

FEDERAL ENVIRONMENTAL LAWS AFFECTING AGRICULTURE

*(See NASDA's website for
State Environmental Laws Affecting U.S. Agriculture)*

A Project of the

**National Association of State Departments
of Agriculture Research Foundation**

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, nonpartisan association of public officials comprised of the Commissioners, Secretaries, and Directors of the fifty State Departments of Agriculture in the fifty states and the territories of Puerto Rico, Guam, American Samoa, and the Virgin Islands. NASDA's mission is to represent the State Departments of Agriculture in the development, implementation, and communication of sound public policy and programs which support and promote the American agricultural industry while protecting consumers and the environment. 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 (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, development of 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 U.S. 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, consultants, or advisors 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 USDA's NRCS or EPA.

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 make it impossible for a single publication 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, contributors, reviewers, the National Center for Agricultural Law Research and Information, the University of Arkansas, the United States Department of Agriculture, the Natural Resources Conservation Service, the National Association of State Departments of Agriculture Research Foundation, 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 December 2000. Updates of the information contained in the guide will occur on an as needed basis and will be 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, or phone (202) 296-9680.

Quick Reference Guide

Producer Note: The following chart is intended as a quick reference guide to permits that may be necessary for a particular operation. If a permit is necessary, refer to the listed page numbers that reference that section for further information. Contact the agencies listed in the final column for information on applications and the 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. 1-12</i>	Livestock and aquaculture operations, depending on size, and all animal waste management systems	NPDES permits, state general permit, land disposal permit, and animal waste management system permit (operators must be certified)	EPA Regional Office and various state agencies
	Wetlands dredge and fill activity or dam, dike, or bridge building activities	Section 404 permit	U.S. Army Corps of Engineers with EPA and various state agency approval
	Water usage	Registration may be required, permit may be required in capacity use areas, depending on circumstances	Various state agencies
	Water well construction and use	Permit required in some circumstances, especially in capacity use areas, and construction standards must be followed	Various state agencies
Groundwater <i>pp. 12-15</i>	Groundwater protection	Permit required for point source discharges; BMPs must be followed	Various state agencies

Regulatory Area	Type of Activity	Permit Required	Agency
Air Quality <i>pp. 15-16</i>	Grain terminals and grain elevators	Permit required	EPA Regional Office and various state agencies
	General agricultural operations including odor, dust, or flies	No permit, but animal operations are required to comply with best management plans for the control of odors. In some cases these BMP plans must be submitted to various state agencies	EPA Regional Office and various state agencies
	Burning	Depends on the circumstances, but a permit is usually required	Various state agencies plus local governments may also require a permit
Solid Waste and Hazardous Waste <i>pp. 16-21</i>	Storage, treatment, or disposal of hazardous or solid waste	Permit required for disposal, treatment, or storage activities	EPA Regional Office and various state agencies
	Public notice of hazardous waste	No permit	Various state agencies and perhaps local emergency planning
Pesticides and Chemigation <i>pp. 21-25</i>	Application and use of pesticides	License required for commercial applicators. Certification usually required for all applicators. Permit may be required in some cases, including emergency application of restricted use pesticide	EPA and various state agencies and perhaps state pesticide board
	Use of pesticides around farmworkers	No permit, but training and notification is required	Various state agencies and perhaps local pesticide board
	Record keeping	No permit, but all requirements must be met	Various state agencies and perhaps local pesticide board
Wildlife Protection <i>pp. 25-26</i>	Taking of wildlife	Permit required if endangered or threatened species may be affected	U.S. Fish and Wildlife Service

FEDERAL ENVIRONMENTAL LAWS AFFECTING 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 United States Environmental Protection Agency (EPA) is charged with enforcing the CWA.

The EPA, the United States Department of Agriculture (USDA), and several other federal agencies, marked the 25th anniversary of the CWA by drafting and releasing the *Clean Water Action Plan: Restoring and Protecting America's Waters* (Action Plan). The Action Plan builds upon the successes of 25 years of progress and provides more than 100 recommendations for continued improvement by using the following four tools:

- ! A Watershed Approach - A new, collaborative effort by federal, state, tribal, and local governments by the public and by 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.

¹ 33 U.S.C. § 1251 *et seq.* (1994).

- ! Strong Federal and State Standards - This calls for federal, state, and tribal agencies to revise standards when needed and to make existing programs more effective. Effective standards are key to protecting public health, preventing polluted runoff, and ensuring accountability.
- ! 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 the nation's rivers, lakes, and coastal waters falls upon these lands first. Clean water depends on the conservation and stewardship of these natural resources. The Action Plan calls upon federal natural resource and conservation agencies to apply their collective resources and technical expertise to protect and restore state and local watersheds.
- ! Informed Citizens and Officials - Clear, accurate, 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 upon agriculture and, in particular, upon agricultural nonpoint sources of pollution. It is important that farmers participate in watershed-level stakeholder meetings and take the opportunity to present their views. Farmers should keep informed about the Clean Water Action Plan recommendations and about the impacts that may result from adopting these recommendations by contacting the local USDA's Natural Resources Conservation Service (NRCS), their State's Department of Agriculture, or the local Cooperative Extension Service. Also, it is important to note that in some states, state standards and permit requirements differ from the federal standards; these standards and their differences are summarized in the corresponding state books which deal specifically with each state's water quality standards.

2. *Water Quality Standards*

The CWA requires each state in the nation to adopt water quality standards for most water bodies located within that 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 to be protected for each segment of water. Appropriate uses include use as public water supplies, protection and propagation of fish, shellfish, and wildlife, recreational uses, navigation, and agricultural uses such as irrigation or livestock watering. 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 they may include specific requirements as written conditions on permits that are issued for point sources of

pollution. However, there are no federal laws or regulations that require the control of nonpoint sources of pollution to achieve water quality standards. Control of nonpoint sources of pollution falls under state authority and control. In addition, as part of an anti-degradation policy, water quality standards may also prohibit any 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 the EPA or by the state under a program approved by the 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, however, does not include agricultural stormwater discharges and return flows from irrigation.

The term "navigable waters" is defined by the CWA as "waters of the United States." However, 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 interpreted definition.

NPDES permits contain written effluent limitations and specify the amounts of pollutants that 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 the EPA is issuing the permit, then the applicant must obtain certification from the state in order to verify that the applicant is in compliance with the CWA and with all applicable state laws. In some cases, a permit may prohibit all discharges into water.

The permit issuance process normally involves:

- ! Submission of an application;
- ! Agency review of the application for completeness;
- ! Tentative permit decision by the agency;
- ! Time for public comment or a hearing; and

! Final permit decision.

Producer Note: Many animal feeding operations and aquatic feeding operations are considered point sources and, therefore, require permits. If an individual or an enterprise discharges a pollutant into waters of the United States without a permit, then the individual or the owners and operators of the enterprise may be subjected to serious penalties. Producers should contact state and federal authorities to determine if a permit is required for a particular operation. Generally, an NPDES permit application must include the name, address, telephone number, and ownership status of the operation along with information concerning activities occurring at the facility including a description of the nature of the business, a topographical map, and a statement as to whether or not the facility is located on tribal land. In addition, the applicant must provide a list of all other environmental permits or construction approvals that have been received or for which application has been made.

a. Concentrated Animal Feeding Operations

Concentrated animal feeding operations (CAFOs) are required to obtain an NPDES permit. A facility is a CAFO if it is an animal feeding operation (AFO) that 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 would only discharge 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, the 300 animal unit 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. In addition, the 1,000 animal unit is the equivalent of 1,000 slaughter and feeder cattle, 700 mature dairy cattle, 2,500 swine that 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.

Concentrated aquatic feeding operations require an NPDES permit if they produce more than 9,090 harvest weight kilograms (20,000 pounds) per year of cold water fish (e.g., trout, salmon) or 45,454 harvest weight kilograms (100,000 pounds) per year of warm water fish (e.g., catfish, sunfish, minnows). 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."

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

b. Unified National Strategy for Animal Feeding Operations

To help implement the Clean Water Action Plan, on March 9, 1999, the EPA and the USDA jointly issued the final “Unified National Strategy for Animal Feeding Operations.” The strategy for AFOs 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 CAFOs that require NPDES permits under the CWA 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 that will require permits will be larger facilities with significant manure production, facilities with unacceptable conditions, and facilities that are significant contributors to water quality impairment;
- ! CNMPs will be required to address feed management, manure handling, manure storage, on-farm and off-site land application of manure, land management, record keeping, and alternative uses of manure;
- ! The EPA may amend its regulations so that the definition of a CAFO will include poultry operations that use dry waste systems thus requiring such operations to obtain NPDES permits; and
- ! The EPA may also require corporate integrators in the poultry and hog industries to be co-permittees with their contract producers.

4. Wetlands

Producer Note: When agricultural operators conduct dredging and filling activities that affect water sources, those 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 of the United States. These permits

³ 33 U.S.C. § 1344 (1994).

are issued by the U.S. Army Corps of Engineers (Corps) and are subject to review and approval by the EPA and the state. The dredging or 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 dredging or 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 practical alternatives are available.

There are now more than forty Section 404 general or nationwide permits. The following agricultural activities are allowed under the permits:

- ! Fish and wildlife harvesting, enhancement, and attraction devices and activities (Permit #4);
- ! Wetland and riparian restoration and creation activities (Permit #27);
- ! Cranberry production activities (Permit #34);
- ! 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, headwater and isolated water discharges, temporary construction and access, and the cleanup of hazardous and toxic wastes. On December 13, 1996, the Army Corps of Engineers reissued the then existing nationwide permits with some modifications and issued two new nationwide permits.⁴ The two new permits allowed moist soil management for wildlife (Permit #30) and maintenance of existing flood control facilities (Permit #31). The Corps also proposed to allow the former Permit #26 to expire, to issue six new nationwide permits, and to modify six of the existing nationwide permits.

On March 9, 2000, the Corps published the final new and modified nationwide permits in the Federal Register. Thereafter, the former Permit #26 expired in June 2000, the six permits were modified, and five new nationwide permits came into effect.

⁴ 61 Fed. Reg. 65874 (1996).

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 requires an individual permit. If the activity is covered by a general or nationwide permit, a producer should obtain a copy of the permit for reference and guidance. Copies can be requested from the U.S. Army Corps of Engineers.

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 practices 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. *Nonpoint Source Pollution*

Producer Note: Section 319 of the CWA was enacted in 1987 and guides the states in conducting nonpoint source pollution assessments and developing nonpoint source management programs. Because Section 319 authorizes the states to act, 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 pollution as well as point source pollution and that regulation of nonpoint source pollution involves cooperative programs with the states.

Under Section 319 of the CWA, the state must assess the impact of nonpoint source pollution on its streams and lakes. The state must also develop a comprehensive management plan to control nonpoint source pollution and submit the plan to the EPA for federal approval. Control efforts are centered on the voluntary adoption and implementation of Best Management Practices (BMPs) by farmers and ranchers. When a state's Section 319 nonpoint source plan is approved, the state becomes eligible for federal grants that may be used to share the implementation costs of BMPs between the state and the farmer or rancher. These funds are also used for demonstration projects, technical assistance, education, and training.

⁵ 33 C.F.R. § 323.4 (1996).

6. *Oil Spill Liability*

The CWA imposes strict liability on the operators of facilities that spill oil or other hazardous wastes into navigable waters including spills from petroleum storage tanks located on farms. The CWA requires the operator to promptly notify the EPA of any spill (see Appendix A for hotline phone numbers). A failure to give EPA notice of the spill is a violation of the statute.

7. *Special Programs*

The CWA establishes special pollution control programs for certain waters including the Chesapeake Bay, the Great Lakes, and the Gulf of Mexico. Producers in Alabama, Florida, Illinois, Indiana, Louisiana, Maryland, Michigan, Minnesota, Mississippi, New York, Ohio, Pennsylvania, Texas, Virginia, Washington, D.C., and Wisconsin may be affected by these programs. In addition, the National Estuary Program protects estuaries of national significance such as the Puget Sound area in Washington, Buzzards Bay in Massachusetts, and Albemarle-Pamlico Sound in North Carolina.

Producer Note: There are currently 28 estuaries in the National Estuary Program. These are located in Alabama, California, Connecticut, Delaware, Florida, Louisiana, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Texas, Washington, and Puerto Rico. Additional areas may be named in the future. Producers should regularly check information sources such as the EPA or the local NRCS for affected waters in their areas.

8. *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. The EPA or the state may enjoin or stop producers' activities in order to force compliance with the statute. The CWA also 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 are available for both administrative and judicial review of EPA and state decisions.

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 any waters in their area that require special protection. The states take active roles in ensuring that producers comply with these requirements.

B. Federal Coastal Zone Management Act and Coastal Zone Act Reauthorization Amendments of 1990

Producer Note: Coastal zone management (CZM) programs only apply in those states with coastal areas. There are 35 states or territories in which the Coastal Zone Management Act (CZMA) has some application. At this time, 33 states have federally approved CZM programs. The CZMA is important because it is the first law to require states to implement programs designed to address nonpoint source pollution. Some state programs are more restrictive than the federal requirements.

Historically, the nation's water pollution control programs emphasized managing point source pollution. As those program efforts progressed, nonpoint source pollution became a more significant proportion of total water quality problems. The Coastal Zone Management Act of 1972 (CZMA) authorizes each state with coastal zone areas to adopt a state Coastal Zone Management (CZM) program to control nonpoint source pollution for coastal areas. CZMA created federal incentives for coastal states to plan and manage their coastal resources including the protection of the natural, commercial, recreational, ecological, industrial, and aesthetic resources. The intent was to encourage and assist coastal states to exercise their responsibilities in coastal zone management, to implement effective land and water resource uses, and to attain and maintain applicable water quality standards under Section 303 of the Clean Water Act (CWA). Coastal areas include the Great Lakes area. The term "coastal areas" means the coastal waters and adjacent areas of islands, salt marshes, wetlands, transitional and intertidal areas, beaches, and any inland areas that could affect coastal zone water quality. Federal grants and technical assistance are provided for coastal states to develop and implement their state CZM programs with public and private participation. CZM programs must include:

- ! Identification of coastal zone boundaries;
- ! Permissible land and water uses;
- ! Prioritization of land uses that degrade coastal waters;
- ! Identification of critical coastal areas;
- ! Planning mechanisms for energy, shoreline erosion, and beach protection;
- ! Identification of the state's authority for control over coastal areas and the plan of control; and
- ! Identification of the management structure which will implement the program.

CZMA has been reauthorized by Congress several times and amended to reflect changing views.⁶ Accordingly, the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) updates and expands the coastal portion of state nonpoint source management programs under Section 319 of the CWA. CZARA recognized that nonpoint source pollution was a key factor in the continuing degradation of many coastal waters, and a new program was established under Section 6217 to address this problem. Congress recognized the clear link between coastal water quality and land use activities along the shorelines and that coastal zone management should be given a larger role in improving the coastal zone water quality. The intent of Section 6217 was to strengthen links between state coastal zone management and water quality control programs.

Unlike CZMA programs which are voluntary, Section 6217 under CZARA is mandatory. Under Section 6217, those states with a federally approved state CZM program⁷ are required to develop a state Coastal Nonpoint Pollution Control (CNPC) program to restore and protect coastal waters. The state CNPC program must include specific management measures to address the control of nonpoint pollution, establish enforceable policies, and contain mechanisms to ensure implementation of management measures of the program.

The National Oceanic Atmospheric Administration (NOAA) in the Department of Commerce administers the programs authorized by CZARA, however, EPA and NOAA share responsibility for the CZARA program framework.⁸ This coordination between the agencies brings together land use management expertise and water quality expertise. CZARA requires EPA to develop specific management measures⁹ to address and reduce nonpoint pollution. CZARA then charges the states with implementing these management measures. EPA's guidance manual¹⁰ sets forth management measures identified for each of the five leading sources of

⁶ Congress reauthorized CZMA in 1996 with no changes as CZARA. Administrative changes, however, were made in 1998 to provide flexibility for the states in targeting nonpoint pollution sources and allowing them to exclude sources which are not significant contributors to pollution.

⁷ State CNPC programs must be approved by both NOAA and EPA and implemented through 1) changes to the state's nonpoint source program approved by EPA under Section 319 of the CWA and 2) changes to the state CZM program approved by NOAA under Section 306 of CZMA. States that fail to submit an approvable CNPC program face statutory reductions in federal funds awarded under both Section 306 of CZMA and Section 319 of CWA. States should coordinate their coastal nonpoint pollution program with their statewide nonpoint pollution program in order to focus technical and financial assistance in priority watersheds.

⁸ EPA and NOAA have proposed an administrative change that would require the states to submit 5-year implementation plans for controlling nonpoint source pollution for coastal areas (including mechanisms for tracking and monitoring) within an overall 15-year program strategy. This replaces the current 30-month approval phase and the 3-year implementation phase. The goal is to ensure improvement of all coastal zone water quality within 15 years.

⁹ Section 6217(g) of CZARA.

¹⁰ The EPA guidance manual sets forth 56 management measures for the five leading sources of nonpoint pollution that states must implement on all applicable land uses within the coastal boundary.

nonpoint pollution which includes agriculture run off.¹¹ EPA’s management measures must be “economically achievable and reflect the best available practices, technologies, processes, siting standards, operating methods, and other alternatives for controlling nonpoint source pollution.” The management measures addressing agriculture runoff are listed under the subcategories of:

- ! Erosion and sediment control;
- ! Confined animal facility (large units);
- ! Confined animal facility (small units);
- ! Nutrient management;
- ! Pesticide management;
- ! Grazing management; and
- ! Irrigation water management.

States with CZM programs may require farmers and ranchers to adopt and implement management measures or use BMPs or other technologies to reduce or eliminate nonpoint pollution of coastal waters in order for the individual state CNPC program to be in compliance with CZMA and receive federal funds.¹² The states are not necessarily required, however, to require farmers to adopt or implement any particular one or more of the management measures.

If after adopting and implementing the specified management measures, the measures fail to produce the necessary water quality improvements, the state must implement additional management measures to address the remaining water quality problems.

¹¹ The five leading sources are identified as: agriculture runoff, urban runoff, silvicultural (forestry) runoff, marinas and recreational boating, and hydromodification (stream channelization, channel modification, dams, streambank erosion, and shoreline erosion).

¹² EPA’s manual discussion of management measures is informative and may be beneficial to farmers who are striving to adopt or implement mandatory management measures. A few examples of the kinds of management practices that are discussed are as follows: conservation tillage, contour strip cropping, sediment retention ponds, water and sediment control basins, grassed waterways, delayed seed bed preparation, filter strips, crop residue use, and a number of other practices.

Producer Note: The EPA has issued a guidance manual¹³ for the control of nonpoint pollution in coastal waters. The manual, which applies generally to all coastal states, identifies agriculture as one of the five chief sources of coastal area nonpoint pollution. The EPA manual reports that nutrients, sediment, animal wastes, salts, and pesticides are the pollutants that cause agricultural nonpoint pollution. The manual further reports that the sources of these agricultural pollutants are cropland erosion, concentrated animal feeding operations, the application of nutrients to farmland, the application of pesticides to farmland, poor grazing management, and the irrigation of cropland. To control agricultural nonpoint pollution, the manual presents specific management measures and management practices for each reported source of agricultural pollution. The individual states' coastal nonpoint pollution control programs must require farmers to implement management measures in order to be in compliance with the CZMA and receive federal funds. The states are not necessarily required, however, to mandate that farmers implement any particular one or more of the manual's proposed management practices. The manual's discussion of the proposed management practices, however, is informative and may be of some benefit to farmers who are striving to implement mandatory management measures. A few examples of the kinds of management practices that are discussed include: conservation tillage, contour strip cropping, sediment retention ponds, water and sediment control basins, grassed waterways, delayed seed bed preparation, filter strips, crop residue use, and a number of other practices.

II. GROUNDWATER

A. Federal Groundwater Laws and Regulations

1. *Safe Drinking Water Act*

The Safe Drinking Water Act¹⁴ (SDWA) is the principal federal statute addressing groundwater quality. Under the act, the EPA establishes tolerance levels for a host of pollutants potentially present in public drinking water. Thus, the direct regulatory impact of the SDWA is on providers of public drinking water rather than farmers and ranchers.

The SDWA does, however, have indirect effects on farmers and ranchers, 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 agricultural chemicals, it is likely that public concerns about pesticides and herbicides will be heightened.

¹³ OFFICE OF WATER, U.S. ENVTL. PROTECTION AGENCY, GUIDANCE SPECIFYING MANAGEMENT MEASURES FOR SOURCES OF NONPOINT POLLUTION IN COASTAL WATERS (1993).

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

a. Source Water Quality Partnership Petition Program

The SDWA authorizes federal assistance for local programs that identify, assess, and address 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 these programs especially where local concerns about public water contaminants are heightened by the release of information about contamination.

A 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. One of these sources, established by the SDWA, is the Drinking Water State Revolving Fund. 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

The injection of fluids into the earth by means of injection wells is practiced by many industries. These industries include petroleum, chemical, food manufacture, products manufacture, geothermal energy development, retail businesses, and agriculture. Public concern for groundwater quality protection has lead to numerous state and federal programs. One such program is the Underground Injection Control (UIC) program established under the Safe Drinking Water Act of 1974 (SDWA).

Underground injection means the subsurface emplacement of fluids by well injection. Injection wells have been identified as wells which may pose a significant risk to underground sources of drinking water (USDW) and include agriculture drainage wells and wells commonly located at automobile service stations, print shops, dry cleaners, shopping centers, equipment manufacturers, and other commercial and industrial establishments.¹⁵

¹⁵ EPA classifies underground injection wells based upon the type and source of the injected fluid and the location of the fluid relative to the lowermost USDW. EPA sets forth five classes of injection wells: Class I wells contain fluids which include industrial, municipal, or hazardous wastes located beneath the geological stratum containing any USDW within 1/4 mile of the well; Class II wells contain fluids which are non-hazardous fluids produced in connection with oil and gas production; Class III wells contain fluids which are used in the solution mining of minerals; Class IV wells contain fluids which are hazardous or radioactive wastes in or above the geological strata that contains a drinking water source within 1/4 mile of the well; Class V wells contain fluids other than those identified Classes I-IV including air conditioning return flow wells, cooling water return flow wells, drainage wells (including agricultural and stormwater drainage wells), aquifer recharge wells, and sand backfill wells.

Agriculture drainage well fluids may include field drainage from precipitation and floodwaters, irrigation return flow, drainage from animal yards and feedlots, or dairy runoff. Potential contaminants include suspended solids, pesticides, nutrients (nitrogen and phosphorous compounds), salts, organics, metals, and microbes including pathogens. Contamination from injection wells may adversely affect public health or otherwise result in noncompliance with drinking water regulations.¹⁶

Farmers and ranchers with agricultural drainage wells can minimize the impact on USDW through the use of Best Management Practices (BMPs) including conservation tillage, crop rotation, fertility or nutrient management, integrated pest management, livestock waste management, improvement of subsurface drainage, erosion control, and retention ponds and by following recommendations¹⁷ such as:

- ! Mix or store pesticides or fertilizers away from the immediate vicinity of a drainage well;
- ! Mix or store pesticides or fertilizers in a manner that prevents spills, runoff, or leachate to enter the well directly;
- ! Apply pesticides or fertilizers efficiently and only at the rates necessary using proper methods and equipment calibrated properly to achieve realistic crop yields; and
- ! Avoid pesticide or fertilizer applications at improper times such when soils are frozen and during periods of leaching or runoff.

Agricultural drainage wells should be located away from unsuitable areas such as locations with excessively drained or highly erodible soils and areas overlaying fractured bedrock or solution cavities that drain directly into an USDW. Appropriate separation distances should be based on a variety of factors including soil type, hydrogeologic conditions, fertilizer type, nutrient type, pesticide type, and application rates.

Under the UIC program, EPA also has the authority to regulate septic systems including shallow holes, septic tanks, and leachfield combinations intended for sanitary waste disposal; however, septic systems that serve single-family homes, are used only for sanitary waste, and have the capacity to serve fewer than 20 people a day are exempt from regulation.

¹⁶ Contaminants from underground injection wells can also pollute private sources of drinking water that could adversely affect farmers, ranchers, and their families that rely on their own well for drinking water.

¹⁷ Some states have additional guidelines for addressing groundwater contamination by agricultural drainage wells. Farmers and ranchers are urged to check their state laws regarding such wells.

2. *Groundwater Pesticide Management Plans*

The EPA has proposed a regulation that permits the continued use of the agricultural chemicals, alachlor, atrazine, cyanazine, metolachlor, and simazine in states that have adopted groundwater management plans that provide specific safeguards for the use of those chemicals. However, the EPA must approve the details of each plan before they may become effective. When the regulation is finalized, states will have two years from the date of the final regulation in which to develop their plans. The EPA will have one year from the receipt of a plan to review it and either approve or reject the plan.

Producer Note: Producers should contact their State Department of Agriculture, USDA, or EPA to determine the current status of the regulation and the groundwater pesticide management plan for their state.

III. AIR QUALITY

A. Federal Clean Air Act

The Clean Air Act¹⁸ (CAA) is a comprehensive and complex piece of environmental legislation. Under the 1990 amendments to the CAA, sources that may cause air pollution are required 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 may become the subjects of administrative compliance orders and federal court injunctions.

Certain violations of the CAA may be criminally prosecuted as felonies in federal court. Although the exact amount of any fine must be determined by application of the sentencing guidelines found in Title of 18 of the United States Code, generally, fines up to \$250,000 per day may be imposed against individuals and up to \$500,000 per day against corporations. Negligent release of an airborne hazardous substance that places another person in imminent danger of death or serious bodily harm may be punished by a substantial fine and up to one year of incarceration. If the release is conducted knowingly rather than merely negligently, however, then the offense may be punished by a fine up to \$250,000 and up to 15 years of incarceration. Also, knowingly failing to pay any fee owed to the government under the CAA may subject a person to criminal prosecution, a significant fine, and incarceration up to one year. Making false statements on reports or tampering with monitoring devices may result in fines up to \$250,000 per day and incarceration up to two years. In all cases, the maximum penalties are doubled if the offense is the offender's second or subsequent offense. Corporations or other organizations may be fined up to \$1,000,000.

¹⁸ 42 U.S.C. § 7401 *et seq.* (1994).

In April of 1994, the EPA announced a reward program for citizens who report companies that violate the CAA. Rewards up to \$10,000 may be awarded 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, human welfare, and the environment by maintaining and improving air quality through the development of air quality standards. To achieve this goal, the CAA requires states that are affected by the act to create and implement a State Implementation Plan (SIP). Standards that control ambient air emissions from such farming practices as prescribed burning are geographically specific within each SIP. The SIP may also provide visibility standards. Geographic locations that are categorized as “air non-attainment areas” under the National Ambient Air Quality Standards are subjected to more rigorous 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 that control grain emissions from the loading and unloading of grain and the discharge of gases.

Offensive odors are a source of common complaints in regard to agricultural facilities. The CAA currently has no application to odor problems, however, and these complaints usually fall within the jurisdiction of state nuisance laws, state environmental laws, and local ordinances. Nevertheless, farmers and ranchers should stay informed of changes in the CAA that might affect them in the future, and they should also be aware that a strict interpretation of the CAA might bring discing, combining, or other farm and ranch operations within the realm of activities that are legitimately regulated by the provisions of the CAA.

Producer Note: While most agricultural operations are not air pollution sources under the CAA, formal or legal complaints concerning odor and dust resulting from agricultural operations may still arise. These complaints normally come in the form of actions filed against an agricultural producer in a state court under state law. “Nuisance” is the most common legal theory asserted as the basis of these complaints. Nuisance is a legal term of art and is described in more detail in corresponding state sections.

IV. SOLID WASTE AND HAZARDOUS WASTE

Producer Note: There are several sources of law that control the use, the disposal, as well as the cleanup of hazardous wastes. Producers who use hazardous chemicals or who 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 Act¹⁹ (RCRA) controls the treatment, storage, and disposal of hazardous wastes as well as the disposal of municipal solid wastes. The RCRA also regulates the storage of petroleum and other products in underground storage tanks.

The RCRA could have the following impacts on producers:

- ! Disposal of hazardous wastes on a farm could subject producers to significant liability including closure and post-closure care;
- ! Recalled pesticides intended for disposal may subject subject producers to manifest requirements and transportation requirements; and
- ! Offsite disposal of hazardous wastes could subject producers to hazardous waste generator requirements.

1. Disposal

Farmers who dispose of hazardous wastes that are their own used, waste pesticides may be exempt from certain hazardous waste requirements. To qualify for the exemption, however, the producer must strictly follow the instructions on the pesticide label, triple-rinse the emptied containers, and dispose of the pesticide residue on the farm in a manner that is consistent with instructions on the pesticide label. If, however, the chemical is an RCRA waste, then the agricultural producer exception does not apply, and the producer must dispose of the triple-rinsate at an approved hazardous waste site.

The RCRA permits farmers to dispose of nonhazardous agricultural wastes on their own property provided that the disposal is not prohibited by other state or local laws. These wastes include 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

Generally, an Underground Storage Tank²⁰ (UST) is a tank that together with its piping is located 10% or more underground. However, tanks that together with their associated piping hold less than 1,100 gallons of motor fuel for noncommercial purposes, tanks that hold heating oil used on the premises, and septic tanks are not included in the RCRA definition of a UST.

¹⁹ 42 U.S.C. § 6901 *et seq.* (1994).

²⁰ 42 U.S.C. § 6991 *et seq.* (1994).

Some UST owners or operators mistakenly think they can avoid environmental and safety requirements by changing to Aboveground Storage Tanks (ASTs). However, there are also important state and federal laws and regulations that regulate ASTs.

All new, regulated USTs are required to meet standards related to construction, monitoring, operation, reporting (to state or federal regulatory agencies), owner record keeping, and financial responsibility.

Significant penalties, which may include civil fines up to \$25,000 per day, may be imposed for failing to comply with the regulations. Other civil fines or criminal prosecution may also be possible.

3. *Used Oil*

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

4. *Penalties*

Violations of the RCRA may be prosecuted as federal criminal offenses. It is a criminal offense under the RCRA to transport waste to an unpermitted facility or to transport, treat, store, or dispose of waste without a permit. It is a criminal offense to knowingly violate any material condition or requirement of a permit. In addition to other criminal offenses not mentioned here, it is a criminal offense to make false statements in or knowingly omit material information from applications, manifests, or reports.

Civil fines may be as high as \$25,000 per day per violation. Depending on the violation, criminal fines may be as high as \$50,000 per day, and imprisonment may be from two to five years. If a violation of the RCRA is committed “knowingly” and the violation exposes another person to imminent danger of death or serious bodily injury, then the penalty may be a fine up to \$250,000 and incarceration up to 15 years. The term “knowingly” is a legal term of art; therefore, ignorance of the law, e.g., ignorance that one’s conduct or the consequences of one’s conduct is a criminal offense, is probably not a relevant legal defense to criminal prosecution.

Subsequent convictions may result in a doubling of the applicable maximum penalties. A corporation found guilty of knowing endangerment is subject to a fine up to \$1,000,000.

Persons who suspect they may be in violation of the RCRA should seek legal counsel immediately.

B. Federal Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act²¹ (CERCLA) was passed to rectify perceived inadequacies of earlier environmental legislation, especially the RCRA which was considered 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 a cleanup from "Potentially Responsible Parties" (PRPs). The government is also authorized to issue cleanup directives or to 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 up to three years for a first conviction and up to five years for subsequent convictions may also be imposed. An individual who provides information leading to the arrest and conviction of a person who has failed to report a release may receive an award up to \$10,000.

C. Federal Toxic Substances Control Act

The Toxic Substances Control Act²² (TSCA) allows the 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. The 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 and the release has a potential pathway to human food or animal feed. The EPA considers human food or animal feed to include items regulated as human food or animal feed by the USDA or the Food and Drug Administration (FDA) including direct additives. Food and feed stored in private homes are excluded.

²¹ 42 U.S.C. § 9601 *et seq.* (1994).

²² 15 U.S.C. § 2601 *et seq.* (1994).

D. Federal Emergency Planning and Community Right to Know Act

The objectives of the Emergency Planning and Community Right to Know Act²³ (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 that store chemicals that are 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. This information is intended to facilitate emergency planning and response. Annual reporting to state and local authorities is required for businesses where regulated chemicals are present at the facility in amounts above a certain threshold. However, hazardous chemicals used for routine agricultural operations or fertilizers when held for resale by a retailer are excluded from the EPCRA.

Farms storing and using hazardous chemicals for routine agricultural operations are excluded from the EPCRA Material Safety Data Sheet reporting requirements. However, farms storing any amount of an extremely hazardous substance above specified thresholds must notify state and local emergency planning committees.

Businesses that 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. This requirement applies regardless of whether the release is into the atmosphere, surface water, or groundwater.

Producer Note: Farmers and ranchers should work with their Local Emergency Planning Committee (LEPC) to ensure that the LEPC has sufficient information regarding their farm chemicals and toxic or hazardous substances to properly respond should a local emergency occur. Excluded from the emergency planning requirements are activities that involve the proper application of pesticide products regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 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.

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

The Occupational Safety and Health Administration (OSHA) has regulations that impose certain training requirements to protect workers from hazardous chemicals. Of course, employers must comply with these regulations. These regulations cover workers involved in cleanup responses under CERCLA and the RCRA.

OSHA has more than 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 work assignment.

V. PESTICIDES AND CHEMIGATION

Producer Note: The 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 that address safety concerns about pesticide use by those workers or around those workers.

A. Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act²⁴ (FIFRA), which is the major federal statute governing pesticide use in the United States, is administered by the EPA. The FIFRA establishes minimum national standards for the use of pesticides, and it 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 further regulate the sale or use of any federally-registered pesticide or device in the state, but only if state regulations do not permit the sale or use of pesticides that are prohibited under FIFRA. States, however, may not impose any requirements for pesticide labeling or packaging that are in addition to or different from those required under FIFRA.

1. Use of Pesticides

Under FIFRA, it is unlawful for any person to use a registered pesticide in any manner that is inconsistent with its labeling. Based on the pesticide's toxicity or the degree of adverse effects on humans and the environment, the EPA divides pesticides into two broad groups as either unclassified (general-use) or restricted-use pesticides.²⁵

²⁴ 7 U.S.C. § 136 *et seq.* (1994).

²⁵ Pesticides classified under FIFRA for restricted-use are listed at 40 C.F.R. § 152.175 (1996).

Pesticides for unclassified or general use may be purchased and used by any person in any manner that is consistent with the pesticide's label. Restricted-use pesticides may be applied only by a certified applicator or under the direct supervision of a certified applicator. Note that "under the direct supervision of a 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 imposes 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 the kinds, amounts, uses, dates, and places of application of restricted-use pesticides. Records must be maintained and kept for at least two years.

Producer Note: Individual states may have requirements that are more restrictive than FIFRA. Please see corresponding state sections.

The 1990 Farm Bill added the following record keeping and disclosure requirements for pesticide use:

- ! All pesticide applicators, whether private or commercial, must maintain restricted-use pesticide application records;
- ! Records must be recorded within 14 days of each application and must be maintained for two years; slightly abbreviated records are permitted for "spot applications" which are applications of restricted-use pesticides that occur on the same day in a cumulative or total area of less than 1/10 of an acre;
- ! Within 30 days of a restricted-use pesticide application, pesticide applicators must give a copy of the record of the pesticide application to the person for whom the application was provided;
- ! Upon request, records must be made available to any federal or state agency that deals with health, pesticide use, or environmental issue related to the use of pesticides. However, a government agency may not release data from records that directly or indirectly reveal the identity of individual producers. USDA is charged with

administering federal agency access to pesticide records while the states must designate a lead agency to administer access by state agencies;

- ! When a health professional determines that pesticide information 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 any 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 the USDA for failure to comply with pesticide use and reporting requirements; and
- ! The USDA and the EPA are required to use the records to develop and maintain a database that is sufficient to enable the USDA and the 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; 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 certification number.

Producer Note: For reporting as spot applications, certified private pesticide applicators may record information as spot applications or spot treatments if they apply restricted-use pesticides on the same day in a cumulative or total area of less than 1/10th of an acre. The slightly abbreviated information must include the brand or product name of the federal restricted-use pesticide; 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 "treatment 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.

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 the FIFRA, the pesticide labeling itself will reflect the necessary disposal requirements to be met in order to prevent violations of the law.

A pesticide's label may contain specific procedures for disposal of the pesticide and its container. Disposal of the pesticide in a manner inconsistent with the labeling violates the FIFRA. The EPA regulates the disposal of any pesticides that can no longer be legally used due to cancellation of their registration. The EPA also recommends special procedures for the disposal of unwanted pesticides.²⁶

To facilitate the collection and proper disposal of canceled and other unusable or unwanted pesticide products, the EPA has enacted the Universal Waste Rule (UWR).²⁷ Many states have enacted rules similar in content and intent to the 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. 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 farm worker requirements. Contact the 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 instructions for providing emergency assistance to exposed employees.

²⁶ 40 C.F.R. Part. 165 (1996).

²⁷ 40 C.F.R. Part. 273 (1996). This rule addresses widely generated, low risk hazardous wastes that are frequently generated by a vast community, other than the industrial community usually associated with the generation of hazardous wastes, in sufficient quantities to cause difficulties in managing the waste properly for the regulated community and the regulators; the idea is to separate these wastes from the municipal solid waste stream and ensure proper waste management as well as to expand and facilitate the collection of such universal wastes; examples of universal wastes include batteries, pesticides, thermostats, and lamps.

VI. PROTECTION OF WILDLIFE

Producer Note: Agricultural producers also have responsibilities concerning wildlife and migratory birds that 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 Act²⁸ (ESA) is designed to protect endangered and threatened species from federally funded or federally directed activities including pesticide use and wetlands manipulation.

The ESA also prohibits private persons from taking any animal species that is listed by the United States Fish and Wildlife Service (FWS) as an endangered or threatened species unless the person has first obtained a permit for the taking such as an “incidental takings” permit or there is a statutory or regulatory exemption that allows the taking. The term “taking” is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting. No reported cases involve the taking of animals by pesticide poisoning, but the FWS has taken administrative action against farmers and ranchers who killed protected animals with meat illegally laced with pesticides. For example, in *Christy v. Hodel*,²⁹ a court upheld the authority of the FWS 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 may apply for “incidental takings” permits if a contemplated activity might result in an inadvertent taking of a protected species. Permits are granted by the United States Fish and Wildlife Service (FWS).

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

Through FIFRA, mandatory limitations on pesticide use are included on pesticide labels and in county-specific use bulletins. If producers use pesticides in an area where mandatory limitations exist, they should follow the directions and limitations described in the use bulletins.

²⁸ 16 U.S.C. § 1531 *et seq.* (1994).

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

Voluntary limitations on pesticide usage may also be employed to protect endangered and threatened species and are contained in interim pamphlets available through the 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 must take steps to ensure that activities do not harm those species.

B. Federal Migratory Bird Treaty Act

Producer Note: Treaty provisions like those that protect migratory birds will be taken into account by regulatory officials when making certain determinations. For example, treaty provisions are considered by an agency when determining whether to grant or deny permits for CAFOs.

The Migratory Bird Treaty Act³⁰ 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. Penalties may include fines up to \$15,000 per violation and imprisonment up to two years in certain cases. 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.³¹

VII. 1996 FARM BILL

Producer Note: This section only discusses the environmental or conservation provisions of the 1996 Farm Bill.³² 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.

³⁰ 16 U.S.C. § 703 *et seq.* (1994).

³¹ *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).

³² Federal Agriculture Improvement and Reform (FAIR) Act of 1996, P.L. 104-127.

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. The USDA may also designate areas in which it will assist farmers and ranchers in meeting federal, state, and local environmental laws and regulations.

1. Conservation Reserve Program

Producer Note: The Conservation Reserve Program³³ (CRP) has been reauthorized and extended by the 1996 Farm Bill. Farmers and ranchers 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 the state and county offices of Farm Service Agency (FSA). The owner or operator submits a per acre rental offer. 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 36.4 million enrolled 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 into account the government cost of the contract, soil erosion, water quality, wildlife habitat, and other costs.

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

³³ 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).

commodities or allow grazing or harvesting on land subject to the contract without the approval of the U.S. Secretary of Agriculture.

a. Early Termination

The USDA is authorized to allow current participants in the CRP to terminate by written notice any CRP contract which was entered into prior to January 1, 1995, as 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 bottomland 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.

b. Enhancement

The 1985 statute authorizing the CRP also authorizes “enhancement programs.” Although regulatory and statutory rules must still be respected, Enhancement Programs provide a mechanism by which USDA, after evaluation, can deviate from some standard program policies.

A valuable benefit of Enhancement Programs is that states may develop coordinated efforts and combine multiple programs to address problems comprehensively. The Conservation Reserve Enhancement Program (CREP) is an outgrowth of the CRP and is such an enhancement program.

In the fall of 1996, the Environmental Defense Fund³⁴ proposed to the USDA that it allow states to submit "Enhancement Programs" to combine the CRP with state funds to address the problems of a particular estuary, river, or ecosystem in a comprehensive fashion. Hence, the CREP was established.

The CREP provides financial incentives to farmers and ranchers who participate in CRP and take sensitive lands out of agricultural production. As these agricultural lands are planted in trees, grass, and other types of vegetation, the results are reduced soil erosion, improved air and water quality, and the establishment of millions of acres of wildlife habitat.

The CREP enhances the CRP in several important ways. First, it is designed to address specific state and local concerns since proposals are developed in consultation with local citizens including farmers and ranchers. Second, the CREP is targeted to specific geographic areas of state and national significance such as the restoration of important habitat for endangered plant or animal species. Third, the CREP's flexibility permits the design of conservation strategies that address specific issues and concerns.³⁵ And finally, the CREP is a results-oriented program that requires measurable goals and the monitoring of annual progress toward those goals.

Under the CREP, federal CRP funds and state funds are combined³⁶ to provide special financial incentives³⁷ to farmers and ranchers to participate in CRP and help solve agriculture-related environmental problems. In exchange for CREP payments, farmers and ranchers agree to follow the CRP requirements and any other state determined requirements imposed.

CREP projects have already begun in environmentally sensitive areas of several states. Federal contributions committed to these programs by the USDA and the land areas targeted are: \$367 million for 100,000 acres in Illinois to reduce sedimentation in the Illinois River, \$170 million for 100,000 acres in Maryland to reduce nutrient inflow to the Chesapeake Bay, \$163 million for 100,000 acres in Minnesota to improve the water quality of the Minnesota River, \$7.7 million for 5000 acres in New York to protect drinking water quality for New York City through

³⁴ The Environmental Defense Fund (EDF), a leading national NY-based nonprofit organization, represents 300,000 members. EDF links science, economics, and law to create innovative, equitable, and economically viable solutions to today's environmental problems.

³⁵ One of the benefits of Enhancement Programs is that states can develop coordinated efforts to combine multiple programs to address a specific problem comprehensively.

³⁶ Generally, the state must contribute 20% or more of the federal amount contributed. The state contribution is supported by other state programs including the Clean Water Management Trust Fund, the Agriculture Cost Share Program and the Wetlands Restoration Program. The Agriculture Cost Share Program funds technical assistance and cost share funds for farmers to implement BMPs to reduce nonpoint source pollution. BMPs include erosion control practices and livestock exclusions from streams, stream crossings, and animal waste lagoons.

³⁷ Under CRP, USDA pays 50 percent of the cost of restoring vegetation or restoring natural flows of water to the land and 75 percent of restoring hydrology to wetlands.

nutrient management and sediment reduction, \$220 million for 100,000 acres in the Albemarle-Pamlico System areas and the Jason Lake watershed in North Carolina to improve water quality and wildlife habitat, and \$193 million for 100,000 acres in Oregon and \$200 million for 100,000 acres in Washington, respectively, 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 Program³⁸ (WRP) has been reauthorized through the year 2002 with a maximum enrollment of 975,000 acres. Generally, the intent of the program changes is more flexibility and a goal of no net loss of wetlands.

Producer Note: To participate in the WRP program, a farmer or rancher 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 wetland area;
- ! 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. New acreage enrollments begun after October 1, 1996, require one-third of total program acres as permanent easements, one-third in 30-year easements, and one-third in restoration only agreements. Cost-sharing may be provided for wetland restoration at levels of 75 percent to 100 percent for permanent easements, 50 percent to 75 percent for 30-year easements, and 50 percent to 75 percent for restoration only agreements.

3. *Environmental Quality Incentives Program*

Four of USDA's conservation programs were combined in the Environmental Quality Incentives Program (EQIP)³⁹ including the Agricultural Conservation Program, the Water Quality Incentives Program, the Great Plains Conservation Program, and the Colorado River Basin

³⁸ Wetlands Reserve Program, 61 Fed. Reg. 42137 (1996) (to be codified at 7 C.F.R. pt. 620 and pt. 1467).

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

Salinity Control Program. The 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. Eligibility is limited to persons who are engaged in livestock or agricultural production. EQIP provides technical, financial, and educational assistance primarily to designated priority areas. At least half (50 percent) of the program is targeted to livestock-related natural resource concerns; the remainder is targeted to other significant statewide conservation priorities. The NRCS provides program 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 significant soil, water, or related natural resource concerns. These concerns could include soil erosion, water quality, water quantity, air quality, wildlife habitat, wetlands, forest, and grazing lands. Priority areas are identified by a locally-led conservation process. A local work group comprised of representatives of the conservation district, FSA county committees, NRCS, Cooperative Extension Service, plus 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. Proposals for priority area determination 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. At least 65 percent of the funds are 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 approved by the conservation district and reviewed according to NRCS technical standards adapted for local conditions. Producers are not obligated, but are encouraged, to develop comprehensive or total resource management plans.

<p>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.</p>

EQIP offers 5- to 10-year contracts that provide incentive payments and cost sharing for conservation practices set forth in the site-specific plan. EQIP contract applications are accepted throughout the year. The NRCS conducts an evaluation of the environmental benefits the producer offers. Producer offers are then ranked and the highest priority applications are approved for funding. Applications are ranked according to environmental benefits that would be achieved but weighed against the costs of applying the practices. Higher rankings are given to plans that treat priority resource concerns on 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, wildlife habitat enhancement, and other practices important to improving and maintaining the health of natural resources in the area. Incentive payments may be included to encourage a producer to perform land management practices such as nutrient management and wildlife habitat management. These payments may be provided up to three years to encourage producers to carry out management practices they may not otherwise use without the program incentive.

Eligible land includes cropland, rangeland, pasture, forest, and other farm or ranch lands where the program may be 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. Total cost share and incentive payments are limited to \$10,000 per person per year and \$50,000 for the length of the contract.

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.

B. Swampbuster, Sodbuster, and Conservation Compliance Programs

1. *Swampbuster*

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

Wetland conservation provisions, known as Swampbuster, are continued under the 1996 Farm Bill. New requirements specify that all wetland determinations must be certified by NRCS and that previous wetland determinations must be certified to verify their accuracy. Wetland mitigation is allowed through restoration, enhancement, or creation as long as wetland functions are maintained.

When a violation of the Swampbuster program occurs, the FSA has the discretion to waive the penalty of ineligibility for USDA program benefits if FSA determines the person acted in good faith and without intent to violate the Swampbuster provisions. The NRCS, based upon recommendations of the state Technical Committee, is authorized to identify categories of actions that have a minimal effect on the environment.

The 1996 Farm Bill made other policy changes in the Swampbuster program to give landowners more flexibility. Those policies include:

- ! Farmed wetlands and prior converted croplands which have been abandoned are not subject to Swampbuster as long as the use of those lands is limited to agricultural purposes and where both baseline hydrological and vegetative conditions that existed prior to abandonment are maintained;
- ! Areas in which mitigation can be used are expanded; for example, individuals may be allowed to work with producers, conservation districts, and other relevant entities to select the best area for mitigating wetlands;
- ! More options for mitigation including restoration, enhancement, or creation;
- ! More effective and timely identification and determination of practices that have a minimal effect on the environment; and
- ! Wetland conversion activities authorized by a section 404 permit which make agricultural production possible can accepted for Swampbuster program purposes if the permitted activities are adequately mitigated.

Producer Note: Prior converted cropland is a converted wetland where the conversion occurred prior to December 23, 1985, and the site did not meet the hydrological criteria for a wetland on December 23, 1985. Additionally, an agricultural commodity must have been produced on the site at least once before December 23, 1985.

In addition, the 1996 Farm Bill expanded the definition of agricultural land contained in the Interagency Wetlands Memorandum of Agreement⁴⁰ to include cropland, pasture land, tree farms, rangeland, native pasture land, and other land used for livestock production and placed the NRCS in charge of making delineation decisions.

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

2. *Sodbuster*

Producer Note: The Sodbuster program began, as did the Swampbuster program, with the 1985 Farm Bill. This program was designed to conserve highly erodible land brought into crop production. Under Sodbuster, producers are ineligible for farm program payments unless they apply conservation systems that are designed to achieve tolerable levels of soil erosion on the land. Highly erodible land determinations are made by the NRCS.

The highly erodible land 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 the standard 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 targets farmers and ranchers in selected counties who have nearly 100 percent of their cropland designated as highly erodible and areas where wind erosion factors likely caused inequitable application of highly erodible land factors to that cropland. In this circumstance, the cropland must be redelineated.

⁴⁰ NATURAL RESOURCES CONSERVATION SERVICE, INTERAGENCY WETLANDS MEMORANDUM OF AGREEMENT (1994). NRCS has the primary responsibility within USDA for interagency coordination.

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 that in order to remain eligible for certain USDA program benefits, the producer must develop and implement a plan approved by the NRCS to address highly erodible cropland. 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.

The 1996 Farm Bill sets forth that following consultation with local conservation districts, the 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 are 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 by committee consideration and by using variances and exemptions.

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. If a landowner has acted in good faith and without any intent to violate the law, up to one year is available to take corrective action and to actively apply the conservation plan for the farm before the violation will be reported. This action helps ensure that penalties are in proportion to violations.

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.

Public notice of future changes in any technical standards affecting conservation compliance, Swampbuster, and CRP programs is required.

C. Other Conservation Programs

Producer Note: Many additional conservation programs were created under the 1996 Farm Bill. Producers must contact the local NRCS or other 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 who are eligible for market transition agreements.⁴¹ Under this program producers may consolidate their CRP, WRP, and EQIP payments into one annual payment.⁴²

Under the Conservation Farm Option (CFO), the producer must develop and implement an approved 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 farmer or rancher had received separate payments under each program in addition to production flexibility contract payments.

2. Flood Risk Reduction

Market transition contracts may be entered into with producers who farm lands that frequently flood. Participants agree not to receive any other contract payments, commodity loans, crop insurance, conservation program payments, or any disaster program payments on flood risk reduction acreage but receive 95 percent of their previous seven-year federal contract payments.⁴³ These Flood Risk Reduction payments are designed to reduce federal outlays on frequently flooded land.

3. Farmland Protection Program

Under the Farmland Protection Program (FPP), the USDA is authorized to join state, local, or tribal governments to acquire conservation easements or other interests in land from landowners for farmland protection purposes. Up to 170,000 to 340,000 acres were authorized for acquisition. The 1996 Farm Bill provided \$35 million for use over a six year period.

Participating landowners must keep their land in agriculture uses and agree not to convert the land for any non-agriculture uses. Landowners retain all rights to use the property for agriculture. All lands enrolled must have a conservation plan developed according to the NRCS Field Office Technical Guide. Priority is given to perpetual easements, although 30 years is the

⁴¹ Part of the 1996 Farm Bill policy shift from government-supported to market-supported farm policy described in Title 1 as the Agriculture Market Transition Agreement (AMTA) section.

⁴² Producers must agree to comply with highly erodible land (HEL) provisions, Swampbuster requirements, and planting flexibility requirements plus refrain from any use of the contracted land in non-agricultural commercial or industrial use.

⁴³ The Secretary of Agriculture also has discretion to include in the 95 percent payment calculation any projected crop insurance payments.

minimum time requirement. Locally significant lands are considered if they are economically viable units. To qualify for FPP, land offered must be:

- ! Previously owned (not newly acquired);
- ! Prime, unique, locally significant, or other productive soils; and
- ! Subject to a pending offer by state, local, or tribal government to acquire the land for farmland protection purposes.

To date, the USDA has purchased FPP lands in California, Colorado, Connecticut, Delaware, Florida, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, and Wisconsin to help purchase development rights from farmers to keep productive farmland in production.

4. *Everglades Ecosystem Restoration*

The Everglades Ecosystem Restoration provisions apply only to Florida. The program provides a total of \$200 million to conduct restoration activities in the Everglades ecosystem. In addition, a separate fund of not more than \$100 million derived from the sale of federal property in Florida can be used for Everglades restoration activities.

5. *Wildlife Habitat Incentives Program*

The Wildlife Habitat Incentives Program (WHIP) is a voluntary program for people who want to develop and improve wildlife habitat primarily on a private land. WHIP authorizes \$50 million in funding through the year 2002 to establish a program to provide technical assistance and to make up to 75 percent cost share payments to landowners in order to establish and improve wildlife habitat. In order to receive cost share payments, the landowner must submit an approved wildlife habitat development plan. Generally, the total cost share amount cannot exceed \$10,000 per agreement, however, the NRCS State Conservationist has authority to exceed this limit on a case by case basis.⁴⁴

The WHIP program, in addition to providing payments and technical assistance to landowners, provides education regarding wildlife needs and fosters a positive public attitude regarding wildlife, wildlife habitat, and land stewardship.

⁴⁴ NRCS in Maine, in cooperation with other partners, removed a dam on the Soudabscook River in 1998 providing Atlantic salmon, river herring, sea run trout, and alewives access to a 160 square mile watershed. Removal of the dam reduced flooding to homes on the river and created more sport fishermen interest and use of the area. This dam removal project was important to Maine where tourism is a major source of income.

6. *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. The NRCS administers the program, and development of a conservation plan is required for participation.

7. *Commodity Credit Corporation Uses*

Under the 1996 Farm Bill, the Commodity Credit Corporation (CCC) Charter Act was revised to allow the use of CCC funds for authorized conservation programs. The intent of the revision was to reduce the necessity for annual appropriations to carry out such programs.

Appendix A - Agencies

Producer Note: Federal agencies are available to answer questions regarding environmental matters and a producer's compliance with environmental laws and regulations.

FEDERAL AGENCIES:

Environmental Protection Agency

Ariel Rios Building

1200 Pennsylvania Avenue, N.W.

Washington, D.C. 20460

(202) 260-2090

<http://www.epa.gov/>

National EPA Hotlines

Emergency Response Center.....(800) 424-8802

AIR RISC Hotline.....(919) 541-0888

Environmental Justice.....(800) 962-6215

Hazardous Waste.....(800) 262-7937

Pesticide Telecommunications.....(800) 858-7378

RCRA/Superfund/UST/EPCRA.....(800) 535-0202

Safe Drinking Water.....(800) 426-4791

Wetlands Protection.....(800) 832-7828

Environmental Protection Agency

Regional Offices:

Region 1 (CT, MA, ME, NH, RI, VT)

1 Congress Street, Suite 1100

Boston, MA 02114-2023

<http://www.epa.gov/region01/>

(888) 372-7341 toll free

(617) 918-1111

(617) 565-3660 fax

Region 2 (NJ, NY, PR, VI)

290 Broadway

New York, NY 10007-1866

<http://www.epa.gov/region02/>

(888) 283-7626 toll free

(212) 637-3000

(212) 637-3526 fax

Region 3 (DC, DE, MD, PA, VA, WV)

1650 Arch Street

Philadelphia, Pa 19103-2029

<http://www.epa.gov/region03/>

(800) 438-2474 toll free

(215) 814-5103

(215) 814-5103 fax

Region 4 (AL, FL, GA, KY, MS, NC, SC, TN)

Atlanta Federal Center

61 Forsyth Street, S.W.

Atlanta, GA 30303-3104

<http://www.epa.gov/region04/>

(800) 241-1754 toll free

(404) 562-9900

(404) 562-8174 fax

Region 5 (IL, IN, MI, MN, OH, WI)

77 West Jackson Boulevard

Chicago, IL 60604-3507

<http://www.epa.gov/region05/>

(800) 621-8431 toll free

(312) 353-2000

(312) 353-4135 fax

Region 6 (AR, LA, NM, OK, TX)

Fountain Place 12th Floor, Suite 1200

1445 Ross Avenue

Dallas, TX 75202-2733

<http://www.epa.gov/region06/>

(800) 887-6063 toll free

(214) 665-2200

(214) 665-7113 fax

Region 7 (IA, KS, MO, NE)

901 North 5th Street

Kansas City, KS 66101

<http://www.epa.gov/region07/>

(800) 223-0425 toll free

(913) 551-7003

(913) 551-5218 fax

Region 8 (CO, MT, ND, SD, UT, WY)

999 18th Street, Suite 500

Denver, CO 80202-2466

<http://www.epa.gov/region08/>

(800) 227-8917 toll free

(303) 312-6312
(303) 312-6339 fax

Region 9 (AZ, CA, HI, NV)
75 Hawthorne Street
San Francisco, CA 94105
<http://www.epa.gov/region09/>
(877) 412-6124 toll free
(415) 744-1305
(415) 744-2499 fax

Region 10 (AK, ID, OR, WA)
1200 Sixth Avenue
Seattle, WA 98101
<http://www.epa.gov/region10/>
(800) 424-4372 toll free
(206) 553-1200
(206) 553-0149 fax

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

**United States Army Corps of Engineers -
Headquarters**
Casimir Pulaski Building
20 Massachusetts Avenue, N.W.
Washington, D.C. 20314-1000
(202) 761-0660
<http://www.nc.nrcs.usda.gov/>

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

United States Fish and Wildlife Service
Department of the Interior
1849 C Street, N.W.
Washington, D.C. 20240
(202) 208-4717
<http://www.fcs.gov/>

United States Forest Service
(United States Department of Agriculture)
P.O. Box 96090
Washington, D.C. 20090-6090
or

Sidney R. Yates Federal Building
201 14th Street, S.W.
Washington, D.C. 20024
(202) 205-8333
(202) 205-1610 fax
<http://www.fs.fed.us>

NASDA is a nonprofit association which may be able to assist producers further—

**National Association of State Departments of
Agriculture**
1156 15th Street, N.W.
Suite 1020
Washington, D.C. 20005
(202) 296-9680
(202) 296-9686 fax

Appendix B - Glossary

Producer Note: The following definitions are included to further define information discussed in this document. Some variations may exist between state and federal definitions.

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.

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.

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: Any process where pesticides or other chemicals are added to irrigation water applied to land, crops, or both through an irrigation distribution system.

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 that 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, thousands of paraprofessionals, and nearly three million volunteers.

Diversion: A channel, embankment, or other manmade 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.

Fertigation: Any process where fertilizers are added to irrigation water applied to land, crops, or both through an irrigation distribution system.

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 poses 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 (WEQ), 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 per year.

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, crops, or both 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 diffuse areas instead of a single point of origin or a specific outlet. Examples include areas in which fertilizer, animal manure, or other chemicals have been applied.

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 U.S. 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, including herbicides, insecticides, fungicides, nematicides, and rodenticides, used by farmers to control plant and animal pests, to regulate plant growth, or to simplify harvest.

Point source pollution: As defined by the Clean Water Act, 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 producer'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 to banks, beds, or waters of a person owning land containing or bordering on a water course or other body of water.

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 strips 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, in contrast 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.