
Iowa Farm*A*Syst

A Farmstead Assessment System

Assessing Your Fertilizer Storage & Management



Simple

Confidential

Accurate

What is Iowa Farm*A*Syst?

Iowa Farm*A*Syst is a farmstead assessment system developed to assist rural residents in protecting their water resources, particularly their drinking water. Individuals can tailor the Iowa Farm*A*Syst program to meet their needs by choosing specific topics that fit their farmstead or acreage. The Iowa Farm*A*Syst program is based on a series of 12 publications, including the following:

- Assessing Your Farmstead Characteristics (EDC 264)
- Assessing Your Water Well Condition & Maintenance (EDC 265)
- Assessing Your Household Wastewater Management (EDC 266)
- Assessing Your Open Feedlot Manure Management (EDC 267)
- Assessing Your Confinement Livestock Manure Management (EDC 268)
- Assessing Your Milking Center Wastewater Management (EDC 269)
- Assessing Your Dead Animal Management (EDC 270)
- Assessing Your Pesticide Storage & Management (EDC 271)
- Assessing Your Fertilizer Storage & Management (EDC 272)
- Assessing Your Petroleum Storage & Management (EDC 273)
- Assessing Your Hazardous Materials Storage & Management (EDC 274)
- Assessing Your Emergency Response Planning for Manure Spills (EDC 328)

Each publication gives you a brief background on the subject and an assessment worksheet to evaluate on-farm practices affecting water quality. Also included are references to Iowa environmental laws and contact information for technical advice.

Why should I use the Iowa Farm*A*Syst materials?

Seventy-five percent of Iowans get their drinking water from groundwater sources. These sources include private wells, in addition to municipal wells and rural water sources. If your drinking water comes from a private well, you have good reason to be concerned about the quality of your drinking water. A 1990 statewide survey of rural well water found that 45 percent of private wells are contaminated with coliform bacteria, 18 percent contain unsafe levels of nitrate, and 14 percent contain pesticides. The Iowa Farm*A*Syst publications help you to determine what environmental risks could threaten your family's health and financial security and suggest the resources to help make necessary changes.

How do I start assessing my farmstead?

The 12 Iowa Farm*A*Syst publications are each designed to be stand-alone publications. However, the first step to assessing your farmstead should be to draw a map of the area, labeling any potential sources of contamination. *Iowa Farm*A*Syst Assessing Your Farmstead Characteristics* can help you get started. Every farmstead is unique. You need to evaluate your farmstead's site characteristics to determine the potential for groundwater and surface water contamination. You cannot change the features of your farmstead, but once you are aware of them you can modify your activities to minimize the potential for groundwater contamination. After you have mapped your farmstead, consider what management decisions may be affecting the quality of your water resources. This process will help you to prioritize which of the other Iowa Farm*A*Syst assessments you may want to complete.

For more information or to download additional Iowa Farm*A*Syst publications, visit www.iowafarmasyst.com

or

**Contact Rick Robinson, Iowa Farm Bureau
(515) 225-5432**

Publications are also available through the Iowa State University Extension Distribution Center at www.extension.iastate.edu/store/ or 515-294-5247.



Fertilizer Storage and Handling

It has been said the premier innovations in agriculture have been the plow, hybrid seed and commercial fertilizer. Farmers at the turn of the century could barely scratch out a living for their family. Today, the average modern farmer provides food for nearly 200 people each year.

Most Iowa farmers apply fertilizer shortly after it is delivered to the farm or have it custom applied by a local supplier. Either method reduces storage and handling, reducing the chance for groundwater contamination.

A farmer may be tempted to start buying fertilizer in bulk, because it costs less than buying it at average retail prices. However, when fertilizer is purchased from a local dealer you're buying more than just product. The dealer may also be assuming responsibility for major expenses, such as product delivery, the storage facility, inventory management, equipment and a certain level of environmental liability.

You may want to check with your lender and insurance carrier prior to

purchasing and storing your own fertilizer. Iowa has some of the most stringent fertilizer storage laws in the country, and storing and handling your own fertilizer may cost significantly more than you think.

NOTE: Anhydrous ammonia is strictly regulated by the State of Iowa. The permanent storage of anhydrous ammonia is regulated by the Iowa Department of Agriculture and Land Stewardship (IDALS), and is not included in this publication.

This publication does not summarize all the laws related to fertilizer storage and disposal practices in Iowa. Due to the complexity of Iowa law concerning fertilizer, you are advised to contact IDALS or your regional DNR office if you have additional questions that are not addressed in this publication. Contact information for the offices is located in the "For More Information" section in this publication.



"What problems can result if fertilizer enters my drinking water?"

Nitrate Contamination

Fertilizer is vital to agriculture, because it greatly enhances crop yields. However, nitrate-contaminated groundwater can cause human health problems. If nitrogen fertilizer contaminates groundwater to a level above the public health standard, there is a potential health risk.

- **Nitrates in fertilizer can contaminate drinking water and cause human health problems.** The public health standard for drinking water is 10

milligrams per liter (mg/l), or parts per million (ppm), of nitrate-nitrogen or 45 ppm of nitrate.* At levels greater than the standard, infants under six months of age may be susceptible to methemoglobinemia, commonly called blue baby syndrome. Elevated levels of nitrates may contribute to the development of certain kinds of cancers in otherwise healthy adults.

- **Animals can also experience health problems from high nitrate levels.**

*How nitrate levels are reported

The maximum acceptable level of nitrates in your drinking water may be reported in two ways:

- 10 ppm nitrate measured as nitrate-nitrogen (NO₃-N)
 - 45 ppm of nitrate measured as nitrate (NO₃)
-

Nitrate-nitrogen levels below 100 ppm will not cause problems for any class of livestock. However, if nitrate-nitrogen

levels exceed 100 ppm, some animals may be affected.



“What are the requirements for storing fertilizer on my farm?”

Storage Requirements for Liquid Fertilizer

Do you...	NO	YES
...store more than 5,000 gallons of liquid fertilizer (does not pertain to anhydrous ammonia) in non-mobile storage?	<input type="checkbox"/>	<input type="checkbox"/>
If you answered YES to the above question, you are required to have a permanent storage facility, which includes secondary containment . For assistance, contact the Iowa Department of Agriculture & Land Stewardship (IDALS).		

Storage Requirements for Dry Fertilizer

Do you...	NO	YES
...store dry fertilizer in a partially enclosed building OR load fertilizer outside?	<input type="checkbox"/>	<input type="checkbox"/>
If you answered YES to the above question, then you are required to have a secondary containment structure . For assistance, contact the Iowa Department of Agriculture & Land Stewardship (IDALS).		

What is mobile storage?

The state requires that mobile storage be licensed, that it be drivable and that it is moved regularly. Storing liquid fertilizer in a semi-trailer truck that is not roadworthy is not considered to be mobile storage.

Permanent Fertilizer Storage Facility

You are required to have a permanent fertilizer storage facility if you store more than 5,000 gallons of liquid fertilizer in non-mobile storage.

A permanent storage facility must include secondary containment, loading pad and maintain minimum separation distances from wells. The facility must be designed by a Licensed Professional Engineer. The plans must be submitted to IDALS prior to construction.

Secondary Containment

Secondary containment is a safety measure designed to prevent fertilizer from contaminating the environment before spills, leaks and ruptured tanks can be cleaned up. Secondary containment also simplifies fertilizer clean up.

You are required to have a secondary containment structure as part of a permanent liquid fertilizer storage facility, or if you store dry fertilizer in a partially enclosed building or if you load fertilizer outside. Construction of secondary containment structures are subject to stringent regulations. The structure must be designed by a Licensed Professional Engineer and the plans must be submitted to IDALS prior to construction.



“Are there special precautions I should take when storing fertilizer?”

Fertilizer Storage Recommendations for All Farms

Basic fertilizer storage strategies include the following:

- **Do not store fertilizer in livestock areas or feed storage areas.** The fertilizer may be accidentally mixed with animal feed or the animals may get loose and consume the fertilizer.
- **Maintain secondary containment, regardless of the volume of stored fertilizer.** Secondary containment refers to structures under and around the stored fertilizer to contain leaks, spills and ruptured tanks. Also, use pallets to keep large drums and bags off the floor and use shelves with lips. Store dry products above liquids to prevent spilling the liquid onto the dry. Do not allow water to drain or collect in the secondary containment area. Properly dispose of accumulated rain water in the secondary containment structure by testing the water and land applying at agronomic rates.
- **Fertilizer storage areas should be at least 150 feet* from private water wells, 400 feet from a public water supply and down slope from the well water supply.** Separation distances should be greater if a site has sandy

soils or fractured bedrock. Do not store fertilizers in a flood plain.

- **The mixing area should be as close as possible to the storage area.** This minimizes the distance fertilizers are carried.
- **The secondary containment area needs to be big enough to handle spills.** Secondary containment must be large enough to hold 120 percent of the contents of the largest container, plus the displaced volume of storage tanks in the area. If storing dry fertilizer, the secondary containment should have at least a six-inch curb.
- **Lock the storage buildings and tanks for added security.** Locks prevent theft and vandalism, while securing the area from children, pets and livestock.
- **Provide signs or labels identifying the building or tanks as fertilizer storage areas.** Post signs that say “Danger – Fertilizers, Keep Out!” above every door and window in a storage area. Provide adequate road access for deliveries and emergency equipment in case of a spill or a fire.
- **Keep clean water, soap and hand cleaner in the storage area.** Water is an important part of first aid in a poisoning emergency.

Most insurance companies have put a “pollution exclusion” on their farmstead policies. For instance, if the building where you store fertilizer catches fire, you may be liable for the loss of fertilizer, cost of cleanup, and environmental fines or penalties resulting from environmental damage.

* Iowa law governing pesticide and fertilizer storage sets a 150 feet minimum separation distance from private wells. Conversely, according to Iowa law governing private wells, the minimum separation distance from pesticide and fertilizer storage is 100 feet.

Dry fertilizer that is impregnated with a pesticide must be treated as a pesticide. Please refer to the Iowa Farm*A*Syst Pesticide Storage and Management publication for additional information.

In-field mixing and loading of fertilizer is exempt from the containment area requirement of Iowa law.

Field washing of application equipment is encouraged, if runoff does not occur.



“I don’t store fertilizer – I apply it as soon as I receive it. Are there any recommendations for my short-term storage activities?”

Temporary Storage Recommendations for All Farms

Busy times of the year require farmers to temporarily store fertilizer in mobile containers. When temporary storage is needed, follow these simple guidelines:

- **Try to use the fertilizer immediately or keep storage time to a minimum.** The longer fertilizer is in a tank, the more likely something could happen to cause it to leak.
- **The best place to temporarily store a mobile liquid fertilizer tank is in a field.** If a leak or spill occurs there, the risk of surface water and groundwater contamination is minimized. Make sure the fertilizer container isn’t parked near livestock, waterways, bodies of water, tile intakes, water wells or ag drainage wells. Also try to avoid parking the equipment in an obvious spot to reduce chances for vandalism.

Avoid storing mobile containers on a farmstead because an accidental spill or leak could contaminate your well and groundwater. Store anhydrous ammonia tanks in a highly visible field area. The tanks are susceptible to vandalism and theft because anhydrous is a primary ingredient in illegal methamphetamines. The permanent storage of anhydrous ammonia is strictly regulated by IDALS and is not covered in this publication.

- **Make sure you check mobile containers for leaks.** In addition to an initial inspection, check the liquid fertilizer tanks several hours after they are delivered. Damage to clamps or hoses that occur in transit may not show up until later. Check containers every other day after delivery to make sure leaks have not developed.



“Are there laws governing how I mix and load fertilizer?”

Mixing and Loading Fertilizer in the Field

When mixing, loading and unloading liquid and non-liquid fertilizers in the field, care should be taken to minimize dust and vapor movement away from the mixing site.

Groundwater contamination can result from small quantities of fertilizer spilled regularly in the same place. Avoid mixing and loading on sandy soils because fertilizer can quickly seep into the groundwater. Also avoid loading and mixing fertilizers near wells, waterways,

ag drainage wells, sinkholes, creeks, rivers and ponds.

Always supervise tank filling and install anti-backflow devices on the hydrant used for tank filling. Maintain at least a six-inch air gap between the hose and the top of the tank. Field washing of application equipment is encouraged, if runoff does not occur.

When fertilizer is handled in permanent storage areas, Iowa law requires additional safety measures (see page 4).



“What happens if a fertilizer spill occurs?”

Cleaning Up Fertilizer Spills

If a fertilizer spill occurs and contaminated water fills a secondary containment structure, do not pump it away. This process defeats the purpose of secondary containment.

The state requires that contaminated water or potentially-contaminated water be retained until it can be field applied at agronomic fertilizer application rates. Make sure you have a plan for a spill in case one occurs.

Penalties for dumping contaminated water are rather stiff. Penalties include restitution for the aquatic life killed, plus a fine of up to \$10,000.

Reporting Fertilizer Spills

A fertilizer spill must be reported if:

- The fertilizer has the potential to leave the property by flowing over the surface or through sewers, tile lines, culverts, drains, utility lines or some other means.
- The fertilizer has the potential to reach groundwater or any surface water body.

How to report a fertilizer spill:

- Call the DNR 24-hour telephone number 515-281-8694 .
- The DNR will advise you on what other reports you may need to complete.
- All spills must be reported within six hours of occurrence or discovery.

Fertilizer that was spilled should be cleaned up and field applied at agronomic fertilization rates.

Reporting a spill within six hours DOES NOT result in an automatic fine. However, the DNR may penalize you if you fail to report a spill within six hours, the spill causes a fish kill, is prohibited discharge or you fail to take appropriate action to contain and/or clean up the spill.



“How do I dispose of unused fertilizers?”

Fertilizer Disposal

The Regional Collection Centers (RCCs) located throughout Iowa will accept fertilizer waste from farms. They may charge a nominal disposal fee for fertilizer waste. To locate the RCC closest to you, see page 11 of this publication.

Toxic Clean Up Days are held in various counties that are not served by an RCC. Contact your Iowa State University County Extension office, county sanitarian or DNR field office for more information.



For More Information

Iowa Department of Natural Resources
Information 515-281-5918
www.iowadnr.com

24 Hour Spill Reporting
515-281-8694

DNR Environmental Services **Division Field Offices**

Atlantic 712-243-1943
Des Moines 515-725-0268
Manchester 563-927-2640
Mason City 641-424-4073
Spencer 712-262-4177
Washington 319-653-2135

- Assists with understanding Iowa Law requirements.
- Documents spill reports made to the DNR Emergency Response Unit.
- Coordinates with local officials.

Regional Collection Centers (RCCs)

Refer to page 11 of this publication for a list of counties served by RCCs and contact information.

- Collects and disposes of unused fertilizers.
- Collects and disposes of household hazardous material.

Iowa Department of Agriculture and Land Stewardship

Fertilizer Bureau 515-281-8599
*www.agriculture.state.ia.us/
fertilizerbureau.htm*

- Administers and enforces Iowa fertilizer laws.
- Clarifies on-farm secondary containment requirements.

Iowa State University Extension
www.extension.iastate.edu/

Contact your county extension office. The county director, area crops specialist, or area ag engineer can answer your questions or direct you to other extension specialists.

- Assists with locating a local engineer.
- Provides publications on a variety of topics available at Iowa State University Extension county offices or from the Extension Distribution Center, Ames, IA (515-294-5247). Many of the publications are available online at *www.extension.iastate.edu/store/*

Midwest Plan Service

www.mwpsHQ.org 800-562-3618

- Develops a variety of objective, university-based agricultural publications.
- Distributes publications on fertilizer storage and secondary containment facilities including NRAES-78 *On Farm Agrichemical Handling Facilities* and MWPS-37 *Designing Facilities for Pesticide and Fertilizer Containment*.

Assessment: Fertilizer Storage and Management

Evaluate your potential risk for having unsafe drinking water as it relates to fertilizer storage and management. Choose the risk category that best fits your situation. Note how likely you are to have drinking water problems, as indicated by "low risk," "moderate risk" and "high risk."




Take special note of the critical evaluation points. If you fail to meet these standards, your drinking water supply is in immediate danger.



Those situations that violate Iowa law are indicated by '!' and printed in bold text.

RISK	LOW RISK	MODERATE RISK	HIGH RISK
Fertilizer storage			
Dry fertilizer storage	<input type="checkbox"/> No dry fertilizer stored at any time.	<input type="checkbox"/> Dry fertilizer is mixed, stored and loaded in a completely enclosed building OR <input type="checkbox"/> Fertilizer is stored outside or partially enclosed with secondary containment AND <input type="checkbox"/> Secondary containment plans were designed by a Licensed Professional Engineer AND <input type="checkbox"/> Construction approved by the Iowa Department of Agriculture and Land Stewardship	<input type="checkbox"/> Storage and loading facility not totally enclosed OR <input type="checkbox"/> Lacks secondary containment.
Liquid fertilizer storage - any volume stored	<input type="checkbox"/> No dry fertilizer stored at any time.	<input type="checkbox"/> Fertilizer stored in a building with secondary containment having at least 120% of capacity AND <input type="checkbox"/> Containment structure is watertight AND <input type="checkbox"/> Storage tanks are checked regularly for leaks.	<input type="checkbox"/> No secondary containment OR <input type="checkbox"/> Secondary containment structure is not watertight OR <input type="checkbox"/> Storage tanks not checked regularly for leaks.
Liquid fertilizer storage - more than 5000 gallons stored	<input type="checkbox"/> Storage area has secondary containment AND <input type="checkbox"/> Plans were designed by a Licensed Professional Engineer AND <input type="checkbox"/> Construction approved by the Iowa Department of Agriculture and Land Stewardship.		<input type="checkbox"/> No secondary containment structure OR <input type="checkbox"/> Secondary containment was not designed by a Licensed Professional Engineer OR <input type="checkbox"/> Construction was not approved by Iowa Department of Agriculture and Land Stewardship.

RISK	LOW RISK	MODERATE RISK	HIGH RISK
Accumulated rainwater in secondary containment structure	Accumulated rainwater is: <input type="checkbox"/> Tested for nutrients AND <input type="checkbox"/> Removed promptly AND <input type="checkbox"/> Field applied at agronomic rate.	Accumulated rainwater is: <input type="checkbox"/> Not tested for nutrients OR <input type="checkbox"/> Not promptly removed.	Accumulated rainwater is: <input type="checkbox"/> Discharged over land or to a waterway.
Security	<input type="checkbox"/> No liquid fertilizer stored	<input type="checkbox"/> Fertilizer stored in fenced or locked area separate from all other activities. <input type="checkbox"/> Locks are installed on tank valves (for liquid fertilizer).	<input type="checkbox"/> Storage area open to theft, vandalism and children.
Separation distance from water well 	<input type="checkbox"/> Fertilizer storage site at least 150 feet* from water well.		<input type="checkbox"/> Fertilizer storage site less than 150 feet* from water well.
Storage location of mobile fertilizer tank	<input type="checkbox"/> Parked down slope from water well AND <input type="checkbox"/> Parked at least 150 feet from wells.		<input type="checkbox"/> Parked up slope from well or water supply OR <input type="checkbox"/> Parked less than 150 feet from wells.
Mobile tank inspection	<input type="checkbox"/> Mobile tanks inspected within 12 hours of delivery AND <input type="checkbox"/> Tanks checked at least every other day.	<input type="checkbox"/> Tanks checked only when received.	<input type="checkbox"/> Tanks not checked.
Mixing and loading practices			
Spill containment	<input type="checkbox"/> Mixing and loading performed in the field of application.	<input type="checkbox"/> Mixing and loading performed on a concrete pad with curb OR <input type="checkbox"/> Dry fertilizer is mixed, stored and loaded in a completely enclosed building.	<input type="checkbox"/> Mixing and loading not performed on a concrete pad with curb OR <input type="checkbox"/> Dry fertilizer is not mixed, stored and loaded in a completely enclosed building.
Cleanup and disposal practices			
Equipment washing	<input type="checkbox"/> Equipment washed in-field AND <input type="checkbox"/> No runoff occurs.	<input type="checkbox"/> Equipment washed at farmstead AND <input type="checkbox"/> Rinsate collected and field applied at agronomic rate.	<input type="checkbox"/> Equipment washed at farmstead AND <input type="checkbox"/> Rinsate dumped at farmstead or in nearby field.
Disposal of unused fertilizer	<input type="checkbox"/> Fertilizer is field applied at agronomic rate on unfertilized land OR <input type="checkbox"/> Taken to Regional Collection Center or Toxic Clean-up Day.		<input type="checkbox"/> Fertilizer is allowed to build-up over time OR <input type="checkbox"/> Disposed of in landfill OR <input type="checkbox"/> Disposed of on the farm.

 Critical
 Violates Iowa law

* Iowa law governing pesticide and fertilizer storage sets a 150 feet minimum separation distance from private wells. Conversely, according to Iowa law governing private wells, the minimum separation distance from pesticide and fertilizer storage is 100 feet.

RCC Contact Information

Areas Served	Main Facility Name	Phone	Areas Served	Main Facility Name	Phone
Adair Co.	Metro Waste Authority	641-743-8343 fax 641-743-0133	Johnson Co.	Iowa City RCC	319-356-5170 319-887-6112 319-887-6113 319-887-6160
Appanoose	Rathbun RCC		Jones Co.	Clinton Co. SWA	563-243-4749
Audubon Co.	Prairie RCC/ www.praireswa.org	712-563-3589	Keokuk Co.	SEMCO	319-456-6171
Benton Co.	ECICOG - Jennifer Ryan 319-365-9941	319-472-2211 319-454-6392	Keokuk Co.	Satellites	641-622-3080
Boone Co.	Metro Waste Authority	515-433-0591	Kossuth Co.	Landfill of North Iowa	515-924-3739
Bremer	Bremer Co. RCC	319-352-4574	Lee Co.	HazChem Center of Southeast Iowa	319-753-8758 877-429-2436
Buchanan Co.	Bremer Co. RCC	319-440-1080	Linn Co	Cedar Rapids / Linn Co SWA http://solidwasteagency.org	319-373-4771 319-373-4771
Buena Vista, Cherokee and Plymouth Co.	PCB	712-225-3749	Lucas Co.	Metro Waste Authority (SCISWA)	641-828-8545
Butler Co.	Bremer Co. RCC	319-267-2070	Madison Co.	Metro Waste Authority	515-462-3083
Carroll Co.	Metro Waste Authority	712-792-5001	Mahaska Co.	Mahaska County RCC	641-673-9266
Cass Co.	Prairie RCC/ www.praireswa.org	712-243-1991	Marion Co.	Metro Waste Authority (SCISWA)	641-828-8545
Cedar Co.	Clinton Co. SWA	563-243-4749	Marshall Co.	Metro Waste Authority	641-752-0646
Cerro Gordo	Landfill of North Iowa	641-357-5452	Mitchell Co.	FMC RCC	877-982-4288
Chickasaw Co.	FMC RCC	877-982-4288	Monona Co.	Monona Co. RCC	712-353-6300
Cities of Kalona & Riverside in Washington Co.	Iowa City RCC	319-356-5170	Monroe Co.	Metro Waste Authority (SCISWA)	641-828-8545
Cities of Klemme, Garner, Forest City, Joice, Hanlontown, Northwood, Kennset, Manly, Grafton, Nora Springs	Landfill of North Iowa	641-357-5452	Muscatine Co.	Waste Commission of Scott County	563-263-9689
City of Armstrong in Emmet Co.	Dickinson RCC	712-338-4786	Page Co.	Council Bluffs RCC	712-542-4215
Clarke Co.	Prairie RCC/ www.praireswa.org	641-342-2662	Polk Co.	Metro Waste Authority	888-603-2739 515-967-5512
Clinton Co.	Clinton Co. SWA	563-243-4749	Pottawattamie	Council Bluffs RCC	877-366-9812 712-328-4985
Crawford Co.	Metro Waste Authority	712-792-5001	Poweshiek Co.	Metro Waste Authority (SCISWA)	641-828-8545
Dallas Co.	Metro Waste Authority	515-967-5512	Scott Co.	Waste Commission of Scott County	563-381-1300
Delaware Co.	Dubuque Co. RCC	563-589-1720	Shelby Co.	Metro Waste Authority	712-792-5001
Des Moines Co.	HazChem Center of Southeast Iowa	319-753-8758 877-429-2436	Sioux City	Sioux City RCC	712-279-6222 712-279-6292
Dickinson Co.	Dickinson RCC	712-338-4786	Sioux, Lyon, Osceola, O'Brien Counties, Small Communities of Clay Co	NIASWA RCC	712-324-4026
Dubuque Co.	Dubuque Co. RCC	563-589-1720 563-589-4354	Story Co. Resource Recovery Plant	Metro Waste Authority	515-239-5137 1-877-639-5661
Floyd Co.	FMC RCC	641-982-4288	Tama Co.	ECICOG - Jennifer Ryan 319-365-9941	641-484-3341 641-484-5061
Franklin Co.	Landfill of North Iowa	641-357-5452	Union Co.	Prairie RCC/ www.praireswa.org	641-347-5022
Greene Co.	Metro Waste Authority	515-967-5512	Van Buren	HazChem Center of Southeast Iowa	319-753-8758 877-429-2436
Grundy Co.	Metro Waste Authority	319-824-6967	Warren Co.	Metro Waste Authority	515-961-9410
Hardin Co.	Metro Waste Authority	641-939-5808	Washington Co.		319-653-6373
Harrison Co.	Metro Waste Authority	712-644-3093	Wayne-Ringgold- Decatur	Prairie RCC/ www.praireswa.org	641-773-5229
Henry Co.	HazChem Center of Southeast Iowa	319-753-8758 877-429-2436			
Howard Co.	FMC RCC	877-982-4288			
Iowa Co.	ECICOG - Jennifer Ryan 319-365-9941	319-828-4401			
Jackson Co.	Clinton Co. SWA	563-243-4749			
Jasper Co.	Metro Waste Authority	641-792-3866			
Jefferson Co.		641-472-2952			



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