TRACKING THE SPREAD: SJ9 KEEPS TABS ON CWD FIGHT

May 2018 Environmental Quality Council Joe Kolman

FINAL REPORT TO THE 66TH MONTANA LEGISLATURE

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Executive Summary

This report is a summary of the Environmental Quality Council study of chronic wasting disease (CWD) as outlined in the EQC 2017-18 work plan and <u>Senate Joint Resolution 9</u> (2017). Members received additional information and public testimony on the subject. This report highlights key information and the processes followed by the EQC in reaching its conclusions. To review additional information, including video archives and exhibits, visit the EQC website: <u>www.leg.mt.gov/eqc</u>

Chronic wasting disease is a neurologic disease that is always fatal and affects deer, elk, moose, and caribou. Senate Joint Resolution 9, sponsored by EQC member Sen. Mike Phillips, tasked the EQC to study and make recommendations regarding:

- > the potential impacts of CWD on deer, elk, and moose populations and the economy in Montana;
- > measures to prevent CWD and protect deer, elk, and moose in Montana;
- ➢ surveillance strategies for detecting CWD; and
- > management of herds that become infected to prevent the spread of CWD.

At the time the Legislature passed the resolution, no cases of CWD were confirmed in Montana. The agency was in the process of updating its CWD response plan when officials confirmed a mule deer buck killed Oct. 22, 2017 southeast of Bridger had CWD. All told, the disease was confirmed in eight mule deer and two whitetail deer during the general hunting season.

The DFWP provided updates on the monitoring and management of CWD to the EQC at every meeting. Additionally, testing for CWD was discussed regularly at meetings of the House Bill No. 661 <u>study of state</u> <u>laboratories</u>. That subcommittee included two EQC members, Rep. Kerry White who chaired the subcommittee, and Rep. Bradley Hamlett. Both regularly reported the work of the subcommittee to the EQC.

Findings

- Montana does not have the necessary facility and equipment to conduct testing for CWD. Tests are sent to an out of state lab that is not required to put Montana as a priority in their testing queue.
- Money invested in a facility that could test for chronic wasting disease would allow for identification and research into causes and prevention.
- Additional findings as requested by EQC.

Recommendations

- Congress should include funding for capital improvements in Senate Bill 2252, the Chronic Wasting Disease Support for States Act.
- Additional recommendations as requested by EQC.

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CWD BACKGROUND

Chronic wasting disease is a fatal neurologic disease that affects deer, elk, moose, and caribou. There is no known cure. It belongs to a group of diseases that are caused by an abnormally-folded prion protein. The disease group includes mad cow disease in cattle, scrapie in sheep, and Creutzfeldt-Jakob disease in humans.

Chronic wasting disease is commonly transmitted animal to animal. The prions from affected animals are present in saliva, feces, and urine as well as bodily fluids and tissues. The prions can remain infectious in grass or soil for more than two years.¹

To varying degrees, Montana conducted surveillance for CWD since 1998. In 1999, the disease was found on a captive game farm near Phillipsburg. But it was not detected in the wild until 2017. The disease is now found in 25 states, including Montana. Of our neighbors, only Idaho and British Columbia have yet to confirm a case of the disease.

RECENT LEGISLATION

In addition to the study resolution, the 2017 Legislature passed two chronic wasting disease bills, both sponsored by Sen. Jill Cohenour. In January 2018, the use or sale of deer urine used to mask human odor in Montana became illegal if the urine originated in a state or province with documented occurrences of CWD. Until January 1, 2020, violators may only be warned. After that day, violations are a misdemeanor crime that carries a fine of up to \$500. The law exempts urine from those areas if the facility meets certain conditions including:²

- Compliance with a federal or a federally approved chronic wasting disease herd certification program and any federal chronic wasting disease protocols and record requirements;
- Prohibits importation of live cervids, except in cases of catastrophic loss or herd replenishment;
- Requires that all cervids exported from the facility be tested for chronic wasting disease upon death and the results be reported to the facility;
- Annual inspections by an accredited veterinarian, including inspection of the herd and applicable records; and
- Maintains a fence at least 8 feet high around the facility and, if the facility is located within 30 miles of a confirmed positive occurrence of chronic wasting disease, is double fenced to prevent direct contact between captive and wild cervids.

The other law, 87-6-420, MCA, made it illegal bring into Montana whole carcass or certain carcass parts of white-tailed deer, mule deer, moose, or elk from states or provinces with documented occurrences of

¹ Montana CWD Management Plan, <u>2018</u>.

² The Fish and Wildlife Commission <u>determined</u> that facilities certified by the <u>Archery Trade</u> <u>Association</u> meet these criteria.

chronic wasting disease, as determined by the fish and wildlife commission, in wild populations or on private game farms.³

Exemptions to the transport ban include:

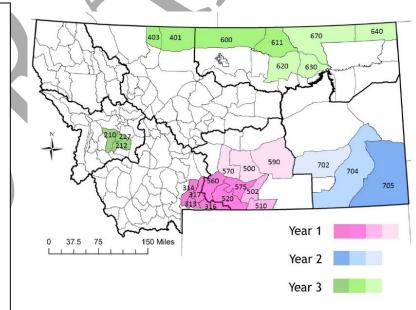
- meat that is cut and wrapped or meat that is boned out;
- quarters or other portions of meat with no part of the spinal column or head attached;
- hides with no heads attached;
- skull plates or antlers with no meat or tissue attached;
- skulls that have been boiled and cleaned to remove flesh and tissue;
- upper canine teeth; and
- head, partial body, or whole body mounts prepared by a taxidermist.

Again, violators are only subject to a warning until January 1, 2020. After that, violators could be fined up to \$500 or may be subject to forfeiture of any current hunting, fishing, or trapping license issued by the state and the privilege to hunt, fish, or trap in Montana or to use state lands for a period of time.

SURVEILLANCE & MANAGEMENT

As CWD spread in Montana's neighbors, the DFWP began regular meetings of its CWD action team and in 2017 started a citizen advisory panel to review drafting of the most recent management plan, which is based on plans from 2013 and 2005.⁴

Current high priority CWD surveillance areas. Areas are based on proximity to known CWD cases in neighboring states/provinces and mule deer densities in Montana. Hunting Districts 210, 212, and 217 surround the captive elk facility that tested positive for CWD in 1999. Surveillance regions are color-coded based on year of visitation, and different shades of the same color represent minimum surveillance units. Source: DFWP



³ As of 2018, those states and provinces include, Arkansas, Colorado, Illinois, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Nebraska, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin, Wyoming, Alberta and Saskatchewan.

⁴ Montana CWD Management Plan, <u>2018</u>.

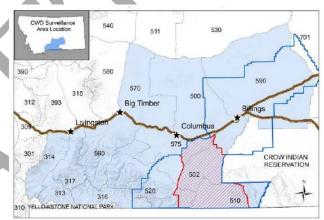
Given the work the DFWP has done on CWD over the years, it is clear the agency always intended to manage the disease when it crossed into Montana. But at the <u>September 2017 EQC</u> meeting, Director Martha Williams identified potential impacts if the disease was left to run its course:

- Long term population decline in infected herds. In Wyoming, infected herds of mule deer declined more than 20% a year. Infected herds in Colorado declined 45% over 20 years.
- Increased prevalence and likelihood of spread.
- Decreased wildlife related recreation opportunities and a potential decline in property values if the land is valued for its recreation.
- Broader impacts to hunter enthusiasm affecting contribution that outfitting and hunting make to the state economy as well as predator management and Montana's hunting and outdoor legacy.

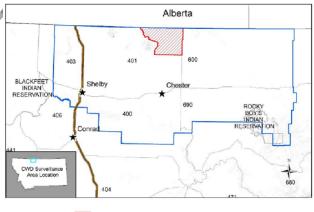
Another possible impact identified by the agency include the plants used as food by livestock can take up the CWD prions from the soil. If research shows animals become infected by eating plants, the agriculture industry could be affected.⁵

After the first confirmed case of CWD in Montana in October 2017, the DFWP established an incident command team that also included the departments of Livestock and Health and Human Services. After the initial detection in October 2017and more confirmed cases after that, the state conducted its first two CWD hunts, the Bridger hunt in southeastern Montana near the Wyoming border and the Sage Creek hunt north of Chester.

Licenses sold out quickly at \$10 for residents and \$20 for nonresidents. The idea of the special hunts is to harvest enough deer to determine the prevalence and distribution of the disease in the area. Hunters who killed deer during the hunts were not allowed to take brain or spinal column material from the animal outside of the counties determined by the agency as the Transportation Restriction Zone to prevent the spread of CWD. All deer killed during the hunts were tested.



Bridger Special CWD Hunt Area Bridger Transport Restriction Zone





⁵ Chronic Wasting Disease FAQs, FWP.

Hunters were advised to wait for test results before eating meat from a deer killed during the hunt.⁶

The Bridger hunt went from Dec. 15 through Feb. 15. Hunters took 214 mule deer and 131 white tails. The estimated prevalence in mulies was .02% and whitetails was .01%. The Sage Creek hunt lasted just more than a month and also ended Feb. 15. It resulted in 113 mule deer being tested for an estimated prevalence of .008%.

CWD Hunt	Species	Either-Sex Licenses		Antlerless Licenses			Total Licenses			
		Res	Non-Res	Total	Res	Non-Res	Total	Res	Non-Res	Total
	Mule Deer	67	33	100	353	147	500	420	180	600
Bridger	WTD	82	18	100	399	101	500	481	119	600
	Total	149	51	200	752	248	1,000	901	299	1,200
Sage Creek	Mule Deer	49	11	60	241	34	275	290	45	335
Total		198	62	260	993	282	1,275	1,191	344	1,535

Eliminating CWD from a wild population once infected is unlikely. The DFWP plan notes that large-scale population reductions have little public support but culling herds in "hot spots" by using public hunting or agency staff can remove a cluster of infected animals and reduce the prevalence in the larger population. Increasing the harvest, especially of buck could also reduce prevalence. Not allowing animals to form large herds – as they might around a haystack or other food source - may also reduce the spread. Targeted hunting pressure can also break up herds. The plan notes that predators may also play a role in managing CWD, adding that some research says predators are good determining which animals are infected and thereby more susceptible.⁷

At the <u>March 2018 FOC meeting</u>, Director Williams said that initially, agency officials thought that special management may not need to be undertaken if prevalence is less than 5%. However comments from agency staff, researchers, and officials in other CWD states resulted in changing the plan to initiate long-term management with any detection, even at low prevalence.

The plan details the phase 1 response to a new detection:8

- 1. Form an incident command team. The regional supervisor or a designee leads the team, the primary role of which is to determine if a special hunt is needed and to implement the hunt. Other details include communication with residents, landowners, and hunters; holding public meetings; establishing any transportation restriction zones.
- 2. Upper level management, including the director and the local Fish & Wildlife commissioner determine the initial response area and the need for a hunt.

⁶ Chronic Wasting Disease FAQs, FWP.

⁷ Montana CWD Management Plan, <u>2018</u>.

⁸ Ibid.

- 3. Begin the public information campaign. The plan includes sample press releases and letters to residents, landowners, and hunters.
- 4. Determine CWD prevalence and distribution within the Initial Response Area.
- 5. Evaluate results. Depending on prevalence and distribution, decisions will be made on the geographic area of the management and further actions.\

Phase 2 is the long-term management plan to keep prevalence under 5%. It would include surveillance and strategies tailored to the habitat.

TESTING & FUNDING

Testing is a large part of the fight against CWD. The standard and most accurate test is to remove the lymph nodes or brain stem from a dead cervid. No laboratories in Montana can conduct a CWD test, so samples are sent to Colorado. The cost for an initial test is \$17. A follow up to confirm a positive detection is \$35.9

The DFWP paid for testing and other CWD-related costs with federal funds, deer and elk license money, as well as donations from the Mule Deer Foundation and the Rocky Mountain Elk Foundation.¹⁰

The agency estimates spending about \$161,000 on CWD costs over the next year.

The EQC as well as members of the House Bill No. 661 study of state laboratories subcommittee discussed the lack of a facility in Montana. While DFWP officials said that tests during the special hunts usually came back in less than two weeks, sometimes there was a three week wait. The EQC and the subcommittee wrote letters to the congressional delegation requesting funding to replace the Veterinary Diagnostic Lab in Bozeman with one that could identify CWD as well as conduct research into the causes of the disease and ways to prevent it.

"A federal investment in basic research and infrastructure is an investment in the health and economic future of our nation," the EQC <u>wrote in its March 22, 2018 letter</u>. "Please make public and animal health research a higher priority for our nation by investing in the infrastructure necessary to address CWD."

⁹ Dr. Jennifer Ramsey, DFWP, January 17, 2018 testimony to EQC.

¹⁰ Director Martha Williams, DFWP, March 21, 2018 testimony to EQC.