must secure a permit. Moreover, a building permit or grading permit may not be issued unless the applicant complies with one of the following requirements:[1149]

- Proofs from the applicant that facilities to manage stormwater quantity and quality have been installed as a part of the required improvements during subdivision approval.
- Submission of a stormwater management plan for a proposed development in accordance with the ordinance, the stormwater management technical manual, stormwater management plan, and obtaining of an approval of the plans and design criteria from the development.
- Certification providing that the site is part of a subdivision or development that—
  - ◊ has been approved for compliance with this ordinance;
  - ◊ will not increase the 2-year predevelopment peak discharge more than 10 percent;
  - ◊ will not adversely affect the receiving channel or facility; and

[1148]MD. CODE ANN. § 3-202(D).
[1149]Id. § 3-301(B).

◊ has facilities to manage stormwater quantity and quality.

Furthermore, the ordinance also provides a number of exemptions from the ordinance for land development.[1150] These exemptions are as follows:

- Agricultural land management practices that—
  - ◊ include an active soil and water conservation plan; and
  - ◊ have been reviewed and approved by the Anne Arundel Soil Conservation District.
- Additions or modification to existing residential structures.
- Development that does not disturb more than 5,000 square feet of land area.
- Land development activities that the State determines are regulated by State law.
- Residential developments of single-family houses on lots of 2 acres or more outside of the critical area.[1151]

In addition to these exemptions, an applicant can also seek a waiver from the department.[1152] With the grant of a waiver, the applicant does not need to comply with the requirements set forth in the ordinance. However, this waiver provision does not apply to the critical area.[1153] Furthermore, the ordinance specifies that any person who violates any provision of this ordinance is guilty of a misdemeanor, and upon conviction, is subjected to a fine not exceeding $1,000 or imprisonment exceeding 6 months, or both.[1154] Each day's violation constitutes a separate offense.[1155]

Lee County, Georgia (region 2).—To prevent flood hazard, Lee County Land Development Ordinance sets forth a number of provisions applicable to all county's areas of special flood hazard,[1156] which are established by the Federal Emergency Management Agency in its Flood Insurance Rate Map, dated May 15, 1991.[1157]

The ordinance provides that before any development activities, a Flood Damage Prevent Permit is required.[1158] All areas of special flood hazards in Lee County are subject to general and specific standards.[1159] The general standards provide as follows:[1160]

- New constructions and substantial improvements must be anchored to prevent flotation, collapse, or lateral movement of the structure.
- Manufactured homes must be anchored to prevent flotation, collapse, or lateral movements.
- New construction and substantial improvements must be constructed with materials and utility equipment resistant to flood damage.

[1150]MD. CODE ANN. § 3-302.
[1151]Id. § 3-302
[1152]Id. § 3-303(A).
[1153]Id. § 3-303(A).
[1154]Id. § 3-403(A).
[1155]Id. § 3-403(B).
[1156]Lee County Land Development Ordinance, GA § 10.2.1.
[1157]Id. § 10.2.2.
[1158]Id. § 10.2.3.
[1159]Id. § 10.3.
[1160]Id. § 10.3.1.

- New construction or substantial improvements must be constructed by methods and practices that minimize flood damage.
- Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities must be designed or located, or both, to prevent water from entering or accumulating within the components during conditions of flooding.
- New and replacement water supply systems must be designed to minimize or eliminate infiltration of flood water into the system.
- New and replacement sanitary sewage systems must be designed to minimize or eliminate infiltration of flood water into the system and discharges from the systems into flood water.
- Onsite waste disposal systems must be located and constructed to avoid impairment to them or contamination from them during flood.
- Any alteration, repair, reconstruction, or improvements to a building that is in compliance with the Flood Damage Prevention provisions, must meet the requirements of *new construction* as specified in this ordinance.
- Any alteration, repair, reconstruction, or improvements to a building which is not in compliance with the Flood Damage Prevention provisions must be undertaken only if the nonconformity is not furthered, extended, or replaced.

All areas of special flood hazard where base flood elevation have been provided must comply with a set of specific standards.[1161]

Clark County, Wisconsin (region 4).—The Clark County flood plain zoning ordinance was enacted to regulate the development in flood hazard areas to protect life, health, and property.[1162] This ordinance regulates all areas within the unincorporated limits of the county covered by the *regional flood* and *flood plain islands* designated on the official map.[1163]

The term *regional flood* is a "flood determined to be representative of large floods known to have occurred in Wisconsin or which may be expected to occur on a particular lake, river or stream once in every one hundred years."[1164]

The term *flood plain islands* is a "natural geologic land formation within the flood plain that is surrounded, but not covered, by floodwater during the regional flood."[1165]

The ordinance specifies that all cities, villages, towns, and counties are required to comply with the Floodplains Ordinance.[1166] It provides that in all flood plain districts (including floodway districts, floodfringe district, and general flood plain district), no development is allowed in flood plain areas. Specifically developments that can cause an obstruction to flow (development that physically blocks the conveyance of floodwater by itself or in conjunction with future similar development causing an increase in regional flood height) or an increase in regional flood height because flood plain storage area lost, which is equal to or exceeding

[1161]Lee County Land Development Ordinance, GA § 10.3.2.
[1162]Clark County flood plain zoning ordinance, WI § 18.04.005 et seq. (1993).
[1163]Id. § 18.04.050.A.
[1164]Id. § 18.04.460.
[1165]Id. § 18.04.200.
[1166]Id. § 18.04.050.G.

0.01 foot.[1167] Furthermore, in seeking watercourse alterations, the local zoning official must notify adjacent municipalities, the appropriate district offices of DNR and FEMA and must require applicants to secure all necessary State and Federal permits.[1168]

Flood plain areas are further divided into three districts. They are as follows:

Floodway district.—This district consists of the channel of a river or stream and those portions of the flood plain adjoining the channel required to carry the water associated with a regional flood.[1169]

The ordinance requires that all developers of structures in floodway districts secure permits. It allows a number of permitted uses in the floodway district and the floodway portion of the general flood plain district, providing that they are not prohibited by any other ordinances.

The permitted uses include—

- ◊ agricultural uses;[1170]
- ◊ nonstructural industrial and commercial uses;[1171]
- ◊ nonstructural private and public recreational uses;[1172]
- ◊ uses or structures accessory to open uses, or essential for historical areas;[1173]
- ◊ extraction of sand, gravel, or other materials;[1174]
- ◊ functionally water-dependent uses and other water-related uses;[1175] and
- ◊ public utilities, streets, and bridges.[1176]

However, there are a number of uses that are always prohibited in the floodway district and the floodway portion of the general flood plain district. They include—

- ◊ the structures in, on, or over floodway areas that are designed for human habitation;
- ◊ the storage of any materials that are capable of floating, flammable, explosive or injurious to property, water quality or human, animal, plant, fish, or other aquatic life;
- ◊ any private or public sewage systems except portable latrines that are removed prior to flooding;

[1167]Clark County flood plain zoning ordinance, WI § 18.12.010.A. (1993).
[1168]Id. § 18.12.020.
[1169]Id. § 18.04.050.C.1.
[1170]Id. § 18.16.020.A. The ordinance provides examples of agricultural uses. They are: general farming, pasturing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.
[1171] § 18.16.020.B. Some of the examples of the non-structural industrial and commercial uses provided by the ordinance are: loading areas, parking areas, and airport landing strips.
[1172]Id. § 18.16.020.C. Some of the examples of the non-structural private and public recreational uses provided by the ordinance include golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and natural preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, and hiking and horseback riding trails.
[1173]Id. § 18.16.020.D. (1993).
[1174]Id. § 18.16.020.E.
[1175]Id. § 18.16.020.F. Some examples of the functionally water-dependent uses are: docks, piers, or wharves, including those used as part of a marina. Examples of other water-related uses are dams, flowage areas, culverts, navigational aids and river crossing of transmission lines, and pipelines.
[1176]Id. § 18.16.020.G (1993).

- ◊ any public or private wells which are used to obtain water for ultimate human consumption;
- ◊ any solid and hazardous waste disposal sites, whether public or private;
- ◊ any waste water treatment ponds or facilities;
- ◊ any uses which are not in harmony, or may be detrimental to, the uses permitted in the adjoining districts; and
- ◊ any sanitary sewer or water supply lines.[1177]

Floodfringe District.—This district consists of the portion of the flood plain between the regional flood limits and floodway.[1178]

The ordinance provides different sets of standards for different types of uses, including residential uses,[1179] accessory structures or uses,[1180] commercial uses,[1181] manufacturing and industrial uses,[1182] storage material,[1183] public utilities, streets and bridges,[1184] sewage systems,[1185] wells,[1186] solid waste disposal sites,[1187] deposition of materials,[1188] and mobile homes and manufactured homes.[1189] For example, for residential uses,[1190] the standards are as follows:

- The elevation of the lowest floor, excluding the basement or crawl way, must be at or above the flood protection elevation on fill. The fill elevation must be one foot or more above the regional flood elevation extending at least 15 feet beyond the limits of the structure.
- The basement or crawl way floor may be placed at the regional flood elevation, if it is flood-proofed to the flood protection elevation.
- Contiguous dryland access, meaning a vehicle access route above regional flood elevation, must be provided from a structure or building to land that is outside of the flood plain.

General flood plain district.—This district consists of all areas that have been or may be covered by flood water during the regional flood. It includes both the floodway and floodfringe districts.[1191] Because it encompasses both areas, the zoning administrator must determine whether the proposed use is located within a floodway or floodfringe area. Moreover, those uses permitted in floodways and

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[1177]Clark County flood plain zoning ordinance, WI § 18.16.040.
[1178]Id. § 18.04.050.C.2. The term "floodway" is defined to mean the "channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the regional flood discharge." Id. § 18.04.260.
[1179]Id. § 18.20.030.B.
[1180]Id. § 18.20.030.C.
[1181]Id. § 18.20.030.D.
[1182]Id. § 18.20.030.E.
[1183]Id. § 18.20.030.F (1993).
[1184]Id. § 18.20.030.G.
[1185]Id. § 18.20.030.H.
[1186]Id. § 18.20.030.I.
[1187]Id. § 18.20.030.J.
[1188]Id. § 18.20.030.K.
[1189]Id. § 18.20.030.L.
[1190]Id. § 18.20.030.B.
[1191]Id. § 18.04.050.C.3 (1993).

floodfringe areas are also allowed within the general flood plain district.[1192] If it is determined that the proposed use is located within the floodway area, all rules and standards pertaining to a floodway district will apply; if it is within the floodfringe area, all rules and standards pertaining to a floodfringe district will apply.[1193]

The ordinance specifies that existing lawful but nonconforming use of the structure or building of its accessory use may continue, providing that no modification or addition to a nonconforming use or structure will be permitted unless it complies with the ordinance.[1194] Nonconforming uses may be allowed if a variance is secured.

In addition, the ordinance imposes violator of any provision of the ordinance a fine of at least $10 and not more than $200, plus taxable cost of such action. Each day of continued violation constitutes a separate offense.[1195]

Adams County, Wisconsin (region 4).—Adams County, Wisconsin, has adopted the Flood plain Ordinance[1196] almost identical to the Floodplain Ordinance of Clark County, Wisconsin. The only difference is the organization of the definition section. In the Clark County ordinance, the definition section was in front of the ordinance; in the Adams County ordinance, it was put at the end of the ordinance.

[1192]Clark County flood plain zoning ordinance, WI § 18.24.020.
[1193]Id. § 18.24.030.
[1194]Id. § 18.24.010.
[1195]Id. § 18.40.020.
[1196]Floodplain Zoning Ordinance for Adams County, WI § I.0 et seq. (1990).

Chapter 7: Wetlands Conservation Laws

State wetlands conservation laws

Of the 17 states surveyed, 10 have laws specifically treating the conservation of wetlands. These State legislatures enacted the wetlands conservation laws with the primary state policy of preserving and protecting the wetlands and preventing their despoliation and destruction. To effectuate this policy, these state laws offer certain mechanisms to protect wetlands. Delaware, Maryland, and Mississippi protect their wetlands through a permit system. The laws require that before engaging in any activity involving wetlands, each person must obtain a permit from their authoritative agencies. States allow some exemptions from the permit requirement.

Georgia authorizes its Department of Natural Resources to develop minimum standards and procedures to protect wetlands. The minimum standards and procedures must include, but are not limited to, land use activities, land development densities, and activities that involve alteration of wetlands. However, the department can adopt different minimum standards and procedures for wetlands protection based on the size or type of wetlands, the need to protect endangered or protected species or other unusual resources, and the need for particular land use activities that will affect a wetland.

Wisconsin requires its Department of Natural Resources to prepare maps identifying individual wetlands that have an area of 5 acres or more. Moreover, each city must zone by ordinance all unfilled wetlands of 5 acres or more that are shown on the final wetland inventory maps prepared by the department.

Iowa requires its Department of Natural Resources to develop and implement a program for the acquisition of wetlands and conservation easements on and around wetlands that result from the closure or change in use of agricultural drainage wells. It must inventory the wetland and marshes of each county and make a preliminary designation as to which constitute protected wetlands. In addition, each person must obtain a permit before draining a protected wetland.

Texas requires its authoritative agency to develop and adopt a State wetlands conservation plan for State-owned coastal wetlands.

Oregon's Division of State Lands is required to compile and maintain a comprehensive Statewide wetlands inventory. In compiling and updating the inventory, the division must identify opportunities for wetland creation, restoration, and enhancement when the information is available. Furthermore, any city or county is allowed to develop and submit to the division a wetland conservation plan for review. This Oregon law requires permits for removal or fill in areas subject to an approved wetland conservation plan.

California allows its authoritative agencies to acquire interests in real property to protect, preserve, and restore wetlands. These agencies must conduct studies to identify those wetlands that are subject to irreversible modification and that should be acquired, protected, and preserved in perpetuity. Such studies must set forth a plan for the acquisition, protection, preservation, restoration, and enhancement of wetlands.

Delaware (region 1).—The Delaware Legislature enacted the Wetlands Act[1197] that has the primary public policy of preserving and protecting "the productive public and private wetlands" and preventing "their despoliation and destruction consistent with the historic right of private ownership of lands."[1198]

Before engaging in any activity in the wetlands, a person must obtain a permit from the Department of Natural Resources and Environmental Control.[1199] However, there are a number of exemptions from the permit requirement, including—

- ◊ mosquito control activities authorized by the department;
- ◊ construction of directional aids to navigation;
- ◊ duck blinds;
- ◊ footbridges;
- ◊ the placing of boundary stakes;
- ◊ wildlife nesting structures;
- ◊ grazing of domestic animals;
- ◊ haying;
- ◊ hunting; and
- ◊ fishing and trapping.[1200]

However, before granting any permit, the secretary of the Delaware Department of Natural Resources and Environmental Control must consider these factors—

- ◊ the environmental impact;
- ◊ the aesthetic effect;
- ◊ the number and type of public and private supporting facilities required and the impact of such facilities;
- ◊ the effect on neighboring land uses;
- ◊ the state, county, and municipal comprehensive plans for the development or conservation, or both, of the areas; and
- ◊ the economic effect.[1201]

In addition to these factors, the secretary can also require a bond in an amount and with conditions sufficient to secure compliance with the conditions and limitations set forth in the permit.[1202]

The act provides that any expansion or extension of a pre-existing use must secure a permit and such permit may be granted only when the county or municipality having jurisdiction has already approved the use in question by zoning procedures provided by law.[1203]

[1197]The Wetlands Act, DEL. CODE ANN. tit. 7 § 6601 et seq. (1991).
[1198]Id. § 6602.
[1199]Id. § 6604(a). For process of permit applications Id. § 6608.
[1200]Id. § 6606.
[1201]Id. § 6604(b).
[1202]Id. § 6604(c).
[1203]Id. § 6605.

Under the Delaware Wetlands Act, the secretary has the following mandatory duties:[1204]

- To administer this act.
- To inventory all wetlands within Delaware and prepare suitable maps.
- To adopt a wetlands designation or any other regulation after holding a public hearing.
- To adopt regulations—
  - ◊ setting forth procedures governing the processing of permit applications and the conduct of hearings;
  - ◊ elaborating standards by which each permit application will be reviewed and acted upon;
  - ◊ controlling or prohibiting activities on lands designated or proposed for designation as wetlands; and
  - ◊ reporting through the annual budget process, the receipt, proposed use and disbursement of the funds appropriated to the department.

Moreover, the secretary is authorized to issue a cease and desist order to any person violating any rule, regulation, order, permit condition, or any provision of this act.[1205] The secretary may bring an action for injunctive relief to prevent violation of this act or a permit condition.[1206] Furthermore, the secretary may enter upon any private or public property for the purpose of determining whether a violation of a statute or regulation exists.[1207]

The act allows any person whose interest is substantially affected by any action of the secretary to appeal to the Environmental Appeals Board within 20 days of the secretary's decision.[1208] Any person who is affected by any decision or nondecision by the board can appeal to the superior court in and for the county in which the use in question is wholly or principally located.[1209] If the superior court determines that the appealed action constitutes a taking without just compensation, it must invalidate the order and grant appropriate relief.[1210]

The act provides that any person who violates any rule, regulation, order, permit condition, or provision of the act may be fined not less than $50 nor more than $500 for each violation.[1211] However, if he or she does so intentionally or knowingly, the fine is increased to not less than $500 or more than $10,000 for each offense.[1212]

Maryland (region 1).—Finding that the despoliation and destruction of wetlands by unregulated activities had adversely affected important ecological, economic, recreational, and aesthetic interests, the Maryland legislature enacted the Wetlands

[1204]DEL. CODE ANN. § 6607.
[1205]Id. § 6614.
[1206]Id. § 6615.
[1207]Id. § 6616.
[1208]Id. § 6610.
[1209]Id. § 6612.
[1210]Id. § 6613.
[1211]Id. § 6617(b).
[1212]Id. § 6617(a).

and Riparian Rights Law[1213] to preserve the wetlands and to prevent their despoliation and destruction.[1214] The law recognizes the distinction between *state wetlands* and *private wetlands*. Each shall be discussed in turn.

State wetlands.— State wetlands include "any land under the navigable water of the State below the mean high tide, affected by the regular rise and fall of the tide."[1215]

The law provides that the owner of land bounding on navigable water is entitled to any natural accretion to the person's land, to reclaim fast land lost by erosion or avulsion during the person's ownership of the land to the extent of provable existing boundaries (the right to reclaim lost fast land relates only to fast land lost after January 1, 1972). The landowner is also allowed to make improvements into the water in front of the land to preserve the access to the navigable water or protect the shore against erosion.[1216]

Under this law, a person cannot dredge or fill in State wetlands without a valid license. Such license may include provision for periodic maintenance dredging if the secretary recommends. This licensing requirement does not apply to —

- ◊ dredging and filling being conducted as of July 1, 1970, as authorized under the terms of an appropriate permit or license granted under the provisions of existing State or Federal law;
- ◊ dredging of seafood products by a licensed operator, harvesting of seaweed, or mosquito control and abatement as approved by the Department of Agriculture;
- ◊ improvement of wildlife habitat or agricultural drainage ditches as approved by an appropriate unit; and
- ◊ routine maintenance or repair of existing bulkheads, provided that there is no addition or channelward encroachment.

Violation of the license requirement constitutes a misdemeanor, and upon conviction, is subject to a fine not exceeding $1,000. Moreover, the secretary must assist the board in determining whether to issue a license to dredge or fill State wetlands.[1217]

The board is authorized to require, as a condition to issuance of a wetlands license, the license applicant to pay a certain amount of money deemed appropriate by the board. Such moneys will be deposited to the Wetlands Compensation Funds, which can be used only for the acquisition of wetland areas by the State.[1218]

Moreover, it should be noted that a landowner is exempt from all local permit requirements in performing routine maintenance and repair of a bulkhead.[1219] Any person who is aggrieved by the board's decision can appeal to the circuit court of competent jurisdiction.[1220]

[1213]MD. CODE ANN., NAT. RES. § 9-101 et seq. (1990 & Supp. 1994).
[1214]Id. § 9-102 (1990).
[1215]Id. § 9-101(n).
[1216]Id. § 9-201 (1990 & Supp. 1994).
[1217]Id. § 9-202.
[1218]Id. § 9-204.
[1219]Id. § 9-202.1 (1990).
[1220]Id. § 9-203.

Private Wetlands.— Private wetlands include "wetlands transferred by the State by a valid grant, lease, patent, or grant confirmed by Article 5 of the Maryland Declaration of Rights, to the extent of the interest transferred."[1221]

The Maryland Wetlands law requires the secretary to inventory all private wetlands in the state. The landward boundaries of the wetlands will be shown on suitable maps or aerial photographs. The secretary must hold a public hearing in the county of the affected wetlands on the completion of the boundary map. After the hearing, the secretary must establish by order the landward bounds of each wetland and the regulations applicable to the wetland. Moreover, the secretary must file maps and orders among land records to the clerk of the circuit court.[1222] A prospective purchaser can be aware that the real estate is subject to the private wetlands regulations, giving the purchaser the opportunity to consider whether to acquire the affected property under these conditions or not.[1223] However, the secretary can modify wetlands boundary maps.[1224]

The secretary is authorized, with mandatory advice and consent of the Maryland Agricultural Commission and in consultation with any appropriate unit in the affected political subdivision, to adopt regulations governing dredging, filling, removing or otherwise altering or polluting private wetlands, to promote the public safety, health, welfare, wildlife, and marine fisheries. The regulations can vary as to specific tracts of wetlands because of the character of the wetlands.[1225]

However, the following are lawful uses on private lands:[1226]

- Conservation of soil, vegetation, water, fish, shellfish, and wildlife.
- Trapping, hunting, fishing, or catching shellfish, if otherwise legally permitted.
- Exercise of riparian rights to improve land bounding on navigable water, to preserve access to the navigable water, or to protect the shore against erosion.
- Reclamation of fast land owned by a natural person and lost during the person's ownership of the land by erosion or avulsion to the extent of provable pre-existing boundaries (the right to reclaim lost fast land relates only to fast land lost after January 1, 1972).
- Routine maintenance and repair of existing bulkheads, provided that there is no addition or channelward encroachment. Individuals who propose to conduct on any wetland activities that are not authorized by regulations must apply for a permit to the secretary.[1227]

Moreover, a landowner is exempt from all local permit requirements of performing routine maintenance and repair of a bulkhead.[1228] Any person who is aggrieved by the board's decision can appeal to the circuit court of competent jurisdiction.[1229]

The law prohibits the Board of Public Works from issuing a license for any project involving the construction of a dwelling unit or other nonwater-dependent structure

[1221]MD. CODE ANN., NAT. RES. § 9 101(j) (1990).
[1222]Id. §-9-301.
[1223]Hirsch v. Maryland Dep't of Natural Resources, 288 Md. 95, 416 A.2d 10 (1980)
[1224]MD. CODE ANN., NAT. RES. § 9-302.1 (1990).
[1225]Id. § 9-302.
[1226]Id. § 9-303 (1990).
[1227]Id. § 9-306 (Supp. 1994).
[1228]Id. § 9-303.1 (1990).
[1229]Id. § 9-305 (Supp. 1994).

on a pier located on State or private wetlands. However, this prohibition does not apply if—

- ◊ the project is constructed on a pier in existence as of December 1, 1985, which can be verified by the Department of Natural Resources;
- ◊ the project does not require an expansion of the pier greater than 25 percent of the area of piers or dry docks removed on the same property;
- ◊ the project is approved by local planning and zoning authorities;
- ◊ the project is located in an intensely developed area, as designated in programs adopted or approved by the Chesapeake Bay Critical Area Commission; and
- ◊ the project allows public access to tidal water, if appropriate.[1230]

Furthermore, the authority cannot issue permits to projects involving the construction of a dwelling unit or other nonwater-dependent facility on a pier located on State or private wetlands within the Chesapeake Bay Critical Area. However, the applicant is required to improve the water quality of existing stormwater runoff from the project site into adjoining water and the applicant can demonstrate that neither the project's construction and operation nor any sewer (or other utility) lines have any long-term adverse effect on the water quality of the adjoining body of water.[1231]

Georgia (region 2).—The Department of Natural Resources is authorized to develop minimum standards and procedures for the protection of the natural resources and environmental, and vital areas of the State, which includes the protection of wetlands. The local governments must use these minimum standards and procedures in developing, preparing, and implementing their comprehensive plans.[1232]

The minimum standards and procedures for wetlands protection must include, but are not limited to, land use activities, land development densities, and activities that involve alteration of wetlands. However, the department can adopt differing minimum standards and procedures for wetlands protection based on the size or type of wetlands, the need to protect endangered or protected species or other unusual resources, and the need for a particular land use activity that will affect a wetland.[1233]

Mississippi (region 3).—The Mississippi Coastal Wetlands Protection Act[1234] was enacted with the policy of "preserv[ing] the natural state of the coastal wetlands and their ecosystems and prevent[ing] [their] despoliation and destruction . . . ."[1235] The act requires the Mississippi Marine Resources Council to adopt, promulgate, and enforce public rules and regulations for the implementation of the act.[1236] Moreover, from time to time, the Council and the Marine Conservation Commission must inspect the coastal wetlands to determine compliance.[1237]

[1230]MD. CODE ANN., NAT. RES. § 9-104(c) (Supp. 1994).
[1231]Id. §-9-104(b).
[1232]GA. CODE ANN. § 12-2-8(b) (Supp. 1993).
[1233]Id.
[1234]Mississippi Coastal Wetlands Protection Act, MISS. CODE ANN. § 49-27-1 et seq. (1990 & Supp. 1993).
[1235]Id. § 49-27-3 (1990).
[1236]Id. § 49-27-59.
[1237]Id. § 49-27-63.

The act requires permits for all regulated activities affecting coastal wetlands.[1238] The regulated activities include—

- ◊ dredging, excavating or removing soil, mud, sand, gravel, flora, or fauna;
- ◊ dumping, filling or deposing any soil, stones, sand, gravel, mud, aggregate of any kind, or garbage;
- ◊ killing or materially damaging any flora or fauna;
- ◊ erecting on coastal wetlands structures that materially affect the ebb and flow of the tide; and
- ◊ erecting any structure(s) on suitable sites for water dependent industry.[1239]

The council may impose conditions or limitations on the proposed activity in granting any permit.[1240]

An applicant, person, corporation, municipal corporation, county, or interest community group who has been aggrieved by the council's order, denial, revocation, or revocation of a permit, or issuance of a permit or conditional permit, can appeal to chancery court. Such court must affirm the council's order if it finds that the order appealed is supported by substantial evidence, consistent with the public policy, is not arbitrary or capricious, and does not violate constitutional rights. [1241] Furthermore, such person can take appeals from the chancery court to the supreme court.[1242]

The act makes public all information related to the permit application and related documents, and documentary evidence offered at hearings.[1243]

The Coastal Wetlands Protection Act does not apply to the following:[1244]

- The accomplishment of emergency decrees of any duly appointed health officer of a county or municipality, acting to protect the public health.
- The conservation, repletion, and research activities of the Mississippi Marine Conservation Commissioner, the Mississippi Marine Resources Council, the Mississippi Gulf Coast Research Laboratory, the Mississippi Game and Fish Commissioner, and the Mississippi Alabama Sea Grant Consortium when acting through Mississippi Universities Marine Center.
- Hunting, erecting duck blinds, fishing, shell-fishing, and trapping when and where otherwise permitted by law.
- Swimming, hiking, boating, or other recreation that causes no material harm to the flora and fauna of the wetlands.
- The exercise of riparian rights by the owner of the riparian rights.
- The normal maintenance and repair of bulkheads, piers, roads, and highways.
- Wetlands development in the future by Federal, State, or county governments for the establishment of a superport or a pipeline buoy terminal for deep-draft, ocean-going vessels.

[1238]Mississippi Coastal Wetlands Protection Act, MISS. CODE ANN. § 49-27-9. For more detail on application process, Id. 49-27-11.
[1239]Id. § 49-27-5(c).
[1240]Id. § 49-27-29.
[1241]Id. § 49-27-39.
[1242]Id. § 49-27-49.
[1243]Id. § 49-27-21.
[1244]Id. § 49-27-7.

- The Biloxi Bridge and Park Commissioner, Biloxi Port Commissioner, Long Beach Port Commission, Pass Christian Port Commission, Pascagoula Port Commission, and any municipal or local port authorities.
- Wetlands used under the terms for the use permit granted by appropriate law.
- Any activity affecting wetlands that is associated with or is necessary for the exploration, production or transportation of oil or gas when such activity is conducted under a current and valid permit granted by a duly constituted agency of Mississippi.
- Activities of any mosquito control commission that is a political subdivision or agency of Mississippi.
- The Fisherman's Wharf to be constructed in Biloxi and the Buccaneer State Park to be constructed in Hancock County.
- Wetlands conveyed by the State for industrial development.
- Coastal wetlands within 5 feet of private property.
- The activities of the Hancock County Port and Harbor Commission, Harrison County Development Authority, and Mississippi State Port at Gulfport affecting wetlands within their respective jurisdictions.
- Activities that have no harmful impact on the environment and make no substantial change in the wetlands by the judgment of the director.

Wisconsin (region 4).—For the purpose of advancing the conservation of wetland resources, the Department of Natural Resources is required to prepare or cause to be prepared maps that, at a minimum, identify as accurately as practicable all individual wetlands in Wisconsin that have an area of 5 acres or more.[1245]

To effectuate the purpose of protecting shoreland and protecting and promoting public health, safety, and welfare, each city must zone by ordinance all unfilled wetlands of 5 acres or more that are shown on the final wetland inventory maps prepared by the Department of Natural Resources.[1246] However, the following are exempted from city ordinance:

- Any wetlands that are filled prior to the date a city receives a final wetlands map from the Department of Natural Resources.[1247]
- Any wetlands on the landward side of a bulkhead line, established by the city prior to May 7, 1982, and between that bulkhead line and the ordinary high-water mark.

If the city fails to adopt an ordinance within 6 months after receiving the final wetland inventory maps, or if the department determines that the city's adopted ordinance fails to meet the reasonable minimum standards in accomplishing shoreland protection objectives, the Department of Natural Resources must adopt an ordinance for that city.[1248]

[1245]WIS. STAT. ANN. § 23.32 (West 1989 & Supp. 1993).
[1246]Id. § 62.231(3) (West 1988).
[1247]Id. § 62.231(2).
[1248]Id. § 62.231(6).

The same requirement of zoning of wetlands in shorelands imposed on cities applies to villages.[1249]

Iowa (region 5).—According to Iowa's Protected Wetlands law,[1250] the department of Natural Resources is required to develop and implement a program for the acquisition of wetlands and conservation easements on and around wetlands that result from the closure or change in use of agricultural drainage wells.[1251] It must inventory the wetland and marshes of each county and make a preliminary designation as to which constitute protected wetlands.[1252]

In making the preliminary designations, the department must consult with the county conservation board.[1253] Upon completion of the preliminary wetlands designation, it must use an existing map or prepare a map and a list of the wetlands and marshes which are designated as protected wetlands in each county.[1254]

The department must file a copy of the map and the list with the county conservation board and the county recorder and notify the landowners affected by the preliminary wetlands designation.[1255]

Moreover, landowners are allowed to challenge the designation of the protected wetlands or request the designation of additional marshes or wetlands as protected wetlands.[1256]

The law prohibits individuals from draining a protected wetland without first obtaining a permit from the department.[1257] Violators of the permit requirement are subject to a civil penalty of not more than $500 for each day of violation.[1258] The department can issue such permit only if—

- ◊ the protected wetland is placed by the applicant who has a wetland of equal or greater value; or
- ◊ the protected wetland does not meet the criteria for continued designation as a protected wetland.[1259]

However, the Iowa protected wetlands law does not prevent a landowner from using the bed of a protected wetland for pasture or cropland if there is no construction of dikes, ditches, tile lines, or buildings and the agricultural use does not result in drainage.[1260]

Texas (regions 6 & 7).—In Texas, the Parks and Wildlife Department, in conjunction with the General Land Office, must develop and adopt a State Wetlands Conservation Plan for State-owned coastal wetlands. The Texas Water Commission and other State agencies and local governments must assist in developing and implementing

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[1249]WIS. STAT. ANN. § 62.351 (West 1988).
[1250]Protected Wetlands Law, IOWA CODE ANN. § 456B.1 et seq. (West Supp. 1993).-For an excellent article on Iowa Federal and state regulations concerning wetlands, *see Federal and State Regulation of Wetlands in Iowa*, 41 DRAKE L. REV. 139 (1992).
[1251]Id. § 456B.11.
[1252]Id. § 456B.12.
[1253]Id.
[1254]Id.
[1255]Id.
[1256]Id.
[1257]Id. § 456B.13.
[1258]Id. § 456B.14.
[1259]IOWA CODE ANN. § 456B.13.
[1260]Id.

the plan. Moreover, the Department and Land Office must consult with Federal agencies in developing and adopting the plan.[1261]

Under the Wetlands Act,[1262] the term *wetlands* does not include—

- ◊ irrigated acreage used as farmland;
- ◊ constructed wetlands of less than 1 acre; or
- ◊ constructed wetlands not constructed with wetland creation as a stated objective.[1263]

The Wetlands Conservation Plan must include the following factors:[1264]

- A definition of the term *wetlands.*
- A policy framework for achieving a goal of no overall net loss of State-owned coastal wetlands.
- Provisions for an inventory of State-owned coastal wetlands.
- Provisions for an inventory of sites for compensatory mitigation, enhancement, restoration, and acquisition priorities.
- Clarification and unification of wetland mitigation policies.
- Development of guidelines and regulations for mitigation done in advance for losses.
- Evaluation of requirements of freshwater inflow to estuaries that affect State-owned coastal wetlands.
- Preparations for a long-range navigational dredging and disposal plan.
- Provisions for scientific studies examining the effects of boat traffic in sensitive coastal wetland areas and for education of the public to the effects of boating in wetlands.
- Provisions to encourage the reduction of nonpoint source pollution of coastal wetlands, bays and estuaries.
- Development of a networking strategy to improve coordination among existing Federal and state agencies with respect to coastal wetland.
- A public education program on wetlands with the responsibility for the production of such material.
- Participation in the establishment of a National Wetlands Information Center by the Federal Government.
- Evaluation of the feasibility and effect of sediment bypassing from reservoirs to bays, and estuaries.
- Consideration of sea level rise as it relates to coastal wetlands.
- Provisions consistent with the department's Texas Wetlands Plan.
- A plan to acquire coastal wetlands.
- Any other matter affecting State-owned coastal wetlands.

[1261]TEXAS PARKS & WILD. CODE ANN. § 14.002(a) (West Supp. 1995).
[1262]Wetlands Act, TEXAS WATER CODE ANN. § 11.501 et seq.-(West Supp. 1995).
[1263]Id. § 11.502(4) (West Supp. 1995).
[1264]Id. § 14.002(b) (West Supp. 1995).

The Coastal Wetland Acquisition Act[1265] was enacted with the following policies:[1266]

- To protect the property rights of those who sell interests in land to the State by fairly compensating the sellers.
- To protect that coastal wetland that is most essential to the public interest by acquiring fees for the coastal wetland and managing it in a manner that will preserve and protect the productivity and integrity of the land as coastal wetland.
- To assure that the state does not expend funds to acquire any coastal wetland to which it already holds a valid title at the time of the expenditure.

Coastal wetland is wetland underlying or adjacent to tidal water in the coastal area.[1267] The condemnation exercised pursuant to the Coastal Wetland Acquisition Act does not apply to coastal wetland that is used only for farming or ranching activities, including maintenance and repair of buildings, earthworks, and other structures.[1268]

Under the Coastal Wetland Acquisition Act, the land office has the mandatory duties to certify coastal wetland that is most essential to the public interest, assign priority for acquisition, or revoke such certification.[1269] Moreover, in selecting and certifying coastal wetland most essential to the public interest, and in assigning priorities of acquisition to coastal wetland, the land office and the acquiring agency must consider a number of criteria, including—

- ◊ whether the land is a wetland within the definition, intent, and purpose of the Coastal Wetland Acquisition Act;
- ◊ whether the State owns the coastal wetland or claims title to it;
- ◊ the biological, geological, or physical characteristics of the coastal wetland;
- ◊ the degree to which the coastal wetland is in danger of being altered, damaged, or destroyed, and the imminence of that danger; and
- ◊ the cost of acquiring the coastal wetland.[1270]

Under this act, the acquiring agency can compensate the seller of land with funds obtained through—

- ◊ a gift, grant, or devise;
- ◊ legislative appropriation; or
- ◊ a gift or grant from the United States.[1271]

Oregon (region 9).—In 1989, the Oregon Wetland Inventory and Wetland Conservation Plans law became effective; its primary purpose is to protect and manage wetland resources.[1272] Under this law, the Division of State Lands has the mandatory obligation to compile and maintain a comprehensive Statewide Wetlands

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[1265]Coastal Wetland Acquisition Act, TEXAS NAT. RES. CODE ANN. § 33.231 et seq. (West Supp. 1995).
[1266]Id. § 33.232.
[1267]Id. § 33.233(3).
[1268]Id. § 33.235.
[1269]Id. § 33.236.
[1270]Id. § 33.237(a).
[1271]Id. § 33.238.
[1272]Wetland Inventory and Wetland Conservation Plans, OR. REV. STAT. § 196.668 et seq. (1989).

Inventory.[1273] In compiling and updating the inventory, the division must identify opportunities for wetland creation, restoration, and enhancement when the information is available.[1274] It must provide each city and county planning office with copies of the inventory covering the local jurisdiction.[1275] Moreover, copies of the inventory must be made available to the general public.[1276]

Any city or county is allowed to develop and submit to the division a wetland conservation plan for review,[1277] subject to the approval (with or without conditions) or denial of the director of the division.[1278] However, the conservation plan must provide the following information:[1279]

- A description and maps of the area to be covered by the plan.
- A detailed inventory of the wetlands, identifying the location, quality, and quantity of the wetland resource and the source of the water for the wetlands within the area covered by the plan.
- An assessment of wetland functions and values, including a historical analysis of wetland degradation, alterations, and losses.
- Designation of wetland areas for protection, conservation or development (wetlands within areas designated for development must be delineated to determine regulatory boundaries).
- A mitigation plan, including a program for replacement of planned wetland losses and restoration of lost functions and values through creation of new wetlands or enhancement of existing wetland areas, which designates specific sites within the plan area and actions for restoration and enhancement.
- Policies and implementing measures establishing protection, conservation, and best use of the wetlands in the plan area.
- Specification of sites for fill or removal, or both, and the conditions and procedures under which fill or removal, or both, may occur.
- Monitoring provisions that insure the wetland mitigation measures are implemented and mitigation goals are achieved.
- Identification of public uses of the wetlands and water and conflicting planned uses.
- Specification of buffer areas and uses permitted on lands that are adjacent to wetlands and that are essential to maintain, protect, or restore wetland functions and values.

In addition, the conservation plan must comply with the following standards:[1280]

- Uses and activities allowed in the plan, including fill or removal, or both, conform to sound policies of conservation and will not interfere with public health and safety.

[1273]OR. REV. STAT. § 196.674(1).
[1274]Id. § 196.674(9).
[1275]Id. § 196.674(4).
[1276]Id. § 196.674(6).
[1277]Id. § 196.678(1).
[1278]Id. § 196.681(6).
[1279]Id. § 196.678(2).
[1280]Id. § 196.681(3).

- Uses and activities allowed in the plan, including fill or removal, or both, are consistent with the protection, conservation, and best use of the water resources of Oregon and the use of State bodies of water for navigation, fishing, and public recreation.
- Designation of wetlands for protection, conservation, and development is consistent with the resource functions and values of the area and the capability of the wetland area to withstand alterations and maintain important functions and values.

The Oregon law requires permits for removal or fill in areas subject to an approved wetland conservation plan.[1281] The director, however, may authorize site-specific fill or removal without an individual permit.[1282] The division must issue a permit if the removal or fill, or both, is consistent with the wetland conservation plan or can be conditioned to be consistent with the plan.[1283]

Local governments are required under the Oregon Wetland Conservation law to notify the division of any proposed amendments to the land use plan and ordinances affecting lands subject to an approved wetland conservation plan.[1284] Amendments to plan policies, maps, and implementing ordinances by the local government will be subject to review by the division against the requirements of the Oregon Wetland law.[1285] Moreover, the director is required to review each approved wetland conservation plan every 5 years.[1286]

In addition, any city or county may also submit an acknowledged estuary management plan as a wetland conservation plan for review and approval by the division.[1287] An acknowledged estuary management plan follows the comprehensive plan and land use regulations adopted by cities and counties to satisfy the requirement of Statewide planning goals regarding estuarine resources, including shoreland portions of estuarine sites designated for development.[1288]

In addition to its Wetland Inventory and Wetland Conservation Plans law, Oregon Legislature also enacted the Oregon Wetlands Mitigation Bank Act of 1987,[1289] becoming effective on September 1989, with the following policies:[1290]

- To promote, in concert with other Federal and state programs as well as interested parties, the maintenance, and conservation of wetlands.
- To improve cooperative efforts among private, nonprofit, and public entities for the management and protection of wetlands.
- To offset losses of wetland values caused by activities which otherwise comply with State and Federal laws to create, restore, or enhance wetland values and functions.
- To maintain and encourage a predictable, efficient regulatory framework for environmentally acceptable development.

[1281]OR. REV. STAT. § 196.682(1).
[1282]Id. § 196.681(7).
[1283]Id. § 196.682(1).
[1284]Id. § 196.684(1).
[1285]Id. § 196.684(2).
[1286]Id. § 196.684(6).
[1287]Id. § 196.686(2).
[1288]Id. § 196.686(1).
[1289]Oregon Wetlands Mitigation Bank Act of 1987, OR. REV. STAT. § 196.600 to § 196.665 (effective 1989).
[1290]Id. § 196.605.

- To provide an option for achieving offsite mitigation when such mitigation is required under a removal or fill permit.

Under this act, the Oregon Wetlands Mitigation Bank Revolving Fund Account is created, separate, and distinct from the General Fund.[1291] The account includes moneys—

- ◊ appropriated for that purpose by the legislative assembly;
- ◊ awarded for such purposes as specifically stipulated under grants through the Federal Emergency Wetlands Resources Act of 1986, or the Federal Coastal Zone Management Act of 1972;
- ◊ obtained by gift, bequest, donation, or grant from any other public or private source;
- ◊ repaid from the account, including interest on such moneys; and
- ◊ obtained from interest or other earnings from investments of moneys in the account. All moneys received into the account must be paid into the State treasury and credited to the account.[1292]

The account can be used for a number of purposes, including—

- ◊ the voluntary acquisition of land suitable for use in mitigation banks;
- ◊ payment for costs incurred for alterations necessary to create, restore, or enhance wetland areas;
- ◊ payment of administrative, research, or scientific monitoring expenses of the division;
- ◊ dispersal of funds received under the Federal Coastal Zone Management Act of 1972 for such purposes as specifically stipulated in a grant award; and
- ◊ for the dispersal of funds received under the Federal Emergency Wetlands Resources Act of 1986 for the voluntary acquisition of wetlands and interests therein as identified in the wetlands provisions of the Statewide Comprehensive Outdoor Recreation Plan.[1293]

Under the Wetlands Mitigation Bank Act, the director must do the following:

- Initiate and implement a program for wetlands mitigation banks, upon approval of the State Land Board.[1294]
- Adopt, by rule, standards, and criteria for the site selection process, operation, and evaluation of mitigation banks, upon the approval of the State Land Board.[1295]
- Evaluate the wetlands functions and values created within each wetland mitigation bank site annually.[1296]
- Compare the current functions and values with the functions and values that the director anticipated the site would provide annually.[1297]

[1291] OR. REV. STAT. § 196.640(1).
[1292] Id. § 196.640(2).
[1293] Id. § 196.650.
[1294] Id. § 196.615(1).
[1295] Id. § 196.615(2).
[1296] Id. § 196.620(10)(a).
[1297] Id. § 196.620(10)(b).

- Maintain a record of fill and removal activities and actions for each mitigation bank and pilot program implemented and conduct monitoring of banks with moneys from the Oregon Wetland Mitigation Bank Revolving Fund Account.[1298]
- Provide quarterly reports to the State Land Board on moneys spent and received for each wetland mitigation bank.[1299]
- Consult and cooperate with other agencies and interested parties.[1300]

Moreover, the division must establish—

◊ a well-defined plan, including preliminary objectives, inventory of resource values, and an evaluation and monitoring program for each mitigation bank;[1301] and

◊ a system of resource values and credits.[1302]

California (region 10).—Recognizing that "the remaining wetlands . . . are of increasingly critical economic, aesthetic, and scientific value to the people of California, and . . . there is a need for an affirmative and sustained public policy program directed at their preservation, restoration, and enhancement, in order [for] such wetlands [to] continue in perpetuity . . . ," the California Legislature enacted the Keene-Nejedly California Wetlands Preservation Act.[1303]

This act allows both the Department of Parks and Recreation and the Department of Fish and Game to acquire interests (less than a simple absolute fee) in real property to protect, preserve, and restore wetlands.[1304] In consulting and cooperating with applicable cities and counties, both departments must cooperatively conduct a joint study to identify those wetlands that are subject to irreversible modification and that should be acquired, protected, and preserved in perpetuity. The study must set forth a plan for the acquiring, protecting, preserving, restoring, and enhancing wetlands, including funding requirements and the priority status of specific proposed wetlands projects.[1305] In preparing the wetlands priority plan and program, the departments must recognize conservation, recreation, and open-space plans and programs of local agencies, and, if feasible, must identify and devise cooperative means for planning and for the protecting and preserving of wetlands by local agencies.[1306]

Furthermore, both departments can enter into operating agreements with cities, counties, and districts for the management and control of wetlands.[1307]

[1298]OR. REV. STAT. § 196.625(1).
[1299]Id. § 196.625(2).
[1300]Id. § 196.635.
[1301]Id. § 196.615(3).
[1302]Id. § 196.620(1).
[1303]CAL. PARKS CODE § 5801 through 5818 (West 1984). For expenditures of funds for wetlands acquisition, preservation, restoration and enhancement, California Wildlife, Coastal, and Park Land Conservation Act, CAL. PUB. RES. CODE § 5907 (West Supp. 1995).
[1304]CAL. PARKS CODE § 5813.
[1305]Id. § 5814.
[1306]Id. § 5815.
[1307]Id. § 5817.

Tennessee (regions 11 & 12).—The U.A. Moore Wetlands Acquisition Act[1308] of Tennessee was enacted with the following purposes:[1309]

- To preserve certain wetlands and bottomland hardwood forests of the State.
- To authorize the director of the Wildlife Resources Agency to acquire wetlands and forests to preserve such lands and forests.
- To authorize the director to make expenditures from the 1986 wetland acquisition fund for the purpose of acquiring certain upland hardwood forests that are located within Scott and Campbell Counties.

The act defines *wetlands* as lands that have hydric soils and a dominance (50 percent or more of stem count based on communities) of obligate hydrophyes; wetlands include the following generic types: fresh water meadows, shallow fresh water marshes, shrub swamps with semipermanent water regimes most of the year, wooded swamps or forested wetlands, open fresh water except farm ponds, and bogs.[1310]

The act provides that the priorities for wetlands and bottomland hardwood forest acquisition will be controlled jointly by the director and the commissioner of agriculture.[1311] To encourage preservation, it further provides that wetlands and bottomland hardwood forests acquired by Tennessee are exempt from all State and local property taxes.[1312] It creates a special agency account, known as the Compensation Fund, to reimburse each affected city and county by the amount so determined.[1313] In addition, it specifically prohibits acquisition of wetlands and forests through condemnation or the use of eminent domain. This prohibition does not apply to certain property in Scott and Campbell Counties known as the Koppers Properties.[1314]

The director is authorized to do the following:

- Maintain an inventory of rare and significant biological and geological wetlands and bottomland hardwood forests worthy of protection.[1315]
- Enter into agreements with private corporations to identify and acquire wetland and forests.[1316]

Wetlands conservation laws in selected counties

Clark and Adams Counties, Wisconsin, have similar Shoreland/Wetland Zoning Ordinances regarding shoreland protection. The regulated areas include all shorelands that are—

- ◊ within 1,000 feet of the ordinary high water mark (OHWM) of navigable lakes, ponds, or flowages; and
- ◊ within 300 feet of OHWM of navigable rivers or streams, or to the landward site of the flood plain, whichever distance is greater.

[1308]A.U. Moore Wetlands Acquisition Act, TENN. CODE ANN. § 11-14-401 et seq. (1992).
[1309]Id. § 11-14-401.
[1310]Id. § 11-14-401(b)(B).
[1311]Id. § 11-14-402.
[1312]Id. § 11-14-405.
[1313]Id. § 11-14-406.
[1314]Id. § 11-14-407.
[1315]Id. § 11-14-404.
[1316]Id. § 11-14-403.

All cities, villages, towns, and counties must comply with these ordinances and secure the necessary permits. Permits are specifically required before any new development, or any change in the use of an existing building or structure is initiated or before any land use is substantially altered. To protect shoreland/wetland, these ordinances contain a number of provisions concerning the dimensions of building sites, setbacks, removal of shore cover, and filling, grading, lagooning, dredging, ditching, and excavating. In addition, the counties' shorelands are divided into three particular districts: shoreland-wetland districts, recreational-residential districts, and general-purpose districts.

Clark County, Wisconsin (region 4).—The Clark County Board adopted the Shoreland/Wetland Zoning Ordinance with a number of purposes, including—

- ◊ furthering the maintenance of safe and healthful conditions and preventing and controlling water pollution;[1317]
- ◊ protecting spawning grounds, fish, and aquatic life;[1318]
- ◊ controlling building sites, placement of structures, and land uses;[1319] and
- ◊ preserving shore cover and its natural beauty.[1320]

The areas that are regulated include all the shorelands that are—

- ◊ within 1,000 feet of the ordinary high water mark (OHWM) of navigable lakes, ponds or flowages;[1321] and
- ◊ within 300 feet of the OHWM of navigable rivers or streams, or to the land-ward side of the flood plain, whichever distance is greater.[1322]

The ordinance designates the zoning administrator to be responsible for determinations of navigability or the OHWM. However, when a question arises, the zoning administrator must contact the appropriate district office of the Wisconsin Department of Natural Resources for a final determination of navigability or OHWM.[1323]

Unless specifically exempted by law, all cities, villages, towns, and counties must comply with the Shoreland/Wetland Protection Ordinance and secure necessary permits.[1324] Permits are specifically required before any new development, or any change in the use of an existing building or structure is initiated, or before any land

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[1317]Clark Shoreland Protection Ordinance, WI § 17.08.030.A. This purpose can be established through a number of ways, including
- – limiting structures to those areas where soil and geological conditions will provide a safe foundation;
- – establishing minimum lot sizes to provide adequate area for private sewage disposal facilities; and
- – controlling, filling, and grading to prevent serious soil erosion problems.

[1318]Id.

[1319]Id. § 17.08.030.C. This purpose can be achieved through
- – separating conflicting land uses,
- – prohibiting certain uses detrimental to the shoreland area,
- – setting minimum lot sizes and widths, and
- – regulating side yards and building setbacks from roadways and waterways. Id.

[1320]Clark Shoreland Protection Ordinance, WI § 17.08.030.D. This purpose can be achieved through
- – restricting the removal of natural shoreland cover,
- – preventing shoreland encroachment by structures,
- – controlling shoreland excavation and other earth-moving activities,
- – regulating the use and placement of boathouses and other structures, and
- – controlling the use and placement of signs. Id.

[1321]Id. § 17.08.070.A (1985).

[1322]Clark Shoreland Protection Ordinance, WI § 17.08.070.B.

[1323]Id. § 17.08.070.C.

[1324]Id. § 17.08.080.A.

use is substantially altered.[1325] This ordinance does not require approval or is subject to disapproval by any town or town board.[1326]

The planning and zoning committee is authorized with a number of powers and duties, including—

- ◊ hearing and recommending a decision to the county board on proposed map and text amendments to this ordinance;
- ◊ hearing and deciding applications for special exception permits;
- ◊ authorizing upon appeal, in specific cases, such variance from the dimensional standards of the ordinance; and
- ◊ reviewing, accepting/objecting, and assisting the county board in deciding on applications for shoreland area subdivisions.[1327]

The county board must appoint a board of adjustment,[1328] with the main power and duty of hearing and deciding appeals where it is alleged there is error in any order, requirements, decision or determination made by an administrative official in the enforcement of this ordinance.[1329] Furthermore, as a method of enforcement, the ordinance imposes a fine of not less than $10 and no more than $200 (plus taxable costs of the action) for any violation of any provision of the ordinance. Each day of continued violation constitutes a separate offense.[1330]

To protect the shoreland/wetland, the Clark County Ordinance contains a number of provisions concerning the dimensions of building sites;[1331] setbacks;[1332] removal of shore cover;[1333] and filling, grading, lagooning, dredging, ditching, and excavating.[1334] Moreover, the ordinance allows nonconforming uses to continue if a number of conditions are met.[1335] Some of these conditions include—

- ◊ future conforming with the ordinance when the nonconforming use is discontinued for twelve months;[1336]
- ◊ the nonconforming use of the structure may not be intensified;[1337] and
- ◊ conformity with the ordinance is required for a rebuilding of a nonconforming structure if such nonconforming structure is destroyed by fire, wind, or other disasters.[1338]

[1325]Clark Shoreland Protection Ordinance, WI § 17.08.750 For the permit application process. § 17.08.760; for expiration period. § 17.08.770; for issuance of certificate of compliance. § 17.08.780; for contents of certificate of compliance. § 17.08.790; for temporary certificate of compliance. § 17.08.800.
[1326]Id. § 17.08.100.A.
[1327]Id. § 17.08.830.
[1328]Id. § 17.08.900.
[1329]Id. § 17.08.910.B.
[1330]Id. § 17.08.990.
[1331]Id. § 17.08.120 to 17.08.150.
[1332]Id. § 17.08.160 to 17.08.180.
[1333]Id. § 17.08.190 to 17.08.230.
[1334]Id. § 17.08.240 to 17.08.280.
[1335]Id. § 17.08.290.
[1336]Id. § 17.08.290.A.
[1337]Id. § 17.08.290.E.
[1338]Id. § 17.08.290.F.

Clark County shorelands are divided into three particular districts: shoreland-wetland district, recreational-residential district, and general purpose district.[1339] Each of these districts shall be discussed in turn.

Shoreland-wetland district.—This district includes all shorelands that are designated as wetlands based on the Wisconsin Wetland Inventory Maps.[1340] Zoning permit is generally required; however, the ordinance provides a number of exemptions. The activities and uses that do not require zoning permits, but must be carried out without filling, flooding draining, dredging, ditching, tiling, or excavating,[1341] are as follows:

- Recreational activities, such as hiking, horseback riding, fishing, trapping, hunting, swimming, and boating.
- The harvesting of wild crops, such as marsh hay, ferns, moss, wild rice, berries, tree fruits, and tree seeds, in a manner that is not injurious to the natural reproduction of such crops.
- The pasturing of livestock.
- The cultivation of agricultural crops.
- The practice of silviculture, including the planting, thinning, and harvesting of timber.
- The construction and maintenance of duck blinds.

The following uses do not require zoning permits, but may include filling, flood draining, dredging, ditching, tiling, or excavating:[1342]

- Temporary water levels stabilization measures that are necessary to alleviate abnormally wet or dry conditions that would have an adverse impact on silvicultural activities if not corrected.
- Flooding, dike, and dam construction, and ditching for the purpose of growing and harvesting cranberries.
- Ditching, tiling, dredging, excavating, or filling done to maintain or repair existing agricultural drainage systems only to the extent essential to maintain the level of drainage required to continue the existing agricultural use and permissible under the law.
- Construction and maintenance of fences for the pasturing of livestock, including limited excavating and filling necessary for such construction and maintenance.
- Construction and maintenance of piers, docks, and walkways built on pilings, including limited excavating and filling necessary for such construction and maintenance.
- Limited excavating and filling necessary for the maintenance, repair, replacement, and reconstruction of existing town and county highways and bridges.

[1339]Clark Shoreland Protection Ordinance, WI § 17.08.300.
[1340]Id. § 17.08.320.
[1341]Id. § 17.08.350.A.
[1342]Id. § 17.08.350.B.

Recreational-residential district.—This district includes all shorelands that are based on the shoreland zoning maps.[1343] In this district, residential, recreational, and conservancy uses are allowed. Moreover, a limited number of commercial uses serving recreational needs are permitted as special exceptions.[1344] The ordinance provides that the permitted uses in this district are the following:[1345]

- The uses permitted in the Shoreland-Wetland District.
- Year-round and seasonal single-family dwellings for owner occupancy, rent, or lease.
- Accessory uses.
- Signs of a specific type, size, and location.

Uses that are allowed under the issuance of a special exception permit are as follows:[1346]

- Hotels, resorts (including two or more single-family dwellings for rent or lease), motels, restaurants, dinner clubs, taverns, and other private clubs.
- Institutions of a philanthropic or educational nature.
- Recreational camps and campgrounds.
- Gift and specialty shops customarily found in recreational areas.
- Marinas, boat liveries, sale of bait, fishing equipment, boats and motors, fish farms, or forest industries.
- Mobile home parks.[1347]
- Travel trailer parks.[1348]
- Signs that are larger or in greater number than are permitted if such signs are determined to be necessary to adequately inform the public.
- Boathouses, provided that they meet the prescribed color standards so that the color does not detract from the natural beauty of the shoreline.

General purpose district.—This district includes all shorelands that are not in the shoreland-wetland district or recreational-residential district.[1349] This district is established with the purpose that, since areas other than those mentioned are

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[1343]Clark Shoreland Protection Ordinance, WI § 17.08.380.
[1344]Id. § 17.08.390.
[1345]Id. § 17.08.400.
[1346]Id. § 17.08.410. This section provides that, unless otherwise specified, any structure must be at least 100 feet from a residence other than that of the owner of the establishment, his or her agent or employee, 75 feet from a residential property line, or 25 feet from any lot line.
[1347]A number of conditions are applicable to mobile home parks. These conditions include:
- The minimum size of mobile home parks is 10 acres.
- The maximum number of mobile homes is ten per acre.
- The minimum dimensions of a mobile home site is 50 feet wide by 100 feet long.
- All drives, parking areas and walkways must be hard-surfaced or graveled, maintained in good conditions, have natural drainage and the driveways must be lighted at night. Id. § 17.08.410.F. For the complete list of these conditions, Clark Shoreland Protection Ordinance, WI.

[1348]A number of conditions are also applicable. Some of these conditions include:
- Minimum size of a traveler trailer park site is 5 acres.
- Maximum number of travel trailers is 15 per acre.
- Minimum dimensions of a travel trailer site is 25 feet wide by 40 feet long. Id. § 17.08.410.G. For the complete list of these conditions, Id.

[1349]Id. § 17.08.430.

potentially suited to a wide range of uses,[1350] a detailed county-wide comprehensive planning is necessary to select appropriate prospective locations for these uses and designate specific zones for each of them along navigable water.[1351]

The ordinance prescribes the following permitted uses:

- Commercial, agricultural, residential, forestry, and recreational uses are allowed if they comply with the general provisions of the ordinance, and non-residential structure must be located at least 50 feet from a property line.
- Farm animals must be housed at least 1,000 feet from any residential dwelling on a nonfarm lot.
- All new construction of farm buildings housing animals, and all new barnyards or feedlots, must be located at least 300 feet from any navigable water, and must be located so that manure will not drain into any navigable water.
- All barnyards, holding pens, or animal feeding facilities located within 300 feet of any navigable water are subject to periodic inspection and review for possible pollution of those water. Moreover, waste collection and disposal systems may be required to prevent the manure from draining into any navigable water.

The ordinance provides that while industrial uses may be allowed upon issuance of a special exception permit by the planning and zoning committee, solid waste disposal use may be permitted upon issuance of a permit from the Department of Natural Resources and a special exception permit by the planning and zoning committee.[1352]

Adams County, Wisconsin (region 4).—Adams County, Wisconsin, has adopted the Shoreland Protection Ordinance[1353] almost identical to the Shoreland/Wetland Protection Ordinance of Clark County, Wisconsin.

Wetlands conservation laws in the Chesapeake Bay critical area

Geographically allocated around the Chesapeake Bay area, Anne Arundel, Baltimore, and Harford Counties, Maryland, enacted Chesapeake Bay Critical Area and Wetlands Ordinances to protect the estuarine system. Within the Chesapeake Bay area, there are provisions for grading and sediment control, stormwater management, and zoning.

All persons who want to perform clearing, stripping, excavating, or grading on land or create burrow pits, spoil areas, quarries, material processing plants, or related facilities must obtain permits. In addition to other requirements, the ordinances provide that there must be a minimum 100-foot buffer landward from the mean high-water line of tidal water, tributary streams, and tidal wetlands. The ordinances also require the permit applicants to install or construct storm management facilities for a proposed development for managing increased runoff. Furthermore, the purpose of the zoning provisions is to divide the counties into zoning districts to minimize adverse impacts on water quality, conserve land, fish, and wildlife

[1350]The wide range of uses may include industrial, commercial, agricultural, residential, forestry, and recreational uses. Id. § 17.08.440.
[1351]Clark Shoreland Protection Ordinance, WI § 17.08.440.
[1352]Id. § 17.08.460.
[1353]Adams County Shoreland Protection Ordinance § 1.0 et seq. (1990).

habitat, and foster more sensitive development activity for shoreline areas. These districts include critical area district, industrial district, and maritime group district.

Anne Arundel County, Maryland (region 1).—Acknowledging that the Chesapeake Bay area is an estuarine system of great importance to the State and to the nation as a whole, Maryland has enacted the Chesapeake Bay Critical Area Act.[1354] The Chesapeake Bay Critical Area Program Development Criteria in carrying out that act requires local jurisdictions to implement a management and resource protection program for those areas within 1,000 feet of tidal water and tidal wetlands and any additional areas that a local jurisdiction deems important.[1355] Also recognizing the importance of protecting the resources of the Chesapeake Bay, in 1993, the County Council of Anne Arundel County enacted the Chesapeake Bay Critical Area and Wetlands Ordinance, which in the same year, was re-enacted with the purpose of correcting some deficiencies in the previous ordinance.[1356]

Within the Chesapeake Bay area, there are provisions for grading and sediment control, stormwater management, and zoning. Each will be discussed in turn.

Grading and sediment control.—All persons who wish to perform clearing, stripping, excavating, or grading on land or create borrow pits, spoil areas, quarries, material processing plants, or related facilities must obtain permits.[1357]

To control soil erosion and sedimentation, the ordinance requires that there must be a minimum 100-foot buffer landward from the mean high-water line of tidal water, tributary streams, and tidal wetlands.[1358] This buffer must be expanded beyond 100 feet to include contiguous, sensitive areas such as steep slopes and hydric soils or highly erodible soils.[1359] If there are contiguous slopes of 15 percent or greater, the buffer must be expanded 4 feet for every 1 percent of slope or to the top of the slope, whichever is greater.[1360] Moreover, all development and grading activities in the critical area legally existing on or before December 1, 1985, are permitted if the applicable requirements are in compliance.[1361]

The ordinance provides a series of provisions for the critical areas. In the removal of trees, commercial harvesting of trees is allowed within a nontidal wetland if—

- ◊ sound silvicultural methods are used;
- ◊ the harvesting undertaken must comply with a forest management plan and has been reviewed and approved by the State Forest, Park and Wildlife Service through the Anne Arundel County Forestry Board;
- ◊ any commercial harvesting within nontidal wetlands must use forest harvest best management practices;
- ◊ mitigation for commercial harvesting within nontidal wetlands must be done onsite through revegetation methods; and

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[1354]Chesapeake Bay Critical Area Act, Chapter 794, Laws of 1984.
[1355]Id.
[1356]County Council of Anne Arundel County, Maryland, the Chesapeake Bay Critical Area and Wetlands Ordinance, Legislative Session 1993, Legislative Day No. 40, Bill No. 120-93, reenacting, Bill No. 61-93.
[1357]County Council of Anne Arundel County, Maryland, the Chesapeake Bay Critical Area and Wetlands Ordinance, Legislative Session 1993 § 2-201.
[1358]Id. § 2-301(i).
[1359]Id.
[1360]Id. § 2-301(i).
[1361]Id. § 2-301(j).

◊ clear cutting must be approved as part of an approved forest management plan.[1362]

Moreover, to alter forest and developed woodland in limited development areas and resource conservation areas, a developer must comply with a set of requirements.[1363] Moreover, when the woodland or forest is not replaced onsite or offsite, a developer must pay certain fees to the county.[1364]

Stormwater management.—The ordinance requires the permit applicant to install or construct storm management facilities for a proposed development for managing increased runoff.[1365] It must be done so that—

◊ zero-year predevelopment peak discharge is not exceeded and the predevelopment volume is not exceeded in 36 hours for sites in the critical areas;

◊ accelerated channel erosion will not occur as a result of the proposed development; and

◊ water quality will be improved for sites in the critical area.[1366]

The water quality must be improved in the following specific ways:

- In intensely developed areas, pollutant loadings from impervious surfaces must be reduced by at least 10 percent.
- In limited development areas and resource conservation areas, stormwater runoff from impervious surfaces cannot cause downstream property, watercourses, channels, or conduits to receive stormwater runoff at a higher volume or rate than would have resulted from a 10-year storm were the land in a predevelopment state.

Zoning.—The purpose of the zoning provisions is to divide the county into zoning districts to minimize adverse impacts on water quality, conserve land, fish, and wildlife habitat, and foster more sensible development activity for shoreline areas.[1367] These districts include critical area district, industrial district, and maritime group district.

Critical area district.—The critical area district is zoned with the purpose to minimize adverse impacts on water quality, conserve land, fish, and wildlife habitat and foster more sensible development activity for shoreline areas.[1368] Within this area, the land is divided into intensely developed areas, limited development areas, and resource conservation areas.[1369]

Within the critical resource conservation areas, the ordinance only allows the existing industrial and commercial facilities, including facilities that directly support forestry, agriculture, aquaculture, or residential development, that have a density not greater than one unit for each 20 acres.[1370] Roads, bridges, or utilities

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[1362]Clark Shoreland Protection Ordinance, WI § 2-314(a).
[1363]Id. § 2-314(c).
[1364]Id. § 2-314(d).
[1365]Id. § 3-203(a).
[1366]County Council of Anne Arundel County, Maryland, the Chesapeake Bay Critical Area and Wetlands Ordinance, Legislative Session 1993 § 3-203(a).
[1367]Id. § 1-222.
[1368]Id. § 1A-101.
[1369]Id. § 1A-103(A).
[1370]Id. § 1A-103(C).

are not permitted in any designated habitat protection area unless two conditions are met—

- ◊ if there is no other feasible alternative; and
- ◊ the roads, bridges, or utilities are located , designed, constructed, and maintained in compliance with a number of requirements, including
  - – each must provide maximum erosion protection and minimize negative impacts to wildlife and aquatic life and their habitats;
  - – hydrologic processes and water quality must be maintained;
  - – development activities that cross or affect streams must be designed to reduce increases in flood frequency and severity, retain tree canopy so as to maintain stream water temperature within normal variations, provide a natural substrate for streambeds, and minimize the adverse water quality and quantity impacts of stormwater.[1371]

Industrial district.—A number of subclass of industrial districts exist, including W1-Industrial Park District, W2-Light Industrial District, and W3-Heavy Industrial District. In all of these districts, water-dependent facilities located in the buffer in the critical area are allowed as a conditional use, provided that the applicable requirements are complied. These districts differentiate from each other by these applicable requirements.

Maritime group districts.—There are a number of subclass of this district, including MA1-Community Marina District, MA2-Commercial Marina District, MA3-Yacht Club District, MB-Maritime Group B District, and MC-Maritime Group C District.

Baltimore County, Maryland (region 1).—To comply with the purposes and requirements of the State Chesapeake Bay Critical Area Law,[1372] the Baltimore County Council enacted the Chesapeake Bay Critical Area Requirements Ordinance.[1373]

All applicants proposing development in the critical area must prepare a critical area plan,[1374] which includes a very specific and numerous set of information.[1375] However, the director of planning for development proposals may waive this requirement, provided that there is also a concurrent waiver of the director of the Department of Environmental Protection and Resource Management.[1376]

Within nontidal and tidal wetlands, the ordinance prohibits dredging, filling, or constructing other than approved bulkheading.[1377] This prohibition does not apply to proposed development that—

- ◊ consists of utility, bridge, or street development in a nontidal wetland, and
- ◊ is not detrimental to the county's wetland management programs.[1378]

[1371]County Council of Anne Arundel County, Maryland, the Chesapeake Bay Critical Area and Wetlands Ordinance, Legislative Session 1993 § 1A-103(f).
[1372]Chesapeake Bay Critical Area Law, MD. ANN. CODE, NAT. RES., tit. 8, subtit. 18, § 8-1801 et seq.
[1373] § 26-436 et seq.
[1374]Id. § 26-442(a).
[1375]Id. § 26-442(b). For the specific required information, Id.
[1376]Id. § 26-443.
[1377]Id. § 26-447.
[1378]Id.

Moreover, to protect nontidal wetlands, the ordinance imposes the following requirements:[1379]

- A minimum 25-foot buffer must be maintained around all nontidal wetlands.
- The hydrologic regime and water quality of nontidal wetlands must be protected by minimizing the alterations as to the surface or subsurface flow of water into and from the wetlands.
- If activities or uses (permitted as a result of their being water-dependent or of substantial economic benefit) will unavoidably cause adverse environmental effects to wetlands, they will be permitted only in conjunction with mitigation measures.
- For all nonagricultural activities, the Department of Environmental Protection and Resource Management must seek comments on mitigation plans from other agencies.

The ordinance also requires establishing a minimum 100-foot buffer landward from the mean high-water line of tidal water, tidal wetlands, and tributary streams.[1380]

Within habitat protection areas, all development activities or other land disturbances (including commercial tree harvesting and agricultural activities) are prohibited.[1381] Within intensely developed areas, new development, and redevelopment must use best management practices or other technology that reduces pollutant loading by 10 percent of the onsite level before new development or redevelopment.[1382] Within the limited development area, RC-20 and RC-50 zones, all development activities that cross or affect streams must be designed to—

- ◊ reduce increase in flood frequency and severity which are attributable to the development,
- ◊ retain tree canopy so as to maintain stream water temperature within normal variation,
- ◊ provide a natural substrate for streambeds, and
- ◊ minimize adverse water quality and quantity impacts of stormwater.[1383] Moreover, all developments are required to incorporate a wildlife corridor system that connects the largest most undeveloped or most vegetated tracts of land within the adjacent to the site.[1384]

The ordinance prohibits developments of slope greater than 15 percent.[1385] The sum of all constructed impervious areas must not exceed 15 percent of the lot.[1386] The ordinance requires the developer to design an appropriate stormwater management system.[1387] Furthermore, within this area, all new or expanded water-dependent facilities must comply with the applicable procedures and standards.[1388]

[1379]Chesapeake Bay Critical Area Requirements, Baltimore County Code § 26-448.
[1380]Id. § 26-449(a).
[1381]Id. § 26-451(a).
[1382]Id. § 26-452(a).
[1383]Id. § 26-453(a).
[1384]Id. § 26-453(b).
[1385]Id. § 26-453(d).
[1386]Id. § 26-453(e).
[1387]Id. § 26-453(h).
[1388]Id. § 26-454.

Harford County, Maryland (region 1).—The County Council of Harford County also enacted a Chesapeake Bay Critical Area Ordinance.

Chapter 8: Prime Farmland, Rangeland Protection, and Forest Land Preservation Laws

State prime farmland, rangeland protection, and forest land preservation laws

Of the 17 states surveyed, 6 states—Delaware, Pennsylvania, Wisconsin, Iowa, California, and Tennessee—have laws specifically aimed at the preservation of farmland. These laws were enacted with the primary State policy of preserving and protecting the farmland to serve the long-term needs of the agricultural community and the citizens of the respective state. To effectuate this policy, each state offers a slightly different mechanism to protect farmland.

Delaware's Farmland Preservation Act creates agricultural preservation districts. All farmland or forest land, or both, included in the district are subject to a number of restrictions, including—

- ◊ no rezoning or major subdivision of the real property is allowed;
- ◊ activities conducted on the real property are limited to agricultural and related uses; and
- ◊ the restrictions are considered covenants that run with the lands in the district.

The act also creates the Agricultural Land Preservation Foundation. Among other important duties and powers, it must adopt criteria for establishing and maintaining Agricultural Preservation Districts, set forth criteria of agricultural lands preservation easement, and administer and supervise the Delaware Farmland Preservation Fund. Furthermore, the Foundation can use the Fund to acquire, maintain, and enforce agricultural land preservation easements for lands that are located in the districts. Similar to Delaware's agricultural preservation districts are Pennsylvania's agricultural security areas.

Iowa allows the establishment of a county land preservation and use commission in each county. The county commission must compile a land use inventory of the county areas. The county commission is also required to propose to the county board a county land use plan. Moreover, under the Iowa law, a farmlandowner can submit a proposal to the county board to create an agricultural area within the county. To create an incentive to preserve agricultural land, the law provides two statutory incentives. First, a farm or farm operation located in an agricultural area is automatically presumed not to be a nuisance. Second, the Iowa Department of Natural Resources will give priority to the use of water resources by farmers or farm operations.

In California, the authoritative agency is authorized to acquire fee title, development right, easements, or other interests in the land located in the coastal zone to prevent loss of agricultural lands and to assemble such agricultural lands into parcels of adequate size for continued agricultural production. In acquiring interest in agricultural land, the agency must give the highest priority to urban fringe areas where the impact of urbanization on agricultural lands is greatest.

Under the Tennessee law, owners of farmland can enroll land in an agricultural district. The law also allows the local Soil Conservation District Board of Supervisors to serve as the governing body. They will, in turn, notify the local Planning Commission and any local zoning boards of the areas designated as Agricultural Districts.

Of the 17 states surveyed, New Mexico and Utah, have laws that specifically protect state rangeland. The unique features of New Mexico laws are that the State protects its rangeland by assigning to the Department of Agriculture a series of broad powers and duties. For example, among other duties and powers, the department must—

- ◊ establish contracts with ranchers, Indian tribes and pueblos, local soil and water conservation district boards, and appropriate State and Federal agencies to determine interest for participation in brush and weed control management programs;
- ◊ prepare and implement a plan for each project to conduct brush and weed control under the guidelines established by the rangeland protection advisory committee; and
- ◊ coordinate field inspections on participating ranches with ranchers, local soil and water conservation district boards, appropriate State and Federal agencies, and other individuals.

Furthermore, the New Mexico Protection Act creates a rangeland protection advisory committee. It is responsible for developing mutually acceptable general guidelines to be followed for all rangeland protection projects conducted by the Department of Agriculture.

Utah Management of Range Resources law bases the success of rangeland management on sound conservation principles, which include practices to improve range conditions.

Delaware (region 1).—The Delaware Legislature enacted the Delaware Agricultural Lands Preservation Act[1389] to "provide for the creation of permanent agricultural areas comprised of viable farmlands and forest lands to serve the long-term needs of the agricultural community and the citizens of Delaware."[1390]

To further its goal, the act created a statewide Agricultural Lands Preservation Foundation, which consists of nine appointed trustees.[1391]

[1389]Delaware Agricultural Lands Preservation Act, DEL. CODE ANN. tit. 3, § 901 et seq. (Supp. 1992). The Delaware Agricultural Lands Preservation Act (of 1981) was first enacted in 1981. In 1991, the 1981 Act was repealed and redesignated and amended.

[1390]Id. § 901.

[1391]Id. § 903. These trustees include:

- The Secretary of the Department of Agriculture (or the authorized designee) serving an indefinite term;
- The Secretary of the Department of Natural Resources and Environmental Control (or the authorized designee) serving an indefinite term;
- The State Treasurer (or the authorized designee) serving an indefinite term;
- A member and representative of the Delaware Farm Bureau, serving an initial term of 2 years;
- A member and representative of the Delaware State Grange, serving an initial term of 2 years;
- An individual actively engaged in farming or some other form of agribusiness, who is resident of New Castle County, serving an initial term of 3 years;
- An individual actively engaged in farming or some other form of agribusiness, who is resident of Kent County, serving an initial term of 3 years;

The foundation must do the following:[1392]

- Adopt, after a public hearing, criteria for establishing and maintaining Agricultural Preservation Districts.
- Adopt, after a public hearing, criteria for the purchase of agricultural land preservation easements.
- Adopt, after a public hearing and consultation with other agencies, a statewide agricultural lands preservation strategy that specifically identifies the areas of the State in which valuable productive agricultural lands are located and which are considered best suited for long-term preservation.
- Administer, operate, and supervise the Delaware Farmland Preservation Fund.
- Monitor and enforce the requirements and restrictions imposed by and under the provisions of this act, adopted regulations and legally binding instruments.
- Establish a program of cooperation and coordination with the governing bodies of localities, private nonprofit or public organizations to assist in preservation of agricultural lands for agricultural purposes.
- Acquire available Federal funding and undertake all necessary actions required to receive such funding, and deposit such moneys received into the Delaware Farming Preservation Fund.
- Perform an annual audit of the foundation's accounts, which will be part of the Foundation's Annual Report.
- Prepare an annual report of the foundation's proceedings and activities.
- Establish a program of education and promotion of agricultural land preservation.
- Develop an effective program to implement fully the provisions of this act.

The foundation is authorized to do the following:[1393]

- Adopt an organizational structure to implement this act.
- Employ a staff subject of the availability of funding.
- Establish an office in the State.
- Retain by contract auditors, accountants, appraisers, legal counsel, and other services required by the foundation.
- Sue and be sued.
- Use a seal.
- Conduct hearings, examinations, and investigations as necessary and appropriate to the conduct of its operations and the fulfillment of its responsibilities.
- Procure and keep in force adequate insurance or otherwise provide for adequate protection of its property, and to indemnify itself and its officers and agents.

– An individual actively engaged in farming or some other form of agribusiness, who is resident of Sussex County, serving an initial term of 3 years; and
– An individual who is a resident of Delaware who is designated as Chairman.

[1392]DEL. CODE ANN. tit. 3, § 904(a).

[1393]Id. § 904(b).

- Purchase, sell, manage, lease, or rent real and personal property for use of the foundation as deemed necessary, convenient, or desirable.
- Act on and approve applications for the establishment of Agricultural Preservation Districts.
- Acquire by gift or purchase agricultural land preservation easements.
- Seek, obtain, or use Federal and private funding for the purposes of this act.
- Make short-term or long-term plans for the protection and preservation of agricultural lands.
- Enter upon lands when necessary to perform surveys, appraisals and investigations.
- Accept gifts, grants or loans of funds, property, or services from any source, public or private.
- Receive funds from sale of general bonds, revenue bonds, or other obligations of Delaware or under the name of the foundation.
- Recover reasonable costs for service provided.
- Delegate to one or more of its trustees, its executive director, or its agents such powers and duties as it may consider necessary and proper for the conduct of its authorized business.
- Select an executive director.
- Adopt procedural rules to govern the manner in which internal affairs of the foundations are conducted.
- Adopt, after notice and public hearing, rules and regulations to fulfill the foundation's responsibilities and fully effectuate the authority, purposes, intent, and activities contemplated under this act.

Under this act, the Delaware Farmland Preservation Fund is created. This fund is composed of all moneys received by the foundation or designated for deposit into it. It is authorized to invest such moneys on a long-term or short-term basis, subject to the approval of the Cash Management Policy Board.[1394] In addition, the act requires each county legislative body to establish a five-member Farmland Preservation Advisory Board that is obliged to advise the foundation concerning any proposed regulations.[1395]

Similarly to the soil conservation district laws, the act also provides for the establishment of Agricultural Preservation Districts. It allows owner(s) of contiguous farmland or forest land, or both, containing at least 200 usable acres to apply, on a voluntary basis, for establishment of an Agricultural Preservation District,[1396] and owner(s) of farmland or forest land consisting of less than 200 acres to apply for expansion of an established district.[1397]

[1394]DEL. CODE ANN. tit. 3 § 905.
[1395]Id. § 906. These five members include four active farmers or agribusinessmen residing within the county and one member of the legislative body. Id.
[1396]DEL. CODE ANN. tit. 3 § 907(a).
[1397]Id. § 907(d). Owner(s) of farmlands or forest lands, or both, of less than 200 acres must satisfy all requirements set forth for the owner(s) of lands of at least 200 acres, and the farmland or forest land is either continuous to the

To be considered for inclusion in an Agricultural Preservation District, an application must satisfy the eligibility requirements and a set of district restrictions. To be eligible, an application must satisfy the following criteria:[1398]

- The owner(s) seeking inclusion of real property in the district must hold a title to such property.
- The real property proposed for inclusion must have an agricultural zoning designation and not be subject to any major subdivision plan.
- The real property must consist of viable and productive farmland or forest land, or both, that meet the minimum LESA scoring requirements for eligibility.
- The owner(s) of real property proposed for inclusion must execute a declaration in recordable form pledging commitment to the standards of the district.

All farmland or forest land, or both, included in the district are subject to the following restrictions:[1399]

- No rezoning or major subdivision of the real property is allowed.
- Activities conducted on the real property are limited to agricultural and related uses, and residential use of the property is limited to dwelling housing for the owner, his or her relatives, and persons providing permanent and seasonable farm labor services.
- The restrictions will be deemed covenants that run with and bind the lands in the district for 10 years or any extended period from the date of placement of the lands in the district.

Before granting or denying the application, the foundation, the board, and the planning and zoning commission must consider the following factors:[1400]

- The viability and productivity of the farmland or forest land, or both, based on the LESA scoring system.
- The extent to which the farmland or forest land, or both, are being actively used for agricultural purposes.
- The extent to which the long-term preservation of farmland or forest land, or both, would be consistent with land use plans adopted after public hearings at state and county levels.
- The potential for expansion of the district if established and compatibility with surrounding land uses.
- The ancillary benefit of creating additional open space adjacent to existing established and protected open space.
- The potential for acquisition of agricultural preservation easements under rating or ranking systems that may be adopted through regulations of the foundation.

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established district, or located in whole or in part within a 1-mile radius of an established district. Id.

[1398]DEL. CODE ANN. tit. 3 § 908(a).

[1399]Id. § 909(a).

[1400]Id. § 908(b).

- The socioeconomic benefits derived from an agricultural and historic perspective as a result of inclusion of farmland or forest land, or both, in the district.
- Consistency with the statewide agricultural lands preservation strategy.

To encourage the preservation of farmland or forest land, or both, the act provides tax exemption benefits for owner(s) of real property located in the district.[1401]

In addition to other duties and authority, the foundation, subject to the availability of funds and compliance with the requirements set forth for acquisition of agricultural lands preservation easements, is entitled to acquire, maintain, and enforce agricultural land preservation easements for land that is located in the Agricultural Preservation Districts.[1402] The foundation is authorized to take action in any court of competent jurisdiction to enforce any restrictions or requirements imposed under this act.[1403] The act imposes only civil penalties on violators of this act.[1404] Moreover, judicial proceedings to review any rule, regulations or other action of the foundation or to determine meaning or effect of such may be brought in the Superior Court of Delaware.[1405]

Maryland (region 1).—The Legislature of Maryland enacted a number of provisions governing forest conservancy districts. However, these provisions do not apply to clearing woodland for reservoirs, military, naval, agricultural, communication, and transmission lines, industrial sites, railroads, residential, or recreational purposes. Neither do they apply to maple tree camps or to the business of gathering maple sugar or syrup.[1406]

The Maryland Legislature specifically declared that State forest land, timberland, woodland, and soil resources are basic assets of the State. Proper use, development, and preservation of these resources are essential to protect and promote the health, safety, and general welfare of the people of the State. State policy encourages economic management and scientific development of its forest and woodland to maintain, conserve, and improve soil resources so that adequate source of forest products is preserved for the people. Floods and soil erosion must be prevented and the natural beauty of the State preserved.[1407]

The Maryland Department of Natural Resources must do the following:

- Administer forest conservation practices on privately owned forest land and manage publicly owned forest land.
- Keep records of its proceedings.
- With district boards, cooperate with existing public agencies in forest management practices, flood control, recreation, wildlife management, and related activities.

[1401]DEL. CODE ANN. tit. 3 § 911(a).
[1402]Id. § 913.
[1403]Id. § 920(a).
[1404]Id. § 902(b).
[1405]Id. § 927.
[1406]Annotate Code of Maryland, Natural Resources 1997 § 5-610
[1407]Id. §.

- Direct and coordinate the activities of the district boards and hear appeals from orders or decisions of the local boards.[1408]

The department is required to divide Maryland into convenient districts, taking into accounts the character and extent of the timber stand, similarity of forest problems, convenience of administration, and other pertinent factors. By appointment, the department must establish a district forestry board of at least 5 members in each district created.[1409]

A district forestry board has the following duties:[1410]

- Promoting private forestry by assisting landowners in forest management; planting trees, conservation, and development of tree crops; and protecting forests from fires, insects, and diseases.
- Making available to landowners the services of a forester with regard to their forest and tree crop problems.
- Assisting the county assessors in the appraisal of forest land for tax purposes.
- Disseminating forest conservation information and collecting data concerning forest conservation problems of the State.
- Securing the cooperation and assistance of the Federal Government and any of its agencies and State agencies in conservation of State forest resources.
- Assisting private owners of forest land by advising the construction of flood control measures; seeding and planting of waste slopes, abandoned, or eroded land; and developing wildlife habitat by planting food or cover producing trees, bushes, and shrubs.
- Receiving and passing on proposed work plans for cutting forest land.
- Maintaining an office, keeping a record of its transaction, and promptly filing copies of its decisions and orders with the department.
- Employing personnel, in addition to the district forester, as the department approves.
- Performing all acts necessary to attain the objectives of the law.

The board has a number of powers, including—

◊ entering upon any woodland in the county or district to perform its duties;

◊ holding meetings and demonstrations in regard to conservation of natural resources;

◊ entering into agreements with landowners within its county or district for specified years;

◊ cooperating with other government agencies to achieve better forest growth and promulgating conservation measures;

◊ developing comprehensive forest management plans for conservation of soil resource and for control and prevention of soil erosion within the county or district;

[1408]Annotate Code of Maryland, Natural Resources 1997 § 5-603.
[1409]Id. § 5-605.
[1410]Id. § 5-606(a)

◊ enforcing rules and regulations made by the department; and

◊ promulgating safeguards for proper forest land use.[1411]

The law provides that any individual engaged in a forest products business must have a licensed issued by the department. The license can be obtained from the Department of Natural Resources for every type of forest products manufacturing plant. Before any sawmill or other plant is erected for the manufacture of lumber or other forest products, or when the location of many the manufacturing plant is to be changed, the location must be reported to the department.[1412]

The business individuals must do the following:[1413]

- Leave conditions favorable for growth.
- Leave young growth.
- Arrange for restocking land after cutting by leaving trees of desirable species of suitable size singly, or in groups, well distributed and in a number of secure restocking.
- Maintain adequate growing stock after partial cutting or selective logging.
- Provide for leases and timber cutting rights.
- Make application for inspection.

Within 3 years, but not less than 30 days preceding a cutting, the owner of woodland or his or her agent can apply to the board for inspection of the woodland proposed to be cut. The application must be made to the board of the district in which the land is located and indicate the location of the woodland, its approximate acreage, and the proposed cutting plan.[1414] Within 30 days after receipt of such application, the board is required to exam the woodland covered in the application. Within reasonable time, the board must advise the owner or his or her agent, in writing, the most practical and satisfactory method of cutting the woodland and assent to the method best adapted.[1415] However, the provisions governing license for forest products business does not apply to cutting firewood and timber for domestic use for the owner or the tenant.[1416]

[1411]Annotate Code of Maryland, Natural Resources 1997 § 5-606.
[1412]Id. § 5-608(a).
[1413]Id. § 5-608(b)
[1414]Id. § 5-608(c).
[1415]Id. § 5-608(d).
[1416]Id. § 5-608(e).

Pennsylvania (region 1).—The Agricultural Area Security law[1417] was enacted with the policy of—

- ◊ conserving, protecting and encouraging the development and improvement of the state's agricultural lands for the production of food and other agricultural products, and
- ◊ conserving and protecting agricultural lands as valued natural and ecological resources that provide needed open spaces for clean air and aesthetic purposes.[1418]

To further the State policy, the act has the following purposes:

- Encouraging landowners to make a long-term commitment to agriculture by offering them financial incentives and security of land use.
- Protecting farming operations in agricultural security areas from incompatible nonfarmland uses that may render farming impracticable.
- Assuring permanent conservation of productive agricultural lands to protect the agricultural economy in Pennsylvania.
- Providing compensation to landowners in exchange for their relinquishment of the right to develop their private property.
- Leveraging State agricultural easement purchase funds and protecting the investment of taxpayers in agricultural conservation easements.

The Agricultural Area Security law allows any governing body of any local government to establish an Agricultural Area Advisory Committee that consist of five persons. It has the mandatory duty to advise the local governing body and to work with the planning commission regarding the proposed establishment, modification, and termination of agricultural security areas.[1419]

Under the Agricultural Area Security law, owner(s) of land used for agricultural production can submit a proposal to the governing body for the establishment of an agricultural security area, provided that the owner(s) own at least 500 acres of viable agricultural land proposed to be included in the area.[1420] In determining the creation of such area, the planning commission and the advisory committee must consider the following evaluation criteria:[1421]

- Land proposed for inclusion must have soils that are conducive to agriculture.
- Use of land proposed for inclusion must be compatible with the local government unit's comprehensive plans.
- The land proposed, and any additions proposed subsequently, must be viable agricultural land.
- Additional factors include the extent and nature of farm improvements, anticipated trends in agricultural economic and technological conditions, any other matter, which may be relevant.

[1417]Agricultural Area Security Law, PENN STAT. ANN. § 901 through 915 (Supp. 1993).
[1418]Id. § 902.
[1419]PENN STAT. ANN. § 904.
[1420]Id. § 905(a).
[1421]Id. § 907.

Participation in the agricultural security area is available on a voluntary basis. Deletion of land in such area can occur only after 7 years, or whenever the area is subject to review by the governing body. Addition of land to such area can occur at any time during the 7 years.[1422] Furthermore, any person aggrieved by the governing body's decision or action regarding the creation, composition, modification, rejection, or termination of an agricultural area can appeal to the Court of Common Pleas.[1423]

To further its policy, the Agricultural Area Security law requires every municipality or political subdivision within the agricultural security area created to encourage the continuity, development, and viability of agriculture by refraining from enacting local laws or ordinances that would unreasonably restrict farm structures or farm practices. Any municipality or political subdivision law or ordinance defining or prohibiting a public nuisance must exclude from the definition of nuisance any agricultural activity or operation conducted in the course of normal farming operations.[1424] Moreover, no state agency having or exercising powers of eminent domain can condemn any land within any agricultural security area, unless prior approval has been obtained from the Agricultural Lands Condemnation Approval Board.[1425]

Under the Agricultural Area Security law, the Department of Agriculture and the State Agricultural Land Preservation Board must administer a program for the purchaser of agricultural conservation easements.[1426] After creation of an agricultural security area by the local governing body, the governing body can authorize a program to be administered by the county board for purchasing agricultural conservation easements from landowners whose land is within the area.[1427] However, an agricultural conservation easement is subject to a number of restrictions and limitations.[1428] Furthermore, the State board must make an annual allocation among counties (except counties of the first class) for the purchase of agricultural conservation easements.[1429] The Agricultural Conservation Easement Purchase Fund will be the source from which all moneys are authorized with the approval of the governor to carry out the purpose of this law.[1430]

The Agricultural Area Security law requires the secretary of the Pennsylvania Department of Agriculture to promulgate rules and regulations necessary to promote the efficient, uniform, and statewide administration of the law.[1431]

In Pennsylvania, all counties are authorized to enter into covenants with owners of farmland on an adopted municipal, county, or regional plan for the purpose of

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[1422]PENN STAT. ANN. § 908.
[1423]Id. § 910.
[1424]Id. § 911. The Pennsylvania Legislature also enacted the Protection of Agricultural Operations from Nuisance Suits and Ordinance Law to protect and conserve and encourage development and improvements of its agricultural land. PENN STAT. ANN § 951 through 957.
[1425]Id. § 913.
[1426]Id. § 914.1. The State Agricultural land Preservation Board, consisted of 17 members, is created within the Department of Agriculture.
[1427]Id. The county board is composed of 5, 7, or 9 members appointed by the county governing body.
[1428]Id. § 914.1(c).
[1429]Id. § 914.1(h).
[1430]Id. § 914.2.
[1431]Id. § 915.

preserving the farmland in the designated use.[1432] The property covenanted to be maintained in certain use will receive preferential tax assessment. In other words, the tax assessment reflects the fair market value of the land as restricted by the covenant.[1433]

Although the covenant is in effect, if the landowner (or his or her successors or assigns) alters the use of land to any other use that is not designated in the covenant, the alteration constitutes a breach of covenant. The landowner must pay to the county the difference between the real property taxes paid and the taxes that would have been payable without the covenant (plus interest).[1434]

The county governments must establish procedures governing covenants between landowners and counties for preservation of farmland.[1435]

Georgia (region 2).—The Georgia Legislature enacted a number of provisions to govern forest resources conservation. The State Forestry Commission is entrusted to manage, conserve, and protect any forest land or forest properties that belong to or are under the jurisdiction and control of any department, board, commission, bureau, agency, or authority of State Government. Such management must conform to the principles of sound forest management and be consistent with the use of such land or properties.[1436]

The State Forestry Commission is authorized to sell, contract for the sale of, offer, and accept bids for the sale of timber and other forest products grown or produced on lands subject to the management of the commission. Any funds derived from the sale must be paid into the general fund of the State or to the governmental body having jurisdiction over such lands or properties.[1437]

To foster, improve, and encourage reforestation and in furtherance of its duties and powers, the commission is authorized to contact for the production of seedlings, for the purchase of such seedlings for resale to Georgia forest owners or for fulfilling contractual obligations to George forest owners, or for the sale of seedlings to other states and to the federal government.[1438]

The State Forestry Commission consist of five members, with three being owners (or representatives of owners) of 50 acres or more of forest land within Georgia and two being manufacturers or processors of forest products (or their representatives). These members are appointed by the Governor and confirmed by the State. They hold office for 7 years and until their successors are appointed and qualified. The Governor cannot be a member of the commission.[1439]

[1432]PENN STAT. ANN. § 11943 (Supp. 1993).
[1433]PENN STAT. ANN For an interesting article regarding farmland's preservation, *Agricultural Land Preservation: Can Pennsylvania Save the Family Farm*? 87 DICK. L. REV. 595 (1987).
[1434]Id. § 11946 (Supp. 1993).
[1435]Id. § 11945.
[1436]GEORGIA CODE ANN. § 12-6-6 (a) (1996).
[1437]Id. § 12-6-6-(b).
[1438]Id. § 12-6-6-(c).
[1439]Id. § 12-6-2.

The commission has the following powers and authority:[1440]

- Taking all actions appropriate to foster, improve, and encourage reforestation.
- Engaging in research and other projects for the ascertainment and promulgation of better forestry practices.
- Offering aid, assistance, and technical advise to landowners relating to the preservation and culture of forests.
- Receiving gifts or donations made to it and expending the same under the terms of such gifts or donations.
- Conducting and directing fire prevention work and maintaining equipment, personnel, and installations for the detection, prevention, and combating thereof.
- Publishing and distributing the results of its research and investigations.
- Cooperating and contracting with other agencies and instrumentalities of government for the advancement of the State forests.
- Creating, establishing, and operating program(s) to facilitate, amplify, or supplement objectives and functions of the commission through the use of volunteer services.

The enumeration of specific powers will not be construed as a denial of others not specified.

The commission must appoint, by and with the consent of the Governor, a director, who will be the executive secretary and administrative officer of the commission.[1441]

The commission has the duty, in cooperation with the director, to submit annual reports to each regular session of the General Assembly together with such information necessary to show the condition of the forest resources of the State, with particular reference to the protection, preservation, and propagation of timber growth, and all other matters pertaining to the forest resources, and with recommendation for necessary legislation as to protection, reforestation, and management.[1442]

Wisconsin (region 4).—In 1977, the Wisconsin Farmland Preservation chapter was enacted, which has gone through a series of amendments.[1443] Under the current law, all other State departments and agencies are required to cooperate with the Land Conservation Board and the Department of Agriculture, Trade and Consumer Protection in the exchange of information regarding all projects and activities, which might danger the preservation of agricultural land. The Department of Agriculture, Trade, and Consumer Protection is required periodically to advise other departments and agencies of the location and description of land upon which there exist farmland preservation agreements or zoning for exclusively agricultural use. Moreover, other

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[1440]GEORGIA CODE ANN. § 12-6-5.
[1441]Id. § 12-6-11.
[1442]Id. § 12-6-10.
[1443]Farmland Preservation, WIS. STAT. ANN. § 91.01 et seq. (West 1990 & Supp. 1993).

State departments and agencies must administer their planning and projects in a manner consistent with the purposes of this law.[1444]

To assist local government bodies to preserve agricultural land, the Department of Agriculture, Trade and Consumer Protection and the Department of Development must prepare maps that locate lands in the state which would be considered for preservation because of their agricultural significance.[1445] The Land Conservation Board is required to review farmland preservation plans and exclusive agricultural use zoning ordinances and certify to the appropriate zoning authority whether the plans and ordinances meet the applicable standards.[1446] Moreover, the Department of Agriculture, Trade and Consumer Protection must promulgate rules to implement the Farmland Preservation law, except the provisions regarding the powers and duties of the Land Conservation Board because such provisions are to be promulgated by the board itself.[1447]

Under Wisconsin law, any owner of farmland can apply for a farmland preservation agreement if—

- ◊ the county in which the land is located has a certified agricultural preservation plan in effect, or
- ◊ the land is in an area zoned for exclusive agricultural use under an ordinance.[1448]

An owner of eligible farmlands who wants to have the lands covered by a farmland preservation agreement may do so by applying and filing appropriate documents to the county clerk.[1449]

A farmland preservation agreement may be relinquished prior to termination date when—

- ◊ the landowner submits an application requesting to relinquish the agreement, and
- ◊ the local governing body determines that
  Article I the agreement imposes continuing economic inviability causing hardships through the prevention of necessary improvements to the land,

  Article II there are significant natural physical changes in the land that are generally irreversible and permanently affect the land, or

  Article III surrounding conditions prohibit agricultural use.[1450]

In addition, the Department of Agriculture, Trade and Consumer Protection must relinquish from the farmland preservation agreement land subject to the agreement if the landowner has, before December 31, 1988, obtained State, county, city, village, and town licenses, permits, or approvals to develop the land as part of an area to be converted to nonfarmland use.[1451] However, if the land is not

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[1444]WIS. STAT. ANN. § 91.01 et seq. (West 1990).
[1445]Id. § 91.05. In preparation of the map, the Department of Agricultural, Trade and Consumer Protection and the Department of Development must work in conjunction with other state agencies, counties, and county land conservation committees. Id.
[1446]Id. § 91.06.
[1447]Id. § 91.07 (West Supp. 1993).
[1448]Id. § 91.11(1) (West 1990).
[1449]Id. § 91.13 (West 1990 & Supp. 1993).
[1450]Id. § 91.19(2) (West 1990).
[1451]WIS. STAT. ANN. § 91.19(6p) (West 1990).

relinquished, and if the owner or successor in title of the land upon which a farmland preservation agreement has been recorded changes the use of the land to a prohibited use, he or she is subject to a civil penalty for the actual damages.[1452]

County agricultural preservation plans, established to enable farmlandowners to enter into farmland preservation agreements,[1453] must be based upon studies,[1454] and, at a minimum, include the following:[1455]

- Statement of policy regarding preservation of agricultural lands, urban growth, the provision of public facilities and protection of significant natural resource, open space, scenic, historic, or architectural areas.
- Maps identifying agricultural areas to be preserved, areas of special environmental, natural resource or open space significance, and (if any) transition areas.
- Implementation programs of specific public actions designed to preserve agricultural lands and guide urban growth.[1456]
- Agricultural preservation plans adopted by municipalities within the county if such plans comply with the requirements of preparing agricultural preservation plans.[1457]
- Indication of how the county agricultural preservation plan compares with regional plans and an explanation of any discrepancies between the plans.[1458]

When a county agricultural preservation plan is complete, it must be submitted to the Land Conservation Board for review and certification.[1459] Moreover, counties must continually review and evaluate the agricultural preservation plan in light of changing needs and conditions and provide for periodic revision of the plan.[1460]

For a zoning ordinance to be deemed an exclusive agricultural zoning ordinance, it must follow certain criteria:

- Jurisdictional, organizational, or enforcement provisions are included that are necessary for its proper administration.
- Land in exclusive agricultural use districts is limited to agricultural use and is identified as an agricultural preservation area under any agricultural preservation plans.
- The regulations on the use of agricultural lands in the districts meet the following standards—
  - ◊ minimum parcel size to establish a residence or a farm operation is 35 acres;

[1452]Id. § 91.21.
[1453]Id. § 91.51.
[1454]Id. § 91.53 (1990).
[1455]Id. § 91.55.
[1456]Id. § 91.57.
[1457]Id. § 91.59.
[1458]Id.
[1459]Id. § 91.61.
[1460]Id. § 91.63.

- ◊ only residences allowed as permitted uses are those to be occupied by a person or a family, at least one member of which earns a substantial part of his or her livelihood from farm operations on the parcel;
- ◊ structures or improvements may not be built on the land unless consistent with agricultural uses;
- ◊ ordinance must be considered local ordinance and provide that gas and electric utility uses not requiring authorization are special exceptions or permitted or conditional uses and do not conflict with agricultural use;
- ◊ special exceptions and condition uses are limited to those agriculture-related, religious, other utility, institutional or governmental uses which are necessary and do not conflict with agricultural use;
- ◊ for purposes of farm consolidation and if allowed by local regulation, farm residences or structures that existed before the adoption of the ordinance may be separated from a larger farm parcel; and
- ◊ a structure or improvement made as an incident to a lease for oil and natural gas exploration and extraction is considered consistent with agricultural use and may be permitted as a special exception or conditional use.[1461]

Interestingly, the Wisconsin law provides that any county, city, village, or town may require by separate ordinance that land for which an owner receives a zoning certificate may be farmed in accordance with reasonable soil and water conservation standards established by the county land conservation committee.[1462]

Iowa (region 5).—In 1982, the Iowa Legislature enacted the County Land Preservation and Use Commissions chapter[1463] to "provide for the orderly use and development of land and related natural resources,"[1464] and to include farmland in state protection.

This law provides that in each county, a county land preservation and use commission can be established.[1465] Each county commission, composed of five appointed members, must compile a county land use inventory of the county area, that includes the following data:

- Land available and used for agricultural purposes (whether by soil suitability classification or land capability classification).
- Land used for public facilities (may include parks, recreation areas, schools).
- Land used for private open spaces (may include woodlands, wetlands, and water bodies).
- Land used for commercial, industrial, residential and transportation uses.
- Land that has been converted from agricultural use, commercial or industrial use, or public facilities since 1960.[1466]

[1461]WIS. STAT. ANN. § 91.75 (West 1990 & Supp. 1993).
[1462]Id. § 91.80 (West 1990).
[1463]County Land Preservation and Use Commissions, IOWA CODE ANN. § 352.1 to 352.13 (West Supp. 1993). This chapter was transferred from Chapter 176B, Land Preservation and Use, Code 1991 consisting of § 176B.1 to 176B.13.
[1464]Id. § 352.1.
[1465]Id. § 352.3.
[1466]Id. § 352.4.

In addition, the county commission is also required to propose to the county board a land use plan for the county, or to give the county board the county land use inventory together with the methods of—

- ◊ preserving agricultural lands for agricultural production,
- ◊ preserving and providing for recreational areas, forests, wetlands, streams, lakes and aquifers,
- ◊ providing for housing, commercial, industrial, transportational and recreational needs,
- ◊ promoting the efficient use and conservation of energy resources,
- ◊ promoting the creation and maintenance of wildlife habitat,
- ◊ implementing the plan, if adopted,
- ◊ encouraging the voluntary formation of agricultural areas by the farmlandowners, and
- ◊ considering the platting of subdivisions and its effect upon the availability of farmland.[1467]

Under this law, a farmlandowner can submit a proposal to the county board to create an agricultural area within the county.[1468] An agricultural area is required to include at least 500 acres of farmland. However, if the area is smaller than 500 acres, the adjacent farmland must be subject to an agricultural land preservation ordinance. The land will not be included in the agricultural area without the permission of the owner, and the use of the land in agricultural areas is limited to farm operations. Moreover, an owner can withdraw from an agricultural area at any time after 3 years from the date of its creation by filing an appropriate request.[1469]

To encourage the farm landowners to preserve agricultural land, the law provides two statutory incentives. First, a farm or farm operation located in an agricultural area is presumed not to be a nuisance. However, this incentive does not extend to—

- ◊ nuisance results from the negligent operation of the farm or farm operation,
- ◊ actions or proceedings arising from injury to person or property by the farm or farm operation before the agricultural area's creation, or
- ◊ allowance of defeating the right of a person to recover damages for injury sustained by the person because of the pollution or change in condition of the waters of a stream, the overflowing of the person's land, or excessive soil erosion onto another person's land. Second, the department of natural resources will give priority to the use of water resources by farm or farm operations.[1470]

New Mexico (region 6).—The New Mexico Rangeland Protection Act[1471] was enacted with the purpose to "apply methods to enhance the multiple-use management, development and conservation of rangeland in New Mexico so as to restore

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[1467]IOWA CODE ANN. § 352.5.
[1468]Id. 352.6.
[1469]Id. § 352.9.
[1470]Id. § 352.11.
[1471]Rangeland Protection Act, N.M. STAT. ANN. § 76-7B-1 to 87-7B-7 (Michie Supp. 1992).

rangeland capacity to carry livestock and wildlife, conserve valuable soil and water resources and restore environmental quality."[1472]

To coordinate rangeland protection projects developed under the act, the State Department of Agriculture is endowed with the following mandatory powers and duties:[1473]

- To establish contact with ranchers, Indian tribes and pueblos, local soil and water conservation district boards, and appropriate State and Federal agencies to determine interest for participation in brush and weed management programs.
- To coordinate field inspections on participating ranches with ranchers, local soil and water conservation district boards, appropriate State and Federal agencies and other persons with needed expertise to evaluate the extent of the problem.
- To obtain a written recommendation from persons participating in the field inspections relative to need for and feasibility of control.
- To closely coordinate activities with local soil and water conservation district boards.
- To prepare and implement a plan for each project to carry out brush and weed control under the guidelines established by the Rangeland Protection Advisory Committee.
- To conduct the contract process to obtain services for control.
- To supervise and administer the actual contracted control or management projects in the field to assure compliance with the contract.
- To maintain an information repository on current technology for brush and weed control.
- To cooperate and coordinate with any individual or county, state or Federal governmental agency or its subdivisions to carry out its duties under this act.

In addition to these powers and responsibilities, the department is also required to insure the implementation of programs to collect and disseminate information relating to the purposes of the act.[1474]

The Rangeland Protection Act also creates the Rangeland Protection Advisory Committee,[1475] which consists of seven persons.[1476] In addition to these seven members, the chairman of the committee is authorized to appoint one additional member for a 1-year term from the ranching industry.[1477] Upon the call of the chairman, the committee must meet to develop mutually acceptable general guidelines to be followed for all rangeland protection projects conducted by the

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[1472]N.M. STAT. ANN. § 76-7B-2(B).
[1473]Id. § 76-7B-4.
[1474]Id. § 76-7B-7.
[1475]Id. § 76-7B-5(A).
[1476]Id. These seven members include: the director of the New Mexico Department of Agriculture; the chairman of the Range Improvement Task Force, College of Agriculture of New Mexico State University; the commissioner of public land; the director of the Department of Game and Fish; the secretary of natural resources; the dean of the College of Agriculture of New Mexico State University; and the director of the Environmental Improvement Division of the Health and Environment Department. Id.
[1477]Id.

department under this act.[1478] Moreover, once a year, it must convene to discuss rangeland protection projects during the previous year and to provide updated recommendations and guidance for future projects.[1479]

Furthermore, regarding funding of the rangeland protection projects, the act provides the following:

- The appropriate Federal department, bureau, agency, or committee with authority for allocating funds, in cases where they participate, must provide funding for projects covering Federal and Indian land.[1480]
- The owners and operators of deeded lands, in cases where they participate, must provide funding for projects embracing privately owned land.[1481]
- The State, in cases where they participate, must provide funding for projects embracing state trust rangeland.[1482]
- The project funding by each type of rangelandownership must be upon a proportional acreage participation basis.[1483]

New Mexico is also concerned with forest conservation. The legislature, "recognizing that the forest makes a vital contribution to New Mexico by providing wood products, jobs, grazing, quality water, wildlife habitat, young trees, taxes, and other economic benefits,"[1484] enacted the New Mexico Forest Conservation Act[1485] in 1978 to preserve and enhance these resources.

To effectuate this act, the Forestry Division of the Department of Energy, Minerals, and Natural Resources has the following responsibilities:

- Enter into contracts and cooperative agreements with the secretary of Agriculture, private landowners, or other State, Federal and private agencies or organizations to prevent forest fires, brush fires, or other wild fires.
- Conduct research on forest conservation methods.
- Provide technical assistance and advice to people of the State.
- Carry out all acts of Congress relating to forest conservation or rural fire defense.[1486]

The Forest Conservation Act designates the director of the Forestry Division as the State forester.[1487] The State forester and the agents are authorized to do the following:[1488]

- Prevent and suppress all forest fires on nonFederal and nonmunicipal lands of the state.
- Enter upon any lands to make investigations concerning violations of the act.

[1478]N.M. STAT. ANN. § 76-7B-5(C)(1).
[1479]Id. § 76-7B-5(C)(2).
[1480]Id. § 76-7B-6(A).
[1481]Id. § 76-7B-6(B).
[1482]Id. § 76-7B-6(C).
[1483]Id. § 76-7B-6(D).
[1484]Forest Conservation Act, N.M.S.A. § 68-2-24 (Michie Supp. 1990).
[1485]Id. § 68-2-1 to 68-2-25.
[1486]Id. § 68-2-6.
[1487]Id. § 68-2-3.
[1488]Id. § 68-2-8.

- Apprehend and arrest any person who has committed a violation in their presence.
- In the event of a forest fire, call upon any able-bodied man to help suppress the forest fire.
- Request tools or equipment from the landowner or timber operator whose lands are affected by the forest fire.

The State forester and the agents are allowed unrestricted access to any private and State land to prevent and suppress forest fires. Furthermore, the State forester and the agents shall not be liable for any civil actions for trespassing or damaging any lands while acting in accordance with the laws, rules, and regulations set forth in the act.[1489]

The State treasury shall create and maintain a Conservation Planting Revolving Fund with money appropriated by the legislature and through the sale of trees for conservation planting.[1490] All money secured by the Conservation Planting Revolving Fund shall be issued by the State forester for the sale, distribution, or purchase of trees to any schools, community groups, or other organizations for conservation planting or for the benefit of the environment of New Mexico.

Any person who violates the Forest Conservation Act is subject to a fine not to exceed $1,000 or imprisonment not to exceed 1 year, or both.[1491]

Utah (region 8).—Under the Utah Management of Range Resources law,[1492] the Division of State Lands and Forestry is responsible for the efficient management of all range resources on land. Its management must be based on sound conservation principles, including practices to improve range conditions.[1493] To effectuate the management, the division is authorized to do the following:

- Issue grazing leases on State land under terms and conditions established by rule. These terms must be based on the fair market value of the lease. The lease's term cannot exceed 15 years. Furthermore, the division must determine the number and kind of stock that can be grazed each year on state land and regulate the number of days that the land may be grazed.[1494]
- Enter into cooperative agreements with other public agencies and private landowners for the control of noxious weeds, new and invading plant species, insects and disease infestations on state-owned and adjacent lands.[1495]

Furthermore, the division must collect an annual fee from each grazing lessee for the control of noxious weeds and new and invading plant species on rangelands.[1496]

California (region 10).—Under the California Preservation of Agricultural Land provisions,[1497] the State Conservancy is authorized to acquire fee title, development right, easements, or other interests in land located in the coastal zone to prevent

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[1489]Forest Conservation Act, N.M.S.A.§ 68-2-8.
[1490]Id. § 68-2-21.
[1491]Id. § 68-2-17.
[1492]UTAH CODE ANN. § 65A-9-1 et seq. (1993 & Supp. 1995).
[1493]Id. § 65A-9-1 (Supp. 1995).
[1494]Id. § 65A-9-2.
[1495]Id. § 65A-9-3.
[1496]Id. § 65A-9-4.
[1497]CAL. PUB. RES. CODE § 31150 through 31156 (West 1986 & Supp. 1996).

loss of agricultural land and to assemble such agricultural lands into parcels of adequate size for continued agricultural production. The conservancy must take all reasonable action to return to private use or ownership, with proper use restrictions, all lands acquired for agricultural preservation.[1498]

In acquiring interest in agricultural land, the conservancy must give the highest priority to urban fringe areas where the impact of urbanization on agricultural lands is greatest.[1499] It cannot acquire any interests in lands in the coastal zone for agricultural purposes unless the conservancy finds that both of the following conditions apply to the proposed acquisition, that is, that—

- ◊ the lands are specifically identified in a certified local coastal plan or program as agricultural lands, or, in the case of San Francisco Bay, the lands are so identified in the Bay Plan, the Suisun Marsh Protection Plan, or in any other local plan that the Bay Commission determines to be consistent with such plans, and
- ◊ no other reasonable means exists, including the use of police power, of assuring continuous use of such lands for agricultural purposes.[1500]

However, if the conservancy is unable to acquire agricultural land, it can request the State Public Works Board to acquire the interest under the power of eminent domain.[1501] It is also authorized to lease acquired lands. When it leases lands to private individuals or groups, the conservancy must, upon appropriation of such amounts by the legislature, transfer 24 percent of the gross income of such leases to the county in which such lands are situated.[1502]

The conservancy can award grants to local public agencies and nonprofit organizations for the purpose of acquiring, improving, and developing agricultural lands.[1503]

The conservancy can enter into an option to purchase lands if the cost of such option does not exceed $100,000, when the legislature appropriates funds for purposes of preserving agricultural land.[1504]

Tennessee (regions 11 & 12).—In 1995, the Agricultural District Bill titled Agricultural District and Farmland Preservation Act of 1995 was enacted with the intent to encourage the conservation, protection, and use of land that is managed for purposes of agricultural production.[1505]

By enrolling land in a district, landowners are sending the message that this is farmland and it is their desire to continue to farm it. The enrolling is completely voluntary. No landowner is required to enroll any land in an agricultural district. If a landowner does enroll land in an agricultural district, but later decides to withdraw it, that can be done.

[1498]CAL. PUB. RES. CODE § 31150 (West 1986).
[1499]Id. § 31151. For an interesting article on farmland trust, see John J. Micek, III, *California Farmland Trust: Proposal to Balance the Rural and Urban land Use Needs of California*, 18 U.S.F.L. REV. 171 (1984)
[1500]Id. § 31152 (West 1986).
[1501]Id. § 31153 (West Supp. 1996).
[1502]Id. § 31154 (West 1986).
[1503]Id. § 31156 (West Supp. 1996).
[1504]Id. § 31150.1 (West 1986).
[1505]Agricultural District and Farmland Preservation Act of 1995, S512, Haun--H631, Givens).

To establish an agricultural district, a minimum of 250 contiguous acres is required. The required acreage can be enrolled by one landowner or by several landowners. However, each landowner involved must have at least 10 acres. Within an agricultural district, only those involved in agriculture production may enroll.

The Agricultural District (Ag) Bill also provides that the local Soil Conservation District Board of Supervisors will serve as the governing body. They in turn notify the local Planning Commission and any local zoning boards of the areas designated as Ag Districts.

Landowners who wish to enroll in an Ag District must submit a petition to the local Soil Conservation District Board of Supervisors describing the area and agricultural activities to be included. The Ag District will be established for 5 years and reviewed for rededication every 5 years. The acreage within a district may drop below the initial 250 acres; however, if at any time it drops below 20 acres, the district will cease to exist. Moreover, any landowner within the Ag District who receives a notice of condemnation proceedings against the property may request the local Soil Conservation District to conduct a public hearing to review the project's impact on that property.

Prime farmland, rangeland, and forest land preservation laws in selected counties

Local conservation laws can be classified into two related categories: land use and land management. Although land use is concerned with type of use and type and density of permitted structures, land management relates to the soil and water conservation standards to be met in both ongoing land uses (e.g., agriculture and forestry) and in construction.[1506]

Since the late 1970's, there has been a great expansion of local land use laws to preserve farmlands, farming as a way of life, and local sources of food in urban fringe areas. There are a few legal devices to protect farmland as well as sensitive lands; however, the two most common devices are the "agricultural zoning" device and the "transfer-of-development right" device. The "transfer-of-development right" device allows owners of lands zoned for exclusive agricultural use to be compensated for the loss of their rights to develop their own lands.[1507]

To understand local conservation laws, one must understand two particular entities: the local government and the conservation district. Each will be discussed in turn.

The *local general-purpose government* is the chief institution for land use regulation. These local governments derive their legislative powers from state laws or constitutions, but only the cities or counties can exercise all the state's powers to legislate for the public health, safety, and welfare within their jurisdiction. States can also enact new laws to confer additional legislative powers on local governments. Moreover, some levels of local government in every state are always responsible for land use planning and zoning.

[1506]Holmes, Second Appraisal, *supra* note 16, at 61.
[1507]Id.

Local governments use planning as a process to make decisions. Although these comprehensive or master plans are not legally binding, they are policy documents based on long-term development goals, which set forth the land use goals used in legally binding zoning ordinances. Moreover, zoning relates to the division of a municipality, county, or town into districts for the purpose of regulating private land use. The principal elements of a zoning ordinance consist of a map and a zoning text. The zoning text outlines the land use activities and structures allowed in each zone, the standards governing the uses in each zone, and the procedures citizens and officials must follow. Also, zoning is a common device used by local governments to regulate the type and density of structures allowed on agricultural and sensitive lands.

The *special-purpose local conservation district* is the main institution concerned with land management.[1508] These conservation districts are independent entities, not agencies of the local government because they are created originally by referendum, and their governing boards usually are partly elected. Furthermore, these districts can carry out a number of conservation programs on their own initiatives without seeking approval from other levels of government. However, in most states, the enabling authorities do not allow the districts to enact any regulatory ordinances. Moreover, these districts are not permitted to raise money to carry out their own programs but only can receive funds from Federal, state, and local governments, meaning that most district programs are conducted pursuant to Federal, state, county, or municipal legislation.

Baltimore County, Maryland (region 1).—The Baltimore County law provides that Agricultural Land Preservation Districts can be created by legislative act of the county council.[1509] Within these districts, a number of activities are permitted, including—

- ◊ any farm use of the land;
- ◊ operation of machinery used in farm production or the primary processing of agricultural products;
- ◊ normal agricultural activities and operations conducted in compliance with good husbandry practices; and
- ◊ sale of farm products on farm where the sales are made.[1510]

If there is a sale of any development rights easements over any land including within an Agricultural Land Preservation District, such sale must be approved by resolution of the county council.[1511]

Farm owners within the Agricultural Land Preservation District can apply for tax credit, and if qualified, they will be eligible for a 100 percent county property tax credit for a maximum of 10 years.[1512] To be qualified for the tax credit program, they must satisfy a number of requirements. The farm owners must—

- ◊ have recorded a district agreement in the land records of Baltimore County after January 1, 1987;

[1508]In different states, the "conservation district" is sometimes called soil conservation district, soil and water conservation district, resource conservation district, or natural resource district.
[1509]Agricultural Land Preservation, Baltimore County, MD § 22-171(a) (1978).
[1510]Id. § 22-170 (1978).
[1511]Id. § 22-172.
[1512]Id. § 22-175.

- ◊ have an approved soil conservation and water quality plan with the Baltimore County Soil Conservation Office; and
- ◊ not have sold an easement to the State.[1513]

If a farm owner, who has been granted a property tax credit for agricultural land, subsequently terminates the Agricultural Preservation District Agreement, the owner is liable for all property taxes that the owner would have been liable for if the tax credit had not been granted as well as the interest on the total tax liability.[1514]

In 1992, the County Council of Baltimore County added to its Environmental Protection and Resources Management law a number of provisions regarding forest conservation.[1515] This law mainly applies to individuals applying for a development, subdivision, project plan, building, grading, or erosion and sediment control approval on units of land 40,000 square feet or greater.[1516]

This law requires that applicants seeking approvals or permit for development or subdivision, project plan, building, grading, grading plan, or erosion and sediment control plan for an area of land of 40,000 square feet or more must—

- ◊ submit to the department a forest stand delineation and a forest conservation plan for the land on which the project is located; and
- ◊ use methods approved by the department to protect retained forest and trees.[1517]

This requirement, however, is exempted from the following activities:[1518]

- Highway construction activities under State Natural Resources article.
- Areas governed by the State Chesapeake Bay Critical Area Protection law.
- Commercial logging or timber harvesting operations.
- Agricultural activities not resulting in a change in land use category.
- Licensed cutting or clearing of public utility rights-of-way.
- Licensed routine maintenance or emergency repairs of public utility rights-of-way.
- Construction of a public utility or highway within a utility right-of-way or highway right-of-way.
- Activities, including construction, of a linear structure conducted by a public utility on more than one lot.
- A forest clearing activity conducted on a single lot of any size if the lot existed before January 1, 1993, provided that applicable conditions are met.
- Strip or deep mining of coal regulated under the State Natural Resources article.

[1513]Agricultural Land Preservation, Baltimore County, MD § 22-175.
[1514]Id. § 22-176.
[1515]Forest Conservation, County Council of Baltimore County, MD, Legislative Session 1992, Legislative Date No. 24, Bill No. 224-92, *adding to* Environmental Protection and Resource Management, art. X. Forest Conservation, Baltimore County Code, 1988.
[1516]Forest Conservation, County Council of Baltimore County, MD § 14-402.
[1517]Id. § 14-404(A).
[1518]Id. § 14-402(B).

- Noncoal surface mining regulated under the State Natural Resources article.
- Activity required for the purpose of constructing a dwelling house intended for the use of the owner, provided that applicable conditions are met.
- Development in compliance with a valid CRG, development plan, or 3-Lot or less subdivision plan approved by county within a certain time frame.
- Grading and sediment control activities in compliance with a valid, unexpired grading plan, erosion and sediment control plan, or grading permit approved by county.
- A real estate transfer to provide a security, leasehold, or other legal or equitable interest.
- A county capital improvement project.

Unless exempt, applicants must conduct afforestation and retention on the land.[1519] All land use categories (unless being exempted) are subject to a forest conservation threshold.[1520] Furthermore, the forest conservation provisions also set up priorities and time requirements for afforestation and reforestation.[1521]

A Forest Conservation Fund is also established to fund costs related to reforestation, afforestation, permanent preservation of priority forests, and implementation of the forest conservation provision.[1522] If a person can demonstrate to the satisfaction of the department that requirements for reforestation or afforestation onsite or offsite cannot be reasonably accomplished, such person is required to contribute 40 cents per square foot to the county Forest Conservation Fund.[1523]

Adams County, Pennsylvania (region 1).—In 1990, Adams County participated in Act 149 County Farmland Preservation Program that was created to preserve farmland. Farmland preservation in the county is important because it is a major producer of agricultural products, ranking fifth in Pennsylvania; it ranks only 44th in size of 67 counties. Moreover, through the adoption of the program, Adams County has protected more acres of farmland than any other county in the State, except Lancaster County.

Although the act uses the direct purchase by county and State Government of development rights, with funds raised from the taxpayer, is effective, it is an extremely expensive program. The effectiveness of this approach depends on the availability of funds. Albeit this discouragement, the county commissioners recognize another strategy that may be used in Adams County is the modern Agricultural Zoning Ordinance.

In the same year, the commissioners of Adams County enacted the Interchange Zoning Ordinance,[1524] with the primary purpose, of preserving appropriately located agricultural areas of Adams County and its communities.[1525]

[1519]Forest Conservation, County Council of Baltimore County, MD § 14-409.
[1520]Id. § 14-410.
[1521]Id. § 14-411.
[1522]Id. § 14-412.
[1523]Id. § 14-412(B).
[1524]Interchange Zoning Ordinance, Adams County, PA § 100 et seq. (1990), amended in 1993.
[1525]Id. § 103.

The ordinance authorizes the county commissioners to appoint a Zoning Hearing Board, consisting of 3 members (and 1 alternate member),[1526] who are required to be residents of Adams County and hold no other office in the county.[1527] The ordinance specifies a number of matters in which the board has jurisdiction to hear and render final adjudication. The matters relating to environmental issues include—

- ◊ appeals from the determination of the zoning officer with reference to the administration of any flood plain or flood hazard ordinance or such provisions within a county land use ordinance;
- ◊ application for variances from the terms of the zoning ordinance and flood hazard ordinance; and
- ◊ appeals from the determination of the zoning officer or municipal engineer in the administration of any land use or provision thereof with reference to sedimentation and erosion control and stormwater management.[1528]

To effectuate these provisions, the ordinance provides for a number of remedies, including—

- ◊ preventive remedies, which allow the county to take and maintain appropriate actions in law or equity to restrain, correct or abate violations, to prevent unlawful construction, recover damages and to prevent illegal occupancy of a building, structure or premises;[1529] and
- ◊ enforcement remedies, which allow the county to impose on violators of the ordinance a civil fine of not exceeding $500 plus all court costs and reasonable attorney fees.[1530]

The ordinance establishes seven districts: the Employment Center District, Highway Commercial District, Agricultural Preservation I District, Agricultural Preservation II District, Rural Residential District, Mixed Density Residential District, and Land Conservation District. However, because natural resources and environments issues are the main concerns of this report, only Agricultural Preservation I District, Agricultural Preservation II District, Rural Residential District, and Land Conservation District will be discussed.

Agricultural Preservation I District.—This district is created with the main purpose of protecting agriculture from incompatible uses.[1531] Within this district, the permitted principal uses are—

- ◊ farm buildings and agricultural uses;
- ◊ forestry uses;
- ◊ horticultural activities; and
- ◊ single-family detached dwellings.

The permitted accessory uses include—

- ◊ buildings accessory to primary agriculture structures;

[1526]Interchange Zoning Ordinance, Adams County, PA § 1400.
[1527]Id. § 1401.
[1528]Id. § 1405.
[1529]Id. § 1414.
[1530]Id. § 1415.
[1531]Id. § 600.

◊ produce stands, especially for the sale of *home-grown* or *home-made* products;

◊ private swimming pools not open to the public; and

◊ roadside stand selling products grown or produced on the farm.

The uses permitted as *special exceptions* by the Zoning Board are—

◊ farm equipment sales facility;

◊ house of worship;

◊ cemetery;

◊ agricultural society meeting hall or offices, or both;

◊ noncommercial private park and recreation uses, regulation sized golf courses, and country clubs; and

◊ intensive animal husbandry.[1532]

Agricultural Preservation II District.—This district is created with a similar purpose as named in the Agricultural Preservation I District. The differences occur in the categorization and types of uses allowed in the district. In Agricultural Preservation II District, only limited commercial use is permitted. For example, the uses of bed and breakfast operations are permitted although it is not in Agricultural Preservation I District part of the ordinance.

Rural Residential District—Within the Rural Residential District, a building can only be erected or used and a lot may be used or occupied for the following purposes:[1533]

- Farm buildings, agricultural and horticultural uses, truck gardening, riding academies, public and private stables, dog kennels and veterinary hospitals.
- Single family detached dwellings.
- Public parks, playgrounds, and open spaces.
- Municipal buildings and uses.
- Accessory uses on the same lot with and customarily incidental to any of the above permitted uses.

In addition to these permitted uses, there are other *special exception uses* that may be permitted if the standards and criteria applicable to the latter uses are met. These special exception uses include—

◊ church, place of worship, parish houses, and convents;[1534]

◊ resort hotels/motels;[1535]

[1532]Forest Conservation, County Council of Baltimore County, MD § 601.
[1533]Id. § 701.
[1534]These uses require the compliance of the following standards:
- Minimum of 2 acres;
- No building can be located closer than 50 feet from a property line; and
- Parking must meet the parking standards set forth in this Ordinance. Id. § 702.1.

[1535]These uses require the compliance of the following standards:
- A minimum lot or site area of 25 acres;
- Applicant must remove only a minimal amount of vegetation from the site;

◊ private campgrounds;[1536] and

◊ home occupation uses.

Land Conservation District.—The Land Conservation District is to conserve and protect open space and agricultural areas, to enhance the rural character of appropriate portions of Adams County, and to provide and design alternatives to standard residential development in rural settings.[1537] Within this district, the maximum density standards require that there can be either a maximum of one dwelling unit per 5 acres, or one dwelling unit per 3 acres if the *cluster residential lot* option is used.[1538]

Within this district, the permitted principal uses include—[1539]

◊ single-family detached dwellings;[1540]

- A site development plan must show information, including
  - location of site,
  - metes and bounds of tract,
  - utilities plan,
  - site improvements plan,
  - stormwater runoff calculations and a proposed method of stormwater runoff,
  - impervious coverage (buildings plus paved areas) must not exceed 20 percent of site,
  - sewage and water facilities must be approved by appropriate agencies, and
  - resort developers may be required to submit a study evaluating the impacts of the proposed project on the ground water resources of the area. Id. § 702.2.

[1536]These uses require the compliance of the following standards:

- A minimum lot or site area of 15 acres;
- No building, structure, or parking area can be located closer than 75 feet to a property line;
- A minimum amount of vegetation must be removed;
- The maximum impervious lot coverage must be 25 percent; and
- A site development containing the information required for Resort Hotels/Motels must be submitted for review by the Adams County Office of Planning and Development, the Adams County Planning Commission, and the Adams County Soil Conservation District. Id. § 702.3.

[1537]Forest Conservation, County Council of Baltimore County, MD § 640.

[1538]Id. § 642.Cluster residential lot is a designated parcel of land, smaller than otherwise allowed in the Land Conservation District, established by the subdivision of a tract of land greater than 10 acres, which may be developed as a grouping of single-family residences located to minimize adverse impacts on surrounding environmental features and to provide access to and views of surrounding open land. Id. § 641. For any residential subdivision approval in accordance with the cluster residential lot option, the proposed lot must meet the following standards:

Minimum lot size:	12,000 ft^2
Maximum lot size:	1 acre
Minimum setbacks:	
Front yard:	30 ft. measured from the road or access drive right-of-way
Rear yard:	40 ft. measured from the rear property line
Site yard:	10 ft measured from the side property line
Minimum lot frontage:	75 ft measured from the front yard setback line
Open land:	75% of the land area of the parent tract must remain Open Land

The residential lot must, to the maximum extent feasible, be clustered in areas of the tract that are relatively free of sensitive environmental features including, but not limited to, flood plains, designated wetlands, slopes in excess of 12 percent, and areas of concentrated prime agricultural soils. Id. § 644.

[1539]Forest Conservation, County Council of Baltimore County, MD § 643.

[1540]The single-family detached dwellings must meet the following lot design standards and procedures:

Minimum lot size:	20,000 ft^2
Maximum lot size:	5 acres
Minimum set backs:	
Front yard:	35 feet measured from right-of-way of an adjoining road
Rear yard:	50 feet measured from the rear property line
Side yard:	10 feet measured from the side property line

- ◊ agricultural activities, including farms; cultivation and harvesting of crops and related products; raising of livestock, along with associated pasture and grazing land; orchards, nurseries, and related horticultural uses;
- ◊ public and semipublic uses, including nature preserves, wildlife sanctuaries, and similar uses; park and recreation uses and easement areas; and
- ◊ accessory uses on the same lot and customarily incidental to permitted uses.

In addition, home occupation uses may be permitted as Special Exception Uses if such uses meet the applicable standards.[1541]

Lancaster County, Pennsylvania (region 1).—In 1991, the Board of Commissioners of Lancaster County enacted the Lancaster County Subdivision and Land Development Ordinance, thereby repealing the Lancaster County Subdivision and Land Development Ordinance of 1977.[1542]

The 1991 Ordinance has various standards that require compliance by all land developments. For all proposals for possible development of sites into subdivisions of more than 20 lots or that involve the creation of new streets and plans for development of retail and office structures,[1543] the Plan Process Procedures provisions require preliminary plan application[1544] and final plan application.[1545] Within each of these processes, the applicant must comply with the application requirements for each separate stage,[1546] the plan requirements,[1547] and distribution requirement.[1548] Since the preliminary plan approval is effective for only 5 years, the final plan application must be made within that period.[1549] When the final plan is approved by the commission, the applicant must record it in the office of the Lancaster County Recorder of Deeds.[1550] Moreover, for minor land development plans,[1551] only the final plan application is required.[1552]

In addition to the above plan processing procedures, developers must show or submit certain information with the subdivision and land development plans.[1553] The County

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Minimum lot width: 90 feet measured at the front yard setback line
Open Land: For a tract of land proposed for subdivision (parent tract) of:
Less than 10 acres: No Open Land must be required
Between 10 and 24.99 acres: 50% of tract must remain in Open Land
25 acres or greater: 75% of tract must remain in Open Land
For a tract of land proposed for subdivision (parent tract) of greater than 10 acres, developer must demonstrate compliance with Open Land Standards. Id. § 643.

[1541]Forest Conservation, County Council of Baltimore County, MD § 645.
[1542]Lancaster County Subdivision and Land Development Ordinance of 1977, PA § 101 et seq. (1991).
[1543]Id. § 301.01.
[1544]Id. § 302.
[1545]Id. § 303.
[1546]For the application requirements for the preliminary plan and final plan applications, Id. § 302.01 and § 303.01.
[1547]For the plan requirements of the preliminary plan and final plan applications, Id. § 302.02 and § 303.02.
[1548]For the distribution requirements of the preliminary plan and final plan applications, Id. § 302.03 and § 303.03.
[1549]Id. § 302.07.
[1550]Lancaster County Subdivision and Land Development Ordinance of 1977, PA § 303.10.
[1551]These minor land development plans involve
a single, nonresidential structure on a previously approved and recorded lot or;
the provision of a second principal building on a tract or parcel which currently contains a single principal building; or
development of a single tract or parcel of land which involves a single building containing not more than 4 units of occupancy. Id. § 305.
[1552]Id.
[1553]Lancaster County Subdivision and Land Development Ordinance of 1977, PA § 401 to 404.03.

Board's conservation purposes can be seen through this required information. For example, the sketch plan for the preliminary plan must provide the data, such as the significant topographical and constructed features (bodies of water, quarries, flood plains, tree masses, structures), the proposed land use, or the statement explaining the methods of water supply and sewage disposal to be used.[1554]

Before approving any plan, all required improvements set forth in the ordinance must be complied with.[1555] Some examples of these required improvements include buffer planting, storm drainage facilities, sanitary sewer facilities, water supply facilities, lot line markers, street trees, or shade trees.[1556] The ordinance designates the municipal engineer or an engineer appointed by the county to be responsible for inspection and approval of the required improvements.[1557]

In addition to other design standards requirements,[1558] the ordinance also provides a number of provisions concerning stormwater management,[1559] erosion and sedimentation,[1560] flood plain ,[1561] wetlands,[1562] wooded areas,[1563] and ground cover.[1564] Each of these will be discussed briefly in turn.

Stormwater management.—The ordinance requires all subdivision or land development applications, or both, to include stormwater management data in the form acceptable to the commission.[1565] However, this requirement does not apply to a number of cases, including—

- ◊ single lot subdivisions where a principal building exists on the site and no new construction is proposed;
- ◊ lot add-on plans; and
- ◊ farm-related businesses conducted within existing agricultural buildings.[1566]

Moreover, the stormwater management data must be prepared by individuals registered in Pennsylvania to perform such duties.[1567] In addition to the above requirements, the applicants must comply with the design standards set forth in the ordinance.[1568] These standards are as follows:

- Stormwater management facilities must be provided so that the peak discharge of the calculated post development runoff to an adjacent property does not exceed the peak discharge of the calculated predevelopment runoff.
- The design of stormwater management collection facilities that service drainage areas within the site must be based on a 25-year storm frequency

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[1554]Id. § 401.
[1555]Id. § 501.
[1556]Id.
[1557]Id. § 502.03, § 504.01.
[1558]These design standards apply to streets, access drives and driveways; vehicular parking facilities; blocks and lots; easements; survey monuments and markers. Id. § 602-606.05.
[1559]Id. § 607-607.04.
[1560]Id. § 607.05.
[1561]Id. § 607.06.
[1562]Id. § 607.07.
[1563]Id. § 608.02.
[1564]Id. § 608.04.
[1565]Id. § 607.01.
[1566]Id.
[1567]Id.
[1568]Id. § 607.03.

event; stormwater management facilities that convey offsite stormwater through the site must be designed to convey a 50-year event.

- All developments are required to include design provisions that allow for the overland conveyance of the post 100-year storm flows through the site without damage to any private or public property.
- Runoff calculations for onsite stormwater management facilities must be based on the Rational Method and the NRCS TR-55 Graphical Method.[1569]
- In the determination of stormwater runoff and design of management facilities, the criteria and assumptions set forth by the ordinance must be used.
- The design plan and construction schedule must incorporate measures to minimize soil erosion and sedimentation.
- Consideration must be given to the relationship of the subject property to the drainage pattern of the watershed.
- Stormwater must not be transferred from one watershed to another.[1570]
- A concentrated discharge of stormwater to an adjacent property must be within an existing watercourse or enclosed in an easement.
- Retention and detention basins must be designed to safely discharge the peak discharge of a post development one hundred year frequency storm event through an emergency spillway in a manner which will not damage the integrity of the basin.
- Retention and detention basins and water carrying facilities must be stabilized as indicated by the current engineering and NRCS practices.
- Retention and detention basins must be designed and maintained to ensure the design capacity after sedimentation has taken place.
- Basins that are not designed to release all stormwater must be specifically identified as retention basins or permanent pond basins. All other basins must have provisions for dewatering, particularly the bottom, and must not create swampy and/or unmaintainable conditions. Discharge structures must be designed to eliminate the possibility of blockage during operations.
- Retention and detention basins that are designed with earth fill dams must incorporate a number of applicable minimum standards.
- The capacities of the pipes, gutters, inlets, culverts, outlet structures, and swales must consider all possible hydraulic conditions.
- Inlets must be along the curb line.
- Curb, gutter, and roadside swale depths must comply with the applicable requirements.

[1569]Lancaster County Subdivision and Land Development Ordinance of 1977, PA § 607.03.D. The Rational Method is recommended and preferred for design of all collection, conveyance and retention facilities when drainage areas are less than 1.5 square miles or where times of concentration are less than 60 minutes. The NRCS TR-55 Graphical Method may be used in place of the Tabular Hydrography Method for sizing conveyance system. Id.

[1570]The ordinance provides some exceptions for this requirement, including

- the watersheds are sub-watersheds of a common watershed which join together within the perimeter of the property;
- the effect of the transfer does not alter the peak discharge onto adjacent lands; or
- easements from the affected downstream landowners are provided. Id. § 607.03.H.

- Curves in pipes or box culverts without an inlet or manhole, tee joints, elbows, and wyes are prohibited.
- Stormwater management pipe collection and conveyance systems must have a minimum diameter of 15 inches and must be made of reinforced concrete pipe, corrugated galvanized metal pipe, or approved equivalent.
- Storm facilities not located within a public right-of-way must be centered within the easement.
- The maximum swale, gutter, or curb velocity of stormwater runoff must be maintained at levels, which result in a stable condition both during and after construction.
- Grass lined channels must be considered stable if the calculated velocity does not exceed the allocable velocities.

Erosion and sedimentation.—The ordinance requires all development applications that involve grading or excavation to comply with the requirements set forth by the Pennsylvania Department of Environmental Resources.[1571] Furthermore, other requirements regarding erosion and sedimentation control are the following:

- Changes cannot be made in the contour of the land.
- No grading, excavating, removal, or destruction of the topsoil, trees, or other vegetative cover of the land can be commenced within the proposed subdivision or land development tract until the plan for minimizing erosion and sedimentation control has been reviewed by the Lancaster County Conservation District and approved by the Planning Commission.
- A number of measures are effective in minimizing erosion and sedimentation and must be included where applicable in the control plan, including—
  - ◊ stripping of vegetation and grading must be kept to a minimum;
  - ◊ development plans must preserve significant natural features, cut and fill operations must be kept to a minimum, and plans must conform with topography so as to create the least erosion potential and adequately handle the volume and velocity of surface water runoff;
  - ◊ whenever possible, natural vegetation must be retained, protected, and supplemented;
  - ◊ the disturbed areas and the duration of exposure must be kept to a practical minimum;
  - ◊ disturbed soils must be stabilized by permanent vegetation or by engineered erosion control and drainage measures as soon as practicable in the development process;
  - ◊ temporary vegetation or mulching, or both, must be used to protect exposed critical areas during development;
  - ◊ provisions must be made to effectively accommodate the increased runoff caused by changed soil and surface conditions during and after development;

[1571]Lancaster County Subdivision and Land Development Ordinance of 1977 § 607.05.

- ◊ sediment in runoff water must be trapped until the disturbed area is stabilized by the use of debris basins, sediment basins, silt traps, or similar measures;
- ◊ basin and perimeter controls must be established at the beginning of work on the site;
- ◊ storage piles must be protected and stabilized within 30 days; and
- ◊ earth or paved interceptors and diversions must be installed at the top of cut or fill slopes where there is a potential for erosive surface runoff.

- Sediment control devices must be installed prior to any grading, filling, or excavation to prevent pollution of any watercourse and to reduce erosion of soil. Such devices must be designed to retain sediment on the site or flowing adjacent to the site.

Flood plain preservation.—The ordinance provides the following requirements for the establishment and preservation of flood plain areas:[1572]

- The 100-year flood plain must be established for all watercourses and must be delineated by one of the methods set forth—
  - ◊ a hydrologic report prepared by an individual registered in Pennsylvania to perform such duties, or
  - ◊ such report prepared by an agency of the county, State, or Federal Government. Moreover, in case of any dispute regarding when, where, and how the flood plain is to be established, the commission is authorized to determine the ultimate design criteria and/or flood boundary limits.
- Whenever a flood plain is located within or along a lot, the plan must include the boundary of the flood plain, along with the elevation or locational dimensions from the centerline of the watercourse.
- Flood plain must be kept free of structures, fill, and other encroachments.
- Floor elevations for all structures adjacent to the flood plain must be 2 feet above the 100-year flood elevation. This provision does not prohibit a number of structures, including—
  - ◊ stormwater management facilities;
  - ◊ stream improvements whose sole purpose is to improve aquatic life habitat and which are approved by the Pennsylvania Fish Commission;
  - ◊ farm ponds;
  - ◊ flood-proofing and flood hazard reduction structures to protect existing buildings;
  - ◊ public and private utility facilities (except buildings);
  - ◊ water-oriented uses (except building), e.g. docks, piers, boat launching, ramps, hatcheries;
  - ◊ water monitoring devices; and
  - ◊ culverts, bridges, and their approaches for flood plain crossings by streets, access drives, and driveways.

[1572]Lancaster County Subdivision and Land Development Ordinance of 1977 § 607.06.

- However, the uses of these structures are subject to a number of requirements, including—
  - ◊ a plan for any uses must be incorporated into the design plans and will be subject to approval by the commission, and the plan must demonstrate that the proposed uses
  - ◊ do not increase the height or frequency of flood plain water;
  - ◊ are installed so as to withstand the maximum volume, velocity, and force of flood plain water;
  - ◊ are flood and flotation proof;
  - ◊ do not create unhealthy or unsanitary conditions; and
  - ◊ do not degrade the quality of surface water or the quality of ground water.

Wetlands preservation.—In preserving wetlands, the ordinance provides that if wetlands are present on the site, applicants must submit evidence that they have contacted the Planning Commission, the Pennsylvania Department of Environmental Resources, and the U.S. Army Corps of Engineers to determine the ability of State and Federal wetland regulations. Furthermore, any approval of the Planning Commission must be contingent upon full compliance with any requirements of any regulatory agency.[1573]

Wooded areas preservation.—To protect the existing wooded areas and to prevent unnecessary destruction, the ordinance provides that at least 25 percent of the number of trees (minimum trunk caliper of 5 inches at 6 inches above the ground) that exist at the time of the plan submission must be maintained or replaced immediately following construction. Replacement trees must be a minimum trunk caliper of 2 inches at a height of 6 inches above finished grade and located within an unbuildable section of the site. Moreover, to show conformance with this provision, plans must be submitted to show existing trees and proposed construction.[1574]

Ground cover.—The ordinance specifies that ground cover must be provided on all areas of the project to prevent soil erosion. In addition, all areas which are not covered by paving, stone, or other solid material must be protected with a suitable ground cover, consisting of spreading plants including sods and grasses less than 18 inches in height.[1575]

In 1990, the Lancaster County Municipal Waste Management Plan has addressed grass clippings as a portion of *yard waste*. The plan provides that it is the goal of the authority to minimize the amount of grass clippings that are disposed in the landfill or resource recovery facility, thereby, maximizing the amount of grass clippings that are recycled. Moreover, recycling of grass clippings in Lancaster County will be achieved primarily through the direct application of grass clippings to turf or agricultural soil for the beneficial use of the nutrients. Maximum benefit can be acquired from nutrient content of grass clippings if they are not removed from the yard but allowed to decompose in place and sift through the turf to the soil.

[1573]Lancaster County Subdivision and Land Development Ordinance of 1977 § 607.06.
[1574]Id. § 608.02.
[1575]Id. § 608.04.

In 1991, the authority issued the 1991 Rules and Regulations that acknowledge that the grass clippings management program can maximize the recycling of grass clippings in the most safe, reliable, and efficient manner by integrating recyclable resources—grass nutrients—with the county's most predominant local industry, farming, in the manner that is beneficial to both the environment and the local economy.

These rules and regulations designate grass clippings (yard waste) as a *source separated recyclable material,* which cannot be mixed with refuse that is delivered to the authority for disposal. In other words, each individual who wants to dispose of grass clippings must arrange to have those clippings picked up separately from refuse and delivered to an approved land application recycling site, or to the authority.

Grass collectors and farmers are encouraged to enter into cooperative agreements that would allow the collector to deliver grass clippings directly to the farmer for a mutually agreeable fee, and for the farmer to apply those clippings to the soil in accordance with a nutrient management plan. This method would benefit both parties. On one hand, the collector benefits in time and money for the delivery sites are close to his or her collection routes and the tips are less than charged by the authority. On the other hand, the farmer also benefits financially because through the tipping fee and in reduced cost for fertilizer because of the beneficial use of the nutrients contained in the grass clippings. Moreover, to encourage cooperative agreements and expand the number of approved sites available for land application in the county, the authority will serve as a facilitator to match interested farmers with grass collectors, provide them with technical and regulatory information, and supply them with a listing of qualified nutrient management planners who can help them in preparing a plan and receiving site approval through the authority.

York County, Pennsylvania (region 1).—Although there is no known county laws affecting conservation in the county of York, there is the York County Farm Easement Board, which administers the Pennsylvania Farmland Easement Program in York County. This Program requires an applicant to this program to have a conservation plan that meets the Pennsylvania Clean Stream laws requirements.[1576]

Decatur County, Georgia (region 2).—As a result of the tremendous growth in the poultry industry, the County Board of Commission amended the county Land Development Regulations, which became effective on April 1995, to regulate certain poultry related agricultural operations.[1577]

All persons interested in erecting, constructing, or enlarging any agricultural structure for a poultry operation must obtain a building permit from the Decatur County Building Department. To obtain such permit, the individuals must provide the department a site plan indicating the proposed location for the poultry operation structure; and how it is related to adjacent property lines and residential, commercial, and industrial properties.[1578]

[1576]Letter from William H. Clifton, District Conservationist, York Field Office, to Liu Chuang, Natural Resource Inventory Division, dated August 14, 1995 (on file with Liu Chuang).
[1577]Decatur County Land Development Regulations, effective April 1995.
[1578]Id. § 1

The ordinance requires that each poultry house be no greater than 30,000 square feet, and must meet the following requirements:[1579]

Area of land for poultry operation:	5 acres / 1 operation
	8 acres / 2 operations
	8 acres for additional pair of houses
From adjacent property line:	At minimum 150 feet
Set back from road right-of-way:	At minimum 150 feet
From habitable dwelling:[1580]	At minimum 1,250 feet

However, the Decatur County Planning Commissioner is authorized to waive the regulation requirement of 1,250 feet between the poultry operation and habitable dwelling if, at the time of the building permit request, the operation's developer submits a notarized agricultural adjacency form from the owner of every habitable dwelling within 1,250 feet. Such a notarized agricultural adjacency form will exempt the dwelling units owners from the requirement provided that—

- ◊ the application for a building permit for such operation is being requested within 1,250 feet of the habitable dwelling,
- ◊ the proposed (or existing) use may produce noise, odors, dust and other effects, and
- ◊ by executing this form, the owners waive all objection to those effects.[1581]

Lee County, Georgia (region 2).—Among other districts,[1582] the Zoning Ordinance of Leesburg City, which includes Lee County, creates AG-Agricultural Districts with the purposes of—

- ◊ providing for and protecting single-family residential areas with minimum lot sizes of 15,000 square feet from the depreciating effects of small lot development; and
- ◊ permitting rural agricultural uses.[1583]

Within AG-Agricultural Districts, no building or structure can be constructed unless it complies with the following development standards:[1584]

Minimum lot area:	15,000 square feet
Minimum lot width:	100 feet
Minimum front yard:	30 feet
Minimum side yard:	10 feet
Minimum rear yard:	30 feet
Maximum height:	35 feet
Maximum lot coverage:	total less setbacks

[1579]Decatur County Land Development Regulations, effective April 1995§ 2.
[1580]Habitable dwelling excludes any residential dwelling owned by the poultry operation owner. Id.
[1581]Decatur County Land Development Regulations § 3.
[1582]In addition to AG-Agricultural Districts, the Leesburg County Zoning Ordinance creates other districts, including R-1A Low Density Residential Districts, R-1 Medium Density Residential Districts, R-2 High Density Residential Districts, RM Group Development Districts, C-1 Commercial Districts, C-2 Commercial Districts, and M Manufacturing Districts. Zoning Ordinance, Leesburg County, GA § 4 (1975).
[1583]Zoning Ordinance, Leesburg County, GA § 4-1.
[1584]Id. § 5.5.

Any one or corporation who violates the ordinance is subject to a $100 fine and each day violation constitutes a separate offense.[1585] Moreover, in case of violation and in addition to other remedies, the party who is affected by such violation may seek an injunction, mandamus or other appropriate action or proceedings against such violation.[1586]

However, a party may appeal to the Board of Appeals all decisions, requirements, and orders rendered by the Zoning Administrator in enforcement of this ordinance.[1587] Furthermore, upon appeal, the board may grant variance from the terms of this ordinance if the board determines that compliance will result in a practical difficulty or unnecessary hardship and that such variance will not be contrary to the public interest.[1588]

In addition, the Subdivision Regulations for the city of Leesburg, which also covers Lee County,[1589] provides that where a subdivision is traversed by a water course, drainage way, channel, or stream, developers must provide a stormwater easement or drainage right-of-way. Such easement or right-of-way must conform substantially to the lines of watercourse and include additional right-of-way when it is necessary for that purpose. Moreover, developers must provide easements for the location of garbage receptacles if the Planning Commission determines that such easements are essential to provide adequate garbage collection services to the proposed subdivision.[1590]

Within Townhouse District, in addition to the applicable provisions of the Leesburg Comprehensive Zoning Regulations, developers must make sure that each lot will be served by a community water and sewage system approved by the Georgia Department of Natural Resources.[1591]

Mitchell County, Georgia (region 2).—In 1995, the County Commissioners of Mitchell County enacted the Zoning Ordinance of Mitchell County,[1592] which divides the area of Mitchell County into nine zoning districts.[1593] However, for the purpose of this publication, only the Residential, Forest, and Agricultural (AG) District and Flood Hazard (FH) District will be discussed.

Residential, Forest, and Agricultural (AG) District.—In the AG District, the principal use of land is for farming, dairying, forestry operations, and other agricultural operations. This district is created to protect land needed and used for agricultural pursuits from encroachment by untimely and unplanned residential, commercial, and industrial development. The ordinance provides for two types of uses within AG Districts: the permitted uses and the conditional uses. Each shall be discussed in turn.

[1585]Zoning Ordinance, Leesburg County, GA § 11-1.
[1586]Id. § 11-2.
[1587]Id. § 12-14.
[1588]Id. § 12-15.
[1589]Subdivision Regulations for Leesburg, GA (includes Lee County), § 101 et seq. Adopted in October 1, 1985.
[1590]Id. § 403.
[1591]Id. § 408.
[1592]Zoning Ordinance of Mitchell County, GA § 1.1 et seq. (effective in September 1995).
[1593]Id. § 5.1. These districts include Single-Family Residential I (SFR-I), Single-Family Residential II (SFR-II), Multi-Family Residential (MFR), Residential, Forest and Agriculture (AG), Manufactured Home Park (MHP) and Manufactured Home Subdivisions (MHS), Commercial (C), Industrial (I), Flood Hazard District, and Planned Unit Development (PUD).

Within AG District, the *permitted uses* that are permitted by right include—

- ◊ conventional single family dwellings and modular homes;
- ◊ manufactured homes;
- ◊ any usual agricultural or horticultural activities (provided that structures for animal husbandry uses must be located at least 150 feet from any property line or right-of-way line and 1,250 feet from any habitable dwelling);
- ◊ accessory buildings and uses;
- ◊ temporary or portable sawmills for cutting of timber (provided that machine operation is located at least 200 feet from property line);
- ◊ sale of products or commodities raised on the premises (provided that structures for sales are located at least 30 feet from any property line);
- ◊ riding stables and academies (provided that enclosure housing animals are located at least 200 feet from any property line);
- ◊ animal hospitals and kennels;,
- ◊ commercial fishing ponds;
- ◊ nurseries and greenhouses; and
- ◊ libraries, fire stations, and police stations.[1594]

The *conditional uses*—those that are allowed only upon permission—include—

- ◊ farm auction facilities;
- ◊ farm supply stores, feed and grain stores, and agricultural related businesses;
- ◊ boarding homes, dormitories, and multiple lodging houses for agricultural workers;
- ◊ home occupations;
- ◊ colleges, universities, elementary, and secondary schools;
- ◊ multiple-family dwellings;
- ◊ rural business;
- ◊ open air business;
- ◊ day care and nursery care facilities;
- ◊ churches, civic clubs, lodges (provided that they are relocated on 2 acres);
- ◊ country clubs, commercial clubs, and lodges;
- ◊ radio, satellite, and television broadcast towers;
- ◊ private air fields;
- ◊ recreation facilities of an unenclosed commercial nature; and
- ◊ animal husbandry uses located closer than 1,250 feet from the habitable dwelling (provided that all owners of habitable property within 1,250 feet have signed an agricultural adjacency waiver).[1595]

[1594]Zoning Ordinance of Mitchell County, GA § 9.1.
[1595]Id. § 9.2.

In addition, the ordinance provides for the following standards requirement:[1596]

Lot width for single-family dwellings:	100 feet
Lot area:	
Single family homes, modular and manufactured home:	1 acre
Multi-family residence:	meet Mitchell County Health Department requirements
Front setback, from centerline of:—	
State or Federal highway:	125 feet
County road:	70 feet
Residential street:	60 feet
Side setback, from each side:	20 feet
Rear setback:	50 feet

Flood hazard (FH) district.—FH district is an area that is subject to frequent periodic flooding and delineated alluvial soils as determined by USDA, NRCS or Mitchell County Planning Commission, or both.[1597] The FH district is established with the following primary purposes:[1598]

- Preventing flood damage to person and properties and minimizing expenditures for flood relief programs, flood control projects, and flood damage repairs.
- Preserving drainage courses that will be adequate to carry stormwater runoff from existing and future land developments, by—
  - ◊ prohibiting any structures that would restrict or change the free flow of floodwaters; and
  - ◊ prohibiting landfills, junk yards, dumps, outdoor storage, and material or other obstruction to the flow of floodwater.
- Preserving natural conditions that will allow sufficient absorption to maintain an adequate subsurface water level and filter sediment from adjacent or upstream developments.
- Minimizing danger to health by preserving a natural drainage pattern and preventing stagnant or trapped water areas.

Similar to other districts, the ordinance provides the following permitted uses within the FH district:[1599]

- Agriculture, including forestry and livestock raising requiring no structures within the flood plain.
- Dams, provided that they are constructed in compliance with specifications of the USDA, NRCS and US Army Corps of Engineers, and Mitchell County.
- Fences, provided that no material obstruction to the free flow of waters and water gaps are allowed.
- Outdoor advertising signs.

[1596]Zoning Ordinance of Mitchell County, GA § 9.3.
[1597]Id. § 16.1.
[1598]Id. § 16.2.
[1599]Id. § 16.3.

- Parking areas, provided that there will be proper drainage of the parking area and there is no obstruction of free flow of floodwaters.
- Roads, provided that adequate capacity for free flow of floodwater is provided.
- Public, semipublic, and commercial recreation uses requiring no structures within the flood plain.
- Greenbelts or yards.
- Public utility poles, towers, pipelines, and sewage treatment outfalls.
- Single-family residence provided that they meet construction requirements in the Mitchell County Flood Plain Ordinance.

The ordinance provides that if the property owner can demonstrate to the satisfaction of the Mitchell County Planning Commission and Mitchell County that his or her property is not subject to flooding, the Planning Commission and Mitchell County may recommend correction of the flood hazard district boundary in question.[1600]

Adams County, Wisconsin (region 4).—The Zoning Ordinance of Adams County is an extensive zoning ordinance,[1601] with the authority over all unincorporated land and water within Adams County.[1602] This ordinance was created with the following conservation purposes:[1603]

- To regulate lot coverage and the size and location of all structures to prevent overcrowding and to provide adequate sunlight, air, sanitation, and drainage.
- To protect and preserve prime agricultural land and to maintain a viable agricultural base.
- To secure safety from fire, panic, flooding, pollution, contamination, and other dangers.
- To preserve and protect the natural and construct esthetic characteristic of the county.
- To prevent and control erosion, sedimentation, and other pollution of the surface and ground water.
- To maintain safe and healthful water conditions.
- To prevent flood-caused damage to persons and property and minimize expenditures for flood relief and flood control projects.
- To implement those municipal, county, watershed, and regional comprehensive plans or components of such plans adopted by the county.

This ordinance creates 16 types of zoning districts; however, because natural resources and environmental issues are the main concerns of this report, only seven types of districts will be discussed. They are A-1 Exclusive Agricultural District; A-2 Agricultural Transition District; A-3 Secondary Agricultural District; R-5 Rural Single-Family Residential District; C-1 Uplands Conservancy; C-2 Shoreland Protection Overlay; and C-3 Landfill Conservancy.

[1600]Zoning Ordinance of Mitchell County, GA § 16.4.
[1601]Zoning Ordinance, Adams County, WI § 1-1.00 et seq. (adopted in 1983, revised in 1990).
[1602]Id. § 3-1.00.
[1603]Id. § 1-4.00.

A-1 Exclusive Agricultural District.—This district is organized with a number of purposes, such as—

- ◊ preserving agricultural land for food and fiber production;
- ◊ protecting productive farms;
- ◊ maintaining a viable agricultural base to support agricultural processing and service industries;
- ◊ preventing conflicts between incompatible uses;
- ◊ reducing costs of providing services to scattered nonfarm uses; and
- ◊ pacing and shaping urban growth.[1604]

Within this district, the ordinance permits a number of agricultural uses, residential uses, and other agricultural structures and improvement uses (and their customary accessory uses). The permitted agricultural uses include—

- ◊ bee keeping;
- ◊ dairying;
- ◊ floriculture;[1605]
- ◊ grazing;
- ◊ livestock raising;
- ◊ kennels;
- ◊ plant nurseries and orchards;
- ◊ raising of grain, grass, mint, and seed crops;
- ◊ raising of tree fruit, nuts, and berries;
- ◊ sod farming;
- ◊ tree farming including Christmas trees and pulp wood;
- ◊ vegetable raising;
- ◊ viticulture;[1606]
- ◊ forest and game management;
- ◊ nature trails and walks;
- ◊ greenhouses; and
- ◊ one roadside stand per farm used solely for the sale of products produced on the premises or adjoining premises.[1607]

The allowable residential uses include—

- ◊ agriculturally related residencies;[1608]
- ◊ pre-existing residences;

[1604]Zoning Ordinance, Adams County, WI § 5-3.01(A).
[1605]Floriculture means the cultivation of ornamental flowering plants. Id. § 5-3.02(A)3.
[1606]Viticulture means grape growing. Id. § 5-3.02(A)14.
[1607]Id. § 5-3.02(A).
[1608]Agriculturally related residences means the single-family residence or mobile home occupied by a person or family earning a substantial livelihood from the farm operation. Id. § 5-3.02(B)1.

- ◊ farm residence and related farm structures remaining after farm consolidation;
- ◊ single-family or two-family dwellings or mobile homes occupied by parents or children of the farm operator; and
- ◊ recreational vehicles.[1609]

In addition to the above permitted uses, the ordinance also allows some conditional uses, which are uses that may be allowed after review and approval by the County Planning and Zoning Committee. These uses include—

- ◊ customary home occupations and professional offices conducted within the accessory to a permitted agricultural residence;
- ◊ temporary housing for seasonal farm labor;
- ◊ feedlots and poultry operations involving more than 25 animal units per acre;
- ◊ permanent saw mills;
- ◊ fur farms;
- ◊ stables and paddocks;
- ◊ equestrian trails;
- ◊ fish farms;
- ◊ dams and flowages;
- ◊ governmental uses, such as police stations, fire stations, and highway storage garages;
- ◊ religious uses such as churches, schools, and cemeteries;
- ◊ gas and electric utility uses;
- ◊ the sale and service of machinery used in agricultural production;
- ◊ facilities for the centralized bulk collection, storage, and distribution of agricultural products to wholesale and retail markets;
- ◊ the storage and sale of seed, feed, fertilizer, and other products essential to agricultural production;
- ◊ facilities used to provide veterinarian services for livestock;
- ◊ facilities used in processing agricultural products; and
- ◊ other agricultural-related, religious, utility, institutional, or governmental uses similar to those listed above.[1610]

The ordinance sets forth a number of requirements, including the yard requirements, the height requirements, and the area requirements.[1611] In addition to

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[1609]Zoning Ordinance, Adams County, WI § 5-3.02(B).
[1610]Id. § 5-3.03(A).
[1611]To meet the yard requirement, all buildings, structures, or enclosures which house or confine animals, including but not limited to animal hospitals, kennels, barnyards, feedlots, and stables, must generally meet the following minimum setback requirements:

Front yard:	100 feet
Side yard:	100 feet
Rear yard:	100 feet

these requirements, the ordinance also provides standards for traffic, loading, parking, and access;[1612] as well as sign regulation.[1613]

Rezoning is permitted; however, the Department of Agriculture, Trade, and Consumer Protection must be notified of the rezoning. Decisions on petitions for rezoning must be based on findings of the following considerations:

- Adequate public facilities are available to serve the present or future development.
- The provision of these facilities will not be an unreasonable burden to local government.
- The land is suitable for development.
- The development will not cause unreasonable air and water pollution, soil erosion, or adverse effects on rare or irreplaceable natural areas.
- The potential for conflict with remaining agriculture uses in the area.
- The need for the proposed development location in an agricultural area.
- The availability of alternative locations.
- The productivity of the agricultural lands involved.
- The location of the proposed development to minimize the amount of converted agricultural land.[1614]

A-2 Agricultural Transition District.—The A-2 Agricultural Transition District is established with the following purposes:[1615]

- To provide for the orderly transition of agricultural land to other uses in areas planned for eventual urban expansion.
- To defer urban development until the appropriate local governmental bodies determine that adequate public services and facilities can be provided at a reasonable cost.
- To ensure that urban development is compatible with local land use plans and policies.

Zoning Ordinance, Adams County, Wisconsin, § 5-3.04.
To meet the height requirements, all single-family dwellings and their accessory structures must not exceed the following maximum requirements:
Principal building & attached accessory buildings: 35 feet
Detached accessory structures: 20 feet
All other buildings or structures must not exceed the maximum height of 60 feet. Id. § 5-3.05.
To meet the area requirements, all lots must meet the following minimum requirements:
For lot area:
To establish a farm residence or farm operation: 35 acres
To establish a separate for an additional residence: 20,000 sq. feet
For a farm residence or structure remaining after farm consolidation: 20,000 sq. feet
For lot width: 100 feet
Id. § 5-3.06. 100

[1612]Zoning Ordinance, Adams County, WI § 7-1.01 to 7-4.01.
[1613]Id. § 8-1.00 to 8-9.00.
[1614]Id. § 5-3.09.
[1615]Id. § 5-4.01.

- To provide periodic review to determine whether all or part of the lands should be transferred to another zoning district.

The A-2 Agricultural Transition District has the similar requirements and standards regarding permitted uses,[1616] conditional uses,[1617] yard requirements,[1618] height requirements,[1619] area requirements,[1620] parking and access,[1621] sign regulation,[1622] and standards for rezoning[1623] as the A-1 Exclusive Agricultural District.

A-3 Secondary Agricultural District.—This district is created with a number of primary purposes of maintaining, preserving, and enhancing land historically used or suited for agricultural or agriculturally-related purposes which are not included within the A-1 Exclusive Agricultural District.[1624] Moreover, this district is intended to include the lands, which are best suited to smaller farm uses including, but not limited to, truck farming, horse farming, hobby farming, and orchards.[1625]

In this district, the permitted uses are—

- ◊ uses permitted in A-1 District;
- ◊ single family residential and seasonal dwelling(s);
- ◊ community based residential facilities that have eight or less residents;
- ◊ recreational vehicles; and
- ◊ mobile homes existing before July 27, 1990.[1626]

The A-3 Agricultural Transition District has the similar requirements and standards regarding conditional uses,[1627] yard requirements,[1628] height requirements,[1629] parking and access,[1630] sign regulation,[1631] and standards for rezoning[1632] as the A-1 Exclusive Agricultural District. However, A-3 District's area requirement is different from the A-1 District's area requirement in that in A-3 District, all lots must meet the minimum lot area requirement of 5 acres, and lot width requirement of 200 feet.[1633]

R-5 Rural Single-Family Residential District.—The purpose for creating this district is to preserve existing single-family residential neighborhoods in rural areas adjacent to agricultural zoning districts. Moreover, it is not intended that areas be rezoned to R-5 for the purpose of establishing new or additional parcels.[1634] The

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[1616]Zoning Ordinance, Adams County, WI § 5-4.02.
[1617]Id. § 5-4.03.
[1618]Id. § 5-4.04.
[1619]Id. § 5-4.05.
[1620]Id. § 5-4.06.
[1621]Id. § 5-4.07.
[1622]Id. § 5-4.08.
[1623]Id. § 5-4.09.
[1624]Id. § 5-5.01.
[1625]Id. § 5-5.02.
[1626]Id. § 5-5.02.
[1627]Id. § 5-5.03.
[1628]Id. § 5-5.04.
[1629]Id. § 5-5.05.
[1630]Id. § 5-5.07.
[1631]Id. § 5-5.08.
[1632]Id. § 5-5.09.
[1633]Id. § 5-5.06.
[1634]Id. § 5-10.01.

only permitted and conditional uses are those allowed in the R-1 Large Lot Single Family Residential district.[1635]

C-1 Uplands Conservancy.—This district is created with the purpose to preserve such environmentally sensitive areas as areas of steep slope and to protect the community from the adverse affects of misuse of such lands.[1636] The permitted uses include soil rebuilding, reforestation, hunting, fishing, wildlife preserves, picnicking, and hiking trails.[1637] The conditional uses permitted after review and approval by the committee include—

- ◊ grazing, wild crop harvesting, power and communication transmission lines, truck farming, orchards, and cultivation; and
- ◊ dumping, filling, mineral or soil removal, buildings or structures, or any other use that could disturb the natural flora or topography.[1638]

C-2 Shoreland Protection Overlay.—This district is zoned accordingly to assure that areas in the Shoreland Protection overland comply with the requirements for both the underlying zoning district and the requirements of the Adams County Shoreland Protection and the Adams County Floodplain Ordinance.[1639] The permitted uses include those—

- ◊ permitted by both the Adams County Shoreland Protection and the Adams County Floodplain Ordinance and also by the underlying district; and
- ◊ permitted by the underlying district and have been granted a special exception permit or variance, or both, under the Adams County Shoreland Protection and the Adams County Floodplain Ordinance.[1640]

The Adams County ordinance also provides provisions regulating signs in the county. These provisions are designed with the intent to provide for and regulate the location and construction of signs and to ensure that signs are compatible with surrounding land uses and express the identity of individual proprietors and the community as a whole.[1641]

To carry out this intent, the ordinance provides that a permit is required for all activities regarding signs.[1642] However, a number of signs are exempted from the permit requirement but still are subject to certain requirements.

These signs include—

- ◊ real estate ground or wall signs not exceeding 8 square feet;[1643]
- ◊ ground signs identifying the name and address of the resident;[1644]

[1635]Zoning Ordinance, Adams County, WI § 5-10.02, 5-10.03.
[1636]Id. § 5-18.01.
[1637]Id. § 5-18.02.
[1638]Id. § 5-18.03.
[1639]Id. § 5-19.01.
[1640]Id. § 5-19.02.
[1641]Id. § 8-101.
[1642]Id. § 8-3.01.
[1643]Id. § 8-4.01. The construction of these signs must be in the area which advertise the sale, rental, or lease of the premises upon which the signs are located. Moreover, such signs can be placed at the right-of-way line. Id.
[1644]Id. § 8-4.02. These signs cannot exceed 6 ft^2 in area, and must be located on the premises. They can be placed at the right-of-way line. Id.

- ◊ home occupation and professional home office signs;[1645]
- ◊ bulletin boards on ground or wall signs;[1646]
- ◊ memorial signs, tablets, names of buildings;[1647]
- ◊ official ground signs, such as traffic control, parking restrictions, information, and notices;[1648]
- ◊ political signs;[1649]
- ◊ field demonstration and test plot signs in agricultural districts;[1650] and
- ◊ No Trespassing, No Hunting, and other private regulatory signs.[1651]

The ordinance permits a certain type of sign for a certain type of district. In residential districts, the signs permitted include—

- ◊ exempt signs (listed in the above paragraph);
- ◊ mobile home park identification signs; and
- ◊ on premise ground signs not exceeding 50 square feet identifying an apartment, condominium, multiple family use or subdivision.

Moreover, signs permitted in the Business, Agricultural, Public and Semi-Public, and Industrial districts may be permitted in the residential district after review and approval by the County Planning and Zoning Committee as a conditional use.[1652]

In the Business, Agricultural, Public and Semi-Public, and Industrial districts, the signs that are permitted include—[1653]

- ◊ temporary signs when permitted by the Committee;
- ◊ wall signs placed against the exterior walls of buildings;[1654]
- ◊ projecting signs;[1655]
- ◊ awning and canopy signs;[1656]

[1645]Zoning Ordinance, Adams County, WI § 8-4.03. These signs cannot exceed 9 ft^2 in area on any one side. They must be located on premises.-However, they cannot be placed so as to obstruct traffic visibility and not illuminated after 10 p.m. or before 8 a.m. Id.

[1646]Id. § 8-4.04. These signs cannot exceed 36 ft^2 in area. They must be located on the premises and used by public, charitable, or religious institutions. They can be placed at the right-of-way line. Id.

[1647]Id. § 8-4.05.

[1648]Id. § 8-4.06. These signs may be placed at the curb line or up to the pavement edge. Id.

[1649]Id. § 8-4.07. To erect political signs, the following requirements must be met:

- No sign is erected more than 60 days before the election;
- All signs are removed within 7 days after the election;
- No signs can be attached or placed on utility poles, or traffic devices within public right-of-way;
- The graphic message must be relate to candidates or beliefs at issue in the current election; and
- Persons or committees authorizing the distribution or posting of campaign materials must be responsible for compliance with the provisions of the Ordinance. Id.

[1650]Zoning Ordinance, Adams County, WI § 8-4.08.

[1651]Id. § 8-4.09. These signs cannot exceed 1 ft^2 in area. Id.

[1652] § 8-5.01.

[1653]Id. § 8-5.02.

[1654]These signs cannot exceed 300 ft^2 in area or 30 percent of the signable area of the building, whichever is smaller. Id.

[1655]These signs cannot exceed 100 ft^2 in area for any one premise. Moreover, they cannot extend more than 6 ft into any required yard and must be at least 10 ft from all side lot lines. Id.

[1656]These signs cannot exceed 100 ft^2 in area for any one premise. They must not extend more than 6 ft into any required yard. Id.

- ◊ ground signs;[1657]
- ◊ roof signs;[1658]
- ◊ portable signs;[1659]
- ◊ window signs; and
- ◊ all exempt signs.

Moreover, advertising signs (outdoor billboards) are permitted if they comply with the applicable standards.[1660]

Furthermore, in Conservancy districts, all signs are prohibited except those specifically exempted by the ordinance.[1661]

De Baca County, New Mexico (region 6).—Under the De Baca County Subdivision Regulations (1978-80),[1662] all applications for approval of a subdivision of a subdivision plat must submit to the De Baca County Board of County Commissioners a water quality plan, a water supply plan, a liquid waste management plan, a solid waste management plan, and a terrain management plan.[1663] However, it should be noted that the De Baca County Subdivision Regulations exempt the subdivisions containing parcels of land, where the smallest of which is not less than 50 acres from all provisions of the regulations.[1664] Moreover, variance from the Subdivision Regulations may be sought and approved by the commission.[1665]

Water supply.—The subdividers of Type-one[1666] or Type-two[1667] subdivisions are required to provide water from existing or proposed water supply systems for domestic use, fire protection, and any other use proposed by the subdividers.[1668]

[1657]These signs cannot exceed 30 ft in height above grade, 80 ft^2 on one side or 160 ft^2 on all sides. Moreover, they must not be placed closer than 80 ft to another ground sign. These signs may be placed at the right-of-way line. Id.
[1658]These signs must be not exceed 10 ft in height above the roof, 300 ft^2 on all sides for any one premise. They must meet the height requirements for the district in which they are located. Id.
[1659]These signs cannot exceed 40 ft^2 on one side or 80 ft^2 on all sides. Id.
[1660]These standards include:
- No single advertising sign can exceed 14 ft in vertical measurement nor 50 feet in total length, nor be more than 700 ft^2 in area.
- No such sign can be closer than 600 ft to another sign. Twin or back-to-back sign structures are considered as one sign.
- No such sign can project higher than 30 ft above grade.
- Signs must be shielded whenever necessary to avoid casting bright light upon property located in any residential district.
- Such signs may be placed at the right-of-way line. Id.

[1661]Zoning Ordinance, Adams County, WI § 8-5.03.
[1662]De Baca County Subdivision Regulations, NM, 1979-80, § 1 et seq. It should be noted that the County Commissioners are currently reviewing this Regulation with local attorneys in consideration of updating the regulations.
[1663]De Baca County Subdivision Regulations, NM, 1979-80, § 4(A). For detail description of water supply plan, Id. § 5, of water quality plan, Id. § 6, of liquid waste management plan, Id. § 7, of solid waste management plan, Id. § 8, of terrain management plan, Id. § 9.
[1664]Id. § 27.
[1665]Id. § 31.
[1666]Type-one subdivision means any subdivision containing [500] or more parcels, any one of which is less than [10] acres. Id. § 1(EE).
[1667]Type-two subdivision means any subdivision containing not less than [25] but not more than [499] parcels, any one of which is less than [10] acres. Id. § 1(FF).
[1668]Id. § 10(A).

Subdividers of Type-three,[1669] Type-four,[1670] or Type-five subdivision[1671] are required to provide water supply for all proposed uses within the subdivision, except domestic uses. Subdividers or owners of each parcel may provide a domestic water supply; however, this supply will be at the subdividers' or the owner's own expenses.[1672]

However, if the subdivision is within the Fort Sumner Irrigation District, all subdividers must—

- ◊ provide, at their expenses, a system of concrete ditches or concrete pipe for the proposed subdivision;[1673]
- ◊ furnish a written easement providing for access by the Irrigation District or any person for the purpose of inspecting, repairing and maintaining the distribution system;[1674] and
- ◊ wait for the approval by the Board of Directors of the Fort Sumner Irrigation District before the required construction of the ditch or pipe distribution system.[1675]

Moreover, the proposed water supply systems must conform with the minimum design standards set forth by the New Mexico Environmental Improvement Agency and the construction industries commission,[1676] and the fire flow requirements must conform with the standards set forth by the American Insurance Association.[1677]

Liquid waste disposal system.—Individual liquid waste disposal systems may be approved only if:

- The systems are not located so as to potentially contaminate or pollute any drinking water supply, watercourse, or body of water.[1678]
- The systems are located not to potentially degrade any recreational resources.[1679]
- The systems will not create a nuisance.[1680]
- The systems are not located in areas where there is evidence that similar individual systems have caused significant ground water contamination or high nutrient levels in any body of waters.[1681]
- Such systems are not located in areas where there is evidence that they will cause hazards to health or to the environment.[1682]

[1669]Type-three subdivision means any subdivision containing not less than [5] but not more than [24] parcels, any of which is less than [10] acres. Id. § 1(GG).
[1670]Type-four subdivision means any subdivision containing [25] parcels, each of which is [10] acres or more. Id. § 1(HH).
[1671]Type-five subdivision means any subdivision containing not less than [5] parcels and not more than [24] parcels, each of which is [10] acres or more. Id. § 1(II).
[1672]Id. § 11(A).
[1673]Id. § 10(B)(1).
[1674]De Baca County Subdivision Regulations, NM, 1979-80 § 19(B)(2).
[1675]Id. § 10(B)(3).
[1676]Id. § 10(E).
[1677]Id. § 10(F).
[1678]Id. § 15(A)(1).
[1679]Id. § 15(A)(2).
[1680]Id. § 15(A)(3).
[1681]Id. § 15(A)(4).
[1682]Id. § 15(A)(5).

- The parcels on which the system will be used conform to the minimum lot sizes requirement.[1683] However, the commission may reduce the minimum lot sizes requirement.[1684]
- The liquid waste system complies with the following requirements—[1685]
  - ◊ the distance between a well and an absorption field or bank used as part of an individual liquid waste disposal system must be at least 100 feet;
  - ◊ the distance between a well or body of water used as a public water supply and an absorption field or tank used as part of an individual liquid waste disposal system must be least 200 feet; and
  - ◊ the distance between an absorption field and tank used as part of an individual liquid waste disposal system and the nearest boundary of a floodway must be at least 100 feet.

In addition, a subdivider may propose a community liquid waste treatment system in his or her liquid waste management plan if he or she complies with the applicable requirements.[1686]

Solid waste disposal systems.—Subdividers must provide for a modified landfill operation at the disposal site at the time of first occupancy if their subdivision has a projected population of less than 3,000 persons based upon four persons per household.[1687] Such modified landfill operation must comply with a number of criteria, including—

- ◊ fencing to preclude large animal entry;
- ◊ a gate or cattle guard the entrance;
- ◊ methods to prevent uncontrolled blowing of solid waste;
- ◊ trench for deposit of refuse, the bottom of which is at least 20 feet above the ground water level at all times;
- ◊ a separate trench for dead animal disposal;
- ◊ measures that preclude entrance of runoff water into the fill site;
- ◊ signs for location of the fill site and deposition instructions;
- ◊ covering of refuse; and
- ◊ a plan or management including a delineation of official responsibility for operation.[1688]

However, if a proposed subdivision has a projected population of 3,000 persons or more, the subdivider must provide for a modified landfill operation and a sanitary landfill operation.[1689]

Grading.—Provisions applicable to grading in De Baca County are as follows:

- Submission of a grading plan is required before grading activities.

[1683]De Baca County Subdivision Regulations, NM, 1979-80 § 15(D).
[1684]Id. § 15(H).
[1685]Id. § 15(B).
[1686]Id. § 16.
[1687]Id. § 17(A).
[1688]Id.
[1689]Id. § 16(B).

- All grading, filling, and clearing operations (including road developments) to be designed to—[1690]
  - ◊ preserve, match, or blend with the natural contours of the land;
  - ◊ retain or replace trees and other native vegetation, to stabilize hillsides, retain moisture, reduce erosion, runoff, and preserve the natural scenic beauty;
  - ◊ minimize scars from cuts and fills;
  - ◊ prevent the deposit of sediment into flood plains, drainage channels, watercourses, and water bodies;
  - ◊ reduce the amount of cuts and fills and to round off sharp angles at the top and toe and sides of all necessary cut and fill lopes; and
  - ◊ be compatible with the soil survey engineering interpretations and application standards for soil and water conservation.

The following discharge (direct or indirect) attributable to grading are prohibited—[1691]

- ◊ sediment and other organic or earthen materials discharged into a watercourse, water body, drainage channel, or flood plain; and
- ◊ material placed in any position which would make it susceptible to erosion and disposition into watercourse, water body, drainage channel, or flood plain.

- If native cover is removed or disturbed, or fill material is placed on the site, the exposed surface must be treated to the extent necessary to eliminate dust arising from the exposed material.[1692]
- Vegetation removed during clearing operations must be disposed of in a reasonable manner.[1693]
- Earth removed during operations must be disposed of in a reasonable manner and place.[1694]
- The maximum cut or fill slope must be determined on the basis of the risk of instability or soil erodibility as shown by the soil survey.[1695]
- Slopes must be subject to erosion subsidence.[1696]
- If the material of the slope's characteristic is unstable under the maximum moisture content anticipated, the subdivider must employ such measures necessary to insure stability of the slope.[1697] If mechanical stabilization or containment of the slope by other than the native material is used, the stabilization devices must be at least partially screened by vegetation where practical.[1698]

[1690]De Baca County Subdivision Regulations, NM, 1979-80 § 19(A).
[1691]Id. § 19(B).
[1692]Id. § 19(C).
[1693]Id. § 19(D).
[1694]Id. § 19(E).
[1695]Id. § 19(F).
[1696]Id. § 19(G).
[1697]Id. § 19(H).
[1698]Id. § 19(I).

- Organic material, such as vegetation or rubbish or any other material not subject to proper compaction or not conducive to its stability is prohibited in fills.[1699]
- Rocks or similar irreducible material with a maximum diameter greater than 8 inches are prohibited from being buried or placed in the top 2 feet of fills.[1700]
- Borrowing for fills is prohibited unless a revegetation proposal for the borrow area is approved by the local district.[1701]
- Each layer of material for fill to be used at the construction site must be compacted at least 90 percent of the inplace dried density of undisturbed adjacent land.[1702]
- Fills made by the subdivider which settle by more than 10 percent of the height of the original fill within 3 years of the date of contract completion are to be reopened and properly backfilled at the subdivider's expense.[1703]
- Mechanized equipment cannot be operated in watercourses except in a manner approved by the local district.[1704]
- Appropriate buries around all native vegetation proposed for retention is required during construction.[1705]
- All grading and filling operation must proceed according to a work schedule included in the grading plan.[1706]

Flood plain management.—Provisions applicable to flood plain management in De Baca County are as follows:

- All subdivisions must be planned and located to—
  - ◊ plan flood plain development in such a way as to lesson the damaging effects of flood;
  - ◊ protect individuals from buying lands that are unsuited for intended purposes because of flood hazards; and
  - ◊ promote the development in flood plains of private and public uses such as open space, vegetation, recreation, and wildlife habitat.[1707]
- Flood plains cannot be used for—
  - ◊ construction of buildings for human habitation unless all usable floor space is constructed above the maximum probable flood level;
  - ◊ structures, excavations, or deposits of material that could obstruct flood flows or adversely affect the capacity of the flood plain; and
  - ◊ roads unless approved by the local district.[1708]

[1699]De Baca County Subdivision Regulations, NM, 1979-80 § 19(J).
[1700]Id.
[1701]Id. § 19(K).
[1702]Id. § 19(L).
[1703]Id. § 19(M).
[1704]Id. § 19(N).
[1705]Id. § 19(O).
[1706]Id. § 19(P).
[1707]Id. § 20(A).
[1708]Id. § 20(B).

- Flood fringes cannot be used for—
  - ◊ structures designed for human habitation;
  - ◊ structures with a potential for high flood damage; and
  - ◊ permanent sheltering and respective confining of animals.[1709]

Fresno County, California (region 10).—The County Board of Fresno County adopted the Fresno County Grading Ordinance with the main purpose of safeguarding life, limb, property, and the public welfare by regulating grading on private property.[1710] This ordinance first, provides rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments, and second, establishes administrative procedures for issuance of permits, approval of plans, and inspection of grading construction.[1711]

Before engaging in any grading activities, this ordinance requires all persons to obtain grading permits from the building official.[1712] However, there are a number of exceptions to this permit requirement.[1713] They are as follows:

- Grading is in an isolated, self-contained area where there is no apparent danger to private or public property.
- An excavation below finished grade for basements and footings of a building retaining wall or other structure authorized by a valid building permit.
- Cemetery graves.
- Refuse disposal sites controlled by other regulations.
- Excavations for wells or tunnels or utilities.
- Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate, or clay where established and provided by law.
- Exploratory excavations under the direction of soil engineers or engineering geologists.
- An excavation that is less than 2 feet in depth, or does not create a cut slope greater than 5 feet in height and steeper than 1 1/2 feet horizontal to 1 foot vertical.
- A fill less than 1 foot in depth, and placed on natural terrain that has a slope flatter than 5 feet horizontal to 1 foot vertical, or less than 3 feet in depth.
- Agricultural grading.
- Grading that is under the supervision of a governmental agency.

The building official is required to inspect all grading operations for which a permit is required.[1714] Moreover, upon completion of the rough grading work and at the final completion of the work, the building official may also require the permittee to submit reports and drawings and supplements to an as-graded grading plan

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[1709]Fresno County Grading Ordinance, CA § 20(C).
[1710]Id. § 7001 et seq.
[1711]Id. § 7002.
[1712]Id. § 7003.
[1713]Id.
[1714]Id. § 7014.

prepared by the civil engineer and a soil grading report prepared by the soils engineer.[1715]

In addition to regulations regarding cuts,[1716] fills,[1717] setbacks,[1718] and drainage and terracing,[1719] the ordinance is also concerned with erosion control. It specifies that the faces of cut and fill slopes must be prepared and maintained to control erosion. Moreover, when necessary, check dams, cribbing, riprap, or other devices or methods must be used to control erosion and provide safety.[1720]

San Joaquin County, California (region 10).—County of San Joaquin has a grading ordinance that contains provisions dealing with Agricultural Excavation Permits.[1721] This local law was created with the dual purpose of providing a method for allowing the removal of excess material from property to increase the property's agricultural potential, and protecting people, property, and the environment from the impacts caused by the grading excavation.[1722]

The ordinance provides that applications for Agricultural Excavation Permits may be accepted in three zones: AL zone, AG zone, and AU zone.[1723] To be considered, each application must include—

- ◊ a certified grading plan prepared by a registered engineer;
- ◊ an operational statement;
- ◊ a soils report; and
- ◊ a fee.[1724]

Before granting such permit, the Review Authority must find that all of the following are true:[1725]

- The primary purpose of the proposed excavation is to enhance agricultural suitability of the property.
- The excavation will not have a detrimental effect on any surrounding agricultural lands.
- Issuance of the permit will not be significantly detrimental to the public health, safety, or welfare, or be harmful to the property or improvements in the vicinity. Moreover, the authority's approval is also subjected to the development standards set forth by the county board.[1726]

The ordinance does not require a new Agricultural Excavation Permit for the expansion of an existing or approved agricultural excavation, if the applicant complies with a number of requirements, including—

- ◊ the proposed expansion cannot involve more than a 10 percent increase in the overall site;

[1715]Fresno County Grading Ordinance, CA § 7014.
[1716]Id. § 7009.
[1717]Id. § 7010.
[1718]Id. § 7011.
[1719]Id. § 7012.
[1720]Id. § 7013.
[1721]Agricultural Excavation Permits, CA § 9-851.1 et seq.
[1722]Id. § 9-851.1.
[1723]Id. § 9-851.2.
[1724]Id. § 9-851.3.
[1725]Id. § 9-851.5.
[1726]Id. § 9-851.6.

- ◊ the proposed expansion will not have a substantial, adverse effect on adjacent property or on significant biotic resources on the site;
- ◊ the proposed expansion will comply with the existing requirements of appropriate agencies; and
- ◊ an improvement plan must be submitted to the county.[1727]

Agricultural and open space zoning laws in selected townships in Lancaster County, Pennsylvania (region 1)

This section explores the zoning ordinances of different townships in Lancaster County, Pennsylvania. As a representation, only a number of township ordinances will be discussed in the next section. Furthermore, the conditions of the townships can be determined and compared through the types of uses allowed in the townships.

Most of the township zoning ordinances mirror the county's. However, each township ordinance is discussed separately to see small similarities or differences, or both, among them. For example, for both townships of Conestoga and East Cocalico, display and sale of farm products are considered as permit uses. However, the township of Conestoga ordinance categorizes family day care facilities for not more than six children as a permitted use.[1728] The township of East Cocalico ordinance categorizes the similar use as a special exception use, which may be allowed only after the authorization by the zoning hearing board.[1729] The township of Conestoga ordinance allows double family dwellings as permit use.[1730] The township of East Cocalico ordinance does not categorize similar use as such. Moreover, each township ordinance may impose different area, height, and yard regulations for all buildings and structures within any prescribed districts.

Conestoga Township, Lancaster County, PA (region 1).—The zoning ordinance of Conestoga Township[1731] provides for the establishment of two particular districts: the Agricultural (A) District and the Flood Plain Conservation (FP-C) District.

Because the primary purposes of the ***Agriculture (A) District*** are to protect and stabilize agriculture as an ongoing, viable, major component of the economy of the county,[1732] the permitted uses are structured in favor of the agricultural activities. These uses include—

- ◊ agriculture, animal husbandry, forestry, and horticulture and related land uses;
- ◊ single-family detached dwellings, when in conjunction with an agricultural use;
- ◊ display and sale of farm products by a person farming land in the A district;

[1727]Agricultural Excavation Permits, CA § 9-851.8.
[1728]Conestoga Township Zoning Ordinance, Lancaster County, PA § 5.02.03.
[1729]East Cocalico, § 300.2.
[1730]Conestoga Township Zoning Ordinance, Lancaster County, PA § 5.02.05.
[1731]Id. § 5.01.00 et seq. (1993).
[1732]Id. § 5.01.00.

- ◊ processing of farm products as an accessory use to the raising of agricultural products;
- ◊ double-family dwellings, when at least one dwelling is occupied by person(s) engaged in agricultural activities;
- ◊ family day care facilities for not more than six children;
- ◊ signs advertising any use allowed in the A district; and
- ◊ professional home occupations in single-family dwellings.[1733]

This ordinance also provides for special exception uses, which may be granted by written approval of the zoning hearing board. Some of these special exceptions uses are flea market, farm related business, veterinary facility or kennel, campground, spent mushroom soil processing, or riding school and horse boarding stable.[1734] For nonagricultural land uses, the bulk and lot requirements provide that maximum building height must be 20 feet; the minimum rear yard is 10 feet; the minimum side yard is 15 feet; the minimum front yard setback must be equal to the distance provided for the principal buildings, plus 15 feet; and the maximum aggregate lot coverage is 20 percent.[1735] In addition, because the primary purpose of the A district is to accommodate commercial agriculture, nonfarm dwellings of other nonfarm uses in this district must be subject to common characteristics of agriculture, such as odor and dust, operation of equipment and vehicles during the night, and creation of noise.[1736]

The ***Flood Plain Conservation (FP-C) District*** is designated with the intention to protect steep slopes and areas subject to flooding, to allow and encourage the retention of open space, and to guide incompatible developments into other more appropriate zoning districts.[1737] The FP-C district comprises all areas identified as being subject to the 100-year flood in the Flood Insurance Study prepared for Conestoga Township, all lands delineated by the Soil Survey as possessing alluvial or flood plain soils, and all areas containing slopes of over 25 percent.[1738]

In the FP-C district, only the following uses are permitted:[1739]

- Agriculture, horticulture, forestry, and timber harvesting, excluding any fill or structures.
- Erosion and sedimentation control measures, facilities, and structures.
- Public and private recreational uses.
- Harvesting of any wild crop.
- Activities related to the preservation of natural amenities.
- Open space and front, side, or rear yard areas required by this ordinance.
- Stream improvements whose only purpose is to improve aquatic life habitat.

[1733]Conestoga Township Zoning Ordinance, Lancaster County, PA § 5.02.00.
[1734]Id. § 5.03.00.
[1735]Id. § 5.06.00.
[1736]Id. § 5.07.00.
[1737]Steep slopes pose special problems for development, represented by erosion dangers, foundation difficulties, steep driveways, and additional requirements for on-lot sewage disposal designs. Id. § 11.00.00.
[1738]Conestoga Township Zoning Ordinance, Lancaster County, PA § 11.01.00.
[1739]Id. § 11.02.00.

- Wire fences, except chain link.
- Picnic tables, park benches, fireplaces and grills, and playground equipment, if anchored to prevent flotation.
- Blinds for the shooting and observation of wildlife.
- Farm ponds that do not create any increase in flooding.
- Flood proofing and flood hazard reduction structured to protect only lawfully existing nonconforming structures.
- Public utility facilities (except buildings).
- Marker buoys.

Like the A district, FP-C district provides a number of special exceptions uses, all of which are subject under other provisions of the ordinance. Some of these include bridges, culverts, fish hatcheries, amusement parks, and water monitoring devices.[1740] The ordinance, moreover, specifies a number of prohibited uses. Some of these prohibited uses include: sanitary landfills, dumps, junkyards and outdoor storage of vehicles or material; placing, deposing, and dumping any spoil, fill or solid waste; removal of topsoil; damming or relocation of any onsite sewage disposal system; swimming pools; stockpiling, storage or disposal of buoyant materials, logging slash, herbicides; cemeteries for humans or animals; zoo, menagerie, wild or domestic animal farm.[1741]

Unlike the A district, there is no minimum yard, bulk, or lot requirements applicable to the 100-year flood plain areas in the FP-C district. However, areas outside the 100-year flood plain must comply with the yard, bulk, and lot requirements.[1742]

In the FP-C district, variances from provisions of the ordinance are discouraged. However, if a variance is requested, the applicant must comply with all applicable requirements; in variance proceedings, the burden of proof is placed on the applicant.[1743]

East Cocalico Township, Lancaster County, PA (region 1).—The East Cocalico Township zoning ordinance provides that the A-1 Agricultural District is intended to encourage the preservation and improvement of the agricultural economy of the township in the productive farming areas, and to permit limited residential uses.[1744] The A-1 Agricultural Districts are used solely for a number of purposes, including—

- ◊ any form of agriculture or horticulture;
- ◊ temporary roadside stand for the sale of farm or nursery products produced on the property where offered for sale in season;
- ◊ single-family detached dwellings;
- ◊ farm dwellings;

[1740]Conestoga Township Zoning Ordinance, Lancaster County, PA § 11.03.00.
[1741]Id. § 11.07.00.
[1742]Id. § 11.05.00.
[1743]Id. § 11.06.00.
[1744]Zoning Ordinance, East Cocalico Township, Lancaster County, PA §300 (1989).

- ◊ public parks, recreational areas, and playgrounds;
- ◊ conservation of open spaces, water, woodland, soil, air, and wildlife resources;
- ◊ accessory building, structure and use customarily incidental to the above uses; and
- ◊ residential conversion unit.[1745]

Like other township's ordinances, this ordinance also provides for a number of special exception uses. These special exception uses are as follows: place of worship; club, lodge; institutions, such as educational, health care, and retirement; private park, recreation area, playground; public utility structure; sanitary landfill; cemetery; kennel; and research laboratory.[1746]

The ordinance also prescribes the area, height and yard regulations for all buildings or structures constructed for any permitted uses in this district.[1747] However, buildings devoted to farm use are exempt from the area and height regulations.[1748]

In addition to these regulations, the ordinance requires compliance to the farm standards for nonagricultural districts;[1749] the environmental control houses for livestock, poultry, and mushroom raising;[1750] and slope controls.[1751]

East Donegal Township, Lancaster County, PA (region 1).—The East Donegal Zoning Ordinance provides that the Agricultural District (A) is created to protect and stabilize agriculture as an on-going economic activity by allowing only those land uses and activities that are agricultural in character.[1752] The uses that are considered as *permitted* mainly are—

- ◊ the tilling of the soil;
- ◊ the raising of crops, fruits, and vegetables; nurseries and horticultural activities;
- ◊ the storage and package of fruits and vegetables produced on the premises;
- ◊ the hatching, raising, slaughtering, dressing, and marketing on the commercial scale of chickens, turkeys, or other fowl or poultry;
- ◊ the raising, grazing, and slaughtering of horses, cattle, hogs, sheep, or goats;
- ◊ milk processing and *jugging* operations for the retail sale of milk;
- ◊ structures, barns, silos, corncribs, or poultry houses that are necessary for the proper operation of the agricultural activity; and

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[1745]Zoning Ordinance, East Cocalico Township, Lancaster County, PA § 300.1.
[1746]Id. § 300.2.
[1747]Id. § 300.3.
[1748]Id. § 300.5.
[1749]Id. § 906.
[1750]Id. § 909.
[1751]Id. § 911.
[1752]The zoning ordinance of East Donegal Township § 402.1 (1994).

◊ customary accessory uses and structures incidental to the above uses.[1753] However, these uses are also subject to certain general requirements of the ordinance.

East Drumore Township, Lancaster County, PA (region 1).—Like other ordinances, the zoning ordinance of East Drumore township also establishes an Agricultural District (A), in which, agriculture is the primary use with residential uses subject to farm operations.[1754] Similar to the Conestoga ordinance, [1755] the East Drumore ordinance also indicates that residential uses must accept the nuisances and hazards that are a normal adjunct to farming.[1756] The ordinance creates three categories of uses: uses by right, accessory uses, and uses by special exception.

Use by rights (permitted uses) are as follows:[1757]

- The raising of field and garden crops, vineyard, and orchards farming, forestry, the maintenance of nurseries, and the sale of products thereof.
- Keeping, breeding, and raising of cattle, sheep, goats, pigs, fowl, and horses and rental of horses.
- Farm dwellings including facilities for permanently employed persons and families.
- Nonfarming single family dwellings; facilities for commercial processing of agricultural products; facilities for the warehousing, sale, and service of agricultural equipment or supplies; commercial grain or feed mills; commercial stockyards or feedlots; riding academies or stables; veterinary offices or animal hospitals; and kennels. However, these uses are only permitted on soils with Agricultural Land Capability Classifications of IV, V, VI, VII, or VIII as defined by USDA.

The accessory uses are:[1758]

- Uses and structures that are customarily associated with the permitted uses.
- Customary home occupations.
- Occupations customarily pursued by farm operators to provide supplemental income.
- Display and sale of farm products by a person farming land in the A district.
- Processing of farm products.
- Signs advertising or identifying any use that has been established in the A district as permitted or special exception uses.

In addition to the above uses, the ordinance provides for the following special exception uses that may be allowed upon approval of the zoning hearing board by a public hearing and recommendation by the commission.[1759]

[1753]The zoning ordinance of East Donegal Township § 402.2.
[1754]Id. §3.1.3 (1980).
[1755]Conestoga, § 5.07.00.
[1756]East Drumore, § 3.1.3.1.
[1757]Zoning Ordinance, East Drumore Township, PA § 3.1.4.
[1758]Id. § 3.1.5.
[1759]Id. § 3.1.6.

The (R-1) Residential District (Low Density) is intended to encourage planned large-lot residential development, and to provide areas for low-density residential uses in locations where on-lot utilities may be feasible.[1760] In this district, the permitted uses include single family dwellings and two-family dwellings not to exceed one such structure per lot.[1761]

In addition to these districts, the zoning ordinance further prescribes the (SS) Steep Slope Conservation District, with the main purpose of protecting areas of steep slope from adverse effects created by over development such as erosion and loss of woodland, wildlife and other natural resources.[1762] The ordinance provides that all uses proposed for areas within the (SS) district must obtain a special exception subject to regulations and standards of the ordinance.[1763]

East Earl Township, Lancaster County, PA (region 1).—The Revised Zoning Ordinance for East Earl Township provides for regulations in the Flood Plain (FP) District.[1764] The FP district mainly includes the areas of township that are subject to periodic inundation by flood water.[1765] In this district, the permitted uses are identical to those permitted in Flood Plain Conservation District of Conestoga Township.[1766] Furthermore, all agricultural and residential uses must comply with the applicable requirements.[1767]

East Hempfield Township, Lancaster County, PA (region 1).—The East Hempfield Township Zoning Ordinance establishes an Agricultural Zone (A) district to promote a continuation of the rural character of the area located north of PA Route 283.[1768] Extensive farming identifies this area and a combination of sparsely developed residential uses and other small-scale nonresidential uses.[1769] Thus, residents must be willing to accept the impacts associated with normal farming practices.[1770]

In the (A) district, only uses with agricultural characteristic are permitted. For example, the ordinance considers agriculture, including one single-family detached dwellings contained on the site as a permitted use; however, it emphasizes that such use excludes commercial poultry operations or commercial livestock operations.[1771] In addition to these permitted uses, the ordinance designates a number of Special Exception Uses, which may be granted after review of the Zoning Board and compliance with the applicable requirements. These special-exception uses include: ECHO housing, farm operations, home occupations, public uses, riding stables, temporary farm employee housing, two-family conversions, noncommercial keeping of livestock, bed and breakfast, commercial livestock operations, commercial poultry operations, kennels, churches and related uses, public and private schools, bee-keeping, private club houses, farm markets and accessory,

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[1760]Zoning Ordinance, East Drumore Township, PA § 3.2.1.
[1761]Id. § 3.2.2.
[1762]Id. § 3.7.1.
[1763]Id. § 3.7.2.
[1764]Revised Zoning Ordinance for East Earl Township, art. 10, § 1001 et seq. (1983).
[1765]Id. § 1003.
[1766]Id. § 1004.
[1767]Id. § 1303-1304.
[1768]East Hempfield zoning ordinance, PA § 201.1 (1993).
[1769]Id.
[1770]Id.
[1771]Id. § 201.2.1. Other permitted uses include: horticultural and forestry-related uses; public and nonprofit parks and playgrounds; public utilities structures; and accessory uses customarily incidental to the above uses. Id.

historic restaurant conversions, and historic office conversations.[1772] Furthermore, all structures in the county must comply with the area, yard, and height requirements.

Eden Township, Lancaster County, PA (region 1).—The Eden township Zoning Ordinance establishes an Agricultural Zone (A) district with the purpose to protect and promote agriculture in areas that have been identified as having prime agricultural soils.[1773] Similar to other zoning ordinances, the Eden Township ordinance notifies that all nonfarm residents must be willing to accept the impacts associated with normal farming practices.[1774]

The Eden Township ordinance provides a similar set of permitted and special exception uses as the East Hempfield Township. However, there are a number of differences. For example, in Eden township, the uses of ECHO housing, public or private schools, noncommercial keeping of livestock, bee-keeping, and temporary farm employee housing are considered as permitted uses; while in East Hempfield, these uses are categorized as special exceptions uses where permission is subject to further review procedures.[1775] Moreover, in Eden township, there are only two special exception uses: public uses and kennels.[1776] All uses are subject to certain requirements as provided by the ordinance.

Elizabeth Township, Lancaster County, PA (region 1).—The Elizabeth Township zoning ordinance specifies an Agricultural Zone with the purpose of promoting the continuation and preservation of agricultural activities in the areas most appropriate for such activities. Furthermore, it protects and stabilizes the township's viable agricultural economy by eliminating uses that are incompatible with farming, and permitting limited agricultural support businesses. It further notifies that all non-farming residents must be willing to accept the impacts associated with normal farming practices and related businesses.[1777] The permitted and special exception uses are similar to those permitted in East Hempfield.[1778]

[1772]Eden Township zoning ordinance, PA § 201.3.
[1773]Id. § 201.1.
[1774]East Hempfield zoning ordinance, PA § 201.1
[1775]Compare Id. § 201.2 with East Hempfield § 201.2.
[1776]Eden township, § 201.3.
[1777]Elizabeth township ordinance, PA § 201.1.
[1778]Id. § 201.2-.3.

Chapter 9: State Surface Mining Laws

In general, most states enacted the surface mining laws with the main policy of protecting and conserving the state natural resources and reclaiming land affected by surface mining. To effectuate this policy, these state laws require each person to obtain a surface mining license, unless statutorily exempted, before engaging in any surface mining operations. In addition to the license requirement, all licensees must obtain a permit. Among other things, most importantly, a mining and reclamation plan and a map must accompany each permit application. Once the authoritative department approves a permit application, and before commencing mining, the applicant must file with the agency a performance bond for each mining operation. Permittee is required to file an annual mining and reclamation operations and progress report with the agency. Furthermore, these state laws create surface mining land reclamation funds to protect and conserve natural resources and to reclaim areas affected by surface mining operations.

Maryland is unique in that it has two additional provisions in its Surface Mining law to remedy dewatering in karst terrain. These provisions protect the affected property owners in Baltimore, Carroll, Frederick, and Washington Counties where karst terrain is found. The law requires the agency to establish zones of dewatering influence around surface mines in karst terrain and to administer program requiring permittees to mitigate or compensate affected property owners in those counties.

Pennsylvania law is unique in that it specifically prohibits surface operations in certain areas, for example, lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers Systems, and the National Recreation Areas designated by Act of Congress. The Pennsylvania law requires its authoritative agency to establish a Remining Operator's Assistance Program that will assist and pay for the preparation of applications for licensed mine operators otherwise eligible to obtain a permit for remining abandoned mine land, including remining of land subject to bond forfeitures and coal refuse piles. Furthermore, the Pennsylvania law requires that the Commonwealth of Pennsylvania be arranged into mine land and water conservation districts, each of which will have a mine conservation inspector.

Wisconsin law allows the governing body of a county, city, village, or town to adopt, by ordinance, regulations for the reclamation of nonmetallic mining sites. A county nonmetallic mining reclamation ordinance applies to each town area and does not require approval of the town board. However, the county ordinance does not apply to towns that have a town nonmetallic ordinance, which is at least as restrictive as the county ordinance.

Maryland (region 1).—The Maryland Legislature enacted the Surface Mining law with the main purpose of protecting and conserving the natural resources of Maryland and the reclamation of areas of land affected by surface mining of metallic and nonmetallic minerals (other than coal).[1779] Moreover, it authorizes the Maryland Department of Natural Resources to adopt regulations reasonably necessary to administer this law.[1780]

[1779]Surface Mining law, MD. CODE ANN., NAT. RES. § 7-6A-02(b) (Supp. 1994).
[1780]Id.

However, this Surface Mining law does not apply to—

- ◊ public agencies or entities that have adopted reclamation standards applying to the activities and the standards approved by the department;[1781]
- ◊ mining on Federal lands performed under a valid permit from the appropriate Federal agency;[1782] and
- ◊ counties that have restrictive laws.[1783]

Under this law, the Surface Mined Land Reclamation Fund is created.[1784] This fund comprises of all funds received by the department from license fees, permit fees, special reclamation fees, the forfeiture of bonds and of cash deposits and securities, and fines collected upon conviction of a permittee or a licensee.[1785] Furthermore, the department can use this fund only for the purposes of administering and implementing the surface mining law, including rehabilitating the area of land affected by the operation upon which liability was charged on the bond.[1786]

Before engaging in any surface mining activities within Maryland, all persons are required to obtain a surface mining license.[1787] However, the license requirement may be exempted from the following activities:

- Those aspects of deep mining that do not have a significant effect on the surface, if the affected area does not exceed three acres in extent.[1788]
- Operations engaged in processing minerals.[1789]
- Excavation or grading conducted solely to help onsite farming or onsite construction for purposes other than surface mining.[1790]
- Removal of overburden and mining of limited amounts of any mineral when done only for the purpose of prospecting and to the extent necessary to determine the location, quantity, or quality of any natural deposit, if no minerals are sold, processed for sale, or consumed in the regular operation of business.[1791]
- The handling, processing, or storage of slag and stone on the premises of a manufacturer as a part of any manufacturing process that requires stone as a raw material or produces slag as a by-product.[1792]

[1781]Id. § 7-6A-31(a) (1989). Public agencies or entities include the State Highway Administration, any county road department in the State, any legally constituted public governing entities such as municipal corporations, or individuals acting under contract with any of these public agencies or entities, on highway rights-of-way or borrow pits owned, operated, or maintained solely in connection with the construction, repair, and maintenance of the public roads systems of the State or other public facilities. Id.
[1782]MD. CODE ANN., NAT. RES § 7-6A-31(b) (1989).
[1783]Id. § 7-6A-31(c) (1989).
[1784]Id. § 7-6A-04 (1989 & Supp. 1994).
[1785]Id. § 7-6A-04(a) (1989).
[1786]Id.
[1787]Id. § 7-6A-06(a) (1989).
[1788]Id. § 7-6A-06(f)(1) (1989).
[1789]Id. § 7-6A-06(f)(2) (1989).
[1790]Id. § 7-6A-06(f)(3) (1989).
[1791]Id. § 7-6A-06(f)(4) (1989).
[1792]Id. § 7-6A-06(f)(5) (1989).

- The extraction of minerals by a landowner for the landowner's own noncommercial use from land owned or leased by the landowner.[1793]
- Mining operations if the affected land does not exceed one acre in area.[1794]
- Dredging from submerged public or private lands in the State if this activity is conducted under license from the State Board of Public Works or by permit from the department.[1795]
- The extraction of sand, rock, gravel, stone, earth, or fill from borrow pits for highway construction purposes or other public facilities, if the work is performed under a bond and contract, and the specifications of the department that require reclamation of the area affected.[1796]

To obtain a license, the interested person must apply in writing on a form prepared and provided by the department.[1797] A $300 fee must accompany application.[1798] License must be renewed annually and the annual renewal fee is $150.[1799] Moreover, the department cannot issue a new or renewed license if it determines after investigation that the applicant has failed and continues to fail to comply with any of the provisions of the surface mining law.[1800]

In addition to the license requirement, the law also imposes a permit requirement on all licensees.[1801] The law provides that licensees cannot engage in surface mining within the State except on affected land that is covered by a valid surface mining permit.[1802] Such permit, moreover, can cover more than one tract of land, if the tracts are contiguous and are described in the permit application.[1803] Generally, the permit application must be accompanied by a number of documents, including—

- ◊ a right of entry agreement,[1804]
- ◊ a mining and reclamation plan and map;[1805] and
- ◊ applicable required and additional fees for the permit.[1806]

The department can waive the right of entry agreement submission.[1807]

The mining and reclamation plan must include—

- ◊ the proposed plan,
- ◊ topographic map,
- ◊ a summary statement, and

[1793]MD. CODE ANN., NAT. RES § 7-6A-06(f)(5) (1989).§ 7-6A-06(f)(6) (1989).
[1794]Id. § 7-6A-06(f)(7) (1989).
[1795]Id. § 7-6A-06(f)(8) (1989).
[1796]Id. § 7-6A-06(f)(9) (1989).
[1797]Id. § 7-6A-06(b) (1989).
[1798]Id. § 7-6A-06(c) (Supp. 1994).
[1799]Id.
[1800]Id. § 7-6A-06(d) (1989).
[1801]Id. § 7-6A-07 (1989 & Supp. 1994).
[1802]Id. § 7-6A-07(a).
[1803]Id. § 7-6A-07(c).
[1804]Id. § 7-6A-07(d)(1) (1989 & Supp. 1994). This agreement allows the Department personnel to enter the land, after making reasonable effort to notify the permittee, the owner, or operator. Id.
[1805]Id. § 7-6A-07(d)(2) (1989 & Supp. 1994).
[1806]Id. § 7-6A-07(e)(h).
[1807]Id. § 7-6A-07(d)(3) (1989 & Supp. 1994).

◊ other required provisions.[1808]

In the proposed plan, the applicant must include at least the following information:[1809]

- The purpose for which the land was previously used.
- The use which is proposed to be made of the land following reclamation.
- The manner in which the land is to be opened for mining and how the mining activity is to progress across the tract.
- The location of affected areas.
- The manner in which topsoil and subsoil are to be conserved and restored.
- If backfilling is required, or where the proposed subsequent land use requires fill, the manner in which the compaction of the fill will be accomplished.
- The manner and type of landscaping and screening of the working areas which are exposed to public view during mining.
- The proposed practices to protect adjacent surface resources.
- The specifications for surface gradient restoration to a surface suitable for the proposed subsequent use of the land after reclamation is completed, and the proposed method of accomplishment.
- The manner and type of revegetation or other surface treatment of the affected areas.
- A time schedule that meets the requirements of this provision.
- Maps and any other supporting documents required by the department.

The summary statement must cover the methods of—

◊ compliance with State air and water pollution requirements;

◊ prevention, elimination, or minimization of conditions that would be hazardous to animal or fish life in or adjacent to the area;

◊ rehabilitation of settling ponds;

◊ control of contaminates and disposal of mining refuse; and

◊ restoring or establishing stream channels and streambanks to a condition minimizing erosion, siltation, and other pollution.[1810]

In addition, the reclamation plan is required to ensure that reclamation activities are conducted to the extent feasible simultaneously with mining operations and are initiated at the earliest feasible time after completion or termination of mining on any part of the permit area.[1811]

The department is required to grant or deny the requested permit as expeditiously as possible. It must process the application concurrently with existing local or

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[1808]MD. CODE ANN., NAT. RES § 7-6A-19 (1989 & Supp. 1994).
[1809]Id. § 7-6A-19(a).
[1810]Id. § 7-6A-19(c).
[1811]Id. § 7-6A-19(d) (1989 & Supp. 1994).

county land use and zoning reviews.[1812] If granted, the permit can last for the period requested and deemed reasonable, but not exceeding 25 years.[1813] The department has a number of grounds to deny a permit. They are as follows:[1814]

- The proposed operation will violate the requirements set forth by the surface mining law or the department's promulgated regulations.
- The operation will have an unduly adverse effect on wildlife or on freshwater, estuarine, or marine fisheries.
- The applicant has failed to provide applicable permits or approvals covering the operation from all State and local agencies responsible for air and water pollution, sediment control, and zoning.
- The operation will constitute a substantial physical hazard to a neighboring dwelling house, school, church, hospital, commercial or industrial building, public road, or other public or private property in existence at the time of the application for permit.
- The operation will have significant adverse effect on the uses of a publicly owned park, forest, or recreational area in existence at the time of the application for the permit.
- The applicant does not have a valid surface mining license from the State.
- The applicant has not corrected all violations, which may have been committed under any prior permit.
- Previous experience with similar operations indicate a substantial probability that the operation will result in substantial deposits of sediment in streambeds or lakes, landslides, or other water pollution.

Once the department approves application for a permit, and before commencing mining, the applicant must file with the department a bond for each mining operation.[1815] The bond must be in the amount of $1,250 maximum per acre based on the number of acres of affected land covered by the permit. However, a bond may not be filed for less than $8,000.[1816] Moreover, the department is required to reconsider the amount of the bond if the total bond fee is unreasonable and excessive for the particular tract of land.[1817] The department will release the bond on completion of the mining operations and after the requirements of the permit have been complied with.[1818] However, the bond will be forfeited if the permittee fails to perform as set forth in the authorized mining and reclamation plan and to reclaim the land in accordance with the permit.[1819] If a permittee previously has forfeited any bond, the permittee is prohibited from conducting surface mining activities, unless on application, the permittee repays the department the cost of reclamation if the department had reclaimed the land, plus interest.[1820]

[1812]MD. CODE ANN., NAT. RES. § 7-6A-09(a) (1989).
[1813]Id. § 7-6A-11.
[1814]Id. § 7-6A-09(b).
[1815]Id. § 7-6A-20(a) (1989 & Supp. 1994).
[1816]Id. § 7-6A-20(b) (1989 & Supp. 1994).
[1817]Id.
[1818]Id. § 7-6A-21 (1989).
[1819]Id. § 7-6A-22 (1989).
[1820]Id. § 7-6A-23.

The Maryland Surface Mining laws provide that a permittee may apply for a surface mining permit modification,[1821] affecting the land area covered by the permit, with the approved mining and reclamation plan coupled with the permit, or other terms and conditions of the permit.[1822] Furthermore, permits are renewable.[1823] The law also permits the permittee to transfer the permit to the successor in interest, thereby releasing all liabilities imposed on the permittee regarding the operation. By transferring the permit, the successor assumes all duties and responsibilities of the first permittee regarding the reclamation of land.[1824] The successor must pay a $500 filing fee, and request of transfer is subject to the department's approval or denial.[1825]

The Department of Natural Resources may suspend a permit until the violation is corrected if it has reason to believe that the permittee violates any provisions of this law or any regulations promulgated by the department.[1826] However, before suspending a permit, the department must notify the permittee of the violation and afford the permittee and afford the permittee the right to a hearing.[1827] It may revoke the permit if the violation is not corrected.[1828]

The permittee is required to file an annual mining and reclamation operations and progress report with the department.[1829] The department must inspect each permit area annually to determine if the permittee has complied with the mining and reclamation plan, the terms and conditions of the permit, the requirements of the Maryland Surface Mining law, and any regulations promulgated by the department.[1830] Moreover, upon completion of reclamation of an area of affected land, the department must inspect the area again to ensure compliance.[1831]

If no mineral has been produced or overburden removed for 1 year, and the permittee has vacated the site of operation without having complied with the requirements of the plan, the permittee's operation will be considered abandoned. If the permittee, within 30 days after receiving notification from the department considering the operation abandoned, does not submit evidence to suggest otherwise, the department will declare the operation abandoned and initiate legal proceedings against the permittee.[1832] Halted operations are not subject to legal proceedings. An operation is considered halted if active work has ceased temporarily because of weather conditions, market conditions, or other reasonable cause explained in writing by the permittee to the satisfaction of the department. Also, it must be accompanied by a statement that the permittee fully intends to resume active operation when the adverse conditions have passed.[1833]

[1821]MD. CODE ANN., NAT. RES. § 7-6A-12(a).
[1822]Id. § 7-6A-12(b) (1989 & Supp. 1994).
[1823]Id. § 7-6A-13 (1989 & Supp. 1994).
[1824]Id. § 7-6A-16(a) (1989).
[1825]Id. § 7-6A-16(c)-(d) (1989 & Supp. 1994).
[1826]Id. § 7-6A-18(a) (1989).
[1827]Id. § 7-6A-18(a)-(b) (1989).
[1828]Id. § 7-6A-18(c).
[1829]Id. § 7-6A-24.
[1830]Id. § 7-6A-25.
[1831]Id. § 7-6A-27 (1989).
[1832]Id. § 7-6A-26(a).
[1833]Id. § 7-6A-26(b).

In addition to other mandatory duties, the Department of Natural Resources is required to—

- ◊ review mineral resources plan elements developed by local planning commissions to determine whether the proposed plan is consistent with the programs and goals of the Department;[1834]
- ◊ establish standards of qualifications for surface mine inspectors deemed necessary for qualification;[1835]
- ◊ review application and accompanying documents and make further inquiries, inspections, or examinations as necessary or desirable for proper evaluation.[1836]

In 1991, the Maryland Legislature enacted two additional provisions in the Maryland Surface Mining law to remedy the dewatering in karst terrain. Dewatering of surface mines located in karst terrain is known to interfere with water-supply wells and cause in some instances sudden subsidence of land (known as sinkholes). It may also result in property damage to landowners in a definable zone of dewatering influence around a surface mine.[1837] Thus, these provisions protect the affected property owners in Baltimore, Carroll, Frederick, and Washington Counties, where karst terrain is found. It requires the Department to establish zones of dewatering influence around surface mines in karst terrain and to administer a program requiring permittees to mitigate or compensate affected property owners in those counties.[1838] To further this responsibility, the department is required to adopt regulations to establish an administrative process to expedite the resolution of water supply loss or property damage claims.[1839]

If the permittee is issued a water appropriation permit to dewater a pit located in karst terrain in Baltimore, Carroll, Frederick, and Washington Counties, the department must establish, as a condition of the permittee's surface mining, a zone of dewatering influence around the surface mine. The area extent of the zone of dewatering influence will be based on the following: local topography, watersheds, aquifer limits, and other hydrogeologic factors, such as the occurrence of natural fractures, cracks, crevices, lineaments, igneous dikes, changes in rock type, and variations in the water-bearing characteristics of formations.[1840]

Within the established zone of dewatering influence, the permittee is required to remedy the property owners by—

- ◊ replacing, at no expense to the owner of the real property that is affected by the surface mine dewatering, a water supply that fails as a result of declining ground water levels; and
- ◊ paying monetary compensation to the affected property owner or repairing any property damage caused by sudden subsidence of the surface of the

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[1834]MD. CODE ANN., NAT. RES.§ 7-6A-03.1(a) (Supp. 1994).
[1835]Id. § 7-6A-05 (1989).
[1836]Id. § 7-6A-08 (1989 & Supp. 1994).
[1837]Id. § 7-6A-10.1(a) (Supp. 1994). Karst terrain is defined to mean an irregular topography which is (1) caused by solution of limestone and other carbonate rock; and (2) characterized by closed depressions, sinkholes, caverns, solution cavities, and underground channels that, partially or completely, may capture surface streams. Id. § 7-6A-10.2(a)(3) (Supp. 1994).
[1838]Id. § 7-6A-10.1(b)(Supp. 1994), effective July 1, 1991.
[1839]Id § 7-6A-10.2(h) (Supp. 1994).
[1840]Id. § 7-6A-10.2(b).

land, upon a determination by the department of proximate cause after permittee has received notification of property damage and an opportunity to respond.[1841]

However, the permittee is not required to replace water supplies if the permittee demonstrates to the department by clear and convincing evidence that the proximate cause of the loss of water supply is not the result of pit dewatering.[1842]

However, the compensation, restoration or mitigation requirement does not apply to—

- ◊ improvements that are made to real property within an established zone of dewatering influence following the department's final decision to grant a surface mining permit; or
- ◊ improvements that are made to real property following the establishment of a zone of dewatering influence as a condition of an existing surface mine permit.[1843]

Pennsylvania (region 1).—Under the Pennsylvania Surface Mining Conservation and Reclamation Act,[1844] the following provisions are applicable to surface mining activities within Pennsylvania:

- Each person must obtain an operator's license before engaging in coal mining activities. A fee and insurance policy must accompany application for license.[1845]
- Each person must obtain a mining permit from the department of Environmental Resources before engaging in surface coal mining activities. The permit application must be accompanied with an application fee, a map and related information, a reclamation plan, an insurance policy, and a performance bond. The reclamation plan must include the following information—[1846]
  - ◊ statement of the uses and productivity of the land proposed to be affected;
  - ◊ where the proposed land use so requires, the manner in which the compaction of the soil and fill will be accomplished;
  - ◊ a description of the manner in which the operation will segregate and conserve topsoil;
  - ◊ a detailed timetable for the accomplishment of each major step in the reclamation plan and the operator's estimate of the cost of each step and total cost of the reclamation program;
  - ◊ a full explanation of the conditions which do not permit contouring, unless the reclamation plan provides for contouring;
  - ◊ the written consent of the landowner to enter upon any land to be affected by the operation;

[1841]MD. CODE ANN., NAT. RES. § 7-6A-10.2(c).
[1842]Id. § 7-6A-10.2(f).
[1843]Id § 7-6A-10.2(i) (Supp. 1994).
[1844]PENN. STAT. ANN. § 1396.2 et seq. (Supp. 1993).
[1845]Id. § 1396.3a.
[1846]Id. § 1396.4.

- ◊ the manner in which the operator plans to divert surface water from draining into the pit and the manner in which the operator plans to prevent water from accumulating in the pit;
- ◊ the manner in which the operator plans to comply with the requirements of the Air Pollution Control Act, the Clean Stream law, the Coal Refuse Disposal Control Act, and where applicable, the Pennsylvania Solid Waste Management act, or the Solid Waste Management act, and the Dam Safety and Encroachments act. Compliance with these statutes does not relieve the operator from the responsibility for complying with the provisions of other applicable statutes such as the Pennsylvania Bituminous Coal Mine act, the Pennsylvania Anthracite Coal Mine act, and an act providing for Emergency Medical Personnel; Employment of Emergency Medical Personnel, and Emergency Communications in Coal Mines;
- ◊ a statement of the land use proposed for the affected area after mining and reclamation are completed;
- ◊ for those lands identified as prime farmlands, a soil survey to confirm the exact location of such farmlands. The Department will not grant a permit to affect prime farmland unless after consultation with the USDA, the department puts in writing that the operator has the technological capability to restore such affected area to equivalent or higher levels of yield as nonaffected prime farmland in the surrounding area under equivalent levels of management;
- ◊ an explanation demonstrating that the proposed operation will be conducted so as to maximize the use and conservation of the solid fuel resource; and
- ◊ other information as the department may require.

The use of explosives for the purpose of blasting in connection with surface mining must be done in compliance with regulations promulgated by and under the supervision of the Secretary.[1847]

Each operator who proposes to remine an area on which there are preexisting pollution discharges resulting from mining can request special authorization from the department to conduct surface coal mining.[1848]

Each person who engages in coal extraction pursuant to a government-financed reclamation contract must obtain a valid surface mining permit, unless they can demonstrate that they are eligible to secure special authorization to engage in a government-financed reclamation contract authorizing incidental and necessary coal extraction.[1849]

[1847]PENN. STAT. ANN. § 1396.4b.
[1848]Id. § 1396.4f.
[1849]Id. § 1396.4h.

Except for the mining operations, which existed on August 3, 1977, surface mining operations are not permitted:[1850]

- On any lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers Systems, and the National Recreation Areas designated by the Act of Congress.
- On any Federal lands within the boundaries of any national forest, unless the department determines otherwise.
- Which will adversely affect any publicly owned park or any places included in the National Register of Historic Sites, unless approved jointly by the department and the Federal, State, or local agency with jurisdiction over the park or the historic site.
- Within 100 feet of the outside right-of-way line of any public road, unless such operation is in the public interest and the landowners affected will be protected.
- Within 300 feet from any occupied dwelling, unless waived.

The department is required to designate an area as unsuitable for all or certain types of surface mining operations. It can designate an area as unsuitable for mining operation if such operation will—

- ◊ be incompatible with existing state or local land use plans or programs;
- ◊ affect fragile or historic lands;
- ◊ affect renewable resources lands; or
- ◊ affect natural hazard lands.[1851]

Furthermore, the department can designate areas suitable for reclamation by remining surface mining activities, including bond forfeiture areas, where the department determines that reclamation is technological and economically feasible.[1852] Before declaring an area suitable for remining, the department must consider the following:[1853]

- Those lands that are affected by surface or deep mining activities, including coal refuse piles, and which are causing or contributing to the pollution of state waters.
- Areas which if remined would result in enhancement of nearby recreation, natural or scenic areas.
- Areas where remining would result in significant environmental and economic or social enhancement of the surrounding region.
- Areas that do not meet water quality standards, but which if remining occurs, are likely to maintain or enhance existing downstream water uses and meet water quality standards, and will not cause further degradation of receiving stream water quality.

[1850]PENN. STAT. ANN. § 1396.4e(h).
[1851]Id. § 1396.4e.
[1852]Id. § 1396.4i.
[1853]Id. § 1396.4i.

- The presence of economically viable coal reserves in the area which could be extracted by surface mining activities with reclamation being technologically and economically feasible.

The Pennsylvania Surface Mining Conservation and Reclamation Act requires the department to establish a Remining Operator's Assistance Program, which will assist and pay for the preparation of applications for licensed mine operators otherwise eligible to obtain a permit for remining abandoned mine land, including remining of land subject to bond forfeitures and coal refuse piles.[1854] The Environmental Quality Board must publish proposed regulations to constitute an interim reclamation and remining program which provides incentives and assistance to reclaim abandoned mine lands and land which is subject to bond forfeitures.[1855] Moreover, the Department is authorized to issue a nontransferable bond credit to a licensed mine operator for voluntary reclamation of abandoned mine lands approved by the Department.[1856]

The act requires that the Commonwealth of Pennsylvania be arranged into mined land and water conservation districts where each district will have a mine conservation inspector.[1857] Moreover, except with respect to ordinances adopted pursuant to the Pennsylvania Municipalities Planning Code (Act of July 31, 1968, Public Law 805, 247), all local ordinances and enactments supporting regulation of surface mining are superseded.[1858]

All funds received from license fees, permit fees, forfeitures of bonds, fines, and civil penalties are deposited in the Surface Mining Conservation and Reclamation Fund that is used for—

- ◊ the revegetation or reclaiming of land affected by surface mining of any kind of coal;
- ◊ restoration or replacement of water supplies affected by surface mining activities; or
- ◊ any other conservation purposes provided by this act.

The act creates a Remining Environmental Enhancement Fund where the Secretary of Environmental Resources is authorized to transfer 1 million dollars per fiscal year.[1859] Furthermore, it creates the Remining Financial Assurance Fund where the Governor is authorized to transfer up to 5 million dollars to provide financial assurance for the reclamation bond credit program and the payment-in-lieu-of-bond program.[1860]

Alabama (region 2).—Two particular acts pertain to surface mining reclamation. They are the Alabama Surface Mining Act of 1969 and the Alabama Surface Mining Control and Reclamation Act of 1981. Each shall be discussed in turn.

[1854]PENN. STAT. ANN. § 1396.4j.
[1855]Id. § 1396.4k.
[1856]Id. § 1396.4m.
[1857]Id. § 1396.15c.
[1858]Id. § 1396.17a.
[1859]Id.
[1860]Id.

Alabama Surface Mining Act of 1969.—The Alabama Surface Mining Act of 1969[1861] was enacted to provide for the "safe and reasonable reclamation of lands . . . to protect the taxable value of property and preserve the natural resources . . . and the health and safety of the people of this state."[1862] Operators engaging in surface mining activities have the following mandatory obligations:

- Obtain a valid permit from the department before starting to mine coal by the surface mining method,[1863] which must be accompanied with bond and filing fee.[1864] Amendment of permit is allowable.[1865]
- Submit to the department a map or aerial photograph showing the location of the surface mining operation within 90 days after expiration of the permit period.[1866]
- Carry on grading of affected land to reduce peaks and ridges to a rolling topography.[1867]
- Cover the face of any toxic material left exposed by the operator's surface mining operation in the bottom of the pit.[1868]
- Divert water from the mining operation in a manner designed to reduce siltation, erosion or other damage to streams and natural watercourses.[1869]
- Plant tree seedlings on or directly seed the affected land with native or commercial species.[1870]
- Construct fire lanes or access roads on all affected land that is to be reforested.[1871]

To enforce the provisions of this act, the department's inspectors can enter upon the landowner's land to inspect and determine compliance with the act.[1872] If the director determines that there is noncompliance, the director must serve a written notice of the violation, afford a hearing allowing such person to answer the charges, and enter an order.[1873] However, such order is appealable in the circuit court of the judicial circuit in which the operator has his or her principal business or where the property affected by the order is located.[1874]

However, this act does not apply to surface mining activities of the state Highway Department or any city, county or municipality incident to their activities in constructing, repairing, and maintaining the public road system in Alabama.[1875] This exemption also extends to any person, firm or corporation contracting with the

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[1861]Alabama Surface Mining Act of 1969, ALA. CODE § 9-16-1 through 9-16-15 (1975 & Supp. 1993).
[1862]Id. § 9-16-3 (1975).
[1863]ALA. CODE § 9-16-4.
[1864]Id. § 9-16-5. For more information regarding bonds, Id. § 9-16-8.
[1865]Id. § 9-16-6.
[1866]Id. § 9-16-7(a)(1).
[1867]Id. § 9-16-7(a)(2).
[1868]Id. § 9-16-7(a)(3).
[1869]Id. § 9-16-7(a)(4).
[1870]Id. § 9-16-7(b).
[1871]Id. § 9-16-7(d).
[1872]Id. § 9-16-9.
[1873]Id. § 9-16-10(a).
[1874]Id. § 9-16-10(b).
[1875]Id. § 9-16-14.

State Highway Department, city, county or municipality to construct, repair, and maintain public roads.[1876]

Alabama Surface Mining Control and Reclamation Act of 1981.—The Alabama Legislature enacted the Alabama Surface Mining Control and Reclamation Act of 1981 that was created to provide regulation and control of surface coal mining operations and to reduce injurious effects to the environment and resources of Alabama.[1877] It has the following objectives:[1878]

- Establish a statewide program to reduce adverse effects to the environment resulting from surface coal mining operations.
- Provide that surface coal mining operations will be encouraged only in the manner consistent with prudent use of the State natural resources.
- Provide that adequate measures are undertaken to reclaim surface-mined areas promptly.
- Exercise the full reach of State constitutional powers to provide protection of the public interest through effective control of surface coal mining operations, and
- Encourage the economic development of the State coal resources as a source of energy and other uses.

The Surface Mining Control and Reclamation Act of 1981 establishes a Surface Mining Commission composed of seven appointed members.[1879, 1880, 1881]

The Surface Mining Commission has numerous powers.[1882] The more important ones include—

◊ adopting, amending, suspending, repealing, and enforcing reasonably necessary rules and regulations;[1883]

◊ establishing and enforcing coal surface mining reclamation standards for the State which may vary according to appropriate areas;[1884]

◊ accepting, receiving, and administering grants or other funds or gifts from public and private agencies, including the Federal Government;[1885]

◊ issuing, continuing in effect, revoking, modifying, or denying permits for surface coal mining activities;[1886]

◊ issuing warnings and initiating civil or criminal actions for noncompliance with the act;[1887] and

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[1876]Alabama Surface Mining Act of 1969, ALA. CODE § 9-16-14.
[1877]The Alabama Surface Mining Control and Reclamation Act of 1981, ALA. CODE § 9-16-70 through 9-16-107 (1975 & Supp. 1993).
[1878]Id.
[1879]Id. § 9-16-73(a)-(b).
[1880]Id. § 9-16-73(k).
[1881]Id. § 9-16-73(m).
[1882]Id. § 9-16-74.
[1883]Id. § 9-16-74(1).
[1884]Id. § 9-16-74(8).
[1885]Id. § 9-16-74(12).
[1886]Id. § 9-16-74(18).
[1887]Id. § 9-16-74(19).

- ◊ enforcing the provisions of the State program approved pursuant to the Federal Surface Mining Control and Reclamation Act of 1977.[1888]

In addition, the commission is also given general powers of subdelegation of its authorized acts and duties, except for specific limitation.[1889] Within the Alabama Surface Mining Commission, a Division of Hearings and Appeals[1890] and the Surface Mining Control and Reclamation Division are created.[1891]

The act also established the Alabama surface mining fund, which comprises all moneys deriving from fees, the forfeiture of bonds, the recovery of civil penalties and appropriations by the legislature.[1892]

The following mandatory provisions are applicable to all surface coal mining operations:

- All persons who engage in or carry out on land any surface coal mining operations must first obtain an annual license.[1893]
- All persons who engage in surface coal mining operations at a particular location (except as subcontractors of the permittee) must obtain a permit from the regulatory authority for that location.[1894] The permit application must be accompanied by—
  - ◊ a fee,[1895]
  - ◊ a set of information,[1896]
  - ◊ a reclamation plan,[1897]
  - ◊ a certification of insurance,[1898] and
  - ◊ a blasting plan.[1899]

If the area proposed to be mined contains prime farmland, after consulting with the Secretary of Agriculture, the regulatory authority can grant a permit to mine on prime farmland only if it finds in writing that the operator has the technological capability to restore the mined area within a reasonable time to equivalent or higher levels of yield as non-mined prime farmland in the surrounding area and can meet the soil reconstruction standards.[1900] After a permit application has been approved but before the permit is issued, the operator must file with the regulatory authority a performance bond payable to the state and conditioned upon faithful performance

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[1888]The Alabama Surface Mining Control and Reclamation Act of 1981, ALA. CODE § 9-16-70 through 9-16-107 (1975 & Supp. 1993).§ 9-16-74(21).
[1889]Alabama Surface Mining Reclamation Comm'n v. Jolly, 362 So. 2d 919 (Ala. Civ. App. 1978) (deciding under former § 9-16-34).
[1890]ALA. CODE § 9-17-77. For composition of the division, Id. § 9-16-77. For the powers of the division, Id. § 9-16-78. For hearings and appeals procedure, Id. § 9-16-79 (1975 & Supp. 1993).
[1891]Id. § 9-16-80 (1975). For the division's composition and powers, Id.
[1892]Id. § 9-16-103.
[1893]Id. § 9-16-81. For a complete requirements for license application, Id.
[1894]Id. § 9-16-82. For a complete requirements for permit application, Id.
[1895]Id. § 9-16-83(a).
[1896]Id. § 9-16-83(b).
[1897]Id. § 9-16-83(d).
[1898]Id. § 9-16-83(f).
[1899]Id. § 9-16-83(g). For detailed discussion of the standard of care for blasting operations, Harper v. Regency Dev. Co., 399 So. 2d 248 (Ala. 1981) (deciding under former § 9-16-41).
[1900]Id. § 9-16-85(d).

of all the requirements of the act and the permit.[1901] Moreover, the permit must require surface coal mining operations to meet all applicable performance standards and other requirements promulgated by the regulatory authority.[1902] However, with approval by the Secretary of the Interior, the regulatory authority may grant departures from the environmental protection performance standards in individual cases on an experimental basis.[1903]

In the event that the regulatory authority believes that violation of the act or permit condition exists, it must order an inspection of the surface coal mining operation.[1904] If such violation causes imminent danger to the health or safety of the public or imminent environmental harm to the state natural resources, the authority must order a cessation of such operations.[1905]

After providing an opportunity for a public hearing, it must suspend or revoke the permit if it determines that a pattern of violations exists.[1906] In addition, the regulatory authority can request the attorney general to institute a civil action for injunction relief, restraining order or any other appropriate order in the circuit court where the surface coal mining and reclamation operation is located or where the permittee has a principal office.[1907] The act imposes both civil and criminal penalties for violation of any provision of this act or any rules or regulations promulgated by the regulatory authority.[1908] The act also allows a private citizen to commence civil action to compel compliance with this act.[1909]

The act also requires the regulatory authority to establish a planning process enabling objective decisions as to which land areas of the State are unsuitable for all or certain types of surface coal mining operations (not mineral exploration).[1910] However, any person having an interest or who may be adversely affected may petition the authority to have an area designated as unsuitable for surface coal mining operations or to have such a designation terminated.[1911]

However, this act does not apply to the following surface mining operations:[1912]

- The extraction of coal by a landowner for ones own noncommercial use from land owned or leased by the owner.
- For surface mining operations affecting 2 acres or less, the regulatory authority may waive certain requirements of this act where those requirements will not affect the reclamation of the affected lands.
- The extraction of coal as an incidental part of Federal, State or local government-financed highway or other construction under regulations established by the regulatory authority.

[1901]ALA. CODE § 9-16-89.
[1902]Id. § 9-16-90. For a more detailed description of the required performance standards, Id.
[1903]Id. § 9-16-98.
[1904]Id. § 9-16-93(a).
[1905]Id. § 9-16-93(b).
[1906]Id. § 9-16-93(d).
[1907]Id. § 9-16-93(f).
[1908]Id. § 9-16-94. For more detailed description of penalties, Id.
[1909]Id. § 9-16-95.
[1910]Id. § 9-16-96(a).
[1911]Id. § 9-16-96(b).
[1912]Id. § 9-16-99.

- The extraction of coal incidental to the extraction of other minerals where coal does not exceed 16 2/3 percent of the tonnage of minerals removed for commercial use or sale pursuant to regulations established by the regulatory authority.

Georgia (region 2).—The Georgia Surface Mining Act of 1968[1913] was enacted with the following purposes:[1914]

- Assist in achieving and maintaining an efficient and productive mining industry and to assist in increasing economic and other benefits attributable to mining.
- Advance the protection of fish and wildlife, and the protection and restoration of land, water, and other resources affected by mining.
- Assist in the reduction, elimination, or counteracting of pollution or deterioration of land, water, and air attributable to mining.
- Encourage programs that will achieve comparable results in protecting, conserving, and improving the usefulness of natural resources.
- Assist in efforts to facilitate the use of land and other resources affected by mining.

The act designates the Environmental Protection Division of the Department of Natural Resources to be the administering agency,[1915] having the following mandatory duties and powers:[1916]

- Administer and enforce the Georgia Surface Mining Act and all promulgated rules and regulations.
- Consider permit applications of operators.
- Consider surface mining land use plans submitted by operators.
- Investigate and inspect.
- Revoke permits, deny renewals, and forfeit bonds or cash of mine operators who refuse to carry out their plans of mining land use.
- Collect information on surface mining and mining land use plans.
- Collect, publish, and distribute information on mining land uses.
- Accept moneys provided by government units and private organizations.
- Conduct research studies of mining land uses.
- Carry out land use projects on land where bonds or cash have been forfeited.
- Institute and prosecute all court actions necessary to enforce any issued order.
- Exercise all incidental powers necessary to carry out the purposes of the act.

The act requires the Board of Natural Resources to promulgate rules and regulations necessary to effectuate the Georgia Surface Mining Act of 1968.[1917]

[1913]Georgia Surface Mining Act of 1968, GA. CODE ANN. § 12-4-71 et seq. (1992).
[1914]Id. § 12-4-71.
[1915]Id. § 12-4-71(b).
[1916]Id. § 12-4-73.
[1917]Id. § 12-4-74.

Before starting surface mining operations, all operators of surface mining firms are required to obtain a permit from the director of the division.[1918] All permit applications must accompany a mining land use plan, that must be consistent with the land use in the area of the mine and provide for reclamation of the affected land.[1919] In addition, applicants must file a bond with the director. However, an applicant may request exemption from the bonding requirement, where granting such an exemption is at the discretion of the director.[1920] Mining by a permitted operator on an unauthorized site while holding other valid surface mining permits constitutes prima-facie evidence of violation of approved mining land use plans. All surface mining permits that the operator may hold may be suspended or revoked.[1921]

The division can file an injunctive relief in the superior court of any county having jurisdiction over an individual who appears to be violating any provisions of the act, rules and regulations, or the division's issued order.[1922] The act imposes a civil penalty of an amount not exceeding $1,000 (and an additional penalty of an amount not exceeding $500 for each day such violation continues) on any person who violates any provision of this act or promulgated rules and regulations, or who intentionally or negligently fails or refuses to comply with any final order of the director of the division.[1923] Moreover, any person who engages in surface mining activities in violation of this act or who willfully misrepresents or gives false information will be guilty of a misdemeanor, and, upon conviction, will be fined not less than $100 nor more than $1,000 (each day of noncompliance constitutes a separate offense).[1924] However, any party who is aggrieved or adversely affected by an order of the division has the right to appeal to the superior court of the county of the party's residence.[1925]

However, this act does not apply to surface mining activities of the Department of Transportation incident to its activities in constructing, repairing, and maintaining the public road system in Georgia.[1926] This exemption also extends to those operators who contract directly with the Department of Transportation, but not to parties who are subcontractors of such operators.[1927]

Arkansas (region 3).—The Arkansas Surface Coal Mining and Reclamation Act of 1979,[1928] administered and enforced by the Arkansas Department of Pollution Control and Ecology,[1929] provides that lands and water eligible for reclamation or drainage abatement expenditures are those that were mined for coal or which were affected by the mining, wastebanks, coal processing, or other coal mining processes and abandoned or left in an inadequate reclamation status prior to 1977.[1930]

[1918]GA. CODE ANN. § 12-4-75(1).
[1919]Id. § 12-4-75(2).
[1920]Id. § 12-4-75(3).
[1921]Id. § 12-4-77.
[1922]Id. § 12-4-79.
[1923]Id. § 12-4-83.
[1924]Id. § 12-4-84.
[1925]Id. § 12-4-78.
[1926]Id. § 12-4-82.
[1927]Id.; 1968 Op. Att'y Gen. No. 68-406.
[1928]Arkansas Surface Coal Mining and Reclamation Act of 1979, ARK. CODE ANN. § 15-58-101 through 5-58-510 (1987).
[1929]Id. § 15-58-201.
[1930]Id. § 15-58-401.

However, expenditure of moneys from the fund on land and water eligible for reclamation or drainage abatement depends on State priorities.

These priorities are in the following order (where item 1 means most important while item 6 means less important):[1931]

1. The protection of public health, safety, general welfare, and property from extreme danger of adverse effects of coal mining practices.
2. The protection of public health, safety, and general welfare from danger of adverse effects of coal mining practices.
3. The restoration of land and water resources and the environment previously degraded by adverse effects of coal mining practices.
4. Research and demonstration projects regarding the development of surface mining reclamation and water quality control program methods and techniques.
5. The protection, repair, replacement, construction, or enhancement of public facilities.
6. The development of publicly owned land adversely affected by coal mining practices.

After giving proper notice, the act authorizes the director to enter upon the property adversely affected by past coal mining practices to restore, reclaim, abate, control, or prevent adverse effects if the director determines that—

- ◊ the land or water resources have been adversely affected by past coal mining practices;
- ◊ the adverse effects are at a state where reclamation action should be taken; and
- ◊ the landowner's whereabouts is not known, or the landowner does not give permission for necessary reclamation.[1932]

A lien will be attached to the reclaimed property if the moneys expended for reclamation result in a significant increase in property value. In addition, the director is empowered to acquire land that is adversely affected by past coal mining practices.[1933]

Moreover, the act requires the Arkansas Pollution Control and Ecology Commission to issue regulations that adopt appropriate procedures for identifying and designating certain lands to be unsuitable for all or certain types of surface mining.[1934] Each operator of surface coal mining and reclamation operations must obtain a permit before conducting such operations.[1935] After a permit application is approved but before the permit is issued, the applicant must file a performance bond with the Arkansas Department of Pollution Control and Ecology.[1936] Coal exploration operations that substantially disturb the natural land surface must be conducted in compliance with coal exploration regulations issued by the

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[1931] ARK. CODE ANN. § 15-58-402.
[1932] Id. § 15-58-404.
[1933] Id. § 15-58-406.
[1934] Id. § 15-58-501.
[1935] Id. § 15-58-502.
[1936] Id. § 15-58-509.

commission.[1937] Furthermore, any permit issued to conduct surface coal mining operations and any authorization to conduct coal exploration operations require such operations to meet all applicable performance standards.[1938]

The act prohibits a person performing any function or duty under this act to have any direct or indirect financial interest in any underground or surface coal mining operations. Those who knowingly violate these prohibitions are subject to a fine not exceeding $2,500 and/or imprisonment not exceeding 1-year.[1939]

The Arkansas Surface Coal Mining and Reclamation law creates a Surface Coal Mining Operation Fund to be used for the administration and enforcement of the act.[1940] In addition, the act imposes both civil and criminal penalties on violations of different sorts.[1941] Moreover, the act also gives private persons the right to a private action to compel compliance.[1942]

The act, however, does not apply to the following:[1943]

- The surface mining of any minerals or materials other than coal (all minerals or materials other than coal are regulated by the Arkansas Open-Cut Land Reclamation Act of 1977).
- The extraction of coal by a landowner for his or her own noncommercial use from land owned or leased by him.
- The extraction of coal as an incidental part of Federal, State, or local government-financed highways or other construction under regulations established by the commission.
- The extraction of coal as an incidental part of other minerals where coal does not exceed 16 2/3 percent of the tonnage of minerals removed for purposes of commercial use or sale or for coal exploration.

This act does not affect any person's water rights. Thus, the operator of a surface coal mine must replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source where such supply is affected by the contamination, diminution or interruption proximately resulting from the surface coal mining operation.[1944]

Mississippi (region 3).—Mississippi Legislature enacted two particular laws regarding the surface mining and reclamation of land: the Mississippi Surface Mining and Reclamation law and the Mississippi Surface Coal Mining and Reclamation law. Each shall be discussed in turn.

[1937]ARK. CODE ANN. § 15-58-504.
[1938]Id. § 15-58-510.
[1939]Id. § 15-58-206.
[1940]Id. § 15-58-508.
[1941]Id. § 5-58-301 through 15-58-308.
[1942]Id. § 15-58-309.
[1943]Id. § 15-58-106.
[1944]Id. § 15-58-107.

Mississippi Surface Mining and Reclamation law.—Under the Mississippi Surface Mining and Reclamation law,[1945] the following provisions are applicable to mining operations:

- An operator who engages in surface mining must first obtain a permit for each operation from the commission. Before a Class I permit is granted, a public hearing must be conducted.[1946] Class I materials include bentonite, metallic ore, mineral clay, dolomite, and phosphate.[1947]
- Each permit holder must file with the commission a certificate of compliance annually.[1948]
- The operator of an operation for Class II materials must obtain a Class II permit. To obtain it, one must submit to the commission—
  - ◊ a notice of intent,
  - ◊ a copy of the proposed reclamation plan, and
  - ◊ a bond.
- Permit issuance depends upon the approval of the reclamation plan and if the bond is satisfied.[1949]
- Application fees must accompany a surface mining permit application and notice of intent.[1950]
- A reclamation plan must be developed in a manner consistent with local physical, environmental, and climatological conditions and current mining and reclamation technology. A reclamation plan must include a set of information, including—
  - ◊ identification of the entire area to be mined and affected;
  - ◊ condition of the land to be covered by the permit before mining;
  - ◊ capacity of the land to support its anticipated use following reclamation;
  - ◊ a description of how the proposed post-mining land condition is to be achieved;
  - ◊ steps taken to comply with applicable air and water quality and water rights laws and regulations, and with any applicable health and safety standards;
  - ◊ general timetable that the operator estimates will be necessary for accomplishing the major events contained in the reclamation plan; and
  - ◊ such other information as the commission, by regulation, requires.[1951]
- Moreover, the commissioners of the soil and water conservation districts affected are required to submit written comments, recommendations, and evaluations of the reclamation plan.[1952]

[1945]Mississippi Surface Mining and Reclamation Law, MISS. CODE ANN. § 53-7-1 et seq. (1990).
[1946]Id. § 53-7-21.
[1947]Id. § 53-7-5(b).
[1948]Id. § 53-7-21.
[1949]Id. § 53-7-23.
[1950]Id. § 53-7-25.
[1951]Id. § 53-7-33.
[1952]Id. § 53-7-33.

- Each permit issued must require the operation to meet all applicable reclamation standards that must require the operator at minimum to—[1953]
  - ◊ conduct operations in a manner consistent with prudent mining practice;
  - ◊ restore the affected area so that it may be used for a useful, productive, and beneficial purpose, such as agricultural, grazing, industrial, or recreational uses;
  - ◊ conduct water drainage and silt control for all the affected areas so as to strictly control soil erosion, damage to adjacent lands, and pollution of streams and other waters;
  - ◊ remove or cover all metal, lumber, and other refuse;
  - ◊ regrade the area to the nearest approximate original contour or rolling topography, and elimination of all highways, spoil piles, and water-collecting depressions;
  - ◊ stabilize and protect all surface areas affected by the mining and reclamation operation sufficiently to control erosion, air, and water pollution;
  - ◊ remove and replace the topsoil, if any, from the land;
  - ◊ fill any auger holes with an impervious material to prevent drainage;
  - ◊ minimize the disturbances to the prevailing hydrologic balance at the main site and in associated offsite areas to the quantity and quality of water in surface and ground water system;
  - ◊ stabilize any waste piles;
  - ◊ in the use of impoundments for the disposal of mine wastes, ensure that leachate will not pollute surface or underground water, and locate impoundments so as not to endanger public health and safety;
  - ◊ ensure that all debris, acid-forming materials, toxic materials or fire hazard materials be treated or disposed of in a manner to prevent surface and underground water contamination;
  - ◊ ensure that construction, maintenance and post-mining conditions of access roads will minimize erosion and siltation, air and water pollution, and damage to fish or wildlife habitat or to public or private property;
  - ◊ refrain from constructing roads or other access ways up a streambed or drainage channel;
  - ◊ revegetate the affected area with plants to attain a useful, productive, and beneficial purpose and assume responsibility for successful revegetation for 2 years beyond the date on which 90 percent of the required bond is released;
  - ◊ ensure the quality and quantity of water in permanent impoundments of water as part of the approved reclamation plan; and
  - ◊ protect offsite areas from slides or damage occurring during the surface mining and reclamation operations, and not deposit spoil material or waste accumulation outside the permit area.

[1953]Mississippi Surface Mining and Reclamation Law, MISS. CODE ANN. § 53-7-35.

- The applicant for a Class I materials permit must file performance bonds with the commission. However, all state agencies and political subdivisions of the State and local governing bodies are exempt from the bonding requirements.[1954]
- The surface mining plan or reclamation plan may be amended in accordance with the commission's regulations. Permits may be transferred at the discretion of the commission.[1955]
- All mining operations are prohibited in National and State parkland.[1956]
- All permittees must—
  - ◊ establish and maintain appropriate records,
  - ◊ make reports to the commission, and
  - ◊ install, use, and maintain any necessary monitoring equipment for the purpose of observing and determining relevant surface or subsurface effects of the mining operation or reclamation program.[1957]

In case of suspension of mining operations, operators must notify the commission within 60 days following the suspension.[1958]

The commission, with assistance of the Mississippi Commission on Wildlife Conservation, must identify and designate certain lands as unsuitable for certain types of surface mining.[1959] Moreover, any person has the right to petition the commission to have an area designated as unsuitable for surface mining or to have such a designation modified, amended or terminated.[1960] The commission has the right to enter at reasonable time to any operation or premises to have access to records and inspect monitoring equipment or methods of operations.

The commission is also required to inspect on an irregular basis at a frequency necessary to ensure compliance.[1961] Moreover, the representatives of the local soil and water conservation district have the right to inspect the operation and reclamation activities to ensure compliance with the permit, provisions of this law, and rules and regulations of the commission.[1962]

The Mississippi Surface Mining and Reclamation law imposes both civil and criminal penalties for violation of any provision of the law or any rules and regulations of the commission.[1963]

The Mississippi Surface Mining and Reclamation law creates a Land Reclamation Fund in the State treasury, to which all payment of fees, loans, grants, penalties, and bond damages (minus attorney's fees) must be deposited. The commission may use this fund for administration and enforcement of this law and for the reclamation of lands affected by operations.[1964]

[1954]MISS. CODE ANN. § 53-7-37.
[1955]Id. § 53-7-43.
[1956]Id. § 53-7-47.
[1957]Id. § 53-7-53.
[1958]Id. § 53-7-73.
[1959]Id. § 53-7-49.
[1960]Id. § 53-7-51.
[1961]Id. § 53-7-55.
[1962]Id. § 53-7-57.
[1963]Id. § 53-7-59, 53-7-61.
[1964]Id. § 53-7-69.

However, the Mississippi Surface Mining and Reclamation law does not apply to mining operations of Class II materials that affect 4 acres or less of land. However, an exempted area of 4 acres or less may not be closer than 1,320 feet to another exempted area of 4 acres or less.[1965] Class II materials include sand, gravel, soil, clay, sand clay, clay gravel, limestone, and chalk.[1966]

Moreover, excavations made by the owner of land for ones own use (not for commercial purposes), where the materials removed do not exceed 1,000 cubic yards per year and 1 acre or less of land is affected, are exempted from the notice requirement.[1967]

A member, agent, or employee of the commission or the local soil and water conservation district cannot disclose—

- ◊ information submitted to it regarding the deposits or materials,
- ◊ information concerning trade secrets, or
- ◊ privileged commercial or financial information that relates to competitive rights of the applicant and specially identified as confidential by the applicant.[1968]

Mississippi Surface Coal Mining and Reclamation law—The Mississippi Surface Coal Mining and Reclamation law, to be administered and enforced by the Bureau of Geology and Energy Resources of the Mississippi Department of Natural Resources was enacted with the following purposes:[1969]

- Assume state exclusive jurisdiction over the regulation of surface coal mining and reclamation operations.
- Develop, implement, and enforce a program that, at a minimum achieves the purposes of the Federal Surface Mining Control and Reclamation Act of 1977 (enacted by Congress as Public Law 95-87, codified as 30 U.S.C. 1201 et seq.).
- Assure that the rights of surface landowners and other persons with a legal interest in the land or its accessories are fully protected from such operations.
- Assure that surface coal mining operations are not conducted where required reclamation is not feasible.
- Assure that adequate procedures are undertaken to reclaim surface areas.
- Assure that appropriate procedures are provided for public participation in the development, revision, and enforcement of state regulations, standards, reclamation plans or programs.
- Assure that the coal supply essential to energy requirements is provided.
- Exercise the full reach of state constitutional powers to ensure the protection of the public interest through effective control of surface coal mining operations.

The Mississippi Surface Coal Mining and Reclamation law requires the Mississippi Commission on Natural Resources to promulgate rules and regulations as it deems

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[1965]MISS. CODE ANN. § 53-7-7(1).
[1966]Id. § 53-7-5(b).
[1967]Id. § 53-7-7(1).
[1968]Id. § 53-7-75.
[1969]Id.

necessary to carry out the purposes and provisions of the Surface Coal Mining and Reclamation law.[1970]

The law creates a number of bodies, including—

- ◊ the Surface Mining and Reclamation Operations Section within the Bureau that has jurisdiction over geological studies and surveys; and[1971]
- ◊ the Surface Mining Review Board, which reviews the actions of the administrator and performs other functions.[1972]

The Review Board's action is subject to judicial review by the chancery court.[1973]

The law prohibits any employee of the department of Natural Resources from having any direct or indirect financial interest in any underground or surface coal mining operations. Those who knowingly violate this prohibition are subject to a fine not exceeding $2,500 or an imprisonment not exceeding 1 year, or both.[1974]

The following provisions are applicable to surface coal mining operations in Mississippi:

- Each person who engages in any type of surface coal mining operation must secure a surface coal mining and reclamation permit.
- A permit is issued for up to 5 years.
- The permit is terminated if the permittee has not commenced the surface coal mining operation covered by the permit within 3 years of issuance.[1975]
- A permit is transferable upon approval of the administrator.[1976]
- A valid permit is renewable[1977] and revisable.[1978]
- Each permit application must be accompanied by—
  - ◊ a fee;
  - ◊ insurance coverage;
  - ◊ blasting plan;
  - ◊ reclamation plan; and
  - ◊ other information.[1979]
- Each permit applicant must file a copy of his or her application for public inspection with the clerk of the chancery court of the county or judicial district where the mining is to occur.[1980]

[1970]MISS. CODE ANN. § 53-9-11.
[1971]Id. § 53-9-13.
[1972]Id. § 53-9-15, § 53-9-77.
[1973]Id. § 53-9-79.
[1974]Id. § 53-9-19.
[1975]Id. § 53-9-21.
[1976]Id. § 53-9-35.
[1977]Id. § 53-9-23.
[1978]Id. § 53-9-35.
[1979]Id. § 53-9-25.
[1980]Id. § 53-9-27.

Before granting a permit, the administrator of the Surface Mining and Reclamation Operations Section must determine whether—[1981]

- ◊ the permit application is accurate and complete and complies with the requirements of the Mississippi Surface Coal Mining and Reclamation law and any other regulations promulgated;
- ◊ the reclamation required by the Mississippi law and promulgated regulations can be accomplished under the submitted reclamation plan;
- ◊ an assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance has been made by the administrator and the proposed operation has been designed to prevent material damage to hydrologic balance outside the permit area;
- ◊ the area proposed for mining is not included within an area designated unsuitable for surface coal mining;
- ◊ in case the private coal estate has been severed from the private surface estate, the written consent of the surface owners to the extraction of coal or a conveyance granting or reserving the right to extraction of coal is submitted by the applicant; and
- ◊ if the area proposed for mining contains prime farmland, the operator has the technological capacity to restore the mined area within a reasonable time to equivalent or higher levels of yield as nonmined prime farmland.

The person responsible for blasting must be trained, examined, and certified.[1982]

A surface coal mining permit requires surface coal mining operations to meet all applicable performance standards.[1983] However, the administrator is authorized to grant departures from performance standards to encourage advances in mining and reclamation practices.[1984]

Each permit issued for underground coal mining must comply with the provisions and regulations set forth specifically for underground coal mining.[1985]

Each person who engages in any type of coal exploration operation must obtain an exploration permit from the administrator prior to conducting such operations. The administrator must keep confidential all information submitted concerning trade secrets or privileged commercial or financial information.[1986]

Each permittee must post a conspicuous sign at the entrance of the surface coal mining and reclamation operation.[1987]

The operator of a surface coal mine must replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where such supply is affected by the contamination, diminution, or

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[1981]MISS. CODE ANN. § 53-9-33.
[1982]Id. § 53-9-87.
[1983]Id. § 53-9-43 For description of performance standards, Id. § 53-9-45
[1984]Id. § 53-9-49.
[1985]Id. § 53-9-47.
[1986]Id. § 53-9-41.
[1987]Id. § 53-9-53.

interruption proximately resulting from the surface coal mining operation.[1988] The Mississippi Surface Coal Mining and Reclamation law imposes both civil[1989] and criminal penalties on violations of different sorts.[1990]

The commission is required to establish a planning process to designate certain lands as unsuitable for surface coal mining operations.[1991]

Any agency, unit or instrumentality of Federal, State, or local government (including any publicly owned utility or publicly owned corporation of Federal, State, or local government) that proposes to engage in surface coal mining operations is subject to the requirements of the Mississippi Surface Coal Mining and Reclamation law.[1992] The law also applies where coal under land owned by the State, the surface rights to which are owned by a surface owner, is to be mined by methods other than underground mining techniques.[1993] However, the following are exempted from this law:[1994]

- The extraction of coal by a landowner for his or her own noncommercial use from land owned or leased by him.
- The extraction of coal as an incidental part of Federal, State, or local government-financed highways or other construction under regulations established by the commission.
- The extraction of coal as an incidental part of other materials where coal does not exceed 16 2/3 percent of the tonnage of materials removed for purposes of commercial use or sale.

Wisconsin (region 4).—Under the Wisconsin Nonmetallic Mining Reclamation provision,[1995] the governing body of a county, city, village, or town is allowed to adopt, by ordinance, regulations for the reclamation of nonmetallic mining sites.[1996] A county nonmetallic mining reclamation ordinance applies to each town within that county and does not require approval of the town board. However, the county ordinance does not apply to a town with a town nonmetallic mining ordinance that is at least as restrictive as the county ordinance.[1997] A local ordinance may apply to any portion of a nonmetallic mining site, including the unreclaimed portion of a site, that was mined before the ordinance became effective,[1998] but does not apply to the whole or any portion of a mining site that is subject to permit and reclamation requirements of the Wisconsin Department of Natural Resources.[1999]

The nonmetallic mining reclamation law does not allow any nonmetallic mining reclamation ordinance to exempt nonmetallic mining operations conducted by or on behalf of the State or a county, city, village, or town, from permit requirements and

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[1988]MISS. CODE ANN. § 53-9-85(2).
[1989]Id. § 53-9-55.
[1990]Id § 53-9-57 through 53-9-61.
[1991]Id. § 53-9-7.
[1992]Id. § 53-9-75.
[1993]Id. § 53-9-83.
[1994]Id. § 53-9-81.
[1995]WIS. STAT. ANN. § 66.038 (West 1990).
[1996]Id. § 66.038(2).
[1997]Id. § 66.038(3)(a).
[1998]Id. § 66.038(3)(b).
[1999]Id. § 66.038(3)(c).

reclamation standards.[2000] However, the ordinance can exempt a number of activities, including—

- ◊ excavations or grading by a person solely for domestic use at his or her residence;
- ◊ excavations or grading conducted for highway construction purposes within the highway right-of-way;
- ◊ grading conducted for farming, preparing a construction site, or restoring land following a flood or natural disaster; and
- ◊ excavations for building construction purposes.[2001]

Furthermore, a nonmetallic mining reclamation ordinance can—

- ◊ establish reclamation standards,
- ◊ require operation and reclamation plans,
- ◊ require a permit and fee, and
- ◊ require a bond or other form of financial insurance conditioned on the faithful performance of all the requirements of the ordinance.[2002]

Iowa (region 5).—The Legislature of Iowa specifically indicates in its laws concerning mining activities that it is the policy of Iowa to "provide for the reclamation and conservation of land affected by surface mining and thereby to preserve natural resources, protect and perpetuate the taxable value of property, and protect and promote the health, safety and general welfare of the people of this state."[2003] The Division of Soil Conservation, Iowa Department of Agriculture and Land Stewardship, is authorized to adopt a plan or rules pursuant to this act; however, a plan or rules setting health and safety standards for surface mining is not valid or effective until it is approved by the Governor.[2004]

The following provisions are applicable to surface mining activities within Iowa:

- All persons, firms, partnerships, or corporations who engage in surface mining or operation of an underground mine(s) must first obtain an annual license from the Division of Soil Conservation.[2005]
- The division may suspend, revoke, or refuse to renew a license for repeated or willful violation of any provision of this act.[2006]
- An operator who engages in mining activities without obtaining a license is subject to an injunction order and a civil penalty of an amount not exceeding $5,000.[2007]

[2000]WIS. STAT. ANN. § 66.038(3)(d).
[2001]Id. § 66.038(3)(e).
[2002]Id. § 66.038(4).
[2003]Mines, IOWA CODE ANN. § 208.1 (West Supp. 1993).
[2004]Id. § 208.30.
[2005]Id. § 208.7. The application, accompanying a $50 license fee, must be submitted to the Division. Id.
[2006]Id. § 208.8. The Act provides that the Division, in its proceedings to suspend, revoke or refuse to renew a license, must follow a certain prescribed procedure. Id.
[2007]Id. § 208.29.

At least 7 days before starting mining activities, an operator must register the mine with the division.[2008] Failure to apply for registration of each mine site constitutes a simple misdemeanor.[2009]

A bond or security must accompany the application for registration.[2010] However, a political subdivision engaging in mining is exempted from the bond or security requirement.[2011] The bond posted by an operator to guarantee reclamation of a site may be forfeited if the operator violates any of the provisions of this act or any rule adopted by the division.[2012] The division must reclaim any surface-mined land, using the proceeds of the forfeiture to pay for the necessary reclamation work.[2013]

An operator may at any time apply for amendment or cancellation of registration of any site.[2014]

If control of an active site or the right to conduct any future mining at an inactive site is acquired by an operator other than the operator holding authorization to conduct surface mining on the site, the new operator must apply for registration of the site in the new operator's name.[2015]

After completion of mining operations, an operator must comply with the reclamation requirements.[2016] Such operator must grade affected lands and provide for the vegetation of the affected lands. Overburden piles where deposition has not occurred for 12 months must be stabilized. Topsoil that is a part of overburden must not be destroyed or buried in the process of mining. However, crushing and stockpile areas in place on July 1, 1985, are not subject to the reclamation requirements, unless those areas continue to function as part of the mine site after July 1, 1988.[2017] Reclamation must be carried out according to a schedule established by the division.[2018] However, the division may extend the time for completing reclamation work if the operator can present to the division satisfactory evidence demonstrating that reclamation of affected land cannot be completed within the specified time without unreasonably impeding removal of mineral products from other parts of an active site or future removal of mineral products from an inactive site.[2019]

An operator must file with the division a periodic report for each mine site under registration.[2020]

[2008]Mines, IOWA CODE ANN. § 208.13. A person who falsifies information required to be submitted in the registration application is guilty of a simple misdemeanor. Id.
[2009]Id. § 208.29.
[2010]Id. § 208.14. For information regarding the form of the bond, Id. § 208.23. For information regarding single bond for multiple sites, Id. § 208.24. For information regarding cancellation of bond, Id. § 208.25.
[2011]Id. § 208.21.
[2012]Id. § 208.28.
[2013]Id.
[2014]Id. § 208.15.
[2015]Id. § 208.16.
[2016]Id. § 208.17.
[2017]Id. § 208.17.
[2018]Id. § 208.19.
[2019]Id. § 208.20.
[2020]Mines, IOWA CODE ANN. § 208.18.

New Mexico (region 6).—In 1979, New Mexico enacted the Surface Mining Act, which is effective until July 1, 2000.[2021] It was enacted with the following purposes:[2022]

- Establish a program to protect society and the environment from the adverse effects of surface coal mining operations.
- Assure that the rights of surface landowners and other persons with a legal interest in the land or appurtenances are fully protected against losses resulting form the improper conduct of such operations.
- Assure that surface mining operations are not conducted where reclamation as required by the act is not feasible.
- Assure that surface coal mining operations are conducted in a way that will protect the environment.
- Assure that adequate procedures are undertaken to reclaim surface areas as contemporaneously as possible with the surface coal mining operations.
- Assure that the coal supply essential to the nation's energy requirements and to its economic and social well-being is provided, and strike a balance between protection of the environment and agricultural productivity and the nation's need for coal.
- Assure that appropriate procedures are provided for public participation in the development, revision, and enforcement of regulations, standards, and reclamation plans or programs.
- Establish a regulatory program appropriate to the terrain, climate, and the biological, chemical, and other physical conditions in areas subject to mining operations.

The provisions of the Surface Mining Act, however, do not apply to the extraction of coal—[2023]

- ◊ by a landowner for ones own noncommercial use from land owned or leased by the landowner; or
- ◊ as an incidental part of Federal, State, or local government-financed highway or other construction under regulations established by the commission.

The act requires all persons to obtain a permit before engaging in or carrying out any surface coal mining operations.[2024] Applicant must meet the permit application requirements, including:

- A fee.[2025]
- A blasting plan.[2026]

[2021]Surface Mining Act, NEW MEXICO STAT. ANN. § 69-25A-1 et seq. (Michie 1979 & Supp. 1993).
[2022]Id. § 69-25A-2 (Michie 1979 & Supp. 1993).
[2023]Id. § 69-25A-31.
[2024]Id. § 69-25A-9(A).
[2025]Id. § 69-25A-10(A).
[2026]Id. § 69-25A-19(F).

- A certificate of insurance or evidence of self-insurance.[2027] However, the director may waive the public liability and self-insurance requirements or may reduce the amount of such insurance.[2028]
- A copy of the candidate's application for public inspection with the county clerk of the county or an appropriate public office approved by the director.[2029]
- Other information, including—[2030]
  - ◊ names and addresses of the permit applicant, every owner of record of the property (surface and mineral) to be mined, holders of record of any leasehold interest in the property, any purchaser of record of the property under a real estate contract, and the operator, if different from the applicant;
  - ◊ names and addresses of the owners of record of all surface and subsurface areas adjacent to any part of the permit area;
  - ◊ a statement of any current or previous surface coal mining permits in the United States held by the applicant;
  - ◊ if the applicant is a partnership, corporation, association or other business entity, where practical, the names and addresses of every officer, partner, director, or person performing a function similar to a director of the applicant, together with the names and addresses of any person owning, of record, ten percent or more of any class of voting stock of the applicant, and a list of all names under which the applicant, partner, or principal shareholder previously operated a surface coal mining operation within the United States within 5 years preceding the date of application submission;
  - ◊ a statement of whether the applicant or any subsidiary or affiliate has ever held a Federal or State mining permit which, in the 5 years prior to the date of submission, has been suspended or revoked or subjected to a bond;
  - ◊ a copy of the applicant's advertisement to be published in a newspaper of general circulation in the locality of the proposed site;
  - ◊ a description of the type and method of coal mining operation, the engineering techniques, and the equipment proposed or to be used;
  - ◊ the anticipated or actual starting and termination dates of each phase of the mining operation and number of acres of land to be affected;
  - ◊ the actual map or plan showing the land to be affected, the area of land within the permit area upon which the applicant has the legal right to enter and commence surface mining operations;
  - ◊ the name of the watershed and location of any surface stream or tributary into which surface and pit drainage will be discharged;
  - ◊ a determination of the probable hydrologic consequences of the mining and reclamation operations;

[2027]NEW MEXICO STAT. ANN. § 69-25A-10(G). For more information on public liability and self-insurance requirements, Id. § 69-25A-11. This certificate is issued by an insurance company authorized to do business in the United States and certifies that the applicant has a public liability policy in force for the surface coal mining and reclamation operations for which the permit is sought. Id.
[2028]Id. § 69-25A-11(B).
[2029]Id. § 69-25A-10(E).
[2030]Id. § 69-25A-10(B).

- ◊ the climatological factors that are peculiar to the locality of the land to be affected at the request of the director;
- ◊ cross-section maps and plans of the land to be affected;
- ◊ a statement of the results of test boring or core samplings from the permit area;
- ◊ a soil survey for those lands in the permit application that a reconnaissance inspection suggests to be prime farmlands; and
- ◊ information regarding coal seams, test borings, core samplings, or soil samples for any person who has an interest that is or may be adversely affected.

A permit is issued for 5 years.[2031] Because a valid permit carries with it the right of successive renewal upon expiration in areas within the boundaries of the existing permit, once it is expired, the permittee may apply for renewal and the renewal must be issued unless the director determines that the terms and conditions of the existing permit are not satisfactorily met and the present surface coal mining and reclamation operation is not in compliance with the act.[2032] However, a permit terminates if the permittee has not begun the surface coal mining operations covered by the permit within 3 years of permit issuance.[2033]

In addition, the act provides that holders of permits issued to conduct surface coal mining operations must meet all applicable performance standards and other requirements promulgated by the commission by regulation.[2034]

Under this act, the coal surface mining commission of nine members is created.[2035] The commission has the following mandatory duties:

- To adopt and file reasonable regulations that are necessary to implement the Surface Mining Act.[2036]
- To promulgate by regulation general performance standards applicable to all surface coal mining and reclamation operations.[2037]
- To promulgate rules and regulations directed toward the surface effects of underground coal mining operations.[2038]
- To inspect and monitor surface coal mining and reclamation operations.[2039]
- To require permittees to—
  - ◊ establish and maintain appropriate records;

[2031]NEW MEXICO STAT. ANN. § 69-25A-9(B).
[2032]Id. § 69-25A-9(D).
[2033]Id. § 69-25A-9(C).
[2034]Id. § 69-25A-19(A).
[2035]Id. § 69-25A-4(A) (Michie Supp. 1993). The seven members include: the director of the Bureau of mines and mineral resources; the director of the Department of Game and Fish; the director of the Environmental improvement division; the chairman of the Soil and Water Conservation Commission; the director of the Agricultural experiment station; the state engineer; the commissioner of public lands; and two public members who will be appointed by the governor with the advice and consent of the senate.
[2036]Id. § 69-25A-5(A).
[2037]Id. § 69-25A-19(B).
[2038]Id. § 69-25A-20.
[2039]Id. § 69-25A-21.

- ◊ make monthly reports to the director;
- ◊ install, use, and maintain any necessary monitoring equipment or methods; and
- ◊ evaluate results in compliance with the rules promulgated by the commission.[2040]

The act authorizes the director to impose and enforce penalties and sanctions on any violator of the act.[2041] However, it allows any permittee who has been issued a notice or order of violation, or any person having an interest which is or may be adversely affected by such notice or order, to apply to the director for review of the notice or order.[2042] In addition, any party to a proceeding before the commission who is aggrieved by the commission's decision may request judicial review in the district court of Santa Fe County.[2043]

Texas (regions 6 & 7).—Under the Texas Surface Coal Mining and Reclamation Act,[2044] the following provisions are applicable to coal mining and reclamation operations in Texas:

- Before surface mining operations, each operator must obtain a permit issued by the Texas Railroad Commission. A permit is issued for a period of up to 5 years. A permit is terminated if the permittee has not started the surface coal mining operation covered by the permit within 3 years of issuance.[2045] A permit is renewable,[2046] revisable, and transferable.[2047] Among other things, each permit applicant must provide—
  - ◊ a permit application fee;[2048]
  - ◊ the permit application;[2049]
  - ◊ a reclamation plan;[2050]
  - ◊ data and maps;[2051]
  - ◊ a blasting plan;[2052]
  - ◊ a determination of the probable hydrologic consequences of the mining and reclamation operation;[2053]
  - ◊ if requested, the published climatological factors that are peculiar to the locality of the affected land;[2054]
  - ◊ information pertaining to coal seams, test borings, core samplings, or soil samples as required;[2055] and

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[2040]NEW MEXICO STAT. ANN. § 69-25A-21.
[2041]Id. § 69-25A-22, § 69-25A-25.
[2042]Id. § 69-25A-29.
[2043]Id. § 69-25A-30.
[2044]TEXAS CIVIL CODE ANN. STAT., Art. 5921-11, § 1 et seq. (West Supp. 1995).
[2045]Id. § 12.
[2046]Id. § 13.
[2047]Id. § 22.
[2048]Id. § 18.
[2049]Id. § 14.
[2050]Id.
[2051]Id.
[2052]Id. § 16.
[2053]Id. § 14.
[2054]Id. § 14.
[2055]Id. § 14.

- ◊ public liability insurance.[2056]

- The permit applicant must file a copy of the application for public inspection.[2057] After a permit has been approved, but before its issuance, the applicant must submit a performance bond to the division.[2058] Moreover, before granting a permit, the division must determine whether—[2059]
  - ◊ the permit application is accurate and complete and complies with the requirements of the Texas Surface Coal Mining and Reclamation Act;
  - ◊ the reclamation required by the act can be accomplished under the submitted reclamation plan;
  - ◊ the commission has made an assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance, and the proposed operation has been designed to prevent material damage to hydrologic balance outside the permit area;
  - ◊ the area proposed for mining is not included within an area designated unsuitable for surface coal mining;
  - ◊ in case the private coal estate has been severed from the private surface estate, the written consent of the surface owners to the extraction of coal or a conveyance granting or reserving the right to extraction of coal is submitted by the applicant;
  - ◊ the proposed surface coal mining operation, if located west of the 100th meridian west longitude, would not interrupt, discontinue or preclude farming on alluvial valley floors; and
  - ◊ if the area proposed for mining contains prime farmland, the operator has the technological capacity to restore the mined area within a reasonable time to equivalent or higher levels of yield than nonmined prime farmland.
- Permits issued to conduct surface coal mining operations require that such operations meet all applicable performance standards.[2060] However, the commission is authorized to grant departures from performance standards to encourage technological advances in mining and reclamation practices.[2061]
- Coal exploration operations that substantially disturb the natural land surface must be conducted in compliance with coal exploration regulations issued by the commission.[2062] Removal of more than 250 tons of coal pursuant to an exploration permit is allowed only with the specific written approval of the commission.[2063]
- Operators who conduct underground coal mining must comply with all applicable provisions of the act and all promulgated rules and regulations.[2064]
- Blasters must be trained, examined, and certified.[2065]

[2056]TEXAS CIVIL CODE ANN. STAT. § 24.
[2057]Id. § 17.
[2058]Id. § 25.
[2059]Id. § 21(b).
[2060]Id. § 23.
[2061]Id. § 36.
[2062]Id. § 27.
[2063]Id.
[2064]Id. § 28.
[2065]Id. § 38.

Under the act, the Railroad Commission of Texas has exclusive jurisdiction over all surface coal mining and reclamation operations[2066] and iron ore and iron ore gravel mining and reclamation operations.[2067] However, jurisdiction over iron ore and iron ore gravel mining and reclamation operations is limited.[2068]

Among other mandatory powers and duties, the commission is required to do the following:

- Promulgate rules regarding the surface coal mining and reclamation operations that are required by this act.[2069]
- Establish, by rule, priorities for the expenditure of the Abandoned Mines Reclamation Fund; designate the land and water eligible for reclamation or abatement expenditure; submit reclamation plans, annual projects, and applications to the appropriate authorities; and administer all money received for abandoned mine reclamation or related purposes.[2070]
- Conduct inspections and monitoring of any surface coal mining and reclamation operations to determine compliance with the act.[2071] Inspection must occur on the irregular basis and occur without prior notice to the permittee.[2072]
- Develop a process for designating areas unsuitable for surface coal mining.[2073]

The act authorizes the commission to enter upon property adversely affected by past coal mining practice to restore, reclaim, abate, control, or prevent adverse effects if the director determines that—

- ◊ the land or water resources have been adversely affected by past coal mining practices;
- ◊ the adverse effects are at a stage where reclamation action should be taken; and
- ◊ the landowner's whereabouts are unknown, or the landowner does not give permission for necessary reclamation.

The money expended for that work is chargeable against the land.[2074] Within 6 months after the completion of reclaiming work, the commission is required to put a lien on the reclaimed land.[2075] However, a lien cannot be filed against property the owner of that—

- ◊ owned the surface prior to 1977, and
- ◊ neither consented to nor participated in nor exercised control over the mining operation that necessitated the performed reclamation.[2076]

[2066]TEXAS CIVIL CODE ANN. STAT. § 4(a).
[2067]TEXAS CIVIL CODE ANN., Art. 5921-11 § 4(b).
[2068]Id. § 4(b). Such jurisdiction does not extend to (1) mining or reclamation operations that occurred in or before 1985; or (2) a mining or reclamation operation which is conducted solely upon real property which is owned in fee simple by the person authorizing the operation or reclamation activity.
[2069]Id. § 6(a). The process of making and amendment rules and issuing permits must follow the Texas Administrative Procedure Register Act. Id. 6(b).
[2070]Id. § 7.
[2071]Id. § 29.
[2072]Id.
[2073]Id. § 33.
[2074]Id. § 8.
[2075]Id. § 9.
[2076]Id.

The commission is empowered to acquire land that is adversely affected by past coal mining practices.[2077] Furthermore, the commission is authorized to spend money from the Abandoned Mine Reclamation Fund for the emergency restoration, reclamation, abatement, control, or prevention of adverse effects of coal mining practices on eligible land.[2078]

The act does not apply to the following:[2079]

- The extraction of coal by a landowner for his or her own noncommercial use from land owned or leased by him.
- The extraction of coal for commercial purpose where the surface mining operation affects 2 acres or less.
- The extraction of coal as an incidental part of Federal, state or local government-financed highways or other construction under regulations established by the commission.
- The extraction of coal as an incidental part of other minerals where coal does not exceed 16 2/3 percent of the tonnage of minerals removed for purposes of commercial use or sale or for coal exploration subject to this act.

The Texas Surface Coal Miming and Reclamation Act imposes both monetary and prison term penalties on violations of different sorts.[2080] Moreover, the act also gives any private person the right to private action to compel compliance.[2081]

This act does not affect any person's water rights. Thus, the operator of a surface coal mine must replace the water supply of an owner of interest in real property who obtains all or part of the supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where such supply is affected by the contamination, diminution, or interruption proximately resulting from the surface coal mining operation.[2082]

In addition to the Surface Coal Mining and Reclamation Act, the Texas Legislature also enacted the Uranium Surface Mining and Reclamation Act.[2083]

Idaho (region 8).—The Idaho Surface Mining Act,[2084] administered by the Board of Land commissioners,[2085] was enacted "to provide for the protection of the public health, safety and welfare, through measure to reclaim the surface of all the lands . . . disturbed by exploration and surface mining operations . . . ."[2086]

Under this act, the board has a number of mandatory duties and powers, including—

◊ administering and enforcing the provisions of this act and promulgated rules and orders;

[2077]TEXAS CIVIL CODE ANN., Art. 5921-11 § 8.
[2078]Id. § 10.
[2079]Id. § 35.
[2080]Id. § 30.
[2081]Id. § 31.
[2082]Id. § 37.
[2083]Id. § 131.001 et seq. (West 1993 & Supp. 1995).
[2084]The Idaho Surface Mining Act, IDAHO CODE ANN. § 47-1501 et seq. (1977 & Supp. 1994).
[2085]IDAHO CODE ANN. § 47-1504 (1977).
[2086]Id. § 47-1501 (1977).

- ◊ conducting and promoting the coordination and acceleration of research, studies, surveys, experiments, demonstrations, and training in carrying out the provisions of this act;
- ◊ adopting and promulgating reasonable rules consistent with and necessary to carry out the act;
- ◊ entering upon affected lands to determine compliance; and
- ◊ reclaiming affected land in which a bond has been forfeited.[2087]

The Idaho Surface Mining Act requires that before carrying out surface mining operations, each operator must submit to the board—

- ◊ a map,
- ◊ a reclamation plan of the operation,[2088] and
- ◊ a performance bond.[2089]

An applicant may amend the reclamation plan by submitting to the board a supplemental plan.[2090] Moreover, an operator who engages in exploration and surface mining operations must comply with the following reclamation procedures:[2091]

- Ridges of overburden must be leveled in such a manner as to have a minimum width of 10 feet at the top.
- Peaks of overburden must be leveled in such a manner as to have a minimum width of 15 feet at the top.
- Overburden piles must be reasonably prepared to control erosion.
- The operator must likewise prepare affected lands and adjacent premises under his or her control to reduce erosion, where water runoff from affected lands results in stream or lake siltation in excess of the normal results from runoff.
- Roads that are abandoned must be cross-ditched to avoid erosion gullies.
- Exploration drill holes must be plugged to eliminate hazards to humans or animals.
- Abandoned affected lands will be topped to control erosion or to foster the growth of the vegetation, which the operator elects to plant.
- The operator must revegetate the mined areas, overburden piles, and abandoned roads.
- Tailing ponds must be reasonably prepared to avoid hazards to humans or animals.

In case of exploration or surface mining operations that disturb less than 2 acres, the operator must contour the disturbed land to about the previous contour of the lands.

[2087]IDAHO CODE ANN. § 47-1505 (Supp. 1994).
[2088]Id. § 47-1506 (Supp. 1994).
[2089]Id.§ 47-1512 (Supp. 1994).
[2090]Id. § 47-1508 (1977).
[2091]Id. § 47-1509 (1977).

The act requires each person who wishes to engage in exploration operations using motorized earth-moving equipment to notify the board as soon as possible (not later than within 7 days) after starting the exploration operation.[2092]

Under this act, the operator must plant on affected lands similar vegetation species to that which grow on such area before exploration and surface mining operations.[2093] The vegetation planting requirement does not apply to—

- ◊ mined areas or overburden piles proposed to be used in the mining operation for haulage roads, provided that such roads are not abandoned;
- ◊ mined areas or overburden piles where lakes are formed by rainfall or drainage runoff from the adjoining lands;
- ◊ mineral stockpile;
- ◊ any exploration trench that will become a part of any pit or overburden disposal area; and
- ◊ roads that the operator intends to use in his or her mining operations, provided that such roads are not abandoned.[2094]

All of the required reclamation activities must be performed in a good and professional manner, with all reasonable diligence. Reclamation activities for exploration drill holes, roads, or trenches must be performed within 1 year after abandonment.

If the operator fails to comply with the provisions of this act, after proper notice of such noncompliance, the performance bond will be forfeited. The forfeiture of such bond will fully satisfy all obligations of the operator to reclaim the affected land.[2095] However, the aggrieved operator is allowed to appeal from the board's order.[2096]

The act provides that the performance bond requirement does not apply to surface mining operations conducted by a public or governmental agency for maintenance, repair or construction of a public highway. Moreover, surface mining operations conducted by a public or governmental agency for maintenance, repair, or construction of a public highway that disturbs less than 2 acres are exempted from the requirement for submission of a map and reclamation plan.[2097]

Utah (region 8).—Under the Utah Coal Mining and Reclamation law,[2098] the following provisions are applicable to coal mining activities:

- Coal exploration operations that substantially disturb the natural land surface must be conducted in compliance with coal exploration regulations issued by the Division of Oil, Gas and Mining.[2099] Removal of more than 250 tons of coal pursuant to an exploration permit is allowed only with the specific written approval of the division.[2100]

[2092]IDAHO CODE ANN. § 47-1506 (Supp. 1994).
[2093]Id.§ 47-1510 (1977).
[2094]Id. § 47-1511 (1977).
[2095]Id. § 47-1513 (Supp. 1994).
[2096]Id. § 47-1514 (1977).
[2097]Id. § 47-1519 (Supp. 1994).
[2098]Utah Coal Mining and Reclamation law, UTAH CODE ANN. § 40-10-1 et seq. (1993 & Supp. 1995).
[2099]Id. § 40-10-8 (Supp. 1995).
[2100]Id.

- Before surface mining operations, each operator must obtain a permit issued by the division pursuant to an approved mining and reclamation program. A permit is issued for up to 5 years. A permit is terminated if the permittee has not started a surface coal mining operation covered by the permit within 3 years of issuance.[2101] Each permit application must be accompanied by—
  - ◊ the permit application fee;
  - ◊ submission of a reclamation plan;
  - ◊ proof of insurance; and
  - ◊ a blasting plan.[2102]
- After a permit has been approved and before its issuance, the applicant must submit a performance bond to the division.[2103] Moreover, before granting a permit, the division must determine whether—[2104]
  - ◊ the permit application is accurate and complete and complies with the requirements of the Utah Surface Coal Mining and Reclamation law and any other regulations promulgated;
  - ◊ the reclamation required by the Utah law and promulgated regulations can be accomplished under the submitted reclamation plan;
  - ◊ an assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance has been made by the administrator and the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area;
  - ◊ the area proposed for mining is not included within an area designated as unsuitable for surface coal mining;
  - ◊ in case the private coal estate has been severed from the private surface estate, the written consent of the surface owners to the extraction of coal, or a conveyance granting or reserving the right to extraction of coal is submitted by the applicant;
  - ◊ the proposed surface coal mining operation would not interrupt, discontinue or preclude farming on alluvial valley floors; and
  - ◊ if the area proposed for mining contains prime farmland, the operator has the technological capacity to restore the mined area within a reasonable time to equivalent or higher levels of yield than nonmined prime farmland.
- Permits issued to conduct surface coal mining operations require that such operations meet all applicable performance standards.[2105]

[2101]Utah Coal Mining and Reclamation law, UTAH CODE ANN. § 40-10-9 (1993).
[2102]Id. § 40-10-10 (Supp. 1995).
[2103]Id. § 40-10-15.
[2104]Id. § 40-10-11.
[2105]Id. § 40-10-17.

Operators who conduct underground coal mining must comply with all applicable provisions of the Utah Coal Mining and Reclamation Act and all promulgated rules and regulations:[2106]

- The operator is required to post signs at operation entrances.[2107]
- Copies of records, reports, inspection materials, or information obtained under this law (except trade secrets or financial or privileged information) must be made public.[2108]
- The division must establish a planning process upon competent and scientifically sound data and information to designate certain lands as unsuitable for surface coal mining operations.[2109] Moreover, the division is authorized to expend moneys from the Abandoned Mine Reclamation Fund to provide for an abandoned mine reclamation program. However, expenditure of moneys from the fund on such programs depends on state priorities. These priorities are in the following descending order of importance—[2110]

  1. The protection of public health, safety, general welfare, and property from extreme danger of adverse effects of coal mining practices.

  2 The protection of public health, safety, and general welfare from danger of adverse effects of coal mining practices.

  3. The restoration of land and water resources and the environment previously degraded by adverse effects of coal mining practices.

  4. Research and demonstration projects regarding the development of surface mining reclamation and water quality control program methods and techniques.

  5. The protection, repair, replacement, construction, or enhancement of public facilities.

  6. The development of publicly owned land adversely affected by coal mining practices.

However, it should be noted that Utah is not liable for any costs or damages resulting from action taken or not taken to carry out an abandoned mine reclamation plan.[2111] Moreover, the division will place a lien against reclaimed land except where the surface owner neither consented to nor participated in nor exercised control over the mining operation that necessitated reclamation work.[2112]

The law does not apply to the following:[2113]

- The extraction of coal by a landowner for his or her own noncommercial use from land owned or leased by him.

[2106]UTAH CODE ANN. § 40-10-18 (Supp. 1995).
[2107]Id. § 40-10-19.
[2108]Id.
[2109]Id. § 40-10-24.
[2110]Id. § 40-10-25 (Supp. 1995). For creation of the Abandoned Mine Reclamation Fund, Id. 40-10-25.1 (Supp. 1995).
[2111]Id. § 40-10-25.2 (1993).
[2112]Id. § 40-10-28 (Supp. 1995).
[2113]Id. § 40-10-5 (1993).

- The extraction of coal as an incidental part of Federal, State, or local Government-financed highways or other construction under regulations established by the division.
- The extraction of coal as an incidental part of other minerals where coal does not exceed 16 2/3 percent of the tonnage of minerals removed for purposes of commercial use or sale or for coal exploration.[2114]

The Utah law prohibits any person performing any function or duty under this act to have any direct or indirect financial interest in any underground or surface coal mining operations. Those who knowingly violate this prohibition are subject to a fine not exceeding $2,500 or an imprisonment not exceeding 1 year, or both.[2115]

This act does not affect any person's water rights. Thus, the operator of a surface coal mine must replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source where such supply is affected by the contamination, diminution, or interruption proximately resulting from the surface coal mining operation.[2116]

Oregon (region 9).—In Oregon, the following provisions are applicable to surface mining and exploration activities:

- Landowners or operators, who engage in surface mining on land after July 1, 1972, must obtain an operating permit for surface mining operations.[2117] The permit application must be accompanied by—
  - ◊ a fee;[2118]
  - ◊ a bond or security deposit (a public or governmental agency does not have to provide bond or security deposit);[2119] and
  - ◊ a reclamation plan.[2120]
- If the permittee fails to comply with the reclamation plan, the department will provide notice of noncompliance and require the permittee to take action to rectify those deficiencies. If the permittee has not begun action to rectify deficiencies as required, the department can perform such work and assess costs against bond or security deposits.[2121]
- Individuals who engage in onshore exploration that disturbs more than 1 surface acre or involves drilling to greater than 50 feet must obtain an exploration permit before engaging in exploration activities.[2122] This requirement does not apply to—
  - ◊ exploration that results in less than 1 acre of surface disturbance or drilling to 50 feet or less,[2123] or

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[2114]UTAH CODE ANN. § 40-10-3 (Supp. 1995). The Laws provide this exemptions by noting including this in its definition of "surface coal mining operations".
[2115]Id. § 40-10-7 (Supp. 1995).
[2116]Id. § 40-10-29 (1993).
[2117]OR. REV. STAT. § 517.790 (1995).
[2118]Id. § 517.800.
[2119]Id. § 517.810.
[2120]Id. § 517.840.
[2121]Id. § 517.860.
[2122]Id. § 517.705.
[2123]Id. § 517.715.

- ◊ an applicant who holds a valid operating permit.[2124]

- All mineral exploration drill holes must comply with the abandonment procedure.[2125]

All provisions applicable to surface mining and exploration activities will not supersede any zoning laws or ordinances in effect on July 1, 1972. However, if such zoning laws or ordinances are repealed on or after that date, these provisions and adopted rules and regulations will hold.[2126] The governing board of the State Department of Geology and Mineral Industries will administer and enforce the provisions of Mineral Exploration and Reclamation of Mining Lands.[2127]

California (region 10).—The Surface Mining and Reclamation Act of 1975 of California[2128] was enacted to create and maintain an effective and comprehensive mining and reclamation policy to ensure that:[2129]

- Adverse environmental effects are prevented or minimized.
- Mined lands are reclaimed to a useable condition that is readily adaptable for alternative land use.
- Production and conservation of minerals are encouraged.
- Residual hazards to public health and safety are eliminated.

This act does not allow the taking of private property for public use without payment of just compensation.

With this act with the understanding surface mining that takes place in diverse areas where geologic, topographic, climatic, biological, and social conditions are significant different, reclamation operations, and specifications may vary accordingly.[2130]

However, the provisions of the Surface Mining and Reclamation Act do not apply to the following activities:[2131]

- Excavation or grading conducted for farming or onsite construction or for the purpose of restoring land following a flood or natural disaster.
- Onsite excavation and earthmoving activities that are an integral and necessary part of a construction project that prepare a site for construction.
- Operation of a plant site used for mineral processing.
- Extraction of minerals for commercial purposes and the removal of overburden in total amounts of less than 1,000 cubic yards in any one location of 1 acre or less.
- Surface mining operation that is required by Federal law to protect a mining claim, if such operations are conducted solely for that purpose.

[2124]OR. REV. STAT. § 517.720.
[2125]Id. § 517.715(2).
[2126]Id. § 517.780.
[2127]Id. § 517.840.
[2128]CALIF. CODE ANN., P.Res. 2710 et seq. (1984 West and 1998 Supp.)
[2129]Id. § 2712
[2130]Id. § 2711
[2131]Id. § 2714 (1998 Supp.)

- Other surface mining operations that the Reclamation Board determines to be of an infrequent nature and that involve only minor surface disturbances.
- The solar evaporation of sea water or bay water for the production of salt and related minerals.
- Emergency excavations or grading conducted by the California Department of Water Resources or the Reclamation Board for emergency purposes.
- Surface mining operations conducted on lands owned or leased by the Department of Water Resources for the purpose of the State Water Resources Development System or flood control.
- Excavation or grading for the exclusive purpose of obtaining materials for roadbed construction and maintenance conducted in connection with timber operations or forest management on land owned by the same person or entity,
- This exemption is limited to—
  - ◊ excavation and grading that is conducted adjacent to timber operation or forest management, and
  - ◊ if slope stability and erosion are controlled[2132] and upon closure of site in consultation with the Department of Forestry and Fire Protection.
- However, this exemption does not apply to onsite excavation or grading that occurs within 100 feet of a Class One watercourse or 75 feet of a Class Two watercourse, or to excavation for material that is sold for commercial purposes.[2133]
- Excavation, grading, or other earthmoving activities in an oil or gas field that are integral to ongoing operations for the extraction of oil or gas that comply with all required conditions.

The Surface Mining and Reclamation Act of 1975 of California also allows any individual to begin action on ones own behalf against the board, the state geologist, or the director for a writ of mandate,[2134] and allow any of them to carry out any duty under the provisions of this act.[2135]

The provisions of this act do not limit the following existing powers and rights:[2136]

- City or county police power to declare, prohibit, and abate nuisances.
- Power of attorney general to bring an action to enjoin any pollution or nuisance.
- Power of state agency to enforce or administer any provision of law that specifically authorized or required to do so.
- Right of any person to maintain appropriate action for relief against any private nuisance[2137] or other private relief.

[2132]CALIF. CODE ANN. § 3704(f) and 3706(d) of Title 14 of the California Code of Regulations
[2133]CALIF. CODE ANN., P.Res. 2710 et seq. 2714 (j)
[2134]Chapter 2 of Title 1 of Part 3 of the Code of Civil Procedure
[2135]CALIF. CODE ANN., P.Res. 2710 et seq. 2716 (1988 Supp.)
[2136]CALIF. CODE ANN., P.Res. § 2715 (1988 Supp.)
[2137]Part 3 of Division 4 of the Civil Code

- Power of lead agency[2138] to adopt policies, standards, or regulations imposing additional requirements on any person if requirements do not prevent the person from complying with the provision of this act.
- City or county power to regulate the use of buildings, structures, and land as between industry, business, residences, open space, and other purposes.

Under this act, the board is required to adopt regulations that establish State policy for the reclamation of mined lands.[2139] The policy must include the following objectives and criteria:[2140]

- Determining the lead agency.[2141]
- Orderly evaluation of reclamation plans.
- Determining the circumstances, if any, under which the approval of a proposed surface mining operation by a lead agency need not be conditioned on a guarantee assuring reclamation of the mined lands.

Based on the State policy, every lead agency must establish mineral resource management policies in its general plan that—

◊ recognize mineral information classified by the state geologist and transmitted by the board;

◊ assist in the management of land use that affect areas of statewide and regional significance; and

◊ emphasize the conservation and development of identified mineral deposits.[2142]

However, before adoption, each lead agency must submit proposed mineral resource management policies to the board for review and comment.[2143]In making land use decisions, the board designates areas as being of regional significance[2144] or of statewide significance.[2145]

Area of regional significance is an area designated by the board known to contain a deposit of mineral, the extraction of which is judged to be of prime importance in meeting future needs for mineral in a particular region of the State and which, if prematurely developed for alternate incompatible land uses, could result in the permanent loss of mineral that is of more than local significance.

Area of statewide significance is similar except uses the phrases "in a Particular State "and" more than local or regional significance."

For more details regarding designation of areas of statewide or regional significance, see section 2790. The lead agency must comply with mineral resource management policies. In balancing mineral values against alternate land uses, the

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[2138]"Lead agency" is the city, county, the San Francisco Bay Conservation and Development Commission, or the board that has the main responsibility for approving a surface mining operation or reclamation plan pursuant to this act. Id. § 2728 (1988 Supp.)
[2139]CALIF. CODE ANN., P.Res. 2710 et seq. 2755
[2140]Id. § 2758
[2141]Id. § 2771
[2142]Id. § 2762(a).
[2143]Id. § 2762(b).
[2144]Id. § 2726.
[2145]Id. § 2727.

lead agency must also consider the importance of mineral to its market region or to the State as a whole.[2146]

To carry out the provisions of this act, the board is authorized to establish districts and appoint one or more district technical advisory committees to advise the board.[2147] In establishing districts and their committees, the board must take into account physical characteristics, such as climate, topography, geology, type of overburden, and main mineral commodities.[2148] In addition, members of the committees must be chosen and appointed on the basis of their professional qualifications.[2149] These members receive no compensation for their services, only actual and necessary expenses incurred in the performance of their duties.[2150]

Under this act, before conducting surface mining operations, all individuals are required to obtain permit from, and submit a reclamation plan for approval by, the lead agency.[2151] The lead agency with proper jurisdiction must make the necessary evaluation of a proposed surface mining operation. In the event that a dispute arises as to which public agency is the lead agency, any public agency that is a party to the dispute may submit the matter to the board. The board will designate which public agency is the lead agency.[2152]

All individuals who own, lease, or otherwise control or operate on all or any portion of mined lands and who plan to conduct surface mining operations thereon must file reclamation plan with the proper lead agency. The reclamation plan must include the following information and documents:[2153]

- The name and address of operator and name(s) and address(es) of the operator's agent(s).
- The anticipated quantity and type of mineral for which the surface mining operation is to be conducted.
- The proposed dates for commencement and termination of the operation.
- The maximum anticipated depth of the surface mining operation.
- The size and legal description of the lands that will be affected by the operation.
- A description of and plan for the type of surface mining to be employed and a time schedule for the completion of surface mining.
- A description of the proposed use or potential uses of the land after reclamation and evidence that owner(s) of possessory interest in the land have been notified to the proposed use or potential uses.
- A description of the manner in which adequate reclamation for the proposed or potential uses will be accomplished.

[2146]CALIF. CODE ANN., P.Res. § 2763.
[2147]Id. § 2740.
[2148]Id. § 2740.
[2149]Id.
[2150]Id. § 2741.
[2151]Id. § 2770
[2152]Id. § 2771
[2153]Id. § 2772

- An assessment of the effect of implementation of the reclamation plan on future mining in the area.
- A statement that the person submitting the plan accepts responsibility for reclaiming the mined lands according with the reclamation plan.
- Any other information that the lead agency may require by ordinance.

Upon receipt of an application for a permit to conduct surface mining operations, the lead agencies must notify the state geologist.[2154] On request of the lead agency, the state geologist must provide technical assistance to assist in the review of reclamation plans.[2155]

The act requires that the reclamation plan must be applicable to a specific piece of property(ies) and based on the character of the surrounding area and property characteristics such as type of overburden, soil stability, topography, geology, climate, stream characteristics, and main mineral commodities.[2156]

Under the act, every lead agency must adopt ordinances in compliance with State policy to establish procedures for the review and approval of reclamation plans and issuance of permits to conduct surface mining operations.[2157] The ordinances must be periodically reviewed by the lead agency and revised, if needed, to ensure that ordinances continue to be in compliance with State policy. Moreover, such reclamation and permit ordinances must establish procedures requiring at least one public hearing and periodic inspections of surface mining operations. However, such ordinances can include provisions for liens, surety bonds, or other security to ensure reclamation according to the reclamation plan.[2158]

The Reclamation Board must review lead agency ordinances and establish permit and reclamation procedures to determine whether each ordinance is in compliance with State policy. The board must then certify the ordinance as being in compliance. The board is required to complete review for certification within 60 days of submittal to the board.[2159]

However, if the board determines that the ordinance is deficient, it must notify the lead agency in writing of the deficiencies. Upon receipt of written deficient notice, the lead agency has 90 days to submit a revised ordinance to the board. The board has another 60 days to complete review for certification. If the lead agency does not submit a revised ordinance within 90 days, the board must assume full authority to review and approve reclamation plans.[2160] If the board again finds the revised ordinance not in compliance, the lead agency has a second 90 days to submit another revised ordinance for review. If the board finds that the ordinance is not compliance or no revision is submitted, the board must then assume full authority to review and approve reclamation plans.[2161] Although reclamation plans approved

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[2154]CALIF. CODE ANN., P. Res. § 2774(b).
[2155]Id. § 2774(c).
[2156]Id. § 2773.
[2157]Id. § 2774(a).
[2158]Id. § 2774(a).
[2159]Id. § 2774.3.
[2160]Id. § 2774.5(a).
[2161]Id. § 2774.5(b).

by the board are not subject to modification by the lead agency at a future date, they may be amended by the board itself.[2162]

Amendments to an approved reclamation plan may be filed detailing proposed changes from the original plan. Substantial deviations from the original plan must be approved by the lead agency.[2163]

Operators who succeed to the interest of another in any surface mining operation by sale, assignment, transfer, conveyance, or exchange will be bound by the provisions of the approved reclamation plan and of this act.[2164]

An individual whose request for permit has been denied by a lead agency may appeal to the board within 15 days of exhausting his or her or her rights to appeal in accordance with the procedures of the lead agency.[2165]

Reclamation plans, reports, applications, and other documents submitted are public records, unless it can be demonstrated to the lead agency that the release of such information is entitled to protection.[2166]

Under the act, the first $1,100,000 of moneys from mining activities on Federal lands disbursed by the U.S. to California must be deposited in the Surface Mining and Reclamation Account in the General Fund.[2167]

Tennessee (regions 11 & 12).—The Tennessee Legislature enacted three particular surface mining laws—

- ◊ Tennessee Mineral Surface Mining Law of 1972,
- ◊ Tennessee Coal Surface Mining Law of 1980, and
- ◊ Tennessee Coal Surface Mining Law of 1987.

Each shall be discussed in turn.

Tennessee Mineral Surface Mining Law of 1972.—Under the Tennessee Mineral Surface Mining Law of 1972,[2168] all individuals interested in engaging in mineral surface mining activities must obtain permits from the commissioner.[2169] All permit applicants must—

- ◊ pay fees,[2170]
- ◊ possess performance bonds,[2171]
- ◊ submit mining and reclamation plans,[2172] and

[2162]CALIF. CODE ANN., P. Res. § 2774.5(d).
[2163]Id. § 2777
[2164]Id. § 2779
[2165]Id. § 2775(a)
[2166]Id. § 2778
[2167]Id. §2795
[2168]Tennessee Mineral Surface Mining Law of 1972, TENN. CODE ANN. § 59-8-201 et seq. (1989 & Supp. 1993).
[2169]Tennessee Mineral Surface Mining Law of 1972, TENN. CODE ANN. § 59-8-205 (1989).
[2170]Id. § 59-8-206.
[2171]Id. § 59-8-207.
[2172]Id. § 59-8-208 (1989 & Supp. 1993).

- ◊ submit a revegetation plan.[2173] The permit holders must file annual reports with the commissioner.[2174] Moreover, if the commissioner notices noncompliance, the performance bonds will be forfeited.[2175]

The commissioner is authorized to enter into public and private lands to determine compliance.[2176] The act imposes both civil and criminal penalties on violators of any provisions of the act or adopted rules.[2177] The commissioner can also seek from the court of competent jurisdiction temporary or permanent relief enjoining violators from engaging in such activities.[2178]

Tennessee has the power to acquire land affected by surface mining.[2179] The act creates the Tennessee Surface Mine Reclamation Fund,[2180] with which the commissioner is authorized to effect reclamation subject to availability of the funds.[2181] Moreover, it specifies that any exploration for minerals that is conducted solely by drilling or any other method which results in a drill hole of a diameter of 6 inches or less must be regulated by the provisions of the Mineral Test Hole Regulatory Act.[2182]

Tennessee Coal Surface Mining Law of 1980—The Tennessee Coal Surface Mining Law of 1980[2183] creates a Board of Reclamation Review that is composed of seven members and has a number of powers and duties, including—

- ◊ hearing appeals from mineral owners, operators, property owners, or other persons with an interest that may be adversely affected by the commissioner's orders, determinations, regulations, permit terms, or rulings;
- ◊ representing the unified interest of the government, industry, environmental groups, and private individuals;
- ◊ requesting such work as is essential to accomplish the purposes of the board; and
- ◊ reviewing the Tennessee surface mining laws and recommending any necessary changes.[2184]

However, in 1991 the provision dealing with the board of reclamation review was appealed, thereby terminating the Board of Reclamation Review.[2185]

The act requires individuals who mine more than 25 tons of coal within 12 successive calendar months, regardless of size of the mine site, to obtain a permit for such mine from the commissioner or the primary regulatory authority.[2186]

[2173]Coal Surface Mining Act of 1987, TENN. CODE ANN. § 59-8-209 (1989).
[2174]Id. § 59-8-210.
[2175]Id. § 59-8-211.
[2176]Id. § 59-8-214.
[2177]Id. § 59-8-222.
[2178]Id. § 59-8-223.
[2179]Id. § 59-8-215.
[2180]Id. § 59-8-212.
[2181]Id. § 59-8-216.
[2182]Id. § 59-8-228.
[2183]Id. § 59-8-301 et seq. (1989 & Supp. 1993).
[2184]Id. § 59-8-321 (1989).
[2185]Id. § 59-8-321 (Supp. 1993), repealed by Acts 1991, ch. 117, § 2(b).
[2186]Id. § 59-8-354.

Tennessee, acting through the department of conservation, has the power to acquire and reclaim land disturbed by past coal mining.[2187] When the commissioner starts to expend money on a project to restore, reclaim, abate, control, or prevent adverse effects of past coal mining practices on private lands, the commissioner may file with the office of the register of deeds to put a lien on such property.[2188]

Moreover, the act also requires all moneys received through the payment of permit and acreage fees, fines, penalties, or the forfeiture of bonds to be deposited to the Tennessee surface mine reclamation fund, which will be used for reclamation and revegetation of land and water affected by mining and exploration operations.[2189]

Tennessee Coal Surface Mining Act of 1987.—The Coal Surface Mining Act of 1987[2190] was enacted to establish a regulatory program that will apply to coal surface mining operations that are exempt from the jurisdiction of the Federal Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. § 1201 et seq.).[2191] Specifically, the Tennessee Surface Mining Act of 1987 does not apply to coal surface mining operations where individuals mine less than 25 tons of coal within 12 successive calendar months, regardless of size of the mine site.[2192]

The commissioner has a number of powers, including—

- ◊ administering and enforcing the provisions of the act and adopted regulations;
- ◊ conducting and obtaining investigations, research, experiments, training programs, and demonstrations relating to surface mining reclamation;
- ◊ promulgating regulations;
- ◊ issuing notices of non-compliance, cease orders, and other orders;
- ◊ examining, approving or disapproving applications for maps, permits, bonds, and mining and reclamation plans;
- ◊ establishing by regulation standards for acceptable mining and reclamation of affected areas;
- ◊ making investigations or inspections necessary to ensure compliance;
- ◊ employing and commissioning qualified surface mine personnel;
- ◊ entering into contracts or other agreements;
- ◊ expending money; and
- ◊ establishing application forms and process.[2193]

The act requires all operators engaging in coal surface mining operations that affect 2 acres or less to obtain from the commissioner a permit which authorizes the

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[2187]Coal Surface Mining Act of 1987, TENN. CODE ANN. § 59-8-324 (1989).
[2188]Id. § 59-8-325.
[2189]Id. § 59-8-326.
[2190]Id. § 59-8-401 et seq. (1989 & Supp. 1993).
[2191]Id. § 59-8-402 (1989). It should be noted that the regulated coal surface mining operation does not include the extraction of coal incidental to the extraction of other minerals where coal does not exceed 16 2/3 percent of the tonnage of minerals removed for the purposes of commercial use or sale. Id. § 59-8-403(4).
[2192]Id. § 59-8-402(a).
[2193]Coal Surface Mining Act of 1987, TENN. CODE ANN. § 59-8-404.

operator to conduct coal surface mining operations on the area described in the application and approved plan.[2194] The permit applicant must—

- ◊ pay a fee and post performance bond,
- ◊ submit a copy of the written determination made by the U.S. Office of Surface Mining declaring that the proposed operation is exempt from the Federal Surface Mining Control and Reclamation Act of 1977,
- ◊ submit a reclamation plan,
- ◊ file a copy of the complete application for public inspection with the register of deeds, and
- ◊ obtain an insurance certificate.[2195]

The permit applicant has the burden of establishing that ones application is in compliance with all the requirements of the program.[2196] In addition, the act requires the permit holder to complete all mining, regrading and initial seeding within 1 year of permit issuance,[2197] and satisfy all applicable performance standards.[2198]

The act provides that before purchasing coal from the operators, all dealers, brokers, or other purchasers of coal must verify that the operator has a valid coal surface mining permit. All dealers, brokers, or other purchasers of coal must keep records of each purchase of coal.[2199] Furthermore, publicly owned mining operations are equally subject to the requirements of this act. However, local governmental entities and State agencies are not subject to the fee or bond requirements.[2200]

[2194]TENN. CODE ANN. § 59-8-406 (1989).
[2195]Id. For more detail provision concerning mining and reclamation plan, TENN. CODE ANN. § 59-8-407 (1989 & Supp. 1993). For more detail provision concerning bond requirement, Id. § 59-8-408 (1989). For more detail provision concerning application fee requirement, Id. § 59-8-418 (1989).
[2196]Coal Surface Mining Act of 1987, TENN. CODE ANN. § 59-8-409 (1989).
[2197]Id. § 59-8-406.
[2198]Id. § 59-8-412.
[2199]Id. § 59-8-419.
[2200]Id. § 59-8-420.

Chapter 10: Organic Waste and Confined Animal Feeding Operations Laws

State organic waste and confined animal feeding operations laws

Of the 17 states surveyed, only Iowa and Oregon have laws dealing with confined animal feeding operations specifically. Many other states make provisions for organic waste and confined animal feeding operations in their water quality and management and air quality laws.

Iowa law simply mandates that all persons who operate feedlots must comply with the applicable departmental rules and zoning requirements. Oregon law is more detailed. The Oregon Confined Animal Feeding Operations (CAFO) law is comprehensive in regulating confined animal feeding operation (CAFO) and water quality. Under this law, all CAFO operations with a waste water disposal system having no direct discharge of pollutants to waters of the state must be covered under a water pollution control facility permit (WPCF). The Oregon Department of Environmental Quality has issued a general permit to cover all existing CAFO facilities that are in compliance with the standards and rules. Existing CAFO's that are in compliance may choose to be either under the general permit or an individual WPCF permit. Furthermore, Oregon CAFO law specifies that any CAFO facility that has a direct discharge of wastewater to surface waters of the State is not eligible for coverage by a WPCF permit. This type of operation must obtain an individual National Pollutant Discharge Elimination System permit.

Iowa (region 5).—Under the Iowa Livestock Feedlots law,[2201] all persons who operate feedlots must comply with the applicable rules of the department[2202] and zoning requirements.[2203]

Oregon (region 9).—The Oregon Legislature enacted the Confined Animal Feeding Operations law primarily to protect water quality. Confined animal feeding operation (CAFO) is defined as the concentrated feeding or holding of animals or poultry in buildings, pens, or lots where the surface has been prepared to support animals in wet weather or where the concentration of animals has destroyed the vegetative cover and the natural filtrative capacity of the soil.

The CAFO law designates the Oregon Department of Environmental Quality (DEQ) to be fully responsible for administering this law. However, in practice, the cooperative agreement between DEQ and the Oregon Department of Agriculture's Soil and Water Conservation Division (S&WCD) also involves the division in the CAFO process.

Under the CAFO law, all CAFO operations with a wastewater disposal system having no direct discharge of pollutants to waters of the State must be covered under a Water Pollution Control Facility (WPCF) Permit. A wastewater disposal system is defined to mean a system that collects, handles, treats, and disposes of liquid waste and/or liquid manure. However, if a CAFO facility has another type of

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[2201]Livestock Feedlots, IOWA CODE ANN. § 172D.1 through 172D.4 (West 1990).
[2202]Id. § 172D.3(2).
[2203]Id. § 172D.4.

waste disposal (a system that handles dry manure), it is not required that the CAFO be permitted under a WPCF permit.

The Oregon Department of Environmental Quality has issued a general permit to cover all existing CAFO facilities that are in compliance with the standards and rules. Existing CAFO's, which are in compliance, may either choose to be under the general permit or obtain an individual WPCF permit. However, CAFO's that are not in compliance with the standards and rules are required to have an individual WPCF permit. There are differences between a general permit and a WPCF permit. Mainly, an individual WPCF permit is more costly to obtain and CAFO's under an individual permit will be closely monitored by DEQ. The division in cooperation with DEQ distributes the general permit, and DEQ issues the individual WPCF permits.

To obtain new CAFO's or to modify or expand existing CAFO's, the DEQ regulations require the interested person to obtain an individual WPCF permit from DEQ. To obtain this permit, a person must submit plans and specifications for the facility and operation along with other information necessary to give a complete and descriptive proposal to DEQ for approval. The submission must include the following:

- Location map.
- Topographic map.
- Climatological data.
- Information regarding occurrence of usable ground water and typical soil types.
- Estimated maximum number and types of animals.
- Detailed plans and specifications.
- Details of feed preparation, storage, handling, and use.
- Land available for manure application.
- Other information as may be required by DEQ.

All waste control facilities and CAFO's are to be designed, constructed, maintained, and operated as follows:

- Such that manure, contaminated drainage water, or other wastes do not enter the water of the State at any time. "Water of the state" is defined to include all bodies of water, whether they are surface or underground, natural or artificial, inland or coastal, fresh or salt, public or private.
- To be in compliance with the "Guidelines for the Design and Operation of Animal Waste Control Facilities".[2204] Moreover, DEQ also recognizes the Oregon Animal Waste Installation Guidebook.

Pollution control tax credits may be available for these facilities. Questions or applications for tax credit will be handled by the DEQ.

Under the CAFO law, the operator desiring a new CAFO or a substantially modified or expanded existing CAFO, which has been permitted under an individual WPCF

[2204]Guidelines for the Design and Operation of Animal Waste Control Facilities, Oregon Administrative Rules, DEQ, § 340-51-040 through 340-51-080.

permit, can file for a general permit after 1 year of operation if compliance has been demonstrated.

Oregon CAFO law specifies that any CAFO facility that has a direct discharge of wastewater to surface waters of the State is not eligible for coverage by a WPCF permit. This type of operation must obtain an individual National Pollutant Discharge Elimination System (NPDES) permit.

Depending on the facilities, permits issued may be required by the Oregon Water Resource Department (WRD). Generally, if an impoundment only stores or treats wastewater from a CAFO, a permit is not required to store or apply the wastewater. However, if clean water is introduced into an impoundment for the purpose of irrigation, permits may be required to store and apply the water. If a storage facility involves a dam or dike that is 10 feet or greater in height or stores 9.2 acre-feet of water or more, plans must be prepared by an Oregon-licensed engineer and be approved by the WRD.

The DEQ and the division have entered into a cooperative agreement for dealing with CAFO complaints. Under this agreement, the division will respond to all complaints to determine their veracity. If the complaint is valid, the Soil and Water Conservation District (SWCD) will offer technical assistance to the CAFO in resolving the pollution program. However, if the CAFO does not make a good faith effort to resolve the violation, the district will refer the CAFO to the division. Moreover, the division will make a final attempt to obtain voluntary cooperation prior to referring the CAFO to the DEQ for enforcement.

Organic waste laws in selected counties

Geographically located within Wisconsin, both Clark County and Adams County have similar ordinances concerning animal waste management. All individuals who design and/or construct, install, reconstruct, enlarge or substantially alter any animal waste facility on land, or who employ others to do the same, are subject to these ordinances. Before commencing any of these described activities, these individuals must procure permits from the zoning administrators. Permit application must include an animal waste storage facility plan, the sketch of the facility and its location, and the location of any wells within 300 feet. However, exemption from the permit requirement is available when one performs emergency repairs affecting the structural integrity of the equipment.

Clark County, Wisconsin (region 4).—The Clark County Animal Waste Storage Facility Ordinance, applicable to the entire geographical area of Clark County,[2205] was adopted by the Clark County Board of Supervisors in 1985 and amended in 1993.[2206] The board recognizes that the storage of animal waste in storage facilities have not met the technical design and construction standards.This causes pollution of the county surface and ground waters, which may result in actual or potential harm to the health of the county residents, livestock, aquatic life, and other animals and plants, and affect the property tax base.[2207]

[2205]Clark County Animal Waste Storage Facility Ordinance, WI § 16.16.050 (1993).
[2206]Clark County Animal Waste Storage Facility Ordinance, ch. 16.16, adopted in 1985 and amended in 1993.
[2207]Id. § 16.16.030.

Under this ordinance, all persons who design or construct, install, reconstruct, enlarge, or substantially alter any animal waste facility on land, or who employ others to do the same, are subject to all provisions of this ordinance.[2208] Individuals who engage in such activities are required to procure a permit from the zoning administrator before beginning these activities.[2209] However, there is an exception to this permit requirement. Emergency repairs affecting the structure integrity of the equipment may be performed without a permit.[2210] Each permit application must include an animal waste storage facility plan detailing a number of factors such as the number and kinds of animals, the duration for which storage is provided; the sketch of the facility and its location, and the location of any wells within 300 feet.[2211] Moreover, the zoning administrator may revoke any issued permit if the permit holder has misrepresented any material fact in the permit application or violated any of the conditions of the permit.[2212]

The permit applicants must comply with the following *setback* standards:

- The setback from wells must be at least 300 feet.[2213]
- The setback from Class A Highways (all State and Federal highways) must be 110 feet from the centerline of the highway or 50 feet from the right-of-way line, whichever is greater.[2214]
- The setback from Class B Highways (all county trunks) must be 75 feet from the centerline of such highway or 42 feet from the right-of-way lines, whichever is greater.[2215]
- The setback from Class C Highways (all town roads, public streets, and highways not otherwise classified as Class A or B) must be 63 feet from the centerline of such highway or 30 feet from the right-of-way line, whichever is greater.[2216]
- Except for open fences, no animal waste facility may be constructed more than 300 feet above the natural grade within the visual clearance triangle. The ordinance demands a visual clearance triangle in each quadrant of every public street intersection, bounded by the street centerlines and line connecting points on them.[2217]
- Animal waste storage facilities must be located at least 300 feet from any navigable water and must be designed to protect navigable waters and drainage ways from accidental spills and runoff from loading areas.[2218]
- The base of above-grade animal waste storage facilities located in a flood plain must be a minimum of 200 feet above the regional flood level.[2219]

[2208]Clark County Animal Waste Storage Facility Ordinance, WI § 16.16.200.
[2209]Id. § 16.16.210.
[2210]Id. § 16.16.340.
[2211]Id. § 16.16.360.
[2212]Id. § 16.16.390 (1993).
[2213]Id. § 16.16.270.
[2214]Id. § 16.16.280.A.
[2215]Id. § 16.16.280.B.
[2216]Id. § 16.16.280.C.
[2217]Id. § 16.16.280.D
[2218]Id. § 16.16.290 (1993).
[2219]Clark County Animal Waste Storage Facility Ordinance, WI § 16.16.300.B. The below-grade animal waste storage facilities are subjected to a separate technical guide standard. Id. § 16.16.300.A.

- All animal waste storage facilities must be located at least 50 feet from a property line.[2220]
- All animal waste storage facilities must be located at least 500 feet from any residential building.[2221]

The ordinance designates the zoning administrator and county conservationist to administer, and the zoning administrator to enforce the provisions of the county ordinance.[2222] In addition to the general delegation of authority, the ordinance provides a number of responsibilities to the administrator (or the county conservationist in case of the administrator's absence), including—

◊ keeping an accurate record of all permit applications, animal waste facility plans, issued permits, inspections;[2223]

◊ reviewing permit applications and issuing permits;[2224]

◊ investigating complaints relating to compliance with the ordinance;[2225]

◊ entering upon lands to inspect the land before or after permit issuance, or both, to determine compliance;[2226] and

◊ issuing an order to stop work upon land that has had a revoked permit or on land currently under investigation.[2227]

To effectuate the compliance, the ordinance further provides penalties for violations. For each violation, violators of the ordinance are subjected to a fine of at least $50 but less than $500 plus costs of prosecution. Each day a violation exists constitutes a separate offense.[2228] In addition to the remedy of imposing a fine, the county may also seek enforcement by court actions seeking injunctions or restraining orders.[2229]

Adams County, Wisconsin (region 4).—The Adams County Board of Supervisors has recently drafted the Adams County Animal Waste Management Ordinance,[2230] which shall be applicable to the entire geographical area of Adams County.[2231] Although, by the time this report was written, the Adams County Board had not adopted the ordinance, and subsequently, its effective date had not yet been determined, the draft of the Adams County Animal Waste Management Ordinance will be discussed in the following paragraphs.

Similar to Clark County's Board, the Adams County Board recognizes that storage of animal waste in storage facilities do not meet technical design and construction standards, thereby, causing pollution of the surface and ground waters of Adams

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[2220]Clark County Animal Waste Storage Facility Ordinance, WI § 16.16.310.
[2221]Id. § 16.16.320.
[2222]Id. § 16.16.400.
[2223]Id. § 16.16.410.A.1.
[2224]Id. § 16.16.410.A.2 (1993).
[2225]Id. § 16.16.410.A.3.
[2226]Id. § 16.16.420.
[2227]Id. § 16.16.430.
[2228]Id. § 16.16.440.
[2229]Id. § 16.16.450.
[2230]Adams County Animal Waste Ordinance, WI § 1.01 et seq. (1995).
[2231]Id. § 1.05.

County, which may result in actual or potential harm, or both, to the health of the county residents, livestock, and its property tax base.[2232]

Similar to the Clark County Animal Waste Management Ordinance, it provides that all persons who construct, install, reconstruct, enlarge, or substantially alter an animal waste storage facility on land, or who employ other persons to do the same, are subject to all provisions of this ordinance.[2233] It specifies that all persons who undertake any of the above activities must obtain a permit from the county conservationist before beginning the proposed activity.[2234] However, the permit requirement may be exempt if emergency repairs such as repairing a broken pipe or equipment, leaking dikes, or the removal of stoppages are required. Moreover, if such repairs will alter the original design and construction of the facility significantly, a report must be made to the county conservationist within 1 day of the emergency for the conservationist to determine whether a permit is required or not.[2235]

Similar to Clark County's Animal Waste Management Ordinance, the Adams County Ordinance also requires applicants to include an animal waste storage facility plan in the permit application.[2236] The Adams County Ordinance requires that the applicant provide a number of specifications in the animal waste storage facility plan. Moreover, interestingly, these specifications required by Adams County are almost identical to those required by Clark County.[2237] However, different from the Clark County Ordinance, the Adams County Ordinance further requires the permit application to include a nutrient management plan.[2238] Moreover, the nutrient management plan must specify a number of factors, including—

- ◊ plans for use of animal waste, including the amount of land available for application of waste;
- ◊ identification of the areas where the waste will be used;
- ◊ soil types and any limitations on waste application because of soil limitations; and
- ◊ type and proximity of bedrock or water table, slope of land, and proximity to surface water.[2239]

[2232]Adams County Animal Waste Ordinance, WI § 1.03.
[2233]Id. § 3.01.
[2234]Id. § 5.01.
[2235]Id. § 5.02.
[2236]Id. § 5.04.
[2237]Compared between Clark Animal Waste Ordinance § 16.16.360 (1993) and Adams County Animal Waste, draft § 5.04 (1995).
[2238]Adams, animal, draft § 5.04 (1995).
[2239]Compared between Clark Animal Waste Ordinance § 16.16.360 (1993) and Adams County Animal Waste, draft § 5.05.

Organic waste and confined animal feeding operations laws in selected townships

Several townships in Lancaster County, Pennsylvania, enacted ordinances for confined animal feeding. They all require residents interested in activities that involve animal waste facilities to obtain a permit before engaging in such activities. These ordinances also require applicants to submit an animal waste storage facility plan to the zoning administrator.

Bart Township, Lancaster County, PA (region 1).—The Zoning Ordinance of Bart Township provides that within the Non-Agricultural Conservation District, no manure storage can be established closer than 100 feet of any property line.[2240]

Brecknock Township, Lancaster County, PA (region 1).—The Township of Brecknock Zoning Code provides that all manure storage structures must be constructed in compliance with the Natural Resources Conservation Service specifications.[2241] Moreover, all inground manure pits are required to have a 6-foot fence enclosing them.[2242]

Caernarvon Township, Lancaster County, PA (region 1).—In 1987, the Board of Supervisors of the Township of Caernarvon enacted the Caernarvon Township Animal Waste Ordinance.[2243] The ordinance requires all persons who erect or construct an animal waste storage facility to obtain permit from the board.[2244] The board can issue such permit only after a determination that the proposed construction and operation will not adversely affect the health, safety, and welfare of the residents of Caernarvon Township.[2245]

All persons who wish to install, erect, or construct an animal waste storage facility and the owners of the land where such facility is placed are responsible for the following regulations:[2246]

- Animal waste storage facilities must be designed in compliance with the guidelines in the publication "Manure Management for Environmental Protection" and any revisions or supplements published by the Pennsylvania Department of Environmental Resources.
- All animal storage facility designs must be reviewed by the Lancaster County Conservation District.
- Construction and subsequent operation of such facility must be in accordance with the permit and the approved design.
- Animal waste storage facilities cannot be located closer than 150 feet from all property lines and street right-of-way lines.

[2240]Zoning Ordinance of Bart Township, Lancaster County, PA, adopted in 1970, *amended* in 1989, § 1201.
[2241]Township of Brecknock Zoning Ordinance, ch. 110, § 110-38.A.(2) (1993).
[2242]Id. § 110-38.A.(3).
[2243]Caernarvon Township Animal Waste Ordinance, Ordinance No. 44, Lancaster County, PA § 1 et seq. (1987).
[2244]Id. § 3.
[2245]Id. § 5.
[2246]Id. § 6.

- Animal waste storage facilities must be designed so as to prevent access by livestock, pets, and children.
- A fence must surround uncovered animal waste storage facilities.[2247]

However, these regulations may be wavered by the board if the applicant can show the following—

◊ compliance is unreasonable,

◊ compliance causes hardship as it applies to this particular property, or

◊ an alternative proposal will allow for equal or better results.[2248]

The board is required to issue a written Cease and Desist Order to individuals who violate any provision of this ordinance, ordering the violators to cease and desist such violations within 24 hours. However, failure to issue such order will not constitute a defense to prosecution or other enforcement action.[2249]

Violators of any provision of the ordinance are imposed a fine of not more than $300 and the cost of prosecution. Each additional day's violation constitutes a separate offense.[2250] Moreover, in addition or in lieu of the described penalties or remedies, the board may also institute actions at law or equity for damages or for injunctive relief or for any other appropriate relief.[2251]

East Lampeter Township, Lancaster County, PA (region 1).—Under the East Lampeter Township Zoning Ordinance, waste storage facilities are permitted as an accessory use on a farm.[2252] However, this use is subject to a number of requirements. They are as follows:

- Waste storage facilities must be designed in accordance with the guidelines outlined in the publication "Manure Management for Environmental Protection" issued by the Pennsylvania Department of Environmental Resources.
- The Lancaster County Conservation District must review waste storage facility designs.
- Construction and subsequent operation of the waste storage facility must be in compliance with the provisions of the zoning permit and the approved design.
- Waste storage facilities must not be located within 500 feet of any building being used for human habitation; not within 300 feet of any property or street right-of-way lines. However, this limitation does not prevent the location of the waste storage facilities within 500 feet from any building used for human habitation on the property of the landowner.

Finally, the ordinance specifies that the commercial keeping and handling of poultry, livestock, and other domestic or wild animal cannot be maintained on lots

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[2247]Fences must be (1) at least 6 feet high, measured from ground floor outside the facility; (2) with linear openings no greater than 3 inches; and (3) composed of wood, metal or other durable material at least equivalent in strength of wood or metal, sufficient to prevent access by livestock, pets and children. Id.
[2248]Caernarvon Township Animal Waste Ordinance, Ordinance No. 44, Lancaster County, PA
[2249]Id. § 8.
[2250]Id. § 9.
[2251]Id. § 10.
[2252]East Lampeter Township Zoning Ordinance, PA § 1809 (1991).

of less than 10 acres within the R-1, R-2, and R-3 Residential Districts, the C-1 and C-2-Commercial Districts, and the Industrial District.[2253]

Eden Township, Lancaster County, PA (region 1).—Waste storage facilities are regulated under the Zoning Ordinance of Eden Township.[2254] Interestingly, similar to that of East Lampeter Township, the Eden Township Ordinance permits waste storage facilities as an accessory use to a farm, subject to almost identical requirements. The Eden Township Ordinance requires that such facilities be located no closer than 150 feet from all property lines and street right-of-way lines.[2255]

Ephrata Township, Lancaster County, PA (region 1).—In 1983, the Township of Ephrata enacted the Ephrata Township Animal Waste Ordinance[2256] that forbids any erection or construction of an animal waste storage facility without obtaining a permit from the Board of Supervisors.[2257]

The ordinance provides that all individuals who wish to erect, install, or construct animal waste storage facility, and the owners of property where such facility is located must comply with the following regulations:[2258]

- All animal waste storage facilities must be designed in accordance with the guidelines outlined in the most recent edition of Technical Guide Section IV of the U.S. Department of Agriculture, Soil Conservation Service Engineering Standards.
- Animal waste storage facility designs must be reviewed and approved by the Lancaster County Conservation District before permit issuance.
- Construction of an animal waste storage facility must be in compliance with the permit and the approved design.

In addition, the ordinance provides that all violators of any provisions of the ordinance are subject to a fine of no more than $100 plus the cost of prosecution. Each additional day's violation constitutes a separate offense.[2259]

Little Britain, Lancaster County, PA (region 1).—The Zoning Ordinance of the Township of Little Britain provides that no person can construct a manure storage facility until the property owner obtains a permit from the zoning officer.[2260] The zoning officer must issue the permit if determined that the health, safety, and welfare of the residents of Little Britain Township will not be adversely affected by the proposed construction and operation of a manure storage facility and receives the required documentation.[2261]

[2253]East Lampeter Township Zoning Ordinance, PA § 1809 (1991).
[2254]Eden Township Zoning Ordinance, PA § 1053 (1989).
[2255]Id. § 1053 (1989).
[2256]Ephrata Township Animal Waste Ordinance, PA § 1 et seq.
[2257]Id. § 3.
[2258]Id. § 6.
[2259]Id. § 7.
[2260]Zoning Ordinance, Township of Little Britain, PA. § 814.a.
[2261]Id. § 814.c.

All persons who wish to install a manure storage facility and the owners of the property where such facility is located are subject to the following regulations:[2262]

- The manure storage facility must be located in a place to provide maximum efficiency of the selected manure handling system without prohibiting future expansion of the barn and other permanent construction. The considerations in site section include—
  - ◊ the site should be well drained and not subject to flooding or wet weather fluctuations in the water table that might result in ground water pollution;
  - ◊ storage facility must be constructed in ways that will lead to low permeability to decrease the possibility of environmental contamination;
  - ◊ the storage facility should be at least 100 feet from the source of water supply and preferably downhill from it, 200 feet from any property line or right-of-way, and 300 feet from neighboring dwellings; and
  - ◊ in a dairy operation, the facility should be a reasonable distance from a milking center, and where possible, on the opposite side of the barn.
- Manure storage facilities must be designed in accordance with the guidelines outlined in the Manure Management for Environmental Protection publication.
- Manure storage facility designs must be reviewed and approved by the Lancaster County Conservation District.
- Construction and subsequent operation of the manure storage facility must be in compliance with the permit and the approved design.
- All manure storage facilities must be walled or fenced to prevent uncontrolled access by children. Such barriers must not be less than 4 feet high and maintained in good condition.

Pequea Township, Lancaster County, PA (region 1).—In 1989, the Board of Supervisors of the Township of Pequea enacted the Pequea Township Livestock and Poultry Manure Management Ordinance[2263] to ensure that poultry or livestock operations within the township are not mismanaging nutrients and are not contributing to the pollution of the Chesapeake Bay.[2264]

Livestock or poultry operations that exist before or on the effective date of this ordinance (December 11, 1989) are not subject to the provisions of this ordinance except if—

- ◊ the concentration of livestock or poultry raised by such operation exceeds normal seasonable changes; or
- ◊ the storage, handling, or disposal of manure of the application of fertilizer by operation is in violation of the applicable standards, and that such violation is causing or is substantially threatening to cause pollution to ground or surface waters.[2265]

All other operations (including the new operations and those subject to the ordinance) are required to obtain a permit from the township before operation. An

[2262]Zoning Ordinance, Township of Little Britain, PA. § 814.d.
[2263]Pequea Township Livestock and Poultry Manure Management Ordinance, No. 79, PA § 1 et seq. (1989).
[2264]Id. § 2.
[2265]Id. § 4.

operation is not considered as a new operation because of transfer of ownership or change in make-up of proportionate shares of ownership within the operation.[2266]

To obtain a permit, the applicant must submit a Nutrient Management Plan, describing the Nutrient Management Program. The program is the "schedule of activities undertaken or to be undertaken by a person required to obtain a permit for the minimization of pollution to ground or surface waters through the management of animal waste and fertilizer."[2267] The ordinance requires the Nutrient Management Plan to include the following information:[2268]

- The number of livestock or poultry being raised or expected to be raised on the tract of land to be permitted.
- The amount of manure expected to be generated from the raised livestock or poultry during 1year.
- A statement of the planned disposition of the manure amount indicated.
- A scaled map(s) indicating the location or expected locations of all structures where livestock or poultry are, or will be raised, and all structures and field where manure is proposed to be stored or applied.
- If any land that is used for receipt of manure or disposal is not owned by the person maintaining the livestock or poultry operation, a written consent of such ownership permitting the application or disposal of manure by the livestock or poultry operation is required.
- A written Soil Conservation Farm Plan developed for the land on which manure is proposed to be stored or applied.

The Nutrient Management Plan must comply with the criteria set forth in the Manure Management for Environmental Protection publication issued by the Department of Environmental Resources of Pennsylvania.[2269] Moreover, all operations and facilities must comply with the Pequea Township Zoning Ordinance and any other applicable township ordinances.[2270]

Salisbury Township, Lancaster County, PA (region 1).—The Zoning Ordinance of Salisbury Township allows commercial poultry operations in the Agricultural Zone as a special exception.[2271] However, as a special exception, it is subject to a number of criteria. They are as follows:

- The minimum lot area must be 10 acres.[2272]
- Any area used for the housing of poultry must be setback at least 200 feet from all property lines and 500 feet from any residential zone.[2273]
- The applicant must provide evidence from the Lancaster Conservation District that the proposed use has an approved manure management plan that complies with the PA-DER Manure Management for Environmental Protection

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[2266]Pequea Township Livestock and Poultry Manure Management Ordinance, No. 79, PA § 5.A.
[2267]Id. § 3.
[2268]Id. § 6.A.
[2269]Id. § 6.B.
[2270]Id. § 6.D.
[2271]Zoning Ordinance of Salisbury Township, PA § 417.1.
[2272]Id. § 417.2.
[2273]Id. § 417.3.

publication. Moreover, all subsequent operations conducted on the site must strictly adhere to this approved manure management plan.[2274]

Application for special exception requires compliance of the following requirements:

- Filing requirements.[2275]
- The proposed use must be consistent with the purpose and intent of the Zoning Ordinance.[2276]
- The proposed use must not detract from the use and enjoyment of adjoining or nearby properties.[2277]
- The proposed use will not substantially alter the character of the subject property's neighborhood.[2278]
- Adequate public facilities are provided to serve the proposed use.[2279]
- If the proposed use is within the flood plain zone, all requirements for the flood plain zone must be complied.[2280] The proposed use must comply to all applicable regulations set forth in this ordinance.[2281]
- The proposed use must not substantially impair the integrity of the Township's Comprehensive Plan.[2282]

Finally, in approving special exception applications, the Zoning Hearing Board may attach conditions considered essential to protect the public welfare and the ordinance's purposes, including conditions that are more restrictive than those established for other uses in the same zone.[2283]

Warwick Township, Lancaster County, PA (region 1).—In 1988, the Warwick Township Livestock and Poultry Manure Management Ordinance was enacted.[2284] The Warwick Township Livestock and Poultry Manure Management Ordinance is identical to that of Pequea Township.

[2274]Zoning Ordinance of Salisbury Township, PA § 417.4.
[2275]Id. § 604.3.a. This process includes—
◊ the building permit information;
◊ ground floor plans and elevations of proposed structures;
◊ names and addresses of adjoining property owners including properties directly across a public right-of-way;
◊ a scaled or dimensioned drawing (site plan) of the site with sufficient detail and accuracy to demonstrate compliance with all applicable provisions of the Ordinance; and
◊ a written description of the proposed use in sufficient detail to demonstrate compliance with all applicable provisions of the Ordinance. Id. All site plan presented in support of the special exception must become an official part of the record for the special exception. Id. § 604.3.d.
[2276]Zoning Ordinance of Salisbury Township, PA § 604.3.b(1).
[2277]Id. § 604.3.b)2).
[2278]Id. § 604.3.b)3).
[2279]Id. § 604.3.b)4). Public facilities include schools, fire, police and ambulance protection, sewer, water and others.
[2280]Id. § 604.3.b)5).
[2281]Id. § 604.3.b)6).
[2282]Id. § 604.3.b)7).
[2283]Id. § 604.3.c).
[2284]Warwick Township Livestock and Poultry Manure Management Ordinance § 201 et seq. (1988).

Nutrient laws

Under the 17 states' laws, all persons who want to sell, offer for sale, or distribute any commercial fertilizer or soil conditioner must obtain a fertilizer permit and license from an authorized official. Each brand and grade of commercial fertilizer must be registered prior to distribution. All commercial fertilizer distributed in containers must comply with labeling requirements. All persons who sell or offer for sale any commercial fertilizer must pay an inspection fee. All licensees must furnish to the authorized official a report showing the number of tons of each grade of fertilizer sold in each county of the state. The authorized official has the mandatory duty to sample, inspect, and test commercial fertilizers or soil conditioners distributed within the state. To carry out his or her duty, the official is allowed to enter upon public or private premises or carriers to determine compliance with the laws. If the analysis shows that the commercial fertilizer is deficient in one or more of its guaranteed primary plant nutrients beyond the *investigational allowances* as established by regulation, a penalty will be imposed. In the event of violation of the law or any promulgated rule or regulation pursuant to such laws, the official can issue and enforce a *stop sale, use, or removal* order. However, persons aggrieved or adversely affected by the authoritative person's decision can appeal such decision to the court of competent jurisdiction. Moreover, any lot or quantity of commercial fertilizer not in compliance with any provisions of the laws or adopted rules and regulations will be subject to suspension from sale, seizure, and condemnation.

However, the states are slightly different as to the allowed percentage of *primary plant nutrients guaranteed analysis.* For example, for Georgia, superphosphate cannot contain less than 18 percent available phosphoric acid. Mixed fertilizer cannot contain less than a total of 20 percent nitrogen, available phosphoric acid and potash. For Wisconsin, mixed fertilizer must have the sum of the guaranteed nitrogen, available phosphoric acid and soluble potash totaling 24 percent or more.

Delaware (region 1).—Under the Delaware Commercial Fertilizer and Soil Conditioner Law of 1971,[2285] the following provisions are applicable to all activities concerning fertilizers within Delaware:

- Each brand and grade of commercial fertilizer must be registered before any distribution in Delaware. Registration application must be accompanied by—
  - ◊ a fee of $1.15 per brand and grade, or $28.75 for each package containing 10 pounds or less, and
  - ◊ various informational data.[2286]
- All commercial fertilizers distributed in containers must comply with the labeling requirements.[2287]

[2285] Delaware Commercial Fertilizer and Soil Conditioner Law of 1071, DEL. CODE ANN. § 2101 et seq. (1985 & Supp. 1992).
[2286] Id. § 2104 (Supp. 1992).
[2287] Id. § 2105. For more details on the labeling requirements, Id.

- All commercial fertilizers or soil conditioners distributed in Delaware must pay an inspection fee at the rate of $0.10 per ton.[2288]
- All persons are prohibited from distributing misbranding[2289] or adulterated commercial fertilizers or soil conditioners.[2290]

The Secretary of the State Department of Agriculture has the mandatory duty to sample, inspect, and test commercial fertilizers or soil conditioners distributed within Delaware. To carry out his or her duty, the secretary is authorized to enter upon any public or private premises or carriers to determine compliance with the act.[2291] Moreover, if—

- ◊ the analysis shows that a commercial fertilizer is deficient in one or more of its guaranteed primary plant nutrients (NPK) beyond the "investigational allowances" as established by regulation, or
- ◊ the overall index value of fertilizer is below the level established by regulation, a penalty of 2.3 times the commercial value will be imposed.[2292]

For the purpose of determining the commercial value, the secretary is required to determine and publish annually the values per unit of nitrogen, available phosphoric acid, and soluble potash in commercial fertilizers.[2293] Moreover, the Secretary is authorized to prescribe and enforce rules and regulations regarding to investigational allowances, definitions, records, and the distribution of commercial fertilizers and soil conditioners as deemed necessary to effectuate the act.[2294]

In the event that violation of the act or any promulgated rule or regulation takes place, the secretary can issue and enforce a "stop sale, use or removal" order.[2295] However, persons aggrieved or adversely affected by the secretary's decision may appeal such decision to the court of competent jurisdiction.[2296] Moreover, any lot or quantity of commercial fertilizer not in compliance with any provisions of the Delaware Commercial Fertilizer and Soil Conditioner Law of 1971 or adopted rules and regulations will be subject to suspension from sale, seizure, and condemnation.[2297]

The act is to be administered by the State Department of Agriculture.[2298] This act does not restrict or void sales or exchanges of commercial fertilizers between manufacturers, processors, or shipment of fertilizers to manufacturers or processors.[2299]

[2288]DEL. CODE ANN. § 2106.
[2289]Id. § 2110.
[2290]Id. § 2111.
[2291]Id. § 2107.
[2292]Id. § 2108 (Supp. 1992).
[2293]Id. § 2109 (1985).
[2294]Id. § 2113.
[2295]Id. § 2116.
[2296]Id. § 2120. Such appeal must be on the record and limited to a determination as to whether the Secretary has abused the discretion. Id.
[2297]Id. § 2117 (1985).
[2298]Id. § 2102.
[2299]Id. § 2121.

Maryland (region 1).—The administration of the Maryland Commercial Fertilizer law[2300] belongs to the state chemist subject to the supervision of the Secretary of the State Department of Agriculture.[2301] The secretary has the mandatory obligation to enforce this law; after proper notice and public hearing, the secretary can adopt reasonable rules and regulations necessary to secure the efficient administration of this law.[2302] To pay for administration expenses, a fund is created that shall consist of any registration or inspection fee and penalties/fines.[2303]

The secretary is required to publish annually information concerning fertilizers and soil conditioners[2304] and to sample, inspect, test, and make analyses of any commercial fertilizer and soil conditioner.[2305] The secretary has the discretion to enter any public or private premises to obtain access to commercial fertilizer or soil conditioners or to records relating to their distribution.[2306]

The law requires all distributors to register each brand and grade of commercial fertilizer and each soil conditioning product before distributing it in the State and to pay a registration fee.[2307] If requested by the secretary, the registration application must be accompanied by a label or other printed matter describing the product.[2308] Registration expires annually on January 31.[2309]

However, the law provides two exemptions from the registration requirement. The distributor does not have to register—

- ◊ the brand and grade of commercial fertilizer or product name of soil conditioner if such has been registered by another person, provided that the product label has not been changed or altered, or
- ◊ the commercial fertilizer is mixed or blended according to a formula furnished by a consumer, provided that the distributor labels the fertilizer in the order and form (distributor must register if the fertilizer is mixed in advance of receipt of the customer's specific order).[2310]

[2300]Maryland Commercial Fertilizer Law, MD. CODE ANN., AGRI. § 6-201 to 6-220 (1985 & Supp. 1994).
[2301]Id. § 6-202 (1985).
[2302]Id. § 6-203.
[2303]Id. § 6-204 (1985).
[2304]Id. § 6-205.
[2305]Id. § 6-206(a).
[2306]Id. § 6-206(e) (1985 & Supp. 1994).
[2307]Id. § 6-207(a) (1985 & Supp. 1994). In 1994, the Maryland Legislature increased the annual registration and inspection fees for each brand and grade of commercial fertilizer and for each soil conditioner as follows:

	As of 1984	As of 1989
General registration fee	$10	$15
General inspection fee	20 cents per ton	25 cents per ton
– Registration fee: distributed in packages of 10 lb or less	$25	$30
– Inspection fee: distributed in packages of 10 lb or less	0	0
– Registration fee: distributed in packages of 10 lb or less and in packages over 10 lb	$25	$30
– Inspection fee: distributed in packages of 10 lb or less and in packages over 10 lb	20 cents per ton	25 cents per ton

Id. § 6-208 (1985 & Supp. 1994).
[2308]MD. CODE ANN., AGRI. § 6-207(b) (1985 & Supp. 1994).
[2309]Id. § 6-207(c).
[2310]Id. § 6-207(d).

The law requires all persons who register any commercial fertilizer or soil conditioner to furnish the secretary with a semiannual written statement of the tonnage of each grade of commercial fertilizer or each soil conditioner distributed in Maryland.[2311] If the registrant fails to file the required statement, a collection fee of 10 percent of the amount, or a minimum of $10 must be paid.[2312]

In addition, all distributors in Maryland must label each brand and grade fertilizer and soil conditioner legibly.[2313] All persons are prohibited from distributing an adulterated or misbranded fertilizer or a misbranded soil conditioner.[2314] The secretary will impose on the registrant a penalty equal to two times the value of the actual shortage if determined that the consumer possesses any commercial fertilizer or soil conditioner short in weight.[2315]

In enforcing this law, the secretary has a number of options:

- Issue a stop-sale order.[2316]
- Petition the county circuit court to condemn and confiscate the commercial fertilizer or soil conditioner not in compliance with this law.[2317]
- Grant a temporary or permanent injunction restraining the person from violating or continuing to violate this law.[2318]

The law also provides that when the secretary reports a violation of this law to the state's attorney, the state's attorney must institute appropriate judicial proceedings without delay.[2319] However, the secretary does not have to report minor violations for prosecution or for institution of condemnation proceedings if the public interest can be served best by a suitable written warning notice.[2320]

Pennsylvania (region 1).—On April 19, 1995, the Nutrient Management Advisory Board of Pennsylvania adopted the Recommended Nutrient Management Regulations to present to the State Conservation Commission for formal adoption as proposed regulations.[2321] The Nutrient Management Regulations will be discussed in the *recommended* form.

The Nutrient Management Regulations were created with these purposes:[2322]

◊ Assuring the proper utilization and management of nutrients on concentrated animal operations (CAO's).

◊ Encouraging the proper utilization and management of nutrients on other agricultural operations.

◊ Protecting the quality of surface water and ground water.

[2311]MD. CODE ANN., AGRI. § 6-209(a).
[2312]Id. § 6-209(b) (1985 & Supp. 1994).
[2313]Id. § 6-210 (1985).
[2314]Id. § 6-211 (Supp. 1994).
[2315]Id. § 6-212 (1985).
[2316]Id. § 6-214(a) (Supp. 1994).
[2317]Id. § 6-214(c) (Supp. 1994).
[2318]Id. § 6-217 (1985).
[2319]Id. § 6-216(a).
[2320]Id. § 6-216(b).
[2321]Recommended Nutrient Management Regulations, adopted by Nutrient Management Advisory Board, April 19, 1995, § 83.201 et seq.
[2322]Id. § 83.203.

The regulations identify a CAO as an agricultural operation where the animal density exceeds two AEUs per acre on an annualized basis.[2323] AEU per acre is defined as an animal equivalent unit per acre of cropland or acre of land suitable for application of animal manure.[2324]

The regulations require a CAO to submit to the State Conservation Commission a nutrient management plan within one year after the effective date of the Regulations.[2325] For a CAO installed after the effective date of the regulations, a nutrient management plan must be submitted within three months, or before the start of manure operations, whichever is later.[2326] All plans and plan amendments must be developed by certified nutrient management specialists.[2327]

The nutrient management plan must include the following:

- An agricultural operation identification sheet, including—
  - ◊ operator's name, address, and telephone number;
  - ◊ county(ies) of land included in the plan;
  - ◊ watershed(s) of land included in the plan;
  - ◊ total acreage of the agricultural operation included in the plan;
  - ◊ total acreage of land on which nutrients will be applied;
  - ◊ number of AEU's per acre on the agricultural operation; and
  - ◊ name(s) of the nutrient management specialists that prepared the plan.[2328]
- Maps or aerial photographs of sufficient scale, identifying—
  - ◊ the location and boundaries of the agricultural operation;
  - ◊ individual field boundaries under the plan;
  - ◊ field number and acreage of each field;
  - ◊ the identification of all soil types and slopes on the agricultural operation; and
  - ◊ location of areas where manure application may be limited.[2329]
- A summary, identifying nutrient application rates by field or crop group and procedures and provisions for the utilization of proper disposal of excess manure.[2330]
- A determination of the amounts, types and sources of nutrients available to be applied to the soil of the agricultural operation.[2331]

[2323]Recommended Nutrient Management Regulations, adopted by Nutrient Management Advisory Board, April 19, 1995 § 83.212.
[2324]Id. § 83.201.
[2325]Id. § 83.211(a).
[2326]Id. § 83.211(b).
[2327]Id. § 83.211(e).
[2328]Id. § 83.223(a).
[2329]Id. § 83.201 et seq. § 83.223(b).
[2330]Id. § 83.224.
[2331]Recommended Nutrient Management Regulations, adopted by Nutrient Management Advisory Board, April 19, 1995, § 83.231(a). For method to determine the amount and nutrient content of manure to be applied on the agricultural operation, Id. § 83.231(b).

- A table including the acreage and realistic expected crop yields for each crop group.[2332]
- Nutrient application procedures.[2333]
- A verification of the adequacy of existing erosion and sedimentation control practices on fields, croplands, and pastures.[2334]
- A plan for stormwater runoff controls in animal concentration areas.[2335]
- A reasonable implementation schedule, identifying when the necessary capital improvements and management changes will be made.[2336]

In the preparation of a plan, the nutrient management specialist must review the existence of or potential for sources of water contamination due to the inadequacy of existing manure handling, collection, storage, and spreading practices.[2337] Such sources include but are not limited to—

◊ manure, contaminated water or nutrients, or both, leaving manure storage or animal concentration areas and directly entering surface water or ground water;

◊ the inadequate control of stormwater flow into manure storage facilities, manure storage areas, and animal concentration areas;

◊ manure storage facilities overflowing or maintained at levels above freeboard heights;

◊ manure storage facilities which are inadequately sized for projected manure production and expected application periods;

◊ leaking or unstable manure storage facilities.[2338]

Once the review has been conducted, the specialist must certify that preparation of the plan was undertaken in compliance with the regulations.[2339]

The regulations provide that the following Best Management Practices (BMP's) can be used to protect water quality and to control water in farmstead, manure storage, and animal concentration areas:[2340]

- Manure storage facilities including permanent manure stacking areas.
- Adequate collection of manure from animal concentration areas for use on cropland or for other acceptable uses.
- Diversion of contaminated runoff within animal concentration areas to a storage, lagoon, collection basin, vegetated filter area, or another suitable site or facility.
- Diversion or elimination of contaminated water sources.

[2332]Recommended Nutrient Management Regulations, adopted by Nutrient Management Advisory Board, April 19, 1995 § 83.231§ 83.232(a).
[2333]Id. § 83.234.
[2334]Id. § 83.261(a).
[2335]Id. § 83.261(b).
[2336]Id. § 83.271.
[2337]Id. § 83.251(a).
[2338]Id. § 83.251(a).
[2339]Id. § 83.251(b).
[2340]Id. § 83.251(c).

- Temporary manure stacking areas, provided that they are located outside concentrated waterflow areas and areas where manure application is restricted or prohibited.
- Other appropriate BMP's acceptable to the commission or the delegated conservation district.

The regulations allow an approved nutrient management plan to be transferred to a subsequent owner or operator of an agricultural operation by notifying the commission of the transfer, unless the transfer results in operational changes.[2341]

The regulations provide that for agricultural operations other than CAO's, the plan must specify the following:[2342]

- Estimated amount of the manure to be used.
- Intended reason(s) for the manure usage.
- Alternative manure usage methods such as—
  - ◊ land application by known importers;
  - ◊ transfer through a manure broker;
  - ◊ use on the agricultural operation in a manner other than land application; or
  - ◊ marketing through an open advertising system.

Alabama (region 2).—Entrusting the administration of the Alabama Fertilizer Law of 1969[2343] to the Commissioner of Agriculture and Industries of Alabama,[2344] the Alabama Legislature provides that the following provisions are applicable to all activities concerning fertilizers:

- All persons who want to sell or offer for sale or exchange any commercial fertilizer must first obtain a fertilizer dealer permit from the commissioner.[2345]
- All persons who want to sell or offer for sale any commercial fertilizer, or sell such fertilizer for importation into Alabama must apply for and obtain from the commissioner a license authorizing the sale of commercial fertilizer.[2346]
- All commercial fertilizers sold in or for importation into Alabama for use in containers must comply with the labeling requirements.[2347]
- All persons who sell or offer for sale in or for importation into Alabama any soil conditioner or soil amendment for which label (or labeling) claims are made must comply with all of the similar requirements applicable to the sale of commercial fertilizers.[2348]

[2341]Recommended Nutrient Management Regulations, adopted by Nutrient Management Advisory Board, April 19, 1995, § 83.333.
[2342]Id. § 83.241.
[2343]Alabama Fertilizer Law of 1969, ALA. CODE § 2-22-1 et seq. (1975 & Supp. 1993).
[2344]Id. § 2-22-3 (1975).
[2345]Id. § 2-22-4. Permit application must be accompanied by $1 fee and permit expires on September 30 of each year.
[2346]ALA. CODE § 2-22-5. License application must be accompanied by a fee (fee is based upon the number of tons of commercial fertilizer sold in or for importation into Alabama) and expires on September 30 of each year.
[2347]Id. § 2-22-7. For a more detailed description of the labeling requirements, ld.
[2348]Id. § 2-22-8.

- All persons who sell or offer for sale any commercial fertilizer in or for importation into Alabama for use must pay an inspection fee at the rate of no more than $0.50 per ton.[2349]
- All licensees must furnish the commissioner with a report showing the number of tons of each grade of fertilizer sold in each county in Alabama semiannually.[2350]

The commissioner has the mandatory duty to sample, inspect, and make analyses of and test commercial fertilizers distributed within Alabama.[2351] To carry out his or her duty, the commissioner is authorized to enter upon any public or private premises or carriers to determine compliance with the act.[2352] Moreover, if the analysis shows that a commercial fertilizer is deficient in one or more of its guaranteed primary plant nutrients (NPK) beyond the tolerances as established by regulations adopted by the State Board of Agriculture and Industries, a penalty as promulgated by the board will be imposed.[2353]

The act provides that the Board of Agriculture and Industries is authorized to—

- ◊ establish standards of classification for commercial fertilizer;
- ◊ define and adopt standards for the sale of specialty fertilizers together with conditions and restrictions under which they may be sold; and
- ◊ establish standards and minimum guarantees for plant nutrients other than nitrogen, phosphorus, and available potassium.[2354]

Moreover, it is authorized to adopt and promulgate reasonable rules and regulations concerning the sale and distribution of commercial fertilizers necessary to carry out the full intent and meaning of the act.[2355]

Any lot or quantity of commercial fertilizer not in compliance with any provisions of the Alabama Fertilizer Law of 1969 or adopted rules and regulations will be subject to suspension from sale, seizure, and condemnation.[2356] Moreover, it should be noted that violations of the act or promulgated rules or regulations will be deemed misdemeanors, and the commissioner can apply to a circuit court for injunctive relief to restrain such violations.[2357]

This act does not restrict or void sales or exchanges of commercial fertilizers between manufacturers, processors, or shipment of fertilizers to manufacturers or processors.[2358]

Georgia (region 2).—The Legislature of Georgia enacted two acts pertinent to nutrients management. They are the Georgia Plant Food Act of 1970 and the Georgia Soil Amendments Act of 1976. Each shall be discussed in turn.

[2349]ALA. CODE § 2-22-9 (Supp. 1993).
[2350]Id. § 2-22-10 (1975).
[2351]Id. § 2-22-11(a).
[2352]Id. § 2-22-11(b).
[2353]Id. § 2-22-12.
[2354]Id. § 2-22-15.
[2355]Id. § 2-22-20.
[2356]Id. § 2-22-21.
[2357]Id.
[2358]Id. § 2-22-23.

The Georgia Plant Food Act of 1970.—Under the Georgia Plant Food Act of 1970,[2359] the following provisions are applicable to all activities regarding commercial fertilizers in Georgia:

- Each company guaranteeing commercial fertilizer marketed in Georgia must register with the state.[2360]
- All brands and grades of specialty fertilizer offered for sale, sold or distributed in Georgia must be registered.[2361]
- Any person who wants to become a registrant must first obtain a license before engaging in such business.[2362]
- All nonresident registrants must comply with the Georgia Department of Agriculture Registration, License, and Permit Act before selling or offering for sale their products in Georgia.[2363]
- All commercial fertilizers distributed in containers must comply with labeling requirements.[2364]
- Registrants must pay an inspection fee at the rate of $0.30 per ton.[2365]
- All registrants selling commercial fertilizers must furnish the Commissioner of Agriculture with a confidential statement of the net tonnage of each grade of fertilizer sold by them.[2366]
- The minimum nutrient content must be satisfied.[2367] Superphosphate cannot contain less than 18% available phosphoric acid. Fixed fertilizer cannot contain less than a total of 20% nitrogen, available phosphoric acid, and potash.[2368]

The commissioner is required to sample, inspect, make analysis of, and test all commercial fertilizers distributed in Georgia. To carry out his or her duty, the commissioner is authorized to enter upon any public or private premises or carriers to determine compliance with the act.[2369] Moreover, if an official sample shows that a commercial fertilizer is deficient in one or more of its guaranteed primary plant nutrients (NPK) beyond the investigational allowances set forth, a penalty of 10 percent of the commercial value plus two times the difference in the found commercial value and the guaranteed commercial value will be imposed.[2370]

The commissioner is authorized to prescribe and enforce rules and regulations regarding the distribution of commercial fertilizers and soil conditioners as deemed necessary to effectuate the act. In the event violation of the act or any promulgated rule or regulation takes place, the commissioner can issue and enforce a *stop sale,*

[2359]Georgia Plant Food Act of 1970, GA. CODE ANN. § 2-12-1 through 2-12-22 (1990).
[2360]Id. § 2-12-4(a).
[2361]Id. § 2-12-4(b).
[2362]Id. § 2-12-4(c). A new registrant is required to pay a license fee of $50, and thereafter, an annual fee based on the tonnage volume.
[2363]Id. § 2-12-5.
[2364]Id. § 2-12-6.
[2365]Id. § 2-12-8.
[2366]Id. § 2-12-9.
[2367]Id. § 2-12-10.
[2368]Id. Slag blends and complete fertilizers branded for use on tobacco are exempted; however, such blends must contain not less than 15 percent plant food and tobacco fertilizers must be labeled in accordance with regulations covering tobacco fertilizers. Id.
[2369]Id. § 2-12-7.
[2370]Id. § 2-12-11.

use, or removal order.[2371] Moreover, any lot or quantity of commercial fertilizer not in compliance with any provisions of the Georgia Plant Food Act of 1970 or any adopted rule or regulation will be subject to suspension from sale, seizure, and condemnation.[2372]

This act does not restrict or void sales or exchanges of commercial fertilizers between manufacturers, processors, or shipment of fertilizers to manufacturers or processors.[2373]

Georgia Soil Amendments Act of 1976.—Under the Georgia Soil Amendments Act of 1976,[2374] which is administered by the Commissioner of Agriculture,[2375] the following provisions are applicable to activities involving soil amendments:

- Every soil amendment distributed in Georgia must be registered with the commissioner.[2376]
- Each registrant must keep accurate records of his or her sales and file semiannual reports with the commissioner.[2377]
- Every soil amendment container must be labeled on the face or side, conspicuously showing—
  - ◊ the product name,
  - ◊ a statement of claim or purpose,
  - ◊ adequate directions for use,
  - ◊ the net weight or volume, and
  - ◊ the name and address of the registrant.[2378]

The commissioner is authorized to—

- ◊ enter upon public or private premises for the purpose of inspecting, sampling, or analyzing soil amendment to determine compliance with this act;[2379] and
- ◊ to promulgate and adopt rules and regulations as may be necessary to enforce this act.[2380]

The act prohibits the following activities:[2381]

- Unregistered soil amendment.
- Unlabeled soil amendment.
- Misbranded soil amendment.
- Adulterated soil amendment.
- Noncompliance with a stop, sale, use, or removal order.

[2371]Georgia Plant Food Act of 1970, GA. CODE ANN. § 2-12-19.
[2372]Id. § 2-12-20.
[2373]Id. § 2-12-16.
[2374]Id. § 2-17-71 et seq. (1982).
[2375]Id. § 2-17-72.
[2376]Id. § 2-17-73.
[2377]Id. § 2-17-75.
[2378]Id. § 2-17-76.
[2379]Id. § 2-17-78.
[2380]Id. § 2-17-80.
[2381]Id. § 2-17-79.

- Noncompliance with the semiannual reporting requirement.

The commissioner is authorized to issue and enforce a stop sale, use, or removal order to the owner or custodian of any lot of soil amendment that does not comply with the Soil Amendments Act.[2382] The commissioner can also petition the Superior Court of the appropriate county for an injunction restricting the violation or threatened violation of this act.[2383] Violation of any provision of this act or regulations adopted pursuant to this act constitutes a misdemeanor.[2384]

Arkansas (region 3).—Under the Arkansas Fertilizers law,[2385] the following provisions are applicable to all activities regarding fertilizers:

- All manufacturers, jobbers, and manipulators of commercial fertilizers and of fertilizer materials to be used in the manufacture of fertilizer must be registered annually with the State Plant Board before selling or offering for sale in Arkansas.[2386]
- Before selling or offering for sale complete fertilizer or fertilizer materials, all persons, companies, manufacturers, dealers, or agents must brand, print or attach to each bag or other container a set of statements.[2387]
- Commercial fertilizer or fertilizer material offered for sale in Arkansas must meet the guaranteed analysis requirement. If there is a deficiency of at least 3 percent but not more than 5 percent, the violating person will be liable for the actual deficiency as shown by the official analysis. However, if the deficiency is over 5 percent, then the penalty will be three times the amount of the total deficiency.[2388]
- All manufacturers and manipulators or agents who have registered their brands in compliance with the registration requirement must furnish the State Plant Board with a monthly tonnage report.[2389]

The Arkansas Fertilizers law by no means—

- ◊ restricts or prohibits sales of superphosphate or any other fertilizer materials to one another by importers, manufacturers, or manipulators who mix materials for sale, or
- ◊ prevents the free and unrestricted shipment of materials to manufacturers who have registered their brands.[2390]

After public hearing, the board can promulgate a list of approved ratios and minimum grades or grades of mixed commercial fertilizers sufficient to meet the agricultural needs of the state. However, specialty fertilizers will be exempt from the ratio and minimum grade or grade requirements. A specialty fertilizer is any fertilizer distributed primarily for nonfarm use (such as for home gardens, lawns,

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[2382]GA. CODE ANN. § 2-17-81.
[2383]Id. § 2-17-82.
[2384]Id. § 2-17-83.
[2385]ARK. CODE ANN. § 2-19-201 through 2-19-210 (Michie 1987 & Supp. 1991).
[2386]Id. § 2-19-202 (Michie Supp. 1991).
[2387]Id. § 2-19-205 (Michie 1987).
[2388]Id. § 2-19-206.
[2389]Id. § 2-19-209 (Michie 1987).
[2390]Id. § 2-19-204 (Michie 1987).

shrubs, flowers, golf courses, municipal parks, cemeteries, greenhouses, and nurseries), including fertilizers used for research or experimental purposes.[2391]

The State Plant Board is authorized to establish rules and regulations regarding the enforcement of the Arkansas Fertilizers law and regarding inspection, analysis, and sale of fertilizer or fertilizer material. The board can also stop the sale of any fertilizer or fertilizer material when the sale is in violation of the Arkansas Fertilizers law or the board's promulgated rules or regulations.[2392]

In addition to the Fertilizers law, the Arkansas Legislature also enacted the Soil Amendment Act of 1977,[2393] to be administered by the State Plant Board,[2394] after acknowledging that the "introduction of certain substances into the soil . . . endangers the soil of Arkansas, and poses a severe threat to the health, safety, and welfare of the people of Arkansas."[2395] Soil amendment is defined to mean any substance that is intended to improve the physical, chemical, or other characteristics of the soil or improve crop production, except commercial fertilizers, agricultural liming materials, agricultural gypsum, unmanipulated animal manure, topsoil, unmanipulated vegetable manure, pesticides, and herbicides.[2396]

The Soil Amendment Act requires that each container of a soil amendment must comply with the labeling requirement[2397] and each soil amendment product must be registered with the board before distribution.[2398] All registrants must—

- ◊ pay an inspection fee on all registered products,
- ◊ keep records of sales, and
- ◊ furnish monthly tonnage reports to the board.[2399]

Moreover, the act specifies that a person violates this act if he or she—

- ◊ distributes a soil amendment if it is not registered and not labeled;
- ◊ distributes a misbranded or adulterated soil amendment;
- ◊ fails to comply with a stop-sale, use, or removal order; and
- ◊ fails to pay the inspection fee.[2400]

[2391]ARK. CODE ANN. § 2-19-202 (Michie Supp. 1991).
[2392]Id. § 2-19-210 (Michie 1987).
[2393]Id. § 2-19-401 through 2-19-414.
[2394]Id. § 2-19-404.
[2395]Acts 1977, No. 377, § 15.
[2396]Id. § 2-19-402(1).
[2397]Id. § 2-19-407.
[2398]Id. § 2-19-408.
[2399]Id. § 2-19-410.
[2400]Id. § 2-19-411.

Mississippi (region 3).—Under the Mississippi Soil and Plant Amendment Law of 1978,[2401] which is administered by the commissioner,[2402] the following provisions are applicable to fertilizing material and additives in Mississippi:

- All containers or accompany bulk shipments of soil or plant amendments must comply with the labeling requirement.[2403]
- Each separately identified product must be registered before distribution, unless the brand of soil or plant amendment is already registered under this act by another person, provided that the label and labeling do not differ in any respect.[2404] The commissioner and state chemist are authorized to refuse or cancel registration.[2405]
- All registrants must pay an inspection fee and file a tonnage report with the commissioner.[2406]

The commissioner and state chemist have the duty to sample, inspect, make analyses of, and test soil or plant amendments distributed within Mississippi.[2407] The methods of analyses and sampling must be those adopted by the state chemist.[2408] If the analyses show there is a deficiency in the guaranteed analysis beyond the "investigational allowances" as provided by the regulation, the registrant will be subject to a penalty three times the commercial value of such deficiency.[2409] Moreover, the commissioner and state chemist are authorized to adopt and enforce rules and regulations necessary to carry out the Mississippi Soil and Plant Amendment law.[2410]

The act prohibits distribution of misbranded or adulterated soil or plant amendments.[2411]

Wisconsin (region 4).—Under the Wisconsin Fertilizer law, the following provisions are applicable to the distribution of fertilizer:

- Each packaged fertilizer (including packaged custom-mixed fertilizer) must comply with the labeling requirement before distribution.[2412]
- Each person must obtain annual license before manufacturing or distributing fertilizer. However, the licensing requirement does not apply to persons who distribute only—
  - ◊ fertilizer material to manufacturers for further manufacturing;
  - ◊ packaged fertilizer in the original container of a licensed manufacturer or distributor as packaged and labeled by him; and

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[2401]Mississippi Soil and Plant Amendment Law of 1978, MISS. CODE ANN. § 69-24-1 et seq. (1991).
[2402]Id. § 69-24-3.
[2403]Id. § 69-24-7.
[2404]Id. § 69-24-9.
[2405]Id. § 69-24-11
[2406]Id. § 69-24-13.
[2407]Id. § 69-24-15.
[2408]Id. § 69-24-15.
[2409]Id. § 69-24-17.
[2410]Id. § 69-24-27.
[2411]Id. § 69-24-19, § 69-24-21.
[2412]WIS. STAT. ANN. § 94.64(2) (West 1990 & Supp. 1993).

- ◊ bulk fertilizer obtained for resale purpose from a licensee and labeled as required.[2413]

- All inspection and research fees must be paid.[2414] Research fees will be collected into a fertilizer research fund that will be used for research on soil management, soil fertility, and plant nutrition problems and for research on ground water programs, which may be related to fertilizer usage; for dissemination of the research results; and for other designated activities promoting the correct usage of fertilizer materials.[2415] However, the payment of inspection and research fees does not apply to sales or exchanges of fertilizer between manufacturers who mix fertilizer material for sale.[2416]
- Mixed fertilizer must have the sum of the guarantees for nitrogen, available phosphoric acid and soluble potash totaling 24 percent or more, unless—
  - ◊ the mixed fertilizer is exempted from this requirement by the department; or
  - ◊ the mixed fertilizer is a nonagricultural or special use fertilizer and the person secures a permit from the Wisconsin Department of Agriculture authorizing its distribution as nonagricultural or special-use fertilizer.[2417]
- In addition to the filing of tonnage reports for inspection and research fees, each licensee must furnish to the department a report of the tonnage of each grade of fertilizer sold annually.[2418]

The department is authorized to establish rules and regulations regarding the enforcement of the Wisconsin fertilizer law and regarding inspection, sample, and analysis of distribution of fertilizer. Fertilizer that is not in compliance with the fertilizer law will be subject to seizure and disposition.[2419]

In addition to the fertilizer law, the Wisconsin Legislature also enacted a number of provisions pertaining to soil and plant additives.[2420] Under this law, the following provisions are applicable to manufacturing and distribution of soil or plant additives:

- Every soil or plant additive must comply with the labeling requirement before its manufacture or distribution.[2421]
- Each person must obtain an annual license from the department before manufacturing or distributing a soil or plant additive.[2422]
- Each person must obtain a separate permit from the department for the distribution of each soil or plant additive. However, the permit requirement does not apply to—
  - ◊ a person who distributes a soil or plant additive for which a permit has been issued to a permit holder; or

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[2413]WIS. STAT. ANN. § 94.64(3) (West 1990 & Supp. 1993).
[2414]Id. § 94.64.
[2415]Id. § 94.64(8m) (West 1990).
[2416]Id. § 94.64(6).
[2417]Id. § 94.64(3m) (West 1990 & Supp. 1993).
[2418]Id. § 94.64(5).
[2419]Id. § 94.64(5).
[2420]Id. § 94.65 (West 1990 & Supp. 1993)
[2421]Id. § 94.65(5) (West 1990).
[2422]Id. § 94.65 (West 1990 & Supp. 1993).

- ◊ land-spreading of sewage sludge under a pollutant discharge elimination system permit issued by the Wisconsin Department of Natural Resources.[2423]

- Each fertilizer permit holder must file with the department a tonnage report of fertilizer distribution annually.[2424]

The Wisconsin Fertilizer law provides that, as a condition to the issuance of a permit, the department can require the applicant to substantiate—

- ◊ the efficacy and usefulness of the soil or plant additive if applied under the conditions recommended by the applicant; and
- ◊ the truthfulness of any statement made on the proposed soil or plant additive label or in a permit application.[2425]

In addition to other powers, the department is authorized to promulgate rules to implement and administer the Wisconsin Fertilizer law.[2426]

Iowa (region 5).—The Iowa Legislature enacted the Iowa Fertilizer Law,[2427] under which it designated the administration of the act to the Secretary of Agriculture.[2428] The following provisions are applicable to all activities regarding commercial fertilizers and soil conditioners:

- All persons who manufacture, mix, blend, or mix to customer's order any fertilizer or soil conditioner in Iowa must first obtain a license from the Secretary.[2429] Such license application must be accompanied by a $10 fee and the license must be renewed annually.[2430] Only those with licenses are permitted to add pesticides to commercial fertilizers.[2431]
- All brands and grades of commercial fertilizers and soil conditioners must be registered before being offered for sale, sold, or distributed in Iowa. Commercial fertilizer formulated according to special specifications furnished by a consumer is exempted from the registration requirement; however, it must be labeled accordingly.[2432]
- All commercial fertilizers offered for sale, sold, or distributed in containers must comply with the labeling requirement.[2433]
- Licensees must pay to the secretary inspection fees of not more than $0.20 per ton for all commercial fertilizers and soil conditioners sold or distributed in Iowa.[2434]
- The minimum nutrient contents must be satisfied. Phosphate fertilizer cannot contain less than 18 percent available phosphoric acid. Nitrogen fertilizer cannot contain less than 15 percent of total nitrogen. Potash fertilizer cannot contain less than 15 percent of soluble potash. Mixed fertilizer cannot contain

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[2423]WIS. STAT. ANN. § 94.65(3) (West 1990).
[2424]Id. § 94.65(6) (West 1990 & Supp. 1993).
[2425]Id. § 94.65(4) (West 1990).
[2426]Id. § 94.65(9).
[2427]Iowa Fertilizer Law, IOWA CODE ANN. § 200.1 et seq. (West 1987 & Supp. 1993).
[2428]Id. § 200.2 (West 1987).
[2429]Id. § 200.2 (West 1987).
[2430]Id. § 200.4 (West Supp. 1993).
[2431]Id. § 200.7 (West 1987).
[2432]Id. § 200.5 (West 1987).
[2433]Id. § 200.6.
[2434]Id. § 200.8 (West Supp. 1993).

less than total 20 percent of total nitrogen, available phosphoric acid, and soluble potash.[2435]

The act prohibits individuals from manufacturing, offering for sale, or selling in Iowa, any commercial fertilizer or soil conditioners that contain any substance used as a filler that is injurious to crop growth or deleterious to the soil, or used to defraud the purchaser.[2436]

The act creates a fertilizer fund composed of fees collected for licenses and inspection, not including those fees collected for deposit in the agriculture management account of the ground water protection fund.[2437]

The secretary is required to sample, inspect, make analysis of, and test all commercial fertilizers distributed in Iowa.[2438] To carry out this duty, the secretary is authorized to enter upon any public or private premises or carriers to determine compliance of the act.[2439] The secretary is also authorized to refuse to register or cancel the registration of any commercial fertilizer or soil conditioner or license if the registrant or licensee has used fraudulent or deceptive practices, or willfully violates any provisions of this act or rules and regulations promulgated.[2440]

The secretary is authorized to adopt rules setting forth minimum general safety standards for the design, construction, location, installation, and operation of equipment for storage, handling, transportation by tank truck or tank trailer, and use of anhydrous ammonia. Moreover, the secretary is authorized to adopt and promulgate reasonable rules necessary to carry out the full intent and meaning of the act.[2441]

In the event violation of the act or any promulgated rule or regulation takes place, the secretary can issue and enforce a "stop sale, use or removal" order.[2442] Moreover, any lot or quantity of commercial fertilizer not in compliance with any provisions of the Iowa Fertilizer Law or any promulgated rules or regulations will be subject to suspension from sale, seizure, and condemnation.[2443]

This act does not restrict or void sales or exchanges of commercial fertilizers between manufacturers, processors, or shipment of fertilizers to manufacturers or processors.[2444]

Nebraska (region 5).—The Nebraska Commercial Fertilizer and Soil Conditioner Act,[2445] administered by the Director of Agriculture, requires:

- All commercial fertilizer and soil conditioner, except custom-blended products, to be registered before its distribution.[2446]

[2435]IOWA CODE ANN. 200.20 (West 1987).
[2436]Id. § 200.11 (West 1987).
[2437]Id. § 200.9 (West Supp. 1993).
[2438]Id. § 200.10 (West 1987).
[2439]Id.
[2440]Id. § 200.15.
[2441]Id. § 200.14.
[2442]Id. § 200.16.
[2443]Id. § 200.17.
[2444]Id. § 200.19.
[2445]Nebraska Commercial Fertilizer and Soil Conditioner Act, NEB. REV. STAT. § 81-2,162.01 through 81-2,162.27 (1987).
[2446]Id. § 81-2,162.03(1).

- All commercial fertilizer and soil conditioner, except custom-blended products, to comply with the labeling requirement.[2447]
- All commercial fertilizer and soil conditioner activities, except custom-blended products, to satisfy the inspection fee requirement.[2448]

For commercial fertilizer, superphosphate fertilizer cannot contain less than 18 percent available phosphoric acid. Mixed fertilizer cannot contain less than total 20 percent of total nitrogen, available phosphoric acid, and soluble potash (except for fertilizer containing 25 percent or more of its nitrogen in water insoluble form, and 18 percent or more of its total nitrogen, available phosphoric acid, and soluble potash). This requirement does not apply to specialty fertilizers.[2449]

Among other duties and powers, the director has the mandatory duty to sample, inspect, make analysis of, and test commercial fertilizers and soil conditioners in Nebraska.[2450] If noncompliance is determined, the director may issue and enforce a *stop sale, use, or removal* order to the owner or custodian of any lot of commercial fertilizer or soil conditioner.[2451] Any lot of commercial fertilizer or soil conditioner not in compliance with the act is subject to seizure on complaint of the director.[2452] If the court determines that the commercial fertilizer or soil conditioner is in violation of the act, it may order the condemnation of the commercial fertilizer or soil conditioner. However, before condemning the commercial fertilizer or soil conditioner product, the court must give the claimant an opportunity to apply to the court for release of the commercial fertilizer or soil conditioner or for permission to bring it into compliance with the act.[2453]

The director is authorized to prescribe rules and regulations regarding the distribution of commercial fertilizers and soil conditioners.[2454] Moreover, the act creates the Fertilizers and Soil Conditioners Administrative Fund, which is used to pay for the expenses of administering the act.[2455]

The act specifically prohibits anyone from distributing misbranded[2456] or adulterated commercial fertilizer or soil conditioner.[2457]

New Mexico (region 6).—The New Mexico Legislature enacted the New Mexico Fertilizer Act,[2458] under which it designated the administration of the act to the Board of Regents of the New Mexico State University through the New Mexico Department of Agriculture.[2459] Furthermore, to enforce the New Mexico Fertilizer Act, the board is authorized to prescribe and, after public hearing following due public notice, adopt the regulations relating to the distribution of commercial fertilizers and soil conditioners.[2460]

[2447]NEB. REV. STAT. § 81-2,162.04, § 81-2,162.05.
[2448]Id. § 81-2,162.06.
[2449]Id. § 81-2,162.08.
[2450]Id. § 81-2,162.07.
[2451]Id. § 81-2,162.14.
[2452]Id. § 81-2,162.15..
[2453]Id.
[2454]Id. § 81-2,162.12.
[2455]Id. § 81-2,162.27.
[2456]Id. § 81-2,162.25.
[2457]Id. § 81-2,162.26.
[2458]New Mexico Fertilizer Act, NEW MEXICO. STAT. ANN. § 76-11-1 et seq. (Michie 1978).
[2459]Id. § 76-11-2.
[2460]Id. § 76-11-13.

The act requires each brand and grade of commercial fertilizer and each soil conditioner product to be registered before being distributed in New Mexico.[2461] Moreover, all commercial fertilizers distributed in New Mexico in containers must have, placed on or attached to the container, a label setting forth in clearly legible and conspicuous form a set of information, including—

- ◊ net weight or other measure:
- ◊ brand and grade;
- ◊ guaranteed analysis; and
- ◊ name and address of registrant.[2462]

Each brand of soil conditioner distributed in New Mexico is also required to be accompanied by a legible label.[2463] In addition to these requirements, the act prohibits persons from distributing misbranded fertilizer or soil conditioner.[2464] The fertilizer or soil conditioner is misbranded if—[2465]

- ◊ its labeling is false or misleading in any way;
- ◊ it is distributed under the name of another fertilizer or soil conditioner product; or
- ◊ it is not labeled as required by the act.

The act provides that the person transacting, distributing, or selling commercial fertilizer or soil conditioner to a nonregistrant must mail the department a report showing the information, such as—

- ◊ the county of the consignee;
- ◊ the amounts in tons of each grade of commercial fertilizer and each soil conditioner product; and
- ◊ the form in which the fertilizer or soil conditioner was distributed.[2466]

The New Mexico Department of Agriculture is required to sample, inspect, make analyses, and test commercial fertilizers and soil conditioners distributed within New Mexico.[2467] The department must adopt the methods of analysis and sampling from sources such as the Association of Official Agricultural Chemists.[2468] Furthermore, to determine compliance with the act and other regulations, the department is authorized to enter upon private or public premises or carriers during the regular business hours.[2469] If noncompliance is determined, the department may issue and enforce a *stop sale, use, or removal* order to the owner or custodian of any lot of commercial fertilizer or soil conditioner.[2470] Any lot of commercial fertilizer or soil conditioner that is not in compliance with the act is subject to

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[2461]NEW MEXICO. STAT. ANN. § 76-11-4(A).
[2462]Id. § 76-11-5(A).
[2463]Id. § 76-11-5(D).
[2464]Id. § 76-11-10.
[2465]Id.
[2466]Id. § 76-11-11.
[2467]Id. § 76-11-7(A).
[2468]Id. § 76-11-7(B).
[2469]Id. § 76-11-7(A).
[2470]Id. § 76-11-16.

seizure on complaint of the department.[2471] If the court determines that the commercial fertilizer or soil conditioner is in violation of the act, it may order the condemnation of the commercial or soil conditioner.[2472] However, before condemning the commercial fertilizer or soil conditioner product, the court must give the claimant an opportunity to apply to the court for release of the commercial fertilizer or soil condition or for permission to bring it into compliance with the act.[2473]

Texas (region 6 & 7).—Under the Texas Commercial Fertilizer law,[2474] a substance is considered commercial fertilizer, thereby subject to this law, if it is—

- ◊ a fertilizer material,
- ◊ mixed fertilizer,
- ◊ customer-formula fertilizer, or
- ◊ another substance, material, or element, including a pesticide, which is intended for use as an ingredient or component of a mixture of materials which is used to promote plant growth.

However, unprocessed, unpackaged, or unmanipulated lime, limestone, marl, or gypsum is not considered a commercial fertilizer, and thus is not subject to the Texas Commercial Fertilizer law.[2475] Under the Texas Commercial Fertilizer law, which is under the administration of the Texas Feed and Fertilizer Control Service,[2476] the following provisions are applicable to all activities relating to fertilizers in Texas:

- Distribution of commercial fertilizer, each person must obtain a valid current permit issued by the service[2477]
- Manufacturing or distributing commercial fertilizer, each person must register the fertilizer with the service. Such person is not required to register the fertilizer if such fertilizer has been registered by another person[2478]
- Each container of commercial fertilizer distributed, other than customer-formula fertilizer (which is subject to a different labeling requirement),[2479] must satisfy the label requirement.[2480]
- Registrant of a commercial fertilizer must pay an inspection fee to the service. A person is not required to pay an inspection fee on compost.[2481]
- The person who is responsible to pay an inspection fee must file quarterly tonnage reports with the service, which must be accompanied by payment of the inspection fee.[2482]

[2471]NEW MEXICO. STAT. ANN. § 76-11-17(A).
[2472]Id. § 76-11-17(B).
[2473]Id. § 76-11-17(C).
[2474]TEXAS AGRIC. CODE ANN. § 63-001 et seq. (West 1995).
[2475]Id. § 63.002.
[2476]Id. § 63.003.
[2477]Id. § 63.031.
[2478]Id. § 63.031. For application process for registration, Id. § 63.032.
[2479]Id. § 63.053.
[2480]Id. § 63.051.
[2481]Id. § 63.071.
[2482]Id. § 63.072.

However, the Texas Commercial Fertilizer law does not:[2483]

- Restrict or void the sale of a commercial fertilizer by an importer, manufacturer, or manipulator to an importer, manufacturer, or manipulator who mixes fertilizer for distribution.
- Apply to the mixing, milling, or processing of a material produced by a purchaser of commercial fertilizer or acquired by the purchaser from a source other than the person who mixed or processed the material.

The service is required to do the following:

- To prescribe, by rule, procedures for sampling and analyses of commercial fertilizers.[2484]
- To deposit all fees collected in the same manner as other local institutional funds of the Texas A&M University System. The fees will be set apart as a special fund to be known as the Texas Fertilizer Control Fund.[2485]
- To issue a stop-sale order if it believes that a commercial fertilizer is being distributed in violation of a provision of the Texas Commercial Fertilizer law.[2486] If violation is determined, the service must petition the court of competent jurisdiction for an order to condemn and confiscate the fertilizer.[2487]

The service is authorized to:

- Adopt rules regarding the distribution and standards of commercial fertilizers that the service finds necessary to effectuate the intent and meaning of the Texas Commercial Fertilizer law.[2488]
- Enter upon public and private premises to inspect and take samples from fertilizer found during that inspection.[2489]
- Sue in the name of the director, or request a prosecuting attorney or the attorney general to sue to enjoin the noncompliant activity.[2490]

However, a person who is aggrieved by the service's order or ruling may appeal to the court of competent jurisdiction, which will hear the case de novo.[2491]

Idaho (region 8).—Under the Idaho Commercial Fertilizer Law of 1967,[2492] the following provisions are applicable to all activities regarding fertilizers:

- Each brand and grade of commercial fertilizer must be registered before being distributed in Idaho.[2493] The Department of Agriculture must examine the registration application form and labels for conformance with the requirement of the act before issuing a certificate of registration.[2494]

[2483]TEXAS AGRIC. CODE ANN. § 63.006.
[2484]Id. § 63.092.
[2485]Id. § 63.075.
[2486]Id. § 63.121.
[2487]Id. § 63.122.
[2488]Id. § 63.004.
[2489]Id. § 63.091.
[2490]Id. § 63.124.
[2491]Id. § 63.128.
[2492]IDAHO CODE § 22-601 et seq. (1977 & Supp. 1994).
[2493]Id. § 22-605 (1977).
[2494]Id. § 22-606.

- In addition to the registration fee, each person, firm or corporation engaged in the manufacture or sale, or both, of any commercial fertilizer must pay to the director of the department an inspection fee.[2495]
- Any commercial fertilizer distributed in containers must comply with the labeling requirement set forth in the act.[2496]
- Each person who is responsible for the payment of inspection fees for any commercial fertilizer sold in Idaho must report to the department the number of tons of such commercial fertilizer sold within 6 months of the report's due date.[2497]

The department has the following mandatory powers and duties:

- To administer, enforce and carry out the provisions of this act, and to adopt rules necessary to carry out the purpose of the act.[2498]
- To inspect, sample, make analyses of, and test commercial fertilizers distributed within Idaho to determine compliance with the act. The methods of sampling and analyses must be those adopted by the department.[2499]
- To publish information annually concerning the distribution of any commercial fertilizer and results of analyses based on official samples as compared with the guaranteed analyses.[2500]

The act provides that if the analysis shows that any commercial fertilizer falls short of the guaranteed analysis of any plant nutrient or micro-nutrient or total nutrients, a penalty will be assessed in favor of the department at the rate of three times the value of the deficiency when the deficiency exceeds the tolerances established by regulations. However, each party may appeal to the court of competent jurisdiction for a judgment.[2501]

Noncompliant lots of commercial fertilizers will be subject to seizure on complaint of the department to a court of competent jurisdiction. If the court finds violation, such fertilizer must be disposed of. However, before ordering disposition of the noncompliant fertilizers, the court must give claimant an opportunity to apply to the court for release of the fertilizer or for permission to process or relabel to bring it into compliance with this act.[2502]

Utah (region 8).—Under the Utah Fertilizer act,[2503] the following provisions are applicable to all commercial fertilizer or soil amendments sold or distributed within Utah:

- Each brand and grade of commercial fertilizer or soil amendment must be registered in the name of the person whose name appears on the label before being distributed. However, the registration requirement does not apply if—
  - ◊ commercial fertilizer has already been registered by another person, provided that the label does not differ in any respect; or

[2495]IDAHO CODE § 22-608.
[2496]Id. § 22-607.
[2497]Id. § 22-609.
[2498]Id. § 22-604 (Supp. 1994).
[2499]Id. § 22-610 (1977).
[2500]Id. § 22-615.
[2501]Id. § 22-611.
[2502]Id. § 22-617.
[2503]UTAH CODE ANN. § 4-13-1 et seq. (Michie 1995).

◊ commercial fertilizer is formulated by a consumer before mixing, but is required to register the name under which the business of blending or mixing is conducted.[2504]

- Each container of specialty commercial fertilizer distributed must bear a label setting forth its net weight, brand, and grade, guaranteed analyses, the name and address of the registrant, and the lot number.
- Each bulk shipment of commercial fertilizer distributed must be accompanied by a printed or written statement setting forth similar information. Each sale of packaged mixed fertilizer must be labeled to show it's net weight, guaranteed analysis, lot number, and the name and address of the distributor.
- Moreover, each container of soil amendment must bear the same information as required for a container of specialty commercial fertilizer, and if a soil amendment is distributed in bulk, it must provide the same information as required for bulk shipment of commercial fertilizer.[2505]
- The Utah Department of Agriculture is required to periodically sample, inspect, analyze, and test commercial fertilizer and soil amendments distributed within Utah. The methods of analyses and sampling must be those adopted by the state chemist.[2506] If the analyses show there is a deficiency in the guaranteed analysis beyond the *investigational allowances*, as provided by the regulation, the registrant will be subject to a penalty three times the commercial value of such deficiency.[2507]
- The department is authorized to issue a stop-sale order if it believes that a commercial fertilizer is being distributed in violation of a provision of the Utah Fertilizer law. If violation is determined, the department must petition the court of competent jurisdiction for an order to condemn and confiscate the fertilizer. If the court orders condemnation of the fertilizer or soil amendment, the violator will bear court costs, fees, storage, and other expenses.[2508]

However, it should be noted that the Utah Fertilizer Act by no means restricts or voids sales or exchanges of commercial fertilizers or soil amendments between manufacturers or importers.[2509]

Oregon (region 9).—Before the selling or distribution of fertilizers, the Oregon Fertilizers law,[2510] to be administered and enforced by the Department of Agriculture,[2511] imposes different labeling requirements for fertilizers in package or in bulk,[2512] agricultural amendments,[2513] and agricultural seed minerals,[2514] which among other things, require the showing of the guaranteed analysis (total nitrogen, available phosphoric acid, available potash).

Each brand and grade of fertilizer, agricultural minerals and agricultural amendment, whether in package or in bulk, except custom mix, must be registered

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[2504]UTAH CODE ANN. § 4-13-3.
[2505]Id. § 4-13-4.
[2506]Id. § 4-13-5.
[2507]Id. § 4-13-6.
[2508]Id. § 4-13-8.
[2509]Id. § 4-13-9.
[2510]OR. REV. STAT. § 633.310 through 633.500 (1995).
[2511]Id. § 633.440.
[2512]Id. § 633.320.
[2513]Id. § 633.335.
[2514]Id. § 633.340.

with the Department of Agriculture. Sale of each type is allowed only under applicable brand and grade.[2515] The first purchaser of fertilizers, agricultural minerals, and amendments must pay the inspection fees[2516] and file a tonnage report with the department.[2517] Persons who mix or sell custom mix must keep applicable records for 1 year. Custom mixes are not required to be registered.[2518] Furthermore, all registrants, manufacturers or other persons importing fertilizer, agricultural minerals or amendments must file a confidential report with the department of the number of tons per year and other information considered necessary by the department.[2519]

The Department of Agriculture must make sample and analysis of fertilizers, agricultural minerals, and amendments, according to methods approved by the department, taking into consideration the methods agreed upon by the Association of Official Agricultural Chemists of North America and the advice and opinion of other qualified experts in this field.[2520]

California (region 10).—The California Fertilizing Materials law[2521] was enacted with the following primary purposes:[2522]

- To promote the distribution of effective and safe fertilizing materials essential for the production of food and fiber.
- To provide assurance to the consumer of commercial fertilizers, agricultural minerals, packaged soil amendments and auxiliary soil and plant substances.

The Fertilizing Materials law creates a Fertilizer Inspection Advisory Board, consisting of nine persons,[2523] to advise the director and make recommendations on all matters relating to the California Fertilizing Materials law, including but not limited to the inspection and enforcement program, research and education, the annual budget, necessary fees to provide adequate inspection services, and regulations required to accomplish the purposes of this law.[2524]

Under the California Fertilizing Materials law, the following provisions are applicable to all fertilizer materials distributed within California:

- Each specialty fertilizer, agricultural mineral, auxiliary soil and plant substance, and packed soil amendment must be registered in the name of the person whose name appears on the label before being distributed.[2525]
- Violation of the registration requirement is punishable by a fine not exceeding $500. A second and subsequent violation constitutes a misdemeanor punishable by a fine of not less than $100 but not exceeding $1,000.[2526]

[2515]OR. REV. STAT. § 633.361.
[2516]Id. § 633.460.
[2517]Id. § 633.470.
[2518]Id. § 633.475.
[2519]Id. § 633.485.
[2520]Id. § 633.380, § 633.390.
[2521]CAL. FOOD & AGRIC. CODE § 14501 et seq. (West 1986 & Supp. 1996).
[2522]Id. § 14501 (West Supp. 1996).
[2523]Id. § 14581 (West Supp. 1996).
[2524]Id. § 14583.
[2525]Id. § 14583.
[2526]Id. § 14502.

- Each person who manufactures or distributes fertilizing materials must obtain a license from the director for each plant and business location that the person operates, before manufacture or distribution.
- However, the licensing requirement does not apply to a person who only distributes or who makes retail sales of packaged agricultural minerals, packaged commercial fertilizers, packaged soil amendments, or packaged auxiliary soil and plant substances that bear the registered label of another person who is licensed.[2527]
- Violation of the licensing requirement is punishable by a fine not exceeding $500.
- A second and subsequent violation constitutes a misdemeanor punishable by a fine of not less than $100 but not exceeding $1000.[2528]
- Each lot, parcel, or package of fertilizing material distributed must comply with the labeling requirement.[2529]
- Violation of labeling requirement is punishable by a fine not exceeding $250.
- A second and subsequent violation constitutes a misdemeanor punishable by a fine of not less than $100 but not exceeding $1,000.[2530]
- Each licensee whose name appears on the label who sells or distributes bulk fertilizing materials to an unlicensed purchaser must pay to the director an assessment of dollar of sales for all fertilizing materials.[2531]
- Each licensee who sells or distributes fertilizing materials must submit a tonnage report containing information on shipments received or deliveries made during a specified period.[2532]

The director is required to enforce the California Fertilizing Materials law and enforce such regulations pertaining to the manufacture, labeling, and distribution of fertilizers.[2533] The director is required to periodically sample, inspect, analyze, and test fertilizers distributed within California.[2534] The methods of analyses and sampling will be made according to the method determined by the director.[2535] Moreover, the director is required to publish annually results of analyses based on official samples as compared with the guaranteed analyses.[2536]

Noncompliant lots of fertilizers will be subject to seizure on complaint of the department to a court of competent jurisdiction. If the court finds the fertilizer to be in violation of the law, such fertilizer must be disposed of. However, before ordering disposition of the noncompliant fertilizer, the court must give claimant an opportunity to apply to the court for release of the fertilizer or for permission to process or relabel to bring it into compliance with this law.[2537]

[2527]CAL. FOOD & AGRIC. CODE § 14591.
[2528]Id. § 14592 (West Supp. 1996).
[2529]Id. § 14631.
[2530]Id. § 14632 (West Supp. 1996).
[2531]Id. § 14611.
[2532]Id. § 14621.
[2533]Id. § 14502 (West Supp. 1996).
[2534]Id. § 14642.
[2535]Id. § 14643.
[2536]Id. § 14644.
[2537]Id. § 14649 through 14660.

Tennessee (regions 11 & 12).—The Tennessee Commercial Fertilizer Law of 1969,[2538] to be administered by the Commissioner of Agriculture,[2539] requires the following:

- Each brand and grade of commercial fertilizer must be registered before distribution, except fertilizer formulated accordingly to specifications furnished by a consumer before mixing.[2540]
- All commercial distributors of fertilizer distributed within Tennessee must pay an inspection fee.[2541]
- All persons distributing or selling fertilizer to a non-registrant must furnish the commissioner tonnage reports.[2542]
- All commercial fertilizer distributed in Tennessee must comply with the labeling requirement.[2543]
- All commercial fertilizer must satisfy the guaranteed analysis requirement.

Among other duties and powers, the commissioner has the mandatory duty to sample, inspect, make analysis of and test commercial fertilizers and soil conditioners in Tennessee.[2544] If noncompliance is determined, the commissioner may issue and enforce a stop *sale, use, or removal* order to the owner or custodian of any lot of commercial fertilizer or soil conditioner.[2545] Any lot of commercial fertilizer or soil conditioner that is not in compliance with the act is subject to seizure on complaint of the commissioner to a court of competent jurisdiction.[2546] If the court determines that the commercial fertilizer or soil conditioner is in violation of the act, it may order the condemnation of the commercial or soil conditioner. However, before condemning the commercial fertilizer or soil conditioner product, the court must give the claimant an opportunity to apply to the court for release of the commercial fertilizer or soil condition or for permission to bring it into compliance with the act.[2547]

The commissioner is authorized to prescribe rules and regulations regarding the distribution of commercial fertilizer and soil conditioner.[2548]

The act specifically prohibits anyone from distributing misbranded[2549] or adulterated commercial fertilizer or soil conditioner.[2550] This act does not restrict or void sales or exchanges of commercial fertilizer between manufacturers, processors, or shipment of fertilizer to manufacturers or processors.[2551]

[2538]Tennessee Commercial Fertilizer Law of 1969, TENN. CODE ANN. § 43-11-101 et seq. (1987 & Supp. 1993).
[2539]Id. § 43-11-103 (1987).
[2540]Id. § 43-11-104 (1987 & Supp. 1993).
[2541]Id. § 43-11-106 (1987).
[2542]Id. § 43-11-107.
[2543]Id. § 43-11-105 .
[2544]Id. § 43-11-108.
[2545]Id. § 43-11-115.
[2546]Id. § 43-11-116 (1987).
[2547]Id. § 43-11-116 (1987).
[2548]Id. § 43-11-113 (1987).
[2549]Id. § 43-11-112 (1987).
[2550]Id. § 43-11-124 (1987).
[2551]Id. § 43-11-123.

Pesticide control laws

All of the 17 states surveyed have pesticide control laws. These laws were enacted with the primary purpose of regulating in the public interest the labeling, distribution, storage, transportation, use, and application of pesticides. In general, these laws require that every pesticide must be registered before distribution. Every person who engages in the business of applying pesticides to the lands of another must obtain a license before engaging in such activities. Such license will not be issued unless the license applicant is certified or has a certified applicator in his or her employment at all times. A license applicant must also furnish to the authoritative agency evidence of financial responsibility, consisting of either a surety bond or a liability insurance policy or certification. These laws prohibit individuals from using pesticide for a use designated as a *state restricted pesticide use* without first obtaining a permit from the agency.

All of these state pesticide control laws provide that any pesticide or device that is unlawfully distributed will be liable for seizure and forfeiture by the agency upon application to the court of competent jurisdiction. Both monetary and imprisonment term penalties will be imposed for violation of any provision of the pesticide laws or any rules or regulations adopted pursuant to such laws. However, these laws provide for a number of exemptions from the penalties, including—

- ◊ any carrier who is lawfully engaged in transporting a pesticide or device, if upon request, such carrier allows the agency to copy all records showing the transaction in and movement of the pesticide or device;
- ◊ any person who prepares or packs any pesticide or device intended solely for export to a foreign country according to the specifications or directions of the purchaser; and
- ◊ manufacturer or shipper for experimental use.

Furthermore, all of these laws prohibit any county, municipal, corporation, or other political subdivision from adopting or maintaining in effect any ordinance, rule, regulation, or resolution regulating the use, sale, distribution, storage, transportation, disposal, formulation, labeling, registration, manufacturing, or application of pesticides.

Delaware (region 1).—The Delaware Pesticides Chapter was enacted with a number of purposes, including—

- ◊ to regulate the sale, use, and application of pesticides in the interest of the overall public welfare;
- ◊ to protect the consumer by requiring that pesticides sold in Delaware be correctly labeled with warnings and adequate directions for use; and
- ◊ to restrict the use of any pesticides that are dangerous to man or his or her environment that restrictions are necessary in the overall public interest, weighing the benefits and the risks of that use.[2552]

[2552]Pesticide, DEL. CODE ANN. § 1201 (1985).

The following requirements apply to all pesticide activities in Delaware:

- Every pesticide that does not have an EPA registration for the use intended and which is formulated for distribution and use within Delaware must be registered with the Delaware Department of Agriculture. [2553] The department may register such pesticides only if it determines that—
  - ◊ the pesticide's composition warrants the proposed claim of the use;
  - ◊ its labeling and other material required to be submitted comply with the labeling requirements;
  - ◊ it will perform its intended function without unreasonable adverse effects on the environment;
  - ◊ when used in compliance with widespread and commonly recognized practice, it will not generally cause unreasonable adverse effects upon the environment;
  - ◊ the classification for general or restricted use is in conformity with Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); and
  - ◊ special local needs exist.[2554]

- No person can engage in the business of applying pesticides to the lands of another without obtaining a license from the department. No license will be issued, or remains valid, unless such person is certified or has a certified applicator in the person's employment at all times.[2555] License application will be denied if the applicant—
  - ◊ cannot furnish to the department evidence of financial responsibility consisting of either a surety bond, a liability insurance policy or certification, or other evidence of financial responsibility acceptable to the department, or
  - ◊ commits any unlawful acts set forth in the Pesticide Chapter.[2556] Moreover, no license is required for a private applicator[2557] or for research personnel applying pesticides to bona fide experimental plots.[2558]

- No person can use a pesticide for a use designated as a *state restricted pesticide use* without first obtaining a permit from the department. No person can sell a *restricted use pesticide* or a *state restricted use pesticide* without first obtaining a dealer permit from the department.[2559]
- Any pesticide or device that is unlawfully distributed within Delaware will be liable for seizure and forfeiture by the department upon application to the Superior Court in and for the county where the pesticide in question is located.[2560]

[2553]Pesticide, DEL. CODE ANN. § 1204(b).
[2554]Id. § 1204(c).
[2555]Id. § 1206(a).
[2556]Id. § 1208. For the list and description of the unlawful acts, Id. § 1224.
[2557]Id. § 1206(a).
[2558]Id. § 1211.
[2559]Id. § 1214 (Supp. 1992).
[2560]Id. § 1227 (1985).

- Licensees or certified commercial applicators must maintain records in the application of pesticides, which are to be kept for 2 years from the date of application and are available for inspection to the department.[2561]
- No person can transport, store, or dispose of any pesticide or pesticide container in such a manner as to cause injury to humans, vegetation, crops, livestock, or wildlife.[2562]

The Delaware Pesticide law imposes civil and criminal penalties for violation of any provision of this chapter, or any adopted rules or regulations. However, the following are exempted from civil penalties:[2563]

- Any carrier while lawfully engaged in transporting a pesticide or device, if, upon request, such carrier will allow the department to copy all records showing the transactions in and movement of the pesticide or device.
- Any person who prepares or packs any pesticide or device intended solely for export to a foreign country according to the specifications or directions of the purchasers.
- The manufacturer or shipper of a pesticide for experimental use—
  - ◊ by or under the supervision of a state or Federal agency authorized to conduct research in the field of pesticides, or
  - ◊ by others if the pesticide is not sold and if the container is conspicuously marked *for experimental use only, not to be sold*, together with other information.

Under the Delaware Pesticide law, the Delaware Department of Agriculture is required to—

- ◊ issue registration for pesticides and devices properly distributed and/or used in the state;[2564]
- ◊ impose a fee registration not exceeding $25;[2565]
- ◊ adopt *restriction use pesticide* classifications;[2566]
- ◊ issue a cease and desist order to any person violating any rule, regulation, order, or provision of this law;[2567]
- ◊ classify and subclassify licenses to be issued;[2568]
- ◊ provide a program, by regulation, of registering noncertified persons in the employ of licensees;[2569]
- ◊ promulgate rules, regulations and fees necessary to carry into effect the permit requirement;[2570] and
- ◊ enforce the provisions of the pesticide law.[2571]

[2561]DEL. CODE ANN. § 1234.
[2562]Id. § 1235.
[2563]Id. § 1224, § 1225.
[2564]Id. § 1203(a).
[2565]Id.
[2566]Id. § 1203(e).
[2567]Id. § 1203(i).
[2568]Id. § 1206(b).
[2569]Id. § 1212 (Supp. 1992).
[2570]Id. § 1214 (1985).
[2571]Id. § 1237.

In addition to the above mandatory duties, the department is authorized to do the following:

- Determine *state restricted pesticide uses* for Delaware or for designated areas within the state, and require a permit for purchase, possession, and application of a pesticide labeled for a use that is designated as a *state restricted pesticide use*.[2572]
- Declare as a pest any form of plant or animal life which is injurious to health or the environment.[2573]

Make reports to the EPA in such form and containing such information as EPA may from time to time require to comply with Federal Insecticide, Fungicide, and Rodenticide act (FIFRA).[2574]

- Determine standards of coloring or discoloring for pesticides by regulation.[2575]
- Enter upon private premises, with the written approval of the occupier of premises, for the purpose of inspection.[2576]
- Require, by regulation, the reporting of pesticide accidents or incidents to the department.[2577]
- Require the licensee to maintain records related to applications of certain *state restricted pesticide uses*.[2578]
- Promulgate rules and regulations governing the storing and disposal of pesticides or pesticide containers that can cause injury to humans, vegetation, crops, livestock, wildlife, beneficial insects or can pollute any waterway in a way harmful to any wildlife.[2579]
- Issue and serve a written *stop sale, use, or removal* order if it has reasonable cause to believe that a pesticide or device is being distributed or used in violation of the pesticide law.[2580]
- Cooperate, receive grants-in-aid and enter into agreements with any agency of the Federal Government, of Delaware or its subdivisions, or with any agency of another state, to obtain assistance in the implementation of the pesticide law.[2581]
- Publish information and conduct short courses of instruction in the area of knowledge required in the pesticide law, in cooperation with the University of Delaware, Delaware State College, other educational institutions or trade associations.[2582]

The Delaware Pesticide chapter established a Pesticide Advisory Committee,[2583] which consists of twelve members who are appointed by the Governor.[2584] The

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[2572]DEL. CODE ANN. § 1203(c).
[2573]Id. § 1203(f).
[2574]Id. § 1203(g).
[2575]Id. § 1203(h).
[2576]Id. § 1226.
[2577]Id. § 1233(a) (1985).
[2578]Id. § 1234(a).
[2579]Id. § 1235.
[2580]Id. § 1236.
[2581]Id. § 1238.
[2582]Id. § 1239.
[2583]Id. § 1228 (1985).
[2584]Id. § 1229.

Committee's function is to advise the department on any and all problems concerning the sale, use, disposal, and storage of pesticides in Delaware.[2585]

Maryland (region 1).—The Maryland Pesticide and Pest Control Act[2586] includes, among other pest control laws,[2587] the Maryland Pesticide and Registration and Labeling law[2588] and the Pesticide Applicator's law.[2589] Each shall be discussed in turn.

Maryland Pesticide and Registration and Labeling law.—The administration of the Maryland Pesticide and Registration and Labeling law belongs to the state chemist subject to the supervision of the secretary of agriculture,[2590] who has the authority to adopt appropriate rules and regulations to carry out this law.[2591] Interestingly, the law encourages adoption of uniform pesticide requirements between the State and Federal Governments. This helps to avoid confusion that endangers the public heath, resulting from diverse requirements, especially relating to the labeling and coloring of pesticides. Also uniformity helps to avoid increased costs to the people because of necessary compliance with diverse requirements for manufacturing and selling pesticides.[2592]

The secretary can cooperate and enter into agreements with other state, Federal, and private agencies to carry out the administration of this law.[2593] In addition, the secretary is required to develop a comprehensive pesticide data program consisting of—

- ◊ the number and types of enforcement actions taken; and
- ◊ figures for the number, types, and uses of pesticides in Maryland.[2594]

Before distributing pesticide in Maryland, the law requires all distributors to register it with the secretary.[2595] The distributor must file an application accompanied by annual registration and terminal registration fees.[2596] A late fee is also imposed.[2597] However, the distributor is exempted from the registration requirement if the pesticide is already registered by another person, provided that there is no change or alteration in the product label.[2598]

In addition to the registration requirement, all pesticides distributed, sold, offered for sale, delivered for transportation, or transported in intrastate commerce must comply with the packaging and labeling requirements.[2599] The secretary has a

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[2585]DEL. CODE ANN. § 1230.
[2586]Pesticide and Pest Control Act, MD. CODE ANN., AGRI. § 5-1-1 et seq. (1985 & Supp. 1994).
[2587]Other pesticide control laws are the Plant Disease Control, § 5-301 to 5-313, the Mosquito Control, § 5-401 to 5-405, the Honey Bees, §§ 5-501 to 5-507, the San Juan Rabbits, § 5-601, the Pest Control Compact, § 5-701 to 5-716, and the Nuisance Bird Law, §§ 5-801 to 5-805.
[2588]Maryland Pesticide Registration and Labeling Law, MD. CODE ANN., AGRI. § 5-101 to 5-114 (1985 & Supp. 1994).
[2589]Id. § 5-201 to 5-211 (1985 & Supp. 1994).
[2590]Pesticide Applicator's Law, MD. CODE ANN., AGRI. § 5-102(a) (1985).
[2591]Id. § 5-104(a) (1985).
[2592]Id. § 5-105(c) (1985 & Supp. 1994).
[2593]Id. § 5-102(b) (1985).
[2594]Id. § 5-102(c) (Supp. 1994).
[2595]Pesticide Applicator's Law, MD. CODE ANN., AGRI. § 5-105(a), effective July 1, 1989 (Supp. 1994).
[2596]Id. § 5-105(b)-(d) (Supp. 1994). Subsequent amendments increased the amount of annual registration and terminal registration fees as follows:

	Before 1984	1984	1989	1992
Annual registration fee	$15	$20	$35	$60
Terminal registration fee	$15	$20	$35	$60

[2597]MD. CODE ANN., AGRI. § 5-105(e) (1985 & Supp. 1994).
[2598]Id. § 5-105(g), effective July 1, 1989, (Supp. 1994).
[2599]Id. § 5-106 (Supp. 1994).

number of options in dealing with noncomplying pesticides. The secretary may suspend or cancel the registration[2600] or issue and enforce a written stop-sale order.[2601] In addition, noncomplying pesticides may be subjected to seizure and condemnation proceeding in circuit court.[2602]

Pesticide Applicator's law.—To pay for the expenses of administering this law, the Pesticide Applicator's law creates a pesticide fund that consists of all collected fees.[2603]

Under the Pesticide Applicator's law, all pest control consultants, pest control applicators, and public agency applicators are required to obtain a certificate, which requires periodic renewal, indicating competence in one or more established categories from the secretary.[2604] Each place of business engaged in the business of conducting pest control must obtain an annual license indicating the category of operation.[2605] Pesticide dealers and public agencies must obtain a dealer permit[2606] and the public agency permit,[2607] respectively, from the secretary. In addition, the secretary must require all pest control consultants, pest control applicators, or public agency applicators to receive additional training prepared and administered by the department when significant technological developments have occurred that require additional knowledge in the area of classification for which the consultant or applicator has applied.[2608]

When certification has been suspended or revoked, the secretary must require that the pest control consultant, pest control applicator, or public agency applicator take a special examination prepared and administered by the department before certification may be renewed or reinstated.[2609]

The secretary has the following mandatory duties:[2610]

- Adopt rules and regulations governing the storage, sale, distribution, exchange, use, and disposal of any pesticide and its container.
- Prescribe, when necessary, the time and conditions under which a pesticide may be sold, distributed, exchanged, or used in different areas of Maryland.
- Provide, if necessary, that extremely hazardous pesticides may be sold, distributed, exchanged, or applied only when special permission is first obtained from the secretary.
- Define the formulations and establish the conditions and appropriate areas for application of any pesticide.
- Establish guidelines and requirements for the application of pesticides and provide for submission of records to the secretary.

[2600]MD. CODE ANN., AGRI. § 5-107 (1985).
[2601]Id. § 5-108 (Supp. 1994).
[2602]Id. § 5-111 (1985 & Supp. 1994).
[2603]Id. § 5-203 (1985).
[2604]Id. § 5-207 (a) (Supp. 1994).
[2605]Id. § 5-207(e).
[2606]Id. § 5-207(h).
[2607]Id. § 5-207(i) (Supp. 1994).
[2608]Id. § 5-207.1(a).
[2609]Id. § 5-207.1(b).
[2610]Id. § 5-204 (1985 & Supp. 1994).

- Design and conduct an appropriate educational program on the use of pesticides and the necessity for care when applying them.
- Encourage, conduct, and support research that will contribute to optimal uses of pesticides for maximum public benefit and minimum public damage.
- Require that records be kept by all licensees and permittees.
- Employ inspectors and other employees necessary for the proper enforcement of this law and the rule and regulations adopted pursuant to it.
- Coordinate and support pesticide monitoring programs.
- Establish appropriate categories and, if necessary, subcategories of applicators of pesticides.
- Establish guidelines and requirements for all licensees, certificate holders, and permittees for the identification of pests and their methods of inspection of property to determine the presence of pests.
- Adopt use classifications and other pertinent pesticide regulation provisions that are established by the U.S. EPA for the purposes of uniformity and ability to enter into cooperative agreements.
- Cooperate with state or Federal agencies as is reasonable and proper to carry out the provisions of this law.

The secretary is authorized not only to receive gifts, contributions, or funds, but also to receive and issue grants or contracts.[2611]

Pennsylvania (region 1).—The Pennsylvania Pesticide Control Act of 1973,[2612] to be administered by the secretary of agriculture,[2613] was enacted with the primary purpose of "regulat[ing] in the public interest, the labeling, distribution, storage, transportation, use, application, and disposal of pesticides".[2614] This act and its provisions are a statewide concern and occupy the whole field of regulation relating to the registration, sale, transportation, distribution, notification of use, and use of pesticide to the exclusion of all local regulations. In other words, except when otherwise provided, no ordinance or regulation of any political subdivision or home rule municipality can prohibit or in any way attempt to regulate contrary to the provisions of this act, any matter relating to the registration, sale, transportation, distribution, notification of use, and use of pesticides.[2615]

The following provisions are applicable to pesticides in Pennsylvania:

- Each pesticide must be registered annually with the secretary before being distributed. The registration requirement does not apply to—
  - ◊ a pesticide which is shipped from one plant or warehouse to another plant or warehouse operated by the same person and used solely at such place or warehouse as a constituent part to make a pesticide which is registered; or
  - ◊ a pesticide that is distributed under the provisions of an experimental use permit.[2616]

[2611]Pesticide Applicator's Law, MD. CODE ANN., AGRI. § 5-202 (1985).
[2612]PENN STAT. ANN. § 111.21 et seq. (Supp. 1993).
[2613]Id. § 111.22.
[2614]Id. § 111.23.
[2615]Id. § 111.57.
[2616]Id. § 111.25a.

- Before selling pesticides that are classified for restricted use, each pesticide dealer must obtain an annual pesticide dealer license. Such license is required for each location or outlet located within Pennsylvania from which pesticides are sold. The license requirement does not apply to—
  - ◊ a licensed pesticide applicator who sells pesticides only as an integral part of his or her pesticide application service, when such pesticides are dispensed only through equipment used for such pesticide application; or
  - ◊ any Federal, state, county or municipal agency that provides pesticides only for its own programs. It should be noted that each pesticide dealer will be responsible for the actions of his or her employee(s).[2617]
- Each pest management consultant (consulting for a fee) must secure an annual license. This requirement does not apply to licensed pesticide applicators, or employees of Federal, State, county, or municipal agencies when acting in their official capacities.[2618] An examination is required for the pest management consultant's license.[2619]
- Each business, public utility, government agency, or other entity engaged in applying or contracting for the application of pesticides must obtain a license stating the categories in which it is to do business (as commercial pesticide applicator or public pesticide applicator). An applicant for a commercial applicator license must show satisfactory evidence of financial responsibility as required, and an applicant applying for a license to engage in aerial application of pesticides must meet all requirements of the Federal Aviation Administration and any other laws. This license requirement does not apply to—
  - ◊ private applicators, or
  - ◊ research personnel applying pesticides to bona fide experimental plots.[2620]

All licensees must register with the secretary their noncertified employees as pesticide application technicians.[2621]

- To apply pesticides classified for restricted use, each private applicator must comply with the certification requirements considered by the secretary as necessary to prevent unreasonable adverse effects on the environment. To be certified as a private applicator to use a restricted-use pesticide, the applicator must have a permit that signifies competency to use such pesticides.[2622]
- Public applicators (employed by any unit of a Federal, state, or local agency) must be certified before applying pesticides.[2623]
- Each person issued a license or permit must keep accurate records of such relevant information as the secretary may deem necessary and make such records accessible to the secretary.[2624]

[2617]PENN STAT. ANN. § 111.32.
[2618]Id. § 111.33.
[2619]Id. § 111.34.
[2620]Id. § 111.35a.
[2621]Id. § 111.36b.
[2622]Id. § 111.37, § 111.37b.
[2623]Id. § 111.37b.
[2624]Id. § 111.55.

- The act provides the following exemptions:[2625]
- A farmer who qualifies as a certified private applicator is exempt from the commercial pesticide applicator's license and related requirements.
- A landscape gardener or a veterinarian who does not apply pesticides classified for restricted use is exempt from licensing requirement of this act.

The secretary is authorized to do the following:[2626]

- To declare as a pest any form of plant or animal life, other than man.
- To determine pesticides, and quantities of substances contained in pesticides, which are injurious to the environment (the board must be guided by EPA regulations in this determination).
- To adopt appropriate regulations for carrying out the provisions of this act.

In addition, for the purpose of uniformity of requirements between the states and the Federal Government and to avoid confusion endangering the environment, the Secretary can also adopt regulations in conformity with the primary pesticide standards, particularly as to labeling, registration requirements, and pesticides classified for restricted use as established by the EPA or other agencies of the Federal Government or the Commonwealth of Pennsylvania.[2627]

This act creates a Pesticide Advisory Board, consisting of 16 members, that is responsible for advising the secretary on any or all problems regarding the use and application of pesticides, including pest control problems, environmental, or health programs related to pesticide use, and review of needed legislation, regulations, and agency programs.[2628]

The act specifically protects all trade secrets and commercial or financial information by allowing an applicant, in submitting data required by this act, to clearly mark any portions, and submit such marked material separately, which are trade secrets and other information. The secretary will not make such information public.[2629]

Furthermore, the act imposes both civil[2630] and criminal penalties for violation of the act.[2631]

Alabama (region 2).—The Alabama Pesticide Act of 1971[2632] was enacted to "regulate the registration, sale, and use of pesticides intended for use on farm, garden, lawn, golf course, or in the home and other uses for which pesticides are ordinarily and customarily used."[2633] However, this act does not apply to:

- Any carrier while lawfully engaged in transporting a pesticide in Alabama if such carrier, upon request, permits the Commissioner of Agriculture and

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[2625]PENN STAT. ANN. § 111.43.
[2626]Id. § 111.27.
[2627]Id. § 111.27.
[2628]Id. § 111.45.
[2629]Id. § 111.37c.
[2630]Id. § 111.50a.
[2631]Id. § 111.49.
[2632]Alabama Pesticide Act of 1971, ALA. CODE § 2-27-1 et seq. (1975 & Supp. 1993).
[2633]Id. § 2-27-3 (1975).

Industries to copy all records showing the transaction in and movement of the items.[2634]

- Any bona fide public or private research institution or agency.[2635]
- The manufacturer or shipper of a pesticide for bona fide experimental use only, provided that the manufacturer or shipper obtains a permit from the commissioner for such use.[2636]
- Pesticides intended solely for export to a foreign country when prepared or packed according to the specifications or directions of the purchaser.[2637]
- The registration and labeling are not required if a pesticide is stored or shipped from one manufacturing plant in Alabama to another manufacturing plant within Alabama.[2638]

In 1993, the act was amended to specifically prohibit any county, municipal corporation, or other political subdivision to adopt or continue in effect any ordinance, rule, regulation, or resolution regulating the use, sale, distribution, storage, transportation, disposal, formulation, labeling, registration, manufacturing, or application of pesticides.[2639]

The act creates a pesticide advisory committee consisting of 13 appointed members.[2640] The committee has a number of mandatory powers and duties, including—

- ◊ considering and studying the entire field of pesticides;
- ◊ reviewing and making recommendations to the commissioner on any pesticide registration;
- ◊ advising, counseling, and consulting with the commissioner upon his or her request concerning the promulgation, administration, and enforcement of all laws, rules, and regulations regarding pesticides;
- ◊ considering all matters submitted to it by the commissioner, other committee members, or any person affected by the provisions;
- ◊ suggesting or recommending policies or practices for the administration and enforcement of the Alabama Pesticide Act; and
- ◊ reviewing registered pesticides as to their safety or efficiency, or both, and recommending to the commissioner as to which pesticides should be restricted or prohibited.[2641]

[2634]ALA. CODE § 2-27-5(a) (Supp. 1993).
[2635]Id.
[2636]Id. § 2-27-5(a) (Supp. 1993).
[2637]Id. § 2-27-5(b).
[2638]Id. § 2-27-5(c).
[2639]Id. § 2-27-5.1 (Supp. 1993). This provision repeals all local law or general local application regulating pesticide. Id.
[2640]Id. § 2-27-6(a). These 13 members include:
– Two members from the School of Agriculture and the Agricultural Experiment Station of Auburn University;
– Two members from the Cooperative Agriculture Extension Service of Auburn University;
– Two members in the employ of the State Department of Agriculture and Industries;
– Two members in the employ of the State Department of Public Health;
– Two members in the employ of the State Department of Conservation;
– Two members from the Alabama Pesticide Institute; and
– One member to be appointed from a list of five nominees submitted by the Alabama Farmers Federation who are actively and primarily engaged in farming. Id.
[2641]Id. § 2-27-6(d) (Supp. 1993).

Under the Alabama Pesticides Act, the commissioner is authorized to:

- Engage in intergovernmental cooperation and agreements.[2642]
- Adopt rules and regulations for the administration and enforcement of the act, with the approval of the State Board of Agriculture and Industries.[2643]
- Enter upon public or private premises or carrier to sample and inspect to determine compliance with the act.[2644]
- Provide for the establishment and operation of a laboratory to obtain reliable analysis of raw and processed agricultural products and the materials used in production of agricultural products for harmful pesticide residues, the protection and production of fish and wildlife, and the use of recreational areas as related to pesticide residue.[2645]

The following mandatory provisions are applicable to all activities concerning pesticides:

- All pesticides or devices that are distributed, sold, or offered for sale, or transported in intrastate commerce in Alabama must be registered with the commissioner.
- All persons who sell or offer for sale any restricted-use pesticides must obtain an annual license to sell that authorizes the sale of restricted-use pesticides to persons who have been issued certified pesticide-use permits.[2646]
- All persons who purchase and use restricted-use pesticides must obtain pesticide-use permits from the commissioner before engaging in such activities.[2647]

The act requires that violation of any provisions of the Alabama Pesticide Act will subject the noncomplying pesticide or device to suspension from sale, seizure, and condemnation.[2648] Moreover, anyone who violates any provisions of the act or promulgated rule or regulation will be guilty of a misdemeanor and upon conviction is subject to monetary fines.[2649]

Application of pesticides.—Acknowledging that the misuse of pesticides may seriously injure health, property, crops, wildlife, bees, and fish, the Alabama State Legislature enacted a set of provisions to *regulate, in the public interest, the application of pesticides.*[2650] However, these provisions do not apply to—

- ◊ the application of pesticides to lawns, trees, or shrubs immediately adjacent to a dwelling or building;
- ◊ the use of pesticides or other chemicals for the control, eradication, or prevention of termites or household pests;
- ◊ persons engaged in farming activities who use their own aircraft or ground equipment for the application of pesticides;

[2642]ALA. CODE § 2-27-7 (1975).
[2643]Id. § 2-27-8.
[2644]Id. § 2-27-12 (1975).
[2645]Id. § 2-27-30 (Supp. 1993).
[2646]GA. CODE ANN. § 2-27-10 (1975).
[2647]Id. § 2-27-11 (Supp. 1993). Applicant must meet certain qualifications and pay a permit fee of not less than $15 nor more than $30 per category of certification.
[2648]Id. § 2-27-15 (1975).
[2649]Id. § 2-27-16(a).
[2650]Georgia Pesticide Control Act of 1976, GA. CODE ANN. § 2-27-51 (1975).

- ◊ municipalities, counties, or the state or Federal agencies where the government agencies engage in the custom application of pesticides.

However, this exemption does not apply to contractors performing custom application of pesticides for any governmental agency.[2651]

The act requires all pesticide applicators to obtain an annual license before engaging in pesticides application activities.[2652] An applicant for license must also furnish and file with the commissioner a surety bond or liability insurance.[2653] The act also imposes a general penalty for violations of the application of pesticides law: a violator is guilty of a misdemeanor and, upon conviction, a fine of not less than $25 nor more than $500 or an imprisonment term of not more than 6 months, or both, is imposed.[2654]

Moreover, these provisions authorize the commissioner to—

- ◊ promulgate rules and regulations necessary and reasonable to carry out the purpose of the pesticides application law;[2655]
- ◊ prescribe the pesticides or methods, by rules and regulations, to be used for their application and prohibit or limit the use of certain pesticides;[2656]
- ◊ require any licensee to maintain records and to furnish reports by rules and regulations;[2657] and
- ◊ enter upon public or private premises to determine compliance with the laws.[2658]

Georgia (region 2).—Georgia has two acts dealing with pesticides: the Georgia Pesticide Control Act of 1976[2659] and the Georgia Pesticide Use and Application Act of 1976.[2660] are discussed.

Georgia Pesticide Control Act of 1976.—This act was created with the primary purpose of regulating the labeling, distribution, storage, transportation, use, and disposal of pesticides,[2661] and to be administered by the commissioner of agriculture.[2662]

The following requirements apply to all pesticide activities within Georgia:

- All pesticides to be distributed must be registered annually with the commissioner.[2663] However, such registration is not required if—
  - ◊ the pesticide is shipped from one plant or warehouse to another plant or warehouse operated by the same person, and such pesticide is used only at such plant or warehouse as a constituent part to make a pesticide which is registered; or

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[2651]ALA. CODE § 2-27-52.
[2652]Id. § 2-27-53 (1975).
[2653]Id. § 2-27-56.
[2654]Id. § 2-27-62(a).
[2655]Id. § 2-27-57.
[2656]Id. § 2-27-58.
[2657]Id. § 2-27-60.
[2658]Id. § 2-27-61.
[2659]Id. § 2-7-50 to 2-7-73 (1990).
[2660]Id. § 2-7-90 to 2-7-114 (1990 & Supp. 1993)
[2661]Georgia Pesticide Control Act of 1976, GA. CODE ANN. § 2-7-51 (1990).
[2662]Id. § 2-7-54.
[2663]Id. § 2-7-55(a).

◊ the pesticide is distributed under an experimental use permit.[2664] Applicants who want to register a pesticide must pay an annual registration of $10 to the commissioner.[2665]

Restricted use pesticide dealers must obtain an annual license from the commissioner.[2666]

A license application must be accompanied by a $15 annual license fee.[2667] However, this requirement does not apply to—

◊ a licensed pesticide contractor who sells pesticides only as an integral part of his or her pesticide application service, when the pesticides are dispensed only through equipment used for such pesticide application, or

◊ a Federal, State, county or municipal agency that provides pesticides only for its programs.[2668]

The commissioner is authorized to do the following:

- To require any person issued a license, permit, or registration to keep accurate records of pesticide activities.[2669]
- To issue subpoenas to compel attendance of witness or production of books, documents and records at the hearing affecting the authority or privilege granted by a license, registration, or permit.[2670]
- To deny, suspend, or revoke any license, registration, or permit, subject to a hearing and in compliance with the Georgia Administrative Procedure Act.[2671]
- To declare as a pest any form of plant or animal life that is harmful to health or the environment.[2672]
- To determine whether pesticides under the authority of FIFRA are highly toxic to man.[2673]
- To determine those pesticides and quantities of substances contained in pesticides registered for special local needs that are injurious to the environment.[2674]

[2664]GA. CODE ANN. The Commissioner may issue an experimental use permit if determined that the applicant needs the permit to accumulate information necessary to register a pesticide. Id. § 2-7-56(a)(1). The commissioner may refuse such permit if determined that the permit is not warranted or that the pesticide use may cause unreasonable adverse effects on the environment. § 2-7-56(a)(2). The commissioner may prescribe terms, conditions, time limit and required supervision before issuing such permit. Id. § 2-7-56(a)(3). In addition, the commissioner may revoke or modify any experimental use permit at any time if determined that its terms and conditions are violated, or that its terms and conditions are not adequate to avoid unreasonable adverse effects on the environment. Id. § 2-7-56(a)(4).
[2665]GA. CODE ANN. § 2-7-55(f).
[2666]Id. § 2-7-57(a).
[2667]Id. § 2-7-57(b).
[2668]Id. § 2-7-57(c).
[2669]Id. § 2-7-61.
[2670]Id. § 2-7-60.
[2671]Id. § 2-7-58.
[2672]Id. § 2-7-63(a)(1).
[2673]Id. § 2-7-63(a)(2).
[2674]Id. § 2-7-63(a)(3).

- To make appropriate regulations, where such regulations are necessary for the enforcement and administration of this Pesticide Control Act.[2675]
- To adopt regulations in conformity with the primary pesticide standards, particularly as to labeling, registration requirements and issuance of experimental use permits, established by the EPA or other Federal or State agencies.[2676]
- To cooperate, receive grants-in-aid, and enter into cooperative agreements with any Federal, State, or State subdivision agencies.[2677]
- To publish results of analyses based on official samples as compared with the analyses guaranteed and information regarding the distribution of pesticides.[2678]
- The act provides that it is unlawful for any person to distribute a pesticide that—
  - ◊ has not been registered;
  - ◊ does not comply with the labeling requirement;
  - ◊ has not been colored or discolored as required by FIFRA;
  - ◊ is adulterated or misbranded; or
  - ◊ is in containers that are unsafe because of damage.[2679]
- Also, the act provides that it is equally unlawful to—
  - ◊ distribute pesticide labeled for restricted use to any person who is required to have a permit or to be certified, unless such person has the valid permit or is certified;
  - ◊ detach, alter, deface, or destroy, wholly or in part, any label or labeling;
  - ◊ use any pesticide in a manner inconsistent with its labeling or the regulations of the commissioner;
  - ◊ handle, transport, store, displace, or distribute pesticides in such a manner as to endanger man and the environment; and
  - ◊ fail to comply with this act or the adopted regulations.[2680]

Any person who violates any provision of this act or adopted regulations is guilty of a misdemeanor.[2681] However, the following persons and activities are exempted from these prohibited acts:[2682]

- Any carrier while lawfully engaged in transporting a pesticide or device, if upon request, will allow the department to copy all records showing the transactions in and movement of the pesticide or device.
- Any person who prepares or packs any pesticide or device intended solely for export to a foreign country according to the specifications or directions of the purchasers.

[2675]GA. CODE ANN. § 2-7-63(b).
[2676]Id. § 2-7-63(c).
[2677]Id. § 2-7-65.
[2678]Id. § 2-7-67.
[2679]Id. § 2-7-62(a).
[2680]Id. § 2-7-62(b).
[2681]Id. 2-7-73.
[2682]Id. § 2-7-62(c).

- The manufacturer or shipper of a pesticide for experimental use by or under the supervision of a state or Federal agency authorized to conduct research in the field of pesticides.
- Public officials and Federal Government while engaged in the performance of their official duties in administering state or Federal pesticide laws or regulations.
- Any person who ships a substance or mixture of substances being put through tests, in which the purpose is only to determine its value for pesticide purposes, its toxicity, or other properties.

When the commissioner has reasonable cause to believe a violation exists, the official may issue and serve a written stop sale, use, or removal order upon the owner or custodian of the pesticide or device.[2683] After serving the order, the official may petition the court of competent jurisdiction in the appropriate county to issue temporary or permanent injunctions. The commissioner may also petition the court for mandatory or restraining, or condemnation orders.[2684]

Georgia Pesticide Use and Applicatiou Act of 1976.—This act has the primary purpose of regulating, in the public interest, the use and application of pesticides to control pests.[2685] The act is to be administered and enforced by the commissioner of agriculture, who in the act's administration must appoint a Pesticide Advisory Board to advise him or her on matters regarding pesticides and their use and application.[2686] However, the act provides the following exemptions:

- The licensing requirement does not apply to a farmer applying pesticides classified for general use for the farmer or the farmer's neighbors.
- This exemption applies only if the farmer—
  - ◊ operates farm property and use and maintains pesticide application equipment mainly for ones own use;
  - ◊ is not regularly engaged in the business of applying pesticides for hire, amounting to a principal or regular occupation, and does not publicly hold out as a pesticide contractor; and
  - ◊ operates the pesticide application equipment only in the vicinity of ones own property and to accommodate neighbors.[2687]
- The licensing requirement does not apply to a veterinarian during the normal course of veterinary practice, provided that the veterinarian is not regularly engaged in the business of applying pesticides for hire, amounting to a principal or regular occupation, and does not publicly hold out as a pesticide contractor.[2688]
- The license requirement does not apply to research personnel applying pesticides only to bona fide experimental plots, other than restricted use pesticides (or state restricted use pesticides) restricted to use by certified applicators.[2689]

[2683]GA. CODE ANN. § 2-7-70.
[2684]Id. § 2-7-71.
[2685]Id. § 2-7-90 (1990 & Supp. 1993).
[2686]Id. § 2-7-93, § 2-7-97.
[2687]Id. § 2-7-112(a).
[2688]Id. § 2-7-112(b).
[2689]Id. § 2-7-112(c).

- Persons subject to the Georgia Structural Pest Control Act are exempt from this act and all adopted regulations.[2690]

To engage in the business of contracting for the application of any pesticide to the land, a pesticide contractor must obtain an annual license for each business location. Each business location is required to employ at least one full-time certified commercial pesticide applicator. In addition, the applicant must pay an annual license fee[2691] and file proof of financial responsibility.[2692]

To purchase, use, or supervise the use of any pesticide as a private applicator, such person must be licensed as a certified private applicator or acting under the direct supervision of an individual who is licensed as a certified private applicator.[2693] A showing of competency to apply *restricted use pesticides* safely is required.[2694] However, no license fee is required.[2695] Similarly, a person must be licensed as a certified commercial applicator before engaging in any purchase, use or supervision of the use of any pesticide as a commercial applicator.[2696] A license fee is also required.[2697] However, whereas other licenses are issued annually, the certified commercial pesticide applicator's license is issued for 5 years.[2698] Moreover, all licenses, permits or certifications may be subject to denial, suspension, revocation, or modification.[2699]

The commissioner is authorized to do the following:

- To cooperate with educational institutions and other state or Federal agencies in publishing information and conducting short courses of instruction in the areas relating to pesticides.[2700]
- To cooperate, receive grants-in-aid, and enter into agreements with any agency of the Federal, State, or subdivision governmental bodies to obtain assistance in the implementation of this act.[2701]
- To classify or sub-classify certifications or licenses to be issued under this act.[2702]
- To enter into private premises, at reasonable times, for inspections or investigations to implement and enforce the act.[2703]
- To provide for inspection of any equipment used for application of pesticides.[2704]
- To delegate duties to employees or agents of the department.[2705]

[2690]GA. CODE ANN. § 2-7-112(d).
[2691]Id. § 2-7-99(a).
[2692]Id. § 2-7-103.
[2693]Id. § 2-7-99(b)(1)(A).
[2694]Id.
[2695]Id. § 2-7-99(b)(1)(C).
[2696]Id. § 2-7-99(b)(2)(A).
[2697]Id. § 2-7-99(b)(2)(C).
[2698]Id.
[2699]Id. § 2-7-102.
[2700]Id. § 2-7-95.
[2701]Id. § 2-7-96.
[2702]Id. § 2-7-98(a).
[2703]Id. § 2-7-107.
[2704]Id. § 2-7-105.
[2705]Id. § 2-7-94.

- To issue regulations to carry out this act.[2706]
- To adopt *restrictive use pesticide* classifications as determined by the EPA.[2707]
- To determine, by regulation and after a public hearing following by due notice, *state restricted pesticide uses* for the State or for designated areas within the state.[2708]
- To declare any form of plant or animal life (other than man) that is injurious to health or the environment to be a pest, after notice and opportunity for hearing.[2709]
- To make reports to the EPA as the agency may require.[2710]
- To prescribe standards for the certification of applicators of pesticides.[2711]
- To require licenses for all applicators of pesticides.
- To require licensed pesticide contractors and licensed certified commercial applicators who are not employed by or otherwise acting for a licensed pesticide contractor, to maintain records with respect to applications of pesticides.[2712]

The act specifically prohibits any county, municipal corporation, consolidated government, or other political subdivision to adopt or continue in effect any ordinance, rule, regulation or resolution relating to pesticide use, sale, distribution, storage, transportation, disposal, formulation, labeling, registration, or manufacture.[2713] However, the governing authority of any county or municipality is allowed to petition the commissioner for a variance from a rule or regulation of the commissioner because of special circumstances.[2714]

Any individual violating any provision of this act or any regulations adopted by the commissioner is guilty of a misdemeanor.[2715]

Arkansas (region 3).—Under the Arkansas Pesticide Control act,[2716] which is administered by the State Plant Board,[2717] the following provisions are applicable to pesticides in Arkansas:

- Each pesticide must be registered annually by the State Plant Board before sale or distribution in Arkansas.[2718] The registration applicant must pay an annual registration fee.[2719] The board, if certified by the administrator of EPA, may allow registration of noncompliant pesticides if such pesticides are formulated for local needs.[2720]

[2706]GA. CODE ANN. § 2-7-97(a).
[2707]Id. § 2-7-97(c).
[2708]Id. § 2-7-97(c).
[2709]Id. § 2-7-97(f).
[2710]Id. § 2-7-97(g).
[2711]Id. § 2-7-98(b).
[2712]Id. § 2-7-104.
[2713]Id. § 2-7-113.1(a), effective on July 1, 1992 (Supp. 1993).
[2714]Id. § 2-7-113.1(b).
[2715]Id. § 2-7-114.
[2716]ARK. CODE ANN. § 2-6-401 through 2-16-419 (1987).
[2717]Id. § 2-16-405.
[2718]Id. § 2-16-407.
[2719]Id.
[2720]Id. § 2-16-408.

- Pesticides must comply with the labeling requirement.[2721]

The State Plant Board is authorized to do the following:[2722]

- To declare as a pest any form of plant or animal life, other than human.
- To determine whether pesticides registered under the authority of FIFRA are highly toxic to human.
- To determine pesticides, and quantities of substances contained in pesticides, that are injurious to the environment (the board must be guided by EPA regulations in this determination).
- To prescribe regulations requiring any pesticide registered for special local needs to be colored or discolored if it determines that the requirement is feasible and necessary to protect health and the environment.
- To inspect pesticides to determine compliance.
- To make appropriate regulations that it deems necessary for the enforcement and administration of the Pesticide Control Act.

In addition, the board can issue experimental-use permits[2723] provided that such experiment does not cause unreasonable adverse effects on the environment.[2724]

The act prohibits distribution of—

- ◊ pesticides that have not been registered;
- ◊ pesticides that do not conform to the labeling requirement;
- ◊ any pesticide that has not been colored or discolored as required by FIFRA;
- ◊ any pesticide that is adulterated or misbranded, or a device which is misbranded; and
- ◊ any pesticide in containers that are unsafe because of damage.[2725]

However, this prohibition provision does not apply to the following:[2726]

- Any carrier while lawfully engaged in transporting a pesticide, provided that the carrier, upon request, allows the board to copy all records showing the transactions in and movement of the pesticides or devices.
- Public officials of this State and the Federal Government while engaged in the performance of their official duties in administering state or Federal pesticide laws or regulations or while engaged in pesticide research.
- The manufacturer or shipper of pesticide for experimental use only by or under required supervision.
- Any person who ships a substance or mixture of substances being put through tests to determine its values for pesticide purposes or its toxicity, provided that the user does not expect to receive any benefit in pest control from its use.

[2721] ARK. CODE ANN. § 2-16-410.
[2722] Id. § 2-16-406.
[2723] Id. § 2-16-409.
[2724] Id.
[2725] Id. § 2-16-411.
[2726] Id. § 2-16-411.

However, the act also provides for protection of trade secrets or commercial or financial information.[2727]

Noncompliant sale or distribution of pesticides will be subject to a "stop-sale, use or removal order" issued by the board.[2728] If violation does not cease, such pesticide will be subject to seizure on complaint of the board to a court of competent jurisdiction. If the court finds the pesticide violates the act, it will condemn the pesticide and order it disposed of. However, before ordering disposition of the noncompliant pesticide, the court must give claimant an opportunity to apply to the court for release of the pesticides or for permission to bring it into compliance with this act.[2729]

The act imposes a fine of not less than $100 and not more than $1000 for the first offense, and a fine of not less than $500 and not more than $2,000 for the second and any additional offense.[2730]

Mississippi (region 3).—Under the Mississippi Pesticide Law of 1975,[2731] the following provisions are required for pesticide activities:

- Each pesticide that is sold or distributed within Mississippi must be registered annually. This registration requirement does not apply to a pesticide that is shipped intrastate from one plant to another plant operated by the same person.[2732]
- If allowed by the administrator of EPA, the commissioner of Mississippi Department of Agriculture and Commerce can issue an experimental permit to any person requesting such.[2733]

Each pesticide dealer must obtain an annual license. However, this requirement does not apply to —

- ◊ a licensed pesticide applicator who sells pesticides only as an integral part of his or her pesticide application service where such pesticides are applied by the commercial applicator; or
- ◊ any Federal, State, county or municipal agency that provides pesticides only for its own programs.[2734]

The commissioner of Agriculture and Commerce is authorized:

- To declare as a pest any form of plant or animal life.[2735]
- To determine whether pesticides registered under the authority of FIFRA are highly toxic to human.[2736]
- To determine standards of coloring or discoloring for pesticides.[2737]

[2727]ARK. CODE ANN. § 2-16-418.
[2728]Id. § 2-16-413.
[2729]Id. § 2-16-414.
[2730]Id. § 2-16-404.
[2731]MISS. CODE ANN. §§ 69-23-1 through 69-23-27 et seq. (1991 & Supp. 1993).
[2732]Id. § 69-23-7 (Supp. 1993).
[2733]Id. § 69-23-25 (1991).
[2734]Id. § 69-23-27 (Supp. 1991).
[2735]Id. § 69-23-9(1)(a) (1991).
[2736]Id. § 69-23-9(1)(b).
[2737]Id. § 69-23-9(1)(c).

For the purpose of uniformity of requirements between the states and the Federal Government and to avoid confusion endangering the environment, the commissioner can also adopt regulations in conformity with the primary pesticide standards established by the Mississippi Legislature of Federal Government.[2738] The act prohibits distribution of—

- ◊ pesticides that have not been registered;
- ◊ pesticides that do not conform with the labeling requirement;
- ◊ any pesticide that has not been colored or discolored as required by FIFRA;
- ◊ any pesticide that is adulterated or misbranded, or device that is misbranded; and
- ◊ any pesticide in containers that are unsafe because damage[2739]

However, this prohibition provision does not apply to the following:[2740]

- Any carrier although lawfully engaged in transporting a pesticide, provided that the carrier, upon request, allows the board to copy all records showing the transactions in and movement of the pesticides or devices;
- Public officials of this State and the Federal Government while engaged in the performance of their official duties in administering State or Federal pesticide laws or regulations or while engaged in pesticide research;
- The manufacturer or shipper of pesticides for experimental use only—
  - ◊ by or under required supervision, and
  - ◊ by others if the shipper or manufacturer holds a valid experimental use permit.

Moreover, note that the act does not apply to pesticides intended solely for export to a foreign country when prepared or packaged according to the specifications or directions of the purchaser.[2741]

The act imposes both a monetary fine and a prison term on violators of the act.[2742]

The Mississippi Legislature also enacted two separate acts dealing with Pesticide Application and Disposal of Pesticides. Each shall be discussed in turn.

Pesticide application.—The Mississippi Pesticide Application Law of 1975,[2743] administered and enforced by the commissioner of the Mississippi Department of Agriculture and Commerce,[2744] was enacted with the primary purpose of providing "a means for the state certification of applicators of restricted use pesticides required under the [FIFRA], and regulating in the public interest the use and application of such pesticides . . . ."[2745]

The act requires that all persons who engage in the application or use of any pesticide that is restricted by the EPA or the commissioner must be certified and

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[2738]MISS. CODE ANN. § 69-23-9(3).
[2739]Id. § 69-23-5(1).
[2740]Id. § 69-23-15.
[2741]Id. § 69-23-15(2).
[2742]Id. § 69-23-19.
[2743]Id. § 69-23-101 through 69-23-133 (1991 & Supp. 1993).
[2744]Id. § 69-23-103, 69-23-125 (1991).
[2745]Id. § 69-23-105.

licensed by the commissioner.[2746] Licenses and permits are subject to denial, suspension, revocation, and modification by the commissioner.[2747] All commercial applicators must maintain records with respect to application of pesticides.[2748]

The commissioner has the authority to adopt regulations to carry out the provisions of this act.[2749] The commissioner is required to appoint an advisory committee, by regulation, to advise and assist the commissioner in developing regulations and plans for implementing the provisions of the act and a pesticide regulatory program to meet the requirements of FIFRA.[2750] The act imposes both a monetary fine and a prison term on violators of the act.[2751]

Disposal of pesticides.—The Mississippi Waste Pesticide Disposal Act of 1993[2752] requires the Mississippi Department of Agriculture and Commerce to develop and administer a Waste Pesticide Disposal Program (subject to the availability of funds).[2753] This program will not apply to disposal of pesticides that may be returned to the seller or manufacturer of such pesticides at no disposal cost to the person returning such pesticides.[2754] Moreover, the department must establish an advisory committee, consisting of ten persons, to advise the department on the development and administration of a statewide waste pesticide disposal program.[2755]

The department is authorized to promulgate appropriate rules and regulations to carry out the provisions of this act.[2756]

Wisconsin (region 4).—The following provisions are applicable to the manufacture and distribution of pesticides in Wisconsin:

- All manufacturers and labelers must obtain a license from the Wisconsin Department of Agriculture before engaging in such activities. This requirement does not apply to—
  - ◊ the sale or distribution of pesticides at wholesale or retail in the immediate, unbroken container of licensed manufacturers;
  - ◊ the sale of pesticides or active ingredients to licensed manufacturers for use as a basic ingredient in the manufacture or formulation of another pesticide;
  - ◊ the blending of fertilizer-pesticide mixtures in compliance with the registered pesticide label at the customer's request, provided that such mixtures will not be resold or redistributed.[2757]

[2746]Id. § 69-23-111.
[2747]PENN STAT. ANN. § 69-23-115.
[2748]Id. § 69-23-117.
[2749]Id. § 69-23-109 (Supp. 1993), 69-23-131(1991).
[2750]Id. § 69-23-133.
[2751]Id. § 69-23-129.
[2752]Id. § 69-23-301 through 69-23-313 (Supp. 1993).
[2753]Id. § 69-23-305 (Supp. 1993).
[2754]Id.
[2755]Id. § 69-23-309.
[2756]Id. § 69-23-305.
[2757]WIS. CODE ANN. § 94.68 (West 1990 & Supp. 1993).

- Primary producer[2758] must pay an annual well compensation fee.[2759]
- Dealers and distributors of restricted-use pesticides must be licensed.[2760]
- Commercial application businesses must obtain a license from the department.[2761]
- Individual commercial applicators must secure license from the Department. This requirement does not apply to a private applicator who applies pesticides solely as a private applicator or only on an occasional or incidental basis as a commercial applicator.[2762]
- Private and commercial applicators must be certified. The Department is required to adopt standards for the training and certification of private and commercial applicators. Moreover, certified commercial applicators must maintain records of amounts, dates, types, places, and uses of all pesticides.[2763]

The Wisconsin pesticides law prescribes penalties for a number of prohibited acts. However, these penalties do not apply to the following:[2764]

- Any carrier while lawfully engaged in transporting a pesticide, provided that the carrier, upon request, allows the Department to copy all records showing the transactions in and movement of the pesticides or devices.
- Public officials of this state and the Federal Government while engaged in the performance of their official duties in administering state or Federal pesticide laws or regulations or while engaged in pesticide research.
- Persons using or possessing a pesticide in accordance with the terms and conditions of an experimental use permit.
- Articles consigned for shipment to another state or for export to a foreign country, when prepared or packed according to the specifications or direction of the purchaser.
- Persons shipping a substance or mixture of substances only for the conduct of screening tests to determine its usefulness or value as a pesticide or its toxicity or other properties, provided that such persons do not expect to receive any pest control benefit from its uses.

Iowa (region 5).—Under the Pesticide Act of Iowa,[2765] the following provisions are applicable to all activities relating to pesticides:

- Commercial or public pesticide applicators must comply with all certification requirements before applying any pesticide or restricted use pesticide. Commercial applicators who apply pesticides to agricultural land may be exempted from the certification requirement for 21 days if they meet the requirements of a private applicator. Moreover, an employee of a food processing and distribution establishment is also exempted provided that at

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[2758]A primary producer is a licensee who manufactures an active ingredient that is used to manufacturer or produce a pesticide. WIS. CODE ANN. § 94.681 (West 1990).
[2759]Id. § 94.68 (West Supp. 1993).
[2760]WIS. CODE ANN. § 94.685.
[2761]Id. § 94.703 (West 1990).
[2762]Id. § 94.704.
[2763]Id. § 94.705.
[2764]Id. § 94.70.
[2765]Pesticide Act of Iowa, IOWA CODE ANN. §206.1 et seq. (West 1987 & Supp. 1993).

least one person holding a supervisory position is certified and the employer provides a program to train, test and certify persons who apply.[2766]

- Commercial, public, or private applicators must be tested before initial certification and re-examined every 3 years following the initial examination to obtain certification renewal.[2767]
- All commercial applicators must obtain a license for application of pesticides.[2768] As a requirement to obtain such license, the applicant must furnish evidence of a surety bond or insurance to the secretary.[2769] However, the exemptions from the licensing requirement include—
  - ◊ any farmer applying pesticides for the farmer or with ground equipment or manually for the farmer's neighbors;[2770]
  - ◊ persons using hand-powered or self-propelled equipment not exceeding 7 1/2 horsepower as determined by rules promulgated by the department to apply pesticides to lawns, or to ornamental shrubs and tress not in excess of 12 feet high;[2771] and
  - ◊ any doctor of veterinary medicine applying pesticides to animals during the normal course of veterinary practices.[2772]

Nonresident applicators applying for a license must file a written power of attorney designating the Secretary of State as the agent of such nonresident.[2773]

A commercial applicator must pass an examination demonstrating his or her knowledge of how to apply pesticides and the nature and effect of pesticides before issuance of the license.[2774]

- All public pesticide applicators are subject to the provisions of this act and the rules adopted and promulgated pursuant to the act.[2775] Thus, public applicators are subject to certification and licensing requirements. However, government research personnel are exempt from the licensing requirement when applying pesticide only to experimental plots.[2776]
- All pesticide dealers must obtain a license before acting in the capacity of a pesticide dealer.[2777]
- All pesticides distributed, sold, offered for sale in Iowa, or transported in intrastate commerce through any point in Iowa must be registered.[2778]
- All commercial applicators and certified commercial applicators must maintain records regarding the application of pesticides.[2779]

[2766]IOWA CODE ANN. § 206.5 (West Supp. 1993), § 206.7 (West 1987 & Supp. 1993).
[2767]Id. § 206.5 (West Supp. 1993), § 206.7 (West 1987 & Supp. 1993).
[2768]Id. § 206.6(1) (West 1987).
[2769]Id. § 206.13.
[2770]Id. § 206.18(3).
[2771]Id. § 206.18(4).
[2772]Id. § 206.18(5).
[2773]Id. § 206.6(2).
[2774]Id. § 206.6(3) (West Supp. 1993).
[2775]Id. § 206.6(6)(a) (West 1987).
[2776]Id. § 206.6(6)(b) (West Supp. 1993).
[2777]Id. § 206.8 (West 1987 & Supp. 1993).
[2778]Id. § 206.12.
[2779]Id. § 206.8 (West 1987).

The Iowa Secretary of Agriculture has the following mandatory duties and powers:

- To adopt, by rule, requirements for the examination, re-examination and certification of applicants.[2780]
- To require, by rule, that veterinarians licensed and practicing veterinary medicine in Iowa promptly report to the department any case of domestic livestock poisoning or suspected poisoning by agricultural chemicals.[2781]
- To declare as a pest any form of plant or animal life or virus that is injurious to plants, humans, or animals.[2782]
- To determine the proper use of pesticides, such as their formulations, times and methods of application, and other condition of use.[2783]
- To determine, in cooperation with municipalities, the proper notice to be given by a commercial or public applicator to occupants of adjoining property in urban areas before or after application of pesticides.[2784]
- To adopt proper rules providing guidelines for public bodies to notify adjacent property occupants concerning the application of herbicides to noxious weeds or other undesirable vegetation within highway rights-of-way. [2785]
- To establish civil penalties for violations by commercial applicators.[2786]
- To determine, by rule, the pesticides to be classified as restricted use pesticides.[2787]
- To designate areas with a history of concerns regarding nearby pesticide applications as pesticide management areas.[2788]

The secretary may do the following:

- Classify or subclassify certifications or licenses. However, in promulgating rules, the secretary must prescribe standards for certification of applicators of pesticides.[2789]
- Cooperate, receive grants-in-aid and enter into agreements with any agency of the Federal Government, of this State or its substitutions, or with any agencies of other states, or trade associations.[2790]
- Require, by rule, the reporting of significant pesticide accidents or incidents to a designated state agency.[2791]

The act provides that the pesticide will be confiscated if it—

◊ is adulterated or misbranded;

◊ has not been registered;

◊ fails to bear on its label the required information; or

[2780]IOWA CODE ANN. § 206.5 (West Supp. 1993).
[2781]Id. § 206.14(4) (West 1987).
[2782]Id. § 206.19(1).
[2783]Id. § 206.19.2 (West Supp. 1993).
[2784]Id. § 206.19(3) (West Supp. 1993).
[2785]Id. § 206.19(4).
[2786]Id. § 206.19(5).
[2787]Id. § 206.20 (West Supp. 1993).
[2788]Id. § 206.21(3).
[2789]Id. § 206.4 (West 1987).
[2790]Id. § 206.9 (West Supp. 1993).
[2791]Id. § 206.14 (West 1987).

◊ is white powder pesticide and is not colored as required.[2792]

The device will also be confiscated if it is misbranded.[2793] However, these penalties do not apply to the following:[2794]

- Any carrier while lawfully engaged in transporting a pesticide within Iowa, if upon request, allows the secretary to copy all records showing the transactions.
- Public officials of Iowa and the Federal Government engaged in their official duties.
- The manufacturer or shipper of a pesticide for experimental use.

The act does not apply to any pesticides intended solely for export to a foreign country, when prepared or packed according to specifications and instructions of the purchaser.[2795] In addition, the act creates an advisory committee, consisting of nine members,[2796] which must assist the secretary and recommend rules regarding the sale, use, or misuse of agricultural chemicals to the secretary.[2797]

In 1987, the act was amended to require the Iowa Secretary of Agriculture to initiate a program of education and demonstration, and coordinate activities regarding such program, in the area of the agricultural use of fertilizers and pesticides.[2798] The education and demonstration programs must promote the widespread adoption of management practices that protect ground water.[2799] The Iowa Department of Agriculture and Land Stewardship, in cooperation with the Environmental Protection Division of the Iowa Department of Natural Resources, is required to develop a program for handling used pesticide containers, which reflects the state solid waste management policy hierarchy.[2800]

Furthermore, the act specifically prohibits all individuals from offering for sale, selling, purchasing, or using chlordane in Iowa as of January 1, 1989.[2801] The Iowa Department of Agriculture working together with the Department of Natural Resources, must identify existing stocks of chlordane, formulate recommendations for the safe disposal of existing stocks of chlordane, and make available those recommendations to the owners of existing stocks of chlordane.[2802] The act also prohibits all individuals from offering for sale, selling, purchasing, applying, or using a pesticide containing daminozide if such pesticide is sold, purchased, applied, or used for purposes of enhancing or improving a product produced or consumed.[2803]

[2792]IOWA CODE ANN. § 206.16(1)(a) (West 1987).
[2793]Id. § 206.16(1)(b) (West 1987).
[2794]Id. § 206.18(1) (West 1987).
[2795]Id. § 206.18(2).
[2796]Id. § 206.23 (West 1987).
[2797]Id.
[2798]Id. § 206.24 (West Supp. 1993).
[2799]Id. § 206.24 (West Supp. 1993).
[2800]Id. § 206.25.
[2801]Id. § 206.32(1).
[2802]Id. § 206.32(2) (West Supp. 1993).
[2803]Id. § 206.33.

Nebraska (region 5).—Under the pesticide law of Nebraska, the following provisions are applicable to all activities relating to applications of pesticides:

- Public pesticide applicators must obtain a license and permit before applying any pesticide or restricted use pesticide.[2804]
- All individuals who use or supervise the use of any restricted use pesticides must be certified.[2805] Aircraft that apply pesticides must be certified.[2806]

New Mexico (region 6).—Under the Pesticide Control Act,[2807] to be enforced by the State Department of Agriculture, under the direction of the Board of Regents of New Mexico State University,[2808] the following provisions are applicable to all activities regarding pesticides in New Mexico:

- Each pesticide or device that is distributed must be registered. This requirement does not apply to a pesticide that is shipped from one location to another operated by the same person and used solely at such location as a constituent part to make a pesticide that is registered.[2809]
- Any person who is interested in conducting field tests using a pesticide must obtain an experimental use permit from the department.[2810]
- Before acting in the capacity of a pesticide dealer, such person must secure an annual pesticide dealer license from the department. This requirement does not apply to a licensed pesticide applicator who sells pesticides only as an integral part of his or her pesticide service. Moreover, each pesticide dealer must be responsible for the actions of any of his or her employees.[2811]
- Before acting in the capacity of a pest management consultant, such person must obtain an annual license. The licensing requirement does not apply to—
  - ◊ licensed applicators and operators, and
  - ◊ employees of Federal, State, and county agencies or municipalities when acting in their official capacities.[2812] Moreover, each applicant for a pest management consultant license must pass a written exam demonstrating his or her competency.[2813]
- All public pest management consultants, except Federal and State employees whose principal responsibilities are in pesticide research, must be licensed.[2814] Moreover, each applicant for a public pest management consultant license must pass a written exam demonstrating his or her competency.[2815]
- All commercial pesticide applicators must be licensed[2816] and secure a surety bond or insurance.[2817] Before acting in the capacity of an employee of a

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[2804]Pesticides, NEB. REV. STAT. § 3-128 (1987).
[2805]Id. § 2-2620.
[2806]Id. § 3-128.
[2807]Pesticide Control Act, NEW MEXICO. STAT. ANN. § 76-4-1 et seq. (1981).
[2808]Id. § 76-4-2.
[2809]Id. § 76-4-6.
[2810]Id. § 76-4-7.
[2811]Id. § 76-4-13.
[2812]Id. § 76-4-14.
[2813]Id. § 76-4-16.
[2814]Id. § 76-4-15. A public pest management consultant is defined to mean any person who is employed by a government agency or municipality to act as a pest management consultant.
[2815]NEW MEXICO STAT. ANN. § 76-4-16.
[2816]Id. § 76-4-17.
[2817]Id. § 76-4-24.

commercial pesticide applicator, such person must obtain an operator license.[2818]

- All private applicators must comply with the certification requirement before using a restricted use pesticide. Certification may require that the applicant—
  - ◊ acknowledges and understands and will comply with the label precautions by signing a dealer's pesticide register;
  - ◊ obtain a user permit before purchase and use of the pesticide;
  - ◊ pass a written examination demonstrating his or her competency; and
  - ◊ obtain approval from the department for each application involving a specific risk to the environment.[2819]
- All noncommercial pesticide applicators must be licensed.[2820]
- Each licensed apparatus must bear a license plate or decal furnished by the Department.[2821]
- Each person issued a license or permit must keep such records.[2822]

However, except for the use of restricted use pesticides, the provisions of the act relating to licenses and requirements will not apply to any farmer or rancher owning and using a ground or manual apparatus to apply pesticides for his or her farmer or rancher neighbors.[2823]

The New Mexico Department of Agriculture has the following mandatory duties:

- To administer and enforce the provisions of this act and regulations promulgated by the Board of Regents of New Mexico State University.[2824]
- To direct the sampling and examination of pesticides or devices to determine if they comply with the requirements of the act.[2825]
- To provide annual inspection of any equipment used for application of pesticides by a commercial pesticide applicator.[2826]

The department is authorized to revoke or suspend the registration of any pesticide upon sufficient evidence that the registrant has used fraudulent or deceptive practices in the registration of the pesticide or in its distribution.[2827]

The department may also—
- ◊ issue a *stop sale, use, or removal order* to the owner or distributor of a designated pesticide[2828] or
- ◊ seek an order of seizure or condemnation of a pesticide in a court of competent jurisdiction.[2829]

[2818]NEW MEXICO STAT. ANN. § 76-4-18.
[2819]Id. § 76-4-20.
[2820]Id. § 76-4-20.I.
[2821]Id. § 76-4-27.
[2822]Id. § 76-4-33.
[2823]Id. § 76-4-28.
[2824]Id. § 76-4-9.
[2825]Id. § 76-4-10.
[2826]Id. § 76-4-26.
[2827]Id. § 76-4-8.
[2828]Id. § 76-4-11.
[2829]Id. § 76-4-12.

All violators of any provision or requirement of the act or regulations adopted by the board will be subject to penalties. However, the penalties do not apply to a number of persons, including—

- ◊ a carrier while lawfully engaged in transporting a pesticide (if such carrier permits the department to copy all records showing the transactions upon request),
- ◊ State or Federal public officials while engaged in the performance of their official duties in administering State or Federal pesticide laws or regulations or while engaged in pesticide research, or
- ◊ manufacturer or shipper of a pesticide for experimental use only by, or under the supervision of, a State or Federal agency.[2830]

Moreover, no pesticide or device will be deemed in violation of the act when intended solely for export to a foreign county and when prepared or packed according to the specifications or directions of the purchaser.[2831]

In addition, the Pesticide Control Act creates a pesticide advisory board, that is required to—

- ◊ review pesticide regulations and pesticides in use or proposed to be used in New Mexico, and
- ◊ advise which pesticides should not be registered, which should be designated restricted-use pesticides, and the uses to which restricted-use pesticides may be put.[2832]

Texas (regions 6 & 7).—Under the Texas Pesticide Regulation,[2833] the following provisions are required for pesticide activities:

- Each pesticide distributed in Texas must comply with the labeling requirement.[2834] Any word, statement or information appearing on the label must be conspicuous.[2835]
- Before a pesticide is distributed or delivered for transportation or is transported in intrastate commerce, the manufacturer or other person whose name appears on the pesticide's label must register the pesticide.[2836]

However, registration is not required for—

- ◊ the transportation of a pesticide from one plant or warehouse to another plant or warehouse operated by the same person if the pesticide is used in the second plant or warehouse as a constituent of a pesticide which is registered; and
- ◊ a chemical compound being used only to develop plot data as to the possible pesticide action of the chemical.[2837]

[2830]NEW MEXICO STAT. ANN. § 76-4-35(A).
[2831]Id. § 76-4-35(B).
[2832]Id. § 76-4-36.
[2833]TEXAS AGRIC. CODE ANN. § 76.001 et seq. (West 1995).
[2834]Id. § 76.021.
[2835]Id. § 76.022.
[2836]Id. § 76.041.
[2837]Id. § 76.041. For content of registration application, Id. 76.042.

- Moreover, the Texas Department of Agriculture may register a pesticide for additional uses and methods of application not covered by regulation to meet a special local need.[2838]
- A person who engages in the business of distributing a restricted-use or state-limited-use pesticide must obtain a valid current pesticide dealer license. Application for a pesticide dealer license must also be accompanied by fees[2839] and the license must be displayed in the dealer's place of business.[2840] A licensed pesticide dealer must maintain records of each restricted-use and state-limited-use pesticide sold for 2 years.[2841]

However, the dealer's licensing requirement does not apply to—

◊ a manufacturer or formulator of a pesticide who does not sell directly to the user;

◊ a licensed pesticide applicator who distributes restricted-use or state-limited-use pesticides only as an integral part of the pesticide application business, and dispenses the pesticides only through equipment used in the pesticide application business; or

◊ a Federal, State, county, or municipal agency that provides pesticides only for its own programs.[2842]

- A person cannot use a restricted-use or state-limited-use pesticide unless one is—
  ◊ licensed as a commercial applicator, noncommercial applicator, or private applicator;

  ◊ an individual acting under the direct supervision of a licensed applicator; or

  ◊ a certified private applicator.[2843]

Applicant for a commercial or noncommercial applicator license must pass an examination demonstrating competence.[2844] In addition, each applicant for a commercial applicator license must furnish the regulatory agency with evidence of an executed bond and liability insurance policy.[2845] Each commercial applicator and noncommercial applicator licensee must maintain records of the licensee's use of pesticides.[2846]

The department is designated as the lead agency for pesticide regulation in Texas. In cooperation with the U.S. EPA or any Federal agency responsible for implementation of a Federal pesticide law, the department must engage in a number of activities, including—

◊ registering pesticides for use in Texas;

◊ adopting lists of state-limited-use pesticides;

◊ providing for training, certification, and licensure of all classes of pesticide applicators;

[2838]TEXAS AGRIC. CODE ANN. § 76.046.
[2839]Id. § 76.073.
[2840]Id. § 76.074.
[2841]Id. § 76.075.
[2842]Id. § 76.077.
[2843]Id. § 76.105. For information regarding commercial applicator license, see § 76.108; regarding noncommercial applicator license, see 76.109; regarding private applicator, see § 76.112.
[2844]Id. § 76.110.
[2845]Id. § 76.111.
[2846]Id. § 76.114.

- ◊ enforcing pesticide laws and regulations governing the safe handling, use, storage, distribution, and disposal of pesticide products; and
- ◊ adopting rules to carry out the provisions of the Pesticide Regulation.[2847]

The department is also the lead agency in the regulation of pesticide use and application.[2848] The Texas Pesticide Regulation prohibits any city, town, county, or other political subdivision to adopt any ordinance, rule, or regulation regarding pesticide sale or use.[2849] However, this prohibition does not prevent the city, town, county, or other political subdivision to—

- ◊ encourage locally approved and provided educational material concerning a pesticide;
- ◊ zone for the sale or storage of such products;
- ◊ adopt fire or building regulations as preventive measures to protect the public and emergency services personnel;
- ◊ provide or designate sites for the disposal of such products;
- ◊ route hazardous materials; or
- ◊ regulate discharge to sanitary sewer systems.[2850]

The Texas Pesticide regulation considers the Agriculture Resources Protection Authority, composed of nine members, to be an agency of State Government. It is the coordinating body for the policies and programs of management, regulation, and control of pesticides conducted by the department, the State Soil and Water Conservation Board, the Texas Agricultural Extension Service, the Texas Department of Health, the Texas Water Commission, and the Texas Structural Pest Control Board.[2851]

Idaho (region 8).—Under the Idaho Pesticides law,[2852] the following provisions are applicable to pesticides in Idaho:

- Each pesticide that is distributed must be registered annually with the Idaho Department of Agriculture. This registration requirement does not apply to a pesticide that—
  - ◊ is shipped intrastate from one plant or warehouse to another plant or warehouse operated by the same person and is used solely at such place or warehouse as a constituent part to make a pesticide which is registered;
  - ◊ is labeled for experimental use only under the applicable provision of the Federal Insecticide, Fungicide, and Rodenticide Act or of the Idaho Code;
  - ◊ is transported through Idaho to a destination outside of Idaho; and
  - ◊ is manufactured within Idaho only for the purpose of export.[2853]
- Each commercial applicator must obtain a commercial applicator's license. To qualify for one, the applicant must—
  - ◊ be at least 18 years old,

[2847]TEXAS AGRIC. CODE ANN. § 76.007.
[2848]Id. § 76.101.
[2849]Id. § 76.101.
[2850]Id. § 76.101.
[2851]Id. § 76.009.
[2852]IDAHO CODE ANN. § 22-340 et seq. (1977 & Supp. 1994).
[2853]Id. § 22-3402 (Supp. 1994).

- ◊ pass the department's examination to determine one's competence (must pay examination fee);
- ◊ show proof of financial responsibility; and
- ◊ pay an annual license and registration fee.[2854]

- Each commercial operator must obtain a commercial operator license. To qualify for one, the applicant must—
  - ◊ be at least 18 years old;
  - ◊ pass the department's examination to determine one's competence (must pay examination fee);
  - ◊ pay an annual license fee; and
  - ◊ be employed by a licensed commercial applicator.[2855]
- Each limited applicator must be licensed. To be qualified, such applicant must—
  - ◊ be at least 18 years old,
  - ◊ pass the department's examination to determine his or her competence (must pay examination fee); and
  - ◊ pay an annual license fee.[2856]
- Each private applicator must be licensed. To be qualified, such applicant must—
  - ◊ be at least 18 years old; and
  - ◊ pay a license fee and publicly hold themselves out as commercial applicators.
- A number of exemptions from the licensing requirement exists for commercial applicator, commercial operator, limited applicator, and private applicator, including—
  - ◊ any farmer applying pesticides other than restricted-use pesticides who does not hold out as a commercial applicator;
  - ◊ any individual using hand-powered equipment to apply pesticides other than restricted-use pesticides to one's or others' lawns or ornamental trees and shrub and who does not hold out as a commercial applicator;
  - ◊ industry, governmental, University of Idaho research personnel, and extension research personnel who apply pesticides other than restricted-use pesticides to experimental plots, demonstrate the use of pesticides and do not publicly hold themselves out as commercial applicators; and
  - ◊ a veterinarian who applies pesticides as an integral part of his or her business and does not publicly hold out as a commercial applicator. Moreover, Federal, State, and other governmental agencies are exempt from the fee requirement.[2857]
- Each pest control consultant must be licensed. To be qualified, the applicant must—
  - ◊ be at least 18 years old,

[2854]IDAHO CODE ANN. § 22-3404(2).
[2855]Id. § 22-3404(3).
[2856]Id. § 22-3404(4) (Supp. 1994).
[2857]Id. § 22-3404(9).

- ◊ pass the department's examination to determine his or her competence (must pay examination fee), and
- ◊ pay an annual license fee.

- This licensing requirement does not apply to —
  - ◊ a licensed limited applicator or commercial applicator; and
  - ◊ an individual who recommends only the use of pesticides labeled for home and garden use.[2858] Again, Federal, State, and other governmental agencies are exempt from the fee requirement.[2859]
- Each pesticide dealer must obtain a license and must keep accurate sale and distribution records. The dealer must sell restricted-use pesticides only to licensed commercial applicators, limited applicators, private applicators, and dealers. This licensing requirement does not apply to a manufacturer's representative or wholesale distributor, provided that such exemptee does not have a warehouse in Idaho from which pesticides are sold, stored, or distributed. Federal, State, and other government agencies are exempt from the licensing and examination fees requirement. Moreover, the director can exempt the licensing and recordkeeping requirements, by regulation, if it is determined that licensing or recordkeeping is not necessary for selling the pesticide.[2860]
- Partially full or empty pesticide containers must be disposed of as prescribed by the Idaho Department of Health and Welfare.[2861]
- If the state is authorized by the administrator of EPA, the Secretary of Agriculture can issue an experimental permit to any person requesting such.[2862]

Interestingly, the Idaho Pesticides law allows establishment of a restricted area. It provides that, upon his or her own initiative or upon the petition of a number of owners or operators of the proposed area, the director can issue a proposal to establish a restricted area. A restricted area will be created if votes cast in favor of the creation constitute a two-thirds majority of votes.[2863]

The director is authorized to adopt appropriate regulations for carrying out the purpose and provisions of the Idaho Pesticides law.[2864] The Idaho Pesticides law specifically provides that no city, county, taxing district, or other political subdivision can adopt or continue in effect any ordinance, rule, regulation, resolution, or statute relating to pesticide sale, use, or application.[2865]

The law imposes both a monetary fine and a prison term on violators of the pesticides law.[2866] However, it also provides that any person who has exhausted all administrative remedies available and who is aggrieved by a final decision is entitled to a judicial review of a district court of competent jurisdiction.[2867]

[2858]IDAHO CODE ANN. § 22-3405 (Supp. 1994).
[2859]Id. § 22-3405 (Supp. 1994).
[2860]Id. § 22-3413 (1977).
[2861]Id. § 22-3403 (Supp. 1994).
[2862]Id. § 22-3403.
[2863]Id. § 22-3419 (1977).
[2864]Id. § 22-3421 (Supp. 1994).
[2865]Id. § 22-3426.
[2866]Id. § 22-3423.
[2867]Id. § 22-3424 (1977).

Utah (region 8).—The Utah Pesticide Control Act[2868] prohibits any pesticide dealer from distributing a restricted-use pesticide without a license.[2869] To distribute a pesticide, the distributor must register such pesticide with the department.[2870]

The applicant must include in the application for registration the following information—

- ◊ the name and address of the applicant;
- ◊ the name of the pesticide;
- ◊ a complete copy of the label that will appear on the pesticide; and
- ◊ any other information deemed by the Utah Department of Agriculture as necessary for the safe and effective use of the pesticide.[2871]

Before approving the application for registration, the Utah Department of Agriculture may also require the applicant to submit the complete formula for any pesticide including active and inert ingredients.[2872] In addition to the requirements for general registration, a person who wants to register a pesticide to meet special local needs must prove to the department that—

- ◊ a special local need exists;
- ◊ the pesticide warrants the claims made for it;
- ◊ the pesticide, if used in compliance with commonly accepted practices, will not cause unreasonable adverse effect on the environment; and
- ◊ the proposed classification for use conforms to the applicable requirements set forth in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

However, the registration requirement is not required if the pesticide is distributed pursuant to an experimental use permit issued by the EPA.[2873]

The department is authorized to revoke or suspend the registration of any pesticide upon sufficient evidence that the registrant has used fraudulent or deceptive practices in the registration of the pesticide or in its distribution.[2874] It may also—

- ◊ issue a *stop sale, use, or removal order* to the owner or distributor of the designated pesticide;[2875] or
- ◊ seek an order of seizure or condemnation of a pesticide in a court of competent jurisdiction.[2876]

If condemnation is ordered by the court, the pesticide or equipment must be disposed of. However, before disposing of the pesticide or equipment, the violator has the opportunity to apply for the court's permission to relabel, reprocess, or otherwise bring the pesticide into conformation.[2877]

[2868]Utah Pesticide Control Act, UTAH CODE ANN. § 4-14-1 et seq. (as amended 1985).
[2869]Id. § 4-14-3(7).
[2870]Id. § 4-14-3(1).
[2871]Id. § 4-14-3(2).
[2872]Id. § 4-14-3(4).
[2873]Id. § 4-14-3(6).
[2874]Id. § 4-14-8(1).
[2875]Id. § 4-14-8(2).
[2876]Id. § 4-14-8(3).
[2877]Id. § 4-14-8(4).

The Utah Pesticide Control Act provides that each container of pesticide distributed in Utah must have a label including—

- ◊ the name, brand, or trademark under which it is distributed;
- ◊ an accurate statement of the ingredients;
- ◊ a warning or caution statement if necessary;
- ◊ the net weight or measure of the content;
- ◊ the name and address of the manufacturer, registrant, or person for whom the pesticide is manufactured;
- ◊ the EPA registration number assigned to each establishment;
- ◊ the Federal use classification under which the pesticide is registered or designated for *experimental use only*; and
- ◊ directions for use of the pesticide.[2878]

Moreover, if the pesticide is highly toxic, in addition to the general labeling requirements, the label must display—

- ◊ the skull and cross bones;
- ◊ the word "POISON" in red noticeably displayed on a background of distinctly contrasting color; and
- ◊ a statement of a practical treatment in case of poisoning by the pesticide.[2879]

Furthermore, the Utah Act creates the Pesticide Committee, which will be responsible for making recommendations to the commissioner regarding the promulgation of regulations regarding the sale, distribution, use, and disposal of pesticides.[2880] This committee is composed of eight persons appointed by the Governor, with the advice and consent of the Senate, for 4-year terms.[2881]

Under this act, the Utah Department of Agriculture has the authority to make and enforce regulations.[2882] Pursuant to this authority, the department has promulgated a set of rules, which became effective in July 1, 1994.[2883]

The rule requires all pesticide products distributed in Utah to be officially registered annually with the Utah Department of Agriculture[2884] and labeled as set forth under the Utah Pesticide Control Act.[2885] In addition, in more detail, it provides for the classification of pesticide applicators.[2886] Pesticide applicators are classified into three categories: commercial applicator, noncommercial applicator, and private applicator.

> A *commercial applicator* is a person who uses any pesticide for hire or compensation.

[2878]UTAH CODE ANN. § 4-14-4(1).
[2879]Id. § 4-14-4(2).
[2880]Id. § 4-14-10(4).
[2881]Id. § 4-14-10(1).
[2882]Id. § 4-14-6.
[2883]R68-7-1 et seq. (1994).
[2884]R68-7-2.A.
[2885]R68-7-3.
[2886]R68-7-5.

A *noncommercial applicator* is any person working as an individual or an employee of a firm or government agency who uses or demonstrates the use of any pesticide, and who is neither a commercial nor private applicator.

A *private applicator* is any person or employer who files an IRS Profit or Loss Farm Statement and who uses or supervises the use of any pesticide that is classified for restricted use for purposes of producing any agricultural commodity on property owned or rented.[2887]

Based on the application site and the type of work they perform, commercial, and noncommercial applicators are further arranged in one or more of the following categories—

- ◊ Agricultural Pest Control;
- ◊ Forest Pest Control;
- ◊ Ornamental and Turf Pest Control;
- ◊ Seed Treatment;
- ◊ Aquatic Pest Control;
- ◊ Right-of-way Pest Control;
- ◊ Industrial, Institutional, Structural and Health-related Pest Control;
- ◊ Public Health Pest Control;
- ◊ Regulatory Pest Control;
- ◊ Demonstration, Consultation and Research Pest Control;
- ◊ Fumigation;
- ◊ Vertebrate Animal Pest Control; and
- ◊ Wood Destroying Pest Control.[2888]

All applicators must show competence in the use and handling of pesticides according to the hazards involved in their particular classification.[2889] All commercial applicators are required to obtain a license and pass the written examination.[2890] All noncommercial applicators are required to obtain a license.[2891] All private applicators are required to have a private applicator's certificate issued by the commissioner.[2892] Employees of Federal agencies wishing to be certified must be qualify as noncommercial applicators by passing the appropriate examinations, unless the requirement is waived.[2893] In addition, a license is also required for all pesticide dealers.[2894]

Oregon (region 9).—The Oregon Legislature enacted the State Pesticide Control Act with the primary purpose of regulating the formulation, distribution, storage,

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[2887]R68-7-5.
[2888]R68-7-6.
[2889]R68-7-7.
[2890]R68-7-8.A.
[2891]R68-7-8.B.
[2892]R68-7-8.C.
[2893]R68-7-8.D.
[2894]R68-7-9.

transportation, application, and use of pesticides in the public interest, to be enforced by the State Department of Agriculture.[2895]

The Pesticide Control Act requires every pesticide, including each formula or formulation, manufactured, compounded, delivered, distributed, sold, offered, or exposed for sale in Oregon to be registered annually with the State Department of Agriculture.[2896] The registration requirement, however, does not apply to—

- ◊ the use and purchase of pesticides by the Federal Government or its agencies;
- ◊ the sale or exchange of pesticides between manufacturers and distributors;
- ◊ drugs, chemicals, or other preparations sold or intended for medicinal or toilet purposes or for use in the arts or sciences; and
- ◊ common carriers, contract carriers, or public warehousemen delivering or storing pesticides.[2897]

In addition to the registration requirement, each package or container of every pesticide must be labeled with a number of particulars including—

- ◊ the name and address of the manufacturer or the person for whom it was manufactured;
- ◊ the brand name or trademark under which the material is sold;
- ◊ the professed standard of quality of the material;
- ◊ the net weight or volume of the contents; and
- ◊ adequate and necessary directions for its proper and intended use.[2898]

In addition to this required information, any pesticide that is highly toxic must be labeled accordingly.[2899]

The Oregon Pesticide Control Act provides that all pesticide consultants, dealers, operators, applicators, private applicators, or trainees must obtain a license and certificate before the commencement of such activities.[2900] Moreover, pesticide operators must prepare and maintain records on forms approved by the Department of Agriculture.[2901] However, these requirements do not apply to the following:[2902]

- Manufacturers of materials engaged in research or experimental work on pesticides.
- Persons who engage in the business of a pesticide operator or applicator only in the application of any pollenicide.
- Agencies, instrumentalities, and political subdivisions of the United States or Oregon and their officers, agents, or employees acting within the scope of their authority (this exemption does not apply to pesticide operators applying pesticides with power-driven application equipment or devices under contract for such agencies, instrumentalities, or political subdivisions).

[2895]State Pesticide Control Act, OR. REV. STAT. § 634.006 et seq. (1991).
[2896]Id. § 634.016.
[2897]Id. § 634.016(7).
[2898]Id. § 634.026(1).
[2899]Id. § 634.026(2).
[2900]Id. § 634.112 to 634.126.
[2901]Id. § 634.146(1).
[2902]Id. § 634.106.

- Counties, cities, or municipal corporations that only authorize or permit their employees and their pesticide equipment to apply pesticides on property owned or under control, supervision or jurisdiction of each such governmental body.
- A farmer or forest landowner applying pesticides, other than restricted-use or highly toxic pesticides, by use of equipment of the farmer or forest landowner for others on an occasional basis not amounting to a principal or regular occupation.
- Persons who do not advertise or publicly hold themselves out as being in the business of applying pesticides but whose main or principal work or business is the maintenance of small or home lawns, shrubs, or gardens.
- Persons who do not advertise or publicly hold themselves out as being in the business of applying pesticides and whose principal activity or business as related to pesticides in selling pesticides or selling or leasing equipment.
- Railroads, to the extent that the application of pesticides is by their regular employees, on land or property under their ownership, supervision, control or jurisdiction, except that if power-operated spray equipment is used for applying volatile herbicides, such application must be under the direct supervision of a licensed public applicator.

A pesticide operator's license authorizes the licensee to engage in one or more of the classes of pest control or pesticide application business.[2903] An application for operator's license must be accompanied by the required fees and evidence of a public liability policy by an insurance company.[2904]

To receive an applicator's license, such applicator must—

- ◊ prove to the department that he or she is at least 18 years old;
- ◊ have had experience as a pesticide trainee, or have educational qualifications, experience or training, or have been licensed in Oregon as a pesticide applicator;
- ◊ pass the written examination or re-examination given by the department; and
- ◊ pay a required fee.[2905]

For a consultant license, a fee and a written examination or re-examination are required.[2906] For a dealer license, an annual license fee is required, and a separate license is required for each sales outlet or location.[2907]

To obtain a trainee certificate, the applicant must—

- ◊ be at least 18 years old;
- ◊ be employed by and working under the direct supervision and control of a licensed pesticide operator;
- ◊ be in compliance with the applicable provisions of this act and any regulations promulgated by the department; and

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[2903]OR. REV. STAT. § 634.116(1).
[2904]Id. § 634.116(1)-(5).
[2905]Id. § 634.122.
[2906]Id. § 634.132.
[2907]Id. § 634.136.

◊ pay a required fee.[2908]

Furthermore, for a private applicator certificate, the applicant must pay a designated fee and meet the certification standards established by the department.[2909]

Because all licenses and certificates are personal to the applicant, they are not transferable to any other person.[2910]

To carry out the purposes of intent of this act, the Oregon Department of Agriculture is authorized to do the following:[2911]

- Establish and maintain a program required for a person to work or engage in the application or spraying of pesticides as a pesticide trainee.
- Establish and maintain classifications of the various pesticides and pest control or pesticide application businesses to facilitate the licensing or certification and regulation of pesticide consultants, operators, applicators, private applicators, and trainees.
- Designate pesticides authorized to be used or applied, or prohibited from use or application, by persons to qualify for exemption of the license, certificate, and record keeping requirements.
- Establish and maintain classifications of pesticides and devices that are deemed to be highly toxic or restricted-use pesticides or devices.
- Establish and maintain types of pesticide consultant or applicator examinations and re-examinations, schedules for required re-examinations and other measures deemed necessary for fair and reasonable testing of applicants.
- Designate the conditions under which pesticide operators spraying by aircraft may reduce, suspend, or terminate the required liability insurance and the time.
- Establish the conditions and amounts allowed for deductible class in the liability insurance.
- Establish and maintain programs of instruction or educational courses for pesticide consultants, operators, applicators, and private applicators in cooperation with Oregon State University or others, to participate in instruction or courses directly or indirectly related to their particular activities.
- Prepare and distribute a manual, or other form of publication, containing information helpful and beneficial to persons engaged in pesticide application or use, or to persons who are preparing to qualify for a pesticide license.
- Establish advisory groups or committees to assist the department to formulate policies, plans or regulations under this act.
- Establish registration fees for pesticide brands and formulae or formulations.
- Establish restrictions or prohibitions as to the form of pesticides allowed to be mixed, applied, or added to fertilizers, seed or grains.
- Establish restrictions, methods and procedures in the storage, transportation, use or application of restricted-use pesticides or highly toxic pesticides to

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[2908]Or. Rev. Stat. § 634.126.
[2909]Id. § 634.142.
[2910]Id. § 634.112(3).
[2911]Id. § 734.306.

protect humans, pollinating insects, bees, animals, crops, wildlife, land, or environment.

- Establish and maintain a system for certification of private applicators.

The Oregon Pesticide Control Act provides for the continuation of protected and restricted areas created by former law[2912] and the formation of new protected areas.[2913] The department can form a protected area after receiving a petition of any 25 or more landowners, representing at least 70 percent of the acres of land situated within the proposed area.[2914]

In making the determination whether to establish a protected area or not, the department must consider a number of factors, including—

◊ the agricultural and horticultural crops, wildlife, or forest industry to be affected and their locations;

◊ the topography and climate of the proposed protected area; and

◊ the characteristics and properties of pesticides used or applied and proposed to be restricted or prohibited.[2915]

When a protected area is established, it will be considered as a governmental subdivision of the State and a public body corporate, and have all the obligations and benefits set forth in the act.[2916] In addition, the protected area will be governed and administered by an area committee consisting of five members.[2917] The area committee has a number of mandatory duties including—

◊ providing for surety bonds for all persons entrusted with funds or property of the protected area;

◊ preparing and maintaining accurate and complete records of all activities, meetings, orders, and regulations of the protected area;

◊ employing persons to assist the committee in its administration and enforcement activities;

◊ promulgating regulations in consultation with the department;

◊ carrying out the procedures for the establishment of a restricted area;

◊ preparing annual reports and audits and making them public at annual meetings; and

◊ receiving funds from any source and using the same to carry out and enforce the protected area.[2918]

In addition, the area committee is prohibited from engaging in the business of buying or selling pesticide.[2919] In addition to these mandatory obligations, the committee has the discretion to levy and cause to be collected an ad valorem tax for the purpose of paying the obligations of the protected area.[2920]

[2912]OR. REV. STAT. § 634.206.
[2913]Id. § 634.212.
[2914]Id. § 634.212(1).
[2915]Id. § 634.212(5).
[2916]Id. § 634.216.
[2917]Id. § 634.226(1).
[2918]Id. § 634.226(2)(b).
[2919]Id. § 634.226(2)(b).
[2920]Id. § 634.242.

The act allows any interested person to petition to enlarge or restrict the regulation of pesticide application by filing a petition to amend the regulations of the protected area with the committee.[2921] Furthermore, the method to request increasing or decreasing the size of the protected area is similar to that of establishing the area.[2922]

The act prohibits a number of actions.[2923] Violators of any provisions of this act or any regulations promulgated by the department are subject to civil[2924] or criminal penalties, or both.[2925]

California (region 10).—The California Legislature enacted the Pest Control Operations law[2926] with the following purposes:[2927]

- To provide for the proper, safe, and efficient use of pesticides necessary for production of food and fiber and for the protection of public health and safety;
- To protect the environment from environmentally harmful pesticides by prohibiting, regulating, or controlling uses of such pesticides.
- To assure the agricultural and pest control workers of safe working conditions where pesticides are present.
- To permit agricultural pest control by competent and responsible licensees and permittees under strict control of the director and commissioners.
- To encourage the development and implementation of pest management systems.

The following provisions are applicable to pest control activities in California:

- All pesticide dealers must obtain a license from the director before engaging in such activities.[2928] However, this requirement does not apply to any Federal, State, or county agency for a consultant license that for a consultant license provides pesticide materials for agricultural use.[2929] A license fee must accompany application.[2930]
- To be qualified, the applicant must demonstrate to the director knowledge of the laws and regulations governing the use and sale of pesticides, and the applicant's duty in carrying on the business of a pesticide dealer.[2931] Moreover, each dealer must be responsible for the acts of one's employee(s).[2932]
- To engage in the business of pest control, each person must secure a pest control business license from the director.[2933] Each principal and branch office of a business licensed for pest control must employ at least one person in a supervisory-position who holds a qualified applicator license.[2934] However, a

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[2921]OR. REV. STAT. § 634.226(4)(c).
[2922]Id. § 634.236.
[2923] § 634.372.
[2924]Id. § 634.900 to 634.925.
[2925]Id. § 634.992.
[2926]CAL. FOOD & AGRIC. CODE § 14101 et seq. (West 1986 & Supp. 1996).
[2927]Id. § 11501 (West 1986).
[2928]Id. § 12101.
[2929]Id. § 12102.
[2930]Id. § 12103.
[2931]Id. § 12106.
[2932]Id. § 12110.
[2933]Id. § 11701 (West Supp. 1996).
[2934]Id. § 11701.5.

person who is regularly engaged in the business of tree surgery does not need to obtain a license to remove diseased or infested tissues or apply disinfectants to wounds or cavities incidental to tree surgery.[2935]

- A person who engages in the business of pest control is also required to be registered with the commissioner.[2936]
- Each person who operates aircraft in pest control must hold a valid pest control aircraft pilot's certificate.[2937]
- Each agricultural pest control advisor must obtain a license from the director. However, this requirement does not apply to Federal, State, county officials and University of California personnel engaged in official duties relating to agricultural use.[2938] Each agricultural pest control advisor must register with the county agricultural commissioner before engaging in such activity.[2939]

Tennessee (regions 11 & 12).—Regarding the distribution, sale, or offer for sale of pesticides, the Tennessee Insecticide, Fungicide, and Rodenticide Act[2940] prohibits:

- Any pesticide being distributed, sold, or transported without proper registration.[2941]
- Any pesticide being distributed, sold, or transported without proper labeling.[2942]
- Any pesticide containing any substance(s) in quantities highly toxic to man, unless the label bears such warning.[2943]
- Any pesticide which is adulterated or misbranded.[2944]

However, these prohibitions do not apply to—

- ◊ the use and purchase of pesticides by the Federal Government or its agencies (does not apply to any preparation, drug or chemical intended to be used for medicinal use or for toilet purposes);
- ◊ common carriers, contract carriers or public warehousemen delivering or storing pesticides (does not apply to any preparation, drug or chemical intended to be used for medicinal use or for toilet purposes);
- ◊ a manufacturer or shipper of pesticide for experimental use only; and
- ◊ a guarantor who purchases and receives in good faith the article in the same unbroken package[2945]

If noncompliance is determined, the commissioner may issue and enforce a *stop sale, use, or removal* order to the owner or custodian of any lot of pesticide.[2946] Any lot of pesticide not in compliance with the act is subject to seizure on complaint of the Commissioner to a court of competent jurisdiction.[2947] If the court determines

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[2935]CAL. FOOD & AGRIC. CODE § 11710 (West 1986).
[2936]Id. § 11732.
[2937]Id. § 11901.
[2938]Id. § 12001.
[2939]Id. § 12002.
[2940]Tennessee Insecticide, Fungicide, and Rodenticide Act, § 43-8-101 et seq. (1987 & Supp. 1993).
[2941]Id. § 43-8-103(1) (Supp. 1993).
[2942]Id. § 43-8-103(2) (Supp. 1993).
[2943]Id. § 43-8-103(3).
[2944]Id. § 43-8-103(4).
[2945]Id. § 43-8-109 (1987).
[2946]Id. § 43-8-110.
[2947]Id. § 43-8-111 (1987).

that the pesticide is in violation of the act, it may order the condemnation of the pesticide. However, before condemning the pesticide product, the court must give the claimant an opportunity to apply to the court for release of the pesticide or for permission to bring it into compliance with the act.[2948]

The act provides that all cities, towns, counties, or other political subdivisions are restrained from adopting or continuing any ordinance, rule, regulation, or statute regarding pesticide sale or use.[2949]

Under the act, the following provisions are applicable to activities regarding dealing in pesticides:

- All pesticide dealers must obtain dealer licenses before engaging in such activities.[2950] To be qualified for the original license, each applicant must show, upon examination, knowledge of pesticides and the usefulness and hazards of pesticides, competence as a pesticide dealer and knowledge of the laws and regulations governing the use and sale of pesticides.[2951]
- All pesticide dealers must submit to the commissioner names of all persons employed by them who sell or solicit the sale of restricted-use pesticides. Such dealers will be responsible for the action of their employees.[2952]
- All licensed pesticide dealers must maintain records necessary to identify all purchasers of restricted-use pesticides.[2953]

The following provisions are applicable to aerial application of pesticides in Tennessee:

- Before operating as a commercial aerial applicator, each person must obtain a license from the commissioner. Each aircraft used in application of pesticides and each pilot operating such aircraft must be licensed.[2954] The specified fee must accompany the license application.[2955]
- Each licensee-pilot must hold a valid Federal Aviation Administration agranaut license and prove his or her proficiency to the commissioner.[2956]
- Each application for aircraft license must be accompanied by an acceptable liability insurance policy.[2957]

However, the above requirements do not apply—

- ◊ to local, State, or Federal Government aerial operations,
- ◊ to legitimate agricultural experiments that are being conducted as recognized by the commissioner, and
- ◊ if a landowner wishes to make an application of pesticides with a personally owned aircraft on personally owned land.[2958]

[2948]TENN. CODE ANN. § 43-8-111 (1987).
[2949]Tennessee Insecticide, Fungicide, and Rodenticide Act, TENN. CODE ANN. § 43-8-114 (Supp. 1993).
[2950]Id. § 43-8-201 (1987).
[2951]Id. § 43-8-203 (1987).
[2952]Id. § 43-8-205 (1987).
[2953]Id. § 43-8-206 (Supp. 1993).
[2954]Id. § 43-8-303(a) (Supp. 1993).
[2955]Id. § 43-8-303(b) (Supp. 1993).
[2956]Id. § 43-8-304(a) (1987).
[2957]Id. § 43-8-304(b) (1987).
[2958]Id.

Seed laws

All 17 states surveyed have seed control laws, which are similar to each other in many ways. They require each person engaging in the business of a wholesale seed selling to obtain an annual permit. Each container of seed sold or distributed must comply with the labeling requirement. Each person whose name appears on the label as handling agricultural or vegetable seed ("labeler") must secure a seed labeler's license and keep complete records for 2 years of each lot handled, and keep a file sample of each lot of seed for 1 year after final disposition of the lot.

Noncompliant lots of seed will be subject to seizure on complaint of the authorized official to a court of competent jurisdiction. If the court finds the seed to be in violation of the law and orders condemnation of the seed, such seed will be denatured, processed, destroyed, relabeled, or otherwise disposed of. However, before the disposal of noncompliant seeds, the court must give the claimant an opportunity to apply to the court for the release of the seed or permission to condition or relabel it to bring it into compliance with the laws.

However, the laws provide for a number of exemptions from the application of these seed control laws, including—

- ◊ seed or grain not intended for sowing purposes;
- ◊ seed in storage in, or being transported, or consigned to a cleaning or processing establishment for cleaning or processing;
- ◊ any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier;
- ◊ seed sold by one farmer to another if the seed has neither been advertised for sale nor delivered through a carrier; and
- ◊ grain sold by farmers for cover crop purposes and not delivered through a common carrier.

Only the laws of Alabama, Texas, and Idaho provide for arbitration to assist farmers and other seed purchasers and seed dealers in determining the validity of complaints of the seed purchasers against seed dealers relating to the quality of the seeds.

In addition to these state seed laws, Utah also legislated the Noxious Weed Act to combat plants that are harmful to crops, livestock, land, and public health.

Delaware (region 1).—The Delaware Seed law,[2959] to be administered by the Delaware Department of Agriculture,[2960] imposes a different set of labeling requirements on agricultural, vegetable and flower seeds,[2961] and tree and shrub seeds[2962] that are sold, offered for sale, exposed for sale, or transplanted within Delaware.

However, the following are exempt from the Delaware labeling requirement:[2963]

- Seed or grain not intended for sowing purposes.

[2959]DEL. CODE ANN. § 1501 through 1512 (1985 & Supp. 1992).
[2960]Id. § 1511.
[2961]Id. § 1502.
[2962]Id. § 1503.
[2963]Id. § 1506.

- Seed in storage in, or being transported or consigned to a cleaning or processing establishment for cleaning or processing.
- Any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier.
- Seed sold by one farmer to another if the seed has neither been advertised for sale nor delivered through a carrier.
- Grain sold by farmers for cover crop purposes and not delivered through a common carrier.

The Delaware Seed law requires that each person whose name appears on the label as handling agricultural or vegetable seed must keep complete records of each lot handled for 2 years, and keep a file sample of each lot of seed for 1 year after final disposition of the lot.[2964]

The tree and shrub labeling requirement and the record-keeping requirement will not apply to tree seed produced by a consumer.[2965] Moreover, unless the consumer has failed to ensure the identity of the seed, an individual will not be subject to penalties imposed by the Delaware Seed law for having sold or offered for sale seed that was incorrectly labeled or represented if such seed cannot be identified by examination.[2966]

Noncompliant lots of seed will be subject to seizure on complaint of the department to a court of competent jurisdiction. If the court finds the seed to be in violation of the Delaware Seed law and orders condemnation of the seed, such seed must be denatured, processed, destroyed, relabeled, or otherwise disposed of.[2967] Moreover, violation of any provision of this law will be punishable by a fine not exceeding $100 for the first offense and not exceeding $250 for each subsequent similar offense.[2968]

Maryland (region 1).—The Maryland Regulation of Sale and Transportation of Seed law[2969] requires each person engaging in the business of selling seed wholesale to obtain an annual permit first.[2970]

The permit application must be accompanied by a flat $50 permit fee.[2971] This requirement also applies to out-of-state wholesale seed selling doing business in Maryland.[2972] The Maryland Secretary of Agriculture may revoke and suspend any permit issued upon satisfactory proof that the seed selling has violated any provisions of the seed regulation or any departmental rules and regulations.[2973] The secretary may also issue a stop-sale order to any person selling seed wholesale who offers or exposes seed for sale without holding a valid permit.[2974] In addition, each container of agricultural, vegetable, herb, flower, tree, or shrub seeds that is sold,

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[2964]Tennessee Insecticide, Fungicide, and Rodenticide Act, TENN. CODE ANN. § 1505.
[2965]Id. § 1506.
[2966]Id. § 1506.
[2967]Id. § 1508.
[2968]Id. § 1511.
[2969]MD. CODE ANN., AGRIC. § 9-201 et seq. (1985 & Supp. 1994).
[2970]Id. § 9-204(a) (Supp. 1994).
[2971]Id. § 9-204(c).
[2972]Id. § 9-204(d).
[2973]Id. § 9-204(e).
[2974]Id. § 9-204(f).

offered, or exposed for sale, or transported in Maryland must comply with the labeling requirement.[2975]

However, the Regulation of Sale and Transportation of Seed law does not apply to—

- ◊ seed or grain not intended for planting purposes;
- ◊ seed sold by one farmer to another if the seed has neither been advertised for sale nor delivered through a carrier;
- ◊ any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier.

Moreover, unless the farmer has failed to ensure the identity of the seed, an individual will not be subject to penalties imposed by the Maryland regulation of sale and transportation of seed.[2976]

Noncompliant lots of seed will be subject to seizure on complaint of the secretary to a court of competent jurisdiction. If the court finds the seed to be in violation of the Maryland law and orders condemnation of the seed, such seed must be denatured, processed, destroyed, relabeled, or otherwise disposed of.[2977]

Pennsylvania (region 1).—The Pennsylvania Seed Act of 1965[2978] was enacted to regulate the selling, offering, or exposing for sale of agricultural, vegetable, flower, tree, and shrub seed and seed mixtures for seeding purposes.

The act provides that to sell, offer or expose for sale the regulated seeds, the package or container of such regulated seed must comply with the label requirement.[2979] The test to determine the percentage of germination required by the label requirement must have been completed within 9 months before the seed is offered for sale.[2980] However, the labeling requirement does not apply to—

- ◊ potatoes or grain not intended for seeding purposes; or
- ◊ seed in storage in, or being transported or consigned to, a seed cleaning or processing establishment for cleaning or processing.[2981]

The act specifically proscribes a number of activities, including—

- ◊ detaching, altering, defacing, or destroying any label as required by this act or any regulations promulgated pursuant to this act;
- ◊ disseminating any false or misleading advertisement concerning the regulated seeds;
- ◊ hindering or obstructing any authorized person in the performance of the duty; and
- ◊ failing to comply with a *stop-sale* order.[2982]

The Pennsylvania Department of Agriculture has the authority and power to—

- ◊ enforce all provisions of this act, and

[2975]MD. CODE ANN., AGRIC § 9-206, 9-207, 9-208, 9-209.
[2976]Id. § 9-211.
[2977]Id. § 9-212.
[2978]Pennsylvania Seed Act of 1965, PENN. STAT. ANN. § 285-1 through 285-11 (Supp. 1993).
[2979]Id. § 285-3.
[2980]Id. § 285-4.
[2981]Id. § 285-6.
[2982]Id. § 285-5.

◊ prescribe, modify and enforce such reasonable rules, regulations, standards, tolerances, and orders that it deems necessary to carry out the provisions of this act.[2983]

Noncompliance with this act will result in seizure and disposition of violating seeds.[2984]

The first or second offense of violation of any provision of this act or any regulations promulgated pursuant to such act results in a fine of not more than $200 for each offense, the default of which will result in an imprisonment for a period not exceeding 30 days.

The third or subsequent offense results in a fine of not less than $200 nor more than $500, the default of which will result in an imprisonment for a period not exceeding 60 days.[2985]

In addition, upon request of the department, the Pennsylvania Attorney General may petition the court to enjoin the conduct of a business violating the provisions of this act.[2986]

In Pennsylvania, any grower of potatoes, agriculture, vegetable, tree and shrub seeds, or plants vegetatively propagated is required to apply to the department for inspection and certification of his or her crop for seed or propagation purposes.[2987]

Alabama (Region 2).—Under the Alabama Seed law,[2988] the following provisions are applicable to seed activities:

- Each person who sells or distributes agricultural, vegetable, flower, tree, shrub and herb seed to retail seed dealers, farmers, or others must obtain an annual permit from the Commissioner of Agriculture and Industries to engage in such business.[2989] If such person fails to secure the permit, that person will be subject to penalties or injunctive proceedings, or both.[2990]
- Each container of seed sold or distributed must comply with the labeling requirement. The Alabama Seed law imposes different labeling requirements for different types of seed.[2991]
- All hybrid seed corn sold or offered for sale must be certified by a recognized seed certifying agency or produced by a person having a bona fide corn breeding program.[2992]
- A seed dealer must keep records of receipts, sale, and delivery of all seed, other than retail sales and deliveries, ready for examination by an authorized agent of the department.[2993]

[2983]Pennsylvania Seed Act of 1965, PENN. STAT. ANN. § 285-7.
[2984]Id. § 285-8.
[2985]Id. § 285-9.
[2986]Id. § 285-10.
[2987]Id. § 292.
[2988]ALA. CODE § 2-26-1 et seq. (1977 & Supp. 1993).
[2989]Id. § 2-26-5 (1977).
[2990]Id. § 2-26-6 (1977).
[2991]Id. § 2-26-7 (1977).
[2992]Id. § 2-26-9 (1977).
[2993]Id. § 2-26-10 (1977).

The Alabama Seed law prohibits all persons from distributing or selling the following in Alabama:[2994]

- Agricultural or vegetable seed that has not been tested within 9 months to determine the percentage of germination according to the labeling requirement.
- Agricultural, vegetable, herb, tree, shrub, or flower seed that does not comply with the labeling requirement or contains false or misleading labeling.
- Agricultural, vegetable, herb, tree, shrub, or flower seed pertaining to which there has been a false or misleading advertisement.
- Agricultural or vegetable seed that contains prohibited noxious weed seed or restricted noxious weed seed exceeding the prescribed limitations.
- Agricultural or vegetable seed that contains weed seed exceeding 2 percent of the whole by weight (unless provided otherwise by the board's rules or regulations).
- Agricultural seed that has a total percentage of germination and hard seed of less than 60 percent, except dallisgrass, Johnsongrass, and seed released by U.S. Customs (unless provided otherwise by the board's rules or regulations).
- Any agricultural, vegetable, herb, tree, shrub, or flower seed, unless the person selling or distributing such seed has obtained an annual permit.
- Oat or sorghum seed not complying with the regulations promulgated by the board.
- Any hybrid seed corn unless such seed is certified.
- Any tree or shrub seed not in compliance with the rules and regulations promulgated by the board.

However, the Alabama Seed law does not apply to the following:[2995]

- Seed when sold directly to and in the presence of the consumer and taken from the container properly labeled in compliance with the provisions of the Alabama Seed law.
- Seed or grain not intended for sowing or planting purposes.
- Seed in storage in, or being transported or consigned to a cleaning or processing establishment for cleaning or processing.
- Seed produced in Alabama and sold by the farmer who produced such seed to another farmer, provided that such seed will not be advertised for sale by a paid advertisement.
- Seed sold or distributed by the grower, unless such grower is also a dealer, to a local merchant in due course of trade. Such merchants must resell the seed in due course of trade without advertising and without holding themselves as dealers.

The State Board of Agriculture and Industries has the authority to prescribe and adopt rules and regulations governing the method of sampling, inspecting, analyzing, testing, and examining agricultural, vegetable, flower, tree, shrub, and herb seed and the tolerances and limitations.[2996] Within the Department of

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[2994]ALA. CODE § 2-26-11(a) (1977).
[2995]Id. § 2-26-4.
[2996]Id. § 2-26-3.

Agriculture and Industries, there is a seed division and test laboratory, which is authorized to execute the provisions and requirements of the Seed law.[2997] However, the responsibility for enforcement of the rules and regulations governing the sale or distribution of seed is the sole responsibility of the department.[2998] The commissioner of Alabama Agriculture and Industries also has the authority to promulgate rules and regulations for removal of fungi and noxious weeds from seeds and small grains.[2999]

Any lot of agricultural, vegetable, herb, tree, shrub, or flower seed not in compliance with the provisions of the Alabama Seed law will be subject to suspension from sale, seizure and condemnation.[3000] Moreover, violation of the provisions of the Alabama Seed law or rules or regulations promulgated will be deemed a misdemeanor.[3001]

The Alabama Seed law also provides for arbitration to assist farmers and other seed purchasers and seed dealers to determine the validity of complaints of the seed purchasers against seed dealers relating to the quality of the seed.[3002] It creates a Seed Investigation and Arbitration Committee, consisting of five members,[3003] to be responsible for the arbitration.[3004]

Arbitration procedures are in the following order:[3005]

1. The purchaser can begin arbitration by filing with the commissioner a sworn complaint (and a nonrefundable fee) and sending a copy of the complaint to the seller.
2. Within 10 days of the complaint's receipt, the seller must file with the commissioner an answer to the complaint and send a copy of the answer to the purchaser.
3. The commissioner then refers the complaint and answer to the board of arbitration for investigation, findings, and recommendations.
4. Upon referral of the complaint and answer, the board must make a prompt and full investigation of the matter complained. The report must include findings of fact, conclusions of law and recommendations as to costs, if any.
5. Once the board has filed the report, the commissioner must promptly transmit the report to all parties.

In any litigation involving a complaint that has been arbitrated, any party may introduce the arbitration's report as evidence found in the report; the court may take into account any findings of the board of arbitration.[3006]

[2997]ALA. CODE § 2-26-4 (1977).
[2998]Id. § 2-26-4 (1977).
[2999]Id. § 2-26-30 (1977).
[3000]Id. § 2-26-12.
[3001]Id. § 2-26-3 (1977).
[3002]Id. § 2-26-70 (Supp. 1993).
[3003]Id. § 2-26-71 (Supp. 1993).
[3004]Id. § 2-26-73.
[3005]Id. § 2-26-74.
[3006]Id. § 2-26-76.

Georgia (region 2).—Under the Georgia Seed law,[3007] which is enforced by the Commissioner of Agriculture,[3008] the following provisions are applicable to activities regarding seeds in Georgia:

- Each package or container of agricultural or vegetable seed that is sold, offered for sale, exposed for sale, or transported within Georgia must comply with the labeling requirement.[3009]
- Each person whose name or code number appears on the label as handling seeds must keep complete records for 2 years of each lot of agricultural or vegetable seed handled. Such person must keep a file sample of each lot of seed for 1 year after final disposition of such seed.[3010]

The commissioner has the authority to promulgate and enforce such rules and regulations as maybe considered necessary to carry out the Georgia Seed law.[3011] Moreover, among other powers, the commissioner is authorized to issue a license to each retail and wholesale seed dealer,[3012] and to provide different treatment to itinerant vendors.[3013]

The Georgia Seed law also creates a Seed Advisory Committee, composed of ten members, to serve in an advisory capacity to the commissioner in promulgating rules and regulations pursuant to this law.[3014]

Violation of any provisions of the Georgia Seed law or any promulgated regulations will result in seizure or disposition of seed.[3015] The commissioner may seek a temporary or permanent injunction restraining any person from violating or continuing to violate the law from the court of competent jurisdiction.[3016] However, the act exempts the person who sold or offered for sale seed that is incorrectly labeled or represented as to kind, species, variety, or origin from the penalties set forth if the seed cannot be identified by examination, unless the person has failed to take necessary steps to ensure the seed's identity.[3017]

Georgia also allows for certification of seed and plants. The certification law was enacted with the purpose of protecting the purchasers of seed by requiring seed dealers to be registered and licensed by the commissioner.[3018] To effectuate this purpose, the dean of the College of Agriculture of the University of Georgia is authorized to provide for seed, plant, and variety certification and labeling.[3019]

[3007]GA. CODE ANN. § 2-11-20 et seq. (Michie 1982).
[3008]Id. § 2-11-25.
[3009]Id. § 2-11-22.
[3010]Id. § 2-11-24.
[3011]Id. § 2-11-28.
[3012]Id. § 2-11-26.
[3013]Id. § 2-11-27.
[3014]Id. § 2-11-29.
[3015]Id. § 2-11-30.
[3016]Id. § 2-11-31.
[3017]Id. § 2-11-32.
[3018]Id. § 2-11-50.
[3019]Id. § 2-11-52.

Arkansas (region 3).—Under the Arkansas Seed law,[3020] the State Plant Board is authorized to investigate and certify as to varietal purity and fitness for planting, agricultural seed on request of the grower. The board is required to set up, by rules and regulations, one or more classifications of seed, designating the classifications as *Registered* and *Certified* or any other designations.[3021]

If required by the board, any person who applies for certification of seed must produce satisfactory evidence as to character, qualifications as a seed breeder, and possession of facilities for the growing and handling of purebred seed.[3022] Such person whose seed has met the standards set up by the board and who has complied with the Arkansas Seed law will receive a proper certificate of inspection designating the classification of seed. Such a certificate, however, is good for only one crop season.[3023]

The board must also promulgate all rules and regulations necessary to effectuate the purpose of the Arkansas Seeds law.[3024] The board is also authorized to cooperate with other agencies of the State and Federal Government.[3025]

Mississippi (region 3).—The agricultural seed law of Mississippi requires that each seed grower must secure an annual permit from the commissioner before selling or offering for sale, distributing, or soliciting orders for sale of seed. The Mississippi Agricultural and Forestry Experiment Station is exempt from the permit requirements for seed distributed for increase.[3026]

Each container of seed sold, offered or exposed for sale, or transported within Mississippi must comply with the labeling requirement, which provides different sets of requirements for agricultural seed, vegetable seed in containers of 8 ounces or more, vegetable seed in containers of less than 8 ounces, flower seed, tree and shrub seed, and treated seed.[3027] Each person whose name or code number appears on the label as handling seed must keep complete records for 2 years of each lot of agricultural or vegetable seed handled, and the file sample of each lot of seed for 1 year after final disposition of the seed.[3028] Moreover, all traders in seed-cotton must keep a register of the names of all persons from whom they buy or procure by barter such cotton, the date of the transaction, the quantity received, and the place where the seed was grown.[3029]

Agricultural seed or mixtures of agricultural seeds, vegetable seed, flower seed, and tree and shrub seed are exempt from these mandatory requirements, when:[3030]

- Seed is sold and delivered by a farmer-grower on the premises. The grower is required to label seed when sold and shipped away from the premises but is not required to hold a seed selling permit. This exemption does not apply to commercial growers of seed.

[3020]Seeds, ARK. CODE ANN. § 2-18-101 through 2-18-108 (1987 & Supp. 1991).
[3021]Id. § 2-18-103 (1987).
[3022]Id. § 2-18-103 (1987).
[3023]Id. § 2-18-106.
[3024]Id. § 2-18-104.
[3025]Id. § 2-18-108.
[3026]Agricultural Seed, MISS. CODE ANN. § 69-3-3 et seq. (1991).
[3027]Id. § 69-3-5.
[3028]Id. § 69-3-7.
[3029]Id. § 69-3-23.
[3030]Id. § 69-3-11.

- Seed is sold or represented to be sold for purposes other than seeding. However, the vendor must make clear to the purchaser that such seed is not for seeding purposes.
- Seed for processing is being transported to, or consigned to, or stored in a processing or cleaning establishment.
- Seed is sold directly to and in the presence of the purchaser and taken from a container labeled in compliance with the Mississippi Seeds law; no other label is required unless requested by the purchaser.
- The person will not be subject to penalties for having sold or offered for sale seed that is incorrectly labeled or represented as to kind, species, variety, or origin if the seed cannot be identified by examination, unless the person has failed to take necessary steps to ensure the seed's identity.

The commissioner of the Mississippi Agriculture and Commerce is designated as the enforcing agency, with the authority to establish rules and regulations that are deemed necessary to carry out the purpose of the Seeds law.[3031] The commissioner is also authorized to—

- ◊ sample, inspect, make analysis, and test seed to determine compliance;
- ◊ prescribe and adopt reasonable rules and regulations governing methods of sampling, inspecting, analyzing, testing, and examining seed; and
- ◊ appoint an arbitration council, receive complaints, conduct investigations and issue findings and recommendations prerequisite to legal action.[3032]

The Arbitration Council, composed of six members and six alternative members, is created to assist consumers and seed growers in determining the validity of complaints made by consumers against seed growers and to recommend cost damages resulting from the alleged failure of seed to produce as represented by the label on the seed package.[3033]

Noncompliance with this act will result in seizure and disposition of violating seed.[3034] Penalties will not be imposed.[3035]

Wisconsin (region 4).—The Wisconsin Seed law requires different sets of labeling requirements for agricultural seed, vegetable seed, vegetable seed in containers of 1 pound or less, vegetable seed in containers of more than 1 pound, and treated seed.[3036]

The law provides that alfalfa seed that is sold or distributed in Wisconsin must be certified by a seed-certifying agency.[3037] A person whose name appears on the label (who is called "labeler") must secure a seed labeler's license from the Department of Agriculture before selling, distributing, or offering or exposing such seed for sale.[3038] In addition, it requires each labeler to maintain complete records of each lot

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[3031]Agricultural Seed, MISS. CODE ANN. § 69-3-17.
[3032]Id. § 69-3-19.
[3033]Id. § 69-3-19.
[3034]Id. § 69-3-21.
[3035]Id. § 69-3-25.
[3036]Plant Industry, WIS. STAT. ANN. § 94.39 (West 1990).
[3037]Id. § 91.40 (West 1990).
[3038]Id. § 91.43 (West 1990 & Supp. 1993).

of agricultural or vegetable seed for 2 years, and sample of each lot of seed for 1 year after final disposition of the lot.[3039]

The provisions pertaining to the regulated seed does not apply to the following:[3040]

- Seed or grain not intended for sowing or planting purposes.
- Seed in storage in, or being transported, or consigned to a cleaning or processing establishment for cleaning or processing.
- Any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier.
- Moreover, unless grower has failed to ensure the identity of the seed, a person will not be subject to penalties imposed by the Wisconsin seed law for selling and transporting seeds that were incorrectly labeled or represented if such seed cannot be identified by examination.[3041]

Under the Wisconsin seed law, the department is authorized to do the following:[3042]

- Enter onto public or private premises and sample, analyze, test and inspect all seeds and records.
- Establish and maintain a seed laboratory for the testing and analysis of seed.
- Make purity and germination tests of seed upon request.
- Cooperate with the USDA and the agencies in seed law enforcement.
- Publish information concerning the inspection and sales of seed and the results of the analysis of official samples of agricultural and vegetable seed annually.
- Establish rules that—
  - ◊ govern methods of sampling, inspecting, analyzing, testing, and examining seed;
  - ◊ prescribe tolerances for purity and germination tests and rates of occurrence of noxious weed seed;
  - ◊ modify the list of prohibited and restricted noxious weed seed;
  - ◊ govern the distribution and labeling of seed;
  - ◊ provide standards for relative meaning, certification of seed and the effectiveness of inoculum applied to reinoculated seed;
  - ◊ provide reasonable standards of germination for vegetable seed;
  - ◊ provide a list of *fine-textured grasses* and *coarse kind;*
  - ◊ govern the issuance of seed labeler's license; and
  - ◊ administer and enforce the provisions regulating seed.

Iowa (region 5).—Under the Agricultural Seed law of Iowa, each package or container of agricultural or vegetable seed that is sold, offered for sale, exposed for sale, or transported within Iowa must comply with the labeling requirement.[3043] The test to

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[3039]Plant Industry, WIS. STAT. ANN. § 91.44 (West 1990).
[3040]Id. § 91.42.
[3041]Id. § 91.42.
[3042]Id. § 91.45.
[3043]Agricultural Seed, IOWA CODE ANN. § 199.3 (West 1987 & Supp. 1993).

determine the percentage of germination required by the label requirement must be completed within 9 months before the seed is offered for sale.[3044] If agricultural or vegetable seed is sold from or offered for sale in bulk, the labeling requirement may be fulfilled by a placard conspicuously placed with the several required items or a printed or written statement to be given to any purchaser of the seed.[3045] The container of any inoculant for leguminous plants must bear a required label.[3046]

However, these requirements do not apply to the following:[3047]

- Seed or grain not intended for sowing purposes.
- Seed in storage in, or being transported or consigned to a seed cleaning or processing establishment for cleaning or processing.
- A carrier in respect of seed transported or delivered for transportation in the ordinary course of its business as a carrier.

In addition, a person who sold or offered for sale seed that is incorrectly labeled or represented as to kind, species, variety, or origin is not subject to penalties if the seed cannot be identified by examination, unless the person has failed to take necessary steps to ensure the seed's identity.[3048]

Seed lots of all kinds of agricultural seed intended for sale in Iowa must be tested in compliance with the association of official seed analysts' rules for testing seed or the regulations under the Federal Seed Act (7 U.S.C.A. § 1551 et seq.).[3049]

A person must obtain a permit from the department before selling, distributing, advertising, soliciting orders for, or offering or exposing for sale of agricultural or vegetable seed.

However, the permit requirement does not apply to persons—

- ◊ selling seed that has been packed and distributed by a person holding and having in force a permit; or
- ◊ selling or advertising seed of their own production, provided that the seed is stored or delivered to a purchaser only on or from the farm or premises where grown.[3050]

Permit issuance will be subject to a fee schedule.[3051]

The classes of certified seed are breeder, foundation, registered and certified, that must be recognized by the certifying agency.[3052]

The Iowa Department of Agriculture is authorized to carry out the provisions of this law. To further this goal, the department must do the following:[3053]

- Sample, inspect, analyze, and test agricultural seed (other than lawn seed) to determine compliance.

[3044]IOWA CODE ANN. § 199.8 (West 1987).
[3045]Id. § 199.4.
[3046]Id. § 199.6.
[3047]Id. § 199.9.
[3048]Agricultural Seed, IOWA CODE ANN. § 199.9.
[3049]Id. § 199.10.
[3050]Id. § 199.15 (West Supp. 1993).
[3051]Id.
[3052]Id. § 199.7 (West 1987).
[3053]Id. § 199.11 (West Supp. 1993).

- Adopt rules governing methods of sampling, inspecting, analyzing, testing, and examining agricultural seed (other than lawn seed).

The department is encouraged to do the following:

- Enter upon public or private premises to have access to commercial seed (other than lawn seed), subject to the Agricultural Seed law and departmental rules.
- Issue and enforce a written or printed "stop sale" order to any owners or custodians of any lot of agricultural seed in violation.
- Establish and maintain or make provision for seed testing facilities.
- Employ qualified persons and incur necessary expenses.
- Cooperate with the U.S. Department of Agriculture in seed law enforcement.

Nebraska (region 5).—Under the Nebraska Seed law,[3054] to be enforced and carried out by the director of Department of Agriculture,[3055] the following provisions are applicable to seed activities:

- Each person who sells or transports agricultural or vegetable seed must obtain a valid permit issued by the Department of Agriculture.[3056] However, the permit requirement does not apply to—
  - ◊ any person who labels and sells less than 10,000 pounds of agricultural seed each year (except any person who labels and sells grass seed and mixtures of grass seed intended for lawn or turf purposes); or
  - ◊ agricultural or vegetable seed being labeled and sold that is not the breeder or foundation seed classes of varieties developed by publicly financed research agencies intended for the purpose of increasing the quantity of seed available.[3057]
- Each container of seed sold or distributed must comply with the labeling requirement. The Nebraska Seed law imposes different labeling requirements for different types of seed.[3058]
- Each person on the label as handling agricultural or vegetable seed must keep records of each lot of agricultural or vegetable seed for 2 years, and sample of each lot of seed for 1 year after final disposition of the lot.[3059]
- Each person, firm, association, or corporation who issues, uses or circulates any certificate, advertisement, tag, seal pertaining to seeds or plant parts intended for propagation of sale, where the words "Nebraska State Certified", "State Certified", "Nebraska-Certified", or similar wording are used, must comply with all rules, regulations and requirements established by the College of Agriculture of the University of Nebraska.[3060]

The Nebraska Seed law prohibits all persons from distributing or selling agricultural or vegetative seed that:[3061]

[3054]NEB. REV. STAT. § 81-2,147 through 81-2,157 (1987).
[3055]Id. § 81-2,147.06.
[3056]Id. § 81-2,147.10.
[3057]Id. § 81-2,147.10
[3058]Id. § 81-2,147.02.
[3059]Id. § 81-2,147.04.
[3060]Id. § 81-2,150.
[3061]Id. § 81-2,147.03.

- Has not been tested within 9 months to determine the percentage of germination according to the labeling requirement.
- Does not comply with the labeling requirement or contains false or misleading labeling.
- Pertains to which there has been a false or misleading advertisement.
- Contains prohibited noxious weed seed or restricted noxious weed seed exceeding the prescribed limitations.
- Contains weed seed exceeding 2 percent of the whole by weight (unless provided otherwise by the rules or regulations).
- Has not been registered or certified as required.

The Nebraska law also prohibits the selling of falsely marked hybrid seed corn.[3062]

However, the Nebraska Seed law does not apply to the following:[3063]

- Seed or grain not intended for sowing or planting purposes.
- Seed in storage in, or being transported, or consigned to a cleaning or processing establishment for cleaning or processing.
- Any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier.

Moreover, unless anyone has failed to ensure the identity of the seed, a person will not be subject to penalties imposed by the Nebraska Seed law for selling and transporting seed that was incorrectly labeled or represented if such seed cannot be identified by examination.[3064]

The director of the Nebraska Department of Agriculture can—

- ◊ prescribe and adopt rules and regulations governing the method of sampling, inspecting, analyzing, testing, and examining agricultural and vegetable seed and the tolerances and limitations;
- ◊ sample, inspect, analyze, test and examine agricultural and vegetable seed;
- ◊ prescribe, establish, and modify, by regulation, a prohibited and restricted noxious weed list;
- ◊ prescribe and adopt rules and regulations establishing reasonable standards of germination for vegetable seed.

Moreover, the director is authorized to—

- ◊ enter upon public or private premises to determine compliance;
- ◊ issue and enforce a written stop-sale order;
- ◊ establish and maintain or make provision for seed testing facilities;
- ◊ employ qualified personnel and incur necessary expenses;
- ◊ make purity and germination tests of seed for farmers and dealers on request; and

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[3062]NEB. REV. STAT. § 81-2,155.
[3063]Id. § 81-2,147.05.
[3064]Id. § 81-2,147.05.

◊ cooperate with the USDA and other agencies in seed law enforcement.[3065]

Any lot of agricultural or vegetable seed that is not in compliance with the provisions of the Nebraska Seed law will be subject to suspension from sale, seizure, and condemnation. However, before disposition of noncompliant seed, the court must give the claimant an opportunity to apply to the court for the release of the seed or permission to condition or relabel it to bring it into compliance with such law.[3066] The director may apply to the court of competent jurisdiction a temporary or permanent injunction restraining such violation.[3067] Violation of the Nebraska Seed law constitutes a Class IV misdemeanor.[3068]

Moreover, the Nebraska Seed law also creates a Nebraska Seed Administrative Cash Fund, which is available for investment by the state investment officer, to aid in defraying the cost of administering the Nebraska Seed law.[3069]

New Mexico (region 6).—The New Mexico Seed law[3070] specifies a number of prohibitions. It is unlawful for any person to:[3071]

- Sell, offer for sale, expose for sale or transport for sale within New Mexico any agricultural or vegetable seed—
  - ◊ unless the test to determine the percentage of germination has been completed within the required 9 months;
  - ◊ not labeled as required, or having a false or misleading labeling;
  - ◊ pertaining to which there has been a false or misleading advertisement;
  - ◊ consisting of or containing prohibited noxious weed seed;
  - ◊ consisting of or containing restricted noxious weed seed per pound exceeding the permitted amount;
  - ◊ containing more than 2.5 percent by weight of all weed seed; or
  - ◊ if any labeling, advertising or other representation subject to this law represents the seed to be certified or registered seed unless it has been so determined by the seed certifying or registering agency.
- Detach, alter, deface or destroy any label.
- Disseminate any false or misleading advertisement concerning agricultural or vegetable seed.
- Fail to comply with a "stop sale" order or to move or otherwise handle or dispose of any lot of seed held under a "stop sale".
- Use the word "trace" as substitute for any statement that is required.
- Use the word "type" in any labeling in connection with the name of any agricultural seed variety.

[3065]New Mexico Seed Law, NEW MEXICO STAT. ANN. § 81-2,147.06.
[3066]Id. § 81-2,147.07.
[3067]Id. § 81-2,147.08.
[3068]Id. § 81-2,147.09.
[3069]Id. § 81-2,147.1.
[3070]Id. § 76-10-11 to 76-10-22 (Michie 1978).
[3071]Id. § 76-10-14.

The law provides that each container of agricultural and vegetable seed that is sold, offered for sale, or exposed for sale, or transported within New Mexico must have a plainly written or printed label or tag in the English language.[3072] In addition to the labeling requirements, the law also imposes the seed certification requirement. Such certification must be granted by the certification agency for New Mexico.[3073]

The law requires the person whose name is on the label to keep complete records of each lot of agricultural or vegetable seed handled. Such records must be open for inspection by the board of regents of New Mexico State University or its agents.[3074]

However, the act permits exemptions from the label requirements and the general prohibition provisions. These exemptions are as follows:[3075]

- Seed or grain not intended for sowing purposes.
- Seed in storage in, or being transported or consigned to, a cleaning or processing establishment for cleaning or processing.
- Any carrier in respect to any seed transported or delivered for transportation in the ordinary course of business as a carrier.
- Seed or grain sold by the grower on his or her farm as uncleaned, untested, and unprocessed.

The New Mexico Seed law designates the following duties to the Board of Regents of New Mexico State University:[3076]

- Sample, inspect, make analysis of and test agricultural and vegetable seed transported, sold, or offered or exposed for sale in New Mexico for sowing purposes.
- Prescribe and adopt rules and regulations governing the method of sampling, inspecting, analyzing, testing, and examining agricultural and vegetable seed, and the tolerances to be followed in the administration of the New Mexico Seed law.
- Prescribe and, after a public hearing following due public notice, establish, add to, or subtract therefrom by regulations a prohibited or restricted noxious weed list.
- Prescribe and, after a public hearing following due public notice, adopt rules and regulations establishing reasonable standards of germination for vegetable seed.

In addition to the above duties, the board also has the authority to do the following:[3077]

- Enter upon public or private premises during regular business hours to have access to seed and records in determining compliance with the New Mexico Seed law.

[3072]New Mexico Seed Law, NEW MEXICO STAT. ANN. § 76-10-13.
[3073]Id. § 76-10-17. The certification agency is consisted of (1) the director (or associate director) of the agricultural extension service; (2) the director (or associate director) of the agricultural experiment station; (3) the extension agronomist; (4) the experiment station agronomist; and (5) the director of the New Mexico Department of Agriculture of the New Mexico State University.
[3074]Id. § 76-10-15.
[3075]Id. § 76-10-16.
[3076]Id. § 76-10-18(A).
[3077]Id. § 76-10-18(B).

- Issue and enforce a *stop sale* order to the owner or custodian of any lot of agricultural or vegetable seed that the board finds is in violation of the law.
- Establish and maintain or make provisions for seed testing facilities, to employ qualified persons and to incur such expenses as may be necessary to comply with the law.
- Make or provide for making purity and germination tests of seed for farmers and dealers on request, to prescribe rules and regulations governing such testing, and to fix and collect charges for the test made.
- Cooperate with the U.S. Department of Agriculture and other agencies in seed law enforcement.

Moreover, the New Mexico Seed law provides that any noncompliance agricultural or vegetable seed is subject to seizure.[3078] The board (or its agents) may also apply to any court for a temporary or permanent injunction restraining any person from violating or continuing to violate any provisions of this law.[3079] The law imposes civil penalties (monetary fines) on any violator of any provisions of this law.[3080]

Texas (regions 6 & 7).—Under the Seed and Plant Certification law of Texas, the State Seed and Plant Board, consisting of six appointed members, is designated as the State agency to enforce and implement the Seed and Plant Certification law.[3081]

Certified seed and plants are in four classes: Breeder, Foundation, Registered, and Certified.

A *Breeder* seed or plant is directly controlled by the originating or sponsoring person and is the primary source for the production of seed and plant of other classes.

A *Foundation* seed or plant is the progeny of a breeder or foundation seed or plant, which is produced and handled under the procedures established by a seed or plant certifying agency for foundation class.

A *Registered* seed or plant is the progeny of a breeder or foundation seed or plant and is produced and handled under the procedures established by a seed or plant certifying agency for Registered class.

A *Certified* seed or plant is the progeny of a breeder, foundation or registered seed or plant, which is produced and handled under the procedures established by a seed or plant certifying agency for certified class.[3082]

The Texas seed law provides that a person desiring to produce a certified class of seed or plant for which the board has established standards for genetic purity and identity can apply to the board for licensing as a Foundation, Registered, or

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[3078] NEW MEXICO STAT. ANN. § 76-10-19.
[3079] Id. § 76-10-20.
[3080] Id. § 76-10-21.
[3081] TEXAS AGRIC. CODE ANN. § 62.001 et seq. (West 1995). Interestingly, the board may hold an open or closed meeting by telephone conference call if immediate action is required and convening of a quorum at one location is inconvenient. § 62.0021.
[3082] Id. § 62.003.

Certified producer of seed or plants.[3083] Moreover, a person engaging in the development, maintenance, or production of seed or plants, for which standards of genetic purity and identity has been established by the board, may apply to the board for registration as a plant breeder.[3084]

The board is authorized to establish the eligibility of various types and varieties of seed and plants for genetic purity and identity certification and procedures for that certification. It can also establish standards for classes of certified seed and plants.[3085] However, it must adopt rules governing the protection of Foundation, Registered, and Certified cotton varieties.[3086]

A person desiring to register a new variety of cotton must apply for registration. This requirement does not apply to—

- ◊ the person who withdraws from the operation of a cotton variety previously registered to that person; and
- ◊ contracts between a registrant and a seed person for farmers for the production or sale of certified seed of the new cotton variety. It does not prohibit one farmer from selling to another farmer cottonseed of a new variety grown on his or her own farm.[3087]

Under the seed law of Texas, arbitration is required as a precondition of maintaining certain legal actions, counterclaims, or defenses against a seller of seed.[3088] The Texas seed law designates the State Seed and Plant Board to be the board of arbitration.[3089] Arbitration procedures are in the following order:[3090]

- The purchaser can begin arbitration by filing with the commissioner a sworn complaint (and a nonrefundable fee), and send a copy of the complaint to the seller.
- Within 15 days of the complaint's receipt, the seller must file with the commissioner an answer to the complaint and send a copy of the answer to the purchaser.
- The commissioner then refers the complaint and answer to the board of arbitration for investigation, findings, and recommendations.
- Upon referral of the complaint and answer, the board must make a prompt and full investigation of the matter complained. The report must include findings of fact, conclusions of law, and recommendations as to costs, if any.
- Once the board has filed the report, the commissioner must promptly transmit the report to all parties.

[3083]TEXAS AGRIC. CODE ANN. § 62.005.
[3084]Id. § 62.006.
[3085]Id. § 62.004.
[3086]Id. § 62.007.
[3087]Id. § 62.007
[3088]Id. § 62.001, § 62.002.
[3089]Id. § 62.005.
[3090]Id. § 62.006.

In any litigation involving a complaint that has been arbitrated, any party may introduce the arbitration's report as evidence of the facts found in the report; the court may take into account any findings of the board of arbitration.[3091]

Moreover, the department is authorized to adopt rules necessary to carry out the purposes of the Arbitration of Seed law.[3092]

Idaho (region 8).—Under the Pure Seed law of Idaho,[3093] the following provisions are applicable to seeding activities within Idaho:

- Before each container of seed is sold, offered for sale, exposed for sale, or transported for sale, it must comply with the labeling requirement.[3094]
- Each person whose name or code number appears on the label as handling seed must keep complete records for 2 years of each lot of agricultural or vegetable seed handled. Such person must keep a file sample of each lot of seed for 1 year after final disposition of such seed.[3095]

An in-state seed dealer or an out-of-state seed dealer who sells, distributes, processes, or mixes for use of others any seed must obtain a license from the department.[3096] Such dealer will not be granted the permit unless the dealer has an established plant, warehouse, or place of business. The different classes of licenses are:

> Class "A" license consists of those in-state dealers who sell seed in packages of 8 ounces and up to and including 5 pounds. The fee for Class "A" license is $15.
>
> Class "B" license consists of those in-state dealers who sell seed in packages or bulk of more than 5 pounds. Class "B" license fee is $40.
>
> Class "C" license out-of-state dealers, who will pay the license fee of $80.[3097]

The law specifically prohibits all persons from selling, offering for sale, exposing for sale, or delivering under a contract any seed:[3098]

- For which the test to determine the percentage of germination as required by the labeling requirement was not completed within the past 15 months.
- Is not labeled according to the labeling requirement, or has false or misleading labeling.
- Falsely or misleadingly advertised.
- Containing prohibited noxious weed seed.
- Containing restricted noxious weed seed singly or collectively in excess of tolerances.
- Labeled with a variety name for which a U.S. certificate of plant variety protection has been issued or is pending.

[3091]TEXAS AGRIC. CODE ANN. § 62.004.
[3092]Id. § 62.007.
[3093]Pure Seed Law, IDAHO CODE § 22-414 through 22-436 (Michie Supp. 1994).
[3094]Id. § 22-415.
[3095]Id. § 22-419.
[3096]Id. § 22-434.
[3097]Id. § 22-434.
[3098]Id. § 22-416.

- Having the crop seed rye present in wheat, oats, or barley.

However, the law exempts the following from the labeling requirement and penalties:[3099]

- Seed or grain not intended for sowing purposes.
- Seed in storage in, or being transported or consigned to, a cleaning or processing establishment for cleaning or processing.

In addition, a person who sold or offered for sale seed that is incorrectly labeled or represented as to kind, species, variety, or origin is also exempt from penalties if the seed cannot be identified by examination, unless the person has failed to take necessary steps to ensure the seed's identity.[3100]

The Idaho Pure Seed law also creates a State Seed Advisory Board, consisting of eight official members and seven ex officio alternates, to advise and counsel the department in the administration of the Pure Seed law.[3101]

Moreover, the Idaho Pure Seed law provides that any noncompliance agricultural or vegetable seed is subject to seizure.[3102] In addition, the Director of the Board may petition the court restraining the conduct of business violating the provisions of this act.[3103]

Interestingly, the law also requires arbitration between buyer and dealer concerning damages.[3104] It also creates a seed arbitration council, consisting of five members and four alternate members, to conduct arbitration. The arbitration process has a number of procedures, including:[3105]

> Commencement period.—The buyer can invoke arbitration by filing a sworn complaint with the director (including a $100 nonrefundable fee). The buyer must serve a copy of the complaint upon the seller.
>
> Seller's answer.—The seller must file with the director an answer within 20 days of receipt of the buyer's complaint. The seller must serve a copy of the answer upon the buyer.
>
> Referral to arbitration council.—The director refers the complaint and answer to the council for investigation, findings and recommendations.
>
> Investigation.—The council must make a prompt and full investigation of the matters in the complaint. The council may delegate the investigation, in part or in whole.
>
> Report.—The council makes report and must include findings and recommendations as to costs, if any, for settlement of a complaint. The director must promptly transmit the report to all parties.

[3099]Pure Seed Law, IDAHO CODE § 22-417.
[3100]Id. § 22-417.
[3101]Id. § 22-435.
[3102]Id. § 22-420.
[3103]Id. § 22-421A.
[3104]Id. § 22-436.
[3105]Id.

Utah (region 8).—The Utah Seed Act[3106] provides a set of labeling requirements specified for containers of agricultural seed, mixtures of lawn and turf seed, flower seed, tree, and shrub seed.[3107] It prohibits all individuals in Utah from offering or distributing any agricultural, vegetable, flower, or tree and shrub seed for sale or sowing, unless the following requirements are satisfied:[3108]

- For agricultural seed (and mixtures), a test to determine the percentage of germination has been performed within 18 months of the date the seed is offered for sale; for vegetable, flower, or tree and shrub seed, a germination test has been performed within 9 months; and for hermetically sealed agricultural, vegetable, flower, or tree and shrub seed, a germination test has been performed within 36 months.
- The result of germination tests appears on the label.
- The seed is free of noxious weed seed.

If agricultural, vegetable, flower, or tree and shrub seed have been treated with chemicals, the label on any package or other container must indicate accordingly.[3109] The act specifically prohibits individuals from—

◊ using the word "trace" as a substitute for a statement required under this act;

◊ disseminating any false or misleading advertisement about agricultural, vegetable, flower, or tree and shrub seed; or

◊ detaching, altering, or destroying any label, or substituting any seed in a manner that defeats the purpose of this act.[3110]

In addition, the act requires the Utah Department of Agriculture to periodically enter public or private premises where seed is distributed or exposed for sale to determine whether seed is being distributed in compliance with the act.[3111] In the course of inspection, the department also has the authority to prescribe regulations to control offense seed, such as weed seed and noxious weed seed.[3112]

However, the act does not apply to—

◊ seed or grain not intended for sowing;

◊ seed at, or consigned to a seed processing or cleaning plant (provided that any label made with respect to the uncleaned or unprocessed seed is subject to this act); and

◊ any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier (provided that the carrier is not engaged in producing, processing, or marketing agricultural, vegetable, flower, or tree and shrub seed).[3113]

[3106]UTAH CODE ANN. § 4-16-1 et seq. (amended 1985).
[3107]Id. § 4-16-4.
[3108]Id. § 4-16-5(1).
[3109]Id. § 4-16-5(2).
[3110]Id. § 4-16-5(3).
[3111]Id. § 4-16-7(1).
[3112]Id. § 4-16-7(2).
[3113]Id. § 4-16-6.

In addition to the Utah Seed Act, the State Legislature also enacted the Utah Noxious Weed Act.[3114] Noxious weed is defined as "any plant the Commissioner of Agriculture determines to be injurious to public health, crops, livestock, land, or other property."[3115] Under the Noxious Weed Act, the commissioner has a broad range of functions, powers, and duties. They are as follows:[3116]

- Investigate and designate noxious weeds on a statewide basis.
- Compile and publish a list of statewide noxious weeds annually.
- Coordinate and assist in inter-county noxious weed enforcement activities.
- Determine whether each county complies with the Utah Noxious Weed Act.
- Assist a county that fails to carry out the provisions of this act in its implementation of a weed control program.
- Prescribe the form and general substantive content of notices to the public and to individuals regarding the prevention and control of noxious weeds.
- Compile and publish a list of articles capable of disseminating noxious weed seed and designate treatment to prevent dissemination.
- Regulate the flow of contaminated articles into Utah and between counties to prevent the dissemination of noxious weed seed.

The Utah Noxious Weed Act creates a five-member Noxious Weed Committee,[3117] who will serve for an indeterminate time, or until they are no longer associated with or represent the group or agency.[3118] These five members are elected by the commissioner following approval by the Agricultural Advisory Board. Any member of the committee may be removed by cause and any vacancy will be filled by appointment.[3119] In addition, the committee has the authority to—

- ◊ confer and advise on matters relating to planning, implementing, and administering of the State noxious weed program;
- ◊ recommend names for membership on the committee; and
- ◊ serve as members of the executive committee of the Utah Weed Control Association.[3120]

The act also creates the County Weed Control Board. The board is composed of three to five members appointed by several counties' board of county commissioners, and one member of the county commission appointed by the chairman of the board of county commissioners.[3121] The members are appointed to 4-year terms of office, and two board members must be farmers or ranchers.[3122] Any member may be removed by the commission for cause and any vacancy will be filled by appointment of the commission for the unexpired term of the vacated

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[3114]UTAH CODE ANN. § 4-17-1 et seq. (amended in 1989).
[3115]Id. § 4-17-2(4).
[3116]Id. § 4-17-3.
[3117]UTAH CODE ANN. § 4-17-3.5(1). One member apiece represents the Utah Department of Agriculture, the U.S.U. Agricultural Experiment Station, the U.S.U. Extension Service, the Utah Association of Counties, and the private agricultural industry.
[3118]Id. § 4-17-3.5(3).
[3119]Id. § 4-1-3.5(2).
[3120]Id. § 4-17-3.5(4).
[3121]Id. § 4-17-4.
[3122]Id.

member.[3123] Moreover, the members may serve with or without compensation depending on the determination of the county commission.[3124]

Under the general direction of its commission, the county weed control board is responsible for the formulation and implementation of the countywide coordinated noxious weed control program to prevent and control noxious weeds within its county,[3125] and is required to cooperate with other county weed control boards to prevent and control the spread of noxious weeds.[3126] In addition, the county is allowed to declare a particular weed or competitive plant that is not in the State noxious weed list to be a county noxious weed within its county. It may also petition the commissioner for removal of a particular noxious weed from the state noxious weed list. However, a weed's removal from the list by petition may be possible only after a public hearing conducted by the commissioner after due notice.[3127]

Each county weed control board must post a general notice of the noxious weeds within the county in at least three public places.[3128] Any landowner or land operator who fails to take action to prevent or control the spread of noxious weeds as indicated by the notice is maintaining a public nuisance.[3129] If the property is declared a public nuisance and the property owner or operator fails to control or prevent the spread of noxious weeds within 5 working days, after notification, the county may enter upon the affected property, even without consent of the owner or operator, to perform necessary work to control weeds.[3130] Any expense incurred in controlling noxious weeds is paid by the property owner or operator.[3131]

Oregon (region 9).—The Oregon Seed law[3132] sets different mandatory labeling requirements for agricultural seed,[3133] vegetable seed in packages weighing 1 pound or less,[3134] vegetable seed weighing more than 1 pound,[3135] and bins and bulk displays.[3136]

The labeling requirement does not apply to agricultural or vegetable seed, or mixtures of agricultural or vegetable seed when—

- ◊ sold to be recleaned before being sold for seeding purposes;
- ◊ held in storage or consigned to a seed handling establishment for conditioning;
- ◊ held, sold, or exposed for sale for milling, food, or feeding purposes only; or
- ◊ transported from field to conditioner and between conditioner and dealer.[3137]

[3123]UTAH CODE ANN. § 4-17-4.
[3124]Id.
[3125]Id. § 4-17-5(1).
[3126]Id. § 4-17-5(2).
[3127]Id. § 4-17-5(3).
[3128]Id. § 4-17-7(1).
[3129]Id. § 4-17-7(3).
[3130]Id. § 4-17-8(1).
[3131]Id. § 4-17-8(2).
[3132]OR. REV. STAT. § 633.511 through 633.992 (1995).
[3133]Id. § 633.520.
[3134]Id. § 633.531.
[3135]Id. § 633.541.
[3136]Id. § 633.545.
[3137]Id. § 633.550(1).

Furthermore, containers of agricultural or vegetable seed, or mixtures of agricultural or vegetable seed, or both, are exempt from the labeling requirement for agricultural seed, vegetable seed weighing 1 pound or less, and vegetable seed weighing more than 1 pound, when such containers are filled in the presence of the purchaser from bins or bulk display containers if such bins or bulk display containers are labeled with the required information.[3138]

Furthermore, the seed law requires each person who sells, offers, or exposes for sale any agricultural or vegetable seed to obtain a license before engaging in such activities.[3139] This requirement does not apply to an individual who sells seed of his or her production or an individual who sells only vegetable seed at retail in packages weighing not more than one-half pound, as prepared for such trade by other seed companies that hold a valid license.[3140]

With the concurrence of the Dean of the College of Agricultural Sciences of Oregon State University, the Director of Agriculture must prepare a list of prohibited noxious weed seed and restricted noxious weed seed,[3141] which can be modified at a later time.[3142]

The director or the deputies or inspectors can do a number of things, including—

- ◊ entering on premises where seed is being sold, offered for sale, handled or transported;
- ◊ examining and inspecting any seed upon entering of such premises;
- ◊ drawing a representative sample of any lot of such seed for official testing and analysis; and
- ◊ examining any records or documents pertaining to any seed sold or offered for sale.[3143]

Furthermore, the director can seize any container of seed that appears to be in violation of the seed law and place a quarantine on all agricultural or vegetable seed entering Oregon.[3144]

The director is required to establish standards of germination for vegetable seed and make reasonable rules and regulations necessary to carry out the purpose of the seed law.[3145]

The dean is required to maintain and operate a properly equipped seed testing laboratory, in connection with the agricultural experiment station at Oregon State University, and make all tests. The dean can enter into cooperative arrangements with the USDA for research work in seed testing.[3146] The dean is also required to conduct the certification of varieties of agricultural, cereal grain or vegetable seed,

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[3138]OR. REV. STAT. § 633.550(2).
[3139]Id. § 633.770.
[3140]Id. § 633.700.
[3141]Id. § 633.561.
[3142]Id. § 633.571.
[3143]Id. § 633.670.
[3144]Id. § 633.690.
[3145]Id. § 633.680.
[3146]Id. § 633.580.

tubers, or horticultural plants for planting purposes as certified seed, tubers or plants.[3147]

California (region 10).—The California Seed law[3148] enables the "seed industry, with the aid of the state, to ensure that seed purchased by the consumer-buyer is properly identified and of the quality represented on the tag or label."[3149] The law creates a Seed Advisory Board, consisting of seven appointed members,[3150] to advise the director and make recommendations on all matters, including, but not limited to, the overall enforcement program, annual budget, and regulations required to accomplish the purpose of the seed law.[3151]

Under the California Seed law, the following provisions are applicable to the sale and distribution of seed in California:

- Every labeler of agricultural or vegetable seed offered for sale or sold in California must register annually with the director.[3152] However, the registration requirement does not apply to—
  - ◊ an individual grower, where seed is exclusively for the producers own planting use,
  - ◊ a person using agricultural or vegetable seed only for purposes of planting seed increase, or
  - ◊ a person who is licensed to sell nursery stock.[3153]
- An annual registration fee must accompany the license application.[3154]
- Each registrant must also pay an assessment annually to the director in the amount of $0.40 per $100 of gross annual dollar volume sales of agricultural or vegetable seed.[3155] However, the assessment fee requirement does not apply—
  - ◊ to a labeler or any other person where the agricultural or vegetable seed's assessment, or both, has been previously paid by another labeler or person (except when the identity of the lot has been changed);
  - ◊ on the portion of the person's sales of agricultural or vegetable seed, or both, that is sold in containers of 4 ounces or less in net weight of seed; or
  - ◊ on agricultural or vegetable seed, or both, sold and shipped out of California.[3156]
- Each container of agricultural seed that is for sale or sold within California for sowing purposes (except when the sale is an occasional sale of seed grain by the producer of seed grain to his or her neighbor) must comply with the labeling requirement.[3157] However, the labeling requirement does not apply to—
  - ◊ seed or grain not intended for sowing purposes;

[3147]OR. REV. STAT. § 633.620.
[3148]CAL. FOOD & AGRIC. CODE § 52251 through 52511 (West 1986 & Supp. 1996).
[3149]Id. § 52288 (West Supp. 1996).
[3150]Id. § 52291 (West 1986).
[3151]Id. § 52296.
[3152]Id. § 52351.
[3153]Id. § 52351.
[3154]Id. § 52352.
[3155]Id. § 52354 (West Supp. 1996).
[3156]Id.
[3157]Id. § 52452 (West 1986).

- ◊ seed in storage in, or being transported or consigned to a cleaning or processing establishment for cleaning or processing;
- ◊ seed or grain which is transported without transfer of title for sowing on land which is owned by the person by whom the seed or grain was produced;
- ◊ seed that is weighed and packaged in the presence of the purchaser from a bulk container; and
- ◊ seed or grain that is transported from one warehouse to another without transfer of title or in storage in a warehouse.[3158]

- All seed (except seed at the time of sale by a retail merchant for nonfarm use) must bear upon the label adequate notice of the requirement to follow the conciliation or mediation procedures governing disputes between labelers and any person.[3159]

According to the seed law, the director and each commissioner must sample and inspect any agricultural or vegetable seed to determine compliance with the California Seed law.[3160] To carry out this law, any officer who is required to enforce the provisions of this law can enter upon public or private premises to have access to any seed subject to this law.[3161]

The California Seed law requires the secretary, by regulation, to establish a list of seed-certifying agencies that the secretary finds qualified to certify the variety, purity, quality, type, strain, or other genetic character of agricultural or vegetable seed.[3162]

The California Seed law provides that all moneys received by the director must be deposited in the Department of Agriculture Fund.[3163] This fund will finance the department's cost of carrying out this law.[3164] Moreover, the director is required to pay annually, 30 percent of the total assessment fees or $65,000, whichever is greater, to counties as a subvention for costs incurred in the enforcement of the seed law.[3165] However, the annual subvention to the counties cannot exceed $120,000.[3166] The subvention program is optional; thus, the counties can choose to participate.[3167] The subvention to counties, however, must be apportioned as follows:

- Counties with no registered seed labelers must receive $100.
- Counties with registered seed labeler operations must receive subventions based upon unit of enforcement activity generated by the registered seed labeler operations within the county.

The commissioners of the counties that choose to participate in the subvention program must enter into a cooperative agreement with the director to be effective

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[3158]CAL. FOOD & AGRIC. CODE. § 52451.
[3159]Id. § 52456 (West Supp. 1996).
[3160]Id. § 52361 (West 1986).
[3161]Id. § 52362 (West 1986).
[3162]Id. § 52401 (West Supp. 1996).
[3163]Id. § 52321.
[3164]Id. § 52323.
[3165]Id. § 52323.
[3166]Id. This subvention funding provision terminates on July 1, 1999.
[3167]Id. § 52324.

for 5 years, whereby the commissioner agrees to maintain a statewide compliance level on all seed within the county.[3168]

The director is required to do the following:[3169]

- Adopt germination standards for vegetable seed.
- Adopt tolerances to be applied in all enforcement procedures required by the California Seed law.
- Prescribe methods of procedure in the examination of lots of any agricultural or vegetable seed, and in securing samples of such lots.
- Establish a reasonable schedule of fees for tests, examination and services.
- Adopt such other regulations as will assist in carrying out the purposes of the California Seed law.

Tennessee (regions 11 & 12).—The Tennessee Seed law[3170] was enacted for "regulat[ing] the labeling, possessing, offering, exposing, transporting, or distributing for sale of agricultural [and] vegetable seed and screening," to prevent misrepresentation.[3171] Under this law, the following provisions are applicable to the selling and transportation of seed within Tennessee:

- Each seed person who sells or distributes any agricultural or vegetable seed to farmers, retailers, wholesalers, or others who use or plant seed must obtain an annual license from the commissioner. The license application must be accompanied by a license and inspection fee and a surety bond.[3172]
- Each container of treated seed, agricultural seed, vegetable seed in containers of one pound or less, or vegetable seed in containers of more than 1 pound must comply with different sets of labeling requirements.[3173] However, the labeling requirement does not apply to—
  - ◊ seed or grain not intended for sowing purposes;
  - ◊ seed in storage in, or being transported or consigned to a cleaning or processing establishment for cleaning or processing;
  - ◊ any carrier in respect to any seed transported or delivered for transportation in the ordinary course of its business as a carrier; and
  - ◊ seed grown, sold, and delivered by the producer on one's premises to the purchaser for seeding purposes.[3174]
- Moreover, unless the seed seller has failed to ensure the identity of the seed, a person will not be subject to penalties imposed by the Tennessee regulation of sale and transportation of seed law for having sold or offered for sale seed that was incorrectly labeled or represented if such seed cannot be identified by examination.[3175]
- Each person whose name appears on the label as handling agricultural or vegetable seed must keep complete records for 2 years of each lot handled, and

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[3168]TENN. CODE ANN. § 52325.
[3169]Id. § 52331 (West Supp. 1996).
[3170]Id. § 43-10-101 et seq. (1987 & Supp. 1993).
[3171]Id. § 43-10-102.
[3172]Id. § 43-10-118 (1987).
[3173]Id. § 43-10-104 through 43-10-108.
[3174]Id. § 43-10-110.
[3175]Id. § 43-10-110.

keep a file sample of each lot of seed for 1 year after final disposition of the lot.[3176]

- Seed intended for growth, harvest, sale or distribution (except nursery crops, greenhouse crops, vegetable crops, strawberries, and sweet potatoes) must be certified by the state seed certifying agency.[3177]

The Tennessee Seed law prohibits all persons from distributing or selling agricultural or vegetative seed that:[3178]

- Has not been licensed.
- Has not been tested within 9 months to determine the percentage of germination according to the labeling requirement.
- Does not comply with the labeling requirement or contains false or misleading labeling.
- Pertains to a false or misleading advertisement.
- Contains prohibited noxious weed seed or restricted noxious weed seeds exceeding the prescribed limitations.
- Contains restricted noxious weed seed, except as provided by the regulations promulgated by the commissioner.
- Contains weed seed exceeding two percent of the whole by weight (unless provided otherwise by the board's rules or regulations).
- Has not been treated nor labeled accordingly.
- Does not comply with rules and regulations of an official seed certifying agency.
- Has not been certified by an official seed certifying agency when the seed is of a variety for which a certificate of plant variety is required under the Plant Variety Protection Act.

The disclaimers, nonwarranties, and limited warranties provided pertaining to any seed will not directly or indirectly modify any information required by the Tennessee Seed law or rules and regulations promulgated pursuant to this law.[3179]

Noncompliant lots of seed will be subject to seizure on complaint of the commissioner to a court of competent jurisdiction. If the court finds the seed to be in violation of the Tennessee Seed law and orders condemnation of the seed, such seed must be denatured, processed, destroyed, relabeled, or otherwise disposed of.[3180] However, before disposition of noncompliant seeds, the court must give the claimant an opportunity to apply to the court for the release of the seed or permission to condition or relabel it to bring it into compliance with such law.[3181] The commission can apply to the court of competent jurisdiction for a temporary or permanent injunction restraining such violation.[3182]

[3176]TENN. CODE ANN. § 43-10-111.
[3177]Id. § 43-10-201 through 43-10-205.
[3178]Id. § 43-10-109 (Supp. 1993).
[3179]Id § 43-10-112 (1987).
[3180]Id. § 43-10-115.
[3181]Id.
[3182]Id. § 43-10-117.

Chapter 12: State Wildlife And Wildlife Habitat Protection Laws

To preserve wildlife, most states' legislatures enacted Wildlife Preservation laws, mirroring the Federal Endangered Species Act. Under the Wildlife Preservation provisions, it is unlawful to import, transport, possess, sell, or offer for sale any species or subspecies of wildlife appearing on two particular lists. The first is the list of wildlife indigenous to a particular state and considered endangered within that state as set forth by the authoritative agency; and the second is the U.S. list of endangered species as set forth in the Federal Endangered Species Act of 1973 as endangered or threatened species, when the latter is adopted by regulations of the agency. Individuals who violate the statutory prohibition or any regulations promulgated pursuant to the statute will be guilty of a misdemeanor and upon conviction will be fined or imprisoned, or both. Different states impose different amounts of fine and periods of imprisonment.

Recognizing that maintenance of wildlife habitat is essential to the survival of wildlife species, state legislatures also enacted laws and appropriated funds to preserve and restore wildlife habitat. Under these provisions, states' authoritative agencies are required to establish wildlife management areas and promulgate rules and regulations for the protection and management of such areas.

These wildlife management areas vary in their rules and functions among the states. For example, Alabama law requires anyone who wishes to hunt game in these areas during designated hunting seasons to obtain a permit and pay a fee for this privilege. The law also gives the Commissioner of the Department of Conservation and Natural Resources the right to search without a warrant any vehicle or person to ensure that they have not seized or killed any protected animal in these designated wildlife management areas.

In Arkansas, upon petition to the State Game and Fish Commission, owners of suitable land can have the area set apart as a refuge for game and wildlife animals. The landowner must indicate that the prohibition of hunting in these areas will strictly enforced. The commission, after proper investigation of the land, enters into agreement with the landowner and declares the land a state game refuge. The commission is then responsible for public notification of the land as a wildlife refuge.

State agencies are also authorized to acquire lands, waters or interests to conserve, manage and restore wildlife habitat. However, agencies' designation is not the only way to establish wildlife habitat. Owners of agricultural lands can apply to the applicable agency to designate an area, not exceeding the specified acres of land, as wildlife habitat. As an incentive to encourage private landowners to designate their lands as wildlife habitat, some states such as Oregon offers tax exemptions for certified wildlife habitat.

Individuals who violate the provisions regarding the management of wildlife areas or any rule or regulations promulgated by the agency will be guilty of a misdemeanor and upon conviction, will be fined or imprisoned, or both. Different states impose different amounts of fine and periods of imprisonment.

Most states, by statute, agree to cooperate with Federal wildlife restoration projects, fishery restoration, and management projects, and the establishment of migratory

bird reservations. They also place certain restrictions on state lands and state, county or municipal parks. Delaware prohibits the hunting of game on such lands and Arkansas designates these lands as bird sanctuaries. Mississippi declares state lands as forest reserves and wildlife refuges and prohibits the capture or hunting of wildlife on these lands.

Delaware (region 1).—The Delaware Legislature requires the Department of Natural Resources and Environmental Control to protect, conserve, and propagate all forms of protected wildlife of the state and to enforce by proper actions and proceedings the law regarding the protection of wildlife.[3183] By statute, Delaware assents to the provisions of the Federal laws entitled "An act to provide that the United States shall aid the states in Wildlife Restoration Projects"[3184] and "An act to provide that the United States shall aid the states in Fish Restoration and Management Projects, and for other purposes."[3185]

Delaware statute prohibits the importation, transportation, possession or sale of any endangered species of fish or wildlife or hides, parts or articles made therefrom. Endangered species are defined as those that are designated by the Division of Fish and Wildlife of Delaware as seriously threatened with extinction.[3186] The director of the division, however, is authorized to allow the importation of any species or subspecies of fish or wildlife for zoological, educational, and scientific purposes and for the propagation of such fish or wildlife in captivity for the preservation of a species, unless such importation is prohibited by any Federal law or regulations.[3187] It also prohibits the sale of the skins, bodies, or animals of certain species, such as leopard, snow leopard, clouded leopard, tiger, cheetah, alligators, crocodiles or caiman, vicuna, red wolf, polar bear, and harp seals.[3188]

In Delaware to catch, kill, have in possession, purchase, sell, or transport any wild bird other than a game bird is unlawful. The prohibition extends to the plumage, skin or body, nests or eggs of such wild birds.[3189] All state lands, and state, county, and municipal parks will be state game refuges. Thus, no person is allowed to hunt upon such lands and parks or kill or injure any game in such lands. All wildlife refuges are under the jurisdiction of the Department and subject to all the departmental rules and regulations.[3190] However, the above prohibitions do not apply to individuals who hold a license giving the right to take birds and their nests and eggs for scientific purposes.[3191]

Maryland (region 1).—By statute, a State Chesapeake Bay and Endangered Species Fund was created, where the moneys expended from the fund for the Chesapeake Bay Trust and Endangered Species Conservation Programs are supplemental and are not intended to substitute the funding that would otherwise be appropriated to the Department of Natural Resources for the Trust or for those programs.[3192] Of the fund, not more than 5 percent of the net proceeds may be distributed to a promotional account to promote further donations. Of the remainder, 50 percent is

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[3183]DELAWARE CODE ANN. Part I, ch. 1 § 102(a) (1991).
[3184]Id. § 105. The Wildlife Restoration Project Act is compiled as 16 U.S.C. § 669 et seq.
[3185]Id. § 106. The Fish Restoration and Management Projects Act is compiled as 16 U.S.C. § 777 et seq.
[3186]Id. § 601.
[3187]Id. § 604.
[3188]Id. § 602.
[3189]Id. § 741-742.
[3190]Id. § 743.
[3191]Id. § 745.
[3192]MD. CODE ANN., NAT. RES. § 1-702 (1989).

distributed to the Chesapeake Bay Trust and 50 percent to an endangered species account.[3193]

The Chesapeake Bay Trust must use the funds to provide grants for citizen involvement projects that will enhance or promote the public education of Maryland citizens concerning the Chesapeake Bay, the preservation or enhancement of water quality and wildlife habitat, the restoration of aquatic or land resources, reforestation projects, the publication or production of educational materials on the Chesapeake Bay, or the training in environmental studies or environmental enhancement.[3194]

The endangered species account is used to conserve nongame, threatened, and endangered species. The funds will be used to—

- ◊ acquire, through absolute purchase or purchase of easements, habitats necessary to conserve, protect, or propagate nongame, threatened, or endangered species;
- ◊ monitor, survey, and protect nest sites of bald eagles, Delmarva fox squirrels, peregrine falcons, and piping plovers;
- ◊ promote voluntary protection of habitats for threatened and endangered species by monitoring information and management assistance to private landowners;
- ◊ initiate surveys and recovery programs, including habitat restoration or protection, for other threatened or endangered species;
- ◊ protect threatened or endangered species in natural heritage areas;
- ◊ survey nongame species whose population status is questionable;
- ◊ develop and implement urban wildlife programs to provide individuals in such areas the opportunity to observe wildlife; and
- ◊ develop and implement public education and information program to educate public and school children about wildlife and habitat conservation.[3195]

Pennsylvania (region 1).—By statute, Pennsylvania assents to the provisions of the Federal laws entitled "An act to provide that the United States shall aid the states in Fish Restoration and Management Projects, and for other purposes."[3196] Pennsylvania also consents to the Federal Government and its agents the right to establish fish cultural stations in Pennsylvania and to conduct fish hatching and fish culture at the hatcheries in any manner and time the Federal Government deems necessary and proper.[3197]

The commission is authorized to make comprehensive studies of the migratory habits of fish that include the stocking and tagging of shad below and above the Safe Harbor Dam, the Holtwood Dam, and the Conowingo Dam.[3198] The commission determines policy pertaining to the propagation and distribution or

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[3193]MD. CODE ANN., NAT. RES. § 1-703.
[3194]Id. § 1-704.
[3195]Id. § 1-705.
[3196]PENN. STAT. ANN. tit. 30, § 2302 (Supp. 1993). The Fish Restoration and Management Projects Act is compiled as 16 U.S.C. §§ 777 et seq.
[3197]Id. § 2303.
[3198]Id. § 2304.

planning of the fish produced by Pennsylvania fish hatches.[3199] All persons are prohibited from offering for sale or knowingly purchasing fish taken from any hatchery waters designated by the commission as nursery waters.[3200] In addition, in its discretion, the commission is allowed to set aside such areas as it may consider best as refuge areas in which fishing or entry will be prohibited for certain periods as the commission prescribes.[3201]

The Pennsylvania statute requires the executive director to establish a Pennsylvania Threatened Species List and a Pennsylvania Endangered Species List, which will be published in the Pennsylvania Bulletin. The commission is authorized to promulgate rules and regulations regarding the catching, taking, killing, importation, introduction, transportation, removal, possession, selling or purchasing of threatened and endangered species. It may also issue permits for catching, taking, or possessing any of those species if deemed appropriate.[3202]

Alabama (region 2).—Through the Commissioner of the Department of Conservation and Natural Resources, the department was authorized and required to establish wildlife management areas. The department is authorized to enter into agreements with the United States Department of Agriculture, Forest Service; the United States Bureau of Biological Survey; the Tennessee Valley Authority; or other owners or lessees of such lands that are necessary for the purpose of establishing wildlife management areas.[3203]

The agreements must—

- ◊ provide for the fixing and division of the boundaries of the wildlife management area(s),
- ◊ define the responsibilities of the Department of Conservation and Natural Resources and the cooperating part(ies) for restocking of wildlife species, the planting and cultivation of game and fish foods, the protection of such areas from predatory animals,
- ◊ include provision for the harvesting of game and fish crops in compliance with special rules and regulations approved by the commissioner, and
- ◊ provide for the collection by the department of special fees for privilege of hunting on or fishing on such areas.[3204]

The Alabama Legislature authorized the commissioner the general power to fix boundaries for wildlife management areas and promulgate special rules and regulations for the protection and management of wildlife management areas.

Moreover, the commissioner has a number of specific powers, including—

- ◊ setting up for wildlife management areas special open and closed seasons on game animals,
- ◊ establishing the amount of the fees to be collected for the privilege of hunting and fishing during any open season,

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[3199]PENN. STAT. ANN. tit. 30, § 2301.
[3200]Id. § 2107.
[3201]Id. § 2306.
[3202]Id. § 2305.
[3203]Wildlife Management Areas, ALA. CODE § 9-11-300 (1987).
[3204]Id.

- ◊ requiring individuals to obtain special permits when hunting or fishing within wildlife management areas, and
- ◊ limiting the number of permits to be issued during any open season.[3205]

The commissioner is authorized to close to all hunting and fishing on any land or water within the boundary of a wildlife management area, provided that at least 90 percent of such wildlife management area is under a cooperative wildlife management agreement with the department.[3206] The commissioner can also search without warrant any automobile, wagon, truck, or other vehicle or any hunting sack or hunting coat within any wildlife management area and to confiscate any protected animal found killed or held in violation of the laws or regulation of the commissioner. However, the power to search without warrant does not apply to persons traveling on State and Federal highways within any wildlife management areas.[3207]

All persons, except authorized officers, are prohibited from carrying or possessing firearms within any wildlife management areas without a valid permit.[3208] Unless provided otherwise by rules and regulations promulgated by the commissioner, dogs are not permitted, except on leash, within any wildlife management.[3209]

An individual who violates provisions of the article provided for the management of wildlife areas or any rule or regulation promulgated by the commissioner is guilty of a misdemeanor and upon conviction, will be fined not less than $25 nor more than $100 or imprisoned for not less than 30 days nor more than 12 months, or both.[3210]

Georgia (region 2).—Georgia protects its wildlife and habitat through the enactment of the Coastal Marshlands Protection of 1970.[3211] The legislature recognized that the estuarine area is the habitat of many species of marine life and wildlife, and without the food supplied by the marshlands, such marine life and wildlife cannot survive.[3212] To protect wildlife and habitat, the legislature declared that all activities and structures in the coastal marshlands must be regulated to ensure that the vital functions of the coastal marshlands are not impaired.[3213]

However, this act does not apply to—

- ◊ activities of the Georgia Department of Transportation incident to constructing, repairing, and maintaining a public road system in Georgia;
- ◊ activities of the Department of Transportation and political subdivisions in maintaining existing drainage systems and ditches as long as such activities do not impact additional marshlands;
- ◊ agencies of the Federal Government and Georgia that are charged by law with the responsibility of keeping Georgian rivers and harbors open for navigation;

[3205]Wildlife Management Areas, ALA. CODE § 9-11-301.
[3206]Id. § 9-11-302.
[3207]Id. § 9-11-303.
[3208]Id. § 9-11-304.
[3209]Id. § 9-11-305.
[3210]Id. § 9-11-307.
[3211]Coastal Marshlands Protection Act of 1970, GA. CODE ANN. § 12-5-280 et seq. (1992).
[3212]Id. § 12-5-281.
[3213]Id.

- ◊ activities of public utility companies regulated by the Public Service Commission incident to constructing, erecting, repairing and maintaining utility lines for the transmission of gas, electricity, or telephone messages;
- ◊ activities of companies regulated by the Public Service Commission incident to constructing, erecting, repairing, and maintaining railroad lines and bridges;
- ◊ activities of political subdivisions incident to constructing, repairing, and maintaining pipelines that have been approved by the Department of Natural Resources or appropriate authority for the transport of drinking water and sewage; and
- ◊ the building of private docks on pilings, the walkways of which are above the marsh grass not obstructing tidal flow, by the owners of detached single-family residences located on high land adjoining such docks.[3214]

The regulated coastal marshlands include any marshland intertidal area, mud flat, tidal water bottom, or saltmarsh in the State estuarine area, regardless of whether or not tidewaters reach the littoral areas through natural or artificial watercourses. The act also regulates *vegetated marshlands* that include all areas upon which grow one or more of the following: saltmarsh grass, black needlerush, saltmeadow cordgrass, big cordgrass, saltgrass, coast dropseed, bigelow grasswort, woody grasswort, saltwort, sea lavender, sea oxeye, silverling, false willow, and high-tide bush.[3215]

The act creates the Coastal Marshlands Protection Committee, which is composed of three members: the commissioner of Natural Resources and two other persons. The latter two members must be residents of Camden, Glynn, McIntosh, Liberal, Bryan, or Chatham County and are to be selected by the Board of Natural Resources.[3216]

The committee is authorized to do the following:

- Grant and convey to any eligible person a lease of state-owned marshland or water bottoms, or both.[3217] Eligible person is an individual who owns highland adjoining the state-owned marshland or water bottoms, or both, who seeks to lease at least 100 percent of the landward boundary of the state-owned marshland or water bottom, or both, bordered by such person's adjoining high land.[3218]
- Issue an order, which is immediately effective, requiring or allowing certain action to be taken, in the event of an emergency, whether created by act of God, by actions of domestic or foreign enemies, or in circumstances where grave peril to human life or welfare exists.[3219]
- Issue a cease and desist order on a person who alters the marshlands without a permit or in violation of the terms of the permit, or violates this act;[3220] request the administrative law judge to impose civil penalties not exceeding $10,000 per violation per day on a person who has failed, neglected or refused to

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[3214]Coastal Marshlands Protection Act of 1970, GA. CODE ANN. § 12-5-295.
[3215]Id. § 12-5-282(3).
[3216]Id. § 12-5-283(a).
[3217]Id. § 12-5-287.
[3218]Id. § 12-5-282(6).
[3219]Id. § 12-5-294.
[3220]Id. § 12-5-291(a)(1).

comply with any provision of this act or any order of the committee or administrative law judge.[3221] Any person who violates any provision of this act is guilty of a misdemeanor.[3222]

Mandatory duties of the Georgia Department of Natural Resources include—

- ◊ administering and enforcing this act, all rules, regulations and orders promulgated pursuant to this act;
- ◊ accepting moneys provided by persons, government units and private organizations;
- ◊ conducting public hearings, instituting and prosecuting court actions as deemed necessary to enforce compliance; and
- ◊ exercising incidental powers necessary to carry out the purposes of this act.[3223]

The Board of Natural Resources has the authority to promulgate all rules and regulations to implement and enforce this act.[3224] Moreover, the department is specifically required to make reasonable inspections of the marshlands to ascertain whether the requirements of this act, any rules, regulations, and permits promulgated or issued pursuant to this act are being faithfully complied with.[3225]

Before removing, filling, dredging, draining, or altering any marshlands or constructing any structure on marshlands, a person[3226] must obtain a permit from the committee, or a minor alternation permit from the commissioner.[3227] *Minor alteration* is a change in the marshlands that involves less than 0.10 acre or renewal of permits previously issued by the committee.[3228] The permit expires 5 years after the date of issuance.[3229]

Before granting the permit, the committee must consider whether or not—

- ◊ unreasonably harmful obstruction to or alteration of the natural flow of navigational water will arise as a result of the proposal;
- ◊ unreasonably harmful or increased erosion shoaling of channels, or stagnant areas of water will be created; and
- ◊ unreasonable interference with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources will be affected by completion of the proposal.[3230]

The permit applicant has the responsibility to show that the proposed alteration is not contrary to the public interest and that no feasible alternative sites exist.[3231]

[3221]Coastal Marshlands Protection Act of 1970, GA. CODE ANN. § 12-5-291(a)(2).
[3222]Id. § 12-5-296.
[3223]Id. § 12-5-284.
[3224]Id. § 12-5-285.
[3225]Id. § 12-5-289.
[3226]The term *person* includes an individual, partnership, corporation, municipal corporation, county, association, public, or private authority. § 12-5-282(10).
[3227]Id. § 12-5-286(a). The Commissioner of Natural Resource can issue permit for minor alternation of the marshlands based on recommendations of staff, past committee actions, and the results of public comments. Moreover, the Commissioner may refer the application for minor alternation to the Committee for decision. § 12-5-283(d).
[3228]Coastal Marshlands Protection Act of 1970, GA. CODE ANN. § 12-5-282(9).
[3229]Id. § 12-5-286(l).
[3230]Id. § 12-5-286(g).
[3231]Id. § 12-5-286(h).

Activities and structures normally considered to be contrary to public interest when located in coastal marshlands include—

- ◊ filling of marshlands for residential, commercial, and industrial uses;
- ◊ filling of marshlands for private parking lots and private roadways;
- ◊ construction of dump sites and depositing of any waste materials or dredge spoil;
- ◊ dredging of canals or ditches for the purpose of draining coastal marshlands;
- ◊ mining;
- ◊ construction of lagoons or impoundments for waste treatment, cooling, agriculture, or aquaculture which would occupy or damage coastal marshlands or life forms therein;
- ◊ construction of structures that constitute an obstruction of view to adjoining riparian landowners, including signs and enclosures; and
- ◊ occupying a live-aboard for more than 30 days during any calendar year (commissioner may grant extensions of time beyond 30 days to persons making a request).

However, the final decision as to whether or not any activity or structure is considered to be in the public interest is based on sound discretion of the committee.[3232]

The committee cannot issue the permit if the project is not water related, dependent on waterfront access, or can be satisfied by the use of an alternative nonmarshland site or by use of existing public facilities.[3233] If permit is granted, the amount of marshlands to be altered must be minimum in size. Moreover, if a permit holder sells, leases, rents, or conveys the land for which the permit was issued and if the permit holder has notified the department within 30 days of the transfer or conveyance, such permit will be valid in favor of the new owner, lessee, tenant, or assignee as long as there is no change in the use of the land as set forth in the original permit application.[3234]

Upon petition, any individual who is aggrieved or adversely affected by the committee's decision is entitled to a hearing before an administration law judge.[3235] Although the administrative law judge's decision constitutes the board's final decision, any party to the hearing has a right to seek judicial review.[3236]

Arkansas (region 3).—Under the Wildlife Preservation law, in general, the Arkansas State Game and Fish Commission can enter into licensing agreements for a period not less than 10 years for approved projects on privately owned lands to encourage wildlife habitat conservation on private lands.[3237] However, the Wildlife Preservation Chapter is divided into two subchapters: Game and Fish Refuges and Nongame Preservation. A discussion of each follows.

[3232]Coastal Marshlands Protection Act of 1970, GA. CODE ANN. § 12-5-288(b).
[3233]Id. § 12-5-288(a).
[3234]Id. § 12-5-294.
[3235]Id. § 12-5-283(b). Administrative law judge is appointed by the Board of Natural Resources. Id.
[3236]Id. The Board of Natural Resources cannot review the committee's decision. *Department of Natural Resources v. American Cyanamid Co.*, 239 Ga. 740, 238 S.E.2d 886 (1977).
[3237]Wildlife Preservation law, ARK. CODE ANN. § 15-45-101 (1987).

Game and Fish Refuges.—Owners of suitable lands of a total of not less than 640 acres can petition the commission to have the lands set apart as a refuge for game and wildlife animals. However, the owners must indicate in the petition that they are willing to vest in the State all rights to prohibit hunting upon the lands and to make every effort to protect the refuge from hunting and from violations of any nature.[3238]

Upon investigation, the commission will determine whether such lands are appropriate for the purpose mentioned in the petition and decide whether the establishment of such game refuge is advisable. If the commission decides that it is, the commission enters into agreement with the persons owning the property and declares the lands a State game refuge.[3239] The commission posts notices, not more than 200 yards apart, on the border of the game refugee and notifies its action declaring land to be a State game refuge through publication in the appropriate newspaper.[3240] However, the commission cannot establish State game refuge within a radius of 2 miles from any other game refuge.[3241]

Under the Wildlife Preservation law, because the entire state of Arkansas is designated a sanctuary for all species of wild fowl, except black birds, crows, and starlings, no individuals can catch, kill, injure, pursue, or have in his or her possession, sale, transport, or receive or deliver for transportation any of such fowls. However, this prohibition does not apply to sparrows and pigeons, except Birmingham roller pigeons.[3242] Nor this prohibits individuals or institutions from collecting wild birds or their nests or eggs for scientific study, school instruction or other educational uses, except birds that are specifically protected by Federal or State game laws. Such individuals or institutions may apply to the director of the Arkansas State Game and Fish Commission for a scientific collecting permit, which is issued without charge and for 1 year.[3243] In addition, all State parks are designated and established as bird sanctuaries.[3244]

Money spent by the commission in procuring, improving, or policing any State game or fish refugee will be paid out of the Game Protection Fund.[3245]

Nongame Preservation.—In addition to the interest of promoting sound management, conservation, and public awareness of Arkansas' rich diversity of native plant and non-game animals, where many of which are rare, threatened, or endangered, the Arkansas Legislature also provides for the protection of natural areas harboring significance or having unusual importance to the survival of the state native plants and animals in their natural environments.[3246]

To carry out this legislative intent, the State legislature allows such protection to be financed through a voluntary check-off designation on State income tax return forms, whereby each individual taxpayer may designate a portion or all of the income tax refund to be withheld and contributed for the protection of nongame species of animals and native plants. Such voluntary check-off income tax program

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[3238]ARK. CODE ANN. § 15-45-202 (1987).
[3239]Id. § 15-45-203(a). Upon declaration, such game refugee is considered as a public state refugee. Id. § 15-45-203(g).
[3240]Id. § 15-45-203(b), (f).
[3241]Id. § 15-45-203(e).
[3242]Id. § 15-45-210(a).
[3243]Id. § 15-45-210(b).
[3244]Id. § 15-45-211(a).
[3245]Id. § 15-45-212.
[3246]Id. § 15-45-301(a) (1987 & Supp. 1991).

is only supplemental, not in substitution, to any funding designated to carry out such purposes.[3247] Moreover, no expenditure can be made without the approval and authorization of the Governor upon recommendation of the Nongame Preservation Committee by majority vote.[3248]

The Nongame Preservation Committee consists of five members, including the director of the Arkansas State Game and Fish Commission, the director of the State Parks Division of the Department of Parks and Tourism, the director of the Arkansas Natural Heritage Commission, and two members appointed by the Governor from nominations from private conservation organizations.[3249]

If purchase of land by State agencies is deemed as a suitable strategy for the protection of certain nongame species, such purchase is allowed but restricted to—

- ◊ natural communities (terrestrial and aquatic) that exhibit the highest degree of integrity and least evidence of disturbance, and
- ◊ habitats of Arkansas' rarest and most severely endangered or threatened native organisms. In addition, decisions for land purchase must consider the availability and preservation status of all Arkansas lands.[3250]

Mississippi (region 3).—In Mississippi, all State lands are declared forest reserves and wildlife refuges and no wildlife can be taken except under regulations of the State Game and Fish Commission.[3251] Board of supervisors of any counties can add additional territory to any bird and game preserve or sanctuary.[3252] It is unlawful to hunt on preserve.[3253] Furthermore, it is unlawful in Mississippi to pursue, take, wound, kill, capture, possess, or export any wild bird, dead or alive, other than a game bird. The prohibition extends to the plumage, skin or body, nests, or eggs of such wild birds.[3254]

The commission has the authority to adopt rules and regulations governing public hunting and fishing in any wildlife conservation management projects or wildlife conservation hunting and fishing refuges.[3255]

By statute, Mississippi assents to the provisions of the Federal laws entitled "An act to provide that the United States shall aid the states in Wildlife Restoration Projects"[3256] and "An act to provide that the United States shall aid the states in Fish Restoration and Management Projects, and for other purposes."[3257] In addition, Mississippi also consents to the acquisition by the United States by purchase, gift, devise, or lease of such areas of land or water, or water, as the United States finds necessary for the establishment of migratory bird reservation.[3258]

[3247]ARK. CODE ANN. § 15-45-301(b).
[3248]Id. § 15-45-303.
[3249]Id. § 15-45-302 (1987).
[3250]Id. § 15-45-304.
[3251]MISS. CODE § 49-5-1 (1972).
[3252]Id. § 49-5-3.
[3253]Id. § 49-5-5.
[3254]Id. § 49-5-7.
[3255]Id. § 49-5-13.
[3256]Id. § 49-5-25. The Wildlife Restoration Project Act is compiled as 16 U.S.C. § 669 et seq.
[3257]Id. § 49-5-27. The Fish Restoration and Management Projects Act is compiled as 16 U.S.C. § 777 et seq.
[3258]Id. § 49-5-29.

Like other states, Mississippi Legislature also enacted provisions regarding nongame and endangered species conservation.[3259]

Wisconsin (region 4).—The owner of any tract of land comprising in aggregate not less than 160 acres can apply to the department to establish such lands as a wildlife refuge. Upon investigation, if the department is satisfied that the establishment of such lands as wildlife refuge will promote the conservation of species, it will designate and establish such lands as a wildlife refuge. Within any wildlife refuge, state park or state fish hatchery lands, it is unlawful to hunt or to trap.[3260] Moreover, by statute, a wildlife refuge, game preserve, and fur farm is established on the Horicon marsh in Dodge county.[3261]

The department is required to assist counties in developing and administering the wildlife damage abatement and wildlife damage claim programs. The department must provide such assistance via technical aid, program guidance, research, demonstration, funding, plan review, audit, and evaluation services. In addition, the department must promulgate rules for eligibility and funding requirements for the programs to maximize cost-effectiveness of such programs. However, in no circumstances can the department administer a wildlife damage abatement program or wildlife damage claim program on behalf of or instead of a county.

A number of limitations are under these programs:

First, to receive claim payment, the payment must be approved by a participating county.

Second, each individual can receive a payment of the actual amount of the wildlife damage or $5,000, whichever amount is less.

Third, no person can receive any payment for the first $250 of each claim for wildlife damage.

Fourth, the payment will be reduced by $2,000 if the applicant fails to file the claim statement within the proper time period, fails to comply with recommended wildlife damage abatement measures or does not permit hunting in conformance with the law.

Finally, the payment to any person will be reduced by an amount equal to any payments or reimbursements received from persons hunting on the land where wildlife damage occurred. The department will pay participating counties the full amount of wildlife damage claim payments.[3262]

The department is also required to designate habitat restoration areas to enhance wildlife-based recreation in Wisconsin. However, it may not designate an area a habitat restoration area if such area is located within the boundaries of a project established by the department before August 9, 1989. Whenever the department designates an area a habitat restoration area, it must prepare a plan, based upon specific qualities of the designated area, that is designed to enhance the features of that area by the restoration of wildlife habitat. After such preparation, the department must encourage landowners to use specific management practices that are designed to implement the plan. The department has the option to share the

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[3259]MISS. CODE § 49-5-101 et seq.
[3260]WIS. STAT. ANN. § 29.57 (1989 & Supp. 1993).
[3261]Id. § 29.571 (1989).
[3262]Id. § 29.598 (1989 & Supp. 1993).

costs of implementing land management practices with landowners or with nonprofit organizations. This option becomes effective on or after July 1, 1990. In addition, the department cannot expend more than $1,500,000 for fisheries, for habitat restoration areas, and for grants for this purpose in each fiscal year.[3263]

To be administered by the department, a streambank protection program is created to protect the water quality and the fish habitat of the streams in Wisconsin. The department is required to identify as priority streams those streams that are in most need of protection from degradation of water quality caused by agricultural or urban runoff. In identifying the priority, the department is required to give higher priority to those streams that are affected by a Federal or State program or plan that protects water qualify or fish habitat. For streams identified as a priority stream, the department can acquire land adjacent to the stream that must include the area within at least 66 feet from either side of the stream and to acquire a permanent streambank easement.[3264]

Iowa (region 5).—The owner of agricultural land is allowed to designate not more than 2 acres of land for use as a wildlife habitat. Upon investigation, if such land satisfies the standards established by the Natural Resource Commission for a wildlife habitat, the Department of Natural Resources must certify the designated land as a wildlife habitat and send a copy of the certification to the appropriate assessor. However, the department can subsequently withdraw certification if the land fails to satisfy the established standards for a wildlife habitat. Land certified as a wildlife habitat is exempted from taxation.[3265]

Nebraska (region 5).—In Nebraska, the Game and Park Commission is allowed to participate with the natural resources districts and other public agencies, pursuant to the Interlocal Cooperation Act, to acquire, lease, take of easements, develop, manage, and enhance wildlife habitats.[3266] For the purpose of developing public recreation areas and promoting the conservation of natural resources, the commission is also authorized to acquire real estate bordering on the shore of any lake or artificial reservoir constructed for the storage of water.[3267]

Like many other states, Nebraska assents to the provisions of the Federal laws entitled "An act to provide that the United States shall aid the states in Wildlife Restoration Projects"[3268] and "An act to provide that the United States shall aid the states in Fish Restoration and Management Projects, and for other purposes."[3269] In addition, Nebraska also consents to the acquisition by the United States by purchase, gift, devise, or lease of such areas of land or water, or both, as the United States finds necessary for the establishment of a migratory bird reservation.[3270]

[3263]WIS. STAT. ANN. § 23.092 (Supp. 1993).
[3264]Id. § 23.094. The Federal or State programs or plans include the Federal conservation reserve program, the State erosion control planning program, the State soil and water conservation plan, the State soil and water resource management program, and the State nonpoint source pollution abatement grant program.
[3265]IOWA CODE ANN. § 427.1 (1990).
[3266]NEB. REV. STAT. § 37-109 (1988).
[3267]Id. § 37-424.
[3268]Id. § 37-422. The Wildlife Restoration Project Act is compiled as 16 U.S.C. § 669 et seq.
[3269]NEB. REV. STAT. § 37-423.01. The Fish Restoration and Management Projects Act is compiled as 16 U.S.C. § 777 et seq.
[3270]Id. § 37-423.

New Mexico (region 6).—Under its Wildlife Conservation act,[3271] New Mexico is committed to maintain and enhance endangered or suspected to be endangered species and subspecies of wildlife indigenous within the carrying capacity of the habitat.[3272]

Provided that species or subspecies of wildlife appearing on the lists are transported into or across New Mexico, a person is prohibited from taking, possessing, transporting, exporting, processing, selling or offering for sale, or shipping any species or subspecies of wildlife appearing on the following lists—

- ◊ the list of wildlife indigenous to New Mexico as determined to be endangered within the State as set forth by regulations of the commission; and
- ◊ the U.S. list of endangered native and foreign fish and wildlife as set forth in the Endangered Species Act of 1973 as endangered or threatened species, when such lists are adopted by regulations of the commission.[3273]

Anyone who violates this statutory prohibition or any regulations promulgated pursuant to this section, is guilty of a misdemeanor and upon conviction, will be fined $1,000 or imprisoned, or both, for a term of not less than 30 days but not more than 1 year.[3274]

However, the director can authorize by permit the taking, possessing, transporting, exporting, or shipping regulated species or subspecies so long as such use is for scientific, zoological, or educational purposes, for propagation in captivity of such wildlife or to protect private property.[3275] Moreover, endangered species may be removed, captured, or destroyed where necessary to alleviate or prevent damage to property or to protect human health. Such removal, capture or destruction can only be carried out by prior authorization by permit from the director.[3276] However, any person who fails to obtain the permit, or fails to abide by the terms of the permit, is guilty of a misdemeanor and upon conviction, will be fined not less than $50 and not more than $300 or be imprisoned, or both, for not more than 90 days.[3277]

By regulations, the State Game Commission is required to develop a list of those species and subspecies of wildlife indigenous to the State that are determined to be endangered within the State.[3278] The commission is authorized to establish regulations that are deemed necessary to carry out all of the provisions and purposes of this act.[3279]

In addition to the authority to acquire lands, waters, or interests for the conservation, management, restoration, propagation, and protection of endangered species,[3280] the director of the Department of Game and Fish has the following mandatory duties:

[3271]Wildlife Conservation Act, NEW MEXICO STAT. ANN. § 17-2-37 et seq. (1988).
[3272]Id. § 17-2-39.
[3273]Id. § 17-2-41(C).
[3274]Id. § 17-2-45(B).
[3275]Id. § 17-2-42(C).
[3276]Id. § 17-2-42(D).
[3277]Id. § 17-2-45(A).
[3278]Id. § 17-2-41(A).
[3279]Id. § 17-2-43.
[3280]Id. § 17-2-44(A).

- Conduct a review of the State list of endangered species biennially and recommend to the commission appropriate additions to or deletions, if there are any, from the list.[3281]
- Conduct investigations concerning all endangered and suspected of being endangered species of wildlife to develop information regarding population, distribution, habitat needs, and other biological and economical data to determine management measures and requirements necessary for their survival.[3282]
- Conduct studies to determine the status and requirements for survival of endangered species.[3283]
- Establish management programs, including programs for research and the acquisition of land or aquatic habitat, as authorized and deemed necessary by the commission for the management of endangered species.[3284]
- Hold public hearings and include the participation of the public in the preparation and adoption of State plan for all endangered species to carry out the provisions of this act.[3285]

The act requires the director, each conservation officer, each sheriff in his or her respective county, and each member of the New Mexico State Police to enforce this act. With probable cause, each of these individuals must—

- ◊ seize any wildlife, including mammal, bird, amphibian, reptile, fish, mollusk, or crustacean held in violation of the act;
- ◊ arrest any person who violates the act; and
- ◊ open, enter, and examine all camps, cars, vehicles, tents, packs, boxes, barrels, and packages upon belief that game or fish is taken or held in violation of the act and seize it.[3286]

Texas (regions 6 & 7)—Species are considered endangered if listed on—

- ◊ the United States List of Endangered Native Fish and Wildlife, or
- ◊ the list of fish or wildlife threatened with statewide extinction as filed by the director of the department.[3287]

The director must file with the secretary of state a list of fish or wildlife threatened with statewide extinction that may be amended or petitioned to be reclassified.[3288]

Texas Endangered Species law prohibits individuals from possessing, selling, distributing, or offering or advertising for sale endangered fish or wildlife unless such fish or wildlife have been lawfully born and raised in captivity for commercial purposes. The prohibition extends to goods made from endangered fish or wildlife.[3289]

[3281]Wildlife Conservation Act, NEW MEXICO STAT. ANN. § 17-2-41(B).
[3282]Id. § 17-2-40.
[3283]Id. § 17-2-44(C).
[3284]Id. § 17-2-42(A).
[3285]Id. § 17-2-44(B).
[3286]Id. § 17-2-46.
[3287]TEX. CODE ANN., PARKS & WILDLIFE CODE § 68.002 (1991).
[3288]Id. § 68.003-68.005.
[3289]Id. § 68.015.

No sale of endangered fish or wildlife or goods made from such species are permitted unless they are tagged or labeled in a manner in compliance with applicable laws.[3290] It is unlawful to possess, take or transport endangered fish or wildlife for zoological gardens or scientific purposes or to take or transport such species from their natural habitat for propagation for commercial purposes, unless allowed under a permit issued by the department.[3291] Enforcement officers are authorized to seize fish or wildlife taken, possessed, or made in violation of the statute.[3292]

However, the endangered species provisions do not apply to coyotes, cougars, bobcats, prairie dogs, or red foxes. Neither of these provisions applies to the possession of mounted or preserved endangered fish or wildlife that were acquired before August 31, 1973, by public or private nonprofit educational, zoological, or research institutions.[3293]

The Texas Wildlife Conservation Act of 1983 was also enacted [3294] with the primary purpose of providing comprehensive methods for the conservation of an extensive supply of wildlife resources on a statewide basis.[3295]

The Texas Legislature is authorized to designate two or more contiguous tracts of land as a wildlife management association area if—

- ◊ each owner of the land applies for the designation,
- ◊ the land is inhabited by wildlife,
- ◊ the department determines that observing wildlife and collecting information on the wildlife will serve the purpose of wildlife management in the State, and
- ◊ the landowners agree to provide the department with information pertaining to the wildlife.[3296]

However, before the department approves an application for designation of a wildlife management association area, applicants must prepare a wildlife management plan according to department guidelines for wildlife management plans. The department can also acquire, develop, maintain, operate, and manage wildlife management areas.[3297]

Idaho (region 8).—By statute, Idaho assents to the provisions of the Federal laws entitled "An act to provide that the United States shall aid the states in Wildlife Restoration Projects"[3298] and "An act to provide that the United States shall aid the states in Fish Restoration and Management Projects, and for other purposes."[3299]

[3290]TEX. CODE ANN., PARKS & WILDLIFE CODE § 68.016.
[3291]Id. § 68.006-68.011.
[3292]Id. § 68.017.
[3293]Id. § 68.020.
[3294]Id. § 61.001 et seq.
[3295]Id. § 61.002.
[3296]Id. § 81.301 (Supp. 1996).
[3297]Id. § 81.401 (1991).
[3298]IDAHO CODE ANN. § 36-1801 (1994). The Wildlife Restoration Project Act is compiled as 16 U.S.C. § 669 et seq.
[3299]Id. § 36-1802. The Fish Restoration and Management Projects Act is compiled as 16 U.S.C. § 777 et seq.

In addition, Idaho consents to the acquisition by the United States by purchase, gift, devise, or lease of such areas of land or water, or both, as the United States finds necessary for the establishment of migratory bird reservation.[3300]

Wildlife preserves are created in the Idaho statute to better protect wild animals and birds, to establish breeding places for and to preserve such species.[3301] Under the wildlife preserves provisions, individuals cannot take any wild animals or wild birds in any of the wildlife preserves unless provided otherwise.[3302]

By statute, a number of preserves are created, including the Myrtle Creek preserve,[3303] the David Thompson preserve,[3304] the Lewiston preserve,[3305] and the Springfield bird preserve.[3306]

Utah (region 8).—In Utah, wildlife is statutorily declared property of the State.[3307] However, the Division of Wildlife Resource is authorized to take any kind of wildlife from any place or in any manner deemed by the director as appropriate for wildlife conservation.[3308] The Division of Wildlife Resource is created within and under the administration of the Department of Natural Resources. The division is required to protect, propagate, manage, conserve, and distribute protected wildlife throughout Utah.[3309]

By statute, a Wildlife Board is created. It consists of seven appointed members who must be experts in areas such as wildlife management or biology, habitat management, business, and economics.[3310]

The board's main responsibilities include—

- ◊ establishing policies best designed to accomplish the purposes; and
- ◊ fulfilling the intent of all laws pertaining wildlife and the preservation and management of wildlife.[3311]

Among other factors, in establishing policy, the board must—

- ◊ recognize that wildlife and its habitat are essential part of a healthy, productive environment; and
- ◊ seek to balance the habitat requirements of wildlife with social and economic activities of mankind.[3312]

In addition, the board is authorized to exercise its powers by making rules and issuing proclamations pursuant to state laws.[3313]

[3300]IDAHO CODE ANN. § 36-1806.
[3301]Id. § 36-1901.
[3302]Id. § 36-1902.
[3303]Id. § 36-1905.
[3304]Id. § 36-1906.
[3305]Id. § 36-1908.
[3306]Id. § 36-1911.
[3307]UTAH CODE ANN. § 23-13-3 (Supp. 1995).
[3308]Id. § 23-13-6.
[3309]Id. § 23-14-1.
[3310]Id. § 23-14-2.
[3311]Id. § 23-14-3(2)(a).
[3312]Id. § 23-14-3(2)(b).
[3313]Id. § 23-14-18.

To protect wildlife, the Utah Legislature requires residents and nonresidents to obtain licenses after paying certain fees to fish, hunt or trap.[3314] Effective from January 1, 1996, a person must purchase an annual wildlife habitat authorization before purchasing a wildlife heritage certificate or any license or permit required by the laws. However, only one wildlife habitat authorization is required regardless of the number of license or permits purchased during that year.[3315]

Within the General Fund, the Wildlife Habitat Account is created, consisting of revenue from sale of wildlife habitat authorization, the balance of any money remaining in the Upland Game Habitat Account and Upland Game Account upon their closures, any money deposited as dedicated credits for the waterfowl program, and interest and earnings on account moneys.[3316] The division is authorized to use the revenue of the sale of wildlife habitat authorizations, but only after appropriation by the legislature.[3317]

Acquisition of real property held in private ownership is permitted for wildlife preservation purposes. However, Governor's approval is required. The Governor may approve the acquisition in whole or in part or disapprove such acquisition.[3318] Moreover, before purchasing such property, the division must first submit the proposition to the county legislative body in a regular open public meeting in the county where the property is located.[3319]

Utah also gives consent to acquisition by the United States of such areas of land or water in Utah as the United States deems necessary to establish and maintain the migratory waterfowl refuges in accordance with the Migratory Bird Conservation Act (amended as the Migratory Bird Hunting Stamp Act).[3320]

Oregon (region 9).—In carrying out the provisions regarding the management of endangered or threatened species, the State Fish and Wildlife Commission has the following duties:[3321]

- To conduct investigations of native wildlife species and to determine whether any of such species are endangered or threatened species.
- By rule, to establish, publish, and revise a list of wildlife species that are endangered or threatened.
- To work cooperatively with State agencies to determine their roles within their statutory obligations in the conservation of endangered species.
- By rule, to establish a system of permits for scientific taking of endangered and threatened species and a system of State permits for incidental taking of State-designated endangered and threatened species not listed by the Federal Government.
- To adopt administrative rules to carry out the provisions regarding the conservation of endangered or threatened wildlife species.

[3314]UTAH CODE ANN. § 23-19-40, 23-19-44.
[3315]Id. § 23-19-42.
[3316]Id. § 23-19-43(2).
[3317]Id. § 23-19-43(3). For specific appropriation for conservation activities, see Id. § 23-19-43(4)-(6).
[3318]Id. § 23-21-1.5.
[3319]Id. § 23-21-2.
[3320]Id. § 23-21-6.
[3321]Threatened or Endangered Wildlife Species, OREGON REV. STAT. § 496.172 (1995).

The lists of endangered or threatened species must include those wildlife species listed as of May 15, 1987, as an endangered or threatened species pursuant to the Federal Endangered Species Act of 1973 (ESA) and those species determined as of May 15, 1987, by the State Fish and Wildlife Commission to be endangered or threatened species. A determination of whether a species is endangered or threatened must be based on documented and verifiable scientific information about the species' biological status and other factors such as the danger to the species' natural productive potential. Moreover, by rule, the commission may add or remove any wildlife species from either list, or change the status of any species on the lists.[3322]

However, the commission may determine not to list a species as endangered or threatened if the species—

- ◊ has already been listed pursuant to the ESA;
- ◊ is currently on the list as a sensitive species or is a candidate species or has been petitioned for listing pursuant to the ESA; or
- ◊ has been determined pursuant to the ESA to not qualify as an endangered or threatened species.[3323]

The commission is required to take emergency action to add a species to the list of endangered or threatened species if the commission determines that a significant threat to the continued existence of the species exists. Furthermore, the commission must periodically review the status of endangered or threatened species.[3324]

If an Oregon State agency determines that a proposed action on land it owns or leases has the potential of violating the guidelines established by the commission, it must notify the State Department of Fish and Wildlife. Within 90 days, the department must recommend a reasonable and prudent alternative, if any, to the proposed action that is consistent with the guidelines. If the agency fails to adopt the recommendation, after consulting with the department, it must demonstrate that—

- ◊ the potential public benefits of the proposed action outweigh the potential harm from failure to adopt the recommendation; and
- ◊ reasonable mitigation and enhancement measures will be taken, to the extent practicable, to minimize the adverse impact of the action on the affected species.[3325]

Moreover, within 4 months of the listing of the endangered species, in consulting and cooperating with the State land owning or managing agency, the commission must determine if State land will play a role in the conservation of endangered species. The commission and the land owning or managing agency must consider species biology and geography of the land base to determine if the species or its habitat is found on State land. If the species or its habitat is not found on State land, the commission must decide that State land plays no role in the conservation of the species.

[3322]OREGON REV. STAT. § 496.176.
[3323]Id. § 496.172 (1995).
[3324]Id.
[3325]Threatened or endangered wildlife species. OREGON REV. STAT. § 496.182.

On the other hand, if the species or its habitat is found on State land, after consulting with the department, the land owning or managing agency must determine the role its State land will serve in the conservation of endangered species. After such determination, the land owning or managing agency must develop and approve an endangered species management plan, which is subject to review and modification by the commission.[3326] For State agencies other than the land owning or managing agency, in consultation and cooperation with the agency, the commission must determine whether the agency can serve a role in the conservation of endangered species.[3327]

In addition, the Oregon Legislature established the Access and Habitat Board within the State Department of Fish and Wildlife. The board consists of seven appointed members who serve for a term of 4 years and are eligible for reappointment.[3328]

The board's main duty is to make access and habitat programs, which are reviewed by the commission. In recommending such programs, the board must—

- ◊ recommend a mix of projects that provides a balance between access and habitat benefits;
- ◊ recommend projects that are to be implemented by volunteers engaged in approved access and habitat activities;
- ◊ recommend programs that recognize and encourage the contributions of landowners to wildlife programs which minimize the economic loss to those landowners;
- ◊ encourage agreements that have landowners who request damage control hunts to insure public access to those hunts; and
- ◊ encourage projects that result in obtaining matching funds from other sources.[3329]

In addition, persons who live in different regions created for administration of the wildlife resources can form advisory councils to discuss and consider access and habitat programs and projects and to make recommendations to the Access and Habitat Board. Whenever the board considers proposals affecting a region, it must consult with the advisory council for that region if one exists.[3330]

In addition to the Access and Habitat program, the Oregon Legislature also enacted provisions to improve fish habitat. It allows individuals to apply to the State Department of Fish and Wildlife for preliminary certification of a fish habitat improvement project. However, such certification does not qualify an applicant for tax credit nor exempt the project from any State or Federal law or local ordinance. After completing the construction or installation of a fish habitat improvement project preliminarily certified, such individual can apply to the department for final certification of the project. If the department determines that the project conforms to the plans approved during the preliminary certification, it must provide the applicant a written notice of final certification of the project, which includes the certification of the actual cost of the project for purposes of the income tax credit

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[3326]Threatened or endangered wildlife species. OREGON REV. STAT. § 496.182.
[3327]Id.
[3328]Id. § 496.228.
[3329]Id. § 496.232.
[3330]Id. § 496.232.

relief. However, the department cannot certify an amount for tax credit purposes that is more than 10 percent in excess of the amount approved in the preliminary certificate issued for the project.[3331]

Moreover, there are two limitations on amount eligible for tax credit. First, in any calendar year, the department cannot certify a fish habitat improvement project that costs in excess of $100,000. Second, the department cannot grant preliminary certification for a fish habitat improvement project unless it is filed with the department on or before January 1, 1998.[3332]

Furthermore, an operator or landowner is immune from liability for damages resulting from an improvement project that is done in cooperation and consultation with the department, unless such damages were caused by willful, wanton, or intentional conduct or by gross negligence of the operator or landowner. However, the limitation of liability does not apply to claims for death or personal injuries.[3333]

California (region 10).—After acknowledging that the "fundamental requirement for health, vigorous populations of fish and wildlife is habitat,"[3334] the California Legislature enacted the Fish and Wildlife Habitat Enhancement Act of 1984[3335] with the purpose of providing "the financial means to correct the most severe deficiencies in fish and wildlife habitat . . . through a program of acquisition, enhancement, and development of habitat areas that are most in need of proper conservation and management."[3336] From the Fish and Wildlife Habitat Enhancement Fund, the legislature appropriates as follows:[3337]

- Forty million dollars for expenditure by the Wildlife Conservation Board pursuant to the Wildlife Conservation Law of 1947; $30 million are to be used for the acquisition, enhancement or development of lands for habitat for wildfowl and other wildlife benefited by a marsh or aquatic environment; and $10 million are for the restoration of waterways for the management of fisheries and the enhancement or development, or both, of habitat for other wildlife.
- Five million dollars for the Wildlife Conservation Board pursuant to the Wildlife Conservation Law of 1947 for the acquisition, enhancement, or development, or both, of lands for habitat for rare, endangered, and fully protected species.
- Thirty million dollars for the State Coastal Conservancy for the acquisition, enhancement or development, or both, of marshlands and associated and adjacent land and the development of associated facilities and for grants to local public agencies.
- Ten million dollars for the Wildlife Conservation Board pursuant to the Wildlife Conservation Law of 1947 for the acquisition, enhancement, or development, or both, inside the coastal zone of marshlands and adjacent lands for habitat for wildlife benefited by a marsh or aquatic environment.

[3331]Threatened or endangered wildlife species. OREGON REV. STAT. § 496.260.
[3332]Id. § 496.265.
[3333]Id. § 496.270.
[3334]CA. CODE ANN., FISH & GAME CODE § 2601 (Supp. 1996).
[3335]Id. § 2600 through 2650 (Supp. 1996).
[3336]Id. § 2601.
[3337]Id. § 2620.

- In addition, the legislature authorizes bonds in the total amount of $85 million, or in the amount necessary, to be issued and sold to provide a fund to be used for carrying out the purposes of the act.[3338]

Under the Wildlife Conservation Law of 1947, the board must determine what areas, lands, or rights in lands or waters are to be acquired to effectuate a coordinated and balanced program resulting in the maximum restoration of wildlife.[3339]

The State legislature also enacted the California Riparian Habitat Conservation Act[3340] after recognizing that "the state rivers, wetlands, and waterways and the fisheries and wildlife habitat they provide are valuable and finite resources that benefit the people of the state."[3341] With this recognition, the legislature requires the board to establish and administer the California Riparian Habitat Conservation Program, the purpose of which is to protect, preserve, and restore riparian habitats throughout the State.[3342]

The legislature also enacted the Wildlife and Natural Areas Conservation Act.[3343] The Wildlife and Natural Areas Conservation Fund was created; $41 million are for the preservation of highly rare examples of the State's natural diversity; $6 million for the acquisition, enhancement, restoration, or protection of critical habitat areas for fish, game mammals, and game birds; and $3 million for acquisition, enhancement, restoration, or protection of land providing habitat for threatened, endangered, or fully protected species.[3344]

In addition, the legislature provides for Fish and Wildlife Protection and Conservation laws[3345] and enacted the Kenne-Nielsen Fisheries Restoration Act of 1985.[3346]

Tennessee (regions 11 & 12).—The Wildlife Resources Agency is authorized to establish, with the consent of the property owner, public hunting areas, refuges, or wildlife management areas to protect and manage wildlife.[3347] To perform its duties, the agency can acquire property for the purposes of wildlife preservation.[3348]

Except the properties operated by the Department of Conservation and the Division of Parks and Recreation, the Tennessee Legislature declared all lands owned in fee simple by Tennessee or by condemnation, surrounded by or surrounding the waters of Reelfoot Lake to be designated as a State wildlife management area.[3349] To preserve, protect, and manage Reelfoot Lake or its fish, waterfowl, and wildlife populations and habitats, unless provided otherwise, all activities, practices, or projects that have or are likely to have the effect of diverting surface or subsurface

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[3338]CA. CODE ANN., FISH & GAME CODE § 2640.
[3339]Id. § 1347.
[3340]Id. § 1385 to 1391.
[3341]Id. § 1386.
[3342]Id. § 1387.
[3343]Id. § 2700 et seq.
[3344]Id. § 2720.
[3345]Id. § 1601 et seq.
[3346]Id. § 2760 et seq.
[3347]TENN. CODE ANN. § 70-5-101 (Supp. 1993).
[3348]Id. § 70-5-102 (1987).
[3349]Id. § 70-5-107(d) (Supp. 1993).

water that would otherwise flow into Reelfoot Lake are prohibited.[3350] Moreover, the water level management plan for Reelfoot Lake is also established.[3351]

By statute, Tennessee assents to the provisions of the Federal laws entitled "An act to provide that the United States shall aid the states in Wildlife Restoration Projects"[3352] and "An act to provide that the United States shall aid the States in Fish Restoration and Management Projects, and for other purposes."[3353] In addition, Tennessee also consents to the acquisition by the United States by purchase, gift, devise, or lease of such areas of land and/or water as the United States finds necessary for the establishment of a migratory bird reservation.[3354]

In addition to the provisions regarding wildlife law, the Tennessee Legislature also enacted provisions dealing with Nongame and Endangered Species.[3355] The legislature requires the executive director to conduct investigations on nongame wildlife to develop information regarding the population, distribution, habitat, needs, limiting factors, and other biological and ecological data to determine management measures necessary for their continual sustainability.[3356] It also requires the Wildlife Resources Commission, by regulations, to establish proposed limitations regarding habitat, alteration, taking, possession, transportation, exportation, or sale as deemed necessary to manage such nongame wildlife.

Furthermore, the legislature prohibits all persons from taking, possessing, transporting, exporting, processing, selling or shipping nongame wildlife.[3357] However, endangered or threatened species may be removed, captured or destroyed only if it is necessary to alleviate damage to property or to protect human health and safety.[3358]

On the basis of this investigation and after consultation with other state and Federal wildlife agencies, the Wildlife Resources Commission must, by regulation, propose an endangered or threatened species list, which will be made available to the public. The commission is required to conduct a review of the State list every 2 years and make additions or deletions as deemed necessary.[3359] Furthermore, by regulation, the executive director can treat any species as an endangered species or threatened species even though it is not listed.[3360]

The executive director is required to establish programs, including acquisition of land or aquatic habitat, as are deemed essential for management of nongame and endangered or threatened wildlife.[3361] The commission is authorized to issue regulations as necessary to carry out the purposes of this act.[3362]

[3350]TENN. CODE ANN. § 70-5-112 (1987 & Supp. 1993).
[3351]Id. § 70-5-113 (Supp. 1993).
[3352]Id. § 70-5-111(b) (1987). The Wildlife Restoration Project Act is compiled as 16 U.S.C. §§ 669 et seq.
[3353]Id. § 70-5-111(c). The Fish Restoration and Management Projects Act is compiled as 16 U.S.C. §§ 777 et seq.
[3354]Id. § 70-5-111(a).
[3355]Tennessee Non-game and Endangered or Threatened Wildlife Species Conservation Act of 1974, TENN. CODE ANN. § 70-8-101 et seq. (1987 & Supp. 1993).
[3356]Id. § 70-8-104 (1987).
[3357]Id.
[3358]Id. § 70-8-106.
[3359]Id. § 70-8-105.
[3360]Id. § 70-8-112.
[3361]Id. § 70-8-106.
[3362]Id. § 70-8-107.

Under the Nongame and Endangered Species provisions, the cost of the nongame and endangered or threatened wildlife programs are born by the general fund or other sources. However, the Federal cost share of approved programs for endangered species cannot exceed 66 2/3 percent of the costs stated in the cooperative agreement. The Federal share may be increased to 75 percent when two or more states having a common interest in one or more endangered or threatened species enter jointly into an agreement with the executive director.[3363]

[3363]TENN. CODE ANN. § 70-8-110 (Supp. 1993).

Appendix

State financial assistance for conservation practices

Cost-sharing programs

State laws beginning in 1977 started to provide financial assistance to private landowners to set up conservation practices. Most of these laws follow the Federal model of financial assistance by providing cost-sharing for the placement of various types of conservation practices under contracts with the conservation districts. The cost-share rates among states range from 10 percent to 90 percent of the estimated cost of the conservation practice. Some states, such as Iowa, Nebraska, and Idaho, provide low-interest loans in addition to their cost-sharing programs, while others, such as Utah, only establish loan programs to landowners. These programs also require the participating district's supervision of the practices.

In dealing with cost-sharing programs for soil and water conservation and agricultural nonpoint-source pollution control, some state conservation district laws authorize cost-sharing programs. In turn, state conservation agencies provide financial assistance to the districts to implement their programs and enable the districts to provide financial assistance to landowners and land users to carry out soil and water conservation practices. Other programs, however, are authorized by special laws for specific purposes or practices. For example, Maryland and Idaho only provide cost-sharing programs for water pollution. Tennessee only authorizes cost-sharing programs to control sedimentation and pollution in watershed areas. Delaware implements these programs for all its conservation needs.

Delaware (region 1).—Delaware's cost-sharing program was instituted in 1985 under the authority of the State Conservation District law and the 1977 Erosion and Sediment Control act.[3364] This cost-sharing program has been administered by the State's three soil and water conservation districts, with the supervision of the Delaware Department of Natural Resources and Environmental Control.

The law addresses both urban and agricultural concerns. Moreover, it covers not only erosion and sediment control, but also water quality and water management, forestry, organic waste management, wildlife habitat development, and other conservation needs. Following the Soil and Erosion Control Model Act, the basic cost-share rate is 50 percent or more. However, the Delaware law also provides that in special situations, a higher rate may be allowed depending on available funds and the resulting public benefits.

Maryland (region 1).—Maryland's cost-sharing program for agricultural water pollution control was established by a 1982 amendment to the State Agriculture law. This amendment authorizes cost sharing for implementing best management practices (BMPs) to minimize water pollution from sediment, animal wastes, nutrients, and agricultural chemicals in *priority areas* that have critical nonpoint-source pollution conditions.[3365] The Maryland law directs the State conservation and water pollution control agencies to jointly identify geographic areas that are

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[3364]Erosion and Sedimentation Control, DEL. CODE ANN. tit. 7, § 4001 et seq. (1991).
[3365]MD. CODE ANN., NAT. RES. § 8-702.

likely to contain such priority areas, designate the priority areas, and establish eligibility criteria for cost sharing.[3366]

The selection of projects to be cost shared and of cost-share rates is based on the estimated water quality achievements, the estimated economic benefits of the BMPs to the participating farmers, and other relevant factors as determined by regulation.[3367] The law further provides that the maximum cost-share level is 87 1/2 percent of eligible costs, where payments are not to exceed $10,000 for one project or $20,000 for a project carried out on different farms under a pooling agreement.[3368] In addition, the state cost-sharing funds are made available under contract between the land operator, the conservation district, and the state conservation agency.

The land operator must maintain the BMPs for their expected life span and also bind any successor in title.[3369] Failure by the land operator to establish and maintain BMPs practice in accordance with the agreement will render such person liable for the full amount of cost-sharing funds.[3370] The conservation district must certify that the BMPs meet applicable technical standards and that all submitted invoices represent eligible cost.[3371]

Alabama (region 2).—In 1985, Alabama amended its Constitution. This amendment establishes the Alabama Agricultural and Conservation Development Commission and requires this Commission to administer a new cost-sharing program to assist practices in reducing erosion and improving agricultural water quality and forest resources.[3372]

The Alabama Cost-Share Grants for Soil and Water Conservation law provides that each of Alabama's 67 soil and water conservation districts receives a basic allocation of 1 percent of the available funds.[3373] The remaining 33 percent is allocated to the districts according to three particular factors: the percentage of Alabama's highly erodible land that is situated in a district; reforestation needs; and agricultural water pollution problems.[3374] In each district, subject to the approval of the Commission, the district supervisor determines which practices are needed and thus eligible for cost-sharing funds.[3375] Cost-share rates are set by the commission and vary depending on the practice. Moreover, cost-share grants are exempt from the state income tax.[3376]

Since 1985, there has been only one amendment to this chapter. The 1992 amendment, effective March 18, 1992, substituted "Alabama Farmers Federation"

[3366]MD. CODE ANN., NAT. RES. § 8-703.
[3367]Id.
[3368]Id. § 8-704(a)(1).
[3369]Id. § 8-704(a)(4).
[3370]Id. § 8-705.
[3371]Id. § 8-704(a)(2)(iii).
[3372]Constitution of Alabama of 1901, Soil and Water Conservation Commission, Amendment No. 451, proposed by Acts 1985, 1st Ex. Sess., No. 85-78, submitted May 14, 1985, and proclaimed ratified June 4, 1985 (Proclamation Register No. 5, P. 44).
[3373]ALA. CODE § 9-8A-5(b).
[3374]Id. § 9-8A-5(b).
[3375]Id. § 9-8A-6.
[3376]Id. § 9-8A-14.

for "Alabama Farm Bureau Federation" in subsection (a) of section 9-8A-3 regarding the composition of the commission.[3377]

Mississippi (region 3).—In 1985, Mississippi enacted the Soil and Water Conservation Cost-Share Program.[3378] The Mississippi Soil and Water Conservation Commission is authorized to adopt and promulgate rules and regulations as necessary for the implementation of the Mississippi Soil and Water Cost-Share Program[3379] and to use money appropriated to assist in implementing approved practices on a cost-sharing basis on eligible lands in Mississippi.[3380]

To implement the provisions of this cost-share program, the commission has a number of powers and duties, including—

- ◊ determining which approved practices are eligible for cost-sharing assistance;
- ◊ establishing maximum sums and cost-share rates that any one eligible landowner or land operator may receive;
- ◊ reviewing periodically the costs of establishing conservation practices and making adjustments if it is necessary.[3381]

Wisconsin (region 4).—Wisconsin's authority to provide cost-sharing for soil erosion and nonpoint-source pollution control practices is found in the 1981 revision of its Soil and Water Conservation law.[3382] Under this law, the CLCC must prepare soil erosion control plans, defined to include control of nonpoint-source pollution where it is needed.[3383]

The state conservation agency must allocate funds for up to 50 percent of the cost of preparing soil erosion control plans to land conservation committees of counties that have been identified as priority counties for soil erosion control, i.e. counties with the greatest area of severe erosion problems.[3384] In addition, the payments must be returned if the practices are not maintained or if title to the land is transferred to an owner who does not agree to maintain the practices.

Iowa (region 5).—The Iowa law allows a cost-sharing amount of 75 percent or less of the estimated cost as established by the commissioners or 75 percent of the actual cost, which ever is less, to be available for installing permanent practices and an amount specified by the state conservation agency to be available for temporary practices.[3385] However, cost-share funds are not available for erosion on construction projects.

Nebraska (region 5).—Nebraska provides for any owner or operator at least 90 percent cost-sharing assistance for the installation of permanent soil and water conservation practices that are required in an approved farm unit conservation plan or are

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[3377]ALA. CODE § 9-8A-3 (Supp. 1993).
[3378]MISS. CODE ANN. § 69-27-301 et seq. (1991).
[3379]Id. § 69-27-307.
[3380]Id. § 69-27-309.
[3381]Id. § 69-27-311.
[3382]Soil and Water Conservation, WIS. STAT. ANN. § 92.07(3).
[3383]Id. § 92.07(2).
[3384]Id. § 92.10(4)(c).
[3385]IOWA CODE ANN. § 161A.48 (West 1993).

required to conform agricultural, horticultural, or silvicultural practices to the applicable soil-loss limit pursuant to the Erosion and Sediment Control Act.[3386]

Texas (regions 6 & 7).—The Texas Soil and Water Conservation law authorized the cost-share assistance program for soil and water conservation land improvement measures.[3387] It provides that the state board may give cost-share assistance to landowners or operators for the installation of soil and water conservation land improvement measures consistent with the purpose of controlling erosion, conserving water, or protecting water quality.[3388]

The conservation district has broad power in approving the application for cost-share assistance. It may approve an application for cost-share assistance if the soil and water conservation land improvement measure is consistent with the purposes of controlling erosion, conserving water, or protecting water quality.[3389] However, it cannot do so if the cost-share assistance funds exceed the funds allocated to the conservation district by the State board.[3390]

Under the Texas Soil and Water Conservation law, the State board must establish the cost-share rates for all eligible soil and water conservation land improvement measures[3391] and cannot bear more than 75 percent of the cost of a soil and water conservation improvement measure.[3392] However, the 75 percent maximum requirement may be excepted if the State board finds that a higher share is necessary to obtain adequate implementation of a certain soil and water conservation land improvement measure.[3393]

The recipient of the cost-share assistance cannot receive such assistance if that person is simultaneously receiving cost-share assistance for the measure from another source.[3394] However, the board may grant an exception to this limitation if it finds that participation with another cost-share assistance program will not only enhance the efficiency and effectiveness of the improvement measure, but also lessen the State's financial commitment to such an improvement measure.[3395]

The State board is required to establish standards and specifications for soil and water conservation land improvement measures eligible for cost-share assistance.[3396] Furthermore, before it makes a payment to an eligible person, the board may require certification by the conservation district where the measure has been installed indicating whether the measure has been completely installed and whether it satisfies the standards and specifications established by the board.[3397]

[3386]Erosion and Sediment Control, NEB. REV. STAT. § 2-4610.
[3387]*Generally* Soil and Water Conservation Law, TEX. CODE, §§ 201.301 to 201.311.
[3388]Soil and Water Conservation Law, TEX. AGRIC. CODE ANN. § 201.302(a) (Supp. 1995). This section was added by Acts 1993, 73rd Leg., ch. 54, § 2 and became effective on April 29, 1993.
[3389]TEX. AGRIC. CODE ANN. § 201.307(a).
[3390]Id. § 201.307(b).
[3391]Id. § 201.308(a).
[3392]Id. § 201.308(b).
[3393]Id. § 201.308(d).
[3394]Id. § 201.308(c).
[3395]Id. § 201.308(e).
[3396]Id. § 201.309.
[3397]Id. § 201.310.

Texas is unique in that the law allows the State board to designate one or more conservation districts to administer this cost-share procedure locally.[3398]

In addition to the cost-share assistance program for soil and water conservation, the Texas conservation law also provides a cost-share assistance program for brush control. A brush control fund is created in the State treasury which consists of legislative appropriations, money transferred to that fund from other funds by laws, and other money required by law to be deposited in the brush control fund.[3399] However, the board cannot provide more than 70 percent of the total cost of a single brush control project.[3400] The board must deny the assistance if the borrower is simultaneously receiving any cost-share money for brush control on the same acreage from a Federal Government program.[3401] However, the latter limitation may be excepted by the board if it finds that joint participation of the state brush control program and any Federal brush control program will not only enhance the efficiency and effectiveness of a project, but also lessen the State's financial commitment to the project.[3402]

Idaho (region 8).—In 1980, Idaho amended its Water Pollution Control law. This amendment authorizes the State water quality agency to enter into contracts with conservation districts to provide for district-administered cost sharing to implement the best management practices (BMP's) identified in the State's Agricultural Water Quality Management Plan.

In a district water quality project, the maximum cost-share rate is 90 percent including cost sharing under other Federal, State, or local programs and payments may not exceed $25,000 per individual. In addition, with the consultation of the State conservation agency, the conservation districts that contract with the State water quality agency must develop district level projects for controlling nonpoint-source pollution and make sure of adequate participation by landowners in the area. The plan of a project must satisfy a number of requirements, including the landowner water quality objectives, methods for technical assistance and project administration, and cost-share rates for approved practices.

Utah (region 8).—Utah is unique in that it does not have a cost-sharing program. However, it operates a large low-interest loan program (which will be discussed further in the loan section).

Tennessee (region 11 & 12).—Cost-sharing programs in Tennessee are authorized by special laws for specific purposes or practices. These programs are localized and are designed specifically to control sedimentation and nonpoint-source pollution in one or more watershed areas. Moreover, they were created to supplement Federal water quality programs. Thus, Tennessee provides 10 percent of the cost of installing erosion control practices in critical areas in the Obion-Fork Deer River Basin.

[3398]TEX. AGRIC. CODE ANN. § 201.311.
[3399]Id. § 203.152.
[3400]Id. § 203.154(a).
[3401]Id. § 203.154(b).
[3402]Id. § 203.154(c).

Loan programs

Loan programs were designed to assist farm and ranch conservation programs. However, not all states have laws creating these loan programs.

Iowa (region 5).—The Iowa Department of Soil Conservation established a revolving fund that provides eligible landowners to borrow up to $10,000 at no interest for up to 10 years to construct permanent soil conservation practices.[3403] To be eligible, a landowner must be able to secure the loan and be capable of repaying the loan in equal annual installments.[3404] All loans must be for farms for which a district conservation plan has been developed and only for projects approved by the conservation districts.[3405] Loans made under this program will become due for payment upon sale of the land on which those practices are established.[3406] Furthermore, loans may not be used to supplement State or Federal cost-sharing assistance for conservation practices.[3407]

Nebraska (region 5).—In 1981, Nebraska has enacted a law which creates an independent corporation—the Nebraska Conservation Corporation (corporation)—to manage a low-cost loan program to assist farmers and ranchers to implement land treatment and water conservation practices. In 1985, this law was amended to include loans to districts and to general-purpose local governments.

The corporation is required to coordinate these activities with State land and water resource practices, programs, and plans, particularly those of the Department of Environmental Control, the Nebraska Natural Resources Commission, and the natural resource districts. The corporation also has to adopt regulations regarding the number and location of conservation practices to be financed by loans, standards and requirements for allocation of available money, and commitment requirements for conservation practices.

To finance this loan program, Nebraska sells tax-exempt bonds to banks to enable them to make loans for soil and water conservation purposes at rates below the prime rate.

Idaho (region 8).—The Idaho Soil Conservation District law provides that eligible applicants may apply for loans for the purpose of financing conservation improvement costs.[3408] The maximum cost-share rate is 75 percent including cost-sharing under other Federal and State programs. In his or her application, the applicant must—

- ◊ describe the nature and purpose of the improvements;
- ◊ set forth or be attached a conservation plan approved by the local soil conservation district, including engineering and economic feasibility data, and an estimated cost of construction;
- ◊ indicate whether money from other source(s) is available and will be used for improvement costs;

[3403]Soil and Water Conservation, IOWA CODE ANN. § 161A.71(1) (West 1990).
[3404]Id. § 161A.71(1). For addition information regarding Iowa No Interest Loan Program, see SWCD Policies and Procedures Manual, SWCD-LEG-2-11.
[3405]Id. § 161A.71.
[3406]Id. § 161A.71(1).
[3407]Id. § 161A.71(1).
[3408]Soil Conservation District Law, IDAHO CODE § 22-2732.

- ◊ show that the applicant holds or can acquire title to all lands or has necessary easements and rights of way for the improvement; and
- ◊ show that the proposed project is feasible and economically justifiable.

After receiving the application, the local soil conservation district must review and evaluate, and investigate all aspects of the proposed improvements if necessary. If the district determines that the plan is not satisfactory, the applicant's plan will be returned.

If it finds that the application is satisfactory, it must forward the application to the commission with a recommendation for funding. The commission may approve the requested loan for conservation improvements if, after review, evaluation, and investigation if necessary, it finds that—

- ◊ the applicant is qualified and reasonable;
- ◊ there is reasonable assurance that the borrower-applicant can repay the loan;
- ◊ the money in the resource conservation and rangeland development account is available for the loans; and
- ◊ the loan will not result in a condition where the applicant has a loan liability in excess of $50.000.[3409]

If the commission approves the loan, the applicant must execute a promissory note for repayment, together with interest not to exceed 6 percent annually as determined by the commission. Moreover, the repayment with interest will commence not later than 2 full years from the date the note is signed. Repayment must be completed within the time period specified by the commission, not to exceed 15 years, unless the commissioner issues an extension of the repayment period in the event of emergency or hardship.[3410]

Utah (region 8).—In 1983 Utah's conservation district law was amended to create the Agriculture Resource Development Fund and authorize the State conservation agency to approve and make loans from the fund to farmers and ranchers, whether individually or in groups. Conservation practices that are qualified for loans include practices on the *State list,* special practices that must be approved by the State agency, and repair and replacement of practices.

The law provides that State loans may be used to supplement Federal cost-share payments. Moreover, the law gives priority to applicants whose primary source of income is farming or ranching.

[3409]IDAHO CODE § 22-2732(c).
[3410]Id. § 22-2732(d).