

SOUTH DAKOTA CHRONIC WASTING DISEASE ACTION PLAN, 2021-2025



**SOUTH DAKOTA DEPARTMENT OF GAME, FISH AND PARKS
PIERRE, SOUTH DAKOTA
WILDLIFE DIVISION REPORT 2021-10
UPDATED SEPTEMBER 2021**

This action plan will be used by SDGFP staff on an annual basis and will be formally evaluated at least every five years. Plan updates and changes, however, may occur more frequently as needed.

A supportive document to this action plan, the “Management of Chronic Wasting Disease in South Dakota”, provides a historical background, known distribution, surveillance, public outreach, challenges and opportunities, and citizen involvement related to chronic wasting disease and can be found at <https://gfp.sd.gov/management-plans/>.

ACKNOWLEDGEMENTS

This plan is a product of substantial discussion and input from many wildlife professionals. In addition, comments and suggestions received from landowners, hunters and other stakeholders were considered and incorporated where appropriate.

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The GFP Chronic Wasting Disease Internal Workgroup and other staff that assisted with plan writing, developing maps, data review and analyses, critical reviews and/or edits to the South Dakota Chronic Wasting Disease Action Plan included: Andy Alban, Nathan Baker, Josh Delger, Jacquie Ermer, Steve Griffin, Trenton Haffley, Mark Hendrix, John Kanta, Joe Keeton, Emily Kiel, Tom Kirschenmann, Chad Lehman, Andy Lindbloom, GFP Commissioner Jon Locken, Cindy Longmire, Jim McCormick, Samantha Nichols, Andrew Norton, Mark Peterson, Kevin Robling, Rachel Switzer and Lauren Wiechmann. In addition, review and suggested edits were provided by Dustin Oedekoven, DVM, and Mendel Miller, DVM, of the South Dakota Animal Industry Board.

Those who served on the South Dakota Chronic Wasting Disease Stakeholder Group during this planning process included: Kerry Burns (United States Forest Service); Bob Bucholz (Brown County Sportsmen Club); Lane Cammack (Captive Cervid Operator); Josh Clayton (South Dakota Public Health); Mason Cooper (Rocky Mountain Elk Foundation); Russ Daly (South Dakota State University-Diagnostic Laboratory); Dave Eichstad (Beadle County Sportsmen’s Club); Melissa Fahy (South Dakota Solid Waste Management Association); Stephanie Frohling (Dakota Association of Meat Processors); Ron Fowler (South Dakota Sportsmen Against Hunter); Rob Goodman (Oglala Sioux Parks & Recreation); Brad Hand (Landowner); Chris Hesla (South Dakota Wildlife Federation); Jason Humphrey (South Dakota Department of Transportation); Mike Jarding (South Dakota Big Game Coalition); Marshall Johnson (Mule Deer Foundation); Tom Krafka (Black Hills Sportsmen Club and South Dakota Sportsmen Against Hunger); Mendel Miller (South Dakota Animal Industry Board); Sean Newberg (Quality Deer Management Association); Dan O’Brian (Game Processor); Dustin Oedekoven (South Dakota Animal Industry Board); Charles Rokusek (I29/90 Sportsmen Club); Gary Romey (Landowner); Greg Schroeder (Wind Cave National Park); Jim Twamley (South Dakota Bowhunter’s, Inc.); Andy Vandel (High Plains Wildlife); Derick Wenck (South Dakota Taxidermy Association); Cody Warne (Captive Cervid Operator); and Jim Wendte (South Dakota Department of Environment and Natural Resources).

All text and data contained within this document are subject to revision for corrections, updates, and data analyses.

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Department Mission

We serve and connect people and families to the outdoors through effective management of our state’s parks, fisheries and wildlife resources.

Department Vision

We will conserve our state’s outdoor heritage to enhance the quality of life for current and future generations.



INTRODUCTION

Thousands of South Dakota residents and visitors enjoy the opportunity to view, photograph, or hunt deer and elk across South Dakota's diverse landscape. In many areas of South Dakota, however, some deer and elk are dying from an illness known as chronic wasting disease (CWD). Unlike a virus or bacteria that can kill numerous individuals in a short time period, animals afflicted with CWD can appear healthy for months, though all will eventually succumb to this fatal disease.

CWD is a fatal brain disease of cervids (deer, elk, and moose) that is caused by an abnormal prion protein. Animals infected with CWD may show progressive loss of weight and body condition, behavioral changes, excessive salivation, increased drinking and urination, appear lethargic, loss of muscle control and eventual death. CWD is always fatal for the afflicted animal. The disease cannot be diagnosed by observation of physical symptoms because many cervid diseases affect animals in similar ways.

The first detection of CWD in wild, free-ranging deer in South Dakota occurred in Fall River County during the 2001 hunting season. Since then, CWD has continued to be detected and is known to exist in free-ranging deer or elk in Bennett, Butte, Corson, Custer, Fall River, Jackson, Haakon, Harding, Meade, Mellette, Lawrence, Lyman, Pennington, Perkins, Sully, Tripp, and Ziebach counties (Figure 1), including Custer State Park and Wind Cave National Park (WICA). Surveillance efforts have not detected CWD in free-ranging cervids in other areas of South Dakota, although testing has not occurred or is limited in many areas of the state. CWD has also been detected in neighboring states and across the nation. CWD poses serious problems for wildlife managers, and the implications of long-term management for free-ranging deer and elk could be significant.

The objective of the "South Dakota Chronic Wasting Disease Action Plan" is to provide guidance and transparency regarding CWD management to wildlife managers and the public. New and revised regulations regarding the transportation and disposal of carcasses have been implemented. When developing this action plan, South Dakota Department of Game, Fish and Parks (GFP) and members of the CWD Stakeholder Group were challenged to think long-term to reduce the spread of CWD and ensure that thriving deer and elk populations are here 50-100 years from now. It will take support and engagement of many stakeholders for this action plan to be successful.

When discussing and considering CWD management for both wild and captive cervids, numerous items come into consideration and it becomes quite clear that substantial complexity surrounds the management of this disease. For many, changes to normal operating procedures will likely be needed to reduce the natural and anthropogenic spread of CWD prions. As a result, communication and outreach will serve as the foundation to GFP's management response and it will be critical to have an informed public and one that understands such management actions and their expected benefits.

The GFP manages wildlife and associated habitats for their sustained and equitable use, and the benefit, welfare, and enjoyment of the citizens of this state and its visitors. South Dakota's deer and elk resources demand prudent and increasingly intensive management to accommodate numerous and varied public demands and growing impacts from people. This action plan is intended to guide the decision-making process for the Department and the GFP Commission over the next ten years but should be considered a working document that will be amended as new biological and/or social data provide opportunities to improve the management of CWD in South Dakota. Furthermore, this plan will serve as the foundation to inform and educate the sportsmen and women, landowners, and other publics of South Dakota.

Chronic Wasting Disease Positives in South Dakota

2001 - September 13, 2021

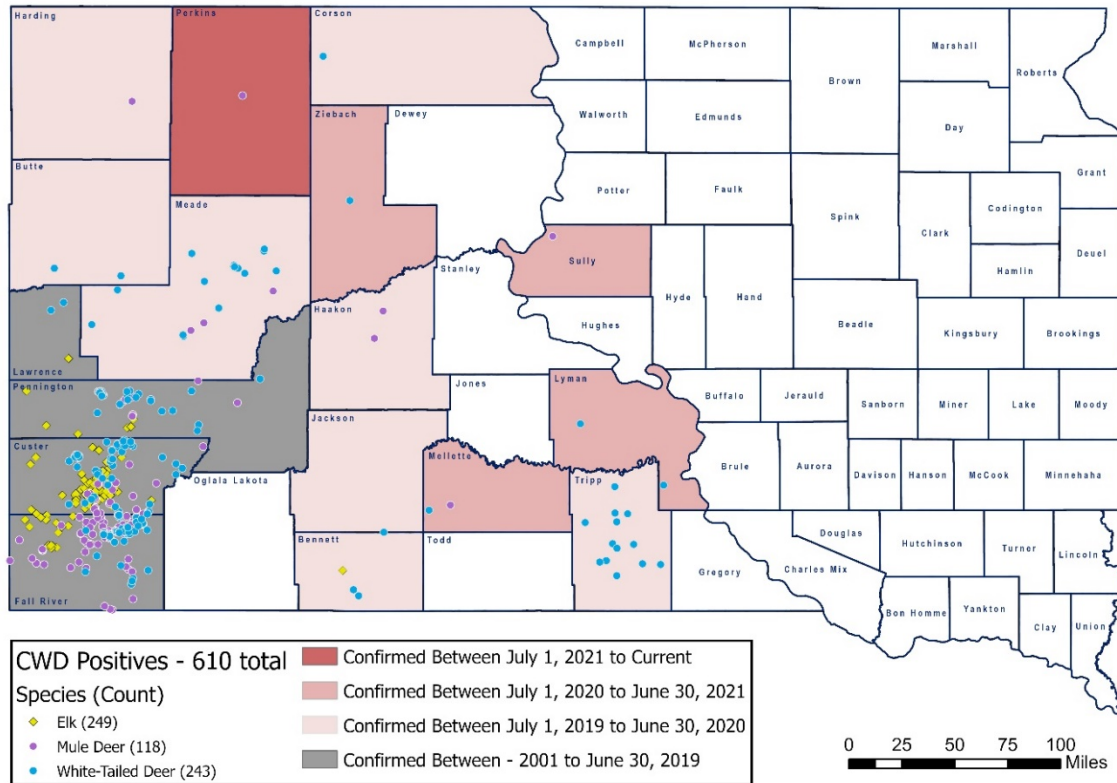


Figure 1. Locations of chronic wasting disease infected free-ranging cervids in South Dakota, 2001-2021.

GUIDING PRINCIPLES

The following statements have guided the development of the CWD management goal, objectives and management strategies and reflect the collective values of GFP in relation to the management of CWD in South Dakota:

- that CWD is an infectious disease that is transmitted between cervids by direct contact with infectious saliva, urine and feces.
- that CWD can also be transmitted through environmental contamination, and once established in an area may never be eradicated.
- that there is no current evidence that CWD can infect humans.
- that wildlife, including white-tailed deer, mule deer and elk, contribute significantly to the quality of life in South Dakota and therefore must be sustained for future generations.
- that healthy cervids play an important role in the rangeland and forest ecosystems.
- in management of healthy cervids in accordance with biologically sound principles, while considering social tolerances.
- in providing accurate and timely information to the public concerning CWD issues and how CWD could impact future recreational opportunities in South Dakota.
- that the future of healthy cervid populations in South Dakota depends on a public that appreciates, understands and supports CWD management.

GOAL STATEMENT

To determine presence/absence of CWD, reduce the spread of CWD, and have an informed public that understand, support, and participate with CWD management practices to ensure viable deer and elk populations for future generations.

OBJECTIVES

The following objectives have been identified to achieve the goal statement listed above:

Short-term (<15 years)

- To provide accurate, timely and targeted information through GFP communication platforms to all publics, agency partners and GFP staff and incorporate public involvement as necessary regarding CWD in South Dakota.
- Develop stakeholder support for CWD management strategies and objectives.
- Monitor and evaluate the risk and impact of CWD in wild, free-ranging white-tailed deer, mule deer and elk herds in South Dakota.
- Promote best management practices (BMPs) and, where deemed necessary, implement regulations to reduce the spread of CWD in free-ranging and captive cervids in South Dakota.
- Work with local, state, tribal and federal government agencies to monitor and manage CWD within South Dakota.

Long-term (>15 years)

- Maintain stakeholder support and transparently communicate management strategies and objectives used to mitigate spread and risks associated with CWD.
- Evaluate how recreational opportunity is affected by CWD limiting population growth and age-structure of cervids in endemic areas.
- Maintain intrinsic value, including recreational opportunities and hunting heritage associated with wild cervids, despite increasing numbers of sick animals and the potential for reduced recreational opportunities.

PREVENTIVE MEASURES

Since there is currently no known cure for CWD, proactive actions that include preventive measures to reduce the spread of CWD are a high priority. Having an informed public on the issues and concerns of CWD and its unknown long-term influence on deer and elk populations in South Dakota is the foundation of this action plan. This action plan, including BMPs and new regulations, will need to be shared using a variety of methods to our public and both resident and nonresident hunters.

Summary of Regulations

Below is a summary of regulations finalized by the GFP Commission at their May 2021 meeting to help reduce the spread of CWD via carcass transportation and disposal. The following regulations are effective beginning with the 2021 deer and elk hunting seasons:

1. Interstate (carcass movement into South Dakota from another state) carcass transportation and disposal

41:06:03:16. Interstate cervid carcass transportation and disposal requirement. Unless delivered to a licensed taxidermist or game processor, anyone transporting whole or partial cervid carcasses from another state into South Dakota shall dispose of all remaining cervid carcass parts with a waste management provider or a permitted landfill. Whole or partial cervid carcasses being transported through the state are exempt from this section.

2. Intrastate (carcass movement within South Dakota) carcass transportation and disposal

41:06:03:18. Intrastate cervid carcass transportation and disposal requirement. Unless delivered to a licensed taxidermist or game processor, anyone transporting whole or partial cervid carcasses from the county of harvest shall dispose of all remaining cervid carcass parts with a waste management provider or a permitted landfill.

3. Carcass disposal requirements for game processors:

41:06:03:19. Carcass disposal for wildlife processing facilities. Wildlife processing facilities, as defined by § 41:06:03:10, shall dispose of all remaining cervid carcass parts with a waste management provider or permitted landfill. Game processors licensed by another state or federal entity shall dispose of carcasses as required by the conditions associated with their license.

4. Carcass disposal requirements for taxidermists:

41:09:11:07. Cervid carcass disposal for taxidermist. A taxidermist shall dispose of all remaining cervid carcass parts with a waste management provider or permitted landfill.

Best Management Practices

GFP is a member of the Association of Fish and Wildlife Agencies (AFWA), which represents fish and wildlife agencies across the country. In September 2018, AFWA passed a resolution adopting the AFWA's "Best Management Practices for Prevention, Surveillance, and Management of Chronic Wasting Disease". The full technical report can be found at https://www.fishwildlife.org/application/files/9615/3729/1513/AFWA_Technical_Report_on_CWD_BMPS_FINAL.pdf; a summary of the technical report can be found at https://www.fishwildlife.org/application/files/5215/3729/1805/AFWA_CWD_BMPS_12_September_2018_FINAL.pdf.

The BMPs were developed by wildlife biologists and disease specialists, veterinarians, and agency leaders from those states with first-hand experience with CWD in their respective deer and elk populations. In addition, BMPs were developed from peer-reviewed publications from biological and social research, field-tested methods, and past experiences. Developed with the best information available at the time, these BMPs will be periodically reviewed by AFWA members and updated as necessary. GFP provided comments and suggested edits on the development of BMPs and many are found within this action plan as suggested practices and regulations for wildlife managers and the public that could be considered by the GFP Commission for rule proposals to best manage CWD in South Dakota.

The following are best management practices or recommendations to reduce the spread of CWD in South Dakota:

Carcass Transportation and Disposal

- Hunters are recommended to leave as much of the unusable carcass as possible at the location of the harvest in a discrete location on both public and private lands. Make arrangements with landowner on property where permission has been granted.
- When transporting a cervid carcass from the location of harvest, only transport the following: cut and wrapped meat; quarters or other portions of meat with no part of the spinal column or head attached; antlers, hides or teeth; and antlers attached to skull caps that are cleaned of all tissue.
- If the whole carcass is removed from the location of harvest, dispose of all unused cervid carcass parts at a permitted landfill or in a trash container provided by a waste management provider.
- If you are not moving a deer or elk carcass from the county of harvest, the regulations do not apply unless the carcass is delivered to a game processor or a taxidermist.
- Returning carcass remains to public lands or using road ditches to dispose of carcass remains is illegal. Make sure permission is granted if disposing on private land.

Feeding

- Do not feed wildlife.
- For areas where deer or elk could be attracted to bird feeders, avoid placing bird feed on the ground or at a height of less than six feet above the ground.
- If a regulation that prohibits the feeding of wildlife (excluding bird feeding and normal agricultural practices) year-round is not implemented in known CWD endemic areas or statewide, encourage city governments to implement and enforce ordinances that prohibit the feeding of wildlife within city limits.

Urine-based Scents and Lures

- Use full synthetic urine-based products.
- If using natural urine-based products, practice the following:
 - Use products that are labeled with the Archery Trade Association's Deer Protection Program seal
 - Avoid the application of products directly onto the ground or plants
 - Use a scent-wick type system placed above ground and remove from your hunting area after hunting
 - When not used, keep products enclosed in a container
 - Dispose all products into container provided by waste management provider or a permitted landfill

Processing and Disposing of Carcasses

- Wear gloves, bone-out the meat from the animal, and minimize handling of the brain and spinal cord tissues when field dressing an animal. Research indicates a five-minute, submerged soak in a 40 percent bleach solution will de-activate prions on stainless steel items.
- All remaining deer and elk carcass parts from private processing facilities should be properly disposed with a waste management provider or at a state permitted landfill.

- Encourage the public through a media campaign to properly dispose of remaining deer and elk carcass parts.

Taxidermy

- All remaining deer and elk carcass parts from those who practice their own taxidermy should be properly disposed with a waste management provider or at a state permitted landfill.
- Water waste from boiling skulls for European mounts should be disposed by the following:
 - Dig and bury in a hole and cover with one foot of soil
 - Private septic systems
 - Pour into container and dispose with waste management provider or permitted landfill

Donation of Venison

- As part of the kill permit issued by GFP to municipalities to remove deer, require CWD tests from all cervids removed prior to distribution of venison. This not only ensures that donated venison is not CWD positive but assists with GFP with surveillance efforts. GFP will obtain samples from all removals and pay for associated lab fees for testing.
- At minimum, CWD testing should be required for any deer or elk harvested from a known CWD endemic area.

SURVEILLANCE

Presence/Absence and Monitoring Prevalence Rates

The goal of surveillance strategies in South Dakota is to determine the likely spread of CWD to new units where the disease has not been detected in wild, free-ranging cervids. Assuming natural movement of CWD by wild cervids will provide the most predictable disease spread across the landscape, high surveillance sampling goals will be established for units with no known CWD positive wild cervids that are within the expected dispersal distance of a known, wild CWD positive cervid (Figure 2).

Management goals for CWD prevalence rates have not been identified in South Dakota, therefore current management objectives do not include quantifying prevalence rates. If future research objectives require prevalence rates or management strategies require prevalence rates (e.g., implement management strategy X if prevalence exceeds Y%), prevalence will be estimated by collecting a representative sample with desired levels of precision. In the event CWD is detected in a captive cervid facility, GFP will coordinate with South Dakota Animal Industry Board (AIB) to determine surveillance strategies, which should focus sampling efforts near the contaminated facility.

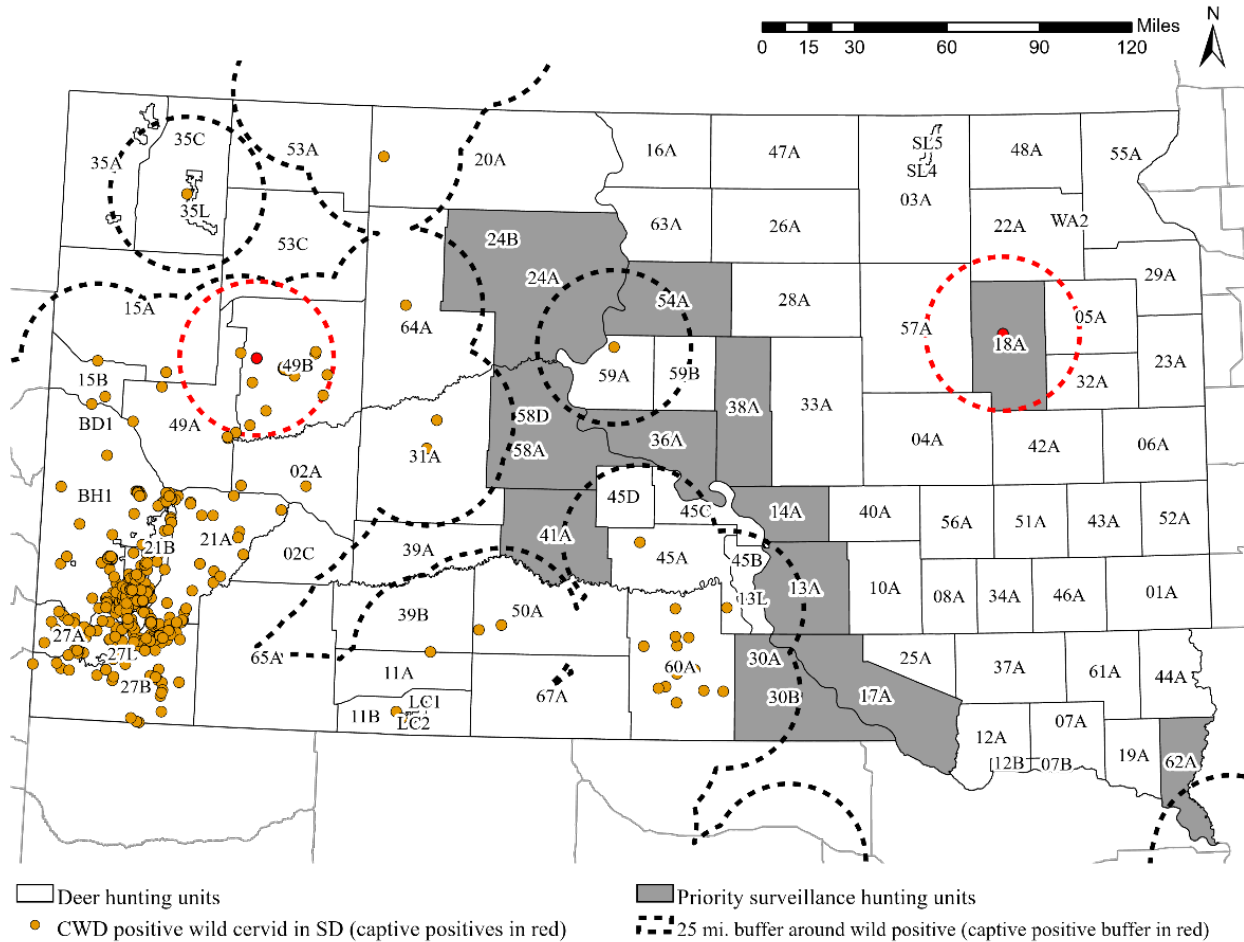


Figure 2. Known CWD positive wild cervids (yellow dots; red dots represent captive cervids) and 25-mile buffer around positive locations used to determine priority surveillance areas (shaded in gray) for the 2021 deer and elk hunting seasons.

Strategies for Meeting Sampling Goals

No minimum sample size goals will be required for units outside the identified priority surveillance areas, but sampling will continue with voluntary sample submission and testing of all cervid carcasses that displayed behavior or symptoms consistent with an unknown sickness before death (e.g., emaciated, drooling, disoriented).

For priority surveillance areas, sampling goals have been identified that would ultimately provide >98% probability of detecting CWD at a 1% prevalence rate. GFP staff will attempt to collect representative samples by sequentially implementing the following strategies:

- Facilitate volunteer sampling
 - Collection stations will be placed at all GFP Offices and with cooperating partners to provide drop-off locations for hunter to provide samples.

- Self-submission kits will be made available to hunters to remove and submit samples directly to the South Dakota State University Animal Research and Diagnostic Laboratory (SDSU ARDL).
- Contract sample collection from taxidermists
 - An incentivized partnership with taxidermists around the state will help increase the number of samples needed for testing, especially in those areas where additional samples are needed. With the assistance of taxidermists, a larger sample of mature bucks can be tested that otherwise may not be available through other sampling efforts. Interested taxidermists will be trained to remove lymph nodes for testing, and to properly preserve, label and package the specimen for temporary storage until samples can be sent in for testing. Participating taxidermists will be compensated for this assistance.
- Contract sample collection from game processors
 - GFP will work with willing game processors to attach an identification tag to deer or elk heads and to properly store until GFP can collect samples. Participating game processors will be compensated for this assistance.

Hunter Submission for Testing

Hunters will serve as an essential partner in the successful implementation of this action plan. Hunters with licenses to harvest deer in priority surveillance areas will be mailed information on how to submit voluntary CWD samples. Hunters who harvest deer or elk in other areas of the state can still voluntarily have their animal tested for CWD. As a voluntary submission, hunters will be responsible for the cost of shipping and any professional sample collection costs unless. While budgets and staff are limited, GFP will strive to accommodate those hunters who desire a CWD test from a harvested deer or elk within units outside of priority surveillance areas. GFP will pay for the testing cost of the sample at SDSU ADRDL. Results will be sent to both the hunter and GFP. These results will supplement GFP's surveillance effort across the state. The process for collecting samples from a harvested deer or elk and how to properly submit to SDSU ADRDL can be found at <https://gfp.sd.gov/cwd-testing/>.

Hunters will be notified by phone if testing shows that CWD is present in the sample tested. Hunters will also be sent an e-mail notifying them when results from CWD testing are available on their hunter profile. In the event a hunter-harvested deer or elk tests positive, the hunter has two options: 1) retain the entire harvested animal; or 2) be given a choice to get their preference points and draw eligibility reinstated for the following year if the entire harvested animal (i.e., antlers, hide, carcass) is returned to GFP.

Tribal Surveillance

Nine Indian reservations are within South Dakota, including the Cheyenne River, Crow Creek, Flandreau Santee, Lower Brule, Pine Ridge, Rosebud, Sisseton Wahpeton, Standing Rock and Yankton. Each is managed by a respective Native American tribe under tribal sovereignty and their respective tribal councils. Most tribes have a wildlife department that conducts various wildlife surveys, research, disease surveillance and makes hunting recommendations to the tribal councils. With a combined land base of approximately 5,000,000 acres under tribal jurisdiction or approximately 10% of the total state land base, coordination between state and tribes on the management of CWD is crucial.

MANAGEMENT RESPONSE OF DETECTION

If CWD is discovered in a new unit, GFP will determine whether more intensive sampling is warranted based on a potential point source contamination where the disease may be isolated. For example, detection of CWD in an area expected to be disease free could be the result of unexpected cervid movement (e.g., escaped captive cervid, a single wild cervid dispersing >100 miles), and could be isolated to a few CWD positive individuals, providing an opportunity to remove CWD from the area. It is important to stress that removing CWD is extremely unlikely once CWD has been discovered in multiple cervids in an area, and GFP should not consider cervid reductions unless there is strong evidence the disease is geographically isolated to a very small area in which landowners and stakeholders are in agreement that additional cervid removal is warranted.

MANAGEMENT AND RESEARCH COORDINATION

Because cervids do not recognize political boundaries, GFP will build upon established relationships with wildlife management agencies of adjacent states. Sharing potential or current CWD management actions and test results will be beneficial. In addition, states should explore collaborative research with objectives for developing spatially-explicit disease risk and spread models and guiding efficient spatial monitoring strategies. These would further inform sampling goals as a function of where samples are collected. When available, GFP will use data from GPS-collar research projects to evaluate deer movement including resource use, seasonal-movement and migration distances and propensities and dispersal. Collaboration with other state/tribal/federal agencies such as AIB and WICA, non-government organizations such as the Rocky Mountain Elk Foundation, private landowners, hunters, and other stakeholders will increase the likelihood of successfully implementing this action plan.

COMMUNICATION AND OUTREACH

A companion communications and outreach operations plan will further increase the awareness and education of CWD and management of the disease in South Dakota. The communications and outreach plan is one piece of the overall wildlife disease management efforts in South Dakota and will be modified accordingly to meeting communication and outreach objectives.

Core messaging ideas will include, but are not limited to the following:

- What is CWD and why should I care about it?
- CWD management is good for deer/herd management – focus on the longevity of herd health.
- Tactics and potential for new rules of how to slow the spread – transportation restrictions, baiting and feeding, mandatory submission and other enforcement regulations.
- Address long-term implications – what does this mean for the next generation?

Some of the more simplified messaging tactics may include:

- CWD kills deer.
- Protect your herd.
- We need your help.
- Submit your sample.
- CWD does not go away.

A content calendar will serve as a guide to producing information and education to specific audiences via targeted emails and social media. More specifically, these target audiences include: hunters (resident and non-resident), non-consumptive users, landowners, taxidermists, landfill managers, meat processors, food pantries/Sportsman Against Hunger, state agency partners (AIB, Department of Health, Department of Transportation, Department of Environment and Natural Resources, Department of Agriculture, Governor's Office), tribal agencies, conservation and agricultural organizations, hunter education students along with the captive cervid industry and clients. Department staff, GFP Commission and our state's legislators will also serve as internal audiences who will need to remain informed on the issues concerning CWD.

The main landing page for all things CWD in South Dakota is located on the GFP website at: <https://gfp.sd.gov/chronic-wasting-disease/>. Individuals will find frequently asked questions, a glossary of terms, where the disease has been confirmed South Dakota, what is being done and how individuals can help through submitting samples upon harvesting a deer or elk. New information will be added as it becomes available.

Social media marketing will serve as a secondary hub of information through Facebook, Twitter, and Instagram. Infographics promoting "Protect Your Herd" have been developed and will be used with social media efforts.

GFP's "PodCast and Blast" provides podcast topics related to current GFP issues, stories, outdoor topics and more. Podcasts discussing CWD, deer management and regulation changes or updates related to CWD can be found at <https://gfp.sd.gov/pages/podcast/>.

The online Hunt Planner tool and deer application process (both paper and online) will also provide content and need-to-know information prior to applying for deer and elk hunting seasons. Informing hunters of BMPs and any applicable rules related to inter- and intra-state carcass transportation and disposal is a priority.

The South Dakota Conservation Digest will serve as another delivery platform. A direct mailer to approximately 35,000 landowners will be completed informing this target audience about how this wildlife disease impacts them as hunters and non-hunters.

Other platforms for awareness delivery may include a Facebook Live question and answer session. In addition, a South Dakota Public Broadcasting Focus program was aired in May 2019 discussing how we can all help slow the spread of CWD. This program is archived and available for viewing at <https://watch.sdpb.org/video/sdf-2420-chronic-wasting-disease-ineiof/>.