



CWD Surveillance & Management in Minnesota: Implications for Solid Waste Disposal

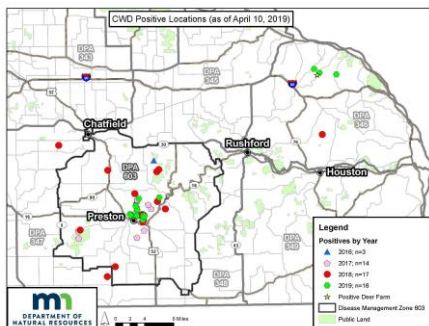
Michelle Carstensen & Bryan Lueth, Minnesota Department of Natural Resources
David Benke, Minnesota Pollution Control Agency
October 29, 2019

The number 1 way to address wildlife disease?

PREVENTION! PREVENTION! PREVENTION!

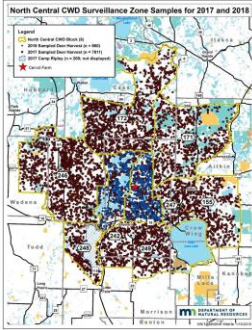
- Once a disease is established in a wild population of animals, it is nearly impossible to get rid of





Current Distribution of CWD in Wild Deer in Southeast MN

- 50 cases of CWD found in wild deer in SE MN from 2016-present
- Counties affected include Fillmore, Winona, and Houston



First detection of CWD in a wild deer in Crow Wing County

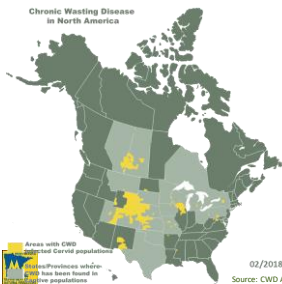
- Jan 23rd, an adult doe was found dead and very thin. Samples were collected to screen for CWD, as part of DNR's routine surveillance for clinical suspects
- Deer was confirmed to have CWD on Feb 14th
- With over 8,800 deer sampled over the past 2 years and no detection of CWD, the disease not likely established in the local deer herd
- Given the infected deer was located <0.5 miles from a CWD-positive deer farm, it's the likely source of this disease in the wild

The 2 BIGGEST risks to spreading CWD across North America

- Movement of live cervids (both through the cervid industry and wildlife agencies)
- Movement of cervid carcasses and their parts



Cervid Carcass Import Ban, Blanket Rule 2016



- No importation of whole cervid carcasses into MN from ANYWHERE in North America
 - Meat that is boned out or that is cut and wrapped (either commercially or privately)
 - Quarters or other portions of meat with no part of the spinal column or head attached
 - Hides and teeth
 - Antlers or clean (no brain tissue attached) skull plates with antlers attached
 - Finished taxidermy mounts
- Nonresidents transporting whole or partial carcasses on a direct route through Minnesota are exempt from this restriction; however, importation restrictions exist in all surrounding states

Landfills are part of the solution in MN's battle with CWD!

If we go from here to.....



Here.....we are absolutely increasing the risk of CWD spread on the landscape!



Here.....we are testing for CWD and properly disposing of butcher remains to reduce disease risk!



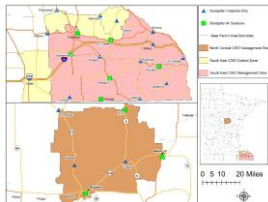
Adopt-A-Dumpster Program

Minnesota Session Laws-2019, 1st Special Session Chapter 4, Article 1 Sec. 3 Subd. 6.

- \$50,000 from Wild Cervid Health Management Account in the Game and Fish Fund
 - Provide dumpsters dedicated to disposing of deer carcasses where CWD has been detected
 - Work with solid waste haulers and other interested parties and encourage volunteer support to ensure dumpsters are located at convenient locations with appropriate signage, lined, and maintained
 - Ensure the carcasses collected are properly disposed of
 - Work with Department of Health and Pollution Control Agency to develop guidelines for
 - hunters for handling deer in the field and transporting and disposing of carcasses
 - solid waste facilities and solid waste haulers for proper handling, processing, and disposal of deer carcasses
 - Taxidermists and meat processors for proper handling, processing, and disposal of deer carcasses
 - Submit a report

Adopt-A-Dumpster Program

Original Plan



Adopt-A-Dumpster Program

What we can get



What we wanted

Adopt-A-Dumpster Program

- Plan A: existing State Contract for waste services: 20-30 yards, get 6 sites 9/11 for archery season 9/14; 10/28 Waste Management "no longer able"
- Plan A(1): Bluffland Whitetails Association (5 sites), Minnesota Deer Hunters Association (1 site)
- Plan B: Bid via State Procurement Regulations
 - B(1): Statewide bid package due 9/26 (1 bidder for 4 sites (2 BWA sites))
 - B(2): Site by site 10/10, 10/14 (3 bidders, 2 BWA sites, 2 near MDHA site, 1 DNR site, 1 "new" site)
- Plan A(2): **back-to-State-Contract-No Contract Vendors available**
- Landfills: no deer at all, only "negative," only from limited area
- Free liquids: rain, rain, and more rain, problems with covers, captured by liners
- Warm temperatures during early season, but low volume

Adopt-A-Dumpster Program



CWD & Landfills Working Group

- Working group formed in April 2019 to find a solution to handle deer carcass waste stream in Crow Wing County
- Members include:
 - DNR: Michelle Carstensen, Barb Keller, Rob Rabasco, Todd Kanienski (ENF)
 - MPCA: David Benke, Heidi Kroening, Steve Giddings
 - MDA: Andy Sirra, Levi Muhi
 - BAH: Linda Glaser
 - MDH: Joni Sheffel
 - Meat Processor/Taxidermist: Tracy Jones
 - Landfill Operators: Marvin Stroschein (CWC), Ryan Simonson (CWC), Mark St. Lawrence (SLC), David Fink (SLC)
 - Waste Hauler: Wayne Harting
 - Contract Engineering: Fred Doren (Burns & McDonnell)
 - County Highway Department: Lukas Marks
- Goal: Find a workable solution to allow deer carcass disposal at the landfill and reduce risk of disease spread

Deer Disposal in a CWD Surveillance Area

- Getting the carcass disposed of properly is the key.
 - If left on the landscape, an infected deer carcass becomes a source of disease; thus, the **landfill is the best solution to reduce these risks by providing containment!**
 - There is **no human health risk associated with landfilling**, the health advisory is only tied to **EATING** CWD-positive venison
- Testing can determine knowns and unknowns.
 - DNR will attempt to recover any confirmed CWD-positive deer and utilize the alkaline digester at UMN
 - Due to delays in receiving CWD test results, carcass already be in the waste stream and not recoverable



What About the Research?



Finding a solution and reducing risk

- Crow Wing County Landfill utilizes leachate recirculation and spray application of leachate on nearby field.
 - How do CWD prions move through this type of system, should they get in?
 - Concerned about deer that routinely feed in the spray fields
 - Science has demonstrated that landfills with clay liners are successful in keeping prions bound in the soils and not moving vertically in the column; not in the leachate
 - No research studies specifically geared at spray application methods
- How to best minimize risk of potential prion movement in this system?
- According to MPCA, for landfills that recirculate leachate and or use spray irrigation sites:
 - Place the deer above recirculation lines
 - Use appropriate base soil some type of tight soil that can reduce the prions from migrating all the way through the waste mass
 - Cover as soon as possible
 - Consistent with research

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Crow Wing County Landfill: 3-Step Method



Step 1: Incineration

Utilize an air-curtain incinerator to process all deer carcasses entering the landfill



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Crow Wing County Landfill: 3-Step Method



Step 2: Ash Disposal

Place ash from incineration at the top of a cell that's being capped and cover with appropriate materials; thus, removed from the recirculation process

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Crow Wing County Landfill: 3-Step Method



Step 3: Fence Field

Spray field will be entirely fenced with 9-ft. woven wire fencing to exclude deer from entering



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Working together to find solutions



Thanks to the CWD & Landfills Working Group for coming together to exchange information, share ideas, and find an acceptable solution to the deer disposal issue!

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Other Landfill Issues

- Olmsted County Landfill
- East Central Sanitation Landfill in Mora
- St. Louis County
- Morrison County

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