

ENVIRONMENTAL LAWS AFFECTING ILLINOIS AGRICULTURE

A Project of the

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

through the

**National Center for Agricultural Law
Research and Information**

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The Project Participants

National Association of State Departments of Agriculture Research Foundation

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

National Center for Agricultural Law Research and Information

The National Center for Agricultural Law Research and Information (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 confer 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 United States Department of Agriculture (USDA) 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 book to describe in complete detail and depth all of the environmental laws and regulations impacting agricultural operations. The following material is simply a basic primer on environmental law for agricultural producers. For these reasons, the utilization of these materials by any person constitutes an agreement to hold harmless the authors, the National Center for Agricultural Law Research and Information, the University of Arkansas, the United States Department of Agriculture, the National Association of State Departments of Agriculture Research Foundation, the Natural Resources Conservation Service, and the United States Environmental Protection Agency for any liability, claims, damages, or expenses that may be incurred by any person or organization as a result of reference to, or reliance on, the information contained in this book.

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

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

Quick Reference Guide

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

Regulatory Area	Type of Activity	Permit Required	Agency
Water Quality <i>pp. 1-12</i>	Livestock and aquaculture operations, depending on size	NPDES and state general permit or land disposal permit and livestock waste lagoon registration	EPA Regional Office and Illinois Environmental Protection Agency and Ill. Dept. of Agriculture
	Wetlands dredge and fill activity or dam, dike, or bridge building activities	Section 404 permit	US Army Corps of Engineers with EPA and Illinois Environmental Protection Agency approval
Groundwater <i>pp. 14-17</i>	Water well construction and use; water well abandonment	Permit; construction standards must be followed	Illinois Environmental Protection Agency; Ill. Dept. of Public Health; Local county health department
	Groundwater protection	No permit, but BMPs must be followed	Illinois Environmental Protection Agency
	Water usage	Registration required and approval for withdrawal of more than 100,000 gallons per day	Illinois Environmental Protection Agency; Ill. Dept. of Public Health; Local county health department
Air Quality <i>pp. 17-20</i>	Grain terminals and grain elevators	Permit required	EPA Regional Office or Illinois Environmental Protection Agency
	General agricultural operations including odor, dust, or flies	No permit but may be subject to nuisance suits	EPA Regional Office or Illinois Environmental Protection Agency
	Burning	Permit required in certain circumstances	Illinois Environmental protection Agency

Solid Waste and Hazardous Waste <i>pp. 21-28</i>	Storage, treatment, or disposal of hazardous or solid waste	Permit required for disposal, treatment, or storage activities	EPA Regional Office and Illinois Environmental Protection Agency
	Public notice of hazardous waste	No permit required	Local Emergency Planning Committee and Illinois Department of Labor
Pesticides and Chemigation <i>pp. 29-35</i>	Application and use of pesticides	No permit, but a license may be required	EPA and Illinois Department of Agriculture
	Use of pesticides around farmworkers	No permit, but training and notification is required	Illinois Department of Agriculture
	Record keeping	No permit, but all requirements must be met	Illinois Department of Agriculture
Wildlife Protection <i>pp. 35-39</i>	Taking of wildlife	Permit required if endangered or threatened species may be affected	U.S. Fish and Wildlife Service and Ill. Dept. of Natural Resources
Waste Lagoons <i>pp. 10 & 55</i>	Storage of animal waste	Registration & certification required; construction standards must be followed	Illinois Environmental Protection Agency and Illinois Dept. of Agriculture
Land Application of Waste <i>p. 55</i>	Land application of animal waste to cropland	Waste management plan based on size of facility; state regulations must be followed	Illinois Environmental Protection Agency and Illinois Dept. of Agriculture
Dead Animal Disposal <i>p. 27</i>	Disposal of animal carcasses	No permit, but regulations must be followed	Illinois Department of Agriculture

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

I. WATER QUALITY

A. Federal Clean Water Act

1. Overview

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

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

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

¹ 33 U.S.C. § 1251 *et seq.* (1994).

- ! Natural Resource Stewardship - Most of the land in the nation's watersheds is cropland, pasture, rangeland, or forests, and most of the water that ends up in rivers, lakes, and coastal waters falls on these lands first. Clean water depends on the conservation and stewardship of these natural resources. The Action Plan calls on federal natural resource and conservation agencies to apply their collective resources and technical expertise to state and local watershed restoration and protection.
- ! Informed Citizens and Officials - Clear, accurate, and timely information is the foundation of a sound and accountable water quality program. Informed citizens and officials make better decisions about their watersheds. The Action Plan calls on federal agencies to improve the information available to the public, governments, and others about the health of their watersheds and the safety of their beaches, drinking water, and fish.

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

2. *Water Quality Standards*

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

3. *NPDES Permits*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4. *Wetlands*

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

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

Although minor wetlands filling activities may be covered by a section 404 General or Nationwide Permit, substantial dredging or filling will usually also 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 40 section 404 General or Nationwide Permits.⁴ The following agricultural activities are allowed under the permits:

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

³ 33 U.S.C. § 1344 (1994).

⁴ 61 Fed. Reg. 65, 874 (1996).

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

In addition, a number of permitted activities may relate to a farming operation, including maintenance, utility line backfill and bedding, bank stabilization, road crossing, return water from upland contained disposal areas, minor discharges, minor dredging, oil spill cleanup, headwaters and isolated waters discharges, temporary construction and access, and cleanup of hazardous and toxic waste. On December 13, 1996, the Corps reissued the existing Nationwide Permits with some modifications and issued two new Nationwide Permits.⁵ The two new permits were for moist soil management for wildlife (permit #30) and maintenance of existing flood control facilities (permit #31).

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

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

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

Many normal farming, ranching, and logging 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.⁶ However, a permit may still be required if major changes to the operation occur.

5. *Nonpoint Source Pollution*

⁵ 61 Fed. Reg. 65,874 (1996).

⁶ 33 C.F.R. § 323.4 (1996).

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

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

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

6. *Oil Spill Liability*

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

7. *Enforcement and Judicial Review*

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

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

B. State Water Quality Laws and Regulations

Most states have enacted clean water legislation. While these statutes usually contain provisions similar to those found in the parallel federal legislation, there may be significant differences. In fact, state statutes may impose requirements that are even more restrictive than the federal law. In all cases, CWA requirements must be followed, and are enforced along with the state enacted statutes and regulations implemented by the state administrative agencies. Under the CWA, EPA has delegated the NPDES permit program to many states.

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

The Illinois legislature has declared that environmental damage seriously endangers the public health and welfare. In addition, because air, water, other resource pollution, public water supply pollution, solid waste disposal, noise, and other environmental problems are closely interrelated, they must be dealt with as a unified whole in order to safeguard the environment.⁷

The Illinois Environmental Protection Agency (IEPA) and its governing body, the Illinois Pollution Control Board (IPCB), are responsible for preparing plans and programs for the abatement, control, and prevention of pollution within the State of Illinois.

1. Clean Water Act

Illinois has placed the responsibility for implementation of the federal CWA with IEPA.⁸ The IEPA has jurisdiction to prevent, abate, or control water pollution through the use of standards for private water supplies and sewage disposal systems. Water quality standards are adopted and enforced by both IEPA and IPCB. IEPA also controls all direct discharges into waters of the state and retains authority to enforce all standards.⁹

a. NPDES Permit Programs

i. Permits Required for Point Sources

All point sources, as defined by the federal CWA, must have a permit to discharge any contaminant or pollutant into waters of the state or into a well. However, an NPDES permit is

⁷ ILL. ANN. STAT. ch. 415, para. 5/2 (Smith-Hurd 1993).

⁸ *Id.* para. 5/4.

⁹ ILL. ADMIN. CODE tit. 35, § 101.100 *et seq.*

not required for discharges into wells which are authorized by Underground Injection Control permits. All NPDES permits are issued for fixed terms up to five years.

Additionally, a permit holder who proposes or is required to construct or modify any treatment works, disposal well, wastewater source, or process modification that results in new or increased discharges of pollutants must submit a new NPDES application at least 180 days before construction begins.

ii. Terms and Conditions of NPDES Permits

Each NPDES permit is subject to terms and conditions established by IEPA to ensure compliance with the CWA. IEPA is also authorized to require more stringent limitations than the federal requirements, if necessary to meet water quality standards, treatment standards, or schedules of compliance. Holders of NPDES permits are required to maintain records and reports, allow inspections of premises, and maintain equipment.

iii. Modification, Suspension or Revocation of Permits

Any person may file a complaint requesting the modification, suspension, or revocation of an NPDES Permit. Facts that warrant such a modification include:

- ! Violation of any terms or conditions of the permit;
- ! Misrepresentation or the failure to fully disclose all relevant facts when permit was obtained; and
- ! A change in circumstances mandating either a temporary or permanent reduction or elimination of the permitted discharge.

Any appeal of the IPCB decision regarding an NPDES permit must be filed within 30 days after the final agency action with IPCB.

iv. Permit Violations¹⁰

Violations of NPDES permits and processes may result in civil penalties of up to \$10,000 per day of violation, injunctions, and the awards of attorney's fees and costs. Violations of the NPDES permit program can also result in criminal prosecution.

¹⁰ ILL. ANN. STAT. ch. 415, par a. 5/42 et seq. (1993).

v. *Public Access to Information*

All files, records, and data of IEPA and IPCB are open to reasonable public inspection and copying with limited exceptions for trade secrets and confidential information. The information which is available to the public includes the following:

- ! Permits issued under the NPDES;
- ! Information required in applications for NPDES permits unless confidential;
- ! Effluent data, which is never confidential;
- ! Any required records, reports, information, permits, and permit applications obtained from contaminant sources; and
- ! All emission data reported to or otherwise obtained by IEPA or IPCB in connection with any examination, inspection, or proceeding.

b. *Concentrated Animal Feeding Operations*

The state comprehensively regulates animal feeding operations.¹¹ Besides requiring an NPDES permit, the state also sets requirements for the construction of waste systems, the disposal of livestock waste, and the certification of individuals who run the operations.

i. *NPDES permit*

Permit requirements vary depending on the size of the operation.¹² However, operations that discharge only in the event of a 25-year, 24-hour storm event are not required to obtain a permit.

If a “very large” operation does not fall under the above exemption, it must obtain a permit. “Very large” is defined as over 1,000 animal units. An animal unit equals the number of:

- ! Brood cows or feeder or slaughter cattle multiplied by 1;
- ! Milking dairy cows multiplied by 1.4;

¹¹ See ILL. ANN. STAT. ch. 510, para. 77/1 *et seq.* (1998); ILL. ADMIN. CODE tit. 35, § 502.102 *et seq.*

¹² ILL. ADMIN. CODE tit. 35, § 502.102 *et seq.*

- ! Swine weighing over 55 pounds multiplied by .4;
- ! Swine weighing under 55 pounds multiplied by .03.

If a “large” operation does not fall under the “storm event” exemption, and the operation discharges pollutants into waters of the state, the operation must obtain a permit. A “large” operation is defined as one having between 300 and 1,000 animal units.

Besides the requirements for larger operations, the IEPA has the power to require an operation to obtain a permit if there is a significant risk that the operation may cause a pollution problem. An operation may also voluntarily apply for a permit.

ii. Location and building requirements

(a) Setback requirements

As with the NPDES permit requirements, the proximity of a new animal feeding operation to nonfarm residences or populated areas depends on the size of the operation. A populated area is any area in which at least 10 nonfarm residences are located or at least 50 people frequent a common place of assembly or a nonfarm business at least once a week.

For operations with between 50 and 1,000 animal units, the operation must be located at least one quarter mile from the nearest occupied nonfarm residence and one half mile from a populated area.¹³

For operations with between 1,000 and 7,000 units, the setback requirements are as follows:

- ! For any occupied residence, the minimum setback shall be increased by 220 feet over the minimum setback of one quarter mile for each additional 1,000 animal units over 1,000 animal units.
- ! For any populated area, the minimum setback shall be increased by 440 feet over the minimum setback of one half mile for each additional 1,000 animal units over 1,000 animal units.

For operations with over 7,000 animal units, the minimum setback from an occupied residence is one half mile, and the minimum setback from a populated area is one mile.

¹³ ILL. ANN. STAT. ch. 510, para. 77/35 (1998).

These setback requirements may not apply to operations within a statutorily designated Agricultural Area or where the operation is allowed by local zoning.¹⁴

***(b) Construction requirements for
livestock waste lagoons***

The construction of a livestock waste lagoon must meet certain specifications promulgated by the American Society of Agricultural Engineers and the NRCS of the USDA.¹⁵ The owner of the lagoon must register and certify the lagoon with the Illinois Department of Agriculture (IDA). These lagoons will be subject to random inspections on at least an annual basis.

Owners of new or modified lagoons registered under the act must establish and maintain evidence of financial responsibility to provide for the closure of lagoons and the proper disposal of the waste in the lagoon.¹⁶ Financial responsibility may be evidenced by commercial or private insurance, surety bond, letter of credit, certificate of deposit, designated savings account, and/or participation in a livestock waste lagoon closure fund managed by the Illinois Farm Development Authority.

(c) Livestock waste management plan

Certain livestock operations are required to have a waste management plan that considers such things as the volume of waste, the available acres for application of the waste, and an estimate of the nutrient value of the waste. Operations with less than 1,000 animal units need not create a waste management plan.

Operations with between 1,000 and 7,000 animal units must create a livestock waste management plan consistent with the rules proposed by the IDA and adopted by the IPCB.¹⁷ These plans must be kept on file and be made available during normal business hours for inspection by the IDA.

Operations with more than 7,000 animal units must also create a plan and keep it on file. These larger operations have the added requirement that they must submit the plan to the IDA for review and approval.

¹⁴ ILL. ADMIN. CODE tit. 35, § 502.402.

¹⁵ ILL. ANN. STAT. ch. 510, para. 77/15 (1998); ILL. ADMIN. CODE tit. 35, § 506.201 *et seq.*

¹⁶ ILL. ANN. STAT. ch. 510, para. 77/17 (1998)

¹⁷ ILL. ANN. STAT. ch. 510, para. 77/20 (1998); ILL. ADMIN. CODE tit. 35, § 506.301 *et seq.*

(d) Certified livestock manager

Managers of any operation with greater than 300 animal units must be certified as a livestock manager by the IDA.¹⁸ Certification may be obtained through training session attendance or successful completion of an examination, depending on the size of operation. Managers of operations with greater than 300 animal units but less than 1,000 can either attend a training session sponsored by the IDA or successfully complete an exam. Managers of operations with 1,000 animal units or greater must do both.

c. Concentrated Aquatic Feeding Operations

NPDES permits are required for the construction, modification, or operation of hatcheries, fish farms, or other facilities which contain aquatic animals in ponds, raceways, or other similar structures for the purposes of production, if there may be a discharge for any 30 or more days per year.

In addition, an NPDES permit is required for fish or aquatic animal facilities which contain any species of fish or other aquatic animal life that is non-native to the United States and if at any time there is a discharge from the facility to a navigable water.¹⁹

NPDES permits are not required for closed ponds which discharge only during periods of excess runoff or for facilities which produce less than 20,000 pounds of aquatic animals per year.

d. Nonpoint Source Pollution

Construction and operating permits are also required for any site receiving sludge for land application. Generally, sites receiving only livestock wastes are exempt, although a permit may still be required if special circumstances exist which warrant requiring a permit to protect the environment or the public health.

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

¹⁸ ILL. ANN. STAT. ch. 510, para. 77/30 (1998); ILL. ADMIN. CODE tit. 35, § 506.401 *et seq.*

¹⁹ The non-native species of fish are defined in Special Publication No. 6 of the American Fisheries Society, entitled A LIST OF COMMON AND SCIENTIFIC NAMES OF FISHES FROM THE UNITED STATES AND CANADA (American Fisheries Society ed., 1970).

II. GROUNDWATER

A. Federal Groundwater Laws and Regulations

I. Safe Drinking Water Act

The Safe Drinking Water Act²⁰ (SDWA) is the principal federal statute addressing groundwater quality. Under the act, EPA establishes tolerance levels for a host of pollutants potentially present in public drinking water.

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

a. Source Water Quality Partnership Petition Program

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

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

b. Underground Injection Control Program

Underground injection means the subsurface emplacement of fluids by well injection. The SDWA provides an underground injection control (UIC) program which is intended to protect groundwaters that may reasonably be expected to supply any public water system from contaminants which may result in noncompliance with drinking water regulations or otherwise adversely affect public health. Farmers and ranchers with agricultural drainage wells are required

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

to furnish inventory information to appropriate state agencies. In addition, states can require individual well permits. Agricultural drainage wells include:

- ! Air conditioning return flow wells;
- ! Waste receiving cesspools with open bottoms and perforated sides;
- ! Cooling water return flow wells used to inject water used for cooling;
- ! Drainage wells primarily used to drain storm runoff;
- ! Dry wells used for waste injection;
- ! Recharge wells used to replenish aquifers;
- ! Salt water intrusion barrier wells;
- ! Sand backfill, other backfill wells, and injection wells used primarily in mining areas;
- ! Septic system wells used to inject waste or effluent from multiple dwelling or business septic tanks; and
- ! Subsidence control wells.²¹

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

2. *Groundwater Pesticide Management Plans*

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

²¹ 40 C.F.R. § 146.5 (1996).

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

B. State Groundwater Laws and Regulations

1. *Underground Drinking Water Sources*

Illinois has established and administers its own Underground Injection Control (UIC) permit program pursuant to the Safe Drinking Water Act (SDWA).²² Under the program, IEPA may issue UIC permits to persons owning or operating a facility for the underground injection of contaminants. However, causing, threatening, or allowing the underground injection of contaminants without a UIC permit or in violation of any term or condition imposed by a permit is unlawful.

2. *Groundwater Protection Program*

a. *Setback Zones*

Illinois has designated setback zones in order to protect groundwater from potential contamination sources. Setback requirements include the following:

- ! New pollution routes or sources may not be placed within 200 feet of any existing or permitted community water supply well or other potable water supply well, unless a waiver is obtained.
- ! New pollution routes or sources may not be placed within 400 feet of any existing or permitted community water supply well deriving water from an unconfined shallow fractured or highly permeable bedrock formation or from an unconsolidated and unconfined sand and gravel formation.
- ! New water supply wells may *not* be placed within 200 feet of an existing potential route or source. In other words, the same protection for existing potential sources is provided as is afforded to existing wells.

²² ILL. ANN. STAT. ch. 415, para. 5/11 *et seq.* (Smith-Hurd 1993).

b. Certification System

IEPA administers a certification system for sites which represent a minimal hazard with respect to contamination of groundwaters. The certification is not adequate if it fails to address each of several required conditions, or if IEPA possesses information which reasonably suggests that any statement made in the certification is inaccurate or incomplete. Any failure to maintain compliance will result in decertification.

c. Water Usage

The Water Use Act of 1983 requires anyone developing a water well which will withdraw over 100,000 gallons per day to notify the local Soil and Water Conservation District. The Act also gives Illinois Department of Agriculture emergency groundwater restriction authority in Illinois counties.²³

III. AIR QUALITY

A. Federal Clean Air Act

The Clean Air Act²⁴ (CAA) is a comprehensive and complex piece of environmental legislation. The 1990 amendments to the CAA require sources which may cause pollution to obtain operating permits. These permits include a comprehensive statement of the pollution source's CAA obligations regarding emission limits, fee requirements, inspection, monitoring, and reporting duties. Violators are exposed to administrative compliance orders and federal court injunctions.

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

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

²³ Ill. Stat. Ann., ch 525, para. 45/1 *et seq.* (1998).

²⁴ 42 U.S.C. § 7401 *et seq.* (1994).

In April of 1994, EPA announced a reward program for citizens who report companies that violate the CAA. Rewards of up to \$10,000 may be 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, welfare, and the environment by maintaining and improving the quality of the air through the development of standards. Standards controlling ambient air emissions from farming practices like prescribed burning are geographically specific within each State Implementation Plan (SIP). The SIP may also provide visibility standards. Locations which the National Ambient Air Quality Standards designate as air non-attainment areas are subject to more restrictions.

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

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

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

B. State Air Quality Laws and Regulations

Illinois statutes make it illegal for any person to cause or threaten or allow the discharge or emission of any contaminant into the environment so as to cause air pollution in the state.²⁵ IEPA and IPCB adopt ambient air quality standards and emission limitations, and enforce these standards by controlling emissions from air contaminant sources. IEPA and IPCB also adopt standards of performance, including design, performance, equipment, and work practices standards, in order to meet federally approved standards of air quality.

²⁵ ILL. ANN. STAT. ch. 415, para. 5/8 *et seq.* (Smith-Hurd 1993).

1. State Implementation Plans

Illinois has filed the State Implementation Plan (SIP) required by the federal Clean Air Act.²⁶ Generally, IEPA and IPCB must ensure that all administrative steps are taken to obtain approval of the state implementation plan.

2. Permit Program

The Illinois Clean Air Act Permit Program (CAAPP) has been developed pursuant to the Clean Air Act.²⁷ CAAPP applies to any major source, any source subject to new source performance standards or hazardous air pollutants, any affected source for acid deposition, and any other source under the Clean Air Act or promulgated regulations, or applicable IPCB regulations.

IEPA issues CAAPP permits consistent with the Clean Air Act and regulations. All CAAPP permits must contain emission limitations and standards and other enforceable terms and conditions, including but not limited to operational requirements and schedules for achieving compliance at the earliest reasonable date.

It is unlawful for any person to violate any term or condition of a permit, to operate any CAAPP source without a permit, or to violate any other applicable requirement.

3. Grain Handling and Storage²⁸

Any existing grain handling operations with a total annual grain handling capacity of 300,000 bushels or more must have an operating permit and must demonstrate compliance with the following:

- !** Particulate matter generated during cleaning and separating operations is captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere;
- !** Induced draft is applied to major dump pits and their associated equipment so that a minimum face velocity is maintained at no less than 200 fpm, which will be sufficient to contain particulate emissions generated in unloading operations;

²⁶ The plan is entitled "State of Illinois Air Pollution Implementation Plan" and is located 40 C.F.R. 52.720.

²⁷ ILL. STAT. ANN. ch. 415, para. 5/39.5 (Smith-Hurd 1993).

²⁸ ILL. ADMIN. CODE tit. 35, § 212.461 *et seq.*

- ! Internal transferring area is enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere; and
- ! Loading employs means or devices to prevent the emission of particulate matter into the atmosphere to the fullest extent.

Existing grain drying operations with a total grain drying capacity in excess of 750 bushels per hour for 5% moisture extraction at manufacturer's rated capacity must apply for an operating permit and must be operated in such a fashion as to preclude the emission of particulate matter larger than 300 microns mean particle diameter.

New and modified grain handling and grain drying operations must file applications for construction and operating permits, and must comply with the control equipment requirements.

No permit is required for the following classes of equipment:

- ! Grain handling operations, exclusive of grain drying operations, with an annual grain handling capacity not exceeding 300,000 bushels;
- ! Grain drying operations with a total grain drying capacity not exceeding 750 bushels per hour for 5% moisture extraction at manufacturer's rated capacity; and
- ! Portable grain handling equipment and one turn storage space.

4. *Burning*

Generally, permits are required for open burning. However, unless air pollution is caused, open burning of agricultural waste is allowed under the following conditions:

- ! On the premises where the waste is generated;
- ! In areas other than restricted areas;
- ! When atmospheric conditions will readily dissipate contaminants;
- ! When burning does not create a visibility hazard on roadways, railroad tracks, or air fields;
- ! More than 1,000 feet from residential or other populated areas; and

- ! When it can be affirmatively demonstrated that no economically reasonable alternative method of disposal is available.

Burning is also subject to applicable local restrictions, so all operators should check with local authorities before burning.

5. *Livestock Odor*

Owners of livestock waste handling facilities must practice odor control methods during the course of manure removal and field application.²⁹ Also, newly constructed, single-stage livestock waste lagoons must follow certain requirements such as the supply to the lagoon must be below the minimum design volume level, and the livestock waste storage capacity must be greater than 270 days.

Repeat violators of the odor control regulations may be fined up to \$1,000 and ordered to cease their livestock operation.

IV. SOLID WASTE AND HAZARDOUS WASTE

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

A. Federal Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act³⁰ (RCRA) controls the treatment, storage, and disposal of hazardous waste as well as the disposal of municipal solid waste. RCRA also regulates the storage of petroleum and other products in underground storage tanks.

RCRA could have the following impacts on producers:

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

²⁹ ILL. ANN. STAT. ch. 415, para. 5/20 *et seq.* (1998).

³⁰ 42 U.S.C. § 6901 *et seq.* (1994).

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

1. Disposal

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

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

2. Underground Storage Tanks

Underground storage tanks³¹ (USTs) and their associated piping holding less than 1,100 gallons of motor fuel for non-commercial purposes, tanks holding heating oil used on the premises, and septic tanks are excluded from RCRA regulations. All new regulated USTs are required to meet standards related to construction, monitoring, operating, reporting to state or federal regulatory agencies, owner record keeping, and financial responsibility. (See discussion of state storage laws on page IL-26.)

3. Used Oil

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

4. Farming

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

³¹ 42 U.S.C. § 6991 *et seq.* (1994).

5. *Penalties*

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

B. Federal Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act³² (CERCLA) was passed to rectify perceived inadequacies of earlier environmental legislation, especially RCRA. RCRA was deemed inadequate to address past hazardous waste disposal sites.

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

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

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

³² 42 U.S.C. § 9601 *et seq.* (1994).

C. Federal Toxic Substances Control Act

The Toxic Substances Control Act³³ (TSCA) allows EPA to regulate new commercial chemicals prior to sale on the market and to regulate the distribution and use of existing chemicals when they pose an unreasonable risk to human health or to the environment. TSCA also prohibits the use of polychlorinated biphenyl (PCB) transformers in areas that could affect food or feed. An exposure risk to food or feed is caused if PCBs are released in any way from the item and the releases have a potential pathway to human food or animal feed. EPA considers human food or animal feed to include items regulated by USDA or the Food and Drug Administration (FDA) as human food or animal feed, including direct additives. Food or feed stored in private homes is excluded.

D. Federal Emergency Planning & Community Right to Know Act

The objectives of the Emergency Planning & Community Right to Know Act³⁴ (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.

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

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

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

³³ 15 U.S.C. § 2601 *et seq.* (1994).

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

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

E. Occupational Safety and Health Administration

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

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

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

F. State Solid Waste and Hazardous Waste Laws and Regulations

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

1. RCRA³⁵

a. State RCRA permit

In Illinois, IEPA issues RCRA permits to persons owning or operating a facility for the treatment, storage, or disposal of hazardous waste. It is unlawful to conduct any hazardous waste storage, hazardous waste treatment, or hazardous waste disposal operation without a RCRA permit or in violation of any permit condition.

³⁵ ILL. ANN. STAT. ch. 415, para. 5/20 *et seq.* (Smith-Hurd 1993).

However, no RCRA permit is required for any person engaged in an agricultural activity who is disposing of a substance which has been identified as a hazardous waste and has been designated by IEPA regulations, if the substance was acquired for use by that person on his own property and the substance is disposed of on his own property lawfully.

b. Transportation Requirement

Transportation of hazardous waste requires a permit from IEPA and compliance with all imposed conditions.

c. Disposal of Waste Pesticides

A farmer disposing of waste pesticides for the farmer's own use which are hazardous wastes is not required to comply with the standards or permit requirements for hazardous wastes, so long as the farmer triple rinses each emptied pesticide container and disposes of the pesticide residues on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label.

d. Underground Storage Tanks

Under the Leaking Underground Storage Tank program, a person who is the owner of an underground storage tank containing hazardous waste must register the tank with IEPA and notify them of any change in the information registered or of the removal of the tank from service.

e. Used Oil

All used oil that is identified as a hazardous waste and cannot be recycled must be managed in accordance with the hazardous waste management requirements of Illinois. However, used oil that is not a hazardous waste, yet cannot be recycled, must be disposed of in accordance with all Illinois requirements.

f. Disposal of Non-hazardous Waste

It is unlawful for a person to conduct a waste storage, waste treatment, or waste disposal operation without a permit or in violation of a permit. However, the permit requirement does not apply to any person conducting a waste storage, waste treatment, or waste disposal operation for wastes generated by the person's own activities if waste is stored, treated, or disposed of within the site where the waste is generated.

g. Dead Animal Disposal

The IDA, in carrying out its responsibilities under the Dead Animal Disposal Act, makes regulations covering the proper disposal and rendering of dead animals.³⁶ Facilities designed for the purpose of disposal must meet licensing requirements established by the Department. Persons disposing of animals or parts of carcasses on the farm must comply with the following:

- ! Any disposal by burning must be performed in an incinerator which is in compliance with the Illinois Environmental Protection Act;
- ! Disposal is not allowed by open burning
- ! If disposal is by burying:
 - ! The location must be in an area where runoff will not contaminate water supplies;
 - ! Burying depth must be sufficient to allow at least a six-inch compacted soil cover over the uppermost part of the carcass; and
 - ! The amount that can be buried per unit area of land is limited;
- ! The abdominal cavity of large carcasses must be punctured to allow escape of putrefactive gases;
- ! Lime or other chemical agents cannot be used to prevent decomposition;
- ! Necessary precautions must be taken at the site of burial to prevent any disturbance by animal or mechanical means;
- ! If a disposal pit is employed for daily or routine deposits, an impermeable pit liner is required, and there must be a minimum six-inch compacted soil cover after each deposition.
- ! If a disposal pit is employed for daily or routine deposits, an impermeable pit liner is required, and there must be a minimum six-inch compacted soil cover after each deposition; and

³⁶ ILL. ANN. STAT. ch. 225, para. 610/1 *et seq.* (Smith-Hurd 1993 & Supp. 1996).

! Composting is allowed for fish, poultry, and swine.

2. Toxic Substances Control Act

The Toxic Pollution Prevention Program³⁷ was established within IEPA to identify the federal and state laws and regulations pertaining to the waste disposal and release of toxic substances into the environment. The program promotes increased coordination of efforts to administer and enforce the laws and regulations.

In addition, the Toxic Pollution Prevention Assistance Program at the Hazardous Water Research and Information Center may establish cooperative programs with public and private colleges and universities. These programs would be designed to augment the implementation of toxic pollution prevention. Fees, tuition, or other financial charges for participation in the Assistance Program may be established.

3. Emergency Planning and Community Right to Know

a. State and Local Planning for Chemical Emergencies

The Illinois Emergency Management Agency (IEMA) is designated as the State Emergency Response Commission (SERC) within the state of Illinois. IEMA is responsible for the preparation of a comprehensive plan and program for the emergency management of the state. In addition, IEMA is responsible for coordination of the program with private organizations, political subdivisions, and the federal government.³⁸

Each county in Illinois is designated to serve as an emergency planning district. Each district has a local emergency planning committee which is responsible for preparing a local emergency plan. Additionally, municipalities can be designated as a local emergency planning district and must prepare a local plan.

b. Emergency Release Notification

Under the Illinois toxic chemical reporting statutes, any industry which is required under the federal act to file toxic release forms with the state must file the forms with IEPA.³⁹ If a release occurs, the owner or operator of the facility must notify IEMA and must also provide a written follow up notice.

³⁷ *Id.* para. 85/1 *et seq.*

³⁸ *Id.* ch. 20, para. 3305/1 *et seq.* (Smith-Hurd 1993 & Supp. 1995).

³⁹ *Id.* ch. 415, para. 5/25.

c. Community Right to Know

The IEPA is also required to maintain an Illinois Toxic Chemical Inventory and to publish an annual report which summarizes the information contained in the release forms and the Inventory. Each emergency response plan, material safety data sheet, inventory form, toxic chemical release form and follow-up emergency notice is to be made available to the general public.

Each local district of the IEMA must annually publish a notice in local newspapers that the emergency response plan, material safety data sheets, and inventory forms have been submitted. The local districts must also designate a time and location that this information is available to the general public.

V. PESTICIDES AND CHEMIGATION

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

A. Federal Insecticide, Fungicide, and Rodenticide Act

EPA also administers the Federal Insecticide, Fungicide, and Rodenticide Act⁴⁰ (FIFRA), the major federal statute governing pesticide use. FIFRA establishes minimum national standards for the use of pesticides, and regulates the registration, production, and sale of pesticides.

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

I. Use of Pesticides

FIFRA provides that it is unlawful for any person to use a registered pesticide in a manner inconsistent with its labeling. Based on the pesticide's toxicity or the degree of adverse effects on

⁴⁰ 7 U.S.C. § 136 *et seq.* (1994).

humans and the environment, EPA divides pesticides into two broad groups, either unclassified (general use) or restricted use pesticides.⁴¹

Pesticides for unclassified or general use may be purchased and used by any person in a manner consistent with the pesticide's label. Restricted use pesticides may be applied only by or under the direct supervision of a certified applicator. Note that "under the direct supervision of a certified applicator" means that the pesticide is applied by a competent person acting under the instructions and control of a certified applicator who is available if and when needed. This means that the certified applicator need not be physically present at the time and place the pesticide is applied, unless the pesticide label prescribes a greater degree of supervision.

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

2. *Record Keeping Requirements*

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

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

- ! All pesticide applicators, including certified and non-certified, must maintain restricted use pesticide application records; time frames governing when records must be maintained are included and spot application records are required;
- ! Within 30 days of a restricted use pesticide application, all applicators must give a copy of the records of pesticide application to the person for whom the application was provided;
- ! Records must be made available to any federal or state agency that deals with pesticide use or any health or environmental issue related to the use of pesticides at the request of the agency; however, a government agency may not release data from the records that

⁴¹ Pesticides classified under FIFRA for restricted use are listed at 40 C.F.R. § 152.175 (1996).

directly or indirectly reveals the identity of individual producers and USDA is charged with administering access to the records by federal agencies, while states designate a lead agency to administer access by state agencies;

- ! When a health professional determines that pesticide information maintained in the records is necessary to provide medical treatment or first aid to an individual who may have been exposed to pesticides, persons required to maintain the records must promptly provide the record and available label information to the health professional upon request, and, in the case of an emergency, the information must be provided immediately;
- ! Penalties in the form of fines may be imposed by USDA for failure to comply with pesticide use and reporting requirements; and
- ! USDA and EPA are required to use the records to develop and maintain a database sufficient to enable USDA and EPA to publish annual comprehensive reports concerning agricultural and nonagricultural pesticide use.

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

Producer Note: For spot applications, certified private pesticide applicators must record information regarding spot treatments if they apply restricted use pesticides on the same day in a total area of less than 1/10th of an acre. The information must include the brand or product name of the federal restricted use pesticide and the product's EPA registration number; the total amount applied; the location of treatment designated as "spot application," followed by a description (e.g. the location could be recorded as "spot application" followed by "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 as listed.

3. *Disposal of Pesticides and Pesticide Containers*

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

A pesticide's labeling may contain specific procedures for disposal of the pesticide and its container. Disposal of the pesticide in a manner inconsistent with the labeling violates FIFRA. EPA regulates the disposal of pesticides which can no longer be legally used due to cancellation of their registration. The agency also recommends special procedures for the disposal of unwanted pesticides.⁴²

To facilitate the collection and proper disposal of canceled and other unusable or unwanted pesticide products, EPA has enacted the Universal Waste Rule (UWR).⁴³ Many states have enacted rules similar in content and intent to UWR. Some states sponsor collections of these products on a regular basis.

4. *Worker Protection Standard*

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

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

⁴² 40 C.F.R. pt. 165 (1996).

⁴³ 40 C.F.R. pt. 273 (1996).

B. State Pesticide and Chemigation Laws and Regulations

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

The Illinois Department of Agriculture (IDA) is charged with administering the Illinois Pesticide Act.⁴⁴ Enforcement is delegated to the IDA, the Illinois Department of Public Health (IDPH), and the Illinois Environmental Protection Agency (IEPA).

The IDA is authorized to promulgate rules regulating the following areas:

- ! The collection, examination, and analysis of samples of pesticides or devices;
- ! The storage, display, distribution and disposal of pesticides or devices and their containers;
- ! The time, place, manner, methods, material amounts, or combinations and concentration of pesticide application; and
- ! The packaging and material coloration of pesticides.

1. *Registration*

Every pesticide which is distributed, sold, offered for sale, delivered for transportation, or transported in Illinois must be registered with the IDA annually, unless it is exempt due to limited shipment and registration under FIFRA.

2. *Licenses and Certifications*

All individuals intending to use pesticides must apply for a license. All licenses are valid for one year except private applicator licenses, which are valid for three years. All licenses expire on December 31 of the final year. Renewal of licenses must occur within 60 days following the date of expiration.

All applicants must demonstrate competence and knowledge regarding pesticide use. The IDA specifies standards of qualification or certification and the manner of establishing an applicant's competence and knowledge. An applicant who has been certified must apply for a license within 90 days of certification or the certification is void.

⁴⁴ ILL. ANN. STAT. ch. 415, para. 60/1 *et seq.* (Smith-Hurd 1993 & Supp. 1995).

a. *Commercial Applicators License*

All individuals who wish to use or supervise the use of any pesticide as a commercial applicator must demonstrate competence and knowledge regarding pesticide use and submit evidence of financial responsibility protecting persons who may be injured or damaged as a result of the pesticide operation. The financial responsibility can be evidenced by a bond or by a certificate of liability insurance. Specific minimum limits are required for the bond and insurance, and they must contain a provision that cancellation or reduction will not occur without first providing the IDA with 30 days written notice. The annual fee for a commercial license is \$35.

b. *Certified Pesticide Applicators (Private Applicators)*

Individuals using or supervising the use of pesticides classified for restricted use must become a certified pesticide applicator. The license fee is \$10, and the applicant must meet the certification requirements set by the IDA.

c. *Public and Commercial Not-For-Hire License*

Public or commercial not-for-hire applicators must have a license to use or supervise the use of any pesticide. A commercial not-for-hire applicator is a certified applicator whose employment requires the use or supervision of the use of general or restricted use pesticides only on the property of the employer.

d. *Licensed Operator*

Pesticide operators must have a license issued by the IDA to use any pesticides. Application should be made to the IDA, accompanied by a \$25 annual fee.

e. *Pesticide Dealers*

Any pesticide dealer who sells restricted use pesticides must be registered with the IDA. Registration consists of passing a required examination and payment of the registration fee of \$100.

3. *Administrative Actions and Penalties*

The IDA is also authorized to suspend, revoke, or modify any license, permit, special order, registration, or certification; however, any person who has been issued an order may request an immediate hearing.

Anyone adversely affected by an administrative action under the Pesticide Act may seek judicial review of the action.

Penalties for violations, including monetary penalties, are based on the total point value of the violation. Point values are assessed based upon the following factors:

- ! The harm or loss incurred;
- ! The signal word on the label of the chemical involved - caution, warning, or danger/poison;
- ! The degree of responsibility - accidental, negligence, or knowingly;
- ! The violator's history for the previous three years; and
- ! The violation type - application oriented, product oriented.

4. *Collection Program for Farmers*

Operators should check with the IDA, who, in cooperation with the EPA, is responsible for developing a model program for the collection and proper disposal by local governments and nonprofit agricultural organizations of unwanted pesticides from farmers.

5. *Worker Protection Standards*

Any toxic substance or mixture containing toxic substances in the workplace must display a label which conforms with the act. If the toxic substance is a pesticide, the label must conform to FIFRA. If an employer receives an unlabeled container of toxic substances, the employer must either label the container or request a label from the manufacturer, importer, or supplier.

Employers must have a material safety data sheet (MSDS) for each toxic substance that they use, produce, or store. The MSDS must conform to requirements for labeling, be written in English, and contain both the chemical and common names of the substance.

6. *Unlawful Use of Pesticides*

Any person violating provisions of the Pesticide Act or regulations is guilty of a Class A misdemeanor with a fine of not less than \$5,000.

VI. PROTECTION OF WILDLIFE

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

A. Federal Endangered Species Act

The Endangered Species Act⁴⁵ (ESA) is designed to protect endangered and threatened species from federally-funded or directed activities, including pesticide use and wetlands manipulation.

The ESA also prohibits private persons from taking any listed endangered or threatened species of animal without a permit or exemption which allows the taking. Taking is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting the animal. An intent to take the animal is a required element for a violation of the ESA. No reported cases involve the taking of animals by pesticide poisoning, but the U.S. Fish and Wildlife Service has taken administrative action against farmers and ranchers who kill protected animals with meat illegally laced with pesticides. For example, in *Christy v. Hodel*,⁴⁶ a court upheld the authority of the U.S. Fish and Wildlife Service to assess penalties against livestock owners who deliberately killed grizzly bears, an endangered species, in order to protect their livestock.

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

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

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 need to follow the directions and limitations contained in the bulletins. Voluntary limitations on pesticide usage may also be employed to protect endangered and threatened species, and are contained in interim pamphlets available through EPA or your state department of agriculture.

⁴⁵ 16 U.S.C. § 1531 *et seq.* (1994).

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

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

B. Federal Migratory Bird Treaty Act

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

The Migratory Bird Treaty Act⁴⁷ implements conventions between the United States and Canada, Japan, Mexico, and the former USSR for the protection of migratory birds. Birds protected under the Act are not necessarily endangered. The Act provides that, except as permitted by regulation, it is unlawful to pursue, hunt, take, capture, or kill any migratory bird. Violation of the Act is a misdemeanor with penalties including fines up to \$500 and imprisonment up to six months. Federal courts have split on the question of whether intent must be present in order to impose liability under the Act in cases where birds have been poisoned by pesticides.⁴⁸

C. State Wildlife Protection Laws and Regulations

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

1. Endangered Species Act

The Illinois Endangered Species Protection Act (IESPA) provides state protection to species designated as endangered or threatened under the federal Endangered Species Act (ESA).⁴⁹ The Endangered Species Protection Board (ESPB) is authorized to extend protection to other species which the Board determines are in danger of extinction or likely to become in danger of extinction.

⁴⁷ 16 U.S.C. § 703 *et seq.* (1994).

⁴⁸ *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).

⁴⁹ ILL. ANN. STAT. ch. 520, para. 10/1 *et seq.* (Smith-Hurd 1993).

The IESPA makes it unlawful for any person to possess, take, transport, sell, offer for sale, give, or otherwise dispose of any animal or the product of any animal or plant species which is on the Illinois list. Under the Act, "take" means, in reference to animals and animal products, to harm, hunt, shoot, pursue, lure, wound, kill, destroy, harass, gig, spear, ensnare, trap, capture, or collect, and includes the attempt to engage in these conducts. In reference to plants and plant products, "take" means to collect, pick, cut, dig up, kill, destroy, bury, crush, or harm in any manner.

Illinois has also established the Endangered and Threatened Species Program (ETSP) to aid in the conservation of endangered and threatened species. Violation of the IESPA is a Class A misdemeanor.

2. *Migratory Bird Protection*

Illinois has adopted statutes and regulations consistent with the Federal Migratory Bird Treaty Act and the Migratory Bird Hunting Stamp Act. It is unlawful to take, possess, transport, or use migratory game birds except during specified periods of time, and only in specified manners and numbers.⁵⁰ Additionally, all persons must acquire licenses and stamps prior to the taking of migratory game birds during the open season.⁵¹

3. *Possessing or Raising Protected Wildlife*

A permit must be obtained before any person can hold, possess, or engage in the raising of game mammals, game birds, or migratory game birds.

Before any person may propagate, release, import, export, or transport any game mammals, game birds, migratory birds, or exotic wildlife species, evidence that the animals have been inspected and certified disease free by a qualified person must be provided. A qualified person may be a licensed veterinarian or a person who has been determined to have expertise in the diagnosis of a suspected disease.

4. *Destruction of Property by Wildlife*

Drainage districts have the authority to control beaver provided that the Illinois Department of Conservation (IDC) is notified in writing that a problem exists and of the intention to trap the animals at least seven days before the trapping begins. No beaver or other furbearer

⁵⁰ *Id.* para. 5/2.18 *et seq.* (Smith-Hurd 1993 & Supp. 1995).

⁵¹ *Id.* para. 5/3.1 *et seq.*

taken outside of the furbearer trapping season may be sold. All animals must be given to the nearest conservation officer or other IDC representative within 48 hours after trapping.⁵²

When wildlife, other than migratory birds and endangered or threatened species, is responsible for destroying property or is a risk to human health or safety, the IDC may obtain a Nuisance Wildlife Control Permit. The permit is issued for a limited time and specifies the methods by which the wildlife may be removed or destroyed and the disposition procedure. A violation of the IESPA during the three years prior to application for a Nuisance Wildlife Control Permit is grounds for refusal to issue a permit.⁵³

The taking of white-tailed deer, endangered species, threatened species, migratory birds, or other protected species is prohibited unless specific authority is granted by the IDC. If the permittee desires to control protected species, the permittee must first obtain appropriate authorization from the U.S. Fish and Wildlife Service, then receive approval from the IDC prior to initiating any control methods.

5. *Violations of the Wildlife Code*

Violations can result in petty offenses, misdemeanors, and felonies, depending on the section violated. Offenses committed by minors under the direct control or with the consent of a parent or guardian may subject the parent or guardian to penalties. In addition to any criminal fines imposed, any person found guilty of unlawfully taking or possessing any protected species will be assessed a civil penalty.

VII. 1996 FARM BILL

Producer Note: This section only discusses the environmental or conservation provisions of the 1996 Farm Bill.⁵⁴ For a more thorough examination of flexibility programs, export programs, dairy marketing, risk management, and other provisions of the 1996 Farm Bill, resources such as the local Farm Service Agency office, a producers' association, or appropriate governmental offices should be consulted.

A. Environmental Conservation Acreage Reserve Program

The Environmental Conservation Acreage Reserve Program (ECARP) includes the Conservation Reserve Program (CRP), the Wetlands Reserve Program (WRP), and the Environmental Quality Incentives Program (EQIP). Under ECARP, USDA may designate

⁵² ILL. ADMIN. CODE tit. 17, § 630.10.

⁵³ ILL. ANN. STAT. ch. 520, para. 5/2.37 (Smith-Hurd 1993).

⁵⁴ Federal Agriculture Improvement and Reform (FAIR) Act of 1996, P.L. 104-127.

watersheds, multi-state areas, and regions of special environmental sensitivity as priority areas eligible for enhanced federal assistance. USDA may also designate areas in which it will assist producers in meeting federal, state, and local environmental laws and regulations.

1. Conservation Reserve Program

Producer Note: The Conservation Reserve Program⁵⁵ (CRP) has been reauthorized and extended by the 1996 Farm Bill. Producers who wish to participate in this program may submit an offer to enroll land during specified signup periods. A continuous signup is provided for certain special practices, including filter strips, riparian buffers, shelterbelts, grassed waterways, field wind breaks, living snow fences, salt tolerant vegetation, and shallow areas for wildlife. The Commodity Credit Corporation (CCC) administers the program through Farm Service Agency (FSA) state and county offices. The owner or operator submits a per acre rental bid. If accepted, the CCC enters into a contract with the owner or operator to convert the land into a conserving use for a minimum of 10 years in return for financial and technical assistance. Conservation plans approved by the local conservation district are required on eligible acreage.

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

Enrollment in CRP has been actively targeted to the most environmentally cost-effective acres. All offers are ranked competitively, based on an environmental benefits index which takes into account the government cost of the contract, soil erosion, water quality, wildlife habitat, and other costs.

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

CRP contracts which are not eligible for early termination include:

- ! Contracts entered into after January 1, 1995;
- ! Contracts entered into before January 1, 1995 which are less than five years old;

⁵⁵ 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).

- ! Land with an erodibility index greater than 15;
- ! Land devoted to useful life easements, field windbreaks, grass waterways, shallow water areas, filter strips, shelterbelts, and bottom land timber on wetlands;
- ! Land enrolled under the wetland eligibility criteria; and
- ! Land located within an average of 100 feet of a stream or other permanent water body.

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

The Conservation Reserve Enhancement Program (CREP) is a part of the CRP which provides financial incentives to farmers and ranchers to take land out of agricultural production. As these agricultural lands have been planted in trees, grass and other types of vegetation, the result has been reduced soil erosion, improved air and water quality and establishment of millions of acres of wildlife habitat. CREP builds upon CRP in several important ways. First, it is designed to address specific state and local concerns since proposals are developed by governors in consultation with local citizens, including farmers and ranchers. Second, CREP is targeted to specific geographic areas of state and national significance, such as restoration of important habitat for endangered plant or animal species. Third, the program's flexibility permits the design of conservation strategies to address specific issues and concerns. Fourth, CREP is results-oriented, requiring both measurable goals and monitoring of annual progress towards those goals.

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

and sediment reduction, and with Oregon and Washington for the protection of dwindling salmon stocks. Arkansas, California, Florida, Georgia, Utah, Wisconsin, and Wyoming are currently developing CREP proposals.

2. *Wetlands Reserve Program*

The Wetlands Reserve Program⁵⁶ (WRP) has been reauthorized through the year 2002 with a maximum enrollment of 975,000 acres.

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

Emphasis will be given to enrollment of lands that:

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

Conservation plans are required for WRP program participation. Eligibility determination for participation in the program is made by NRCS. In addition, landowners may be provided with 75 percent to 100 percent cost sharing for restoring wetlands under permanent easements, 50 percent to 75 percent for 30-year easements, and 50 percent to 75 percent for restoration cost share agreements.

3. *Environmental Quality Incentives Program*

The Environmental Quality Incentives Program⁵⁷ (EQIP) was established by the 1996 Farm Bill to provide a voluntary conservation program for farmers and ranchers who face serious threats to soil, water, and other natural resources. It provides technical, financial, and educational assistance primarily to designated priority areas) at least half of it targeted to livestock-related natural resource concerns and the remainder to other significant conservation priorities. NRCS has leadership for EQIP and consults with FSA to set the program's policies, priorities, and guidelines.

⁵⁶ Wetlands Reserve Program, 61 Fed. Reg. 42137 (1996) (to be codified at 7 C.F.R. pt. 620 and pt. 1467).

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

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

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

All EQIP activities must be carried out according to a conservation plan. Conservation plans are site specific for each farm or ranch, and can be developed by producers with help from NRCS or other service providers. Producers' conservation plans should address the primary natural resource concerns. All plans are subject to NRCS technical standards adapted for local conditions and are approved by the conservation district. Producers are not obligated, but are encouraged, to develop comprehensive or total resource management plans.

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

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

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

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

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

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

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

B. Swampbuster, Sodbuster, and Conservation Compliance Programs

1. Swampbuster

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

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

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

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

- ! Expansion of areas in which mitigation can be used, allowing individuals to work with producers, conservation districts, and other relevant entities;
- ! More options for mitigation, including restoration, enhancement, or creation;
- ! NRCS, based upon recommendations of the state technical committee, may identify practices that have a minimal effect on the environment and may put them on fast track determination; and
- ! Wetland conversion activities authorized by a section 404 permit which make agricultural production possible will be accepted for Swampbuster program purposes if the permitted activities were adequately mitigated.

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

In addition, the 1996 Farm Bill expands the definition of agricultural land contained in the Interagency Wetlands Memorandum of Agreement⁵⁸ to include cropland, pasture land, tree farms, rangeland, native pasture land, and other land used for livestock production, placing NRCS in charge of making delineation decisions.

⁵⁸ NATURAL RESOURCES CONSERVATION SERVICE, INTERAGENCY WETLANDS MEMORANDUM OF AGREEMENT (1994). NRCS has the primary responsibility within USDA for interagency coordination and NRCS can distribute copies of the Memorandum of Agreement.

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

2. *Sodbuster*

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

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

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

3. *Conservation Compliance*

Producer Note: Conservation compliance provisions of the 1985 and 1990 Farm Bills were continued under the 1996 Farm Bill. These provisions required that in order to remain eligible for certain USDA program benefits, the producer must develop and implement a plan approved by 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.

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

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

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

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

C. Other Conservation Programs

Producer Note: Many additional conservation programs were created under the 1996 Farm Bill. Producers must contact the local NRCS or 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 with market transition contract acreage. Under the Conservation Farm Option (CFO), the producer must develop and implement a conservation farm plan. Conservation farm contracts are for 10 years and can be extended for an additional five years. In exchange for payments under the CFO, the producer must forego payments in the CRP, WRP, and EQIP programs. The total payment for participation in CFO is the same as if the producer had received separate payments under each program, in addition to production flexibility contract payments.

2. Flood Risk Reduction

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

3. *Farmland Protection Program*

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

4. *Wildlife Habitat Incentives Program*

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

5. *Conservation of Private Grazing Land*

Federal personnel are to be made available for technical assistance through the Conservation of Private Grazing Land program. The purpose of the program is to promote conservation and enhancement of natural resources on private lands. NRCS offices will administer the program, and development of a conservation plan is required for participation.

6. *Commodity Credit Corporation Uses*

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

7. *Air Quality*

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

VIII. OTHER STATE STATUTES AFFECTING AGRICULTURE

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

A. Farmland Preservation

1. *Planning and Zoning.*

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

Illinois law delegates planning and zoning for agricultural functions to local and county governments.⁵⁹ While local governments are not required to prepare general zoning plans, they are required to use rational zoning methods when general zoning plans are prepared, accompanied by map publication, description of the zoning planned, and conduction of public zoning hearings.

County zoning boards may not impose regulations or require land use permits for land that is used for agricultural purposes, unless the parcel is less than five acres and is in a county with more than 400,000 in population. The term agricultural purposes has been interpreted to include:

- ! A 200,000 square foot poultry barn on a 3.09-acre lot;
- ! The temporary storage of sewage sludge incidental to spreading on farmland as fertilizer, or the spreading of digested sludge as liquid organic fertilizer and soil conditioner; and
- ! The building of a hog confinement structure.

The term has been interpreted not to include the storage of commercial trucks, some of which were claimed to have been used in the storage of hay and transport of building materials.

⁵⁹ ILL. ANN. STAT. ch. 55, para. 5/5-12001 *et seq.* (Smith-Hurd 1993 & Supp. 1996).

2. *Conservation Easements.*

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

Illinois also uses conservation easements as a method of preserving farmland. The Illinois Conservation Enhancement Act⁶⁰ has two purposes:

- ! To ensure that marginal agricultural land is kept out of or removed from crop production or pasture use in order to protect soil and water quality; and
- ! To protect and support fish and wildlife habitat.

Illinois has the Save Illinois Topsoil Program and the Illinois Natural Resource Enhancement Program which were designed to meet these goals; however the programs have not been funded as of 1998. The Natural Resource Enhancement Program allows preparation of periodic management plans for conservation of natural resources.

The Save Illinois Topsoil Program contemplates payments of up to \$50,000 per year for conservation easements and cost sharing when eligible landowners enroll qualifying land in the program. Mandatory criteria for enrollment in the program include that land is:

- ! Located adjacent to or is marginal agricultural land and is beneficial to natural resource protection;
- ! At least six acres in size;
- ! In crop production at least two years during the period from 1981 to 1986 ; and
- ! The subject of an approved management plan.

In addition, the landowner must agree in writing to:

- ! Convey an unencumbered conservation easement to the state;

⁶⁰ *Id.* ch. 505, para. 35/1-1 *et seq.* (Smith-Hurd 1993 & Supp. 1995).

- ! Seed, plant, and manage the land according to an approved management plan; and
- ! Record the easement with the Office of the Recorder.

Easements may be of limited duration or may be permanent. Cost sharing payments to establish conservation practices, as well as the cost of the easement itself, are tied to its duration.

Enforcement of easement agreements may be accomplished by seeking specific performance of the easement requirements or by seeking a mandatory injunction against nonconserving practices.

3. *Tax Relief Programs*

Illinois generally allows preferential taxation for livestock production as well as a specific tax credit for pollution control devices.

A tax certification program, which reduces the property tax value for many pollution control improvements, provides an incentive for livestock producers to construct structures which prevent water pollution. A farmer must obtain an improvement certification from the Illinois Environmental Protection Agency (IEPA) that the structure qualifies as a pollution control facility.

The Illinois Department of Revenue (IDOR) assesses the value of the certified facilities based upon remaining useful lifetime and salvage value. This reduces the assessed value of the certified facilities and, therefore, the property tax.

In addition to the tax incentive program, special assessment values on agricultural land are allowed.⁶¹ Some of these special assessments include the following:

- ! Real estate used as a farm for the two preceding years is valued at a special rate.
- ! Improvements other than farm dwellings are assessed as part of the farm.
- ! Land's agricultural economic value is based on:
 - ! Productivity index of the land;
 - ! Yield;
 - ! Product prices; and

⁶¹ *Id.* ch. 35, para. 200/9-145 (Smith-Hurd Supp. 1996).

- ! Input prices.

Vegetative filter strips which are located in counties with less than three million in population, on land located between a farm field and an area to be protected (such as surface water, a stream, a river, or a sinkhole), and which meet standards set in the NCRS Technical Guide. Vegetative filter strips are assessed at lower value.⁶²

4. *Agricultural Districting*

Another method of farmland preservation used in Illinois is the creation of agricultural districts or agricultural areas, which provide for farmland preservation in specific areas. Illinois protects and enhances agricultural land through the Agricultural Areas Conservation and Protection Act (AACPA).⁶³

County boards may create statutory agricultural areas upon petition of landowners within the area. Land cannot be included within the area without an owner's consent. The size of a designated area must be 350 acres or larger, and the land must be as compact and contiguous as possible. Areas are formed after notice and hearing, with notice of the area formation and description thereafter filed with the county clerk and recorder.

When determining whether to form a district, the county board must consider the following:

- ! The viability of active farming within the proposed area and in adjacent areas;
- ! The presence of any viable farmlands within the proposed area and adjacent areas that are not now in active farming;
- ! The nature and extent of land uses other than active farming within the proposed area and adjacent areas;
- ! County developmental patterns and needs;
- ! The existence of a conservation plan approved by the local soil and water conservation district; and
- ! Any other matter which may be relevant.

⁶² *Id.* ch. 35, para. 200/10-152 *et seq.* (1998).

⁶³ *Id.* ch. 505, para. 5/1 *et seq.* (Smith-Hurd 1993).

The county board is required to review the district 10 years from the date of its creation and every eight years thereafter. At that time, the county board may make changes to the district.

The AACPA limits local regulations that unreasonably restrict or regulate farm structures or practices within the district except as public health and safety require. The AACPA also limits the power of public agencies to impose public benefit assessments or special ad valorem levies on property within the district unless the assessments are imposed prior to formation of the district, or services are provided to the landowner on the same basis as others having the service. Examples of the benefit assessment, or levies that may be exempted include sewers, water, lights, or non-farm drainage assessments.

An additional benefit of Agricultural Areas is that state agencies are encouraged by the AACPA to maintain viable farming in the Agricultural Areas as they administer their programs.

Ten years after formation, two-thirds of the landowners within the area may petition the county board for dissolution of the area. Individual landowners within the area may petition the county board at any time for withdrawal of their land from the area.

B. Nuisance and Right-to-Farm

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

1. Right-to-Farm Statute

Illinois has a right-to-farm⁶⁴ statute which offers protection from nuisance suits to those in agriculture production. No farm or any of its appurtenances may be deemed a private or public nuisance because of any changed conditions in the surrounding area occurring after the farm has been in operation for more than one year when the farm was not a nuisance at the time it began operation.

This provision protects a farm from nuisance suits commenced more than one year after the farm began or changed its operation. This protection will not apply if a nuisance results from

⁶⁴ *Id.* ch. 740, para. 70/0.01 *et seq.* (Smith-Hurd 1993 & Supp. 1996). Farms are defined as those areas used for the growing and harvesting of crops, the feeding, breeding, and management of livestock, or for dairying or any other agricultural or horticultural use.

negligent or improper farm operation, nor will the law provide protection from damages for any injuries caused by pollution of the state's waters or because of any overflow of lands.

2. *Nuisance*

Generally, it is a public nuisance to allow the carcass or waste parts of a butchered animal to remain in any place to the prejudice of others. Such places may include locations such as a water course, lake, pond, spring, well or common sewer, street, or public highway. Corruption of state waters by animal waste is likewise a public nuisance. Also, using any facility which causes noxious or offensive smells offensive or dangerous to public health is a nuisance.⁶⁵

Creating or continuing a nuisance is a petty offense. The fine for a first offense is a maximum of \$100. A subsequent offense is a Class B misdemeanor, which provides the same fine but an additional possibility of a maximum of three months in jail. When convicted, the sheriff, at the violator's expense, will terminate the nuisance. Compliance with state laws or regulations may not be a defense to legal action.

While the Department of Health has general enforcement authority, municipalities are also authorized to define, prevent, and abate nuisances. They are also authorized to prohibit the establishment of an offensive and unwholesome facility in the municipality and within one mile of the municipal limits.

C. **Livestock Waste Management**

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

There are regulations which specifically set out the requirements for the handling and storage of the waste generated by livestock operations.

Both existing and new facilities must have adequate diversion dikes, walls, or curbs to prevent excessive outside surface water from flowing through the operation. The diversion structure must direct runoff to an appropriate disposal, holding or storage area. If, however, there is negligible outside surface water which can flow through the facility or the runoff is tributary to an acceptable disposal area, the requirement is unnecessary. Corrective action for inadequate diversion structures may be required. New operations must have holding ponds with sufficient storage volume to handle the facility as well as any tributary runoff multiplied by 12 inches for earthen area runoff and 15 inches for concrete area runoff. In no case can the excess

⁶⁵ *Id.* ch. 720, para. 5/47-5 *et seq.* (Smith-Hurd Supp. 1996).

volume be less than the 25-year, 24-hour storm effluent guidelines of EPA. Regulations exist which govern manure stacks, waste holding facilities, and liquid livestock waste.

If a facility has fewer than 300 animal units, it may construct and operate a runoff field application system instead of using liquid manure holding ponds, lagoons, or tanks. If a swine operation has 50 or fewer animal units, the requirements for stacks, waste holding facilities, and liquid livestock waste facilities will not apply, provided any of the following conditions are met:

- ! No discharge of livestock waste will directly enter the waters of the state due to the location of the facility;
- ! Discharge waste will not enter into state waters by means of a man-made ditch, flushing system, or similar device; or
- ! The facility is managed so that waste is not allowed to accumulate to an extent which would threaten to cause discharge into waters of the state.

1. Land Application of Waste

Land application of waste is allowed in Illinois and governed under the Livestock Management Facilities Act.⁶⁶ Land application is subject to guidelines established by IEPA and the IDA which provide producers the general description of how often, where, and what type of land application may occur.

Generally, land application standards apply to facilities with more than 1,000 animal units. Plans must be on file with IDA. The quantity of livestock waste applied to soils must not exceed a practical limit determined by soil type, soil permeability, nutrient uptake, soil condition (frozen, etc.), percent of land slope, proximity of surface waters, and the likelihood of reaching groundwater.

Operators must practice odor control methods during manure removal and field application to avoid affecting a neighboring residence or populated area by causing air pollution. These regulations apply only if spreading is within a quarter mile of a non-farm residence. Odor control methods used during the course of manure removal and field application include:

- ! Soil injection or incorporation of waste into the soil by disking or plowing;
- ! Consideration of weather conditions like wind direction and inversions;

⁶⁶ *Id.* ch. 510, para. 77/20 (1998).

- ! Whether the liquid portion of lagoon waste used for irrigation has been treated in properly designed and operated anaerobic lagoons; and
- ! Other methods described in *Control of Manure Odors*, a publication of the American Society of Agricultural Engineers.⁶⁷

IPEA has the authority to enter the premises at any reasonable time in order to inspect or investigate for possible violations of the laws and regulations pertaining to livestock operations or waste-handling facilities. This authority extends to access in order to sample and monitor the discharge of pollutants from the facility through land application.

Although the guidelines are not mandatory, IEPA has taken the position that all operations must dispose of waste in a manner so that pollution of surface and groundwater will not occur. Alternative land disposal practices may be considered and may be approved by IEPA if in line with non-pollution requirements.

2. *Runoff Field Application Systems*

Runoff field application systems are regulated by IEPA. These systems have as a primary function the receipt of waste on a regular basis, but the systems do not store waste in a lagoon-type, zero-discharge system.

Construction, installation, reconstruction or alteration of runoff systems does not normally require a permit unless improper maintenance results in a discharge of pollutants. If discharge results, an NPDES permit may be required.

Runoff Field Application Systems are those constructions or devices, except sewers, which are used to collect, pump, settle, store, and land apply feedlot runoff. The system may include settling basins, effluent transportation systems, junction boxes, distribution manifolds, and the field application area. Design criteria is also mandated along with regulations for the operation of the system.

If the owner of a feeding operation decides not to use the criteria set out by the IEPA, prior approval for the use of an alternative system must be obtained.

⁶⁷ Copies of *Control of Manure Odors* can be obtained from the ASAE, 2950 Niles Road, St. Joseph, MI. 49085-9659; (616)429-0300.

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

D. Potentially Infectious Medical Waste (PIMW)

All potentially infectious medical waste (PIMW) must be handled in a safe and responsible manner.⁶⁸ PIMW includes hypodermic and other needles and broken or unbroken glass which has come into contact with infectious agents. The disposal of PIMW is the responsibility of livestock producers who provide medical attention to their own livestock. Before disposal, PIMW must undergo treatment to eliminate potential for infection. PIMW may be disposed of by rendering them unrecognizable or by transport to and disposal in a landfill if:

- ! Packaged in a rigid, leak-proof container impervious to moisture, sealed to prevent leakage during transport, and puncture resistant.
- ! Transported as PIMW to a landfill permitted to handle such waste.

Containers for PIMW are commercially available from waste haulers, medical supply companies, and veterinarians, as well as local health departments.

E. Illinois Noxious Weed Law⁶⁹

The noxious weed control statute is a penal statute which provides for criminal penalties for failure to prevent the spread of noxious weeds deemed harmful to public health, crops, livestock, land or other property. Every person must control the spread of and eradicate noxious weeds on lands which they own or control. Methods for that purpose must be approved and adopted by the Director of the IDA.

F. Soil and Water Conservation Districts

To control erosion and sediment activities on both rural and urban lands, Illinois law provides for the creation of soil and water conservation districts (district).⁷⁰ A petition for the creation of a district may be filed with the IDA by 25 or more owners of land lying within the territory proposed to be organized into a district, so long as the petitioners own at least 10% of

⁶⁸ *Id.* ch. 415, para. 5/56 *et seq.* (Smith-Hurd 1993).

⁶⁹ 505 ILL. COMP. STAT. ANN. §§100/1-100/24 (West 1997).

⁷⁰ ILL. ANN. STAT. ch. 70, para. 405/1 *et seq.* (Smith-Hurd 1993)(Supp. 1998).

the land within the proposed district.⁷¹ The petition must contain the district's proposed name; that there is a need, in the interest of public health, safety, and welfare, for the district; a reasonably accurate description of the territory to be organized as a district; and, a request that the IDA define the district's boundaries and hold a referendum within the defined territory on the creation of a district.⁷²

Within 30 days after the filing of a petition, the IDA sets the matter for a public hearing and notifies all of the land occupiers and landowners within the territorial limits of the proposed district.⁷³ If, after the public hearing, the IDA determines there is no need for the district, the petition is denied and subsequent petitions covering the same, or substantially same territory cannot be filed again for one year from the date of the denial.⁷⁴

If, however, the IDA determines that a need exists for the district, it then determines whether the operation of a district within the proposed boundaries would be administratively practicable and feasible.⁷⁵ Practicability and feasibility are based on such factors as the attitude of landowners within the proposed district, the approximate wealth of the landowners, the probable expense of carrying on erosion control operations within the proposed district, and any other relevant economic and social factors.⁷⁶ To assist in its determination, the IDA holds a referendum within the proposed district upon the proposition of the creation of the district.⁷⁷ If a majority of the landowners within the proposed district vote in favor of its creation and the operation of the district is deemed by the IDA to be administratively practicable and feasible, the district is created.⁷⁸

A district's governing body consists of 5 directors, who must be owners or occupiers of lands within the district, and who are elected to the board by the district's landowners and land occupiers.⁷⁹ A district's directors have the authority to formulate regulations governing the use of lands within the district in the interest of conserving soil, soil resources, water and water

⁷¹ *Id.* ch. 70, para. 405/8.

⁷² *Id.* ch. 70, para. 405/8(1) through (4).

⁷³ *Id.* ch. 70, para. 405/9.

⁷⁴ *Id.* ch. 70, para. 405/10.

⁷⁵ *Id.* ch. 70, para. 405/11.

⁷⁶ *Id.* ch. 70, para. 405/13.

⁷⁷ *Id.* ch. 70, para. 405/11.

⁷⁸ *Id.* ch. 70, para. 405/13.

⁷⁹ *Id.* ch. 70, para. 405/20.

resources and preventing and controlling soil erosion, floodwater and sediment damages. The directors, however, do not have the authority to enact such land-use regulations without first giving notice to the landowners within the district and the holding of a referendum on the proposed regulations. To be enacted into law, at least three-fourths of the landowners voting in the referendum must approve the proposed land-use regulations.⁸⁰

Once land-use regulations are approved, they have the force of law within the district. To enforce the regulations, directors have the authority to go upon any lands within the district to determine if the regulations are being followed. In addition, any landowner who sustains damages as a result of the failure of another landowner to follow land-use regulations may recover damages from the violator.⁸¹

Each district within the state is required to adopt a Soil Erosion and Sediment control program.⁸² The Illinois State Finance Act also created the Conservation 2000 program which allows landowners access to cost-share funds for soil erosion and sediment action control efforts. Finally, the Illinois Sustainable Agriculture Act⁸³ was passed to create an additional means by which soil and water conservation efforts may be strengthened.

G. Aquaculture

In 1996, the Illinois legislature passed the Aquaculture Development Act (ADA).⁸⁴ The ADA defines aquaculture as the controlled propagation, growth and harvest of aquatic organisms, including but not limited to fish, shellfish, mollusks, crustaceans, algae and other aquatic plants, by an aquaculturist.⁸⁵ An aquaculturist is any individual involved in producing, transporting or marketing aquatic products from privately owned waters for commercial purposes.⁸⁶

The ADA requires that aquatic products be placed in labeled containers, or be accompanied by bills of lading or sale or similar documents that identify the name and address of the producer and quantity of products.⁸⁷ The Act also requires the Director of the IDA to consult

⁸⁰ *Id.* ch. 70, para. 405/23.

⁸¹ *Id.* ch. 70, para. 405/24.

⁸² *Id.* ch. 405, para. 38 *et seq.* (1998).

⁸³ *Id.* ch. 135, para. 1 *et seq.* (1998).

⁸⁴ *Id.* ch. 20, para. 215/4 *et seq.* (Smith-Hurd Supp. 1998).

⁸⁵ *Id.* ch. 20, para. 215/4(a).

⁸⁶ *Id.* ch. 20, para. 215/4(b).

⁸⁷ *Id.* ch. 20, para. 215/5.

with the Illinois Director of Natural Resources (IDNR) to ensure aquaculture rules do not impair the enforcement provisions of the Fish and Aquatic Life Code protecting aquatic life in the native environment. Also, the importation of non-indigenous species of aquatic life into Illinois for aquaculture must comply with the IDNR's rules and regulations.⁸⁸

H. Environmental Audits

Producer Note: Several states have passed environmental audit protection laws which give a business immunity from use of environmental audit findings in administrative, civil, or criminal actions against the business for environmental problems that were found and corrected. In other words, businesses cannot be prosecuted, civilly or criminally, for environmental problems found and corrected in a self-audit process. Fewer than half of the states have this type of law. Illinois has granted this type of protection.

Illinois' Environmental Audit Privilege statute⁸⁹ encourages owners and operators of facilities, and other persons conducting other activities regulated under State, federal, regional, or local laws, ordinances, regulations, permits, or orders, to conduct voluntary internal environmental audits of their compliance programs and management systems.⁹⁰ The Illinois statute states that an environmental audit is privileged information and is not admissible as evidence in any legal action in any civil, criminal, or administrative proceeding.⁹¹

The statute does provide, however, a number of exceptions. The privilege can be expressly waived by the owner or operator of a facility who prepared or caused the preparation of the audit report.⁹² The privilege is also lost if, as determined after a review by the court, the privilege is asserted for a fraudulent purpose; the material is not subject to the privilege; or, the material shows evidence of noncompliance with environmental laws and the failure of the facility's owner or operator to take appropriate corrective action within a reasonable time.⁹³

⁸⁸ *Id.*

⁸⁹ ILL. ANN. STAT. ch. 415, para. 5/52.2 *et seq.* (Smith-Hurd 1993) (Supp. 1998).

⁹⁰ *Id.* ch. 415, para. 5/52.2(a).

⁹¹ *Id.* ch. 415, para. 5/52.2(b).

⁹² *Id.* ch. 415, para. 5/52.2(d)(i).

⁹³ *Id.* ch. 415, para. 5/52.2(d)(2).

The person asserting the privilege has the burden of demonstrating its applicability. However, the State's Attorney, when seeking disclosure of an audit report, has the burden of proving any applicable exception.⁹⁴

Caution: Some federal courts have concluded that state environmental audit protection laws do not bind the federal government, particularly in criminal actions. Producers should confer with an attorney, consultant, or advisor before engaging in an environmental audit.

⁹⁴ *Id.* ch. 415, 5/52.3.

Appendix A - Agencies

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

Illinois Department of Agriculture

P.O. Box 19281
State Fairgrounds
Springfield, IL 62794
(217)782-2172

Illinois Department of Energy and Natural Resources

325 W. Adams Street, Room 300
Springfield, IL 62704
(217) 785-2002
FAX: (217) 785-2618

Illinois Department of Public Health

535 W. Jefferson Street
Springfield, IL 62761
(217) 782-4977
FAX: (217) 782-3987

Illinois Environmental Protection Agency

P.O. Box 19276
Springfield, IL 62794
(217)782-2829

USDA Natural Resource Conservation Service

1902 Fox Drive
Champaign, IL 61820-7335
(217)398-5267

United States Environmental Protection Agency

U.S. EPA - Region 5
77 West Jackson Blvd.
Chicago, IL 60604
(312)353-2000

United States Department of Agriculture

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

Environmental Protection Agency

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

Natural Resources Conservation Service

United States Department of Agriculture
14th Street and Independence Avenue, S.W.
Washington, D.C. 20250
(202) 720-4525
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U.S. Fish and Wildlife Service

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

Headquarters United States Army Corps of Engineers

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

National Association of State Departments of Agriculture

1156 15th Street, N.W.
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Washington, D.C. 20005
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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 which protect or improve the soil, water, or related natural resources. Major conservation practices include conservation tillage, crop rotation, contour farming, stripcropping, terraces, diversions, and grassed waterways.

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

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

Appendix C - Authors

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Henry H. Wood received his Juris Doctor (J.D.) and his Master of Business Administration (M.B.A.) degrees from the University of Arkansas, Fayetteville. He is licensed in the State of Arkansas and worked as a sole practitioner in Fayetteville. He was a staff attorney at the National Center for Agricultural Law Research and Information, a student in the Graduate Agricultural Law Program at the University of Arkansas School of Law, and received his Master of Laws (LL.M.) degree in Agricultural Law in 1998. Mr. Wood is now practicing law in Tucson, Arizona.