

STATE ENVIRONMENTAL LAWS AFFECTING IOWA AGRICULTURE

*(See NASDA's Website for Federal Environmental Laws
Affecting U.S. Agriculture)*

A Project of the

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

through the

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



Website: <http://www.nasda.org/> under the Research Foundation Section

Table of Contents

Please contact the appropriate federal and state agency for the most complete and up-to-date information.

The Project Participants	IA-iv
Disclaimer	IA-v
I. Water Quality	IA-1
A. Iowa Water Quality Laws and Regulations	IA-1
B. Water Quality Acts and Agencies	IA-1
C. Water Quality Standards	IA-2
D. Anti-Degradation Policy	IA-2
E. General Discharge Prohibition	IA-2
F. Iowa Pollutant Discharge Elimination System (PDES) Permits	IA-3
G. Operating Permits	IA-3
H. Discharge or Spill Reporting	IA-3
I. Agricultural Exclusions from the NPDES Permit Program	IA-3
J. Nonpoint Source Pollution	IA-4
K. Financial Assistance	IA-5
L. Regulation of Water Withdrawal, Diversion, or Storage	IA-5
M. Enforcement of Iowa Water Quality and Water Pollution Laws	IA-6
II. Groundwater	IA-6
A. Iowa Groundwater Laws and Regulations	IA-6
B. Water Wells	IA-7
C. Dams and Flood Plain Development	IA-8
III. Air Quality	IA-8
A. Iowa Air Quality Laws and Regulations	IA-8
B. Air Emissions from Agricultural Operations	IA-8
C. Fugitive Dust Standards	IA-9
D. Open Burning	IA-9
IV. Solid Waste and Hazardous Waste	IA-10
A. Iowa Solid Waste and Hazardous Waste Laws and Regulations	IA-10
B. Solid Waste	IA-10
C. Waste Oil	IA-11
D. Waste Tires	IA-11
E. Storm Debris	IA-11
F. Hazardous Wastes	IA-12

G.	Underground Storage Tanks	IA-13
H.	Planning and Community Right-to-Know	IA-14
V.	Pesticides and Chemigation	IA-15
A.	Iowa Pesticide and Chemigation Laws and Regulations	IA-15
B.	Pesticides	IA-15
VI.	Protection of Wildlife	IA-16
A.	Iowa Wildlife Protection Laws and Regulations	IA-16
B.	Game Laws	IA-17
C.	Endangered Species	IA-17
VII.	Enforcement of Iowa Environmental Laws	IA-18
VIII.	Other Iowa Statutes Affecting Agriculture	IA-18
A.	Farmland Preservation	IA-18
1.	Zoning and Planning	IA-18
2.	Conservation Easements	IA-18
B.	Nuisance and Right-to-Farm	IA-19
C.	Livestock Waste Management	IA-19
D.	Indemnity Fees	IA-19
E.	Operating Permits	IA-20
F.	Construction Permits	IA-20
G.	Manure Management Plans	IA-21
H.	Manure Control	IA-22
I.	Separation Distances for Structures	IA-23
J.	Separation Distances for Manure Application	IA-24
K.	Adjacency Rules	IA-25
L.	Tile Lines	IA-26
M.	Manure Application Certification	IA-26
N.	Other Provisions	IA-26
O.	Noxious Weeds	IA-27
P.	Soil and Water Conservation	IA-27
1.	Soil and Water Conservation Districts	IA-27
2.	Soil Conservation and Flood Control Districts	IA-28
3.	Watershed Task Force	IA-28
Q.	Aquaculture	IA-29
R.	Dead Animal Disposal	IA-29
S.	Environmental Audits	IA-30
	Appendix A - Agencies	IA-31

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. Please contact the appropriate federal or state agency for the most complete and up-to-date information.

This guide has been prepared in part with funding from the Natural Resources Conservation Service (NRCS) cooperative agreement number NRCS 68-75-5-174 and the United States Environmental Protection Agency (EPA) grant number CX-825088-01-0.

The contents and use 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 September 2003.

Anyone with comments concerning the guide should contact the NASDA Research Foundation at 1156 15th Street, N.W., Suite 1020, Washington, D.C. 20005, or phone (202) 296-9680.

Quick Reference Guide

Producer Note: The following chart is intended as a quick reference guide to permits 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. 1-6</i>	Livestock and aquaculture operations.	Various state agency permits and certifications, and NPDES. Possible multiple federal agency involvement.	Iowa Dept. of Natural Resources (DNR). Other possible agency involvement includes U. S. Army Corps of Engineers (USACOE), U. S. Fish & Wildlife, U. S. Forest Service, State and local land use and management divisions and districts.
	Wetlands dredge and fill activity or dam, dike, or bridge building activities	Section 404 permit, State agency certification, State agency permits or approvals	USACOE with EPA and DNR
	Water usage	Permit may be required	DNR
	Water well construction and use	Permit required	DNR
Groundwater <i>pp. 6-8</i>	Groundwater protection	Permit required depending on type of activity and area affected, BMPs may be required Permit required for injection wells	DNR

Regulatory Area	Type of Activity	Permit Required	Agency
Air Quality <i>pp. 8-10</i>	Grain terminals and grain elevators	Permit required	DNR and EPA
	General agricultural operations including odor, dust, or flies	No permit, but may be subject to nuisance suits	DNR
	Burning	A variance, waiver, or notice may be required. Local or regulations may apply.	DNR, possible local agency involvement
Solid Waste and Hazardous Waste <i>pp. 10-15</i>	Storage, treatment, or disposal of solid waste	No permit required for most agricultural solid waste, some special requirements may apply	DNR
	Storage, treatment, or disposal of hazardous waste	Permit required	DNR and EPA
Pesticides and Chemigation <i>pp. 15-16</i>	Sale, distribution and transport of pesticides	Registration, license	Iowa Department of Agriculture and Land Stewardship (IDALS) and EPA
	Application of pesticides	License restrictions, special requirements, record keeping	IDALS and EPA
	Disposal of pesticide containers	Special requirements	DNR and EPA
Wildlife Protection <i>pp. 16-17</i>	Taking of wildlife	Permit or license required, some absolute prohibitions	DNR, U.S. Fish and Wildlife Service

STATE ENVIRONMENTAL LAWS AFFECTING IOWA AGRICULTURE

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

I. WATER QUALITY

A. Iowa 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.

B. Water Quality Acts and Agencies

Iowa has enacted major water quality legislation.¹ Iowa water quality laws implement portions of the federal Clean Water Act (CWA) and the federal Safe Drinking Water Act (SDWA). EPA has delegated the NPDES permit program to Iowa. The Iowa Department of Natural Resources (DNR) is charged with implementing the rules and regulations adopted by the Iowa Environmental Protection Commission and with preventing, abating, or controlling water pollution. DNR is the permitting agency.

¹ See Iowa Code § 455B.

C. Water Quality Standards

The Iowa Environmental Protection Commission (EPC) is charged with establishing state water quality standards, pretreatment standards, and effluent standards.² Water quality standards are required by the federal Clean Water Act. These standards protect beneficial uses of water, such as domestic supply, industrial supply, livestock watering, irrigation, and aquatic, wildlife and recreational uses. EPC regulations set out water quality standards for the state including classification of surface waters, designated uses, and water quality criteria.³ Effluent standards or limitations set the maximum allowable degradation of waters. DNR considers water quality standards along with effluent limitations and other factors in issuing permits.

D. Anti-Degradation Policy

It is the policy of the state of Iowa to protect existing water uses and to protect and maintain the existing physical, biological and chemical integrity of all waters of the state.⁴ The integrity of high quality waters will be maintained at or above existing quality. The Environmental Protection Commission may allow a lower water quality, if after public comment and hearing, it is determined a lower quality is necessary to accommodate certain important social or economical development. However, any decrease in water quality may not injure or interfere with uses that were already assigned to those waters.

E. General Discharge Prohibition

The Iowa water pollution laws (WPL)⁵ provide that a pollutant shall not be disposed of by dumping, depositing, or discharging such pollutant into any water of the state. However, this general prohibition does not apply to the discharge of adequately treated sewage, industrial waste, or other waste pursuant to a permit. The term “other waste” means heat, garbage, municipal refuse, lime, sand, ashes, offal, oil, tar, chemicals, and any other wastes which are not sewage or industrial waste. It is prohibited to discharge either treated or untreated waste into any state-owned natural or artificial lake. The discarding of solid waste and litter into any water of the state is illegal.

² Iowa Code § 455B.

³ 567 IAC Chapters 60 thru 63 (IAC refers to the Iowa Administrative Code).

⁴ 567 IAC Chapter 61.2

⁵ Iowa Code § 455B.

F. Iowa Pollutant Discharge Elimination System (PDES) Permits

Under the delegated NPDES permit program, most point source discharges into state surface waters require a permit from DNR. Agricultural operations that may require permits include concentrated animal feeding operations, concentrated aquatic animal feeding facilities, and aquaculture operations, depending on their size.

All animal feeding operations are subject to penalties should such operations pollute waters of the state. The primary types of regulated operations are: animal feeding operations, confinement feeding operations, and open feedlots. The regulatory requirements differ depending on the classification as to size (See section on Iowa livestock waste management.)

Some agricultural operations that require NPDES permits may be covered by general permits. If so, they need not apply for individual permits. A producer seeking to operate under a general permit must nevertheless apply to DNR for authorization. If DNR denies such authorization, the producer must then apply for an individual permit.⁶

G. Operating Permits

Larger animal feeding operations, operations discharging manure directly into state waters or through a drainage system, and operations that generate significant amounts of water pollution require an operating permit from DNR.⁷ DNR regulations contain capacity limitations for determining if a permit is required. The required permit will be either an NPDES permit (See discussion of NPDES permits above.) under the delegated permit program or an operation permit under state law.

H. Discharge or Spill Reporting

DNR regulations require any person who stores, handles, transports or applies manure from an animal feeding operation to notify the department no later than six hours after the person is aware of release.⁸

I. Agricultural Exclusions from the NPDES Permit Program

The following agricultural activities generally do not require a NPDES permit:

- Water pollution from agricultural and silvicultural activities, runoff from orchards, cultivated crops, pastures, range-lands, and forest lands, except this

⁶ 567 IAC Chapter 65.

⁷ 567 IAC Chapter 65.

⁸ 567 IAC Chapter 64.

exclusion does not apply to discharges from concentrated aquatic animal production facilities, concentrated animal feeding operations, discharges from silvicultural point sources, and storm water discharge associated with industrial activity;

- Return flows from irrigated agriculture; and
- Discharges of dredged or fill materials that are regulated under Section 404 of the federal Clean Water Act.⁹

J. Nonpoint Source Pollution

Iowa laws addressing nonpoint source pollution include the manure management and control provisions discussed above and the Iowa Soil Conservation Districts Law. The Soil Conservation Districts Law requires real property owners to establish and maintain soil and water conservation practices or erosions controls.¹⁰ Such practices must be in conformance with regulations adopted by local soil and water conservation districts. The law requires that these regulations establish a soil loss for the district.

The law places limits on the type of erosion controls that the districts may require. An agricultural landowner cannot be required to establish any new permanent or temporary soil and water conservation practice unless cost-share or other public moneys are made available for that land.

The law also requires that, prior to beginning a land-disturbing activity, a person must file a signed affidavit stating that the project will not exceed applicable soil loss limits. This requirement does not apply, however, to the tilling, planting, or harvesting of agricultural, horticultural, or forest crops.

Additionally, the law gives soil and water conservation district commissioners the authority to investigate complaints concerning sediment damage and to issue administrative orders against offending landowners. Such orders require the landowner causing the damage to put soil and water conservation practices or erosion controls into effect within a certain time period.

⁹ 567 IAC Chapter 64.

¹⁰ Iowa Code § 161A.

Producer Note: Nonpoint sources of pollution are diffuse in nature. An example is runoff from a field. Point sources, on the other hand, enter water bodies through discrete conveyances like pipes. The NPDES program is, with limited exceptions, restricted to point sources. Other federal and state programs address nonpoint source pollution. Many of these programs are voluntary and incentive based. A few impose mandatory requirements. Producers should check with DNR to determine what nonpoint source programs and requirements may apply to their farms and ranches.

K. Financial Assistance

A producer may apply for assistance in order to protect state waters.¹¹ Iowa's incentive program provides an organic nutrient management program allowing financial incentives and assistance to farmers to prevent manure runoff from polluting state waters. An additional program goal is to assist farmers in fully benefitting from the use of manure in crop production. Iowa will contribute 50 percent of the cost not to exceed \$7500 per year.

L. Regulation of Water Withdrawal, Diversion, or Storage

Any person who withdraws or diverts more than 25,000 gallons of water per day from either a surface or groundwater source must obtain a water use permit from DNR.¹² A permit from DNR is required for storage of 18 acre feet or more of water. Permitted withdrawals are subject to limitations during times of low flow to protect streams and higher priority water uses. In times of drought, other measures could apply that would further restrict the water supply of a feeding operation. If the use of water interferes with a neighbor's use of the aquifer, well interference procedures could call for restrictions on use or compensation of affected landowners.

All agricultural drainage wells must be registered with DNR. Registration is not the same as a permit. Diversion by means of an agricultural drainage well requires a permit from DNR. A permit is required for diversion of water or any other material from the surface directly into an aquifer. Water in drain tiles is considered surface water.

DNR regulations contain conditions on permitted water uses and withdrawals from groundwater sources, including irrigation permits, exemptions, protected flow restrictions, water conservation, priority allocations, and monitoring and reporting requirements.

DNR regulates withdrawal, diversion, and storage of water from protected water sources.¹³ Protected water sources include both surface water and groundwater sources. DNR

¹¹ Iowa Code § 161C.

¹² Iowa Code § 455B; 567 IAC Chapters 51, 52, and 53.

¹³ Iowa Code § 455B; for DNR regulations regarding protected streams, see 567 IAC Chapters 53 & 72.

regulations contain a list of designated protected water sources. A producer desiring a permit to withdraw or in any other manner make use of water from a protected source may have to conform to special permit conditions and provide much additional information to DNR.

M. Enforcement of Iowa Water Quality and Water Pollution Laws

The Iowa Department of Natural Resources is responsible for assistance, inspections, monitoring discharges, compliance, and enforcement of state water quality and water pollution laws. Any person who pollutes a water of the state is subject to a fine of up to \$5,000 per day.¹⁴ A habitual violator of state pollution control laws may be fined up to \$25,000 per day. Specific enforcement provisions can be found in agency regulations.

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

II. GROUNDWATER

A. Iowa Groundwater Laws and Regulations

In 1987, Iowa adopted the Groundwater Protection Act (GPA).¹⁵ The GPA authorizes the adoption of health-related groundwater standards. The goal of the GPA is to prevent groundwater contamination, from both point and nonpoint sources, to the maximum extent practical and if necessary restore the groundwater, regardless of its condition, to a potable state.

The EPA has granted DNR primary enforcement authority to administer the federal Safe Drinking Water Act in Iowa. Under the GPA and the federal Act, DNR administers several programs of potential interest to agricultural producers.

First, DNR sets state primary drinking water standards under the federal act. These standards establish specific contaminant level ceilings for pollutants in public drinking water supplies and monitoring requirements for such supplies.

Next, DNR adopts and enforces health-related groundwater standards under the state law. DNR is authorized to require a person responsible for groundwater contamination to prevent further contamination and to undertake cleanup actions. However, the GPA exempts agricultural

¹⁴ Iowa Code § 455B.

¹⁵ Iowa Code § 455E; for regulations regarding groundwater protection, see 567 IAC Chapters 15, 38, 39, 47 thru 53, and 133.

producers from liability, damages, and cleanup costs due to detection of pesticides or nitrates in groundwater, provided the following apply:

- Nitrate application was in conformity with soil test results and label instructions for fertilizer application have been followed;
- Pesticide label instructions have been properly followed and the applicator has a valid appropriate applicators license.

An agricultural producer who has complied with the above conditions may raise such compliance as an affirmative defense.

Operations that discharge pollutants into groundwater must apply to DNR for a permit. Examples of activities requiring a permit include injection wells and waste containment facilities that leach into aquifers. Permits impose standards governing the location, construction and operation of injection wells so that injected fluids do not migrate or pollute an underground source of drinking water.

B. Water Wells

The Iowa water quality law charges the Iowa Department of Natural Resources (DNR) with regulating the construction, reconstruction, or abandonment of water wells.¹⁶ The purpose of the water well rules is to protect the public health by protecting groundwater from contamination. DNR regulates both public and private or individual water wells.

A permit issued by DNR or the county board of supervisors is required prior to constructing, drilling, reconstructing, or replacing a water well. Wells requiring permits include the following type wells: domestic wells, livestock or irrigation wells, recreation-use wells, monitoring wells, heat pump wells, and dewatering wells. DNR regulations contain criteria for the location, installation, construction or reconstruction, material standards, well disinfection, mud disposal, water sampling and analysis.

Abandoned wells are a water contamination hazard. Abandoned wells must never be used to dispose of waste. Abandoned wells must be properly plugged. DNR regulations contain criteria and rules for well abandonment. DNR abandonment rules cover the following type wells: those withdrawing from or injecting water into groundwater, test wells, observation and monitoring wells, agricultural drainage wells, cooling and heat-pump wells.

DNR may delegate its authority to regulate the construction, reconstruction, or abandonment of water wells to boards of health or other agencies.

¹⁶ Iowa Code § 455B; for DNR regulations regarding water wells, see 567 IAC Chapters 38, 39, 47, and 49.

C. Dams and Flood Plain Development

A permit from DNR is required for storage of 18 acre feet or more of water (See above discussion in *Regulation of Water Withdrawal, Diversion, or Storage*).

Approval from DNR is required prior to any development in a food plain or floodway.¹⁷ Development includes: construction, maintenance, operation, or removal of certain structures. The following may be regulated by DNR: channel changes, agricultural levees or dikes, culverts, bridges, temporary stream crossings, road embankments, dams, buildings and associated fill, stream bank protective devices, boat docks, excavations, and use of protected streams.

III. AIR QUALITY

A. Iowa Air Quality Laws and Regulations

The Iowa Air Quality Law charges the Department of Natural Resources (DNR) with regulating air quality in the state.¹⁸ DNR adopts and enforces air quality standards, emission control requirements and other regulations. The Iowa clean air program follows the requirements of the federal Clean Air Act (CAA). EPA and DNR work cooperatively to enforce these requirements.

In general, stationary sources of air pollution require a permit from DNR before constructing, operating, replacing or relocating any equipment or process that may cause air pollution. There are special requirements for hazardous and toxic air emissions.

B. Air Emissions from Agricultural Operations

With the exception of the fugitive dust standards and open burning discussed below, agricultural activities have few special air quality requirements. Most agricultural operations will not require air quality permits. On-farm incinerators and grain elevators may be exceptions. In addition, larger animal feeding operations with an anaerobic lagoon require an air quality permit.

Producer Note: Producers should be aware that air emissions from concentrated animal feeding operations may be the subject of additional air quality regulations in the future.

¹⁷ Iowa Code § 455B; for DNR regulations regarding flood plain development, see 567 IAC Chapters 70 through 76.

¹⁸ Iowa Code § 455B; for DNR regulations regarding air quality, see 567 IAC Chapters 20 through 31.

C. Fugitive Dust Standards

Iowa has adopted an ambient air quality standard for fugitive dust. "Fugitive dust" means any airborne solid particulate matter emitted from any source other than a flue or stack. The air quality standard for fugitive dust applies to land clearing activities. DNR requires that fugitive dust be controlled through the use of best practical operation or treatment methods. In general, the discharge of visible fugitive dust emissions beyond the lot line of the property where the dust originates is prohibited. However, agricultural operations are exempted from this rule.¹⁹

D. Open Burning

No person may conduct open burning unless DNR regulations provide an exception or a variance is obtained from DNR.²⁰ Producers should be aware that DNR exemptions apply unless they are prohibited by local ordinances or regulations. Waste tires may never be disposed of by burning or used to start a burn. The following types of open burning are exempted by DNR: disaster rubbish, trees and tree trimmings, landscape wastes, and residential wastes from no larger than a four unit residential structure.

Of particular interest to agricultural producers is the exemption for paper or plastic pesticide containers, seed corn bags resulting from farming activities occurring on the premises. However, there must be no burning of pesticide containers formerly containing organic forms of beryllium, selenium, mercury, lead, cadmium or arsenic. There is a restriction on the amount of these products which may be burned. The amount disposed of by open burning must not exceed one day's accumulation or 50 pounds, whichever is less. In addition, such open burning shall be limited to areas located at least one-fourth mile from any building inhabited by other than the landowner or tenant conducting the open burning, livestock area, wildlife area, or water source. DNR will take action to relocate any such burning should such burning create a nuisance.

Another exemption from open burning prohibitions is burning of agricultural structures. "Agricultural structures" means barns, machine sheds, storage cribs, animal confinement buildings, and homes located on the premises and used in conjunction with crop production, livestock or poultry raising and feeding operations. All chemicals and asphalt shingles must be removed. Burning must be conducted only when weather conditions are favorable with respect to surrounding property; and permission from the local fire chief is secured in advance of the burning. Furthermore, a written waiver in the form of an affidavit must be submitted to DNR prior to the open burning of the following:

¹⁹ 567 IAC Chapter 23.

²⁰ 567 IAC Chapter 23.2.

- Agricultural structures located within a city or town;
- Agricultural structures located at least one-fourth mile from any building inhabited by a person other than the landowner, a tenant, or an employee of the landowner or tenant conducting the open burning.

Producers should be aware of abatement strategies for emission reduction during an air quality alert. Open burning and incineration operations may be prohibited or severely curtailed during such alerts. DNR regulations contain a listing of areas in which open burning, even if falling under a general exemption, is restricted or prohibited in such areas.

Producer Note: There are restrictions in certain areas for all burning, even otherwise exempted burning. Furthermore, DNR exemptions do not apply if they are prohibited by local ordinances or regulations. Producers should contact DNR representatives and local authorities to insure any open burning does not violate any regulations.

IV. SOLID WASTE AND HAZARDOUS WASTE

A. Iowa 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.

B. Solid Waste

Iowa's solid waste management and disposal laws²¹ impose requirements on solid wastes that do not otherwise qualify as hazardous waste (see discussion of hazardous waste below). These laws give the most attention to the regulation of public and private landfills, but they contain provisions that apply to agriculture as well. The Department of Natural Resources (DNR) administers Iowa's solid waste management laws.

It is unlawful for anyone to dump or deposit or permit such dumping or depositing of solid waste, except at a DNR permitted facility or one with DNR approval. However, farm wastes, dead animals, and farm buildings may be disposed of on the farm property provided certain requirements or conditions are met. The following requirements must be met before disposal is allowed:

²¹ Iowa Code § 455B; for regulations regarding solid waste, see 567 IAC Chapters 100 through 119.

- Farm waste must have been owned by the producer and used on the property;
- Dead animals must result from operations located on the property;
- Farm waste, dead animals, and farm buildings must be disposed of in accordance with DNR separation distance regulations;
- DNR requirements for disposal must be adhered to. (DNR requirements address removal of fluids or contents from machinery, feeding equipment, farm waste, and farm buildings; depth of burial; lowest elevation of burial pit; and covering depth.)
- Dead animals disposed of must not exceed a certain number and drainage requirements must be met.²²

C. Waste Oil

Iowa has established a used oil recycling program. The disposal of waste oil in a landfill, or into any waterway is unlawful. Waste oil must not be disposed of except at a facility permitted to receive such oil, or through retailers or waste oil collectors.²³

D. Waste Tires

Iowa law prohibits the land disposal of whole used motor vehicle tires. Tires must be disposed of by delivering them to a tire retailer or wholesaler or to an authorized tire recycler. Iowa law provides for beneficial uses of used tires.²⁴ Some waste tire beneficial uses of interest to agricultural producers are the following: for stream bank erosion control and culvert outlets and to hold down covers over hay, silage, and other agricultural commodities. DNR requires notification and approval of beneficial uses if 250 or more tires are used. Most beneficial uses, whether requiring notice or not, have certain requirements which must be met.

E. Storm Debris

Debris and waste on farms related to storms may be disposed of on the farm. Dead animals, farm buildings, trees, brush, and ashes may be buried on the farm where such waste is located. Any farm chemicals must be removed from buildings before burial. Farm chemicals

²² 567 IAC § 101.3

²³ Iowa Code § 455D; 567 IAC Chapter 119.

²⁴ 567 IAC Chapter 219.

must not be buried. Farm storm debris may also be burned (see above discussion of open burning).

F. Hazardous Wastes

Wastes deemed to be hazardous are regulated to a greater extent than other solid waste under both Iowa and federal law. Iowa hazardous waste law has similar provisions to the federal Resource Conservation and Recovery Act (RCRA).²⁵ However, Iowa has not yet received federal authorization to enforce RCRA within the state. The EPA administers the RCRA program in Iowa. The Iowa Department of Natural Resources (DNR) administers state hazardous waste programs and laws.

The Iowa definition of hazardous waste closely follows the federal definition. The Iowa statute's definition reads:

"Hazardous waste" means a waste or combination of wastes that, because of its quantity, concentration, biological degradation, leaching from precipitation, or physical, chemical, or infectious characteristics, has either of the following effects:

- (i) Causes or significantly contributes to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
- (ii) Poses a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed.

Hazardous wastes are more specifically defined in regulations adopted by DNR and by EPA that list specific substances determined to be hazardous.

Persons who generate or transport hazardous wastes are subject to extensive regulatory requirements under Iowa law. These include record keeping requirements, storage requirements, equipment, container and building standards, disposal restrictions, permit requirements, emergency planning and personnel training. The degree of the hazard and the quantity of waste generated determine the extent of the regulation.

A farmer using or disposing of federally approved agricultural chemicals or the empty containers of agricultural chemicals is exempt from most hazardous waste requirements as to the use and disposal of these chemicals and their containers, provided the farmer does both of the following:

²⁵ Iowa Code § 455B; for DNR regulations regarding hazardous waste, see 567 IAC Chapters 130 through 219.

- Applies or disposes of the chemicals in accordance with the manufacturer's instructions; and
- Triple rinses each chemical container after it has been emptied and uses the rinsing as a makeup water in a tankmix and applies the mix to the farmer's cropland at an application rate that does not exceed the manufacturer's instructions.

Iowa law prohibits the injection of hazardous or restricted wastes into a well. The release of a hazardous substance must be reported to DNR and the local police department as soon as possible but no later than 6 hours after the onset of the release or discovery of the hazardous condition.

Producer Note: Iowa producers should check with DNR to determine whether any chemicals or other substances used in their operations have been listed as hazardous and as to the regulatory requirements for any such substances.

G. Underground Storage Tanks

Iowa underground storage tank law²⁶ imposes requirements on underground storage tanks (USTs) that parallel the federal requirements for USTs under RCRA.

A UST is defined as a tank, or combination of tanks, used to contain regulated substances, the volume of which is located at least 10% below the ground. The definition also includes underground pipes that are connected either to underground or aboveground storage tanks. Regulated substances include petroleum products as well as hazardous substances.

However, the law exempts certain tanks from complying with the law. The following tanks are exempt:

- Farm and residential storage tanks with a capacity of 1100 gallons or less that store motor fuel for noncommercial purposes;
- Tanks that store home heating oil for consumptive use on the premises;
- Residential septic tanks and storm water or wastewater collection systems;
- Surface impoundments, pits, ponds, or lagoons;
- Flow-through process tanks;

²⁶ Iowa Code § 455B; for DNR regulations regarding underground storage tanks, see 567 IAC Chapters 135 and 136.

- Certain pipeline facilities regulated under the federal Natural Gas Pipeline Safety or Hazardous Liquid Pipeline Safety Acts and lines directly related to oil or gas operations; and
- Storage tanks located in a basement, cellar, shaft, or tunnel as long as the tank is on or above the floor.

For tanks that are covered, the law imposes a number of requirements. These include:

- Reporting releases and spills from the tanks;
- Implementing leak detection systems;
- Record keeping;
- Meeting design and performance standards;
- Remediation requirements;
- Closure requirements;
- Financial assurance requirements;

Requirements differ for new versus existing tanks. Old tanks must be upgraded to meet new design and construction standards. Owners and Operators should confer with DNR representatives to determine the deadline, if any, for upgrading their systems.

Owners and operators must investigate and confirm any suspected release. A site check must be performed if environmental contamination is suspected. Owners and operators of USTs must report to DNR all releases and suspected releases of substances from their tanks within 24 hours of the release. DNR must be notified within 6 hours if a hazardous condition exists. The 24-hour spill or release reporting number is (515) 281-8694.

Producer Note: USTs are subject to extensive regulation in Iowa. Producers should check with DNR periodically to ensure their underground storage system is in compliance with applicable regulations.

H. Planning and Community Right-to-Know

Iowa has passed legislation implementing requirements similar to those of the federal Emergency Planning and Community Right-to-Know Act (see discussion of the federal act

above).²⁷ The Iowa Emergency Response Commission was created to implement Emergency Planning and Community Right-to-Know Act (EPCRA). Owners or operators using or storing covered materials must notify the Iowa Department of Public Defense, Emergency Planning Division. The owner or operator may also be required to submit notification and reports to the Iowa Division of Labor. In addition, any release subject to the requirements of the federal Emergency Planning and Community Right-to-know Act, must be submitted to the Iowa Department of Natural Resources (DNR). Notifications of a release must be telephoned to DNR at (515) 281-8694 immediately. A written follow-up emergency notice must be made within 30 days.

V. PESTICIDES AND CHEMIGATION

A. Iowa Pesticide and Chemigation Laws and Regulations

Producer Note: Iowa, 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.

B. Pesticides

The Pesticide Act of Iowa (PAI)²⁸ requires all pesticides that are distributed, sold, transported or offered for sale within the state be licensed with the Iowa Department of Agriculture and Land Stewardship (IDALS). It is illegal to sell, distribute, or transport unlicensed pesticides. IDALS enforces pesticide labeling requirements as part of the registration process.

The PAI requires that pesticides be used and applied in a manner consistent with their labeling. Pesticide containers must be stored, transported and discarded in a manner that does not have unreasonable adverse effects on the environment. Some pesticide waste and pesticide containers are considered hazardous waste and thus subject to special handling requirements.

Pesticide applicators must have either a commercial, noncommercial, private or public certification or license. Applicators may qualify for a temporary exemption from certification requirements for a period of 21 days if the applicator is working under the supervision of a certified applicator. Private applicators may apply to IDALS for a temporary certificate for a single use/single purchase of restricted use pesticides in a situation declared by IDALS to be an emergency. Employees are required to be certified as handlers if they handle opened pesticide

²⁷ Iowa Code Chapter 30 and 1992 Iowa Acts, Ch. 1139; for regulations regarding Emergency Planning and Community Right to Know, see 605 IAC Chapters 100 through 104. Labor Services Division regulations may also be relevant. These may be found at 347 IAC Chapters 130 and 140.

²⁸ Iowa Code § 206; for ALS regulations regarding pesticides, see 21 IAC Chapter 45.

containers for the purpose of preparing, mixing, or loading pesticides for application by another person or disposing of pesticide wastes from such activities. Other pesticide rules include:

- Prohibitions and restrictions on the use of certain pesticides;
- Minimum requirements and certification requirements for pesticide applicators;
- Record keeping requirements regarding pesticide use;
- Pesticide container disposal requirements
- Pesticide storage requirements.

Producers must take certain precautions to prevent harm to bees. Prior to application of any pesticide that indicates on its label that it is toxic to bees, the applicator must determine if the field is within a two mile radius of any registered bee yard by contacting the local Farm Service Agency (FSA) (an agency of the United States Department of Agriculture) office or by calling (515) 281-3561 when the FSA office is closed. The applicator must notify the bee owner, the owner's agent or a member of the owner's family at least twenty-four hours and no more than seventy-two hours prior to such application. Pesticides may be applied outside these time frames, with consent of the bee owner.

Owners of apiaries, in order to protect their hives from pesticide applications, must register the telephone number where they can be reached and the locations of bee yards.

<p>Producer Note: Producers should refer to ALS regulations and consult with ALS representatives to determine the specific use and disposal requirements applicable to the pesticides they use.</p>
--

VI. PROTECTION OF WILDLIFE

A. Iowa Wildlife Protection Laws and Regulations

Iowa has enacted a variety of laws to protect wildlife and aquatic life and to regulate their harvesting in the state. These laws may affect agricultural activities. The Iowa Department of Natural Resources (DNR) administers state wildlife and aquatic life laws. The Fish and Wildlife Division, within DNR, administers programs relating to wildlife, law enforcement, fisheries, and land acquisition and management. The division consists of the Law Enforcement Bureau, the Fisheries Bureau, and the Wildlife Bureau.

B. Game Laws

DNR administers state hunting and fishing laws. These include laws regarding hunting and fishing licenses, hunting and fishing seasons and other requirements for the taking of game species.²⁹ The use or possession of firearms on certain game management areas is restricted.

DNR issues depredation permits to shoot deer causing excessive crop damage.³⁰ Producers of agricultural or high-value horticultural crops must sign a depredation management agreement with the DNR. DNR may issue a depredation permit before an agreement is signed should immediate action be necessary to avoid serious damage. Further permits will not be authorized until an agreement is signed.

Owners or tenants of a farm, or a member of an owner's or tenant's family that resides with the owner or tenant, are eligible for free deer licenses. The owner or tenant does not have to reside on the farm unit but must be actively engaged in farming it. Nonresident landowners do not qualify.

Under the Iowa Wildlife on Private Lands Promotion Program,³¹ producers may qualify for financial assistance to establish farmstead and feedlot shelterbelts and/or to provide temporary winter wildlife habitat plots. The State of Iowa will pay up to 75 percent of the cost. Producers desiring information about the program should contact DNR.

C. Endangered Species

DNR administers Iowa's Endangered Plants and Wildlife laws (EPW).³² This law is Iowa's endangered species act. The EPW incorporates the list of endangered and threatened species under the federal Endangered Species Act. DNR may also add other, indigenous species in Iowa to a state list of endangered and threatened species. The EPW makes it unlawful for any person to take, possess, transport or sell any species appearing on the federal or state lists. The term "take" has been defined by the courts to include a significant environmental modification or degradation of habitat which actually injures or kills wildlife.

²⁹ Iowa Code § 483A; for DNR regulations regarding the taking of game wildlife, non-game wildlife, and aquatic life, see 571 IAC Chapters 15 through 116.

³⁰ 567 IAC Chapter 106.11.

³¹ Iowa Code §§ 107 & 110; 571 IAC Chapter 22.

³² Iowa Code § 481B; for DNR regulations regarding endangered and threatened plant and animal species, see 571 IAC Chapter 77.

VII. ENFORCEMENT OF IOWA ENVIRONMENTAL LAWS

As with federal environmental laws, persons who violate the regulatory requirements of state environmental laws face substantial penalties. The specific penalties vary to some degree with each statute. However, they generally include both civil and criminal fines. Additional fines can be assessed for each day that an operation remains in violation. For severe or repeated violations, jail sentences can be imposed. State agencies can also bring proceedings, either in court or before an administrative tribunal, to enjoin a producer's activities and force compliance with the statute. In some cases, citizens may also file suits to enforce the requirements of the environmental laws. As with the federal statutes, state laws afford producers the right to administrative and/or judicial review of agency decisions.

VIII. OTHER IOWA 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 Iowa.

A. Farmland Preservation

1. *Zoning and Planning*

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.

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.

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.

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 three primary types of livestock feeding operations which are governed by Iowa regulations: animal feeding operations, confinement feeding operations, and open feedlots. Regulatory requirements differ depending on the animal weight capacity and type animals. (See below.) However, all operations are subject to penalties should such operations pollute waters of the state.

D. Indemnity Fees

Concentrated animal feeding operations, called confinement feeding operations in Iowa, are subject to a number of special regulatory requirements including indemnity fees under state law.³³ Indemnity fees provide moneys for cleanup of manure storage structures and the administration of regulations. Indemnity fees are assessed for confinement feeding operations when the operation is required to obtain a construction permit³⁴ (except operations permitted before May 31, 1985) and when the operation is required to submit a manure management plan. Indemnity fees are based on the following animal weight capacity of the operation and the type animal:

³³ Iowa Code § 455B: see 567 IAC Chapter 65 for DNR regulations regarding animal feeding operations.

³⁴ See *Construction Permit* section.

<u>Animal Weight Capacity</u>	<u>Poultry</u>	<u>Non-poultry</u>
< 625,000 lbs.	4 cents/AU	10 cents/AU*
625,000 to 1,250,000 lbs.	6 cents/AR	15 cents/AU
> 1,250,000 lbs.	8 cents/AU	20 cents/AU

* AU is one animal unit and equivalent to one 1000 lb. Beef animal, 0.7 dairy cow, 2.5 finishing swine, 100 nursery swine, 100 broilers, or 55 turkeys.

Reimbursement fees for clean up may be collected if the confinement feeding operation causes a clear, present, and impending danger to public health or the environment.

E. Operating Permits

Larger animal feeding operations, operations discharging manure directly into state waters or through a drainage system, and operations that generate significant amounts of water pollution require an operating permit from DNR³⁵ DNR regulations contain capacity limitations for determining if a permit is required. This permit will be either an NPDES permit under the delegated permit program or an operation permit under state law (see discussion of NPDES permits above).

F. Construction Permits

Operations such as new animal feeding operations and open feedlots which would require operating permits also require a construction permit from DNR before they can be built.³⁶ DNR will not issue a permit for the construction of three or more animal feeding operation structures unless there is certification that the structures will not impede established drainage tile lines.

Larger existing confinement feeding operation must obtain a construction permit from DNR if certain conditions exist (see below), such as before the installation of another structure used in the operation, before making significant modifications in volume or manner of handling manure, or before reopening if the operation was discontinued for at least 24 months.

The criteria for conditions which determine whether confinement feeding operations require a construction permit are as follows:

³⁵ 567 IAC Chapter 65.

³⁶ 567 IAC Chapter 65.

- An anaerobic lagoon system, an earthen manure storage basin, or aerobic structures where the facility is designed for an animal weight capacity equal to or greater than:
 - 400,000 lbs. bovine
 - 200,000 lbs. for non-bovine species
- A formed manure storage structure (including tanks made of concrete, concrete blocks, wood, or steel) where the facility is designed for animal weight capacity equal to or greater than:
 - 1,600,000 lbs. bovine
 - 625,000 lbs. non-bovine species
- Dry manure storage system where the facility is designed for an animal weight capacity equal to or greater than:
 - 4,000,000 lbs. bovine
 - 1,250,000 lbs. non-bovine species
- An egg washwater storage system where the facility is designed for an animal weight capacity equal to or greater than:
 - 200,000 lbs.

Small animal feeding operations (SAFOs) are confinement operations that house less than 400,000 lbs. Animal weight capacity for bovine or less than 200,000 lbs. Animal weight capacity for other animal species. SAFOs do not require a construction permit.

G. Manure Management Plans

Iowa law and DNR regulations require all newly permitted, some previously permitted, and some new unpermitted animal feeding operations to prepare a manure management plan (MMP).³⁷ Operations not previously required to submit a MMP may have to submit a MMP under 1998 legislation. The focus of manure management plans is the minimization of potential impacts on surface and groundwater. Such plans must meet specific criteria outlined in Iowa law and DNR rules. Criteria includes the following:

³⁷ Iowa Code § 455B; 567 IAC Chapter 65.

- Basing maximum applications on crop nitrogen needs;
- Identifying the specific land areas on which manure will be applied;
- Specifying planned application methods and timing.

The original plans must be filed with DNR. A current plan must be maintained on site and made available for review by DNR staff. The operation must also maintain records of all disposal operations and make such records available should DNR request them.

H. Manure Control

Iowa law specifically prohibits animal feeding operations from disposing of manure in any manner which will cause pollution of state waters, including groundwater.³⁸ Manure disposal in accordance with state laws and agency regulations are deemed as compliance with pollution control requirements for the animal feeding operations statutes.

Iowa statutes and DNR regulations impose different requirements depending on the classification of the animal feeding operation, the type of manure structure, and the type of areas in the neighborhood. Separation distances also apply to liquid manure application, unless the livestock producer can fit into an exception (see ‘separation distances’ discussed above). In addition, Iowa law prohibits manure application by spray irrigation equipment, except as provided for pursuant to DNR regulations. Spray application is heavily regulated.

Iowa law requires every operation to abide by a minimum level of manure control. DNR regulations contain minimum requirements. All animal feeding operations, regardless of size, must remove settleable solids from manure prior to discharge into state waters. Also, manure removed from facilities must be land applied in a manner which will not cause surface water or groundwater pollution. There must be no direct discharge into agricultural drainage wells, sinkholes, or publically owned lakes.

Iowa law requires open feedlots, depending on size, to meet the certain minimum requirements. Feedlots which are large enough to require permits must retain all manure flows from feedlot areas and all other manure-contributing areas resulting from the 25-year, 24-hour precipitation event. Producers should consult with DNR representatives to determine whether their operations must meet any additional requirements.

Iowa law requires confinement feeding operations to retain all manure produced between periods of disposal, and to dispose of the manure in a manner which does not cause surface water or groundwater pollution. Other manure control requirements that apply to confinement operations include:

³⁸ Iowa Code § 455B; see 567 IAC Chapter 65 for DNR regulations regarding manure control.

- Manure must not be discharged directly into state waters or into a tile line that discharges directly to state waters.
- Operations using anaerobic lagoons or other earthen manure storage structures must maintain a minimum of two feet of "freeboard" at all times. This means the liquid level in the structure must never get within two feet of overflowing.
- Upon closing a confinement feeding operation, all accumulated manure from the operation's manure storage structures must be removed and disposed of properly.

Iowa statutes and DNR regulations include specific manure disposal requirements for permitted confinement operations and other operations required to submit manure management plans. The DNR may grant a variance to boundary separation distance requirements for spray application. DNR rules also include manure application guidelines which are recommended for all operations.

I. Separation Distances for Structures

Iowa law establishes minimum separation distance requirements between animal feeding operations and neighboring residences, commercial enterprises, bona fide religious institutions, educational institutions, public thoroughfares, and public use areas, such as parks or cemeteries.³⁹ Separation distance requirements vary with the size of the operation, animal type, the type of manure storage used, and whether the neighbor is within the city limits. Even small operations that do not require a construction permit from DNR may, nonetheless, have to meet separation distance requirements. Distance tables are available from DNR.

The following table specifies required distances from animal feeding operation to unincorporated neighbors or public use areas:

Type Facility	Animal Weight Capacity & Animal Type		
	< 625,000 lbs. non-bovine or <u>1,600,000 lbs. bovine</u>	625,000 to 1,250,000 lbs. non-bovine or <u>1,600,000 to 4,000,000 lbs. bovine</u>	> 1,250,000 lbs. non-bovine or <u>≥ 4,000,000 lbs. bovine</u>
Anaerobic lagoon & uncovered earth basin	1,250 feet*	1,875 feet*	2,500 feet*
Uncovered formed	1,250 feet	1,500 feet	2,000 feet
Covered earth &			

³⁹ Iowa Code § 455B, *see* 567 IAC Chapter 65, for DNR regulations regarding separation distances.

covered formed & deep pit	1,000 feet	1,250 feet	1,875 feet
Egg washwater storage system	750 feet	1,000 feet	1,500 feet

* Distances marked by asterisks (*) specify separation requirements for incorporated neighbors for all types of facilities.

There is an exception to the distance requirements when there is a replacement of unformed earthen manure structures with formed structures and the operation is a prior constructed animal feeding operation.

Separation distance from animal feeding operations to the closest point of a thoroughfare must be 100 feet or more unless permanent vegetation exists between the thoroughfare and the full length of the structure that will a maturity be at least 20 feet high.

Separation distance from animal feeding operations to a navigable major water source must be 500 feet or more. A navigable major water source is a water source capable of supporting a floating vessel carrying one or more persons for six months out of every ten years.

Separation distance from animal feeding operations to a watercourse must be 200 feet or more. A watercourse is a ditch with definite banks, a bed, and water flow. The distance does not apply to privately owned lakes or farm ponds or if the storage structure includes a secondary containment.

J. Separation Distances for Manure Application

State law also prohibits the application of liquid manure within prescribed distances from neighboring titleholders. Generally the distance from neighboring titleholders must be 750 feet or greater. However, there are several exceptions to the prescribed application distance requirements. The exceptions include where the liquid manure is injected or incorporated, where the manure originates from a small animal feeding operation (SAFO, see criteria below), where a waiver is signed. For irrigation applications, a separation distance of 100 feet from the specified wetted perimeter to the property line must be maintained. Low pressure irrigation systems must have a 250 feet separation distance from neighboring titleholders.

For applications near designated areas (public and private wells, agriculture drainage wells known as sinkholes, cisterns, and surface tile intakes), the separation distance is 200 feet. However, the separation distance is reduced to only 50 feet if a vegetative filter strip is maintained around the designated area, and there is no manure application to this filter strip.

The following operations are exempt from distance requirements for manure application:

- Those with liquid manure applications utilizing injection or incorporation (not later than 24 hours from original application) techniques;
- Those using exclusively dry form manure storage systems;
- Those classified as qualified small animal feeding operations, except those using earthen manure storage basins;
- Those obtaining written waivers from neighboring titleholders located within the protected distance, provided the waivers are properly recorded with the recorder of deeds;
- Those within corporate city limits where a written waiver is approved by the city and properly recorded in the recorder of deeds. (This waiver is effective for churches and public thoroughfares. However, the waiver for separation distances is not effective for neighboring residences, schools, businesses, and public use areas.);
- Those with permanent vegetation separating a public thoroughfare from the full length of the animal feeding operation, provided certain vegetation standards are met; and
- Those where neighboring titleholders construct or expand after the animal feeding operation was established. The same exemption applies to a city or public use area if such city or area is expanded after the animal feeding operation was established.

In addition to distance requirements discussed above, animal feeding operations are also subject to restrictions on areas such as land with greater than 10% slope and frozen or snow covered ground. Tables setting out the required separation distances can be obtained from DNR.

K. Adjacency Rules

When facilities meet or exceed the adjacency rules or distance criteria, they may be treated as separate operations. Facilities constructed after May 31, 1998 have the following distance criteria:

Animal Weight Capacity	Distance
Less than 1,600,000 lbs. for bovine	More than 1,250 feet
Less than 625,000 lbs. for non-bovine	More than 1,250 feet
Greater than or equal to 1,600,000 lbs. for bovine	More than 2,500 feet
Greater than or equal to 625,000 lbs. for non-bovine	More than 2,500 feet

L. Tile Lines

DNR regulations contain requirements regarding animal feeding operations and tile lines.⁴⁰ Tile lines are often a concern as confinement operations must contain all manure on site. Tile lines present a clear threat to surface water and groundwater, if they are located near manure facilities, as they can provide a direct conduit to such waters. The owner or developer of a new site should locate, remove and redirect drainage tiles around storage structure sites. DNR may require an existing facility to conduct the same evaluation for drain tiles as required for a new site. All confinement feeding operation owners are encouraged to conduct a voluntary effort to identify and isolate drain tiles to reduce the risk of pollution if a containment structure fails.

M. Manure Application Certification

Commercial manure applicators and confinement site manure applicators must be certified. Certification fees are \$50.00 per year per person for commercial and \$50.00 per person every three years for confinement site operators. Certification involves an exam and/or training. Commercial applicators must receive 3 hours of training annually or pass an exam annually. Confinement site applicators must receive 2 hours of training annually or pass an exam once every three years.

N. Other Provisions

Iowa statutes and DNR regulations contain a number of other provisions pertaining to animal feeding operations.⁴¹ These include the following:

- Counties may not regulate agricultural operations unless expressly authorized by state law.
- Habitual violators of the law may not obtain new permits for feeding operations for five years. Also, DNR may revoke or refuse to renew a permit of a habitual violator.
- DNR may not issue a permit if an enforcement action is pending.
- No unformed manure storage structures may be constructed or expanded within an agricultural drainage well area.
- A prior constructed operation already too close to a neighbor can only expand by going further away. This operation can expand to double the operation's May 31, 1995 capacity or to 625,000 pounds for swine operations or to 1,600,000 pounds for bovine operations, whichever is less.

⁴⁰ 567 IAC Chapter 65.

⁴¹ Iowa Code § 455B.

- Livestock operation owners must obtain water a withdrawal permit if withdrawing more than 25,000 gallons per day of water. (see “Regulation of Water Withdrawals”discussed infra.)⁴²

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.

O. Noxious Weeds

Iowa state law provides a listing of noxious weeds. Landowners or tenants are under a duty to cut, burn, or otherwise destroy all listed noxious weeds. Failure to destroy such weeds may be followed by an order to do so. Such an order to destroy must be delivered by official notice of service or by certified mail to the landowner and on the person in possession or in control of the land. Failure to comply with the order may be followed with an assessment of a special tax against the real estate. The assessment is based on calculations to reimburse the county for actions by the county weed commissioner’s deputies and employees to destroy the weeds. The assessment may included a 25% administrative and supervisory feed. Entry onto the land by deputies or employees under supervision by the county weed commissioner to destroy noxious weeds does not require consent by the landowner or the person in possession or control. Additionally, a fine may be imposed at ten dollars (\$10) per day for up to ten (10) days.

P. Soil and Water Conservation

1. Soil and Water Conservation Districts

Iowa has 100 soil and water conservation districts that have been established for over 50 years. Each district is governed by five elected commissioners residing within that district. These districts have broad powers which include but are not limited to:

- Conduct surveys, investigations, and research relating to such issues as soil erosion, floodwater, and sediment damages, prevention and control measures;
- Conduct demonstrational projects regarding the means, methods, and measures which soil and soil resources may be conserved;

⁴² Iowa Code § 455B; 567 IAC Chapters 51, 52, 53, and 54.

- Carry out preventive and control measures such as crop rotations, engineering operations, methods of cultivation on state lands and other lands with consent of the owner or occupier;
- Construct, improve, and maintain structures as necessary to perform authorized operations; and
- Develop comprehensive plans for the conservation of soil resources.

Districts may administer voluntary financial incentive programs to protect the long term productivity of the soil and water resources from erosion and sediment damage and to encourage the adoption of farm management and agricultural practices which are consistent with the capability of the land to sustain agriculture and preserve natural resources. Districts may also make loans of up to \$10,000 over a maximum ten year term to establish any new permanent soil and water conservation practice which the commissioners have found necessary or advisable to meet soil loss limits established for that land. Districts may also administer cost-share moneys (up to 50%) to establish mandatory soil and water conservation practices.

2. *Soil Conservation and Flood Control Districts*

Iowa also allows each county to establish soil conservation and flood control districts. These districts are established to primarily conserve water resources, prevent property and land damage from flood waters, including drainage of surface waters and overflow, and to conserve soil resources. This includes soil conservation of mining areas within the county, i.e., the replacement of soil removed over coal beds or strata. A former levee, drainage, or improvement district may be established to include flood control or soil conservation projects upon the district board's petition. The new district may include any additional lands deemed necessary. However, any outstanding indebtedness of the old levee or drainage district shall be assessed only against the lands previously included.

3. *Watershed Task Force*

In 1999, the Iowa legislature appropriated \$1.25 million to establish a task force to study accelerated watershed protection efforts to reduce soil erosion, protect water quality, and provide flood control in priority watersheds. The watershed approach is a landscape-oriented approach that recognizes linkages between land uses, including those that occur in uplands, and their impacts on water quality and quantity, floodplains and downstream communities. A copy of the Watershed Task's Report is available online at <http://www.agriculture.state.ia/pdfs/watershedtf.pdf>, or by contacting the Soil Conservation Division of the Iowa Department of Agriculture and Land Stewardship.

Q. Aquaculture

DNR regulations contain a listing of aquaculture species approved for propagation and sale.⁴³ Producers must obtain an importation permit from DNR prior to receiving, propagating, or selling any aquaculture species not on the DNR approval list. Additionally, an importation permit is required before any live fish, viable eggs, or semen from the salmonid or ictalurid families are imported into the state. Importation permits for the salmonid or ictalurid families will not be issued until the producer provides a statement certifying the fish, eggs or semen to be free of certain listed diseases.

R. Dead Animal Disposal

Iowa requires a license from IDALS and a \$100 fee per year for those in the business of disposing of dead animals, i.e., rendering plants. The obtaining of the hide, skin, or grease from a dead animal is deemed to be engaged in the business.

Regardless of whether one is in the business or not, bodies or portions of bodies not consumed by burning or cooking are to be covered with quicklime and buried below four or more feet of natural surface within 24 hours of death. On-farm burial is allowed. Bodies hauled or transported must be in covered and watertight containers. A violation of the disposal law is considered a misdemeanor.

A 1994 interpretation of on-farm solid waste disposal rules by the Iowa Department of Natural Resources (DNR) allows another option for disposing of dead stock. On-farm composting is now allowed without obtaining a special sanitary disposal permit from DNR as long as certain requirements are met:

- Dead animals originate from operations located on the premises;
- Dead animals are placed in the composter within 24 hours of death and are covered with sufficient compost material to prevent access by domestic or wild animals;
- Stabilized compost must not be stored more than 12 months and must be applied to land at rates consistent with nutrient requirements;
- Composter construction utilizes weather and rot resistant materials;
- Composting must be done on an impervious weight bearing surface located outside of wetlands or the 100-year flood plain, and at least 100 feet from private

⁴³ 571 IAC Chapter 89.

wells, 200 feet from public wells, 500 feet from neighboring residences, 100 feet from flowing or intermittent streams, lakes, or ponds.

For more information about composting, contact the Iowa DNR or the Department of Agricultural & Biosystems Engineering, Iowa State University.

S. Environmental Audits

Producer Note: Several states have passed environmental audit protection laws which give a business immunity from the 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 they found and corrected in a self-audit process. Fewer than half of the states have this type of law. Iowa has granted this type of protection.

Notice must be given to DNR that an audit will be performed. The audit must be completed within six months.⁴⁴

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

⁴⁴ 567 IAC Chapter 12.1 to 12.4, 1998 Iowa Acts, Chapter 1109.

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. Please contact the appropriate state or federal agency for the most complete and up-to-date information.

Iowa Department of Agriculture and Land Stewardship

Henry A. Wallace Building
502 E. 9th St.
Des Moines, Iowa 50319
www.agriculture.state.ia.us
(515) 281-5321

Consumer Protection & Animal Health Div.

Director: (515) 281-3325

Plant Management & Technology Div.

Director: (515) 281-8136

Entomology & Seed Bureau (515) 242-5180

Pesticide Bureau (515) 281-8591

Division of Soil Conservation

Director: (515) 281-0531

Field Services Bureau (515) 281-5258

Water Resources Bureau (515) 281-6146

Financial Incentives Bureau (515) 281-5851

Mines & Minerals Bureau (515) 281-4246-

Iowa Department of Natural Resources

Henry A. Wallace Building, East 9th and Grand
Des Moines, Iowa 50319
(515) 281-3388

Divisions:

Environmental Protection Division

Fish and Wildlife Division

Forests and Forestry Division

Park, Recreation, and Preserves Division

Environmental Protection Division

(Programs: Air, Water, & Land Quality)

Compliance & Enforcement Bureau:

(515) 281-8973

Spills & Hazardous Material Releases:

(515) 281-8694

Air Quality Program

7900 Hickman Road, Suite 1

Urbandale, IA 50320

Main: (515) 281-7832

Compliance Assistance: (515) 281-8034

Construction Permits: (515) 281-8189

Operating Permits: (515) 281-8969

Compliance & Permits: (515) 281-5600

Construction Services: (515) 281-8686

Building Projects: (515) 281-5992

Land Quality Program

Main: (515) 281-8934

Dead Livestock Disposal:

(515) 281-3426

Hazardous Waste: (515) 281-8927

Waste Management: (515) 281-4367

Solid Waste Section: (515) 281-4968

Underground Storage Tank: (UST): (515) 281-8135

UST Fund & Eligibility: (515) 284-1616

Water Quality Program

Main: (515) 281-8869

Agriculture Drainage Wells:

(515) 281-5029

Private Water Well Construction:

(515) 281-8998 standards

(515) 281-7814 permits

Protected Water Areas: (515) 281-3449

Nonpoint Source Pollution:

(515) 281-8395

Water Supply Section: (515) 281-8998

Water Allocation & Use: (515) 281-8998

Wastewater Section: (515) 281-8877

Animal Feeding Operations

Manure Mgmt. Plan Review:

(515) 281-4701

Construction Permits:

(515) 242-6126

NPDES/Operating Permits:

(515) 281-8868

Feedlots: (515) 281-8868

Water Resources: (515) 281-5029

Environmental Protection Field Offices

Field Office 1:
909 West Main, Suite 4
Manchester, IA 52057
(319) 927-2640

Field Office 2:
2300 15th Street SW
Mason City, IA 50401
(515) 424-4073

Field Office 3:
1900 N. Grand Avenue
Spencer, IA 51301
(712) 262-4177

Field Office 4:
706 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5:
607 East 2nd Street
Des Moines, IA 50309
(515) 281-9069

Field Office 6:
1004 W. Madison
Washington, IA 52353
(319) 653-2135

Fish and Wildlife Division

Henry A. Wallace Building
Des Moines, IA 50319
Main: (515) 281-4687

Fish and Wildlife Bureaus:

Fisheries Bureau

Main: (515) 281-3474

Aquatic Education:

(515) 747-2200

Aquatic License:

(515) 281-5638

Fish Farming: (515) 647-2406

Wildlife Bureau

Main: (515) 281-4687

Endangered & Threatened Species:

(515) 281-8524 animals

(515) 281-3891 plants

Hunting Preserve Operators License: (515)
281-4515

Shelterbelt Program:

(515) 281-8664

Wildlife Areas: (515) 281-
5529

Forests and Forestry Division

Henry A. Wallace Building;
Des Moines, Iowa 50319-0034
(515) 281- 8656

Parks, Recreation, and Preserves Division

Henry A. Wallace Building
Des Moines, Iowa 50319-0034
(515) 281-5207

Natural Resources Conservation Service (USDA)

693 Federal Building
210 Walnut Street, Suite 693
Des Moines, IA 50309-2180
515-284-6655

Iowa State University Extension

Agriculture and Natural Resources
109 Curtiss Hall
Iowa State University
Ames, IA 50011
(515) 294-7801