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# Deer Carcass Adopt-A-Dumpster Program

Report to the Legislature

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As required by Minnesota Session Laws-2019, 1<sup>st</sup> Special Session Chapter 4, Article1, Sec. 3, Subd 6: This report cost approximately \$1,000.00 to prepare, including staff time, printing and mailing expenses.

*Upon request, this material will be made available in an alternative format such as large print, Braille or audio recording. Printed on recycled paper.*

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## Executive Summary

As required by legislation passed during the 2019 session, the Minnesota Department of Natural Resources (DNR) established an Adopt-A-Dumpster Program (AAD) to collect and dispose of hunter-harvested deer carcass remains to minimize the spread of Chronic Wasting Disease (CWD). Estimated costs at the time of this report were approximately \$170,000 to provide and operate 26 dumpster locations in the two CWD control zones in place for the 2019 deer season. Over 200 tons of deer carcass remains were collected and disposed of at landfills.

## Introduction

Preventing and minimizing the spread of CWD is a critical component of the DNR's *Surveillance and Management Plan for Chronic Wasting Disease in Free-ranging Cervids in Minnesota* ([CWD Response Plan](#)). The CWD Response Plan's actions include instituting and enforcing carcass movement restrictions of all deer out of CWD Management Zones (including fawns), allowing only certain parts (i.e., quarters or other portions of meat with no part of the spinal column or head attached) to leave before receiving a "not detected" CWD test result.

Minnesota Session Laws-2019, 1<sup>st</sup> Special Session Chapter 4, Article 1, Sec. 3, Subd. 6 directed DNR to establish a CWD AAD to provide dumpsters dedicated to disposing of deer carcasses in areas where CWD has been detected to aid hunter compliance with carcass movement restrictions.

[Minnesota Session Laws-2019, 1<sup>st</sup> Special Session Chapter 4, Article 1, Sec. 3, Subd. 6.](#)

*(c) \$50,000 in the first year is from the wild cervidae health management account in the game and fish fund to establish a chronic wasting disease adopt-a-dumpster program to provide dumpsters dedicated to disposing of deer carcasses in areas where chronic wasting disease has been detected. The commissioner must work with solid waste haulers and other interested parties and encourage volunteer support to ensure the dumpsters are located at convenient locations with appropriate signage, lined, and maintained. The commissioner must ensure the carcasses collected are properly disposed of to minimize the spread of chronic wasting disease. The commissioner, in consultation with the commissioners of health and the Pollution Control Agency, must develop guidelines to prevent the spread of chronic wasting disease and protect public health that take into consideration infectious waste as defined under Minnesota Statutes, section 116.76, subdivision 12, for:*

*(1) hunters for handling deer in the field and transporting and disposing of carcasses;*

*(2) solid waste facilities and solid waste haulers for proper handling, transportation, and disposal of deer carcasses; and*

*(3) taxidermists and meat processors for proper handling, processing, and disposal of deer carcasses.*

*By January 15, 2020, the commissioner of natural resources must submit a report to the chairs and ranking minority members of the house of representatives and senate committees and divisions with jurisdiction over*

*environment and natural resources with the results of the program and guidelines developed under this paragraph.*

## **Selecting Dumpster Locations**

DNR identified CWD Sampling Station locations to collect tissue samples for mandatory CWD testing in CWD Management and Control Zones. DNR attempted to provide dumpsters at those same locations to facilitate a single site for all CWD-related operations. “Quartering stations” consisting of a tripod to hang deer, a table, paper towels, wipes, garbage bags, and a bone saw to facilitate quartering and deboning of deer, were provided at most locations. Some sampling station location hosts were uncomfortable having a dumpster and/or a quartering station at their sites, so in those cases alternative sites in the same town were identified if possible.

Dumpsters were provided at 6 locations in the North Central CWD Management Zone (NCZ), and 19 locations in the SE CWD Management and Control Zones (SEZ) (Figure 1). An additional dumpster was provided for the Forestville/Mystery Cave State Park special hunt November 9-10. Dumpsters were present at certain locations for the entirety of all deer seasons (September 14- December 31), while others were present for the firearms season only, when the need was highest.

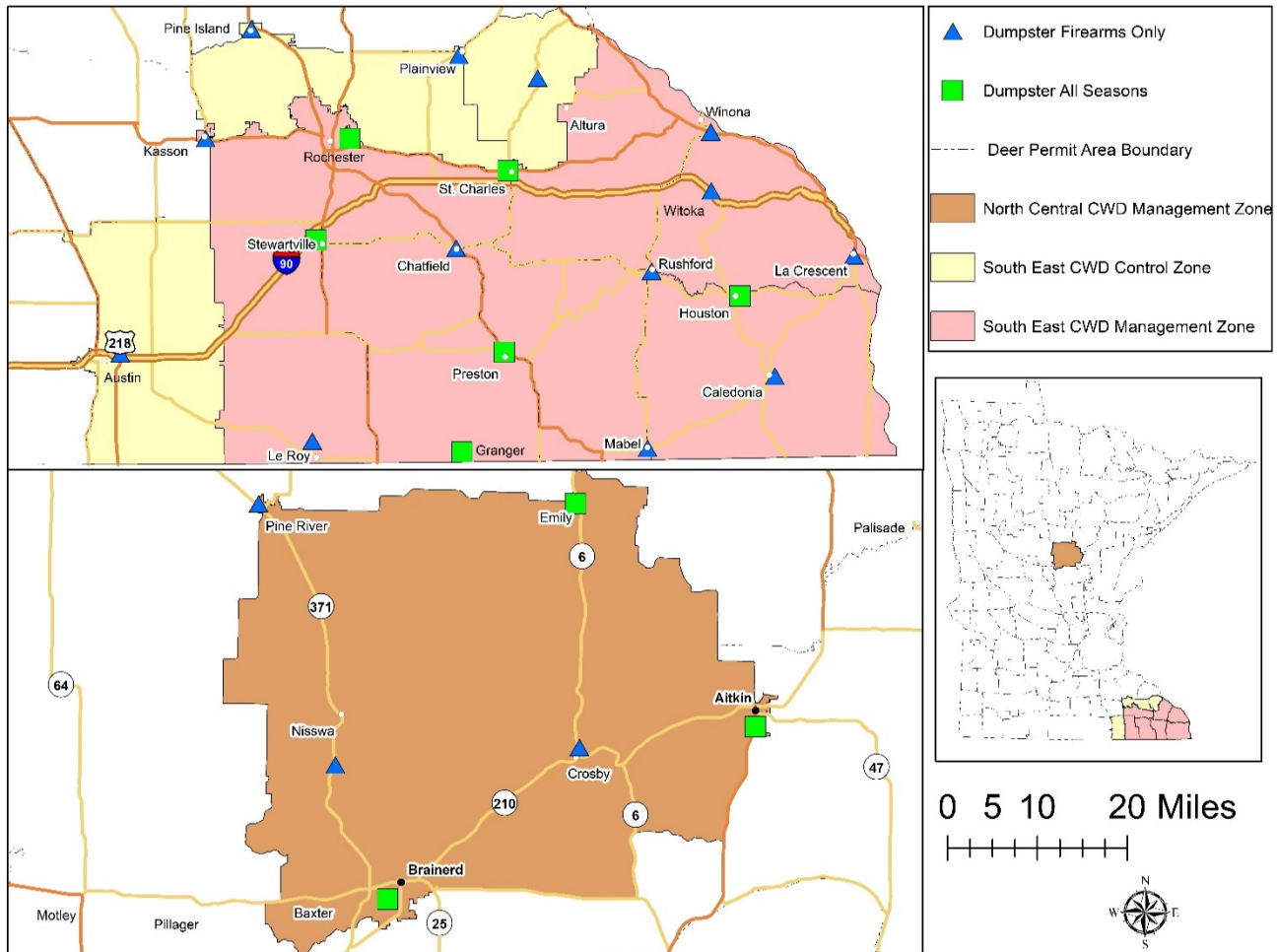


Figure 1. Dumpster locations and time period of availability.

## Obtaining Vendors

Obtaining dumpster vendors proved more challenging than anticipated. Vendors listed on the state contract for mixed municipal waste disposal were approached beginning in early September and each declined. Some reasons cited included the need to segregate deer carcass waste from other waste streams, concerns over the risks of transporting potentially infected carcasses, and the concerns of landfills over the risk of accepting potentially infected carcasses.

Blufflands Whitetails Association and the Minnesota Deer Hunters Association were able to step in on short notice and provide dumpsters at some key locations in time for the archery deer season. At the same time, DNR solicited bids from vendors not on the state contract and was able to secure dumpsters for several sites. The Department of Administration's Office of Procurement provided recommendations that resulted in an additional



bidding process that successfully secured dumpsters and service for more locations. Dumpsters were available at 26 locations at the beginning of the firearms season.



Figure 2. Dumpster and quartering station setup.

## Landfills

Preferred disposal methods for CWD-positive deer carcass disposal are alkaline digestion, incineration, or disposal in lined landfills. Landfills are the most readily available and practical solution for disposal of carcasses, and research has shown that prions are bound to clay particles and therefore likely contained at landfill sites. However, landfill operators are increasingly concerned about the risk of accepting potentially infected deer.

The CWD infection rate in Minnesota deer is very low, currently less than 1% in the SEZ. But because CWD test results are not known before carcasses potentially enter the waste stream, all carcasses were treated and disposed of as if they were positive. Carcasses and meat known to be positive (collected from hunters after test results are known) were disposed of at the University of Minnesota's alkaline digester if they could be recovered.

## **Crow Wing County Landfill**

Discussions began with the Crow Wing County Landfill (CWCL) in April 2019 following the discovery of a CWD-positive wild deer near Merrifield, Minnesota on January 23, 2019, and the establishment of the NCZ. DNR convened a Landfills Working Group to discuss CWD and deer carcass disposal. The group included DNR, Minnesota Department of Health (MDH), Minnesota Department of Agriculture, Minnesota Pollution Control Agency (MPCA), Minnesota Board of Animal Health, Crow Wing County, a meat processor and taxidermist, and a waste hauler. The group held four meetings. Concerns with volume of deer carcasses, safe handling of carcasses, potential future liability, and potential to spread the disease from land application of leachate on fields were discussed.

DNR transferred its wood-fired air curtain incinerator to Crow Wing County for carcass incineration, and CWCL enclosed their leachate spray location field with a deer exclusion fence. CWCL spent approximately \$160,000 to construct infrastructure to facilitate deer carcass delivery and incineration, and to exclude deer from their on-land leachate disposal site.

Additional scheduling, suitable container size, exclusion of rain and snow from containers, and other logistics were addressed as deer seasons and carcass disposal needs progressed. Initially, CWCL limited carcass disposal to deer killed inside Crow Wing County, but later began accepting deer from nearby locations outside of the county. CWCL also accepted direct disposal of deer carcasses from within the NCZ from hunters, and actively promoted CWCL's availability for deer carcass disposal.

## **Olmsted County Landfill**

DNR has disposed of deer carcasses at the Olmsted County Landfill (OCL) since CWD was first found in Southeast Minnesota in 2010. Concerns about the risk posed by CWD-positive deer carcasses, in particular because landfill leachate is treated at the Rochester Wastewater Treatment Plant, led to a decision by OCL this fall to only accept deer with a "not-detected" CWD test result. Because deer carcasses would likely enter the waste stream before CWD test results were known, DNR could not use OCL as a disposal site. By the time that decision was made, some deer carcasses had already been delivered to OCL, so DNR paid a contractor to retrieve those carcasses and dispose of them at the La Crosse Landfill.

## **La Crosse Landfill**

The La Crosse, Wisconsin landfill agreed to accept deer carcasses from Minnesota's AAD. All deer carcasses collected by AAD in the SEZ were delivered to the La Crosse Landfill.

## **Other Landfills**

The East Central Solid Waste Commission Sanitary Landfill in Mora was used initially to dispose of deer collected at the Aitkin dumpster site.

Waste Management will not accept deer carcasses at its landfills.



The Winneshiek County Landfill in Decorah, Iowa, was contacted and declined to participate.

## Lessons learned

Early operations were affected by low carcass volume and warm temperatures that combined to create odors before dumpsters needed to be emptied. Dumpster liners intended to keep fluids contained did not function well, and heavy rains made it difficult to keep additional water out of the dumpsters.

As the deer season progressed, cooler weather arrived, more vendors were secured, and collection and disposal improved. Containers received heavy use and needed to be emptied three times per week during the firearms season, and twice per week immediately following the close of seasons. Harvest and therefore use by muzzleloader and archery deer hunters declined following the firearms season. Late special deer hunts were held during the last two weekends of December in Deer Permit Areas where additional positive deer were found, and some dumpsters were left in place for these special hunts.

The 10-yard roll-off container provided the best size and accessibility for hunters to load deer carcass remains. Strong covers proved critical to exclude heavy precipitation, thereby reducing free liquids and facilitating incineration and landfill disposal.

## Volunteer Support

Organization	Donation Amount
Bluffland Whitetails Association	\$2,925
Minnesota Deer Hunters Association	\$1,091
Minnesota Backcountry Hunters and Anglers	\$900
Total	\$4,915

DNR solicited volunteer assistance with the ADD through multiple news releases, the DNR web page, and area staff's direct contact with local sporting groups. Bluffland Whitetails Association and Minnesota Deer Hunters Association provided dumpsters as a stopgap early in the program, and Minnesota Backcountry Hunters and Anglers made a cash donation. There was limited interest expressed by other individuals to monitor and maintain dumpster locations, but most sites had DNR staff working nearby to do that work.

## Costs as of January 27, 2020

Expense Type	North Central Zone	Southeast Zone	Total
Dumpster costs	\$35,183	\$100,076	\$135,259
Quartering stations and other supplies	\$6,189	\$24,150	\$30,340
Total	\$41,372	\$124,226	\$165,599

Outstanding invoices remain as of this report, but total costs for dumpsters and quartering station supplies are estimated at \$170,000. Over 200 tons of deer carcass remains were incinerated or landfilled.

## Guidelines for Preventing the Spread of CWD and Protecting Public Health

The only currently identified potential risk to human health from CWD is from consuming infected venison. Proper deer carcass handling, transport, and disposal of deer carcasses are aimed at limiting risk for the spread of CWD to other cervids.

### Hunters

Hunters should not eat animals that do not appear healthy. Hunters should minimize contact with brain and spinal-cord material and wear rubber gloves when handling carcasses. Because prions are concentrated in nerve tissue, proper disposal of the head and spinal column is the priority. Hunters are encouraged to use dumpsters provided through programs such as AAD or garbage services that dispose of remains in lined landfills or incineration facilities. Alternatively, hunters can hold the carcass until a not-detected test result is confirmed, then dispose of it on private land with landowner permission. Burial is the preferred means of disposal in this instance. If hunters choose not to process their own deer, they are encouraged to use meat processors who dispose of remains in lined landfills.

### Solid Waste Facilities and Solid Waste Haulers

Guidelines for solid waste facilities and solid waste haulers were under development by DNR, in consultation with the MPCA, at the time of this report. MPCA is developing a potential funding request to provide fencing for landfills to exclude deer from on-land leachate disposal sites, and purchase incinerators for deer carcass disposal.

## **Taxidermists and Meat Processors**

Guidelines for taxidermists and meat processors were under development by DNR, in consultation with the MDH, at the time of this report. Deer carcass remains generated by taxidermists and meat processors should be disposed of at landfills or incinerated to minimize the risk of CWD spread. The added cost would likely need to be borne by customers.

## **Future Considerations**

Landfills and waste haulers have expressed strong concerns with liability. While deer carcasses, even if infected with CWD, are not classed as hazardous or infectious waste, increasingly landfills and waste haulers are treating them as such. This requires segregation of deer carcasses from other waste and creates unique challenges with containers and disposal scheduling. Increased understanding about CWD and human health risk is needed statewide. Indemnification from liability may also need to be considered if a similar program is planned for the future, in order to create additional deer carcass collection and disposal options.

Increased use of incineration of deer carcasses should be pursued in areas where CWD-infected deer are in the wild population. Incineration at proper temperatures denatures CWD prions while reducing the overall volume of waste.

Dumpster liners proved difficult to keep in proper position and intact. Requiring sealed containers would be an effective alternative. DNR will continue to work with MPCA, solid waste administrators and waste haulers to find practical solutions to carcass collection and disposal. The DNR supports measures that can help defray costs to county disposal systems incurred to ensure proper for deer carcass disposal options are available