

Chronic Wasting Disease

A Guide for Iowa's Hunters



This buck was harvested within the Wayne County Deer Management Zone and while it appears totally healthy, it tested positive for chronic wasting disease. The Iowa DNR is committed to fighting the spread of this 100 percent fatal disease and harvesting infected deer is the best way to slow the spread. Infected deer may not display signs of illness, and testing is the only way to know if a deer is infected.

Chronic Wasting Disease Basics

Chronic Wasting Disease (CWD) is a 100% fatal disease that impacts members of the Cervidae, or deer, family. In Iowa, CWD affects our white-tailed deer populations but can also affect moose, elk, mule deer, and caribou. The infectious agent that causes CWD is a misfolded protein, called a prion. The misshapen prion causes holes to form in the brain that impact neurological function, though most signs or symptoms do not begin to show in the animal until around 18 to 36 months (a year and a half to three years) after infection. Prions can be found throughout the entire body, including muscle tissue, although some locations can contain higher concentration than others. Some high concentration areas include the brain, spinal cord and lymph nodes.

Partnering to Fight Chronic Wasting Disease

Establishing and maintaining relationships with stakeholders is necessary for effectively managing CWD in Iowa. The Iowa Department of Natural Resources relies on landowner relationships to grant access for CWD surveillance and management through sick animal reports, harvest, and tissue sample collection. The DNR uses outreach and educational events to distribute CWD information to build and foster working relationships with our constituents. Together, we can work to preserve the white-tailed deer hunting tradition in Iowa through CWD surveillance and management.

What's Being Done

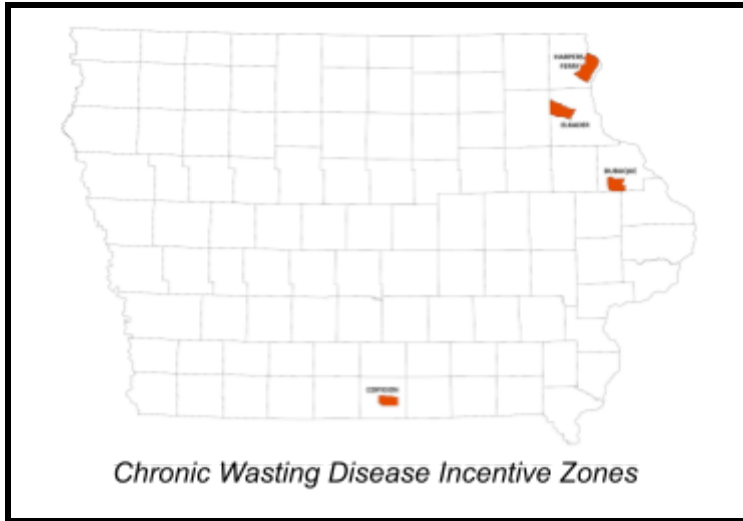
Although not discovered in Iowa until 2013, the Iowa Department of Natural Resources (DNR) has been monitoring for the disease since 2002. A dynamic sample quota system has been used statewide to detect the disease in new areas, then monitor once discovered. When CWD is detected in an area, a Deer Management Zone is established.



Deer Management Zones (see map left):

Deer Management Zones (DMZ) are established around an area where CWD has been detected. These zones are designed to encompass the core of CWD detections and areas expected to be impacted by CWD, providing a focal area for additional management efforts and surveillance. Since this disease is primarily transmitted through deer-to-deer contact, additional hunting opportunities are offered within these zones to reduce deer densities and slow the spread of the disease. Antlerless tags are allocated within the boundary that are additional to

regular county-specific antlerless tags. These tags can be purchased for any of the regular hunting seasons and are bonus tags, meaning hunters can spend more time in the field to harvest antlerless deer. Additional tissue samples are also collected within these zones to better estimate CWD prevalence within the zone. Hunters who harvest deer within DMZ areas are encouraged to submit samples for CWD testing and can do so by contacting their local wildlife biologist to coordinate sample collection.



CWD Incentive Zone (see map left):

Within some DMZ's exist smaller CWD Incentive Zones. The goal of incentive zones is to reduce disease prevalence in areas with a high density of CWD detections through localized harvest. A special January season occurs within each of these incentive zones during which individuals can earn the ability to purchase an additional any-sex tag for the hunting season of their choice the following year. To earn this additional any-sex tag, hunters must first register to hunt within the designated area during the January season, then harvest three female deer. Once the three

female deer have been harvested, they must then be checked by local DNR staff for tissue sample collection in order to qualify for the any-sex incentive tag. These hunts have been successful in removing CWD-positive deer that may have otherwise continued to spread the disease.

Submitting Samples: There are currently two ways to submit tissue samples for CWD testing. The first option is to contact local DNR wildlife staff to submit a sample to the DNR's statewide surveillance program. Sample quotas are allocated for each county and DMZ. This option requires the deer to be a minimum of 1-½ years of age and is free of charge to the hunter. The second option, known as the Hunter Submission Pathway, is available for deer that do not meet minimum age requirements or when sampling quotas are met in the area where the deer is harvested. The DNR has a partnership with the Iowa State University Veterinary Diagnostic Laboratory for sample submission that can be used year-round for any deer. A \$25 fee is paid by the hunter for the laboratory to run the diagnostic testing.

The Centers for Disease Control and Prevention recommends when hunting in areas where CWD has been detected, to strongly consider having the deer tested. If the animal does test positive, the CDC recommends the meat not be consumed. For further recommendations, refer to the website provided for the Centers for Disease Control and Prevention on the reference page in the back of this booklet.

Freezer Locations: The DNR offers freezers in some areas where deer heads can be dropped off at any time for sample submission. Deer heads should have a minimum of 2" of neck tissue below the bottom jaw to ensure the lymph nodes are present for collection. Forms are provided at the freezer for hunters to fill out with the hunter information, tag registration number, and location where the deer was harvested. Please see reference pages for a full list of freezer locations.

Processing and Handling - Best Management Practices

Venison processing and carcass disposal are two very important aspects of CWD management. To help reduce CWD movement in Iowa, have a processing and carcass disposal plan in place before hunting season. Due to the resistant nature of prions, proper cleaning and disinfection procedures are necessary to minimize cross-contamination between deer and other food resources in your home. Provided below are recommended cleaning and disinfection methods followed by recommended carcass disposal options.

Best Management Practices to Process Venison

1. Wear gloves while field dressing and processing deer.
2. Dedicate knives and tools strictly for processing venison.
3. Process and package each deer individually to avoid cross-contamination.
4. Use a clear labeling system keeping all venison from each individual animal separate and organized while waiting for sample results.
5. Avoid cutting through the brain and spinal cord.
 - a. These tissues can have high concentrations of the infectious agent - the misfolded prion protein.
 - b. If these must be severed, have dedicated tools for doing so and place materials directly into double lined garbage bags for landfill disposal. Avoid using the same tools for cutting meat.
6. Clean tools and surfaces thoroughly, removing all tissue and organic matter before disinfecting. Disinfect with a 40% bleach solution for 5 minutes if possible.

Best Management Practices to Clean Equipment and Surfaces

Proper cleaning of tools and equipment after processing a deer is of utmost importance. The infectious agent that causes CWD is highly resistant, meaning additional time should be taken to ensure processing materials are thoroughly cleaned and disinfected. Recent studies have demonstrated alkaline agents are more effective versus acidic or neutral agents for cleaning. Below are steps designed to minimize risk of contamination and reduce the infectivity of prions - making them less likely to cause disease.

1. **Remove** all organic matter off tools and equipment
 - a. Disinfectants are ineffective at penetrating tissue or other solids. Any organic matter remaining on tools and equipment can harbor prions that could transfer to other surfaces
2. **Clean** tools and equipment with detergent*
 - a. This can be done with alkaline detergents as referenced above **OR** by using soap and water
 - i. Commercial dish detergent and water cleans equipment and surfaces, but does not deactivate prions
3. **Disinfect** with 40% bleach solution for 5 minutes. Research has shown this will deactivate most prions on surfaces.
 - a. Research suggests soaking tools and equipment in a solution containing 2 parts bleach and 3 parts water reduces the infectivity of prions

**For more information, see AWFA Best Management Practices for Surveillance, Management, and Control of CWD in Additional Resources*

Best Management Practices for Carcass Disposal

CWD-positive carcasses can become sources of disease transmission on the landscape if not disposed of properly. Thus, carcass management is important to disease management. Though deer can contract CWD from direct contact with infected carcasses, current research suggests that scavengers, such as coyotes, cannot. However, they can move those carcasses around the environment, potentially exposing deer in new areas. Burying carcasses when possible creates a boundary between the potentially infected carcasses and other deer or scavengers in the area. Landfilling or disposing through your local trash service is ideal, when available. Otherwise, it is best to leave carcass waste as close to the harvest site as possible to prevent the disease from spreading to new areas.

Recommend Carcass Disposal Options

1. Bury or dispose of carcasses in accepting landfills or other trash services
2. Leave carcass at the harvest site
 - a. This option is *especially* important if you hunt in a county with CWD and return to a county not known to be affected.

Carcass Movement:

It is every person's responsibility to understand the state regulations regarding the transportation of wild game parts from areas where CWD has been detected. It is illegal to import deer, elk, moose, or caribou from CWD-affected areas in other states, this includes free-ranging and captive animals. The only items allowed to be brought into Iowa from out of state areas with CWD detections are:

- Boned out meat
- Antlers (may be attached to a clean skull plate with brain and connective tissue removed)
- Clean cape

These same practices are encouraged when hunting in-state. Reducing carcass transport on the landscape minimizes the potential for introducing CWD into new areas. Before going out into the field, use resources such as the DNR's CWD Surveillance Dashboard or other state wildlife agency websites to determine if the area you will be hunting has any CWD detections. Form a plan for carcass disposal and storage according to the region. Getting your deer sampled for CWD is highly encouraged. This allows for a better understanding of disease prevalence in the area and helps all Iowans make informed consumption decisions regarding their venison.

RESOURCES FOR ADDITIONAL INFORMATION

Iowa DNR Resources



Chronic wasting disease interactive dashboard and test results page
www.iowadnr.gov/cwdresults



Iowa DNR deer health webpage
<https://www.iowadnr.gov/cwd>



Iowa Deer Management Zone map database
<https://www.iowadnr.gov/Hunting/Deer-Hunting/Deer-Health/Chronic-Wasting-Disease/CWD-Deer-Management-Zones>

Iowa State University Resources

Video demonstrating lymph node collection

- <https://youtu.be/DS1GcDHotsI>

Iowa State University Veterinary Diagnostic Laboratory sample submission

- <https://vdl.iastate.edu/portal/Submission/CWD>.

Other Recommended Resources

Center for Disease Control and Prevention information regarding chronic wasting disease

- <https://www.cdc.gov/prions/cwd/index.html>

AWFA Best Management Practices for Surveillance, Management, and Control of CWD

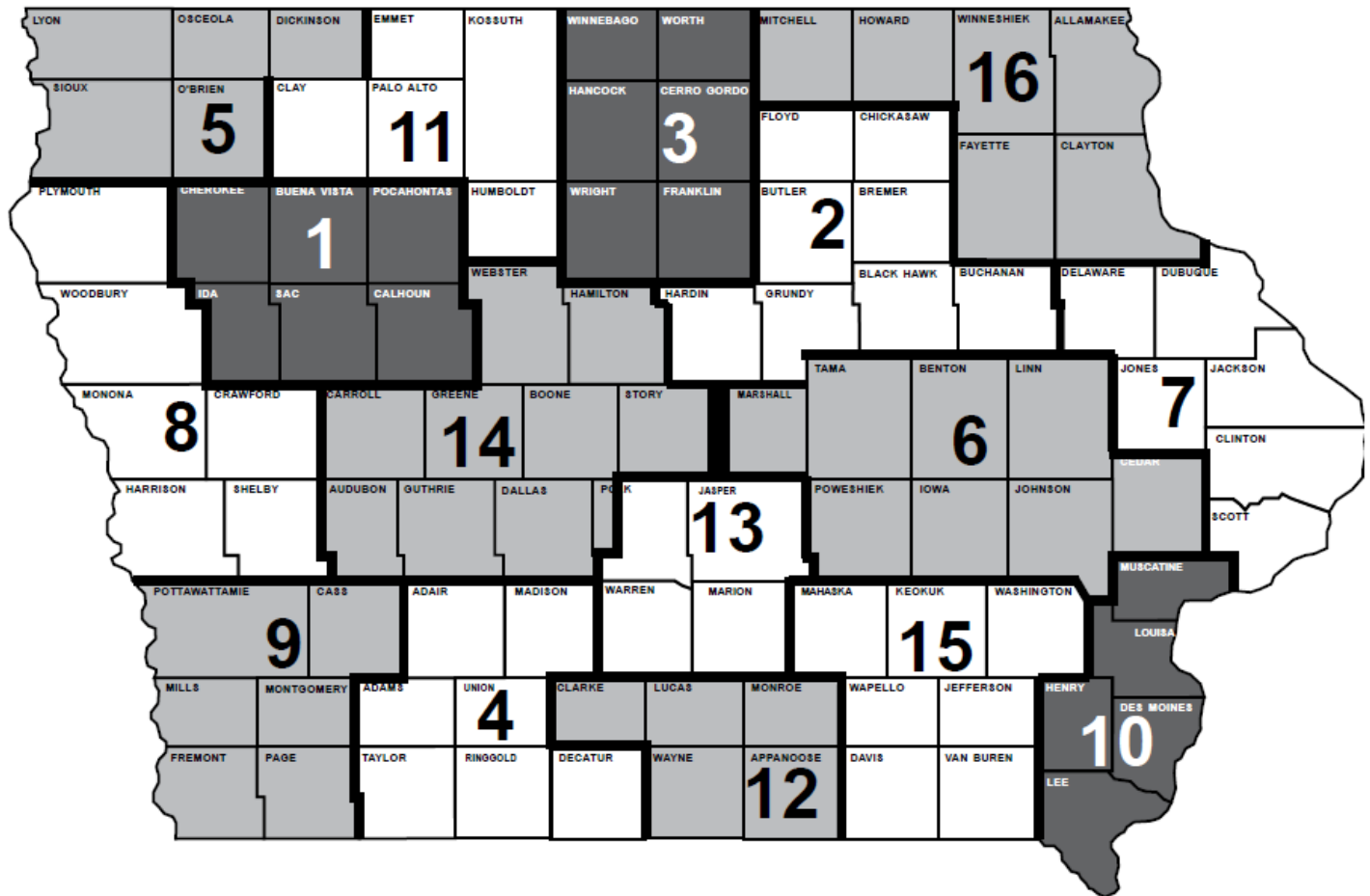
- https://www.fishwildlife.org/application/files/9615/3729/1513/AFWA_Technical_Report_on_CWD_BMPs_FINAL.pdf

Freezer Locations

To ensure lymph nodes are present, a minimum of 2 inches of neck tissue are required of all deer heads dropped off at a freezer location.

County	Location	Address	Contact
Allamakee	Harpers Ferry Boat Landing	427 N 1st St, Harpers Ferry IA 52146	Upper Iowa Wildlife Unit
Clayton	Osborne Nature Center	29862 Osborne Rd, Elkader IA 52043	Upper Iowa Wildlife Unit
Dubuque	Bait Shack	2095 Kerper Blvd, Dubuque IA 52001	Maquoketa Wildlife Unit
Dubuque	Swiss Valley Nature Center	13606 Swiss Valley Rd, Peosta IA 52068	Maquoketa Wildlife Unit
Fayette	Gilbertson Nature Center	22580 A Ave, Elgin IA 52141	Upper Iowa Wildlife Unit
Greene	Milwaukee Depot	509 E. Lincoln Way, Jefferson IA 50129	Saylorville Wildlife Unit
Greene	Spring Lake Park	1847 195th St, Jefferson IA 50129	Saylorville Wildlife Unit
Jackson	Hurstville Interpretive Center	18670 63rd St., Maquoketa IA 52060	Maquoketa Wildlife Unit
Jasper	Izaak Walton League	889 County Highway F36 Newton IA 50208	Red Rock Wildlife Unit
Jasper	Quarry Springs Park	200 North Park Rd Colfax IA 50054	Red Rock Wildlife Unit
Jasper	Rock Creek WMA	5627 Rock Creek East Kellogg IA 50135	Red Rock Wildlife Unit
Marion	Red Rock Wildlife Unit Headquarters	656 Carpenter Street, Monroe IA 50170	Red Rock Wildlife Unit
Winnebago	Decorah Hatchery	2321 Siewers Spring Rd, Decorah IA 52101	Upper Iowa Wildlife Unit

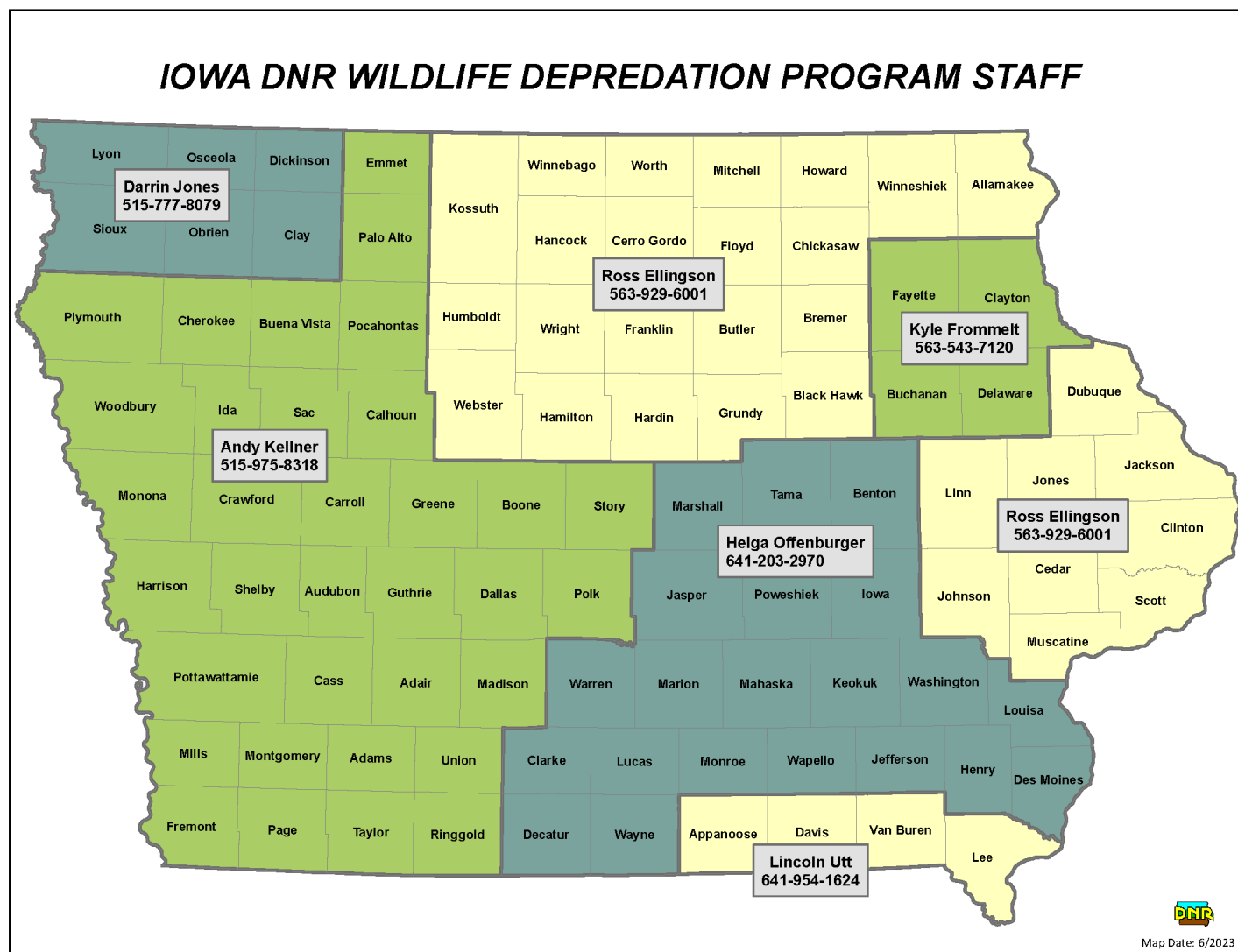
WILDLIFE MANAGEMENT BIOLOGISTS



- | | |
|---------------------------------------|--|
| 1. BLACK HAWK UNIT.....712-661-9726 | 9. NISHNABOTNA UNIT.....712-350-0147 |
| 2. CEDAR-WAPSI UNIT.....319-213-2815 | 10. ODESSA UNIT.....319-551-8459 |
| 3. CLEAR LAKE UNIT641-425-2814 | 11. PRAIRIE LAKES UNIT....712-330-2563 |
| 4. GRAND RIVER UNIT.....515-238-5708 | 12. RATHBUN UNIT.....641-535-6765 |
| 5. GREAT LAKES UNIT.....712-330-4543 | 13. RED ROCK UNIT.....515-238-6936 |
| 6. IOWA RIVER UNIT.....319-330-7013 | 14. SAYLORVILLE UNIT.....712-330-6685 |
| 7. MAQUOKETA UNIT.....563-537-2035 | 15. SUGEMA UNIT.....641-799-0793 |
| 8. MISSOURI RIVER UNIT...563-357-2035 | 16. UPPER IOWA UNIT.....563-380-3422 |

Wildlife Depredation Staff

For questions concerning wildlife damage to private property, contact the depredation staff for your county, listed on the map below.



Western Iowa

Andy Kellner.....515-975-8318

Darrin Jones.....515-777-8079

Eastern Iowa

Ross Ellingson.....563-929-6001

Kyle Frommelt.....563-543-7120

Helga Offenburger...641-203-2970

Lincoln Utt.....641-954-1624

Law Enforcement - Conservation Officers

<i>County</i>	<i>Officer</i>	<i>Cell Phone</i>
ADAIR	Grant Gelly.....	712-250-0303
ADAMS	Andrea Bevington.....	712-520-0508
ALLAMAKEE	Burt Walters.....	563-880-0108
APPANOOSE	Adam Arnold.....	641-777-2164
	Dallas Davis.....	641-777-2163
AUDUBON	Jeremy King.....	712-250-0061
BENTON	Ron Lane (east1/2)	319-350-2871
	Brett Reece (west1/2).....	641-751-0931
BLACK HAWK	Lynn Koch.....	319-240-5034
BOONE	Jeffrey Barnes.....	515-290-4907
	Brandon Bergquist.....	515-290-0177
BREMER	Lynn Koch.....	319-240-5034
	Chris Jones.....	319-939-4448
BUCHANAN	Dakota Drish.....	563-920-0566
BUENA VISTA	Brent Koppie.....	712-260-1010
BUTLER	Jordon Hansen.....	319-240-8033
CALHOUN	Nathan Hauptert.....	712-330-8462
CARROLL	Aron Arthur.....	515-370-0422
CASS	Grant Gelly.....	712-250-0303
CEDAR	Eric Wright.....	319-530-6121
CERRO GORDO	Matt Washburn.....	641-425-0822
	Ben Schlader.....	641-425-0828
CHEROKEE	Brent Koppie (east1/2).....	712-260-1010
	Chad Morrow (west1/2).....	712-260-1023
CHICKASAW	Marc Waterlander.....	319-240-6662
CLARKE	Michael Miller.....	641-414-2174
CLAY	Joe Yarkosky.....	712-260-1004
CLAYTON	Jerry Farmer.....	563-880-0422
CLINTON	Lucas Webinger.....	563-357-1078
	Terry Nims.....	563-357-1812
CRAWFORD	Gary Sisco.....	712-420-1486
DALLAS	Dustin Eighmy.....	515-883-0228
DAVIS	Bob Stuchel.....	641-777-2169
	Chad Horn.....	641-777-7805
DECATUR	Michael Miller.....	641-414-2174
DELAWARE	Dakota Drish.....	563-920-0566
DES MOINES	Paul Kay.....	319-759-0751
DICKINSON	Blake Mills.....	712-260-1017
	Dan Dirks.....	712-260-1018
DUBUQUE	Andrew Keil.....	563-590-1945
	Nate Johnson.....	563-590-1944
EMMET	Chris Subbert.....	712-260-1009
FAYETTE	Chris Jones.....	319-939-4448
FLOYD	Jacob Fulk.....	319-240-9174
FRANKLIN	Jordon Hansen.....	319-240-8033
FREMONT	Marlowe Wilson.....	712-520-0506
GREENE	Aron Arthur.....	515-370-0422
GRUNDY	Vacant	641-751-5246
GUTHRIE	Jeremy King.....	712-250-0061
HAMILTON	Nathan Carr.....	515-238-2047
HANCOCK	Ben Bergman.....	641-425-0823
HARDIN	Nathan Carr.....	515-238-2047
HARRISON	Aaron Johnson.....	712-249-2015
HENRY	Dan Henderson.....	319-653-1636
HOWARD	Marc Waterlander.....	319-240-6662
HUMBOLDT	Bill Spece.....	515-571-0127
IDA	Kirby Bragg.....	712-661-9237
IOWA	Brad Baker.....	319-430-1630
JACKSON	Lucas Dever.....	319-480-0397
	Andrew Keil.....	563-590-1945
JASPER	Will Brickel.....	641-521-2003

<i>County</i>	<i>Officer</i>	<i>Cell Phone</i>
JEFFERSON	Chris Flynn.....	641-919-9115
	Dan Henderson.....	319-653-1636
JOHNSON	Erika Billerbeck.....	319-330-9710
	Brad Baker.....	319-430-1630
JONES	Lucas Dever.....	319-480-0397
KEOKUK	Wesley Gould.....	641-660-3441
KOSSUTH	Mitch Anderson.....	712-260-1003
LEE	Hunter McAninch.....	319-470-0788
LINN	Travis Graves.....	319-350-2863
	Ron Lane.....	319-350-2871
LOUISA	Joe Fourdyce.....	563-260-1225
LUCAS	Kyle Jensen.....	641-414-2175
LYON	Tait Anderson.....	712-260-1006
MADISON	Craig Lonneman.....	515-238-5005
MAHASKA	John Steinbach.....	641-660-0741
MARION	Eric Hoffman.....	641-891-2004
	Ken Kenyon.....	641-891-1246
MARSHALL	Vacant	641-751-5246
MILLS	Richard Price.....	712-520-0121
MITCHELL	Jacob Fulk.....	319-240-9174
MONONA	Gary Sisco.....	712-420-1486
MONROE	Dallas Davis.....	641-777-2163
	Adam Arnold.....	641-777-2164
MONTGOMERY	Austin Durnan.....	712-520-0507
MUSCATINE	Derrick Slutts.....	563-260-1223
O'BRIEN	Joe Yarkosky (east1/2).....	712-260-1004
	John Sells(west1/2).....	712-260-1019
OSCEOLA	Tait Anderson.....	712-260-1006
PAGE	Austin Durnan.....	712-520-0507
PALO ALTO	Chris Subbert.....	712-260-1009
PLYMOUTH	Chad Morrow.....	712-260-1023
POCAHONTAS	Nathan Hauptert.....	712-330-8462
POLK	Nate Anderson.....	515-238-4849
	Angela Jansen.....	515-238-5006
POTTAWATTAMIE	Adam Gacke.....	712-520-5570
	Richard Price (west1/3).....	712-520-0121
POWESHIEK	John Steinbach.....	641-660-0741
RINGGOLD	Corey Carlton.....	641-414-2173
SAC	Kirby Bragg.....	712-661-9237
SCOTT	Nick Rocca.....	563-349-9418
	Brooks VanDerBeek.....	563-349-8953
SHELBY	Aaron Johnson.....	712-249-2015
SIOUX	John Sells.....	712-260-1019
STORY	Brandon Bergquist.....	515-290-0177
	Jeffrey Barnes.....	515-290-4907
TAMA	Brett Reece.....	641-751-0931
TAYLOR	Andrea Bevington.....	712-520-0508
UNION	Corey Carlton.....	641-414-2173
VAN BUREN	Chris Flynn.....	641-919-9115
WAPELLO	Chad Horn.....	641-777-7805
	Bob Stuchel.....	641-777-2169
WARREN	Allen Crouse.....	515-238-4847
WASHINGTON	Wesley Gould.....	641-660-3441
WAYNE	Kyle Jensen.....	641-414-2175
WEBSTER	Bill Spece.....	515-571-0127
WINNEBAGO	Vacant	641-425-0821
WINNESHIEK	Brian Roffman.....	563-380-0496
WOODBURY	Stacey Bragg.....	712-301-6735
	Steven Griebel.....	712-301-4009
WORTH	Vacant	641-425-0821
WRIGHT	Ben Bergman.....	641-425-0823

EQUAL OPPORTUNITY

Federal and State law prohibits discrimination on the basis of age, color, creed, mental and/or physical disability, gender identity, national origin, pregnancy, race, religion, sex, or sexual orientation in employment and public accommodation. If you believe you have been discriminated against in any program, activity or facility as described above, or if you desire further information, please contact the Iowa Civil Rights Commission at 1-800-457-4416, or write to:

U.S. Fish and Wildlife Service
Office of Diversity and Inclusive Workforce Management,
MS: ODIWM, Attention: Public Civil Rights,
5275 Leesburg Pike
Falls Church, Virginia 22041
(or via email at publiccivilrights@fws.gov)

REASONABLE ACCOMMODATIONS & ALTERNATIVE FORMATS

If you need accommodations to access the DNR's programs or services because of a disability, requests may be made by contacting your local field office or the department's ADA coordinator at 515-725-8200.

This information is available in alternative formats upon request by contacting the DNR at 515-725-8200. TTY users - Contact Relay Iowa at 800-735-2942.



Iowa Dept of Natural Resources
502 E. Ninth Street
Des Moines, Iowa 50319-0034
515-725-8200
www.iowadnr.gov



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