

ENVIRONMENTAL LAWS AFFECTING GEORGIA AGRICULTURE

A Project of the

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through the

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Research and Information**

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The Project Participants

National Association of State Departments of Agriculture Research Foundation

The National Association of State Departments of Agriculture (NASDA) is a nonprofit association of public officials representing the Commissioners, Secretaries, and Directors of Agriculture in the fifty states and four territories. The NASDA Research Foundation is a 501(c)(3) nonprofit, tax-exempt corporation for education and scientific purposes.

National Center for Agricultural Law Research and Information

The National Center for Agricultural Law Research and Information (the Center) was created in 1987 under Public Law 100-202, 101 Stat. 1329-30 to address the complex legal issues that affect American agriculture. The Center focuses its efforts on research, writing, publishing, the development of its library services, and the dissemination of information to the public. The Center is located at the University of Arkansas School of Law in Fayetteville, Arkansas.

Natural Resources Conservation Service

The Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service (SCS), is a federal agency within the U.S. Department of Agriculture (USDA). NRCS conservationists work with private landowners and operators to help them protect their natural resources.

U.S. Environmental Protection Agency

The Environmental Protection Agency (EPA) is a federal agency with primary responsibility for implementation of most federal laws designed to protect, enhance, and conserve the nation's natural resources.

Disclaimer

This guide is designed for use by farmers, ranchers, landowners, and their consultants in understanding the effect environmental laws have on agricultural operations. It is not a substitute for individual legal advice. Producers should always consult with their own attorneys, as well as federal, state, and local authorities responsible for the applicable environmental laws.

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The contents and views expressed in this guide are those of the authors and do not necessarily reflect the policies or positions of the United States Department of Agriculture Natural Resources Conservation Service or the United States Environmental Protection Agency.

Although every effort has been made to ensure the accuracy of the information contained in this book, environmental statutes, regulations, and ordinances are constantly changing. In addition, the overwhelming complexity and extent of environmental law makes it impossible for a single book to describe in complete detail and depth all of the environmental laws and regulations impacting agricultural operations. The following material is simply a basic primer on environmental law for agricultural producers. For these reasons, the utilization of these materials by any person constitutes an agreement to hold harmless the authors, the National Center for Agricultural Law Research and Information, the University of Arkansas, the United States Department of Agriculture, the National Association of State Departments of Agriculture Research Foundation, the Natural Resources Conservation Service, and the United States Environmental Protection Agency for any liability, claims, damages, or expenses that may be incurred by any person or organization as a result of reference to, or reliance on, the information contained in this book.

The background research and final documents were completed in 1999. Updates of the information contained in the guide will occur on an annual basis and be made available on the internet.

Anyone with comments concerning the guide should contact the NASDA Research Foundation at 1156 15th Street, N.W., Suite 1020, Washington, D.C. 20005.

Quick Reference Guide

Producer Note: The following chart is intended as a quick reference guide to permits which may be necessary for a particular operation. If a permit is necessary, refer to the page numbers listed referencing this document for further information and contact the agencies listed in the final column for information on applications and procedures for securing a permit for an operation. A list of agencies and contact information is also provided in Appendix A.

Regulatory Area	Type of Activity	Permit Required	Agency
Water Quality <i>pp. 1-11</i>	Livestock and aquaculture operations, depending on size	NPDES and state general permit or land disposal permit	EPA Regional Office and Georgia EPD
	Wetlands dredge and fill activity or dam, dike, or bridge building activities	Section 404 permit	US Army Corps of Engineers with EPA and Georgia EPD approval
	Water usage	Permit required for withdrawal of more than 100,000 gallons per day	Georgia EPD
	Water well construction and use	No permit, but construction standards must be followed	Georgia EPD
Groundwater <i>pp. 12-16</i>	Groundwater protection	No permit, but BMPs must be followed	Georgia EPD
Air Quality <i>pp. 16-19</i>	Grain terminals and grain elevators	Permit required	EPA Regional Office or Georgia EPD
	General agricultural operations including odor, dust, or flies	No permit, but may be subject to nuisance suits	EPA Regional Office or Georgia EPD
	Burning	Permit required in certain circumstances	Georgia EPD
Solid Waste and Hazardous Waste <i>pp. 19-26</i>	Storage, treatment, or disposal of hazardous or solid waste	Permit required for disposal, treatment, or storage activities	EPA Regional Office and Georgia EPD

Regulatory Area	Type of Activity	Permit Required	Agency
	Public notice of hazardous waste	No permit	Local Emergency Planning Committee and Georgia Department of Labor
Pesticides and Chemigation <i>pp. 26-35</i>	Application and use of pesticides	No permit, but a license may be required	EPA and Georgia Department of Agriculture
	Use of pesticides around farmworkers	No permit, but training and notification is required	Georgia EPD and Georgia Department of Agriculture
	Record keeping	No permit, but all requirements must be met	Georgia Department of Agriculture
Wildlife Protection <i>pp. 35-37</i>	Taking of wildlife	Permit required if endangered or threatened species may be affected	U.S. Fish and Wildlife Service
Waste Lagoons <i>pp. 50-52</i>	Storage of animal waste	No permit, but NRCS requirements must be met	Georgia EPD
Land Application of Waste <i>p. 53</i>	Land application of animal waste to cropland	No permit, but NRCS requirements must be followed	Georgia EPD
Dead Animal Disposal <i>p. 57</i>	Disposal of animal carcasses	No permit, but regulations must be followed	Georgia Department of Agriculture

ENVIRONMENTAL LAWS AFFECTING GEORGIA AGRICULTURE

Producer Note: Agricultural producers are faced with many challenges in today's rapidly changing world. Changes in industrialization, use of computer-based technology, governmental involvement in market dynamics, and environmental regulation are affecting producers in a number of ways. Environmental regulation is a complex area with both federal and state government involvement. Keeping informed is the producer's most useful instrument for meeting the challenges of today's agriculture. This information on environmental regulation is provided to inform producers of the breadth and scope of environmental laws which may impact daily production activities.

I. WATER QUALITY

A. Federal Clean Water Act

1. Overview

The Clean Water Act¹ (CWA) is an important federal environmental statute affecting agriculture. The law was originally enacted by Congress in 1972 and has been amended several times since. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. A variety of mechanisms are employed by the CWA to control domestic, industrial, and agricultural pollution. Several types of agricultural activities and practices are regulated under the statute. Direct discharges from feedlots are a primary example. The U.S. Environmental Protection Agency (EPA) is charged with enforcing the CWA.

To mark the 25th anniversary of the CWA; EPA, the U.S. Department of Agriculture (USDA), and several other federal agencies released the *Clean Water Action Plan: Restoring and Protecting America's Waters* (Action Plan). The Action Plan builds on the successes of 25 years of progress and provides more than 100 recommendations for continued improvement using four tools. The four key tools to achieve clean water goals are:

- ! A Watershed Approach - A new, collaborative effort by federal, state, tribal, and local governments; the public; and the private sector to restore and sustain the health of watersheds in the nation. The watershed approach is the key to setting priorities and taking action to clean up rivers, lakes, and coastal waters.
- ! Strong Federal and State Standards - This calls for federal, state, and tribal agencies to revise standards where needed and make existing programs more effective. Effective standards are key to protecting public health, preventing polluted runoff, and ensuring accountability.

¹ 33 U.S.C. § 1251 *et seq.* (1994).

- ! Natural Resource Stewardship - Most of the land in the nation's watersheds is cropland, pasture, rangeland, or forests, and most of the water that ends up in rivers, lakes, and coastal waters falls on these lands first. Clean water depends on the conservation and stewardship of these natural resources. The Action Plan calls on federal natural resource and conservation agencies to apply their collective resources and technical expertise to state and local watershed restoration and protection.

- ! Informed Citizens and Officials - Clear, accurate, and timely information is the foundation of a sound and accountable water quality program. Informed citizens and officials make better decisions about their watersheds. The Action Plan calls on federal agencies to improve the information available to the public, governments, and others about the health of their watersheds and the safety of their beaches, drinking water, and fish.

Producer Note: Many of the recommendations in the Clean Water Action Plan will have an impact on agriculture and agricultural production, particularly nonpoint sources of pollution. Your participation in watershed-level stakeholder meetings is important and you should take the opportunity to present your views. Producers must keep informed about these recommendations and their impact by contacting your local Natural Resources Conservation Service (NRCS), USDA or state department of agriculture representative.

2. *Water Quality Standards*

The CWA requires each state to adopt water quality standards for most water bodies located within the state's borders. Rivers and streams are often divided into segments for this purpose. The water quality standards specify appropriate uses to be achieved and protected for each segment of water, such as public water supplies; protection and propagation of fish, shellfish, and wildlife; recreation in and on the water; agriculture uses, such as irrigation or livestock watering; and navigation. Each state's water quality standards also include numerical or narrative criteria that are designed to protect these uses. The standards are then used to establish treatment controls and strategies to protect the water quality, and may include specific requirements placed in permits issued to point sources. However, there are no federal laws or regulations that require the control of nonpoint sources to achieve water quality standards. In addition, as an anti-degradation policy, water quality standards may also prohibit new waste discharges into waters of exceptionally high quality.

3. *NPDES Permits*

Discharges of waste from point sources into navigable waters are regulated through a permit system known as the National Pollutant Discharge Elimination System (NPDES). Permits are issued either by EPA or by the state under a program approved by EPA. It is illegal

to discharge waste from point sources into navigable waters without a permit or in violation of the terms of the permit. The CWA defines a point source as follows:

The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigation.

Navigable waters are defined by the CWA as "waters of the United States." This phrase has been interpreted broadly by EPA regulations and the courts to include most rivers, streams, lakes, and wetlands. Navigable waters do not have to be accessible by boats to meet the definition.

NPDES permits contain effluent limitations specifying the amounts of pollutants which may be discharged. The permits contain other terms and conditions as well. Operational practices may also be specified. Monitoring, record keeping, and reporting requirements are usually included. If EPA is issuing the permit, a state certification that the permit complies with the CWA and state laws is required. In some cases, a permit may prohibit all discharges into water.

The permit issuance process normally involves the submission of an application, agency review of the application for completeness, a tentative permit decision by the agency, time for public comment or a hearing, and the final permit decision.

Producer Note: Many animal feeding operations and aquatic feeding operations are considered point sources and therefore require permits. If a pollutant discharge into waters of the U.S. occurs and the operation does not have a required permit, an owner or operator may be exposed to serious penalties. Producers may contact state and federal authorities to determine if a permit is required for a particular operation. Generally, an NPDES permit application will request information concerning activities occurring at the facility, including a description of the nature of the business. In addition, the name, address, telephone number, and ownership status of the operation will be required, along with a list of all other environmental permits or construction approvals which have been received or for which application has been made, a topographical map, and a statement as to whether the facility is located on tribal land.

Concentrated animal feeding operations (CAFOs) are required to obtain an NPDES permit. A facility is a CAFO if it has more than 300 animal units and discharges directly into navigable waters, or if the operation has more than 1,000 animal units. A feeding operation does not need a permit if it only discharges as a result of a 25-year, 24-hour storm event. An animal

unit is defined as 1.0 unit per animal for slaughter and feeder cattle, 1.4 units per animal for mature dairy cattle, 0.4 unit per animal for swine, 0.1 unit per animal for sheep, and 2.0 units per animal for horses.²

Generally, 1,000 animal units is the equivalent of 1,000 slaughter and feeder cattle, 700 mature dairy cattle, 2,500 swine which are over 55 pounds, 500 horses, 10,000 sheep or lambs, 55,000 turkeys, 100,000 laying hens or broilers with continuous overflow watering, 30,000 laying hens or broilers with a liquid manure system, or 5,000 ducks. In addition, 300 animal units is the equivalent of 300 slaughter or feeder cattle, 200 mature dairy cattle, 750 swine over 55 pounds, 150 horses, 3,000 sheep or lambs, 16,500 turkeys, 30,000 laying hens or broilers with overflow watering, 9,000 laying hens or broilers with a liquid manure system, or 1,500 ducks.

Concentrated aquatic feeding operations require an NPDES permit if they produce more than 9,090 harvest weight kilograms per year of cold water fish or 45,454 harvest weight kilograms per year of warm water fish. Discharges into aquaculture projects also require a permit. An aquaculture project is a "defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants or animals."

To help implement the Clean Water Action Plan, on March 9, 1999, EPA and USDA jointly issued the final Unified National Animal Feeding (AFO) Strategy. The AFO strategy sets forth a national program for addressing water pollution caused by livestock operations. The strategy contains the following basic components:

- ! Approximately 450,000 animal feeding operations are expected to develop and implement Comprehensive Nutrient Management Plans (CNMPs) by 2009.
- ! CNMPs will be voluntary for most AFOs, but will be encouraged through environmental education and financial and technical assistance programs.
- ! CNMPs will be mandatory for concentrated animal feeding operations (CAFOs) that require NPDES permits under the Clean Water Act or equivalent state laws.
- ! Approximately 20,000 CAFOs will require either a general or individual permit by the year 2002. This is a much greater number than in the past. CAFOs requiring permits will be larger facilities with significant manure production, facilities with unacceptable conditions, and facilities that are significant contributors to water quality impairment.

² 40 C.F.R. § 122.23, app. B to Part 122 (1996).

- ! CNMPs will be required to address feed management, manure handling and storage, on-farm and off-site land application of manure, land management, record keeping, and alternative uses of manure.
- ! EPA may amend its regulations to include poultry operations using dry waste systems within the definition of a CAFO thus requiring such operations to obtain NPDES permits.
- ! EPA may also require that corporate integrators in the poultry and hog industries be co-permittees with their contract producers.

4. *Wetlands*

Producer Note: When agricultural operators conduct dredging and filling activities which affect water sources, these activities may require a permit. Failure to obtain a required permit may expose the operator to serious penalties.

A separate permit, known as the section 404 permit,³ is required by the CWA for discharges of dredge and fill materials into navigable waters. These permits are issued by the U.S. Army Corps of Engineers (Corps) and are subject to review and approval by EPA and the state. The filling of wetlands and the construction of structures in streams, such as irrigation gates or docks, will often require a section 404 permit.

Although minor wetlands filling activities may be covered by a section 404 General or Nationwide Permit, substantial dredging or filling will usually require an individual permit. Permits may be denied if the activity causes significant adverse effects on the water body or the surrounding environment and there are practical alternatives available.

There are 40 section 404 General or Nationwide Permits.⁴ The following agricultural activities are allowed under the permits:

- ! Fish and wildlife harvesting, enhancement, and attraction devices and activities (permit #4);
- ! Wetland and riparian area restoration and creation (permit #27);
- ! Cranberry production activities (permit #34);

³ 33 U.S.C. § 1344 (1994).

⁴ 61 Fed. Reg. 65, 874 (1996).

- ! Emergency watershed protection and rehabilitation (permit #37);
and
- ! Farm buildings (permit #40).

In addition, a number of permitted activities may relate to a farming operation, including maintenance, utility line backfill and bedding, bank stabilization, road crossing, return water from upland contained disposal areas, minor discharges, minor dredging, oil spill cleanup, headwaters and isolated waters discharges, temporary construction and access, and cleanup of hazardous and toxic waste. On December 13, 1996, the Corps reissued the existing Nationwide Permits with some modifications and issued two new Nationwide Permits. The two new permits were for moist soil management for wildlife (permit #30) and maintenance of existing flood control facilities (permit #31).

In the December 13th notice, the Corps proposed to change the date that permit #26 expires from December 13, 1998 to December 28, 1999. When permit #26 expires, the Corps is proposing to issue six new nationwide permits and modify six existing nationwide permits. These new nationwide permits will be activity-specific, and most will be restricted to discharges of dredged or fill material into non-tidal waters of the United States. In addition, changes to headwaters and isolated waters discharges (permit #26) will cause an increase in review time for some activities and more clearly define the activities allowed under the permit.

Producer Note: All producers are encouraged to check with state and federal environmental officials to determine if a specific farming activity will be covered by a section 404 General or Nationwide Permit, or if the activity needs an individual permit. Should the activity be covered by a permit, a producer should obtain a copy of the permit for reference and guidance. Copies can be requested from the Corps.

A permit may include either onsite or offsite mitigation requirements. Mitigation requirements include restoring altered wetlands and permanently protecting other wetlands from alteration.

Many normal farming, ranching, and logging operations, such as plowing, seeding, cultivating, minor drainage, and harvesting, are exempt from permit requirements under section 404(f) of the CWA if the activities are already occurring and will be ongoing and continuous.⁵ However, a permit may still be required if major changes to the operation occur.

⁵ 33 C.F.R. § 323.4 (1996).

5. *Nonpoint Source Pollution*

Producer Note: Section 319 of the CWA was enacted in 1987 and guides the states in conducting nonpoint source assessments, developing nonpoint source management programs, and, as of 1990, beginning implementation of those programs. There are no federal regulatory requirements in section 319.

Nonpoint source pollution is generally caused by runoff or snowmelt from cropland, pastures, barnyards, and impervious surfaces such as roads, parking lots, and roofs. The runoff may carry sediment, pesticides, herbicides, fertilizers, and other chemicals into adjacent waters, causing pollution. The CWA recognizes that cleaning up the nation's waters requires control of nonpoint as well as point source pollution, and regulation of nonpoint source pollution involves cooperative programs with the states.

A state section 319 plan will generally provide for the development of best management practices (BMPs) as a means of controlling nonpoint sources of pollution. Cost sharing programs to help farmers and ranchers implement BMPs on their operations are also authorized. To assist states implementing their approved programs, states have received a total of about \$470 million in the years 1990-1996 to implement programs, including cost share for demonstration projects, technical assistance, education, training, and enforcement.

6. *Oil Spill Liability*

The CWA imposes strict liability on the operators of facilities that spill oil or other hazardous wastes into navigable waters. This would include spills from petroleum storage tanks located on farms. The CWA requires that the operator promptly notify EPA of any spill. A failure to give EPA notice of the spill is a violation of the statute.

7. *Enforcement and Judicial Review*

Violators of the regulatory requirements of the CWA may face substantial penalties. These include both civil and criminal fines. Incarceration is possible for severe violations. EPA or the state can enjoin or stop producers' activities in order to force compliance with the statute. The CWA allows citizens to file suits to enforce CWA requirements in certain circumstances. However, if a producer disagrees with the way CWA requirements are applied to an operation, opportunities for both administrative and judicial review of EPA and state decisions are available.

Producer Note: In order for producers to maintain compliance with water quality legislation, they must be aware of state water quality standards, NPDES permit requirements, state and local nonpoint source pollution programs, wetlands permits, oil spill liability, and whether there are waters requiring special protection in the area. The states take active roles in ensuring that producers comply with these requirements.

B. Federal Coastal Zone Management Act

The Coastal Zone Management Act⁶ of 1972 (CZMA) was enacted to protect the natural, commercial, recreational, ecological, industrial, and aesthetic resources of the coastal areas of the United States. Coastal areas are the coastal waters and adjacent areas, including islands, transitional and intertidal areas, salt marshes, wetlands, beaches, and inland areas affecting coastal water quality. Coastal areas include the Great Lakes waters.

The CZMA authorizes each state containing coastal zone areas to adopt a management program for those areas. Federal grants are available to develop and implement these programs. In addition, under the Coastal Management Act Reauthorization Amendments of 1990⁷ (CZARA), states with coastal zone management programs are required to develop coastal nonpoint pollution control programs to protect coastal waters by controlling nonpoint source pollution. A state CZMA management program must include:

- ! Identification of zone boundaries;
- ! Permissible land uses and water uses within the zones;
- ! Inventory of areas within the zone;
- ! Priorities of uses within the zone;
- ! Means of controlling uses;
- ! Planning mechanisms for energy, shoreline erosion, and beach protection; and
- ! Identification of the management structure which will implement the program.

⁶ 16 U.S.C. § 1451 *et seq.* (1994).

⁷ Pub. L. No. 101-508, 104 Stat. 1388, 1388-314 *et seq.* (1990).

Producer Note: Coastal zone management programs only apply in those states with coastal areas. There are 35 states or territories, of which Georgia is one, in which the CZMA has some application. At this time, 29 states have federally approved programs. CZMA is important because it is the first law which required states to implement programs designed to address nonpoint source pollution.

A coastal nonpoint pollution control program must include specific measures to address nonpoint pollution and enforceable policies and mechanisms that ensure implementation.

Management measures within state plans must reflect the best available nonpoint source pollution control practices, technologies, processes, siting standards, operating methods, and other criteria.

Section 6217 of CZMA requires each state to develop coastal nonpoint pollution programs to develop and implement management measures and state plans coordinated with state and local water quality plans and programs. The state plans must provide for identification of land uses, identification of critical coastal areas, management measures to be used in those areas, technical assistance measures, public participation opportunities, and administrative considerations. If these plans are not approved, coastal management and water pollution control assistance funds can be withheld.

Producer Note: EPA has issued a guidance manual⁸ on nonpoint pollution in coastal waters, which applies in all coastal states. The manual identifies measures pertaining to agriculture which are designed to reduce pollutants. Potential causes and solutions of nonpoint pollution are addressed, such as sediment and erosion control through conservation tillage, strip cropping, contour farming, terracing, or practices to remove settleable solids; confined animal facilities through limiting discharges of animal waste and designing and implementing waste management systems which will reduce runoff; nutrient management through budgeting of nutrients provided to crops; pesticide management through reducing pesticide use and improving the timing and efficiency of application; livestock grazing through protection of sensitive areas such as streambeds and wetlands from improved grazing management; and irrigation through more effective irrigation systems and special precautions in chemigation.

C. State Water Quality Laws and Regulations

Most states have enacted clean water legislation. While these statutes usually contain provisions similar to those found in the parallel federal legislation, there may be significant

⁸ OFFICE OF WATER, U.S. ENVTL. PROTECTION AGENCY, GUIDANCE SPECIFYING MANAGEMENT MEASURES FOR SOURCES OF NONPOINT POLLUTION IN COASTAL WATERS (1993).

differences. In fact, state statutes may impose requirements that are even more restrictive than the federal law. In all cases, CWA requirements must be followed, and are enforced along with the state enacted statutes and regulations implemented by the state administrative agencies. Under the CWA, EPA has delegated the NPDES permit program to many states.

Caution: Because environmental laws and regulations change frequently, all producers must stay in contact with both state and federal officials in order to remain aware of and in compliance with changes in the law.

Georgia is dependent upon the rivers, streams, lakes, and subsurface waters as both a public and private water supply, and for agricultural, industrial, and recreational uses. To restore and maintain a reasonable degree of purity in the waters, to assure an adequate supply of those waters, and to require reasonable use of the waters where necessary, Georgia has established a water quality control program through the Georgia Water Quality Control Act (GWQCA).⁹ The GWQCA is administered by the Environmental Protection Division (EPD) of the Department of Natural Resources (DNR), and covers both surface and ground waters.

Producer Note: Georgia's compliance with the Clean Water Act in its identification of environmentally impaired waters, known as water quality limited segments (WQLS), and establishment of total maximum daily loads (TMDL) of pollutants for those impaired waters has been the subject of litigation.¹⁰ Georgia and EPA are currently operating under a court order requiring that the federal EPA establish TMDLs for all WQLSs identified recently by Georgia. The court is requiring EPA and the state to ensure that these TMDLs meet water quality standards through modification, revocation, and reissuance of permits. How this court action affects individual permits will develop over time. The Georgia producer must remain informed on these issues as they develop.

1. NPDES Permit Programs

Any person discharging or proposing to discharge any pollutant from a point source into the waters of the state must first obtain a permit from EPD by application on forms prescribed and furnished by EPD.¹¹ The permit issued by EPD will contain all necessary terms and conditions of the permit. A general permit may be issued which authorizes a category of discharges within a specified geographic area, and EPD may require an operation authorized by a general permit to also obtain an individual permit.

⁹ GA. CODE ANN. § 12-5-20 *et seq.* (1992).

¹⁰ *Sierra Club v. Hankinson*, No. CIV.A.1:94-CV2501-MHS, 1996 WL 534909 (N.D. Ga. Mar. 25, 1996); *Sierra Club v. Hankinson*, No. CIV.A.1:94-CV2501MHS, 1996 WL 534914 (N.D. Ga. Aug. 30, 1996).

¹¹ GA. COMP. R. & REGS. r. 391-3-6-.06 *et seq.* (1995).

A land disposal system permit is issued to regulate the discharge of any pollutant into a land disposal or land treatment system. A land disposal system is any method of disposing of pollutants by applying the pollutant to the surface or beneath the surface of land. Land disposal systems can include ponds, basins, or lagoons used for disposal of wastes. A land treatment system is a land disposal system which uses vegetation to remove some of the pollutants.

Producer Note: Georgia producers who discharge pollutants into the water or who own or operate a CAFO will be required to obtain permits for all or a portion of an operation. EPD will determine if an operation requires a general permit, an individual permit, or land disposal system permit. The producer must make contact with EPD and make all appropriate applications for permits as directed by EPD.

2. *Concentrated Animal Feeding Operations*

Georgia defines a concentrated animal feeding operation (CAFO) as any point source which meets the criteria set forth in federal regulations. Depending upon the size and type of operation, a facility may be required to obtain either an NPDES permit or a land disposal system permit. If the land disposal or land treatment system employs overland flow, subsurface drain fields, or other techniques which result in one or more point discharges into surface waters, the owner must obtain an NPDES permit and will not be issued a land disposal system permit.

3. *Concentrated Aquatic Feeding Operations*

Georgia defines a concentrated aquatic animal production facility as any point source which meets the criteria set forth in federal regulations. Concentrated aquatic feeding operations are subject to the same permit requirements as other sources, and producers must contact EPD for guidance on permit application requirements.

4. *Nonpoint Source Pollution*

Any person discharging or proposing to discharge any pollutant from a nonpoint source into the waters of the state under circumstances likely to cause harm to the waters must obtain written approval from EPD and use best management practices (BMPs) to minimize the introduction of the pollutant into the waters of the state.

Georgia has enacted the Agricultural Nonpoint Source Pollution Control Grants Program.¹² Under this program, agencies, groups, and individuals who control water resources or runoff to water resources on agricultural lands can apply for cost share funds to install BMPs. These cost share funds are provided by section 319 of the federal Clean Water Act (CWA). The

¹² GA. CODE ANN. § 2-6-27 *et seq.* (1992); GA. COMP. R. & REGS. r. 600-5-5-.01 *et seq.* (1995).

grants are on an annual basis and the federal cost cannot exceed 60 percent for the installation of BMPs.

Producer Note: Applications for cost share funds must be reviewed by the appropriate soil and water conservation district before being submitted to the Conservation Commission. Applications should be submitted to the Conservation Commission prior to April 1. Information and assistance in developing applications is available from the Georgia Soil and Water Conservation Commission.

Producer Note: Often the specifics of environmental laws are found in agency regulations. In addition, regulations are likely to be amended frequently. As a result, a producer must keep in contact with offices administering specific programs in order to keep up with all changes which may occur.

II. GROUNDWATER

A. Federal Groundwater Laws and Regulations

1. *Safe Drinking Water Act*

The Safe Drinking Water Act¹³ (SDWA) is the principal federal statute addressing groundwater quality. Under the act, EPA establishes tolerance levels for a host of pollutants potentially present in public drinking water.

The SDWA does have indirect effects on farmers and ranchers, however, and these effects may become more direct in the future. The SDWA was amended in 1996 to require public reporting of detections of chemical contaminants in drinking water. Since many of these contaminants could be agriculture chemicals, it is likely that public concerns about pesticides and herbicides will be heightened.

a. *Source Water Quality Partnership Petition Program*

The SDWA authorizes federal assistance for local programs that identify, assess, and deal with groundwater quality problems. One approach is to promote the creation of local, voluntary incentives programs to protect source water quality. Farmers and ranchers may find it in their interest to participate in such, especially where local concerns about public water contaminants are heightened by the release of information about contamination.

¹³ 42 U.S.C. § 300g-1 *et seq.* (1996).

The Source Water Quality Partnership Petition Program is initiated by a local government or community water system by petitioning the state for assistance in establishing an incentive-based partnership between the petitioner and persons likely to be affected by water quality problems. A variety of funding sources support the installation of a pollution prevention infrastructure, including the Drinking Water State Revolving Fund, established by the SDWA. Using these funds, several municipalities and public water systems have provided 100 percent cost-sharing to farmers and ranchers who install best management practices designed to reduce sediment, nutrient, and chemical loading. For public water systems, investment in pollution prevention is considerably less expensive than the cost of treating contaminated water.

b. Underground Injection Control Program

Underground injection means the subsurface emplacement of fluids by well injection. The SDWA provides an underground injection control (UIC) program which is intended to protect groundwaters that may reasonably be expected to supply any public water system from contaminants which may result in noncompliance with drinking water regulations or otherwise adversely affect public health. Farmers and ranchers with agricultural drainage wells are required to furnish inventory information to appropriate state agencies. In addition, states can require individual well permits. Agricultural drainage wells include:

- ! Air conditioning return flow wells;
- ! Waste receiving cesspools with open bottoms and perforated sides;
- ! Cooling water return flow wells used to inject water used for cooling;
- ! Drainage wells primarily used to drain storm runoff;
- ! Dry wells used for waste injection;
- ! Recharge wells used to replenish aquifers;
- ! Salt water intrusion barrier wells;
- ! Sand backfill, other backfill wells, and injection wells used primarily in mining areas;
- ! Septic system wells used to inject waste or effluent from multiple dwelling or business septic tanks; and
- ! Subsidence control wells.¹⁴

¹⁴ 40 C.F.R. § 146.5 (1996).

Producers are not allowed to inject contaminants into an underground source of drinking water which uses a well if the contaminant could cause a violation of any primary drinking water regulation or if the activity would adversely affect the public health.

2. *Groundwater Pesticide Management Plans*

EPA has adopted a regulation that would allow the continued use of the agricultural chemicals alachlor, atrazine, cyanazine, simazine, and metolachlor only in states that have adopted groundwater management plans that provide specific safeguards for the use of those chemicals. EPA would have to approve the details of such plans before they become effective. EPA is expected to issue the final regulation during the summer of 1999. The states would have two years from the date of final regulation in which to develop their plans. EPA would have one year from the receipt of the plan to review and either approve or reject the plan.

Producer Note: Producers should contact the state agriculture department or USDA to determine the current status of the regulation and the groundwater pesticide management plan for their state.

B. **State Groundwater Laws and Regulations**

1. *Georgia Safe Drinking Water Act*

Under the Georgia Safe Drinking Water Act (GSDWA),¹⁵ EPD is given the authority to administer the provisions of the Act. Georgia has enacted both primary and secondary drinking water regulations which apply to public water systems. A public water system is a system which provides water to at least 15 service connections or regularly serves at least 25 individuals.

Georgia's primary drinking water regulations must be no less stringent than the national primary drinking water regulations. Unless exempt from the primary drinking water regulations, owners or operators of public water systems must obtain a permit from the EPD to operate and post a bond or letter of credit before operation. The Georgia primary drinking water regulations apply to all public water systems except those which:

- ! Consist only of distribution and storage facilities and do not have any collection and treatment facilities;
- ! Obtain all water from, but are not owned or operated by, the owner or operator of a public water system;
- ! Do not sell water to any persons; and

¹⁵ GA. CODE ANN. § 12-5-170 *et seq.* (1992).

- ! Are not carriers which convey passengers in intrastate commerce.

Georgia also has an EPA approved Well Head Protection Program.

Producer Note: Producers generally will not fall under direct SDWA regulation since they normally do not operate a "public water system." However, if a producer operates a water system which serves over 25 persons, SDWA regulations may apply.

2. *Georgia Water Well Standards Act*

EPD is also responsible for administering Georgia's Water Well Standards Act.¹⁶ Construction standards are specified for the following types of wells:

- ! Individual Water Well--Any well constructed for the purpose of using groundwater to supply water for a single-family dwelling and intended for domestic use, including, but not limited to, household purposes, farm livestock, or gardens;
- ! Industrial Well--Any well constructed for the purpose of withdrawing 100,000 gallons of groundwater or less on any one day for processing or cooling water or for purposes other than drinking water;
- ! Irrigation Well--Any well constructed for the purpose of obtaining groundwater to supply irrigation water for agriculture, silviculture, golf courses, fish farms, and land beautification, but excluding single family irrigation of lawns or gardens; and
- ! Nonpublic Water Well--Any well constructed as a source of water supply for a water system which provides piped water to the public for human consumption, if the system has less than 15 service connections or regularly serves less than 25 individuals, excluding individual water wells.

¹⁶ GA. CODE ANN. § 12-5-120 *et seq.* (1992).

3. *Georgia Ground-Water Use Act*

Pursuant to the Georgia Ground-Water Use Act,¹⁷ any person who on a monthly average withdraws more than 100,000 gallons of groundwater per day from any aquifer or surface water from any source must obtain a permit from EPD. Some farm impoundments and farm uses such as irrigation are not required to obtain a permit, but the lack of a need for a permit must be verified with EPD. Proper forms to apply for a permit may be obtained from EPD.

Producer Note: Many producers constructing or expanding larger size operations must carefully assess their water usage needs. If the gallons per day meet those set by EPD, a permit for water usage will be necessary for the facility. EPD has all necessary forms and copies of water usage permit requirements and application hearing procedures.

III. AIR QUALITY

A. Federal Clean Air Act

The Clean Air Act (CAA)¹⁸ is a comprehensive and complex piece of environmental legislation. The 1990 amendments to the CAA require sources which may cause pollution to obtain operating permits. These permits include a comprehensive statement of the pollution source's CAA obligations regarding emission limits, fee requirements, inspection, monitoring, and reporting duties. Violators are exposed to administrative compliance orders and federal court injunctions.

Under the 1990 CAA amendments, all criminal penalties are felonies. Fines of up to \$250,000 per day may be imposed on individuals and up to \$500,000 per day on corporations. Prison terms of up to five years may be imposed. Subsequent violations may result in the doubling of sanctions. Knowing endangerment offenses for the release of hazardous air pollutants may subject individuals to fines of up to \$250,000 with jail sentences of up to 15 years, and corporations may be fined up to \$1,000,000.

Negligently releasing hazardous air pollutants can subject the polluter to fines of up to \$250,000 and one year in jail if the polluter knows that the actions will place another person in imminent danger of death or serious bodily injury. Making false statements on reports or tampering with monitoring devices may result in fines up to \$250,000 per day and jail terms of up to two years.

¹⁷ GA. CODE ANN. § 12-5-31 (1992).

¹⁸ 42 U.S.C. § 7401 *et seq.* (1994).

In April of 1994, EPA announced a reward program for citizens who report companies that violate the CAA. Rewards of up to \$10,000 may be given to citizens whose information results in a criminal conviction or fine under the CAA.

The overall objective of the CAA is to protect human health, welfare, and the environment by maintaining and improving the quality of the air through the development of standards. Standards controlling ambient air emissions from farming practices like prescribed burning are geographically specific within each State Implementation Plan (SIP). The SIP may also provide visibility standards. Locations which the National Ambient Air Quality Standards designate as air non-attainment areas are subject to more restrictions.

Finally, grain terminal elevators having a permanent storage capacity of more than 2.5 million bushels and grain storage elevators with a permanent storage capacity of more than one million bushels, including their loading and unloading facilities, are governed by regulations controlling discharge of gases and grain loading and unloading emissions.

Currently, the CAA has no application to the problem of odor, which is a common complaint regarding agricultural facilities. Odor problems are handled under state nuisance laws or other state environmental laws or local ordinances. However, livestock producers must stay informed of changes in the CAA which might affect them in the future. For example, regulations have been proposed which would prohibit dust from remaining in the air beyond the property on which it originates. A strict interpretation of this regulation could subject combining, disking, or other farm and ranch operations to the provisions of the CAA.

Producer Note: While most agricultural operations are not air pollution sources under the CAA, complaints concerning odor and dust resulting from agricultural operations may be made. These complaints normally come in the form of actions filed under state law against an agricultural producer for nuisance.

B. State Air Quality Laws and Regulations

Under the Georgia Air Quality Act,¹⁹ responsibility for overseeing the protection of air quality in Georgia has been placed with the Environmental Protection Division (EPD).

The term air contaminant includes solid or liquid particulate matter, dust, fumes, gas, mist, smoke, vapor, or any matter or substance that is physical, chemical, biological, or radioactive. A facility is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit air contaminants. Facilities that can cause or contribute to the emission of air contaminants must have a permit before beginning operation.

¹⁹ GA. CODE ANN. § 12-9-1 *et seq.* (1992).

A special Small Business Advisory Panel helps small businesses comply with air quality requirements. Small businesses are those which meet the following criteria:

- ! Employ 100 or fewer individuals;
- ! Are small businesses under the federal Small Business Act;
- ! Emit less than 50 tons per year of any regulated pollutant; and
- ! Emit less than 75 tons per year of all regulated pollutants.

1. Air Emissions from Farming Operations

Generally, agricultural operations will not be required to obtain air quality permits from the state.²⁰ However, to insure an operation is in compliance with all air quality requirements, owners and operators should contact EPD prior to active operation.

2. Burning

The Georgia Prescribed Burning Act²¹ declares that prescribed burning is a beneficial resource protection and land management tool. Under the Act, prescribed burning means the controlled application of fire to existing vegetative fuels under specified environmental conditions and following appropriate precautionary measures, which causes the fire to be confined to a predetermined area and accomplishes one or more planned land management objectives.

Prescribed burning must meet the following requirements:

- ! Take place only when an experienced or trained individual who is in charge of the burn is present on site until the fire is adequately confined and will not escape;
- ! Is in the public interest and does not create a nuisance; and
- ! Is conducted according to a permit.

The director of EPD may prohibit or restrict controlled burning when it would be a hazard because of drought or other reasons. When the director has prohibited or restricted burning,

²⁰ GA. COMP. R. & REGS. r. 391-3-1-.03 (1995).

²¹ GA. CODE ANN. § 12-6-145 *et seq.* (1992).

setting a backfire without direct supervision or permission of a state or federal forest officer is a misdemeanor, unless necessary to save life or valuable property.

An uncontrolled fire on forested or cut-over brush land or grassland is a public nuisance and the responsible person must control or extinguish the fire. The cost for suppressing the nuisance may be recovered from the responsible person.

Anyone entitled to burn woods, lands, marshes, or any other flammable vegetation, whether in cultivated or uncultivated areas, must first obtain a permit. An applicant may obtain a permit by telephoning the county forest ranger or other authorized employee of the forestry unit that serves the county. The applicant must give the location and time of the proposed burn. The forestry employee will provide a permit number to the applicant which grants permission for the controlled burn.

Producer Note: A permit is not necessary for a sudden emergency that requires burning in order to keep premises safe, nor for burning improved pastures or residue on cultivated crop land if the ranger has been notified of the time and place of the burning.

IV. SOLID WASTE AND HAZARDOUS WASTE

Producer Note: There are several laws which control the use and disposal, as well as the cleanup, of hazardous wastes. Producers who use hazardous chemicals or use petroleum or other products stored in storage tanks must be aware of the requirements governing their actions.

A. Federal Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act²² (RCRA) controls the treatment, storage, and disposal of hazardous waste as well as the disposal of municipal solid waste. RCRA also regulates the storage of petroleum and other products in underground storage tanks.

RCRA could have the following impacts on producers:

- ! Disposal of hazardous waste on a farm could subject farmers to significant responsibility including closure and post-closure care;
- ! Recalled pesticides intended for disposal may be subject to manifest and transportation requirements; and

²² 42 U.S.C. § 6901 *et seq.* (1994).

- ! Offsite disposal of hazardous waste could subject farmers to hazardous waste generator requirements.

1. Disposal

Producers disposing of their own used waste pesticides which are hazardous wastes are exempted from hazardous waste requirements, so long as the emptied containers are triple-rinsed in accordance with the labeling and the pesticide residue is disposed of on the farm in a manner consistent with the disposal instructions on the pesticide label. However, if the chemical is defined as a RCRA waste, the triple-rinsate must be disposed of at an approved hazardous waste site.

Producers can dispose of non-hazardous agricultural wastes on their own property, unless the disposal is prohibited by other state or local laws. This includes manure and crop residues returned to the soil as fertilizers or soil conditioners and solid or dissolved materials in irrigation return flows.

2. Underground Storage Tanks

Underground storage tanks²³ (USTs) and their associated piping holding less than 1,100 gallons of motor fuel for non-commercial purposes, tanks holding heating oil used on the premises, and septic tanks are excluded from RCRA regulations. All new regulated USTs are required to meet standards related to construction, monitoring, operating, reporting to state or federal regulatory agencies, owner record keeping, and financial responsibility. (See discussion of state storage laws on page GA-24).

3. Used Oil

Producers who generate an average of 25 gallons or less per month of used oil from vehicles or machinery per calendar year are exempt from regulations. Producers exceeding 25 gallons are required to store the used oil in tanks meeting underground or aboveground technical requirements and use waste transporters with EPA authorization numbers for removal of the waste from the farm. Storage in unlined surface impoundments which are wider than they are deep is banned.

4. Farming

For food chain crops, farming can occur on land where hazardous chemicals are applied so long as the farmer receives a permit from EPA. The farmer must demonstrate that no substantial risk to human health is caused by the growth of crops in that manner.

²³ 42 U.S.C. § 6991 *et seq.* (1994).

5. *Penalties*

RCRA criminalizes a variety of knowing violations in the transportation of waste to unpermitted facilities, or transporting, treating, storing, or disposing of waste without a permit. In addition, making false statements or knowingly omitting material information in applications, manifests, or reports constitutes criminal conduct. Fines can be as high as \$50,000 per day of violation and imprisonment may be from two to five years, depending on the violation. Subsequent convictions result in a doubling of penalties. Any person who knowingly violates the law and subjects another person to imminent danger of death or serious injury may be fined up to \$250,000 and imprisoned up to 15 years. A corporation found guilty of knowing endangerment is subject to a fine of up to \$1,000,000.

B. Federal Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act²⁴ (CERCLA) was passed to rectify perceived inadequacies of earlier environmental legislation, especially RCRA. RCRA was deemed inadequate to address past hazardous waste disposal sites.

The federal government is authorized under CERCLA to conduct cleanup operations with funds from the "Superfund." The government may then seek to recover the costs of cleanup from "potentially responsible parties" (PRPs). The government is also authorized to issue cleanup directives or seek injunctive relief ordering PRPs to conduct responsive actions to abate an "immediate and substantial endangerment to public health or the environment." In addition, private parties are authorized to seek reimbursement from the "Superfund" or they may file cost recovery actions against PRPs.

CERCLA and the courts have broadly defined the term persons to include individuals, corporations, and other corporate actors, such as corporate officers, as well as other types of business entities.

Under CERCLA, criminal penalties may be levied for failing to report releases, knowingly reporting false or misleading information, or knowingly destroying or falsifying records. Fines may be as high as \$250,000 for individuals and \$500,000 for corporations. Incarceration for up to three years for a first conviction and up to five years for subsequent convictions can also be imposed. An individual who provides information leading to the arrest and conviction of a person failing to report a release can receive up to \$10,000 as a reward.

²⁴ 42 U.S.C. § 9601 *et seq.* (1994).

C. Federal Toxic Substances Control Act

The Toxic Substances Control Act²⁵ (TSCA) allows EPA to regulate new commercial chemicals prior to sale on the market and to regulate the distribution and use of existing chemicals when they pose an unreasonable risk to human health or to the environment. TSCA also prohibits the use of polychlorinated biphenyl (PCB) transformers in areas that could affect food or feed. An exposure risk to food or feed is caused if PCBs are released in any way from the item and the releases have a potential pathway to human food or animal feed. EPA considers human food or animal feed to include items regulated by USDA or the Food and Drug Administration (FDA) as human food or animal feed, including direct additives. Food or feed stored in private homes is excluded.

D. Federal Emergency Planning & Community Right to Know Act

The objectives of the Emergency Planning & Community Right to Know Act²⁶ (EPCRA) are to: (1) allow state and local planning for chemical emergencies; (2) allow for emergency release notification; and (3) allow for toxic and hazardous chemical right-to-know.

The EPCRA requires businesses which store chemicals subject to the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard to submit information or a list of those chemicals to state and local authorities. Submittal of this information will facilitate emergency planning and response. Annual reporting to state and local authorities is required for businesses which have those chemicals present at the facility in amounts above a certain threshold. However, hazardous chemicals used in routine agricultural operations or fertilizers held for resale by a retailer are excluded from EPCRA.

Farms storing and using hazardous chemicals for routine agricultural operations do not have to meet the requirements for reporting under EPCRA. However, farms storing any amount of an extremely hazardous substance above specified thresholds must notify state and local emergency planning committees.

Businesses which produce, store, or use extremely hazardous substances or CERCLA hazardous chemicals must report any non-permitted releases of a listed chemical above threshold amounts to federal, state, and local authorities. Releases could occur into the atmosphere, surface water, or groundwater.

²⁵ 15 U.S.C. § 2601 *et seq.* (1994).

²⁶ 42 U.S.C. § 11001 *et seq.* (1994).

Producer Note: Farmers and ranchers should work with their Local Emergency Planning Committee (LEPC) to ensure that the LEPC has sufficient information to respond should a local emergency occur. Excluded from the emergency planning requirements are activities involving the proper application of Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) regulated pesticide products as well as the handling and storage of these pesticide products by an agricultural producer.

E. Occupational Safety and Health Administration

Producer Note: State OSHA or Labor Department officials can assist the operator in fully understanding worker training and safety requirements, particularly in the area of exposure to hazardous chemicals.

The Occupational Safety and Health Administration (OSHA) has regulations which include training requirements to protect workers from hazardous chemicals. Employers must comply with the regulations. The regulations cover workers involved in cleanup responses under CERCLA and RCRA.

OSHA has over 100 standards which include some training requirements. OSHA has also promulgated a right-to-know law for employees exposed to hazardous chemicals, and many states have similar laws. RCRA regulations require treatment, storage, and disposal facility personnel to have expertise in their areas of assignment.

F. State Solid Waste and Hazardous Waste Laws and Regulations

Producer Note: While most farmers and ranchers are not generators, transporters, or disposers of solid waste, it is important to check with state officials concerning the definitions of solid waste to determine whether an operation's activities could be regulated under state solid and hazardous waste statutes.

The Georgia Environmental Protection Division (EPD) is the agency which administers both the Georgia Comprehensive Solid Waste Management Act (GCSWM)²⁷ and the Georgia Hazardous Waste Management Act (GHWMA).²⁸ The director of EPD has responsibility for developing and maintaining the state comprehensive plan and for assuring that Georgia is in compliance with the federal act. The Board of Natural Resources (Board) has responsibility for promulgating regulations under both Acts.

²⁷ GA. CODE ANN. § 12-8-20 *et seq.* (1992).

²⁸ GA. CODE ANN. § 12-8-60 *et seq.* (1992).

A hazardous waste is any solid waste which has been defined as hazardous by EPA. A designated hazardous waste is any solid waste which the Board has identified as capable of posing a substantial present or potential hazard to human health or the environment. A large quantity generator is a hazardous waste generator which generates 2.2 pounds or more of acute hazardous waste or 2,200 pounds or more of hazardous waste per month.

1. Treatment, Storage, Transportation, and Disposal of Hazardous Waste

Before any person may engage in solid waste or special solid waste handling or construct, modify, or operate a solid waste handling facility, a permit must be obtained from EPD. Permits are also required for the transportation of solid waste.

Before a person can construct, install, operate, or substantially alter a hazardous waste facility, a hazardous waste facility permit must be obtained. An application for a permit must be made on forms prescribed by EPD.

Large quantity generators are required to develop hazardous waste reduction plans and to submit those plans to EPD. There are minimum requirements for what must be included in these plans. Additionally, the plans must be revised every two years.

Violators of the GHWMA are subject to a civil penalty of up to \$25,000 per day. Each day during which the violation or failure or refusal to comply continues is a separate violation. The GHWMA also makes certain acts criminal offenses subject to the same penalties as those in RCRA.

2. State Storage Tank Laws

Producer Note: Many producers placed underground storage tanks on their property many years ago. If a producer has an underground storage tank on the property, special controls may be necessary to regulate the substances contained in those tanks. In some cases, removal of the tank may be necessary.

EPD also administers the Georgia Underground Storage Tank Act (GUSTA),²⁹ which is a comprehensive state-wide program for the control of regulated substances stored in underground tanks.

An underground storage tank is any tank, including underground pipes which are connected to the tank, which is used to contain regulated substances and at least 10 percent or more of the tank is below the surface of the ground.

²⁹ GA. CODE ANN. § 12-13-1 *et seq.* (1992).

Under the GUSTA, forms provided by EPD must be filled out detailing information regarding underground storage tanks. The required information includes the age, size, type, location, uses, and substances stored. Additionally, owners of underground storage tanks are required to carry some form of bond or insurance to compensate parties who suffer injury or property damage from accidental releases of regulated substances which occur as a result of operating the underground storage tank.

The Georgia Underground Storage Tank Act (GUSTA) does not apply to:

- ! Any farm or residential tank with a capacity of less than 1,100 gallons used for storing motor fuel for noncommercial purposes;
- ! Any tank used for storing heating oil for consumptive use on the premises where stored;
- ! Any septic tank; and
- ! Any storage tank which is located in an underground area such as a basement.

However, while not regulated by the GUSTA, the Georgia Water Quality Control Act gives EPD the authority to require remediation of releases from above ground sludge tanks.

3. *Emergency Planning and Community Right to Know*

Producer Note: The producer may have specific responsibilities designed to advise the public of potentially hazardous situations. These responsibilities will depend on the size of the operation and whether or not large quantities of hazardous chemicals are stored on the property. EPD can advise producers regarding what community information, if any, should be provided.

The Public Employee Hazardous Chemical Protection and Right to Know Act of 1988³⁰ is administered by the Department of Labor (DOL). The DOL, in conjunction with EPD, promulgates the Georgia Hazardous Chemical List. All required information, such as material safety data sheets, must be submitted to the DOL.

To provide for corrective action for releases of hazardous wastes, hazardous constituents, and hazardous substances, Georgia has enacted the Georgia Hazardous Site Response Act

³⁰ GA. CODE ANN. § 45-22-1 *et seq.* (1990).

(GHSRA).³¹ The GHSRA is administered by EPD. A release means any intentional or unintentional act or omission resulting in the spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles, of any hazardous waste, hazardous constituent, or hazardous substance.

V. PESTICIDES AND CHEMIGATION

Producer Note: Use of pesticides and other farm chemicals is regulated by federal and state statutes. Most states have some form of licensing or certification requirements controlling those who use pesticides. In addition, if a producer employs agricultural workers there are regulations which address safety concerns about pesticide use by or around those workers.

A. Federal Insecticide, Fungicide, and Rodenticide Act

EPA also administers the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),³² the major federal statute governing pesticide use. FIFRA establishes minimum national standards for the use of pesticides, and regulates the registration, production, and sale of pesticides.

FIFRA grants primary, but not exclusive, enforcement responsibility for pesticide use to the states. States retain the authority to regulate the sale or use of any federally registered pesticide or device in the state, but only if state regulations do not permit sale or use of pesticides prohibited under FIFRA. States may not impose any requirements for pesticide labeling or packaging in addition to or different from those required under FIFRA.

1. *Use of Pesticides*

FIFRA provides that it is unlawful for any person to use a registered pesticide in a manner inconsistent with its labeling. Based on the pesticide's toxicity or the degree of adverse effects on humans and the environment, EPA divides pesticides into two broad groups, either unclassified (general use) or restricted use pesticides.³³

Pesticides for unclassified or general use may be purchased and used by any person in a manner consistent with the pesticide's label. Restricted use pesticides may be applied only by or under the direct supervision of a certified applicator. Note that "under the direct supervision of a

³¹ GA. CODE ANN. § 12-8-90 *et seq.* (1992).

³² 7 U.S.C. § 136 *et seq.* (1994).

³³ Pesticides classified under FIFRA for restricted use are listed at 40 C.F.R. § 152.175 (1996).

certified applicator" means that the pesticide is applied by a competent person acting under the instructions and control of a certified applicator who is available if and when needed. This means that the certified applicator need not be physically present at the time and place the pesticide is applied, unless the pesticide label prescribes a greater degree of supervision.

FIFRA requires the certification of applicators of restricted use pesticides and provides for EPA-approved state certification programs.

2. *Record Keeping Requirements*

Under FIFRA regulations, commercial applicators must keep and maintain routine operational records containing information on kinds, amounts, uses, dates, and places of application of restricted use pesticides. Records must be maintained and kept for a period of two years.

Producer Note: Individual states may have requirements which are more stringent than FIFRA.
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The 1990 Farm Bill added the following record keeping and disclosure requirements for pesticide use:

- ! All pesticide applicators, including certified and non-certified, must maintain restricted use pesticide application records; time frames governing when records must be maintained are included and spot application records are required;
- ! Within 30 days of a restricted use pesticide application, all applicators must give a copy of the records of pesticide application to the person for whom the application was provided;
- ! Records must be made available to any federal or state agency that deals with pesticide use or any health or environmental issue related to the use of pesticides at the request of the agency; however, a government agency may not release data from the records that directly or indirectly reveals the identity of individual producers and USDA is charged with administering access to the records by federal agencies, while states designate a lead agency to administer access by state agencies;
- ! When a health professional determines that pesticide information maintained in the records is necessary to provide medical treatment or first aid to an individual who may have been exposed to pesticides, persons required to maintain the records must promptly

provide the record and available label information to the health professional upon request, and, in the case of an emergency, the information must be provided immediately;

- ! Penalties in the form of fines may be imposed by USDA for failure to comply with pesticide use and reporting requirements; and
- ! USDA and EPA are required to use the records to develop and maintain a database sufficient to enable USDA and EPA to publish annual comprehensive reports concerning agricultural and nonagricultural pesticide use.

Producer Note: Certified private pesticide applicators must record information no later than 14 days following the pesticide application. The information must include the brand or product name of the federal restricted use pesticide and the product's EPA registration number; the total amount applied; the size of the area treated; the crop, commodity, stored product, or site to which the pesticide was applied; the location of the application; the month, day, and year of the application; and the certified applicator's name and certified number.

Producer Note: For spot applications, certified private pesticide applicators must record information regarding spot treatments if they apply restricted use pesticides on the same day in a total area of less than 1/10th of an acre. The information must include the brand or product name of the federal restricted use pesticide and the product's EPA registration number; the total amount applied; the location of treatment designated as "spot application," followed by a description (e.g. the location could be recorded as "spot application" followed by "treated for noxious weeds on Field A, C, and all pastures"); and the month, day, and year of the application. This provision does not pertain to greenhouse and nursery applicators, who are required to keep all data elements as listed.

3. *Disposal of Pesticides and Pesticide Containers*

Producer Note: Producers must take special care in disposing of pesticide containers. Although permits for disposal are not required under FIFRA, the pesticide labeling will reflect requirements for disposal which must be met in order to prevent violations of the law.

A pesticide's labeling may contain specific procedures for disposal of the pesticide and its container. Disposal of the pesticide in a manner inconsistent with the labeling violates FIFRA. EPA regulates the disposal of pesticides which can no longer be legally used due to cancellation

of their registration. The agency also recommends special procedures for the disposal of unwanted pesticides.³⁴

To facilitate the collection and proper disposal of canceled and other unusable or unwanted pesticide products, EPA has enacted the Universal Waste Rule (UWR).³⁵ Many states have enacted rules similar in content and intent to UWR. Some states sponsor collections of these products on a regular basis.

4. *Worker Protection Standard*

Producer Note: Producers are also required to take precautions to protect farm workers from pesticides. Producers must properly train and notify workers of pesticide dangers. All producers should refer to the EPA publication entitled *The Worker Protection Standard for Agricultural Producers—How to Comply; What Employers Need to Know* for specific explanations of the requirements. Contact EPA or your state department of agriculture for the most current requirements.

Agricultural employers must also comply with the Worker Protection Standard (WPS) for Agricultural Pesticides. The WPS covers all agricultural employers and their employees. The WPS contains requirements for training employees who handle pesticides, provisions for protecting employees from pesticide exposure, and how to provide emergency assistance to exposed employees.

B. *State Pesticide and Chemigation Laws and Regulations*

Producer Note: Georgia, like most states, has laws designed to control the use of pesticides. The law is designed to closely monitor the distribution and ultimate use of these substances within the state.

The Georgia Pesticide Control Act³⁶ and the Georgia Pesticide Use and Application Act of 1976³⁷ are administered by the Georgia Department of Agriculture (GDA). These Acts regulate the labeling, distribution, storage, transportation, use, and disposal of pesticides in Georgia. The GDA has the authority to issue regulations limiting methods of pesticide use with regard to the time, place, material amounts, concentration, or manner of application. The GDA

³⁴ 40 C.F.R. pt. 165 (1996).

³⁵ 40 C.F.R. pt. 273 (1996).

³⁶ GA. CODE ANN. § 2-7-50 *et seq.* (1993).

³⁷ GA. CODE ANN. § 2-7-90 *et seq.* (1993).

may also prohibit the application of pesticides in any area at certain times to prevent damage to plants, wildlife, fish or aquatic life, humans, animals, or beneficial insects due to drift or misapplication. The GDA may restrict the use of pesticides in the state more stringently than EPA does under the federal act.

1. *Registration*

The manufacturers of pesticides must register the pesticides with the GDA. Pursuant to federal law, some pesticides are registered as general use pesticides and others are registered as restricted use pesticides. In addition, the GDA may register some pesticides as state use restricted. State use restricted pesticides are subject to the same requirements as federal restricted use pesticides.

Persons who sell restricted use pesticides must register with the GDA. Commercial pesticide applicators who sell pesticides as an integral part of the pesticide application service are not required to register as dealers. Restricted use pesticide dealers are responsible for the acts, claims, and recommendations of their employees and sales people.

2. *Exemption for Farmers*

Producers are exempt from license regulations and requirements in connection with applications of general use pesticides if the producer:

- ! Operates farm property and maintains pesticide application equipment primarily for personal use;
- ! Is not regularly engaged in the business of applying pesticides for hire and is not considered as a pesticide contractor; and
- ! Only operates pesticide application equipment in the vicinity of the owned property and for the accommodation of neighbors.

3. *Permits*

Before a person can purchase, possess, or use any restricted use or state restricted use pesticide, a written certificate allowing the activity and issued by the GDA must be obtained.

4. *Certification and Registration*

Producer Note: Pesticide use requires the producer be aware of certain requirements concerning licensure and certification. Producers may have to seek certification or licensure to use pesticides from the Georgia Department of Agriculture (GDA), depending upon how and when the pesticides are used.

Applicators of restricted use pesticides are divided into commercial applicators and private applicators. Both private and commercial applicators must be registered or certified before using restricted use pesticides. In addition to registration and certification, commercial pesticide applicators must be licensed. If they are engaged in the business of applying pesticides to the lands of another, commercial pesticide applicators must be licensed as pesticide contractors.

Uncertified persons may apply restricted use pesticides only if they are under the direct supervision of a certified applicator. The certified applicator is responsible for the actions of all supervised persons. Unless the label requires otherwise, the certified applicator need not be present at the time of application but should be available within a reasonable amount of time. However, when the label requires application only by a certified applicator, an uncertified person may not apply the pesticide.

a. Private Applicators

A private applicator is any certified applicator:

- ! Using or supervising the use of a restricted use pesticide or a state restricted use pesticide; and
- ! In the production of an agricultural or forestry commodity;
 - ◆ On property owned, rented, or otherwise under the control of the applicator; or
 - ◆ On the property of another person if applied without compensation other than trading of personal services between producers of such commodities.

Examples of private applicators include farmers, ranchers, vineyardists, plant propagators, Christmas tree growers, aquaculturists, floriculturists, orchardists, foresters, and other comparable persons.

Private applicators, unlike commercial applicators, are not required to maintain records of pesticide applications under state law, but are still subject to federal record keeping requirements (see page GA-27 for federal record keeping requirements). Although private applicators must obtain an applicator's license, they do not have to pay a fee for the license.

Private applicators are tested for competence through written or oral tests or by participation in an approved training program. Private applicators must be knowledgeable about pests, pesticides, and environmental law. Private applicators must also possess skills and knowledge about the pest control practices associated with their own agricultural operation.

Every five years, private applicators must complete at least three hours of approved training or pass a written exam to be recertified.

b. Commercial Applicators

A commercial applicator is any pesticide applicator who is not a private applicator. Commercial pesticide applicators must be licensed by the GDA and must be certified in one or more categories. The state may waive certification examination requirements for an applicator who is currently certified under another federally-approved state plan. The certification is limited to the application activities covered by the certification in the other state.

5. Posting Requirements

All pesticide applications to landscapes, except those made by a homeowner at his or her own single-family residence, are subject to posting requirements. The applicator must post a sign, at least 4" x 5," at the main point or points of entry to the treated area. The sign must be made of sturdy, weather resistant material with printing in contrasting colors. The bottom edge of the sign must be 8 - 12 inches above the ground. Applicators must leave the sign in place until the day after application and must also leave specific information with the owner, manager, or custodian of the area. The information must include the address and specific area treated, the name and telephone number of the company, the name of the person who made the application, complete brand name of the pesticide as it appears on the label, and the application date.

Posting rules do not apply to injections of pesticides directly into plants. No posting is required if pesticide application is made to plants in interior landscapes two or more hours before the public has normal access to the area.

6. Use of Unregistered Pesticides

Producer Note: Complaints stemming from injury for unwarranted use of pesticides do occur. Penalties for unauthorized use or distribution of pesticides can be assessed. Care must be used by the applicator of pesticides in order to avoid liability.

Anyone who violates any provision of the Georgia Pesticide Control Act is guilty of a misdemeanor. Some examples of unlawful activities include:

- ! Distributing any unregistered pesticide;
- ! Distributing any pesticide unless in the manufacturer's unopened container, in safe condition, and with its label in place;
- ! Removing, altering, or destroying, in whole or in part, any required label;

- ! Adulteration of a pesticide by adding or removing any substance;
- ! Use of a pesticide inconsistent with its labeling, or inconsistent with regulations restricting the labeled uses of the pesticides;
- ! Buying or using a restricted use pesticide without the required permit or certification to use the pesticide;
- ! Transporting, storing, displaying, or distributing pesticides so that they pose a danger to humans, the environment, or to food, feed, or other products;
- ! Transporting, storing, or disposing of any pesticide or pesticide container so that it causes injury to life or the environment; and
- ! Disposing of or discarding pesticides or pesticide containers in a way which may cause injury to humans, vegetation, crops, livestock, wildlife, or beneficial insects, or in a way that causes water pollution or pollution of watercourses.

7. *Liability for Use of Pesticides*

a. *Accidents and Claims*

The GDA may require the reporting of significant pesticide accidents or incidents. Persons claiming injury from a pesticide application must file a written statement with the GDA within 60 days. If a growing crop is alleged to have been damaged the report must be filed before 25 percent of the crop has been harvested. The claim must be on a form provided by the GDA and must contain at least:

- ! The name of the person allegedly responsible for the application of the pesticide;
- ! The name of the owner or lessee of the land on which the crop is grown and for which damage is alleged to have occurred; and
- ! The date on which the alleged damage occurred.

The claimant must allow the GDA, as well as others, to observe the alleged damage.

b. Relief from Responsibility

A person may be exempt from liability for any direct or indirect discharge or release which causes a threat of pollution or actual pollution of land, water, air, or other resources of the state if:

- ! The application or use was consistent with the labeling and acceptable agricultural management practices;
- ! The application or use was consistent with all applicable state and federal laws and regulations;
- ! The state or federal government or agency had approved or permitted the application or use and there is no finding that any conditions of the approval or permit were violated; and
- ! The pesticide was licensed by or registered with the state or federal government at the time of the application or use and the applicator knew of no special geological, hydrological, or soil type condition existing on the land which made the application or use likely to cause pollution.

However, the statute does not affect or limit any liability for injury to person or property resulting from the chemical application nor does it limit liability if there is proof of negligence or lack of due care in the application or use of the chemical.

8. Chemigation

Producer Note: Chemigation, when one or more chemicals are added to irrigation water, is controlled at the state and federal levels. The EPA *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* encourages reduction of pollution in chemigation by timing chemigation to meet crop water needs, installation of backflow preventers for wells, minimizing field edge discharges, and control of deep percolation.

Georgia chemigation³⁸ laws require that irrigation systems for the application of chemicals, pesticides, or fertilizers be equipped with an anti-syphon device to protect against contamination of the water supply. A check valve, vacuum relief valve, and low pressure drain must be in the irrigation supply line between the irrigation pump and point of injection.

³⁸ GA. CODE ANN. § 2-1-4 (1992).

The GDA has adopted rules specifying requirements for anti-syphon systems. Violators of the requirements are subject to a fine of not more than \$1,000 per violation.

VI. PROTECTION OF WILDLIFE

Producer Note: Agricultural producers also have responsibilities concerning wildlife and migratory birds which may have habitat on the producer's property. Federal and state laws contain measures designed to protect or enhance wildlife or wildlife habitat.

A. Federal Endangered Species Act

The Endangered Species Act³⁹ (ESA) is designed to protect endangered and threatened species from federally funded or directed activities, including pesticide use and wetlands manipulation.

The ESA also prohibits private persons from taking any listed endangered or threatened species of animal without a permit or exemption which allows the taking. Taking is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting the animal. An intent to take the animal is a required element for a violation of the ESA. No reported cases involve the taking of animals by pesticide poisoning, but the U.S. Fish and Wildlife Service has taken administrative action against farmers and ranchers who kill protected animals with meat illegally laced with pesticides. For example, in *Christy v. Hodel*,⁴⁰ a court upheld the authority of the U.S. Fish and Wildlife Service to assess penalties against livestock owners who deliberately killed grizzly bears, an endangered species, in order to protect their livestock.

Producer Note: An unlawful taking can result in serious criminal and civil penalties. Producers can apply for incidental taking permits if a contemplated activity might result in an inadvertent taking of a protected species. Permits are granted by the U.S. Fish and Wildlife Service.

The ESA makes it unlawful for anyone to import, take, possess, sell, deliver, or transport an endangered species of fish or wildlife or an endangered species of plant. Any person who knowingly violates the ESA is liable for a criminal fine of up to \$50,000 and up to one year of imprisonment. All other ESA violations, such as reporting violations, are subject to a criminal fine of up to \$25,000 and up to six months imprisonment.

³⁹ 16 U.S.C. § 1531 *et seq.* (1994).

⁴⁰ 857 F.2d 1324 (9th Cir. 1988), *cert. denied* 490 U.S. 1114 (1989).

Through FIFRA, mandatory limitations on pesticide use are included on pesticide labels and in county specific use bulletins. If a producer uses pesticides in an area where mandatory limitations exist, they need to follow the directions and limitations contained in the bulletins. Voluntary limitations on pesticide usage may also be employed to protect endangered and threatened species and are contained in interim pamphlets available through EPA or your state department of agriculture.

Producer Note: The Endangered Species Act can be a powerful tool in the protection of wildlife and its habitat through the imposition of serious criminal and civil penalties for the destruction or harming of protected species. Producers must be aware of any endangered or threatened species existing on their property and take steps to ensure that activities do not harm those species.

B. Federal Migratory Bird Treaty Act

Producer Note: Treaty provisions like those which protect migratory birds will be taken into account by regulatory officials when making certain determinations. For example, these provisions will be considered by an agency when determining whether to grant or deny permits for concentrated animal feeding operations.

The Migratory Bird Treaty Act⁴¹ implements conventions between the United States and Canada, Japan, Mexico, and the former USSR for the protection of migratory birds. Birds protected under the Act are not necessarily endangered. The Act provides that, except as permitted by regulation, it is unlawful to pursue, hunt, take, capture, or kill any migratory bird. Violation of the Act is a misdemeanor with penalties including fines up to \$500 and imprisonment up to six months. Federal courts have split on the question of whether intent must be present in order to impose liability under the Act in cases where birds have been poisoned by pesticides.⁴²

C. State Wildlife Protection Laws and Regulations

Producer Note: Many states have additional measures which either enhance protections under federal laws or address issues peculiar to wildlife found within the state. These states also may address common problems caused by wildlife. Georgia has laws protecting wildlife.

⁴¹ 16 U.S.C. § 703 *et seq.* (1994).

⁴² *See* United States v. Van Fossan, 899 F.2d 636 (7th Cir. 1990) *and* United States v. Rollins, 706 F. Supp. 742 (D.C. Idaho 1989).

The Endangered Wildlife Act of 1973⁴³ gives EPD the authority to designate as protected any species of animal life within Georgia which may be endangered, threatened, rare, or unusual.

An endangered species under Georgia law is one which is either designated as endangered under the federal act or a resident species which has been designated by EPD as in danger of extinction throughout all or a significant portion of its range. A threatened species is one which is either designated as threatened under the federal act or a resident species which has been designated by EPD as likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

A rare species under Georgia law is any resident species which, although not presently endangered or threatened, should be protected because of its scarcity. An unusual species is any resident species which exhibits special or unique features and because of these features deserves special consideration in its continued survival in the state.

The following acts are prohibited and any violation is a misdemeanor:

- ! Activities intended to harass, capture, kill, or directly cause the death of any protected species;
- ! Possession, sale, or purchase of any protected species or parts of the species; and
- ! Destruction of the habitat of any protected animal species on public lands.

EPD may issue permits for the collection, transportation, and/or possession of protected species. However, acquiring a state permit does not alleviate the responsibility to acquire specific federal permits if required.

Producer Note: Georgia producers must check with EPD in order to determine whether species protected under state or federal law are found on specific property. If so, state and federal permits may be required before certain activities can take place on the property. EPD and the U.S. Fish and Wildlife Service will have all necessary application forms for permits. Failure to obtain permits and later harming of protected species may expose the producer to serious state or federal penalties.

⁴³ GA. CODE ANN. §§ 27-3-130 *et seq.* (1992); GA. COMP. R. & REGS. r. 391-4-10 *et seq.* (1995).

VII. 1996 FARM BILL

Producer Note: This section only discusses the environmental or conservation related provisions of the 1996 Farm Bill.⁴⁴ For a more thorough examination of flexibility programs, export programs, dairy marketing, risk management, and other provisions of the 1996 Farm Bill, resources such as the local Farm Service Agency office, a producers' association, or appropriate governmental offices should be consulted.

A. Environmental Conservation Acreage Reserve Program

The Environmental Conservation Acreage Reserve Program (ECARP) includes the Conservation Reserve Program (CRP), the Wetlands Reserve Program (WRP), and the Environmental Quality Incentives Program (EQIP). Under ECARP, USDA may designate watersheds, multi-state areas, and regions of special environmental sensitivity as priority areas eligible for enhanced federal assistance. USDA may also designate areas in which it will assist producers in meeting federal, state, and local environmental laws and regulations.

1. Conservation Reserve Program

Producer Note: The Conservation Reserve Program⁴⁵ (CRP) has been reauthorized and extended by the 1996 Farm Bill. Producers who wish to participate in this program may submit an offer to enroll land during specified signup periods. A continuous signup is provided for certain special practices, including filter strips, riparian buffers, shelterbelts, grassed waterways, field wind breaks, living snow fences, salt tolerant vegetation, and shallow areas for wildlife. The Commodity Credit Corporation (CCC) administers the program through Farm Service Agency (FSA) state and county offices. The owner or operator submits a per acre rental bid. If accepted, the CCC enters into a contract with the owner or operator to convert the land into a conserving use for a minimum of 10 years in return for financial and technical assistance. Conservation plans approved by the local conservation district are required on eligible acreage.

The CRP has been extended through the year 2002 at the current level of enrolled acreage of 36.4 million acres. Under the 1996 Farm Bill, land ownership requirements prior to enrollment have been reduced from three years to one year.

Enrollment in CRP has been actively targeted to the most environmentally cost-effective acres. All offers are ranked competitively, based on an environmental benefits index which takes

⁴⁴ Federal Agricultural Improvement and Reform (FAIR) Act of 1996, P.L. 104-127.

⁴⁵ Conservation Reserve Program-Long Term Policy, 61 Fed. Reg. 49697-01 (1996) (to be codified at 7 C.F.R. pt. 704 and pt. 1410)(proposed Sep. 23, 1996).

into account the government cost of the contract, soil erosion, water quality, wildlife habitat, and other costs.

USDA is authorized to allow current participants in the CRP to terminate any CRP contract which was entered into prior to January 1, 1995 with written notice, so long as the contract has been in effect at least five years. This early termination provision does not, however, apply to those enrolled lands which are determined to be of high environmental value.

CRP contracts which are not eligible for early termination include:

- ! Contracts entered into after January 1, 1995;
- ! Contracts entered into before January 1, 1995 which are less than five years old;
- ! Land with an erodibility index greater than 15;
- ! Land devoted to useful life easements, field windbreaks, grass waterways, shallow water areas, filter strips, shelterbelts, and bottom land timber on wetlands;
- ! Land enrolled under the wetland eligibility criteria; and
- ! Land located within an average of 100 feet of a stream or other permanent water body.

Total acreage placed in the CRP, combined with that placed in the Wetlands Reserve Program (WRP), may not exceed 25 percent of the total cropland of the county. In addition, no more than 10 percent of the cropland in the county can be subject to a CRP or WRP easement. CRP participants must comply with the CRP contract, implement approved conservation plans, establish required vegetative cover or water cover, comply with state noxious weed laws, and control all weeds, insects, and pests on the land. CRP participants must not produce agricultural commodities or allow grazing or harvesting on land subject to the contract without the approval of the U.S. Secretary of Agriculture. Finally, conservation compliance and Swampbuster requirements must be met as a condition of CRP eligibility.

The Conservation Reserve Enhancement Program (CREP) is a part of the CRP which provides financial incentives to farmers and ranchers to take land out of agricultural production. As these agricultural lands have been planted in trees, grass and other types of vegetation, the result has been reduced soil erosion, improved air and water quality and establishment of millions of acres of wildlife habitat. CREP builds upon CRP in several important ways. First, it is designed to address specific state and local concerns since proposals are developed by governors in consultation with local citizens, including farmers and ranchers. Second, CREP is

targeted to specific geographic areas of state and national significance, such as restoration of important habitat for endangered plant or animal species. Third, the program's flexibility permits the design of conservation strategies to address specific issues and concerns. Fourth, CREP is results-oriented, requiring both measurable goals and monitoring of annual progress towards those goals.

Under CREP, federal CRP and state resources are combined to provide special financial incentives to farmers and ranchers to help solve agriculture-related environmental problems. In exchange for payments, farmers and ranchers agree to take their most environmentally sensitive lands out of production for periods of at least 10 years and plant native grasses, trees, or other vegetation, to reduce soil erosion, improve water quality, and provide wildlife habitat. CREP projects have already begun in several states; Illinois, Maryland, Minnesota, New York, North Carolina, Oregon, and Washington. USDA has committed \$170 million to reduce nutrient inflow to the Chesapeake Bay, \$200 million to reduce sedimentation in the Illinois River, and \$163 million to improve the water quality of the Minnesota River, New York to protect drinking water quality for New York City, \$275 million to improve water quality through nutrient management and sediment reduction, and with Oregon and Washington for the protection of dwindling salmon stocks. Arkansas, California, Florida, Georgia, Utah, Wisconsin, and Wyoming are currently developing CREP proposals.

2. *Wetlands Reserve Program*

The Wetlands Reserve Program⁴⁶ (WRP) has been reauthorized through the year 2002 with a maximum enrollment of 975,000 acres.

Producer Note: To participate in the WRP program, a producer may enroll acreage at any time by applying for program participation with the local NRCS office.

Emphasis will be given to enrollment of lands that:

- ! Maximize wildlife benefits;
- ! Maximize the amount of wetlands;
- ! Achieve cost-efficient wetlands restoration; and
- ! Have the least likelihood of being reconverted.

Conservation plans are required for WRP program participation. Eligibility determination for participation in the program is made by NRCS. In addition, landowners may

⁴⁶ Wetlands Reserve Program, 61 Fed. Reg. 42137 (1996) (to be codified at 7 C.F.R. pt. 620 and pt. 1467).

be provided with 75 percent to 100 percent cost sharing for restoring wetlands under permanent easements, 50 percent to 75 percent for 30-year easements, and 50 percent to 75 percent for restoration cost share agreements.

3. *Environmental Quality Incentives Program*

The Environmental Quality Incentives Program⁴⁷ (EQIP) was established by the 1996 Farm Bill to provide a voluntary conservation program for farmers and ranchers who face serious threats to soil, water, and other natural resources. It provides technical, financial, and educational assistance primarily to designated priority areas) at least half of it targeted to livestock-related natural resource concerns and the remainder to other significant conservation priorities. NRCS has leadership for EQIP and consults with FSA to set the program's policies, priorities, and guidelines.

EQIP works primarily in priority areas where significant natural resource problems exist. In general, priority areas are defined as watersheds, regions, or areas of special environmental sensitivity or having significant soil, water, or related natural resource concerns. These concerns could include soil erosion, water quality and quantity, air quality, wildlife habitat, wetlands, and forest and grazing lands. Priority areas are identified through a locally-led conservation process. A local work group comprised of members of the conservation district and FSA county committees, and staff of NRCS, Cooperative State Research, Education, and Extension Service, and other federal, state, and local agencies interested in natural resources conservation identifies program priorities by completing a natural resource needs assessment and, based on that assessment, develops proposals for priority areas. The inclusion of conservation districts helps ensure that the work groups develop and implement conservation programs that fully reflect local needs and priorities. Priority area proposals are submitted to the NRCS State Conservationist, who selects those areas within the state based on the recommendations from the State Technical Committee.

EQIP can also address additional significant statewide concerns that may occur outside designated priority areas. In the first year of the program, at least 65 percent of the funds will be used in designated priority areas and up to 35 percent can be used for other significant statewide natural resource concerns. Additional emphasis is given to areas where state or local governments offer financial or technical assistance and where agricultural improvements will help meet water quality and other environmental objectives.

All EQIP activities must be carried out according to a conservation plan. Conservation plans are site specific for each farm or ranch, and can be developed by producers with help from NRCS or other service providers. Producers' conservation plans should address the primary natural resource concerns. All plans are subject to NRCS technical standards adapted for local

⁴⁷ 62 Fed. Reg. 28258 (1997) (to be codified at 7 C.F.R. pt. 1466).

conditions and are approved by the conservation district. Producers are not obligated, but are encouraged, to develop comprehensive or total resource management plans.

Producer Note: A producer wanting to participate in EQIP may apply at NRCS for an EQIP contract at any time. The contract includes a plan, approved by the local conservation district, that indicates the practices to be applied and the amount of cost share to be received.

EQIP offers 5- to 10-year contracts that provide incentive payments and cost sharing for conservation practices called for in the site-specific plan. Contract applications will be accepted throughout the year. NRCS conducts an evaluation of the environmental benefits the producer offers. Offers are then ranked and the FSA County Committee approves for funding the highest priority applications. Applications are ranked according to environmental benefits achieved weighed against the costs of applying the practices. Higher rankings are given to plans developed to treat priority resource concerns to a sustainable level.

Cost sharing may pay up to 75 percent of the costs of certain conservation practices, such as grassed waterways, filter strips, manure management facilities, capping abandoned wells, wildlife habitat enhancement, and other practices important to improving and maintaining the health of natural resources in the area. Incentive payments may be made to encourage a producer to perform land management practices such as nutrient management and wildlife habitat management. These payments may be provided for up to three years to encourage producers to carry out management practices they may not otherwise use without the program incentive.

Eligibility is limited to persons who are engaged in livestock or agricultural production. Eligible land includes cropland, rangeland, pasture, forest, and other farm or ranch lands where the program is delivered. Owners of large confined livestock operations are not eligible for cost share assistance for animal waste storage or treatment facilities. However, technical, educational, and financial assistance may be provided for other conservation practices on these large operations.

Producer Note: In general, USDA has defined a large confined livestock operation as an operation with more than 1,000 animal units. But, because of differences in operations and environmental circumstances across the country, the definition of a large confined livestock operation may be modified in each state by the NRCS State Conservationist, after consultation with the state Technical Committee and approval of the NRCS Chief.

Conservation practices for natural resource concerns related to livestock will receive 50 percent of the total EQIP funding. Total cost share and incentive payments are limited to \$10,000 per person per year and \$50,000 for the length of the contract.

Four of USDA's conservation programs were combined in EQIP, including the Agricultural Conservation Program, the Water Quality Incentives Program, the Great Plains Conservation Program, and the Colorado River Basin Salinity Control Program.

B. Swampbuster, Sodbuster, and Conservation Compliance Programs

1. Swampbuster

Producer Note: The Swampbuster program has been in place since 1985 and was passed to discourage producers from converting wetlands to croplands and generally encourage landowners to preserve wetland areas. The 1985 law made producers ineligible for farm program participation if wetlands were converted to produce an agricultural commodity after 1985. A 1990 amendment strengthened the program by making conversion alone, even without cropping, a swampbuster violation. USDA implements Swampbuster regulations and the NRCS is the primary agency involved in ensuring compliance with Swampbuster provisions.

Wetland conservation provisions, known as Swampbuster, are continued under the 1996 Farm Bill. Wetland mitigation is allowed through restoration, enhancement, or creation so long as wetland functions are maintained. When a violation of the Swampbuster program occurs, USDA has the discretion to waive the penalty of ineligibility for USDA program benefits if USDA determines the person acted in good faith and without intent to violate the Swampbuster provisions.

Abandoned prior converted wetlands and farmed wetlands are not subject to Swampbuster so long as the use of those lands is limited to agricultural purposes. USDA is authorized to identify categories of actions that constitute minimal effects. Finally, prior wetland determinations will be reviewed for accuracy.

The 1996 Farm Bill made other changes in the Swampbuster program which include:

- ! Expansion of areas in which mitigation can be used, allowing individuals to work with producers, conservation districts, and other relevant entities;
- ! More options for mitigation, including restoration, enhancement, or creation;
- ! NRCS, based upon recommendations of the state technical committee, may identify practices that have a minimal effect on the environment and may put them on fast track determination; and

- ! Wetland conversion activities authorized by a section 404 permit which make agricultural production possible will be accepted for Swampbuster program purposes if the permitted activities were adequately mitigated.

Producer Note: Prior converted cropland is a converted wetland where the conversion occurred prior to December 23, 1985, and an agricultural commodity had been produced at least once before December 23, 1985.

In addition, the 1996 Farm Bill expands the definition of agricultural land contained in the Interagency Wetlands Memorandum of Agreement⁴⁸ to include cropland, pasture land, tree farms, rangeland, native pasture land, and other land used for livestock production, placing NRCS in charge of making delineation decisions.

Producer Note: Interim regulations implementing Swampbuster changes found in the 1996 Farm Bill are already in effect. Producers must make themselves aware of the new Swampbuster regulations by obtaining copies from NRCS or USDA offices and should keep themselves informed of regional wetlands issues.

2. *Sodbuster*

Producer Note: The Sodbuster program also began with the 1985 Farm Bill. These programs were designed to conserve highly erodible land brought into crop production. Under Sodbuster, producers are ineligible for farm program payments unless conservation systems are applied on the land that achieve tolerable levels of soil erosion. Highly erodible land determinations are made by NRCS.

The highly erodible lands conservation program, known as Sodbuster, is retained under the 1996 Farm Bill. A new provision states that if CRP lands are returned to production, those lands cannot be required to meet a higher conservation standard than that applied to other highly erodible cropland located within the same area.

In addition, a wind erosion pilot project is established under the 1996 Farm Bill. The pilot project is for producers in selected counties which have nearly 100 percent of their cropland designated as highly erodible and where wind erosion factors are likely to have caused

⁴⁸ NATURAL RESOURCE CONSERVATION SERVICE, INTERAGENCY WETLANDS MEMORANDUM OF AGREEMENT (1994). NRCS has the primary responsibility for interagency coordination and NRCS can distribute copies of the Memorandum of Agreement.

inequitable application of highly erodible land factors to that cropland. In this circumstance, the cropland must be redelineated.

3. *Conservation Compliance*

Producer Note: Conservation compliance provisions of the 1985 and 1990 Farm Bills were continued under the 1996 Farm Bill. These provisions required the producer to have a plan approved by NRCS and implemented by the producer to address highly erodible cropland to remain eligible for certain USDA program benefits. These plans are continued by the 1996 Farm Bill, with some changes. The term conservation plan describes the conservation systems or practices relative to the location, use, tillage system, and treatment measures used to improve soil condition.

Under the 1996 Farm Bill, after consultation with local conservation districts, USDA is required to establish expedited procedures to grant temporary variances in conservation plans (formerly referred to as conservation compliance plans). Decisions on variances must be made within 30 days or the request will be considered granted.

County committees may provide for appropriate relief where application of a conservation system would impose an undue economic hardship on the producer. This discretion is allowed upon consideration of the use of variances and exemptions.

Public notice of future changes in the technical standards affecting conservation compliance, Swampbuster, and CRP programs are also required. If a person has acted in good faith and without any intent to violate the law, up to one year can be provided for that person to actively apply conservation plans for the farm. This action will help ensure that penalties are in proportion to violations.

USDA employees are directed under the 1996 Farm Bill to work with landowners to whom they are providing onsite technical assistance to correct an observed potential compliance problem. Landowners have up to one year to take corrective action before the violation will be reported. Farmers are encouraged to maintain records of residue measurement, including those provided by third parties. These measurements can be used to determine erosion levels on annual review.

C. **Other Conservation Programs**

Producer Note: Many additional conservation programs were created under the 1996 Farm Bill. Producers must contact the local NRCS or USDA field office in order to obtain specific program regulations, applications for participation, technical assistance, and plan requirements. Some programs provide cost share payments.

1. *Conservation Farm Option*

The 1996 Farm Bill established a pilot program for producers of wheat, feed grains, upland cotton, and rice with market transition contract acreage. Under the Conservation Farm Option (CFO), the producer must develop and implement a conservation farm plan. Conservation farm contracts are for 10 years and can be extended for an additional five years. In exchange for payments under the CFO, the producer must forego payments in the CRP, WRP, and EQIP programs. The total payment for participation in CFO is the same as if the producer had received separate payments under each program, in addition to production flexibility contract payments.

2. *Flood Risk Reduction*

Contracts may be entered into with producers who have contract acreage that is frequently flooded. Participants will receive 95 percent of their market transition contract payments. The Secretary may also provide 95 percent of projected crop insurance payments. Participants agree not to receive any contract payments, commodity loans, crop insurance, conservation program payments, or any disaster program payments on the flood risk reduction acreage.

3. *Farmland Protection Program*

USDA is authorized to purchase easements or other interests in land with prime, unique, or other productive soils if those lands are subject to a pending offer by state or local governments to acquire the land for farmland protection purposes. Easements or other interests on 170,000 to 340,000 acres are allowed. To date, USDA has provided \$35 million to California, Colorado, Connecticut, Delaware, Florida, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Virginia, Vermont, Washington, and Wisconsin to help purchase development rights from farmers to keep productive farmland in production.

4. *Wildlife Habitat Incentives Program*

The Wildlife Habitat Incentives Program (WHIP) authorizes \$50 million in funding through the year 2002 to establish a program to make cost share payments to landowners in order to implement wildlife habitat improvement activities. In order to receive cost share payments, the landowner must submit a wildlife habitat development plan. The WHIP program, in addition to providing payments, is designed to provide technical assistance to landowners, provide education regarding wildlife needs, and foster a positive public attitude regarding wildlife, wildlife habitat, and land stewardship.

5. *Conservation of Private Grazing Land*

Federal personnel are to be made available for technical assistance through the Conservation of Private Grazing Land program. The purpose of the program is to promote

conservation and enhancement of natural resources on private lands. NRCS offices will administer the program and development of a conservation plan is required for participation.

6. *Commodity Credit Corporation Uses*

Under the 1996 Farm Bill, the Commodity Credit Corporation (CCC) Charter Act is revised to allow the use of CCC funds for authorized conservation programs. This action is intended to reduce the necessity for annual appropriations to carry out conservation programs.

7. *Air Quality*

The 1996 Farm Bill authorizes a task force on agricultural air quality with NRCS as the chair of the task force. This task force has been established and members appointed. The task force charter establishes the duties of the task force as advising the Secretary of Agriculture “on research efforts related to agricultural air quality, the extent to which agricultural activities contribute to air pollution, and cost-effective means in which the agricultural industry can improve air quality.

VIII. OTHER STATE STATUTES AFFECTING AGRICULTURE

Producer Note: Many other state statutes have the potential of impacting agricultural operations and their relationship to the environment. The following is a brief discussion of state laws in Georgia.

A. **Farmland Preservation**

1. *Planning and Zoning*

Producer Note: Agricultural operations frequently are controlled by local planning or zoning board activities. Since it is not possible to outline each local area's requirements, a producer must check with local boards to determine local planning and zoning regulations which may affect an operation.

Georgia does not specifically use zoning⁴⁹ at the state level as a method to protect farmland. However, an owner or operator must be sure to inquire about zoning restrictions at the county or municipal level. An individual county or community may have established zoning which has the effect of protecting agricultural land.

⁴⁹ GA. CODE ANN. § 36-66-1 *et seq.* (1993 & Supp. 1996).

Many operations can be restricted to areas which have been zoned to allow agricultural use of the land. Local zoning statutes often restrict operations only to those areas which permit the real property to be used for agricultural purposes. An agricultural use is most commonly defined as the use of land for the production of agricultural or herbicultural crops, including livestock, livestock products, grain, hay, pastures, soybeans, tobacco, timber, orchard fruits, vegetables, flowers, or ornamental plants.

The Georgia Planning Act requires local governments to enact ordinances to protect significant groundwater recharge areas, water supply watersheds, wetlands, steep mountain slopes, and river corridors. Some of these activities may affect agricultural activities.

2. *Conservation Easements*

Producer Note: Many states have passed laws allowing preservation or conservation of agricultural land through the use of easements. When easements are used for these purposes, the law frequently has certain requirements relating to the creation, compensation, and enforcement of the easement.

A conservation easement⁵⁰ is a tool used by state and local governments to place restrictions upon the types of activities and uses to which land may be put, with conservation, or more appropriately, preservation, the primary purpose. A conservation easement is a nonpossessory interest of a holder in real property imposing limitations or affirmative obligations, with purposes that include: retaining or protecting natural, scenic, or open-space values of real property; assuring its availability for agricultural, forest, recreational, or open-space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical, architectural, archeological, or cultural aspects of real property. The granting of the easement is most often accompanied by the granting of some sort of compensation for the easement.

Georgia uses conservation easements to aid in the preservation of agricultural lands. The easement is of perpetual duration unless the instrument creating the easement states otherwise. Only a government body or not-for-profit conservation organization can hold an easement. The easement must be recorded and indexed in the office of the clerk of the superior court for the county or counties where the land is situated. The recording will be deemed notice to the county board of tax assessors of the conservation easement conveyance and will entitle the owner to a reevaluation of the encumbered real property so as to reflect the existence of the encumbrance on the next succeeding tax digest of the county. The recording document should contain a legal description of the encumbered property, incorporate by reference the description in a recorded deed, or refer to the book and page of the deed of the record owner or owners of the real property

⁵⁰ GA. CODE ANN. § 44-10-1 *et seq.* (Supp. 1996).

burdened by the conservation easement. An instrument for the purpose of creating, conveying, modifying, or terminating a conservation easement is not effective unless recorded.

If an easement is placed on property it can be enforced by the owner of an interest in the real property burdened by the easement, a holder of the easement, a person having a third-party right of enforcement, or any other person authorized by law.

B. Nuisance and Right-to-Farm

Producer Note: Many producers are confronted with concerns of local residents. These problems may originate from dust or odor generated by the operation or may result from a lack of knowledge of what is involved in an agricultural operation. While not specifically an area where the state or federal authorities may become involved, court actions can be brought against the operation. These actions are usually based on a nuisance theory, and in some cases, a right-to-farm defense may apply.

1. Nuisance

In Georgia, a nuisance⁵¹ is defined as anything that hurts, inconveniences, or damages another. The fact that an action may otherwise be lawful does not keep it from being a nuisance. The inconvenience must be one that would affect an ordinary, reasonable person, instead of being fanciful or only affecting one of fastidious tastes. Nuisances can be either public or private. A public nuisance is one which damages all persons who come within the sphere of its operation, though it may vary in its effects on individuals. A private nuisance is one limited in its injurious effects to one or a few individuals.

2. Right-To-Farm

The Georgia right-to-farm⁵² statute does not allow an agricultural operation to be classified as either a public or private nuisance, regardless of any changes in conditions in or around the locality of the agricultural facility, if the facility has been in operation for more than one year and the facility was not a nuisance at the time it began operation. However, the statute does not extend protection to an operation that is a nuisance as a result of negligent, improper, or illegal operation of an agricultural facility.

Under the Georgia right-to-farm statute, an *agricultural facility* is defined as including, but not limited to, any land, building, structure, pond, impoundment, appurtenance, machinery, or equipment which is used for the commercial production or processing of crops, livestock,

⁵¹ GA. CODE ANN. § 41-1-1 *et seq.* (1993).

⁵² GA. CODE ANN. § 41-1-7 (1993).

animals, poultry, honeybees, honeybee products, livestock products, poultry products, or products which are used in commercial aquaculture. The term also includes any farm labor camp or facilities for migrant farm workers. The term *agricultural operation* is defined to include any of the following activities:

- ! The plowing, tilling, or preparation of soil at an agricultural facility;
- ! The planting, growing, fertilizing, or harvesting of crops;
- ! The application of pesticides, herbicides, or other chemicals, compounds, or substances to crops, weeds, or soil in connection with the production of crops, livestock, animals, or poultry;
- ! The breeding, hatching, raising, producing, feeding, keeping, slaughtering, or processing of livestock, hogs, equine, chickens, turkeys, poultry or other fowl normally raised for food, mules, cattle, sheep, goats, dogs, rabbits, or similar farm animals for commercial purposes;
- ! The production and keeping of honeybees, the production of honeybee products, and honeybee processing facilities;
- ! The production, processing, or packing of eggs or egg products;
- ! The manufacturing of feed for poultry or livestock;
- ! The rotation of crops;
- ! Commercial aquaculture;
- ! The application of existing, changed, or new technology, practices, processes, or procedures to any agricultural operation; and
- ! The operation of any roadside market.

C. Livestock Waste Management

Producer Note: A common by-product of livestock operations is animal wastes which must be stored and disposed of properly. Many states are becoming more involved in the regulation of storage, treatment, handling, and land application of waste through regulations, recommendations, pollution prevention plans, and best management practices (BMPs).

In Georgia, the following definitions⁵³ have been adopted by EPD to guide producers in dealing with waste disposal issues.

1. Lagoons

Lagoons are defined as earthen impoundments made by excavation or earthfill which have as a primary function the long-term storage and partial treatment or stabilization of organic waste from a confined feeding operation. Lagoons must be designed and constructed so as to reduce pollution and protect the environment and in compliance with all Natural Resource Conservation Service (NRCS) requirements and specifications. Generally, waste treatment lagoons are of three types:

- ! Anaerobic lagoons;
- ! Naturally aerobic lagoons; and
- ! Mechanically aerated lagoons.

Anaerobic lagoons require less surface area than naturally aerobic lagoons, but may give off much stronger odors. Mechanically aerated lagoons tend to be comparable in size to anaerobic lagoons and are generally less odorous, but require energy sources for aeration.

When deciding where and how to construct a lagoon, the producer should consider several factors, including the following:

- ! The location of the structure, soil types, and volume of waste to be handled;
- ! Construction so that seepage is limited to a maximum of 1/8 inch per day;
- ! Maximum operating level of the lagoon; and
- ! Disposal of liquid effluent to prevent overflow.

Lagoons should be considered safety hazards, and should be fenced with warning signs posted to prevent children and others from using the lagoon for purposes other than its intended use. In addition, the embankment and surrounding areas should be vegetated to control erosion. Finally, vegetative screens or other methods should be used to shield the lagoon from public view and improve the site's visual conditions.

⁵³ Section IV FIELD OFFICE TECHNICAL GUIDE, *All Resource Areas, Georgia*, NRCS, Code 359-1 *et seq.* (Rev. July 1985).

2. *Waste Storage Structures*

A waste storage structure is a fabricated structure used for the temporary storage of animal waste or other organic agricultural waste that may be open or covered, within or outside an enclosed housing, or beneath slotted floors. A waste storage structure's primary purpose is to temporarily store liquid or solid waste as part of a pollution-control or energy-utilization system to conserve nutrients and energy and to protect the environment.

The following factors must be considered in selecting a site for waste storage structures:

- ! Proximity of the structure to the source of waste;
- ! Access to other facilities;
- ! Ease of loading and emptying waste;
- ! Appropriate health regulations; and
- ! Direction of prevailing winds to minimize odors.

Storage facilities may be located beneath the floor of buildings or outside the building above or below the ground surface. Tanks constructed beneath the building must have either a solid cover or have slotted covers to conform to the planned animal management practices. They should be well ventilated and located where prevailing winds will minimize odor problems to neighbors and owners. Tanks or other waste storage facilities should be located a minimum of 1,000 feet from homes of persons other than the owner. Holding tanks outside of buildings and located below the ground must be completely enclosed and have tight-fitting covers on all openings. All uncontaminated water must be diverted from the tank. On dairy farms, provisions must be made to add the waste from the milking facilities unless these waters are adequately disposed of by another system.

When designing the storage structure, methods of filling and emptying the waste storage facility should be considered. The size, shape, and location of the openings in covered holding tanks should accommodate the characteristics of scrapers, conveyors, tractors, or other equipment used to place or push waste into the tank, as well as equipment for agitating and emptying. In addition, the openings must have protective bars or rails to prevent humans, animals, and equipment from falling into the facility.

The stored waste must be removed from the tank periodically to maintain storage availability. The waste must be applied on a suitable disposal area in a manner that is compatible with the land use and at a rate that will not produce runoff for the conditions existing at the time of application. Disposal near residences should be avoided due to severe odors that may be associated with the spreading of manure slurry.

3. *Land Application of Waste*

Generally, land which is subject to flooding, adjacent to water bodies, or steeply sloping should be avoided when land applying waste. For areas which flood more than once every 10 years, waste incorporation into the soil is recommended. If the area is frozen or snow-covered, waste should not be spread. Additionally, during the peak flooding periods of April, May, and June, injection or immediate incorporation into the soil is recommended.

Waste disposal should not occur, unless adequate erosion controls exist and waste is injected or incorporated into the soil, on land areas within 200 feet of and drainage into any of the following:

- ! A stream;
- ! A surface intake for a tile line or other buried conduit;
- ! A sinkhole;
- ! A shoreline of a lake or pond; and
- ! A well with an open surface inlet.

Producer Note: Recommendations for land application of waste are covered by NRCS technical guidance materials. These recommendations should be followed in order to preserve the producer's potential defenses in nuisance actions or to aide the producer when defending against alleged permit violations. While these recommendations do not have the force of law that agency regulations have, compliance with them will generally aide the producer.

D. Noxious Weeds

Restricted noxious weed seed⁵⁴ are those weed seeds that are very objectionable in fields, lawns, and gardens but can be controlled by good cultural practices. Prohibited noxious weed seeds are defined as those weeds that are prohibited from being present in agricultural, vegetable, flower, tree, or shrub seed. They are the seed of weeds that are highly destructive and difficult to control by good cultural practices and the use of herbicides. The Georgia Department of Agriculture (GDA) has the authority to promulgate and enforce rules and regulations necessary to control noxious weeds. Those rules and regulations include maintaining a noxious weed list and determining the maximum number of weed seeds per pound allowed for each type of restricted noxious weed.

⁵⁴ GA. CODE ANN. § 2-11-21 *et seq.* (1992).

All agricultural seed must have a label which contains information such as the percentage by weight of all weed seeds and the name and rate of occurrence per pound of restricted noxious weed seed present. It is unlawful in Georgia for any person to sell, offer for sale, expose for sale, or transport for sale any agricultural, vegetable, flower, tree, or shrub seed that contain more than the prescribed amount of noxious weed seeds.

E. Dead Animal Disposal

Under the Georgia Dead Animal Disposal Act⁵⁵ no person may dispose of dead animals except by acid fermentation, burning, burial, or rendering at a registered facility. Disposal of animal carcasses by any of the approved methods must be completed within 12 hours after the death or discovery of the carcass. Carcasses which are burned must be attended until the process is completed. Carcasses which are buried must be buried at least three feet below ground level with at least three feet of earth over the carcass.

Dead animals must be transported in leak-proof trucks by persons licensed to traffic in dead livestock. The GDA or an authorized representative may require that dead animals be delivered to a rendering works with no diversions to prevent a rendering truck from going to other farms with animals that have died from infectious, contagious, or communicable diseases. If the GDA prohibits the hauling or transportation of the body, effluent, or parts of any dead animal, disposal by burial at the premises where found is mandatory.

Dead animals are defined as:

- ! Carcasses or parts of carcasses of those animals which are considered livestock, including poultry and equine; and
- ! Any blood, effluent, intestinal, or stomach contents and all necessary waste material involved in handling carcasses.

⁵⁵ GA. CODE ANN. § 4-5-1 *et seq.* (1993).

Appendix A - Agencies

Producer Note: State and federal agencies are available to answer questions regarding environmental matters and a producer's compliance with environmental laws and regulations. The following is a list of organizations which should be able to answer questions or provide materials for a producer.

Georgia Department of Agriculture

Capitol Square
204 Agriculture Building
Atlanta, GA 30334
(404) 656-3600

U.S. Department of Agriculture

Natural Resource Conservation Service

State Office, Fed. Bldg. Box 13
355 E. Hancock Avenue
Athens, GA 30601
(706) 546-2272

Georgia Department of Natural Resources

205 Butler Street, S.E.
Suite 1252
Atlanta, GA 30334
(404) 656-3500

Georgia Environmental Protection Division

205 Butler Street, S.E.
Floyd Towers East
Atlanta, GA 30334
(404) 656-4713

Environmental Protection Agency

U.S. EPA - Region 4

345 Courtland Street, N.E.
Atlanta, GA 30365
(404) 347-4727

United States Department of Agriculture

14th Street and Independence Avenue, S.W.
Washington, D.C. 20250
(202) 720-2791
<http://www.usda.gov/>

Environmental Protection Agency

401 M Street, S.W.
Washington, D.C. 20460
(202) 260-2080
<http://www.epa.gov/>

Natural Resource Conservation Service

United States Department of Agriculture
14th Street and Independence Avenue, S.W.
Washington, D.C. 20250
(202) 720-4525
<http://www.ncg.nrcs.usda.gov/>

Headquarters United States Army Corps of Engineers

Casimir Pulaski Building
20 Massachusetts Avenue, N.W.
Washington, D.C. 20314-1000
(202) 761-0660

National Association of State Departments of Agriculture

1156 15th Street, N.W.
Suite 1020
Washington, D.C. 20005
(202) 296-9680
<http://www.nasda-hq.org/>

U.S. Fish and Wildlife Service

Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-4717
<http://www.fcs.gov>

Appendix B - Glossary

Producer Note: The following definitions are included to further define information discussed in this document. The glossary includes only terms which were not previously defined in the text.

10-year, 24-hour storm: A rainfall event of 24-hour duration and 10 year frequency that is used to calculate the runoff volume and peak discharge rate to a BMP.

25 year, 24-hour storm: A rainfall event of 24-hour duration and 25-year frequency that is used to calculate the runoff volume and peak discharge rate to a BMP.

Animal unit: A standard measure based on feed requirements, used to combine various classes of livestock according to size, weight, age, and use.

Aquaculture: The production of aquatic plants or animals in a controlled environment, such as ponds, raceways, tanks, or cages, for all or part of their life cycle. In the United States, baitfish, catfish, clams, crawfish, freshwater prawns, mussels, oysters, salmon, shrimp, tropical (or ornamental) fish, and trout account for most of the aquacultural production. Less widely established but growing species include alligator, hybrid striped bass, carp, eel, red fish, northern pike, sturgeon, and tilapia.

Aquifer: A geologic formation or structure that transmits water in sufficient quantity to supply the needs for a water development; usually saturated sands, gravel, fractures, and cavernous and vesicular rock.

Best management practice (BMP): A practice or combination of practices that are determined to be the most effective and practicable (including technological, economic, and institutional considerations) means of controlling point and nonpoint pollutants at levels compatible with environmental quality goals.

Chemigation: The addition of one or more chemicals to the irrigation water.

Composting: A controlled process of degrading organic matter by microorganisms.

Conservation: The continuing protection and management of natural renewable resources, like soil, water, wildlife, and forests, in accordance with principles that assure their optimum economic and social enjoyment.

Conservation compliance: A provision authorized by the Food Security Act of 1985 that required farmers with highly erodible cropland to implement an approved conservation plan by 1990. Implementation of the plan was tied to eligibility for federal USDA program benefits.

Conservation easement: A legal interest granted for the purpose of restricting how property is used in order to protect various environmental or natural resource values.

Conservation practices: Methods which protect or improve the soil, water, or related natural resources. Major conservation practices include conservation tillage, crop rotation, contour farming, stripcropping, terraces, diversions, and grassed waterways.

Constructed wetland: Engineered systems designed to simulate natural wetlands to exploit the water purification value for human use and benefits. Constructed wetlands consist of former upland environments that have been modified to create poorly drained soils and wetlands flora and fauna for the primary purpose of contaminant or pollutant removal from wastewaters or runoff.

Cooperative Extension Service: In general terms, a system of state, local, and federal organizations working together to provide a practical educational network linking research, science, and technology to the needs of people where they live and work. The Cooperative Extension Service provides educational services outside the classroom on agriculture, household management, nutrition, and other topics. States participate mostly through their land grant universities, while the federal partner is the USDA's Cooperative State Research, Education, and Extensions Service. Other partners are the Extension professionals in nearly all of the nation's 3,150 counties and thousands of paraprofessionals and nearly 3 million volunteers.

Diversion: A channel, embankment, or other man-made structure constructed to divert water from one area to another.

Ecosystem: The complex of a community and its environment functioning as an ecological unit in nature; a basic functional unit of nature comprising both organisms and their nonliving environment, intimately linked by a variety of biological, chemical, and physical processes.

Effluent: Solid, liquid, or gaseous wastes that enter the environment as a by-product of man-oriented processes.

Environmental audit: The process of investigating the environmental status and history of a property to determine if it complies with applicable environmental laws and whether it contains any sources of potential environmental liability.

Erosion: Wearing away of the land surface by running water, glaciers, winds, and waves. The term erosion is usually preceded by a definitive term denoting the type of erosion such as gully erosion, sheet erosion, wind erosion, or bank erosion.

Farm Bill: Major omnibus agricultural legislation, usually enacted every four or five years. The bill usually includes provisions on commodity programs, trade, conservation, credit, agricultural research, food stamps, and marketing.

Fertilizer: Any organic or inorganic material of natural or synthetic origin that is added to a soil to supply elements essential to plant growth.

Generally Accepted Agricultural Management Practices (GAAMPs): A form of right-to-farm law which gives nuisance protection to farms using GAAMPs as established by the state or common agricultural practices in the area.

Groundwater: Water beneath the earth's surface between saturated soil and rock that supplies wells and springs.

Habitat: The place where an organism naturally lives or grows.

Hazardous waste: Any waste or combination of wastes which pose a substantial present and potential hazard to human health or living organisms.

Herbicide: A chemical substance designed to kill or inhibit the growth of plants, especially weeds.

Highly erodible land: Land that has an erodibility index of greater than eight. This index is based on a soil's inherent tendency to erode from rain or wind in the absence of cover crop or other conservation practices. The erodibility index is based on factors from the Universal Soil Loss Equation (USLE) and the Wind Erosion Equation (WEE), along with a soil's T-value, which is a measure of the amount of erosion in tons per year that a soil can tolerate without losing productivity. For most cropland soils, T values fall in the range of three to five tons per acre.

Holding pond: A reservoir, pit, or pond, usually made of earth, used to retain polluted runoff water for disposal on land.

Insecticide: A pesticide compound specifically used to kill or control the growth of insects.

Irrigation: Application of water to lands for agricultural purposes.

Lagoon: A reservoir or pond built to contain water and animal wastes until they can be decomposed either by aerobic or anaerobic action.

Leachate: Liquids that have percolated through a soil and that contain substances in solution or suspension.

Manure: The fecal and urinary defecations of livestock and poultry; may include spilled feed, bedding, or soil.

Nonpoint source pollution: Pollution that enters the environment from nonspecific areas via water runoff from a field or feedlot, such as areas in which fertilizers or other chemicals have been applied or animal manure is deposited, rather than from concentrated discharge points.

Noxious weeds: Undesirable plant species, excepting those protected by the Endangered Species Act of 1973, that are considered harmful, exotic, injurious, or poisonous and are targeted for control management under state and federal law. The Secretary of Agriculture may provide cost-sharing assistance to state and local agencies to manage noxious weeds in an area if a majority of the landowners in that area agree to participate in a noxious weed management program.

Nuisance: An offensive, annoying, unpleasant, or obnoxious thing or practice; a cause or source of annoyance, especially a continuing or repeated invasion or disturbance of another's right, or anything that works a hurt, inconvenience, or damage. Nuisances are commonly classified as public, private, or mixed.

Nutrients: Elements or compounds essential as raw materials for organism growth and development, such as carbon, nitrogen, and phosphorus.

Pesticides: Chemicals used by farmers to control plant and animal pests, including herbicides, insecticides, fungicides, nematicides, and rodenticides; to regulate plant growth; or to simplify harvest.

Point source pollution: From the Clean Water Act, meaning a source of pollution from "any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged."

Pollutant: Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

Prescribed burning: Controlled application of fire to wild-land fuels in either their natural or modified state, under such conditions of weather, fuel moisture, and soil moisture as allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to further planned objectives of silviculture, wildlife management, grazing, and fire-hazard reduction.

Return flow: That portion of the water diverted from a stream that finds its way back to the stream channel either as surface or underground flow.

Right-to-Farm: Protection from nuisance suits for existing agricultural operations, so long as the agricultural operations meet specific requirements. Generally, an operation is required to have been in existence before the change in the area which resulted in the nuisance suit (the farmer/rancher was there first), and the nuisance must not have been created by the farmer's actions.

Rill erosion: Erosion which leads to the land becoming scoured and soil removed so that small channels, or rills, remain.

Riparian rights: Legal water rights of a person owning land containing or bordering on a water course or other body of water in or to its banks, bed, or waters.

Runoff: That part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into the receiving waters.

Sediment: The product of erosion processes; the solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice.

Seepage: Water escaping through or emerging from the ground along an extensive line or surface as contrasted with a spring, where the water emerges from a localized spot.

Sheet erosion: Erosion which leads to a generally uniform removal of topsoil over all of a field as a result of strong rains.

Soil: A dynamic natural body composed of mineral and organic materials and living forms in which plants grow on the surface of the earth. In the U.S. there are about 70,000 kinds of soil recognized in a nationwide system of soil classification.

Soil Conservation District: A legal subdivision of state government, with a locally-elected governing body, responsible for developing and carrying out a program of soil and water conservation within a geographic boundary usually coinciding with county lines. The nearly 3,000 districts (also called soil and water conservation districts, natural resources districts, resource conservation districts, resources districts, and conservation districts) provide assistance to producers and landowners.

Solid waste: Generally, any garbage, refuse, sludge from a waste supply treatment plant or air pollution control facility, and other discarded material.

Surface water: All water whose surface is exposed to the atmosphere.

Underground storage tank: Any one of a combination of tanks, including connected underground pipes, which is used to contain an accumulation of regulated substances, and the underground volume is 10 percent or more.

Vegetated buffer: Strips of vegetation separating a waterbody from a land use that could act as a nonpoint pollution source. Vegetated buffers are variable in width and can range in function from vegetated filter strip to wetlands or riparian areas.

Vegetated filter strip: Created areas of vegetation designed to remove sediment and other pollutants from surface water runoff by filtration, deposition, infiltration, adsorption, decomposition, and volatilization. A vegetated filter strip is an area that maintains soil aeration as opposed to a wetland, which at times exhibits anaerobic soil conditions.

Vegetative cover: Trees or perennial grasses, legumes, or shrubs with an expected lifespan of five years or more.

Waste: Material that has no original value or no value for the ordinary or main purpose of manufacture or use; damaged or defective articles of manufacture; a superfluous or rejected matter or refuse.

Watershed: A drainage area or basin in which all land and water areas drain or flow toward a central collector such as a stream, river, or lake at a lower elevation. The United States is generally divided into 18 major drainage areas and 160 principal river drainage basins containing some 12,700 smaller watersheds.

Waterway: A natural or artificially constructed course for the concentrated flow of water.

Wetlands: Land that is characterized by an abundance of moisture and that is inundated by surface or groundwater often enough to support a prevalence of vegetation typically adapted for life in saturated soil conditions.

Zoning: The division of an area by legislative regulation into districts and the prescription and application in each district of regulations having to do with structural and architectural designs of buildings and of regulations prescribing uses to which buildings within designated districts may be put.

Appendix C - Authors

John D. Copeland was the Director of the National Center for Agricultural Law Research and Information and Research Professor at the University of Arkansas School of Law, Fayetteville. His teaching duties concentrated on insurance law, workers' compensation, agricultural law, and the regulation of agricultural lands. He received his Juris Doctor degree (J.D.) from Southern Methodist University and his Master of Laws degree (LL.M.) in Agricultural Law from the University of Arkansas, Fayetteville. He also has a Doctorate in the Administration of Higher Education (Ed. D.) from the University of Arkansas. Professor Copeland has extensive agricultural law and insurance defense litigation experience. He has authored numerous books and law review and journal articles on such topics as agricultural cooperatives, bankruptcy, employer-employee relations, environmental law, liability insurance coverage, products liability, sex discrimination, workers' compensation, and zoning. A frequent seminar speaker, Dr. Copeland is currently Director of Corporate Ethics and Compliance for Tyson Foods, Inc.

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