

# DRAFT

## WYOMING GAME AND FISH DEPARTMENT

### CHRONIC WASTING DISEASE MANAGEMENT PLAN

August 19, 2005

#### EXECUTIVE SUMMARY

- It is the purpose of this plan to provide flexible and adaptable direction for management of Chronic Wasting Disease (CWD).
- The plan will be reviewed and updated as the CWD situation in Wyoming changes and additional information becomes available.
- The plan consists of four components: Disease Management, Applied Research, Public Information, and Funding.
- Based upon the known epidemiology of CWD in free-ranging deer and elk, eradication currently is not a justified or realistic disease management objective.
- The WGFD will work to minimize the spread of CWD and coordinate CWD management with other state and federal agencies.
- The WGFD will conduct surveillance to determine spatial distribution and prevalence of CWD, and coordinate CWD research with other state and federal agencies.
- The WGFD will provide timely, complete, and accurate information about CWD.
- Although there are concerns or perceptions by some people that CWD could be a livestock or human health threat, there currently is no credible supporting evidence; consequently, this plan addresses CWD as a disease of deer and elk.
- The WGFD will continue to work cooperatively with the Wyoming Department of Public Health and other human health organizations worldwide to monitor current research on CWD and human health and to provide up-to-date information to the public.
- Many very expensive CWD management, research, and public outreach activities are driven by the consideration of CWD as an international disease of concern; therefore, federal funding is appropriate for complete implementation of this plan.

#### INTRODUCTION

Chronic wasting disease is a transmissible spongiform encephalopathy (TSE) of deer and elk that may constitute a health threat to mule deer, white-tailed deer, and elk populations in Wyoming and elsewhere. CWD is a wildlife disease that has generated tremendous concern, both in Wyoming and throughout North America. The CWD zone in Wyoming is currently defined as those hunt areas where CWD has been found. The CWD Zone, as presented on the Wyoming Game and Fish Department (WGFD) web site (<http://gf.state.wy.us>), will be continually updated as new information becomes available. The WGFD is responsible for managing Wyoming's wildlife. Management of disease in wildlife is an important responsibility of the WGFD. It is the purpose of this plan to provide flexible and adaptable direction for management of CWD in Wyoming. The plan

will be reviewed and updated as the CWD situation in Wyoming changes and additional information becomes available. The plan consists of four components:

- I. Disease Management
- II. Applied Research
- III. Public Information
- IV. Funding

## COMPONENTS

### COMPONENT I. DISEASE MANAGEMENT

Based upon the current scientific information about CWD in free-ranging deer and elk, eradication is not a realistic disease management objective. Through adoption of this plan, Wyoming has chosen an adaptive management strategy allowing flexibility to alter disease management activities depending on future research results. Currently, the Disease Management component addresses 11 objectives. The WGFD will use the best scientific information available and will take necessary and reasonable steps to achieve these objectives:

1. Manage to reduce dispersal of CWD.

If a positive animal is found in a hunt area with a low incidence rate or a new hunt area, WGFD personnel will make a decision as to what management actions to take. If possible and appropriate, the WGFD will implement the following management actions intended to prevent dispersal of CWD.

Hunter surveillance in the area will be immediately intensified. If hunter samples are unavailable, as feasible the WGFD will attempt to collect and test up to 50 cervids in a 5-mile radius of the index case. If another CWD cervid tests positive based on the first samples, as feasible the WGFD will attempt to collect and test up to 50 additional cervids in a 10-mile radius of the original index case. For each subsequent cervid that tests positive for CWD, as feasible the WGFD will attempt to collect and test up to 50 cervids in a 5-mile radius of the positive animal. If additional cases are identified, the surveillance will be maintained and expanded until the periphery of the CWD area can be defined. This may occur outside of established hunting seasons. Such sampling serves three purposes: 1) to determine the magnitude, if any, of the prevalence; 2) possibly eliminate the only case of CWD in the area to prevent its spread; 3) possibly allow the WGFD to locate an area of infection that it can manage aggressively.

2. Manage to prevent dispersal of CWD beyond the CWD zone via movement of carcasses.

There is a concern that CWD may be moved to new areas by the transport of certain animal parts. To minimize this possibility, the Wyoming Game and Fish Commission (WGFC) regulates how hunters may transport harvested animals and animal parts from the CWD zone to other parts of the state or out of the state. Likewise, the WGFC prohibits the importation of animals or animal parts taken from any state, province or country within areas designated by the appropriate jurisdictional agency as positive for CWD in either deer or elk.

3. Restrict translocation of deer and elk.

Live deer and elk from the wild will not be moved to other locations within the state without review and approval by the WGFD.

4. Remove deer and elk suspected of being affected by CWD.

Removal of deer and elk displaying symptoms of CWD may reduce spread of CWD and will contribute to state-wide targeted surveillance and provide necropsy and/or research material. WGFD personnel will lethally take and necropsy all animals suspected of having CWD.

5. Discourage private feeding of deer and elk.

Based on experience with captive deer and elk, there is evidence that CWD is more efficiently transmitted when these animals are concentrated. Private feeding may lead to localized concentrations of environmental contamination with the CWD agent. The WGFD will continue to educate the public on the unintended consequences of private feeding through television, press releases, radio, presentations to the public, and personal contacts.

6. Appropriate WGFD personnel will participate in intra- and interdepartmental, intrastate, and interstate CWD coordination meetings.

Sharing research results and coordination among federal and state agencies is important in the management of CWD. WGFD administrators, managers, veterinarians, and researchers will participate in appropriate meetings on CWD. Information will be shared with WGFD personnel. The WGFD will coordinate and collaborate with state and federal agencies on all relevant CWD management issues.

7. Maintain the ban on captive deer and elk ownership and facilities in Wyoming and the effectiveness of the Chapter 10 regulation.

Chapter 10 Regulation, "Regulation for Importation, Possession, Confinement, Transportation, Sale and Disposition of Live Wildlife," addresses CWD in relation to the only elk farm permitted in Wyoming by statute. Any captive cervid imported into Wyoming must originate from facilities certified to be free of

CWD for the five years previous to the requested date of importation. This restriction is intended to prevent spread of CWD. There are no other captive, commercial elk or deer farms within Wyoming. Future establishment of captive, commercial facilities in Wyoming will not be permitted.

8. Hunting will continue to be the primary management tool for management of CWD in deer and elk.

The flexibility inherent in Wyoming's hunting regulations allows the WGFD to modify seasons to meet specific needs. This flexibility, combined with the long and rich hunting heritage the State of Wyoming enjoys, makes the use of hunter harvest the preferred tool in managing CWD.

Testing of deer and elk provides two primary benefits. First, testing provides critical data for management and research. Second, when the hunter provides accurate and legible information, testing allows a hunter to choose whether or not to consume an animal that has tested positive for CWD. Both of these are important, yet distinct, benefits.

Hunters who participate in the WGFD's CWD surveillance program by providing deer and elk heads for this research and who provide adequate information, can obtain test results through the WGFD's web site (<http://gf.state.wy.us/services/education/cwd>). If an animal submitted to the WGFD's CWD surveillance program tests positive and adequate contact information is provided, the hunter will be notified of the positive test result via mail.

The WGFD will not be responsible for the testing of individual hunter's animals. The WGFD will provide information regarding public testing facility locations and costs for hunters who choose to have their animals individually tested at their own expense. If hunters wish to have their results handled individually, they may submit their sample to the Wyoming State Veterinary Diagnostic Laboratory for a fee.

The WGFD may donate deer and elk carcasses acquired from the CWD zone to individuals after the animal has been tested with no evidence of CWD being found and the recipient signs an affidavit of informed consent. The WGFD will not donate meat from deer and elk killed within the CWD zone to organizations or entities for redistribution. The WGFD cannot, however, guarantee that no risk exists relative to human consumption of animals that may have contracted CWD.

9. Use WGFD targeted and/or hunter-killed surveillance to identify new foci of CWD.

Surveillance using WGFD targeted and/or random, hunter-harvest methods will be conducted outside the CWD zone to identify any new focus of CWD. A new

focus of infection will be considered the location outside the zone where one or more test-positive deer or elk are located.

10. Consideration will be given to efforts to reduce prevalence of CWD.

Large-scale efforts to reduce prevalence of CWD could have more severe effects on deer and elk populations than does CWD. If possible and appropriate, the WGFD will implement management actions intended to reduce or stabilize the prevalence of CWD.

11. Feedgrounds.

Because recent cases suggest a possible northwestward expansion of CWD, there has been increased concern the disease could eventually infect elk frequenting the state and federal elk feedgrounds in Lincoln, Sublette and Teton Counties in northwestern Wyoming. Although the prevalence of CWD in free-ranging elk is only 2-3% (approximately an order of magnitude less than that found in deer), scientific research has indicated that the prevalence of CWD in captive elk can exceed 50%. This level of prevalence in captive elk, combined with the density of thousands of elk inhabiting feedgrounds for several months, suggests the possibility of much higher prevalence rates in feedground elk, possibly resulting in a concomitant reduction in elk numbers. This does not imply that deer and elk in northwestern Wyoming are more important than elk or deer in the rest of the state, only that they may be more at risk due to concentration on feedgrounds.

Taking into consideration that CWD may reach NW Wyoming; the WGFD has formulated steps that may be taken to mitigate the impact of CWD on feedground elk. It should be noted, however, that the prevailing opinion of professionals experienced with CWD epidemiology and current methods available to control this disease in the wild is that the spread of CWD, at best, can be slowed, but not prevented. With this in mind, the WGFD will implement the following actions for managing CWD, in the event it occurs, in elk herd units E-102, Jackson; E103, Fall Creek; E104, Hoback; E105, Afton; E106, Piney; E107, Green River; and E108, Pinedale; in Lincoln, Sublette and Teton Counties.

#### A. Prevention

The best way to deal with the concern of CWD reaching feedgrounds is to establish proactive measures elsewhere in the state in an attempt to stop or slow the spread of the disease. The WGFD will deal with any new outbreak of CWD that is discovered. Management actions outlined in Section 1 of the Disease Management portion of this plan will be implemented in an effort to eradicate CWD from the new area or substantially slow the spread of the disease before it reaches Teton, Sublette or Lincoln County.

## B. Surveillance

There are two types of CWD surveillance: targeted and hunter harvest. Targeted surveillance is the harvesting and testing of any cervid displaying symptoms consistent with clinical CWD. This surveillance method occasionally detects CWD cases in new areas. Hunter harvest surveillance is a systematic sampling and testing of deer and elk harvested by hunters. This method provides potentially large numbers of samples representing broad geographical areas. Hunter harvest surveillance is a valuable tool for determining disease prevalence as well as finding cases in new geographical areas.

The WGFD will continue to emphasize having its personnel and contract elk feeders look for, remove and sample deer or elk exhibiting signs consistent with CWD. In addition, the WGFD will continue its public information program asking the public to report elk or deer appearing sick to aid in CWD monitoring efforts. Harvesting such animals may identify a new case of CWD and, if positive, will remove a potential source of infection and decrease the probability of transmission.

Hunter harvest surveillance for cervids will be expanded in NW Wyoming. When possible, elk that die or are killed on any of the 22 WGFD feedgrounds will be tested for CWD. Deer and elk samples will be collected and tested for CWD by WGFD personnel when an opportunity to collect such samples is available during and outside the regular CWD surveillance program in Teton, Sublette and Lincoln Counties. The WGFD will attempt to sample at a level sufficient to have a 95% probability of detecting CWD at 1% prevalence in two-year intervals.

## C. Feedground Management

If CWD is detected in elk inhabiting state feedgrounds, WGFD personnel will monitor the population intensively and remove any elk showing clinical signs of CWD. The WGFD will attempt to: 1) maximize the area of feeding to decrease animal-to-animal contact; 2) decrease days of feeding to disperse the elk; 3) take any other actions to decrease elk concentration provided such actions are consistent with other necessary wildlife management practices. Large-scale culling of elk is not anticipated.

The WGFD will communicate and coordinate with the U. S. Fish and Wildlife Service's National Elk Refuge on strategies for surveillance, prevention and management of CWD on the National Elk Refuge.

## COMPONENT II. APPLIED RESEARCH

Management of CWD will require a more thorough understanding of the disease, how it is spread among cervids, the relationship between CWD, bovine spongiform

encephalopathy (BSE), scrapie and other transmissible spongiform encephalopathies, whether the disease has the capability to penetrate species barriers, and other critical components.

The WGFD will support and conduct, on a priority basis, applied research that will facilitate continued expansion of knowledge of CWD. The WGFD will continue monitoring research that is occurring throughout the world on CWD and TSE to ensure the WGFD has the most current and comprehensive data and scientific information available.

In addition to involvement in ongoing collaborative CWD research, the WGFD, in cooperation with the Wyoming Wildlife/Livestock Disease Research Partnership has identified research priorities and will seek funding to initiate these studies, which may be conducted in collaboration with other researchers. A mechanism has been established, through the Wyoming Wildlife/Livestock Disease Research Partnership, so money specified for CWD research can be received, matched, and used for collaborative research. The Applied Research component addresses four objectives.

1. Determine spatial distribution of CWD in Wyoming.

The WGFD has been monitoring CWD since 1983 using targeted surveillance and hunter harvested game animals to determine distribution and prevalence. Ongoing surveillance will be integrated with expanded studies using GIS technology and intensive sampling to monitor the distribution and prevalence of CWD in Wyoming. Hunter-harvest and/or targeted surveillance statewide will be planned yearly to better define boundaries of the CWD zone and identify new focus areas.

2. Dynamics of CWD in free-ranging white-tailed deer.

The WGFD is financially and materially supporting a multi-year study of the epidemiology of CWD in white-tailed deer. For a variety of reasons, white-tailed deer may be more susceptible to CWD. Movement patterns of white-tailed deer from the CWD zone are being monitored using telemetry. Telemetry will also provide data on survival and, thus, potential impact on the population. These data would be used to estimate the risk of CWD moving into new areas via white-tailed deer to evaluate the need for different management strategies in mule deer and white-tailed deer and evaluating strategies to prevent spread of CWD.

3. Appropriate WGFD personnel will participate in intra- and interdepartmental, intrastate, and interstate CWD research meetings.

Sharing research results among federal and state agencies is important in understanding and management of CWD. WGFD administrators, managers,

veterinarians, and researchers will participate in appropriate meetings on CWD. Research information will be prioritized, shared and, where practicable, incorporated into interstate CWD plans.

4. Experimental CWD infection of moose.

The WGFD is conducting research at the Sybille Wildlife Research Unit to assess the susceptibility of moose to CWD infection and to document the pathogenesis of this disease in moose.

### COMPONENT III. PUBLIC INFORMATION

Chronic Wasting Disease is of interest locally, nationally, and internationally. As the public agency charged with managing CWD in Wyoming's wildlife populations, the WGFD has an obligation to provide timely, complete, and accurate information about all facets of the disease to the public in Wyoming and throughout the United States. Ongoing and effective communication is paramount to any plan to manage CWD. It is challenging to provide accurate and up-to-date information regarding this rapidly changing issue. The lack of information available, and the incorrect information being distributed by others, creates an increased need for timely and accurate communication from the Department. The public receives mixed messages about this issue. Therefore it is incumbent on the Department to provide accurate, unbiased information.

A top priority is effective communication with the general public, constituent groups, and the media about CWD. The WGFD will use a variety of communication tools to provide timely, complete, and accurate information about CWD.

#### *Messages*

The main messages the Department will communicate include the following.

**1-General Information about CWD.** The WGFD will provide general information about the disease, its history, the wildlife it affects, and other basic information.

**2-Management of CWD.** The WGFD will provide information about the steps it is taking to manage CWD in Wyoming, including surveillance, various activities to slow the spread of the disease, and research to understand more about the disease. The WGFD will also provide updated information about where CWD occurs in the state.

**3-Human health issues.** Though there is no evidence that CWD poses any danger to humans, the WGFD will communicate information to hunters and others provided by disease experts such as the World Health Organization and the Wyoming Department of Health. The WGFD will also provide information on reasonable precautions hunters and others can take when handling game and transporting and disposing of carcasses.

**4-Testing.** The WGFD will provide information about how hunters can get their animals tested for CWD.

### *Target Audiences*

Target audiences are identified to allow the department to determine the best methods of providing accurate, timely information to interested individuals. The target audience consists of groups and individuals the department believes will be most interested in or potentially impacted by CWD and management of deer and elk herds in Wyoming.

- Those who hunt deer and elk in Wyoming – residents, non-residents, and their families
- Landowners
- Local and national media
- Department personnel
- Public health professionals
- Meat processors and taxidermists
- Non-consumptive wildlife users and associated businesses (antler hunters, photographers, license selling agents, landfill operators)
- State and local officials, policy makers, and communities, including WGFD Commissioners, Department of Agriculture, the Governors office
- Wyoming Board of Outfitters and Professional Guides
- Other state and federal agencies

### *OBJECTIVES*

Objective 1: Inform target audiences of Wyoming’s CWD research, management, and regulations as well as the availability of testing.

Inform target audiences of a variety of CWD-related issues using brochures, articles, video, paid advertisements, and a variety of other communication tools. This could include presenting information to license selling agents at meetings or through a newsletter, public presentations, displays at events where target audiences will be present, direct mail, putting information on the website and other methods identified throughout this process.

Objective 2: Inform hunters, meat processors, taxidermists, and others of potential human health issues related to CWD.

Public opinion surveys reveal that human health issues related to CWD are an identified concern among hunters. Many hunters are still unsure about the potential risks of handling carcasses and eating meat from CWD infected animals. Using information from health experts such as the World Health Organization, the Centers for Disease Control, and the Wyoming Department of Health, the WGFD will provide accurate, balanced information to hunters and others about any potential risks to humans.

Objective 3: Maintain and make information available information on peer-reviewed scientific studies related to CWD.

Part of the concern about CWD stems from the unknown aspects of this disease. Maintaining information on accepted scientific studies that can be shared with concerned citizens can increase their knowledge level and decrease their concerns. A synopsis of applicable Wyoming studies

will be provided to target audiences via the website and other identified methods. A synopsis of studies from other states will be requested, or provided. A link to official research-oriented websites in addition to our current link with the CWD Alliance website will be used to make sure this information is readily available.

Objective 4: Clarify the details of this complicated issue by making scientific information user friendly for interested publics.

Many times the scientific jargon associated with a disease makes it difficult for those not working in that specific field to comprehend. Relating accurate information in a format that is easily understood by our target audiences will allow us to better reach our communications goals. The media is trained to put technical information in a form the public can understand. If we want the public to come to the Department for accurate, complete, and up-to-date information, we must provide it in a format that is useable. Using layman's terms when publishing articles, doing presentations, and communicating with our constituents can accomplish this objective.

Objective 5: Coordinate with other individuals and state and federal agencies involved in CWD public information efforts.

CWD has been discovered in wild deer and elk populations in a number of other states. Each state is conducting efforts to inform their publics about CWD and the potential effects on wildlife populations. Wyoming agencies and federal agencies are also involved in some aspects of CWD. Coordinating with other individuals and agencies could prevent the public from getting different messages from different places, further complicating an already complicated issue. The WGFD will participate in multi-agency meetings to share information. We coordinate efforts with other state wildlife agencies through the Association for Conservation Information. We will continue to work with the CWD Alliance to disseminate information and to routinely visit other state websites to monitor what CWD information is available to the public.

Objective 6: Provide the media with timely and accurate CWD information.

Providing timely, complete, and accurate information lends to the Department's credibility and is the mission of most media professionals. Working together to meet the collective goal of providing the public with important information will help build professional relationships. The Department will attempt to be the first to publicize any new developments related to CWD. Department personnel will also respond to interview requests in a timely fashion. Putting the scientific jargon aside will lead to more accurate news reports. Developing and sharing a consistent message will also be of benefit. Continuing our follow-up on reporting that is not accurate will help media professionals better understand this complicated issue.

## COMPONENT IV. FUNDING

Full implementation of this plan will be expensive and will exceed the WGFD's current financial capability.

Chronic wasting disease management, research, and public information activities are expensive, and the WGFD's current financial status will not allow complete implementation of this plan without additional funding. Additional funding specific for CWD will be sought. In addition, options for WGFD revenue enhancements for high priority programs, including CWD, will be explored.

## ACKNOWLEDGEMENTS

Portions of this plan were liberally copied or patterned after the Colorado Division of Wildlife's "Chronic Wasting Disease in Colorado Deer and Elk: Recommendations for Statewide Monitoring and Experimental Management Planning" by M. W. Miller and R. H. Kahn and the Colorado Wildlife Commission's Policy on Chronic Wasting Disease approved September 13, 2001; we appreciate their generosity and their efforts on CWD. Many elements of this CWD Plan would not be possible the without cooperation of sportsmen, landowners, game meat processors, taxidermists, scientists, and professional wildlife managers; we appreciate their interest and help. Scientists worldwide are conducting research on CWD and other transmissible spongiform encephalopathies that helps to understand CWD and, hopefully, will lead to its future eradication.