St. Louis County
Chronic Wasting Disease (CWD)
Planning Study Progress Report

A PROGRESS REPORT PREPARED FOR THE ST. LOUIS COUNTY BOARD

BY THE ST. LOUIS COUNTY PLANNING COMMISSION

SAINT LOUIS COUNTY MINNESOTA

Draft Date: April 14, 2022

Table of Contents

Purpose of the St. Louis County Chronic Wasting Disease (CWD) Planning Study

The emergence of Chronic Wasting Disease (CWD), a prion disease that fatally affects cervids, which includes deer, elk, and moose, has prompted the St. Louis County Board to examine the crisis and consider options on how best to prevent or mitigate CWD locally. On September 28, 2021, the St. Louis County Board adopted Ordinance 66 (see Appendix A), which placed a one-year moratorium on the creation or expansion of any new or existing captive cervid farms in St. Louis County to prevent the spread of CWD. The County indicated the moratorium and associated planning process was needed to protect the health, safety, and general welfare of citizens.

Ordinance 66 also authorized a planning study to completed by the Planning Commission. The purpose of the study was to examine and make recommendations to the County Board on recommended steps to prevent or mitigate CWD in St. Louis County. The purpose of this document is to provide a progress report to the County Board on the CWD Planning Study.

What is Chronic Wasting Disease and Why is it a Crisis?

Chronic Wasting Disease (CWD) is a prion disease that affects deer, elk, reindeer, sika deer and moose. It has been found in some areas of North America, including Canada and the United States, Norway and South Korea. It may take over a year before an infected animal develops symptoms, which can include drastic weight loss (wasting), stumbling, listlessness and other neurologic symptoms. CWD can affect animals of all ages and some infected animals may die without ever showing signs of the disease. CWD is fatal to animals and there are no treatments or vaccines.

To date, there have been no reported cases of CWD infection in people. Some animal studies suggest, however, that CWD poses a risk to certain types of non-human primates, like monkeys, that eat meat from CWD-infected animals or come in contact with brain or body fluids from infected deer or elk. These studies raise concerns that there may also be a risk to people. Since 1997, the World Health Organization has recommended that it is important to keep the agents of all known prion diseases from entering the human food chain.

As of January 2022, CWD in free-ranging deer, elk and/or moose has been reported in at least 27 states in the continental United States, as well as two provinces in Canada. In addition, CWD has been reported in reindeer and/or moose in Norway, Finland and Sweden, and a small number of imported cases have been reported in South Korea. The disease has also been found in farmed deer and elk (www.cdc.gov).

Early CWD Timeline in North America

The presence of Chronic Wasting Disease in the United States has been documented for over fifty years. The following timeline of the progression of CWD shows how the disease has become an epidemic according to CWD Alliance:

Formed in January 2002, the mission of the non-profit CWD Alliance is to promote responsible and accurate communications regarding CWD, and to support strategies that effectively control CWD to minimize its impact on wild, free-ranging cervids including deer, elk, and moose.

January 12, 1967 CWD was first identified as a clinical disease in captive mule deer at the Colorado Division of Wildlife Foothills Wildlife Research Facility in Fort Collins, Colorado.

1978 CWD was officially classified as a Transmissible Spongiform Encephalopathy (TSE). TSE's include scrapie in sheep and goats, Mad Cow disease in cattle, and Creutzfeldt-Jakob disease in humans.

1979 CWD was first recognized in captive mule deer and black-tailed deer at the Wyoming Fish and Game Department's Sybille wildlife research facility. CWD was diagnosed in captive elk for the first time.

1981 The first diagnosis of CWD in Canada was found in a mule deer at the Toronto Zoo.

The Colorado Division of Wildlife identified CWD in a wild elk, marking the first documented case of CWD in a wild cervid.

1985 The Colorado Division of Wildlife confirmed the presence of CWD in a wild mule deer for the first time and attempted to eliminate CWD from the Fort Collins Foothills Wildlife Research Facility by treating the soil with chlorine, removing the treated soil, and applying an additional chlorine treatment before letting the facility remain vacant for more than a year. The effort was unsuccessful.

The Wyoming Fish and Game Department identified CWD in a wild mule deer, marking the state's first case of CWD in a wild cervid.

1996 CWD was found for the first time outside of the Colorado/Wyoming CWD "endemic zone" in a captive elk farm in Saskatchewan.

1997 CWD is identified on several captive elk facilities in South Dakota, marking the first documented cases of CWD in the state.

1998 June 1998 and again in June 1999, elk shipped to Oklahoma from an alternative livestock facility near Philipsburg, MT were confirmed to have CWD.

Minnesota implements a voluntary CWD monitoring program for farmed deer and elk herds. Every time a deer or elk from one of the enrolled farms dies or is slaughtered, its brain is tested for CWD.

1999 The Nebraska Game and Parks Commission discovered CWD in a wild mule deer, the state's first documented case of the disease.

CWD is detected in a captive elk facility in Oklahoma, marking the first time the disease was found in the state.

In November and December 1999, all 83 elk at the Philipsburg facility in Montana (the source of the CWD captive positive in Oklahoma) were destroyed.

2001 South Dakota discovered CWD in wild white-tailed deer for the first time. Nebraska discovered CWD in a captive white-tailed deer facility for the first time

2002 The Wisconsin Department of Natural Resources detected CWD in wild white-tailed deer, the state's first documented case of CWD.

A mule deer collected from the White Sands Missile Range has tested positive for Chronic Wasting Disease and the director of the New Mexico Department of Game and Fish declared an Animal Health Emergency Tuesday, closing the state to any importation of deer or elk.

Chronic Wasting Disease found in a farmed elk from Aitkin County. Case marks the first time this disease has been detected in Minnesota.

A white-tailed buck shot on a game farm in Portage County, Wisconsin, tested positive for chronic wasting disease. This was the first time the fatal brain disorder was found in Wisconsin outside the original outbreak area southwest of Madison.

Minnesota's CWD Timeline

2002 A CWD-positive elk farm found in Aitkin County. This marks the first CWD positive animal in Minnesota and DNR's first concentrated surveillance effort in wild white-tailed deer.

2003 A CWD-positive elk farm in Stearns County was discovered. This is a trace-out from the Aitkin County farm. DNR granted legal authority to open and close seasons, restrict feeding and impose rules to limit disease spread.

2004 DNR completes 3-year statewide surveillance project. In total, 28,000 deer were tested and the disease was not found.

2006 A CWD-positive white-tailed deer farm is discovered in a mixed deer/elk farm in Lac Qui Parle County.

2009 A CWD-positive elk farm in Olmsted County is discovered. The United States Department of Agriculture (USDA) determines there has been an apparent long-standing infection within the herd.

2010 A wild CWD positive white-tailed deer is discovered within two miles of the CWD positive elk farm in Olmsted County.

2012 A farmed European red deer is found infected with CWD in a facility in Ramsey County.

2013 DNR completes three-year intensive CWD surveillance around the Olmsted County elk farm. More than 4,000 wild deer are tested in the immediate area and no additional positives are detected.

2016 Ongoing detections of CWD positive wild deer in southwestern Wisconsin and northeastern Iowa prompted DNR to conduct voluntary surveillance in southeast Minnesota. During the 2016 deer season, three positive wild deer (adult males) are found in Fillmore County near Preston.

A CWD-positive deer farm is discovered in Crow Wing County.

2017	Eight additional CWD positive wild deer are found in DPA 603 during the special late hunts, landowner shooting permit phase and USDA agency culling during winter 2017. A CWD-positive deer farm is discovered in Meeker County. This farm is a trace-out from the Crow Wing County farm. Mandatory surveillance is conducted during the opening weekend of the firearm season in north-central and central Minnesota surrounding the recently detected CWD positive farms in Crow Wing and Meeker counties. Another CWD-positive deer farm is discovered in Winona County. All nine captive deer on this farm were infected.
2018	CWD detected in 16 wild deer in Fillmore County, one wild deer in Houston County, and found again in the deer farm in Crow Wing County where positive captive deer were found in 2016.
2019	CWD is first found in one wild deer in Crow Wing County near a CWD-positive deer farm. Seventeen additional CWD-positive wild deer are found in southeastern Minnesota during the landowner shooting permit phase and USDA agency culling. 13,181 samples were collected from hunter harvested deer in the southeast with 26 additional positive cases. Confirmation of a CWD-positive doe on a deer farm in Douglas County in December. That month, the DNR issues an emergency rule that temporarily prohibits the movement of all farmed white-tailed deer within the state for 30 days to give the state time to evaluate the outbreak, generate potential solutions to containing and eliminating the disease, and protect the wild deer herd.
2020	Seven additional CWD-positive wild deer are found during management operations in the southeast within two miles of known CWD-positive wild deer. Landowner shooting permits collected 10 samples with no detections of disease and USDA agency culling collected 463 samples with seven positives. A new CWD-positive deer farm was confirmed in Pine County in January.

CWD is first found in Dakota County in March, in a wild deer that was reported sick by the public as emaciated, circling/stumbling and not afraid of people. The deer was euthanized and tested positive for CWD.

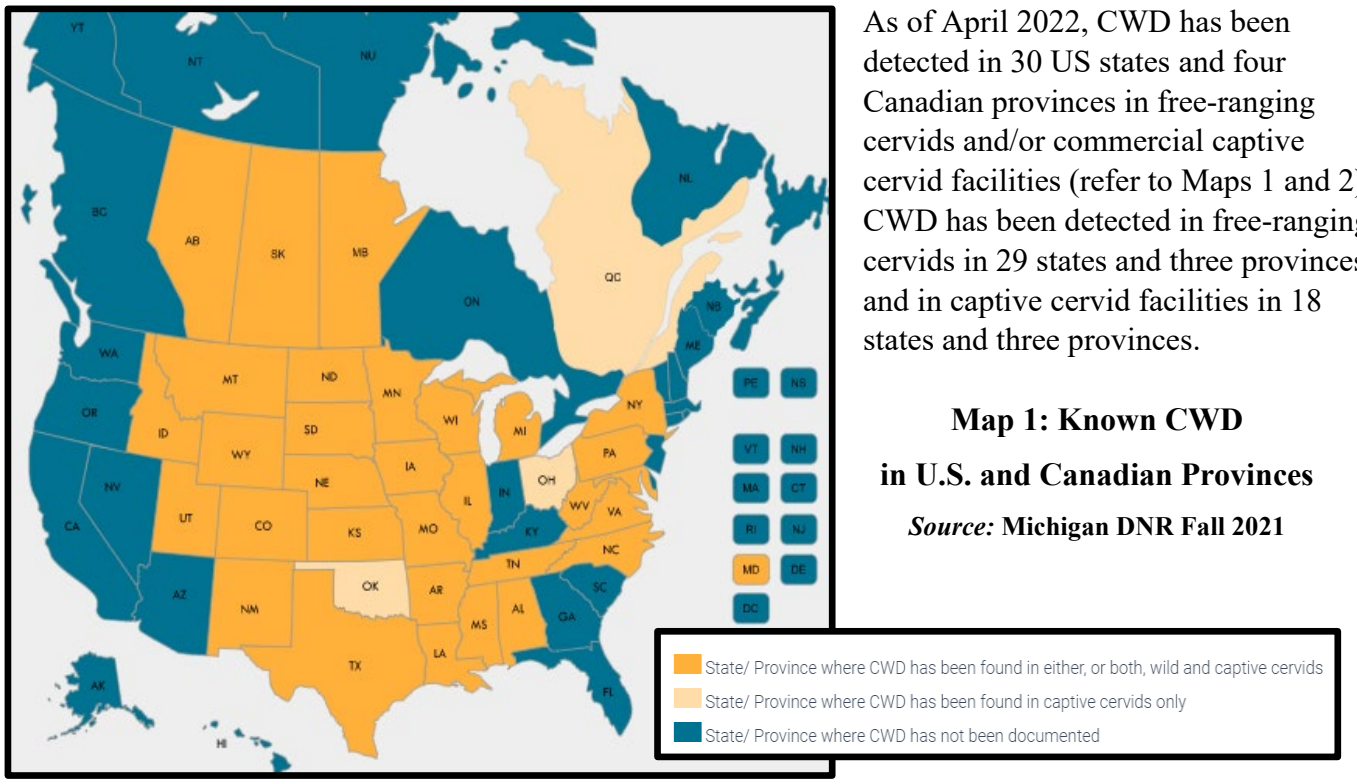
In total, 4,582 samples were collected from hunter-harvested deer in the southeast management and control zones, with 19 additional positive cases. In the new, metro-area CWD management zone (deer permit area 605) and its accompanying surveillance area, 1,423 samples were collected, with four additional positive cases.

2021 Five additional CWD-positive wild deer are found during management operations in the southeast and metro areas, within two miles of known CWD-positive wild deer.

A new CWD-positive deer farm was confirmed in Beltrami County in April.

2022 On March 15, despite it showing no 'clinical signs' of the disease, a deer tested positive for CWD in Grand Rapids, located in Itasca County.

Current CWD Data



As of April 2022, CWD has been detected in 30 US states and four Canadian provinces in free-ranging cervids and/or commercial captive cervid facilities (refer to Maps 1 and 2). CWD has been detected in free-ranging cervids in 29 states and three provinces and in captive cervid facilities in 18 states and three provinces.

Map 1: Known CWD in U.S. and Canadian Provinces

Source: **Michigan DNR Fall 2021**

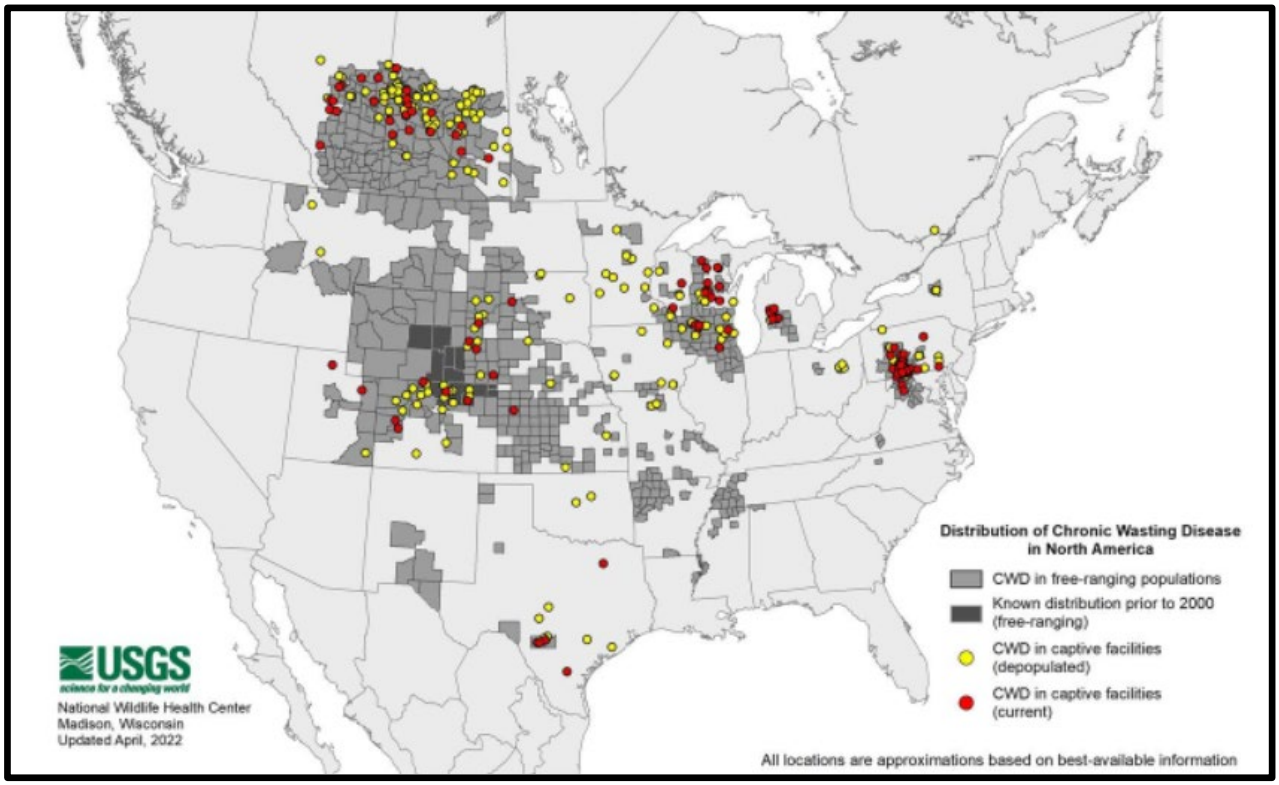
Map 2 shows the known locations of CWD in both captive facilities (cervid farms) and in free-ranging populations (wild deer). The light grey areas have not yet detected CWD in wild populations. The medium grey shading represents CWD in free-ranging populations, and the dark grey shading highlights were CWD was present in wild populations prior to the year 2000. This shows how CWD has spread in free-ranging populations from Colorado and Wyoming prior to 2000, to 29 U.S. states and three Canadian provinces.

Represented in red and yellow dots, the known CWD in captive cervid facilities is also shown in Map 2. Yellow dots represent where CWD is known to currently exist, while yellow dots show the location of depopulated cervid facilities with previously identified CWD.

If the colors are hard to understand, please visit www.usgs.gov for a table of the information presented in Map 2 and more information on the current status of CWD in North America.

Map 2:

Known CWD Locations in North America



Minnesota's Cervid Regulations and CWD Response

Cervid facilities in Minnesota, commonly referred to as cervid farms, are regulated through Minnesota Statutes, Chapter 35 Animal Health (www.revisor.mn.gov/statutes/cite/35). Sections 35.153 through 35.156 specifically provide cervid related definitions, farmed cervid regulations, and CWD oversight responsibilities. They are also regulated by Minnesota Administrative Rules Chapter 1721 (1721 - MN Rules Chapter).

It should be noted that numerous other lateral Minnesota Statutes and Rules also pertain to Cervid Farms and CWD, such as transporting livestock, disease reporting requirements and other public health provisions.

The primary components of Minnesota State Statutes 35.155 Farmed Cervidae and Minnesota Rules 1721 are heighted below (please refer to Appendix B for a full copy of the text):

1. An owner may not allow farmed Cervidae to run at large.

2. An owner is liable for the expense of capturing, caring for and returning Cervidae that have left their enclosure within 24 hours, otherwise the cervids may be destroyed.

3. Wild Cervidae found within a farmed Cervidae confinement area must be destroyed and reported to the Minnesota Department of Natural Resources (DNR).

4. Farmed Cervidae must be confined in a manner designed to prevent escape. All perimeter fences shall be at least 96 inches in height and be constructed and maintained in a way that prevents the escape of farmed Cervidae or entry into the premises by free-roaming Cervidae.

5. Each Farmed Cervidae must be identified by means approved by the Minnesota Board of Animal Health (BAH).

6. Owners shall register each farmed Cervidae and must keep written records of the acquisition and disposition of the animals.

7. Each cervid farm shall be annually inspected by BAH. This includes a physical inspection and records review.

8. Cervid farms have mandatory CWD surveillance, including:

    a. An inventory for each farmed Cervidae herd must be verified by an accredited veterinarian and filed with the Board of Animal Health every 12 months; and

b. Movement of farmed Cervidae from any premises to another location must be reported to the Board of Animal Health within 14 days; and

c. All animals from farmed Cervidae herds that are over 12 months of age that die or are slaughtered must be tested for chronic wasting disease; and

d. The owner of a premises where chronic wasting disease is detected must:

1. depopulate the premises of Cervidae after the federal indemnification process has been completed or, if an indemnification application is not submitted, within a reasonable time determined by the Board in consultation with the DNR Commissioner; and

2. maintain the fencing required under subdivision 4 on the premises for five years after the date of detection; and

3. post the fencing on the premises with biohazard signs as directed by the Board.

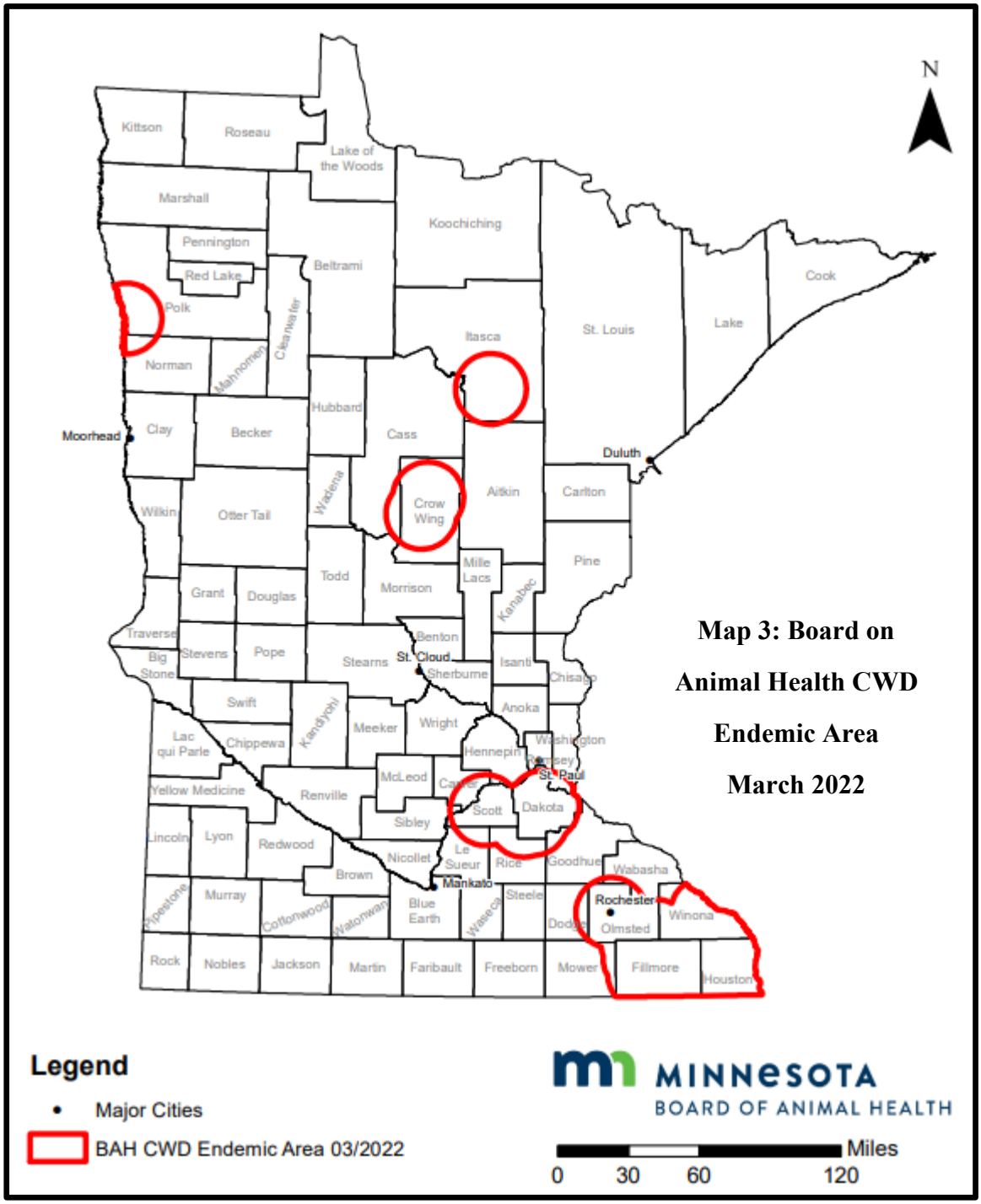
9. A person must not import Cervidae into the state from a herd that is infected or exposed to chronic wasting disease or from a known chronic wasting disease endemic area, as determined by the BAH.

10. The Commissioner of the DNR and the BAH possess concurrent authority to regulate farmed white-tailed deer.

11. By February 1, 2022, the DNR Commissioner, in conjunction with the Board of Animal Health, must submit a report to the chairs and ranking minority members of the legislative committees and divisions with jurisdiction over the environment and natural resources and agriculture on the implementation of the concurrent authority under this section. A copy of this report can be found online at: https://files.dnr.state.mn.us/aboutdnr/reports/legislative/2022/concurrent-authority-legislative-report-farmed-deer.pdf

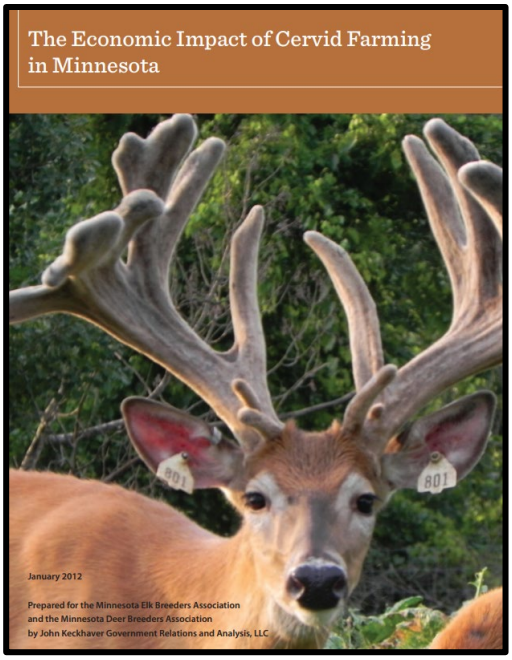
March 2022 Update

The Board of Animal Health expanded the endemic area for CWD in the state in early 2022 based on information from the DNR on CWD positive wild deer harvested or found dead during the 2021 fall hunting season. From this data, the Board establishes the endemic area boundary 15 miles around all confirmed cases of CWD in the wild. The endemic area also includes all of Houston County as most of the county was within 15 miles of a confirmed case of CWD in the wild including a CWD positive wild deer harvested in Vernon County, Wisconsin on the border with Minnesota. Map 3 depicts the perimeter of the endemic area in Minnesota.



According to the BAH, the designation of this area impacts farmed Cervidae herds found within the area. Farmed Cervidae in these herds are restricted from moving to other areas of the state until the producer can demonstrate the herd is maintained in such a way to prevent commingling of farmed and wild Cervidae. Commingling of farmed and wild Cervidae can occur across a fence and additional exclusionary barriers must be constructed and approved by the Board to prevent this commingling. Producers that have established exclusionary fencing or barriers must be inspected by the Board before the movement restriction on their herd is released.

The Economic Impact of Cervid Farming in Minnesota



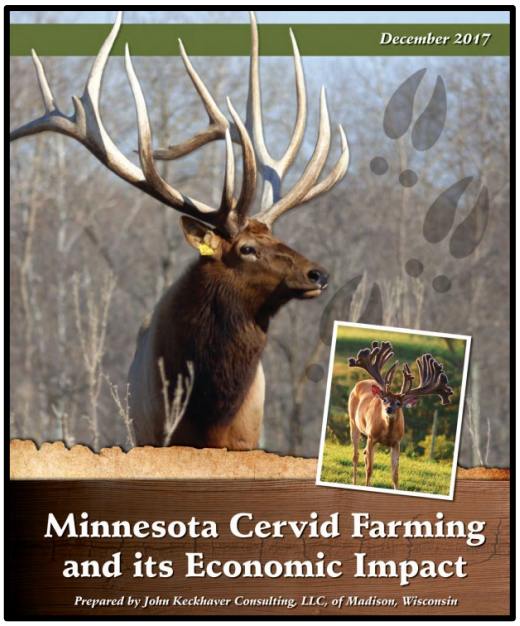
In January 2012, the Minnesota Elk Breeders Association and the Minnesota Deer Breeders Association published a report, "The Economic Impact of Cervid Farming in Minnesota," written by John Keckhaver of Government Relations and Analysis, LLC. The report was updated in 2017 by the same author (please refer to Appendix C for both reports). The following information provides some of the highlights documented in the reports:

- Minnesota was ranked 1st nationally in the number of elk and 3rd in the number of commercial elk farms according to the 2007 U.S. Census of Agriculture.

- In 2012, Minnesota still ranked 1st nationally in the number of elk maintained (4,610) and second in the number of elk farms (151).

- In 2007, Minnesota ranked 5th in the number of commercial deer farms and 6th in the number of deer at these farms.

- In 2012, Minnesota ranked 5th nationally in the number of deer maintained (6,229) and 5th in the number of deer farms (174).



- The average cervid farm size in Minnesota in the 2012 report was 43 acres, compared to 29 acres in the 2017 report.

- In November 2011 there were 560 registered cervid herds in Minnesota, compared to 453 in 2017. These numbers are down from the 757 in the year 2005.

- Despite the decline, cervid farming remains widespread throughout Minnesota. As of 2017, Cervid herds were located in 76 of Minnesota's 87 counties. Of this number, 70 counties had at least one deer farm and 63 counties had at least one elk farm.

- According to the 2012 report, the cervid industry supported an estimated 1,287 jobs in the state (240 full time and 1,047 part time).

- According to the 2017 report, the cervid industry supported an estimated 759 jobs in the state (164 full time and 595 part time).

- The total annual economic impact of cervid farming in Minnesota in 2010 was estimated to be $17.6 million. This increased to $24.2 million in 2016.

- Minnesota Cervid farm sales averaged approximately $48,000 in 2016, an increase of 400% since 2010.

- 75% of the Cervid farms operating in 2017 were started in the 1990s and 2000s.

- Map 4 shows that St. Louis County had 12 registered Cervid Farms in March 2017. As of 2022, this number has been reduced to five according to the Minnesota Board of Animal Health.

Map 4:

Total Farmed Cervidae Herds by County

March 27, 2017

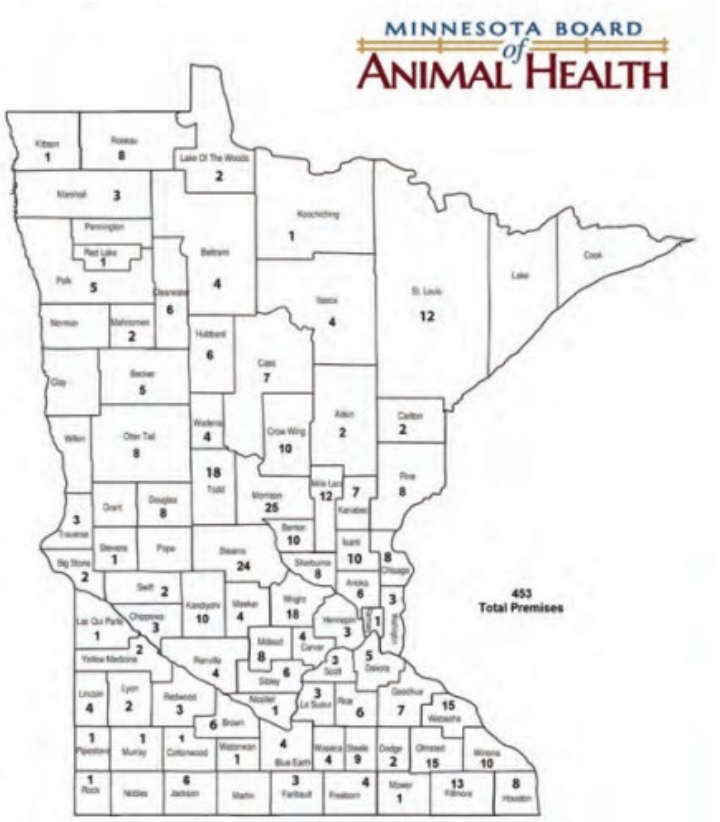


Figure 6: Percentage of Cervid Farmers Providing Various Products/Services

A special thanks to John Keckhaver Consulting, LLC.,

The Minnesota Elk Breeders Association (www.mneba.org), and

The Minnesota Deer Farmers Association (https://mdfa.wildapricot.org) for authoring

The Economic Impact of Cervid Farming in Minnesota (2012 and 2017)

Economic and Cultural Impacts of CWD in St. Louis County

Located in the arrowhead region of Northeastern Minnesota, St. Louis County is the largest county in Minnesota and the largest in the United States east of the Mississippi River (refer to Map 6). As of the 2020 Census, the County's population was 200,231 living in approximately 82,619 households. St. Louis County has a total area of 6,860 square miles, of which 6,247 (91%) is land and 612 (9%) is water. St. Louis County is known for its spectacular natural resources, wildlife, fishing, and year-round recreation opportunities.

National Treasures

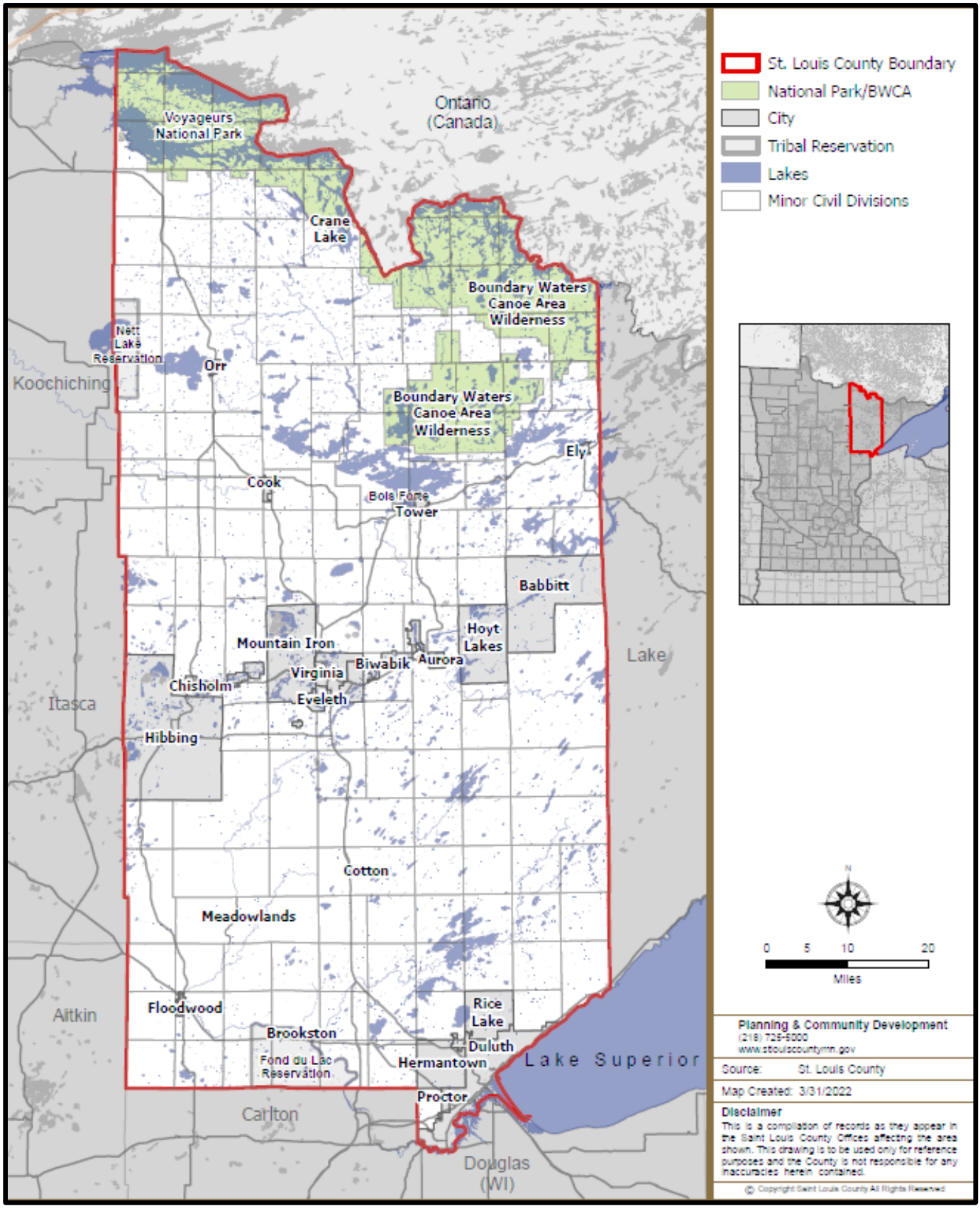
The landscape is dominated by trees, lakes and the Mesabi and Vermillion Iron Ranges. Superior National Forest spans 3.9 acres across St. Louis, Lake, and Cook Counties, collectively known as Minnesota's 'Arrowhead Region.' Part of the Boundary Waters Canoe Area (BWCA), a 1,090,000-acre wilderness area, is located in Northeastern St. Louis County with the town of Ely serving as its gateway. Voyageurs National Park, established in 1975, has two visitor centers located in St. Louis County at Kabetogama Lake and Ash River (refer to Map 5 below).

Map 5: Voyageur's National Park

Visitor Centers in St. Louis County

Map 6:

St. Louis County, Minnesota



Hunting in Minnesota and St. Louis County

The Minnesota Department of Natural Resources (DNR) reports that deer hunting generates nearly $500 million annually in total economic activity to the state. Even more impressive, Minnesota's natural environment sustains Minnesota's $14 billion annual outdoor recreation economy. The following data was collected from the DNR:

- Youth deer hunting licenses for the state of Minnesota in 2021: approximately 467,413 licenses sold, showing just exactly how culturally important a healthy deer population is for our state and county.

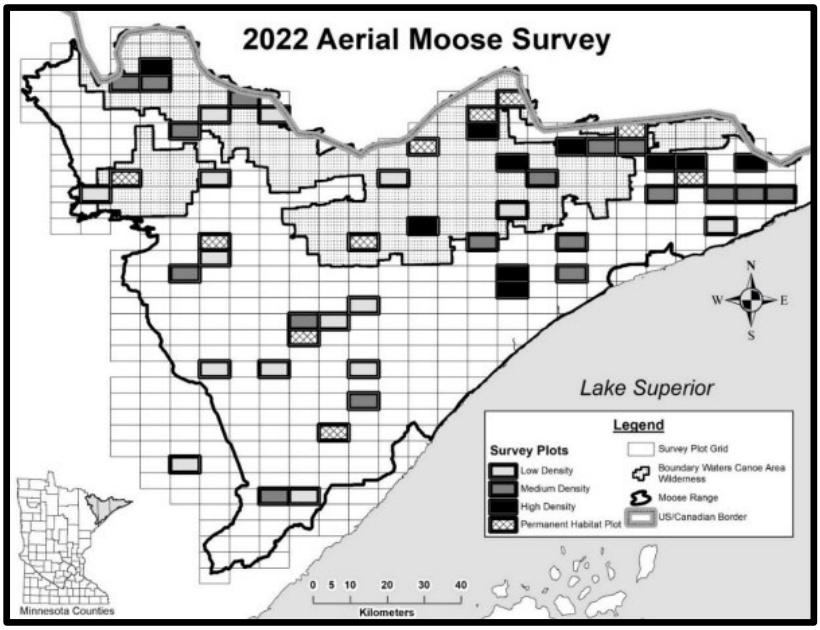
- Resident license sold in St Louis County in 2021: 35,740 licenses generating $1,215,160 dollars in St. Louis County.

- Non-Residents (from out of the state of Minnesota hunting in SLC): 1,115 generating $206,275 dollars in St. Louis County (this does not include other Minnesota residents from counties outside SLC).

Moose Population

The DNR conducts an aerial survey of the State's moose population each year in northeastern Minnesota. The 2022 results are encouraging, with approximately 4,700 moose estimated (refer to Map 7). Although this number is low compared to 7,890 estimated in 2008, the 2022 survey yielded the highest numbers since 2011.

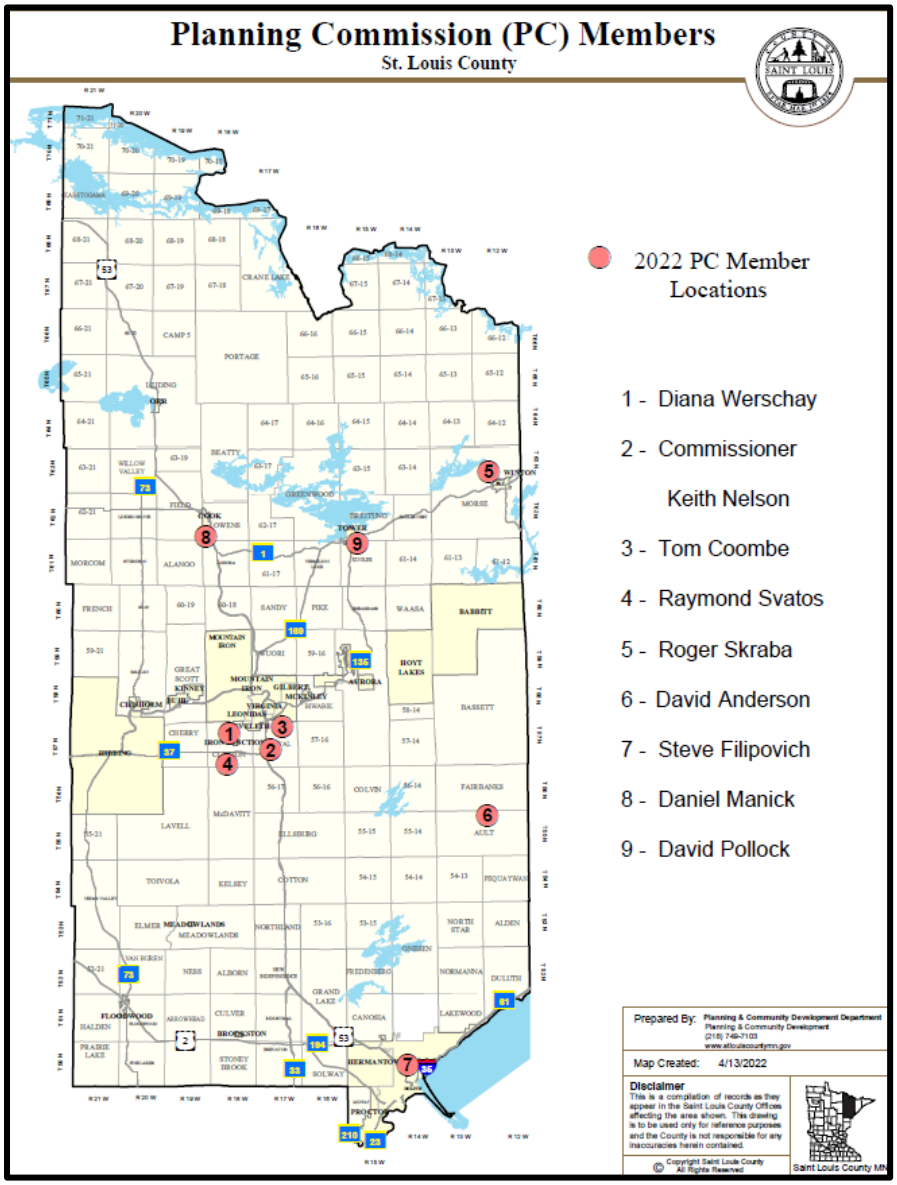
Map 7: DNR



St. Louis County Planning Commission

Ordinance 66, adopted by the County Board on September 28, 2021, authorized the Planning Commission to create the St. Louis County Chronic Wasting Disease Planning Study. The Planning Commission consists of nine members and is appointed by the County Board. Map 8 lists the Planning Commissioners names and shows their approximate geographic location in the County.

Map 8: St. Louis County
2022 Planning Commission Members

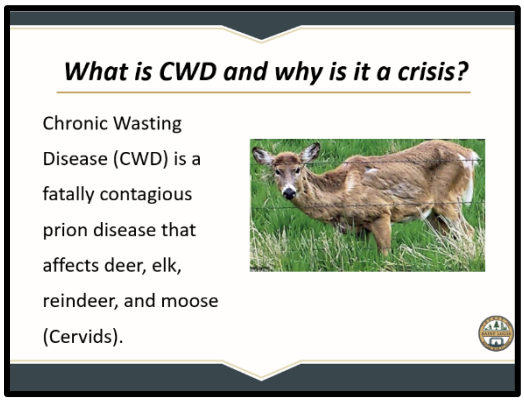


Planning Study Methodology

In order to better understand the complexities of Chronic Wasting Disease and the current crisis, the Planning Commission held workshops on November 18, 2021, and March 3, 2022, at the Liz Prebich Government Services Center in Virginia. The workshop had the following agenda:

November 18, 2021, Workshop Overview

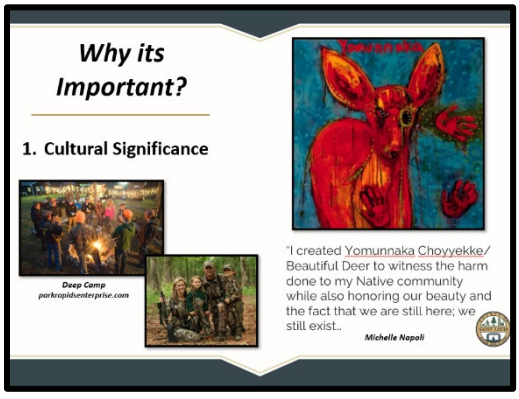
1. What is CWD and why is it a crisis?
2. Minnesota's CWD Regulations & Efforts
   A. State Statutes
   B. Board of Animal Health
   C. MN DNR Transport Ban
3. St. Louis County Ordinance 66 Timeline
4. CWD Action Coalition Position Statement



The overall objective of the workshop was to familiarize the Planning Commission with CWD and to begin the conversation on why local Cervid farms potentially need additional regulations to mitigate or prevent the spread of CWD in St. Louis County. Appendix D contains a copy of the PowerPoint presentation used during the workshop.

March 3, 2022, Workshop Overview

1. What is CWD and why is it a crisis?
2. What is at Stake? Economic, Cultural, Aesthetic and Wildlife Values
3. CWD Regulatory & Monitoring Efforts
4. Cervid Farms Economic Impacts & Concerns
5. Goal: Prevent CWD in St. Louis County
6. County Regulatory Options & Next Steps



The overall objective of the workshop was to review why addressing CWD is essential to St. Louis County. The Planning Commissioners also reviewed four different regulatory options that could be adopted by the County Board to help mitigate the crisis. Appendix D contains a copy of the PowerPoint presentation used during the workshop.

CWD Planning Study Implementation Steps

A copy of the draft St. Louis County CWD Planning Study Progress Report was presented to the Planning Commission on April 14, 2022. The following CWD Planning Study steps were discussed:

A. Present the Planning Study Update to the County Board (tentatively scheduled for May 3)

B. Prevent CWD from negatively impacting St. Louis County's economy and local cultural, aesthetic, and wildlife values.

- Examine strict regulations on new or expanding Cervid Farms along with Best Management Practices (BMPs)/final incentives for implementation.
- Preventing new or expanded cervid farms in St. Louis County.
- Working in tandem with the DNR and the University of Minnesota to provide information and implement suggestions for further prevention and integrating on-the-spot testing to cervid farms, hunters who process their own meat, and meat processing businesses.
- Work with stakeholders on providing dumpster/dumpsites for carcasses to be tested with the help of the DNR and encouraging hunters to use the designated sites.
- Consider implementing a feeding ban with higher fines as our neighboring counties to the west and south have already done.

C. Increased education to the public

- Work with stakeholders to assist with providing accurate and up-to-date information on CWD through a marketing strategy.
- Help connect citizens to additional information on CWD.

D. Create opportunities for St. Louis County's citizens and stakeholders to engage in actions moving forward

- Public outreach, public hearings, and other opportunities to engage the public in the conversation.
- Communication with Native American tribes in SLC to ensure a mutual understanding of prevention and management.

Note: All Planning Commissioners supported sending a copy of the CWD Planning Study Progress Report to the County Board. Unless the County Board decides to end Ordinance 66 and the moratorium on new or expanded Cervid Farms, the Planning Commission will continue to work on the CWD Planning Study Implementation Steps.