

Arkansas Game and Fish Commission Chronic Wasting Disease Response Plan



February 23, 2016

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Executive Summary

Chronic wasting disease is a transmissible, fatal, neurological disease that affects members of the Cervidae (deer) Family. Common members of this family include white-tailed deer, elk, mule deer, moose, caribou, red deer and fallow deer. Wild free-ranging members of the deer family found in Arkansas include white-tailed deer and elk. Currently, there is no evidence that CWD can be transmitted to humans.

In the late 1960s, CWD was first recognized in captive mule deer in Colorado. The disease has since been detected in Illinois, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming. Additionally, the Canadian provinces of Alberta and Saskatchewan are CWD positive.

Monitoring for CWD in Arkansas began in 1998 with the initiation of Arkansas's first elk season. CWD monitoring in white-tailed deer was initiated in 2003. Currently, 204 elk and 7,186 deer have been tested for the disease. A single hunter-harvested, free-ranging 2.5-year-old cow elk taken in Newton County during the 2015 elk season tested positive for CWD. This is the first positive case in Arkansas.

The Arkansas Game and Fish Commission recognizes that the detection of CWD in Arkansas has significant biological, ecological and sociological implications. Now that CWD has been identified in Arkansas, it represents a serious long-term threat to the health of cervids in the state. The purpose of this response plan is to provide direction, guidelines and a specific course of action for monitoring and managing CWD in Arkansas. The major goals of this plan are:

- Determine prevalence and spatial distribution of CWD.
- Apply management actions to limit the spread of CWD.
- Determine the origin of any CWD-positive cervid.
- Continue surveillance throughout the state to ensure early detection.
- Provide accurate and relevant information on CWD to the public, agency staff and other stakeholders.
- Continue to gather and evaluate information that would guide research on CWD and its epidemiology to support future management efforts.

These goals will minimize the impact of CWD on white-tailed deer and elk in the state and minimize the implications for human consumption. The management of CWD will require a multi-year adaptive strategy that can be refined as the science of CWD management evolves.

Eradication of CWD once it is established is unlikely because of the persistence of prions (the infectious agent) in the environment. This plan focuses on detection and control of the disease, with major efforts focused on containing the disease and monitoring its prevalence within a defined area.

Response and support teams will be assembled with specific outlined responsibilities. The AGFC will rely on partnerships with private citizens and other governmental agencies to manage CWD in the state.

Overview of Chronic Wasting Disease

CWD is a transmissible, fatal, neurological disease that affects members of the Cervidae (deer) Family. The agent for this disease is neither bacterial nor viral, and is believed to be caused by a misfolded protein “prion” that replicates and infects other normal proteins (Fryer and McLean 2011). This neurological disease is in the family of infectious diseases known as transmissible spongiform encephalopathies (TSEs). Other TSEs include bovine spongiform encephalopathy (BSE) in cattle, scrapie in sheep, feline spongiform encephalopathy in cats, and Creutzfeldt-Jakob disease (CJD) and variant (vCJD) in humans.

CWD is named for the symptoms caused by the disease, which include excessive salivation, appetite loss, weight loss and behavioral changes (Williams 2005). Diagnosis of the disease cannot be based on clinical symptoms alone since other diseases can cause an animal to exhibit similar symptoms. There is currently no USDA-approved, live-animal test for CWD. The preferred test used to diagnose CWD is the immunohistochemistry (IHC) method, which measures accumulations of CWD-associated prion protein in brain and lymph node tissues. Incubation periods in naturally exposed, free-ranging deer are difficult to determine, but average incubation periods are thought to be 2 to 4 years but can vary greatly (Williams 2005). From the time clinical symptoms are identified, death occurs within several months (Williams et al 2002). Research on captive deer found that mule deer and white-tailed deer infected with CWD died within 41 and 59 months, respectively (Miller and Wild 2004).

The United States Centers for Disease Control and Prevention and the World Health Organization have reviewed available scientific data and concluded that currently there is no evidence that CWD can be transmitted to humans (Belay et al 2004, Campbell and VerCauteren 2011).

CWD was first detected in mule deer at the Colorado Division of Wildlife captive wildlife research facility in Fort Collins in 1967. The first documented case of CWD in a free-ranging cervid was discovered in 1981 in a Colorado elk. The disease has since been detected in Illinois, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming. Additionally, the Canadian provinces of Alberta and Saskatchewan are CWD positive. In October 2015, a CWD-positive, free-ranging elk was harvested near Pruitt, Arkansas, in Newton County.

There are two primary forms of exposure to CWD for uninfected cervids: 1. CWD-infected cervids and 2. CWD-contaminated environment (Williams et al. 2002, Miller et al. 2004, Mathiason et al. 2009). The presence of infected cervids increases the number of infectious CWD prions in the environment over time. It is logical that a shift in the source of infection could occur over time as contamination of the environment increases because of the presence of infected cervids. As CWD becomes established in an area, environmental contamination could become the primary source of infection for uninfected cervids. Conversely, in areas where CWD is not established and where the environment is relatively uncontaminated, direct animal contact may be the most likely source of transmission of CWD to uninfected cervids.

Chronological Overview of Arkansas's Response to CWD

Beginning in 1998, at the request of the Southeastern Cooperative Wildlife Disease Study (SCWDS), and with initiation of elk hunting, hunter-harvested elk were tested for CWD. A CWD surveillance program for white-tailed deer was implemented in 2003. As of 2016, a total of 7,186 wild white-tailed deer and 204 wild elk have been tested for the disease (Appendix A). A single hunter-harvested, free-ranging 2.5-year-old cow elk taken in Newton County during the 2015 elk season tested positive for CWD. This is the first positive case in Arkansas.

It is well documented that the movement of infected, live cervids and carcasses by humans has resulted in broad geographic leaps in nationwide distribution of CWD. In response, the AGFC has implemented various regulations to address these threats. In April 2002, the AGFC adopted regulations banning the importation of live cervids (Appendix B). In 2005, the AGFC adopted a regulation that banned the importation of cervid carcasses from CWD-positive states, and it was modified in 2012 to include all states regardless of CWD status. A moratorium was imposed for new high-fence cervid facilities in 2006. In 2012, the Commission also approved a moratorium on obtaining hand-captured white-tailed deer. Regulations are in place that require all permitted captive cervid facilities to submit CWD samples for all mortalities within the enclosure.

The AGFC recognizes that the detection of CWD in Arkansas has significant biological, ecological, economical and sociological implications. Now that CWD has been identified in Arkansas, it represents a serious long-term threat to the health of cervids in the state. The purpose of this response plan is to provide direction, guidelines and a specific course of action for monitoring and managing CWD in Arkansas. The major goals of this plan are:

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- Continue to gather and evaluate information that would guide research on CWD and its epidemiology to support future management efforts.

These goals will minimize the impact of CWD on white-tailed deer and elk in the state. The management of CWD will require a multi-year adaptive management strategy that can be refined as the science of CWD management evolves.

Eradication of CWD once it is established is unlikely because of the persistence of prions in the environment. This plan focuses on detection and control of the disease, with major efforts focused on containing the disease and monitoring its prevalence within a defined area.

Response and support teams will be assembled with specific outlined responsibilities. The AGFC will rely on partnerships with private citizens and other government agencies to manage CWD in the state.

General Response to a Confirmed CWD Positive

Upon notification of a confirmed positive CWD test result by a USDA-approved laboratory, the AGFC will immediately notify all relevant partners. The deer coordinator will immediately notify the Wildlife Management Division (WMD) chief, who will immediately notify the director's office and other agency personnel. The AGFC director will notify the commissioners and governor's office. A draft news release (Appendix C) will be finalized and distributed statewide.

The WMD chief will serve as the CWD Administrative Team (CWD-AT) leader and will immediately activate the CWD Response Team (CWD-RT). The CWD-RT will consist of the deer program coordinator, assistant deer program coordinator, elk program coordinator, the appropriate wildlife management regional supervisor, deer team, elk team, the appropriate district enforcement captain, and other individuals deemed necessary to coordinate and conduct field response activities. The CWD-RT team leader will be the assistant chief of the Wildlife Management Division responsible for cervids.

Additional agency staff will serve as the CWD-AT to assist the CWD-RT in sample collection, logistics, media, and all other actions necessary. Agency representation will be: enforcement, communications, global information systems (GIS), information/technology, legal, and the director's office.

The CWD-RT and CWD-AT responsibilities are detailed in Appendix E and F.

Management Actions

Eradication of CWD once it is established is unlikely because of the persistence of prions in the environment. This plan focuses on detection and control of the disease with major efforts focused on containing the disease and monitoring its prevalence within a defined area.

Free-Ranging Cervids

- Once a CWD-positive has been confirmed in a wild cervid, a CWD Core Zone will be developed. The CWD Core Zone will be a sampling area with a radius of 5 miles (78.5 mi² or 50,240 acres) from the point of detection.
- A designated CWD Containment Zone will be established and special regulations will be developed (Appendix B).
- AGFC personnel will immediately begin contacting private landowners and obtaining access to private lands within the CWD Core Zone. Staff will also coordinate with managers of any public lands within the CWD Core Zone and CWD Containment Zone regarding access.
- The CWD-RT will coordinate the immediate inspection of all captive cervid facilities within the CWD Containment Zone. The CWD Containment Zone will be sampled based on available data prior to the hunting season.
- The CWD-RT will finalize a list of all supplies and materials needed to conduct field activities.
- The CWD-RT will include Cervid Collection Teams, Carcass Transport Teams, and Biological Data Collection Teams (Appendix D).
- Firearm hunting seasons will be utilized to supplement CWD sampling through a special regulatory process (Appendix B) in the CWD Containment Zone.

- Hunter-harvested deer within the CWD Containment Zone will be individually tagged and numbered at special CWD check stations. CWD test results will be available to hunters.
- Intense CWD surveillance will change if additional positives are not detected after completion of 5 full surveillance seasons following the last positive detected.
- Carcass disposal will be in compliance with guidelines established by the Arkansas Department of Environmental Quality (ADEQ).

Captive Cervids

The following response actions will be implemented when CWD is detected in a captive cervid facility within Arkansas or if a captive cervid facility within Arkansas has within the past 5 years transferred cervids to or received cervids from an out-of-state captive facility in which CWD is detected.

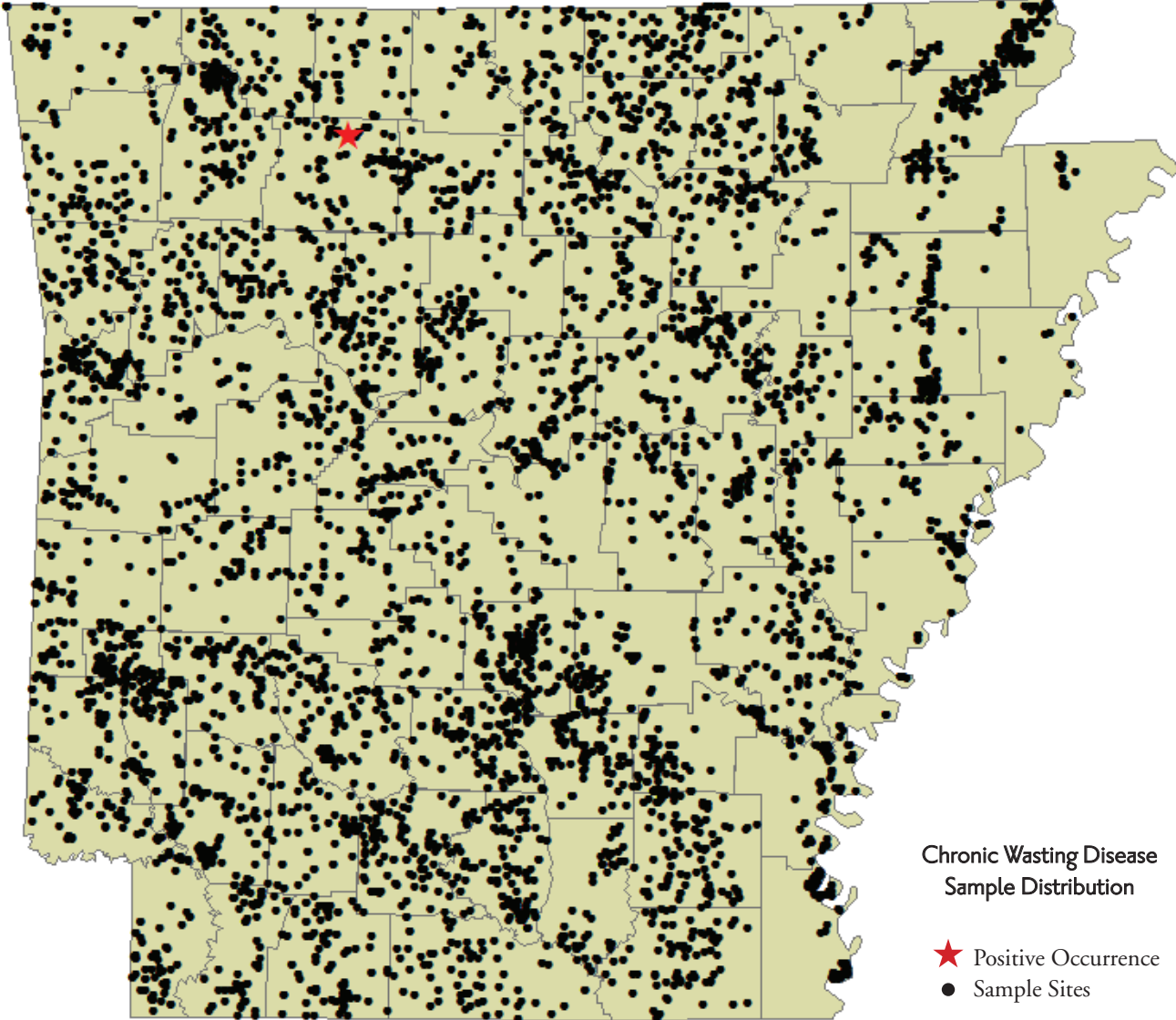
- The chief of wildlife, chief of enforcement, chief of communications, a member of the AGFC legal division and CWD-RT leader will immediately identify relevant agencies to inform of testing results.
- The contaminated enclosure will be inspected by AGFC staff to ensure fencing requirements are maintained to avoid possible escapes. All gates will be secured. Wildlife enforcement staff will be assigned to monitor the enclosure and gates to ensure compliance with established regulations.
- Attempts will be made to immediately quarantine the facility to ensure no cervid movement out of enclosure.
- A court order will be obtained and all cervids within the facility will be euthanized and tested for CWD. No state funds will be used to indemnify captive facility licensees.
- Trace-back and forward of cervids from the affected facility will be conducted to include a time span of at least 5 years. Captive facilities within Arkansas that transferred cervids to or received cervids from the index facility will be quarantined, inspected and depopulated. No state funds will be used to indemnify captive facility licensees. If records indicate that a captive cervid leaves Arkansas, then the final destination state wildlife agency will be notified.
- The owner of the contaminated captive cervid facility will accept the responsibility of maintaining the perimeter fence to ensure that no wild cervids are allowed to enter the facility.
- All AGFC captive cervid permits issued for the enclosure will be revoked once the enclosure is depopulated.
- Free-ranging cervid surveillance outside the facility will be conducted in accordance with the guidelines and procedures described in the free-ranging cervid section of this plan.

Adjacent States with a Confirmed CWD Positive

- The AGFC will coordinate with the state wildlife agency in the adjoining state where CWD has been detected. AGFC staff will gather the adjoining state's data concerning its CWD surveillance program.
- If the index location is within 5 miles of the Arkansas border, a CWD Containment Zone will be established within that portion of a 5-mile radius circle that falls within Arkansas. Sampling and surveillance procedures will be implemented using protocol outlined under the management actions section of this plan that addresses free-ranging cervids.

Appendix A - Surveillance History

CWD Statewide Sample Distribution (1997-2016)



Appendix B - Regulations

Current Captive Cervid Regulations:

- 09.01 Possession of Certain Wildlife in Captivity Prohibited
- 09.02 Possession of Non-Native Wildlife in Captivity Restricted
- 09.03 Release of Wildlife Prohibited
- 09.04 Hunting of Captive Wildlife Prohibited
- 09.05 Commercial Wildlife Hunting Resort Permit Required
- 09.07 Wildlife Breeder/Dealer Permit Required
- 09.10 Wildlife Importation Permit
- 09.11 Importation of Certain Living Wildlife Prohibited
- 09.12 Wildlife Rehabilitation Permit Required
- 09.14 Native Wildlife Pet Restrictions

Cervid Carcass Importation Regulation:

- 05.26 Importation Of Cervid Carcasses, Parts And Products Prohibited

Current Captive Cervid Addendum:

- F1.01 Commercial Wildlife Hunting Resort Requirements
- F1.03 Wildlife Breeder/Dealer Permit Requirements
- F1.04 Wildlife Importation Permit Requirements
- F1.05 Wildlife Rehabilitation Permit Requirements

Suggested Regulations and Management Actions:

- Delineate CWD Containment Zone
- Prohibit the transfer of cervids from the CWD Containment Zone to rehabilitators.
- Prohibit baiting and supplemental feeding of wildlife within the CWD Containment Zone.
- Establish CWD testing guidelines for hunter-harvested cervids.
- Liberalize season lengths and bag limits.
- Prohibit exportation from the CWD Core Zone and CWD Containment Zone of deer carcasses or carcass part, exceptions outlined in Code 05.26.
- Prohibit all transportation of captive cervids within the CWD Containment Zone, regardless of certification implemented by the AGFC, ALPC, or the USDA.
- Develop a non-commercial captive cervid permit.

Appendix C - CWD Draft News Release

Chronic wasting disease confirmed in a single Arkansas Elk

LITTLE ROCK – An elk harvested near Pruitt on the Buffalo National River during the October 2015 hunting season tested positive for chronic wasting disease, according to the Arkansas Game and Fish Commission.

This is the first time an animal in Arkansas has tested positive for the disease, which is fatal to elk and white-tailed deer. To discuss the development, the Commission called a special meeting for 5:30 p.m. at the AGFC's main office, 2 Natural Resources Drive, in Little Rock.

The AGFC created a CWD response plan in 2006, as the disease was appearing in other states.

“Several years ago, Arkansas proactively took measures to put a testing procedure in place and created an emergency CWD plan,” said Brad Carner, chief of the AGFC Wildlife Management Division. “Those precautions are now proving to be beneficial. We are in a strong position to follow the pre-established steps to ensure the state’s valuable elk and white-tailed deer herds remain healthy and strong.”

To determine how prevalent the disease may be, samples from up to 300 elk and white-tailed deer combined within a 5-mile radius of where the diseased elk was harvested will be tested. There is no reliable U.S. Department of Agriculture-approved test for CWD while the animals are alive. The AGFC will work with the National Park Service and local landowners to gather samples for testing.

A multi-county CWD management zone will be established, and public meetings in the area will be scheduled as forums to discuss plans and to answer questions.

The number of positive samples collected, if any, will help AGFC biologists determine the prevalence of CWD, and will guide their strategy to contain it.

“Although CWD is a serious threat to Arkansas’s elk and white-tailed deer, we are not the first to deal with the disease,” said AGFC Director Mike Knoedl. “Our staff is prepared and, with help from the public, will respond with effective measures. We have learned from the experiences of 23 other states.”

Biologists don’t know how the disease reached northern Arkansas at this point. The local herd began with 112 elk from Colorado and Nebraska, relocated between 1981-85.

“(CWD) would have raised its ugly head a lot sooner than now,” said Don White, a wildlife ecologist at the University of Arkansas Agriculture Experiment Station in Monticello. “I think that it’s extremely unlikely that it came from those 112 elk.”

Biologists have tested 204 Arkansas elk for CWD since 1997; the 2½-year-old female was the only one with a positive result. The AGFC also has routinely sampled thousands of white-tailed deer across the state since 1998.

Samples from the diseased female elk were tested at the Wisconsin Veterinary Diagnostic Laboratory in Madison, and verified by the National Veterinary Services Laboratories in Ames, Iowa.

There are no confirmed cases of CWD transmission from cervids to humans or to livestock,

“As far as we know, it’s not transmissible to humans at all,” said Sue Weinstein, state public health veterinarian for the Arkansas Department of Health. “In other states where they have CWD and they are studying this, they have found no human disease at all. To be on the safe side, it is recommended by the Centers for Disease Control, the World Health Organization and by the Department of Health that you not eat meat from an animal that you know is infected with chronic wasting disease.”

CWD was first documented among captive mule deer in Colorado in 1967, and has been detected in 24 states and two Canadian provinces. It’s been found in the wild in 20 states and among captive cervids in 15 states.

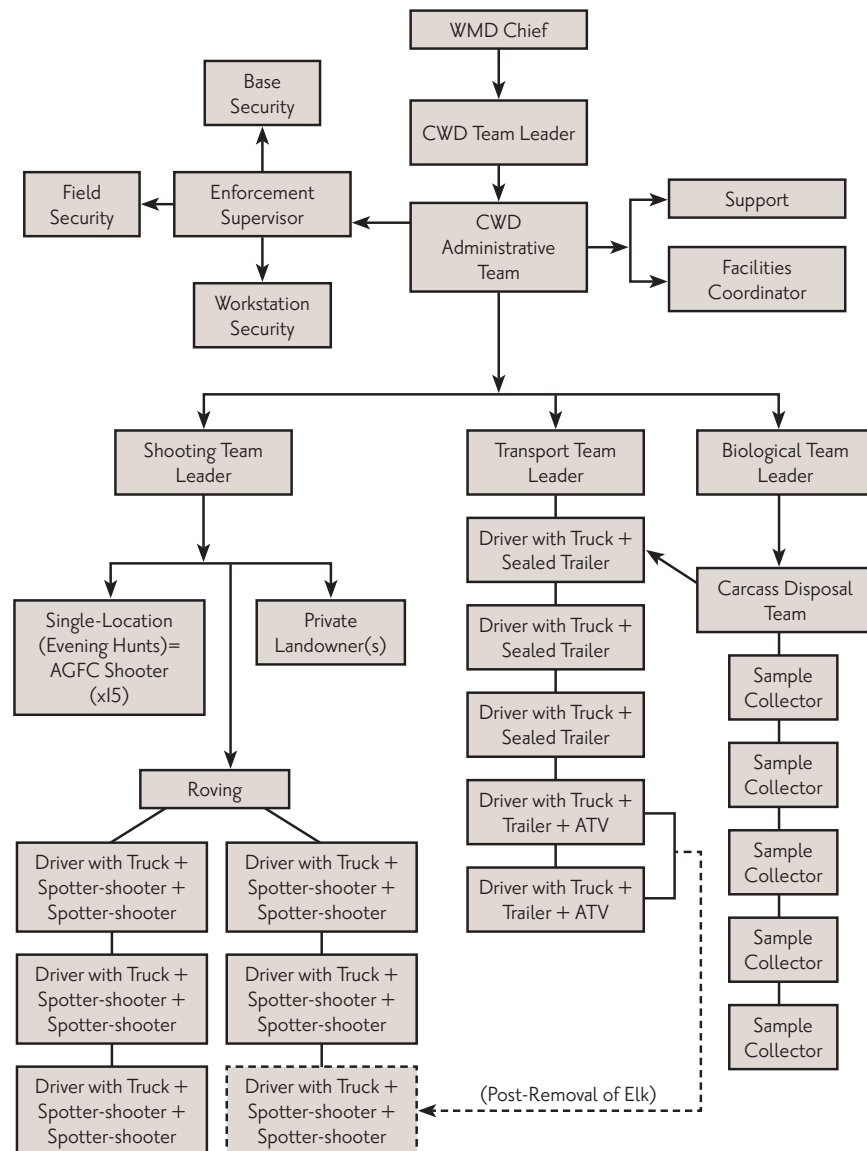
The AGFC has taken several steps to prevent the disease from entering the state. The Commission established a moratorium on the importation of live cervids in 2002, and restricted the importation of cervid carcasses in 2005. It also set moratoriums on permits for commercial hunting resorts and breeder/dealer permits for cervid facilities in 2006, and on obtaining hand-captured white-tailed deer in 2012.

According to the Chronic Wasting Disease Alliance, CWD affects only cervids (hoofed animals in the cervidae family such as deer, elk and moose). Biologists believe it is transmitted through feces, urine and saliva. Prions (abnormal cellular proteins) that carry CWD have an incubation period of at least 16 months, and can survive for years in organic matter such as soil and plants.

CWD affects the body's nervous system. Once in a host's body, prions transform normal cellular protein into an abnormal shape that accumulates until the cell ceases to function. Infected animals begin to lose weight, lose their appetite and develop an insatiable thirst. They tend to stay away from herds, walk in patterns, carry their head low, salivate and grind their teeth.

Visit www.agfc.com/cwd for more information.

Appendix D - CWD Response Incident Command



Appendix E - CWD-RT Responsibilities

CWD Team Leader– The Assistant Chief of Wildlife Management Division will chair the CWD Administrative Team, will serve as the primary point of contact for the CWD response effort, and will be responsible for communicating CWD response efforts to AGFC administration.

CWD Administrative Team – Will oversee the implementation of the AGFC’s CWD Response Plan and CWD Action Plan.

Support Team – Will assist the CWD Administrative Team by contacting local landowners for sampling permissions on private lands, handling public relations, through the generation of maps, and by providing technological support.

Facilities Coordinator – Will determine and procure an adequate location for CWD operations location/facility and for housing/maintenance of staff. This would include sleeping quarters, washing facilities, restrooms, and meals.

Enforcement Staff – Will provide security to all workstation and staff-housing locations and address security issues encountered by field staff during CWD sampling efforts.

Shooting Team Leader – Will coordinate the collection of cervids for CWD sampling purposes via still-hunting utilizing AGFC staff, participating private landowners, and roving night-sampling teams.

Single-location AGFC Shooter – AGFC personnel who will participate in CWD collection efforts via the use of still or stand hunting.

Roving Shooting Team – Mobile units responsible for the collection of cervids for CWD testing purposes. The Roving Shooting Team will be comprised of at least three AGFC employees to include a driver, spotter and shooter, and may conduct collection during daylight or nighttime hours.

Private Landowner Cooperator – An approved private landowner who has been issued an approved AGFC landowner permission letter for the purpose of collecting cervids in order to assist the AGFC in CWD sampling efforts.

Transport Team Leader – Will coordinate the transportation of cervids which were harvested for CWD sampling purposes to the approved CWD operation facility/location.

Transportation Team – Will serve as support to single-location AGFC shooter and roving night-sampling teams by providing the transport of harvested cervids to the approved CWD operation facility/location.

Biological Team Leader – Will coordinate the collection of all necessary biological samples (CWD, DNA, etc.), the processing and disposal of cervid carcasses, and for managing all data and samples collected.

Carcass Disposal Team – Will be comprised of the Biological Team Leader and biological sample collectors to ensure the proper disposal of cervid carcasses.

Sample Collector – AGFC will collect biological samples (i.e. CWD, DNA, etc.) from cervids harvested for CWD sampling purposes. Will also assist in processing and the proper disposal of cervid carcasses.

Appendix F - CWD-AT Responsibilities

- CWD-AT leader will accept CWD positive location from CWD-RT leader for map development. The maps will include roads, waterways, and/or other land features to best delineate an approximate 5-mile radius circle around the index location. Maps will also include captive cervid locations and previous CWD sample locations within the CWD Core Zone and the CWD Containment Zone.
- CWD-AT will establish a list of appropriate media contacts, complete draft news release, identify landowners within CWD Core Zone, and begin preparations for a public information meeting. CWD-AT will disseminate all pertinent information relating to CWD activities.
- CWD-AT will prepare a contact list with names and addresses of captive cervid facilities and cervid rehabilitators within the CWD Core Zone and CWD Containment Zone.
- CWD-AT will maintain updates on the AGFC website.
- CWD-AT will coordinate with ADEQ to secure carcass disposal location within or close to CWD Core Zone for carcasses, tissues, and other contaminated materials.
- CWD-AT will inform AGFC resource agency partners (United States Forest Service, Corps of Engineers, United States Fish and Wildlife Service, National Park Service, Arkansas State Parks, Arkansas Forestry Commission, USDA Natural Resources Conservation Service, timber companies, etc.)
- CWD-AT will coordinate with appropriate USDA representatives and keep them apprised of all actions taken.
- CWD-AT will secure additional needed equipment and supplies identified by the CWD-RT.
- CWD-AT will conduct periodic public information meetings within or near the CWD Containment Zone.
- CWD-AT will send notification via mail to all captive facility operators and wildlife rehabilitators alerting them to the change in Arkansas's CWD status and the disease management actions that the AGFC will be implementing.
- CWD-AT will complete the draft regulation list found in Appendix A and seek AGFC approval.

Appendix G - Arkansas Department of Health Fact Sheet



Arkansas Department of Health

4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000

Governor Asa Hutchinson

Nathaniel Smith, MD, MPH, Director and State Health Officer

CHRONIC WASTING DISEASE

What is Chronic Wasting Disease?

Chronic Wasting Disease (CWD) is a disease caused by prions (infectious proteins) that affects North American cervids (mule deer, white-tailed deer, elk, and moose). Prion proteins are found in the brains of normal healthy animals. However, the functions of these normal prion proteins are still not completely understood. Prion disease occurs when the normal prion proteins fold abnormally which leads to brain damage and the characteristic signs and symptoms of the disease.

Prion diseases are usually rapidly progressive and always fatal. CWD can be highly transmissible within deer and elk populations. The mode of transmission is not fully understood, but evidence seems to indicate that the disease is spread through direct animal-to-animal contact or as a result of indirect exposure to prions in the environment (e.g., in contaminated feed and water sources).

Is CWD dangerous to humans?

The Centers for Disease Control and Prevention (CDC) along with the World Health Organization (WHO) have studied CWD and have found no evidence that CWD poses a serious risk to humans or domestic animals. Years of monitoring in affected areas have found no increases in similar diseases of people or cattle living there. However, as a precaution, CDC and the Arkansas Department of Health advise that no part of a deer or elk with evidence of CWD should be consumed by people or other animals.

Why shouldn't I eat certain parts of my deer and elk?

While research has shown that prions may be present in a wide variety of tissues and body fluids, including blood and muscle, they are most common in the brain, eyes, spinal cord, lymph nodes, tonsils and spleen. Thus, it is recommended that hunters wear gloves and debone harvested cervids in the field, and take extra precautions when handling organs where prions are most likely to accumulate.

If you wish to have your animal tested for CWD, contact Arkansas Game and Fish Commission for information regarding appropriate procedures and submission locations. Remember, while disease testing is an important tool for detecting CWD, it is not a food safety test.

Simple Precautions Advised for Hunters

Public health officials advise hunters not to consume meat from animals believed or known to be, infected with CWD or any other disease. Since it's not always apparent that a deer may be carrying a disease, hunters should take simple precautions.

- Avoid consuming the meat from any animal that tests positive for the disease.
- Do not eat an animal that was thought to be sick at the time of harvest. Avoid/limit handling of carcasses of sick animals.
- Contact Arkansas Game and Fish Commission if you encounter an animal that appears sick.

Precautions That Hunters Should Always Follow:

- Wear latex or rubber gloves when field dressing your deer or elk.
- Debone your animal. Don't saw through bone, and avoid cutting through the brain or spinal cord (backbone).
- Minimize the handling of brain and spinal tissues.
- Wash hands and instruments thoroughly after field dressing is completed. The best recommendation for hunters wishing to disinfect home butchering equipment is to clean all surfaces with a 50/50 solution of chlorine bleach and water.
- Avoid consuming brain, spinal cord, eyes, spleen, tonsils and lymph nodes of harvested animals. (Normal field dressing coupled with deboning a carcass will remove most, if not all, of these body parts. Cutting away all fatty tissue will remove remaining lymph nodes.)
- If you have your deer or elk commercially processed, request that your animal is processed individually, without meat from other animals being added to meat from your animal.

Disposal of carcass

Little is known about whether infected cervid parts pose a risk to the environment; researchers have discovered that prions readily adhere to various elements in the soil and remain infectious for many years. Therefore, it is recommended that bones and other parts of the carcass of an animal suspected or known to have CWD be double bagged in strong garbage bags and disposed of at a landfill with an approved dead animal disposal area.

FOR MORE INFORMATION:

Arkansas Department of Health, Zoonotic Disease Section Phone: (501) 661-2000 or (800) 462-0599
 Visit our website at: www.healthy.arkansas.gov or CDC's website at: www.cdc.gov

Appendix H - Statistical Sampling Recommendations

Total Number of Cervids in Area	Number of Infected Cervidae in Area or Flock	Probability of Detecting One or More Infected Cervids - 95% - Sample Size
1 Percent Cervid Infection Rate		
1,000	10	258
2,000	20	277
4,000	40	287
10,000	100	294
20,000	200	296
40,000	400	297
100,000	1,000	298
150,000	1,500	300
200,000	2,000	300
300,000	3,000	300
400,000	4,000	300
500,000	5,000	300
1,000,000	10,000	300
1,500,000	15,000	300
2,000,000	20,000	300

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