DEPARTMENT OF NATURAL RESOURCES

Update on CWD Surveillance & Management in Minnesota

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St. Paul Public Meeting

April 26, 2019

Agenda

- Opening Remarks
- DNR Information
  - Brief overview of Chronic Wasting Disease (CWD)
  - Update on CWD surveillance efforts from fall and winter
  - MNDNR plans for next fall
- Board of Animal Health presentation
- Q&A with DNR and BAH

Chronic Wasting Disease: What is it?

- CWD is a slowly progressive, brain disease of deer, elk, moose, and reindeer
- CWD belongs to the family of diseases known as transmissible spongiform encephalopathies (TSE) or prion diseases
- Not caused by a virus, fungus, or bacteria – mis-shapen protein
- Spread animal-to-animal, mostly through saliva, feces, urine


Photo by J. Skukrud

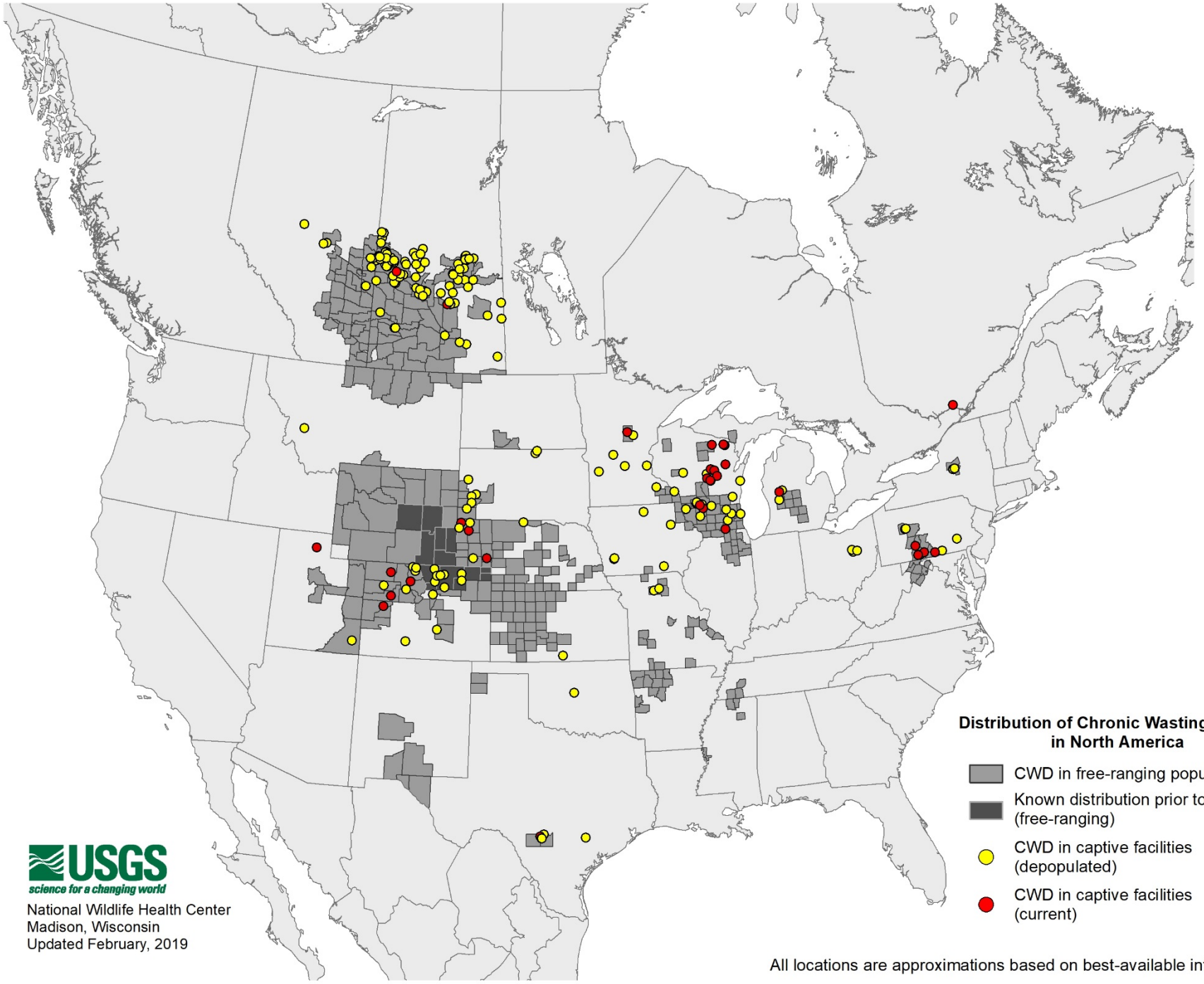
<u>Both Deer are CWD-Positive</u>
Top Photo: Pre-clinical disease
Bottom Photo: Clinical disease


Photo by Terry Kreeger

Characteristics of CWD

- Neurologic clinical signs: dementia, in-coordination, abnormal behavior, loss of body condition
- No treatment or vaccine, always fatal
- Prions persist in the environment and remain infectious for an undetermined length of time
- Incubation of disease is 1.5 to 3 years from exposure to development of clinical signs
- Infected animals begin to shed prions soon after exposure
- There is no genetic immunity
- CWD not shown to infect humans or cattle, but health agencies recommend NOT to eat an infected animal

CWD Positive Deer – Pine Island - 2010



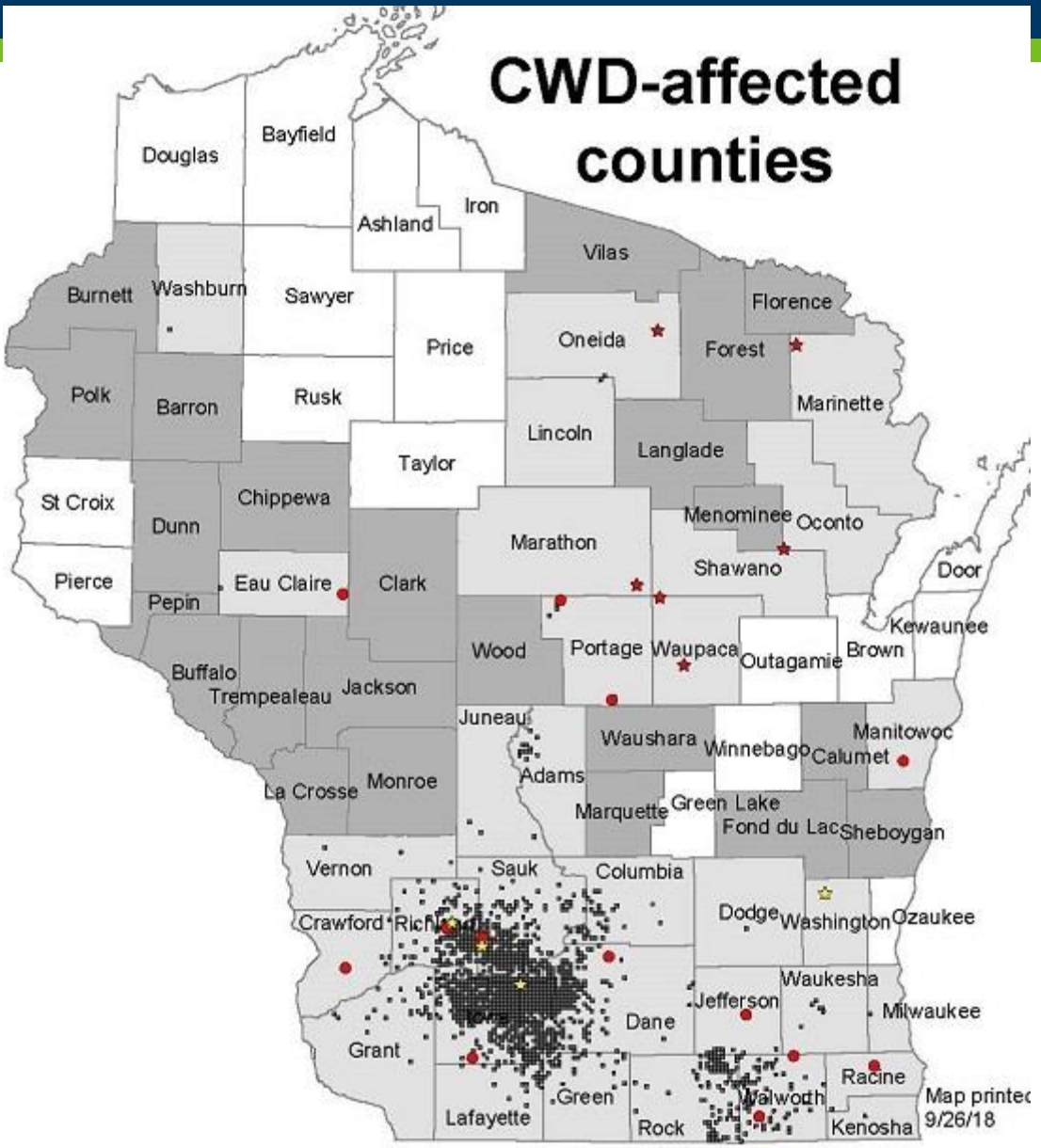
- Norway found CWD in reindeer, moose, and a red deer
- Finland found 1st case in 2018 in a moose, and Sweden in 2019

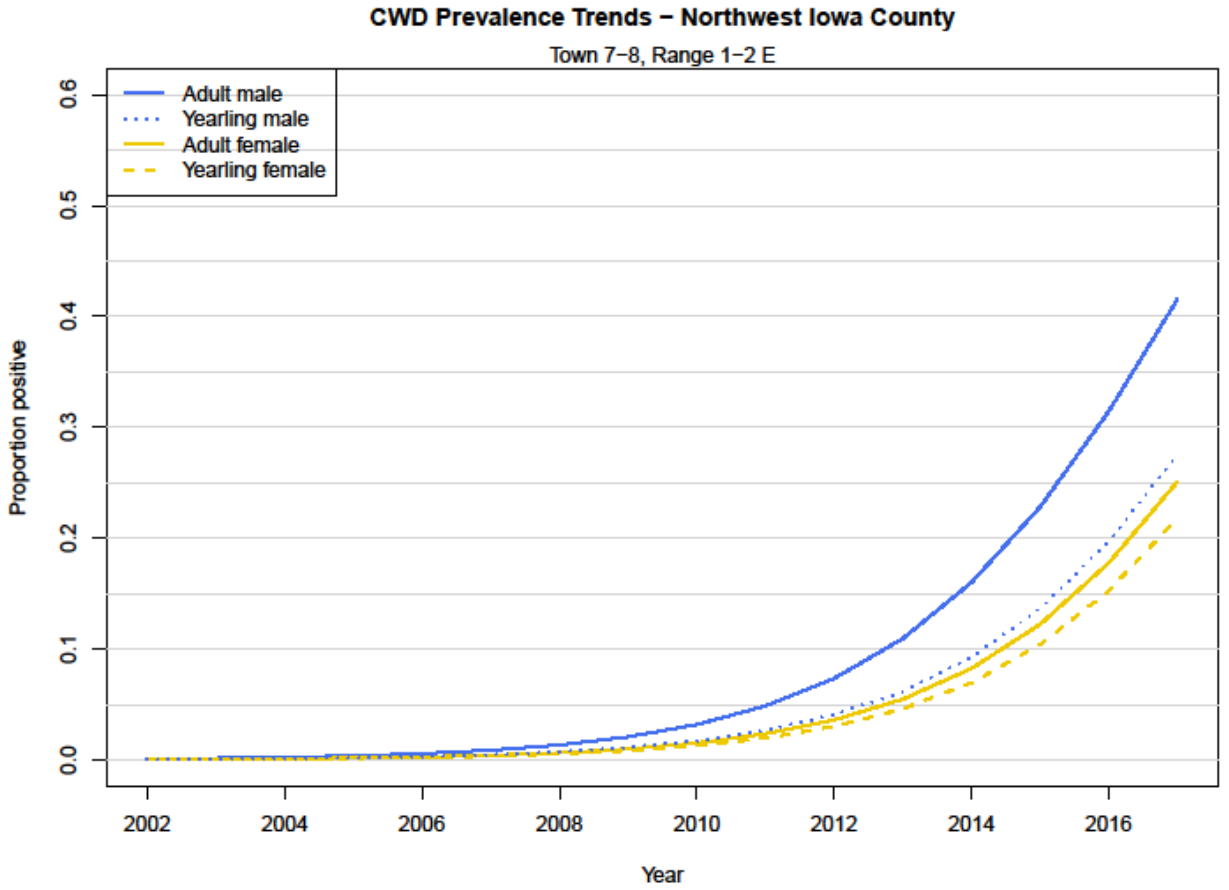
Things are NOT OK in areas with CWD

What we know …

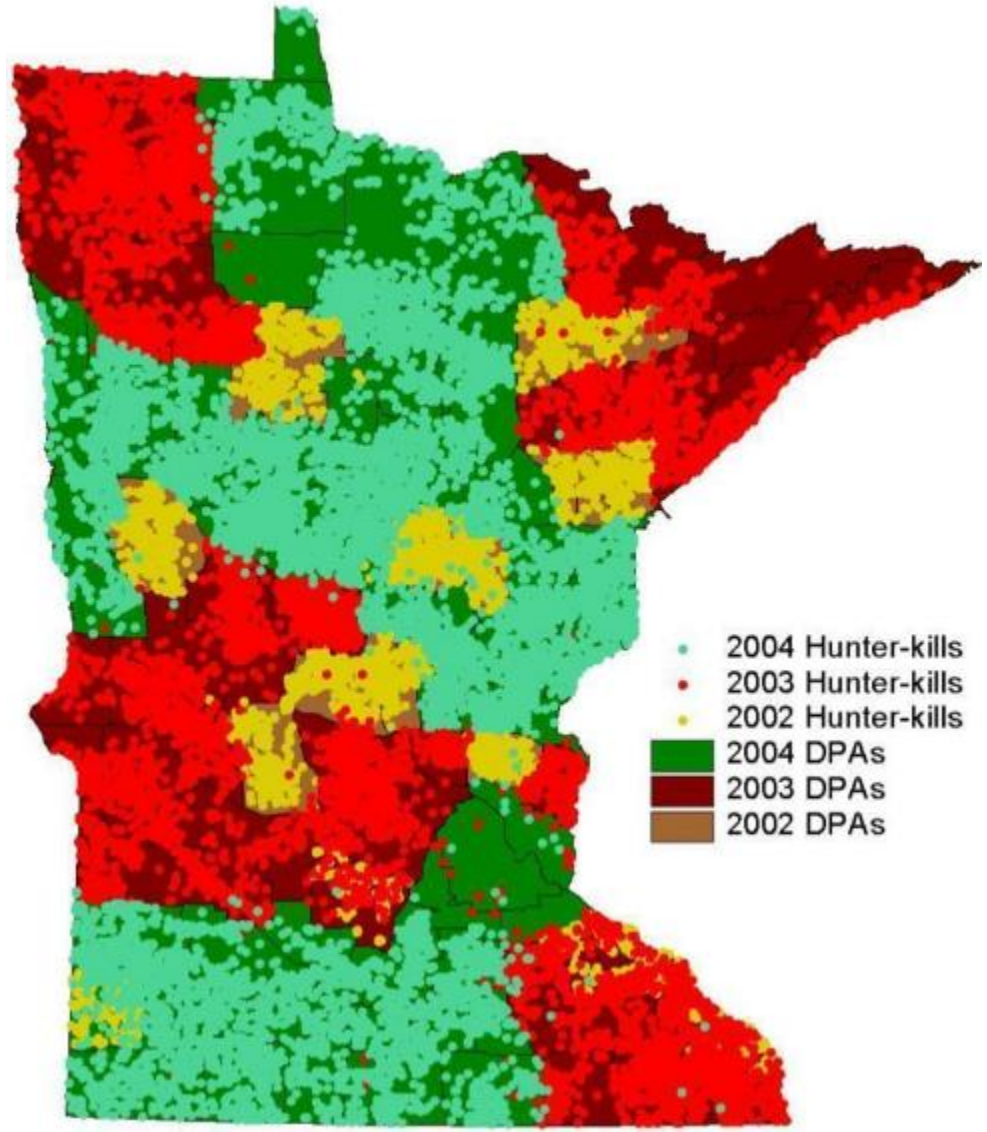
- Disease is 100% fatal
- Deer that are infected (but not symptomatic) have higher mortality rates than uninfected deer
- Bucks are 3x more likely to have the disease
- Yearling males are CWD delivery systems
- The percentage of infected deer increases annually, in addition to a larger geographic area
- The disease is having a negative effect on long-term deer densities in other states

We are trying to avoid this …





The History of DNR's CWD Surveillance Efforts

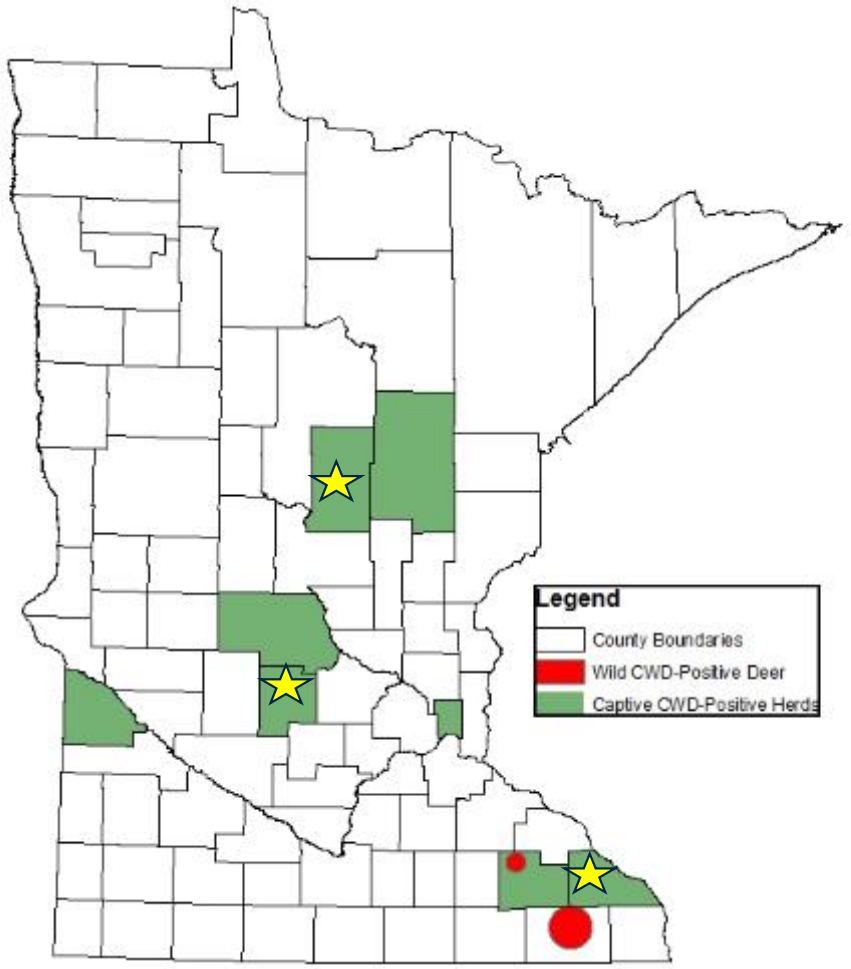


Statewide Surveillance

- Prompted by CWD discovery in Wisconsin and positive domestic elk farm in Aitkin, MN.
- 2002 - 2004
- 28,000 samples taken in statistically-based design
- No positives detected

MNDNR's CWD Surveillance-Focus on Risk

CWD-positive cervid farms in MN (n = 8)



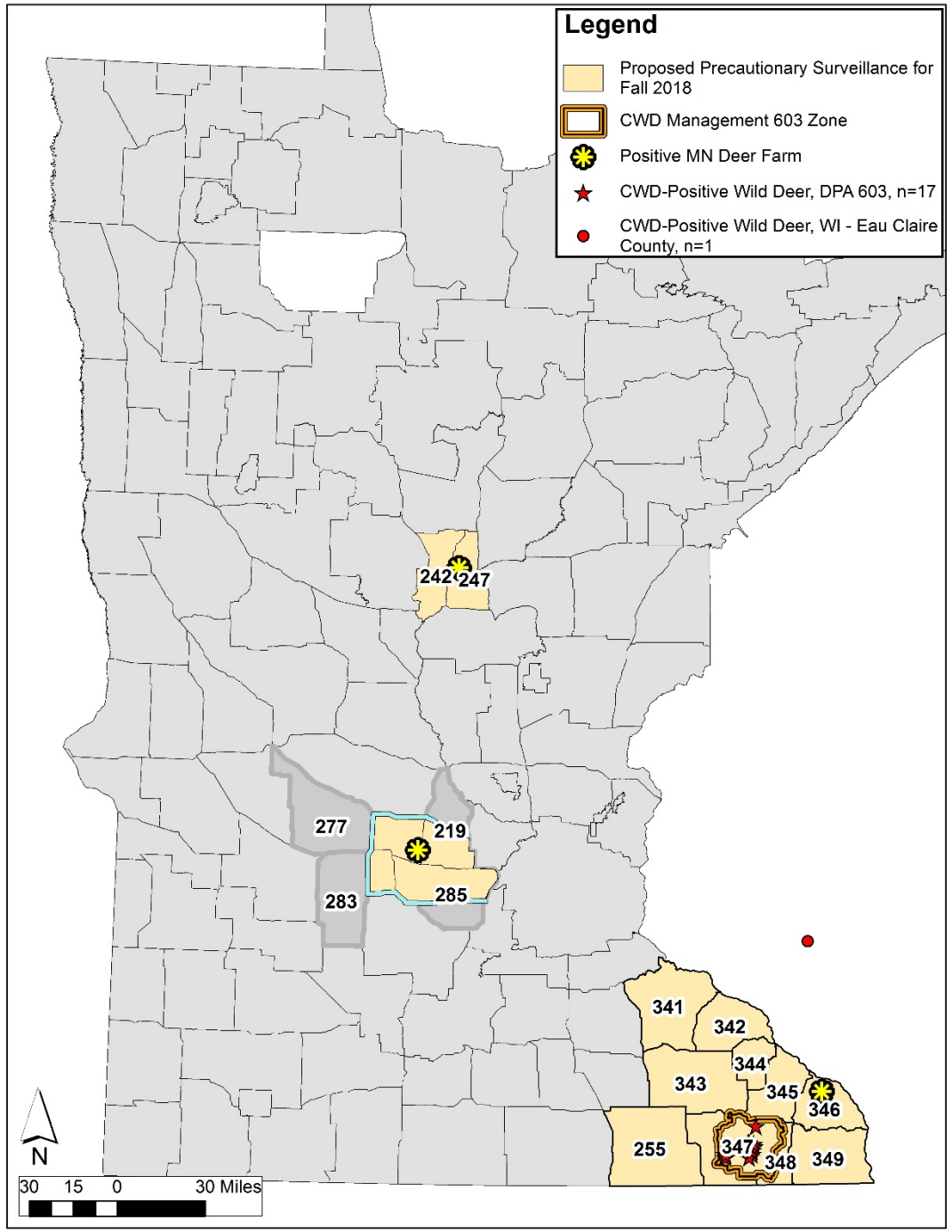
★ **2017 CWD+ Game Farms**

Risk-Based Surveillance

Since 2005, sampling triggers include:

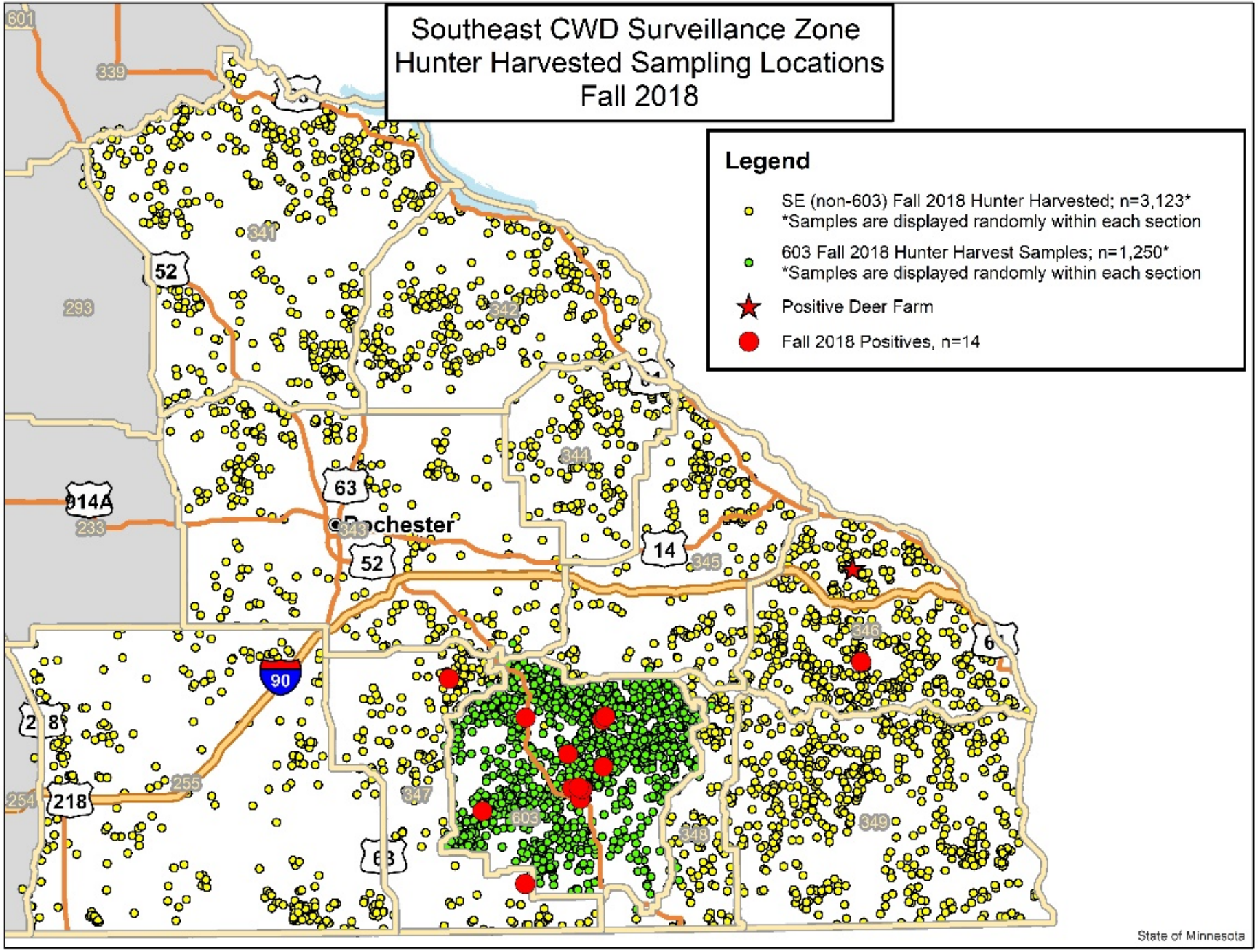
1. **Suspect deer-** deer exhibiting CWD symptoms
2. **New infection found in adjacent state-** sampled several times for WI infections and northeast Iowa
3. **Association with positive captive cervid farm -** surveillance around areas known to have CWD (n = 8)
   - 3 elk, 4 white-tailed deer, and 1 red deer farm

Fall 2018 Statewide CWD Surveillance Plans



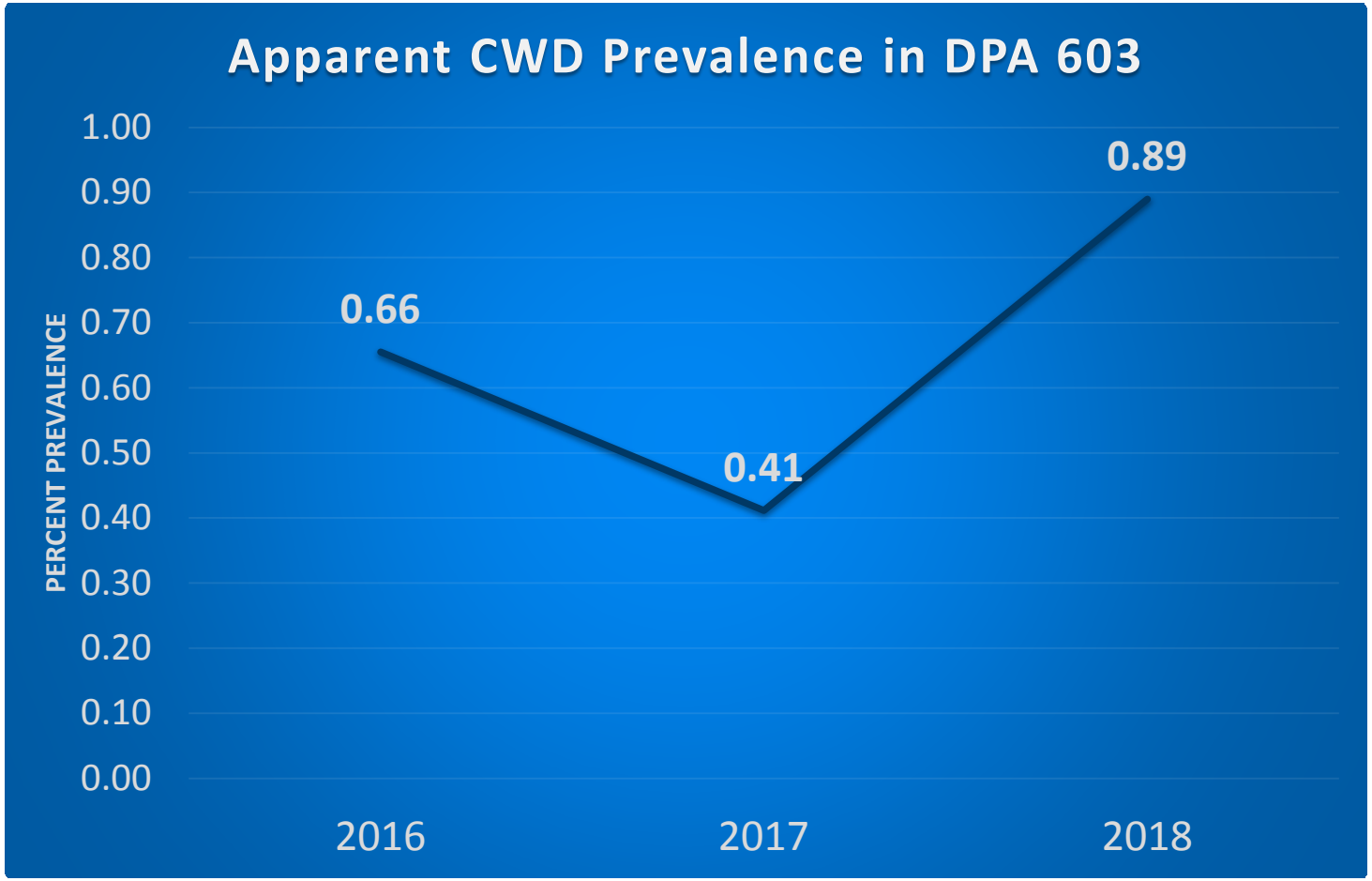
- North-central and Central Zones
  - Mandatory sampling; opening weekend only
- Southeast Zone (not including 603)
  - Mandatory sampling; opening weekends of 3A/2A and 3B in 10 DPAs
  - Headboxes available in 346 throughout firearm season
- Zone 603 (same game plan as 2017)
  - Mandatory sampling throughout all deer seasons (archery through muzzleloader)
  - Carcass export restrictions (fawns excluded); DNR provided dumpster available to hunters
  - Headboxes for slow times; staffing stations throughout entire 3A and 3B

Southeast MN, Fall 2018



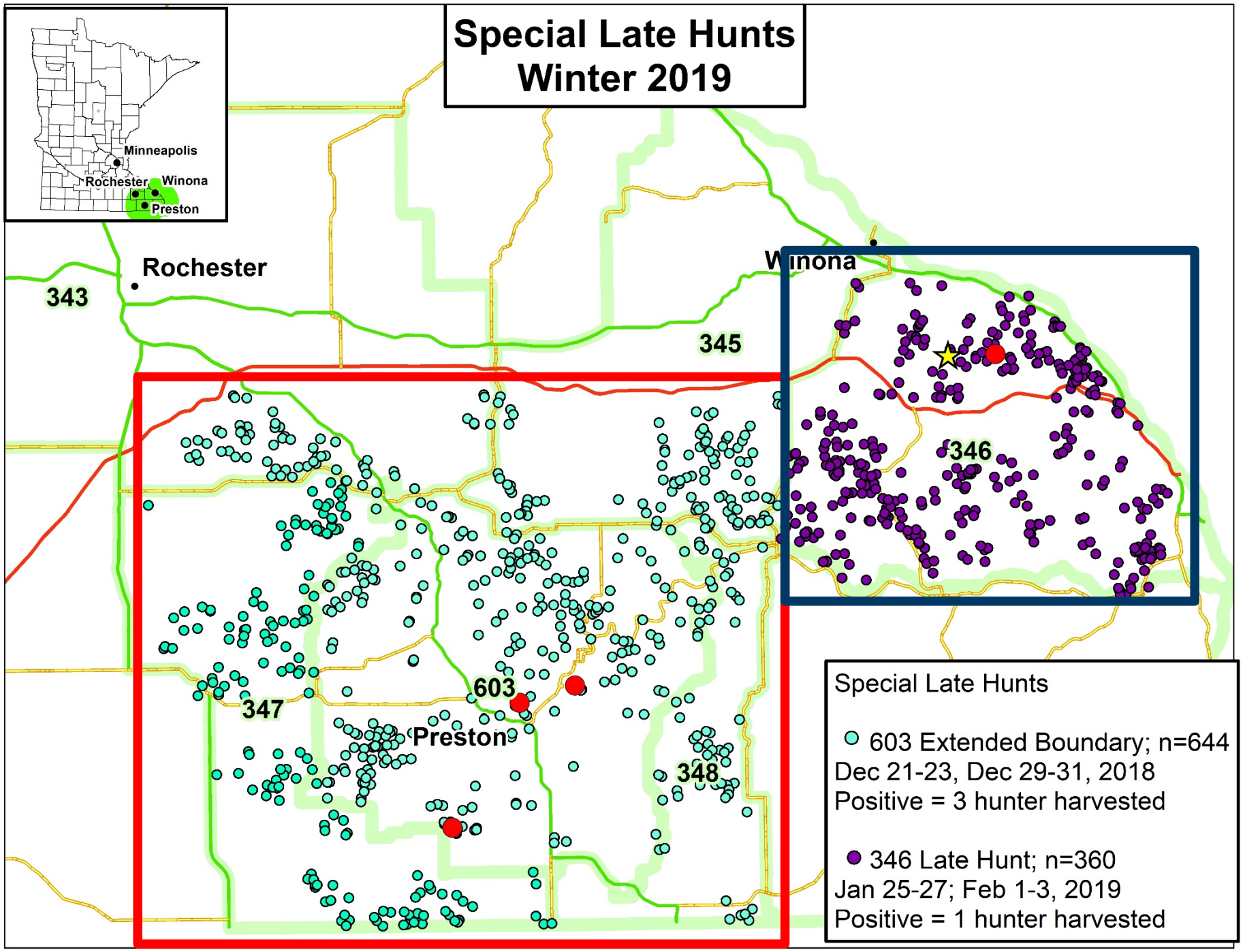
- Mandatory testing for deer >1 year of age
- We collected 3,123 samples outside our CWD Management Zone (DPA 603); 3 new CWD positives
- We collected 1,250 inside DPA 603; 11 new CWD positives

CWD Prevalence in DPA 603



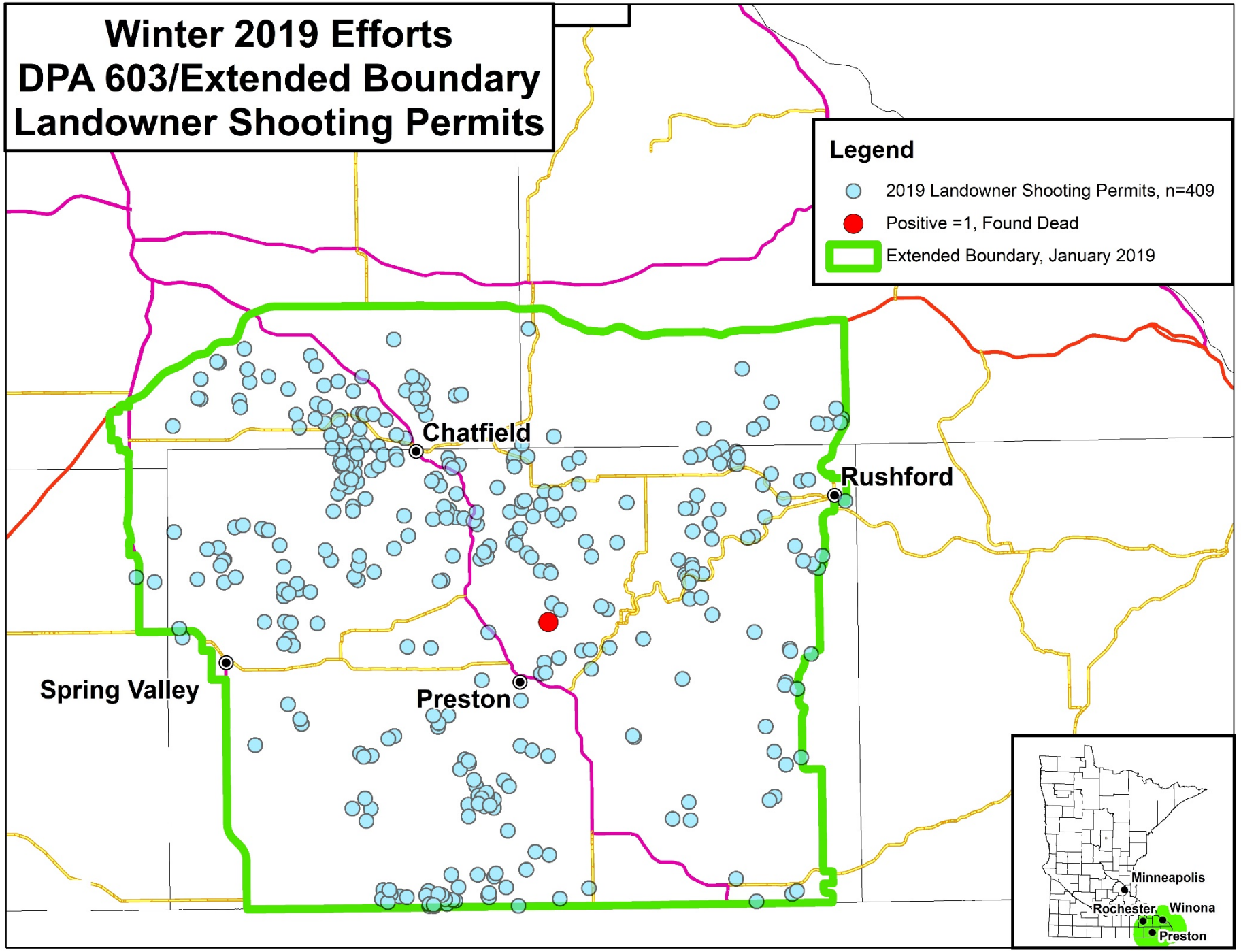
- CWD prevalence is still low in DPA 603; however, increased from 2017 to 2018
- This infection appears to be persisting in the Preston-Lanesboro area and spreading outward

Special Hunts Zone 603 & 346



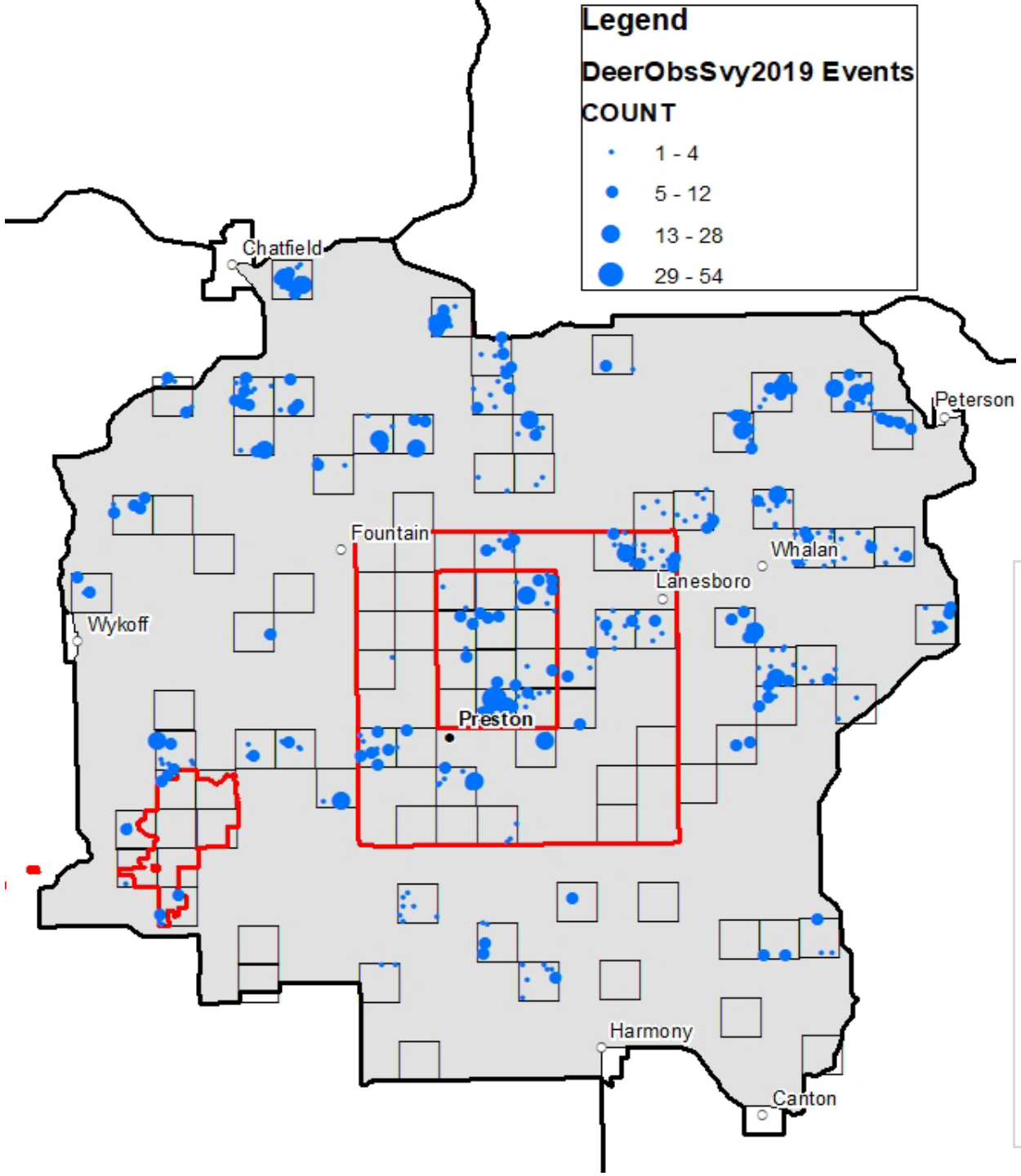
- Two late hunts were held in December in s343/s345/347/348/603 and Jan/Feb in 346 to help reduce deer densities in this area and remove additional CWD-positives
- 644 deer shot in/around 603 ; 3 additional CWD+ deer
- 360 deer shot in 346; 1 additional CWD+ deer

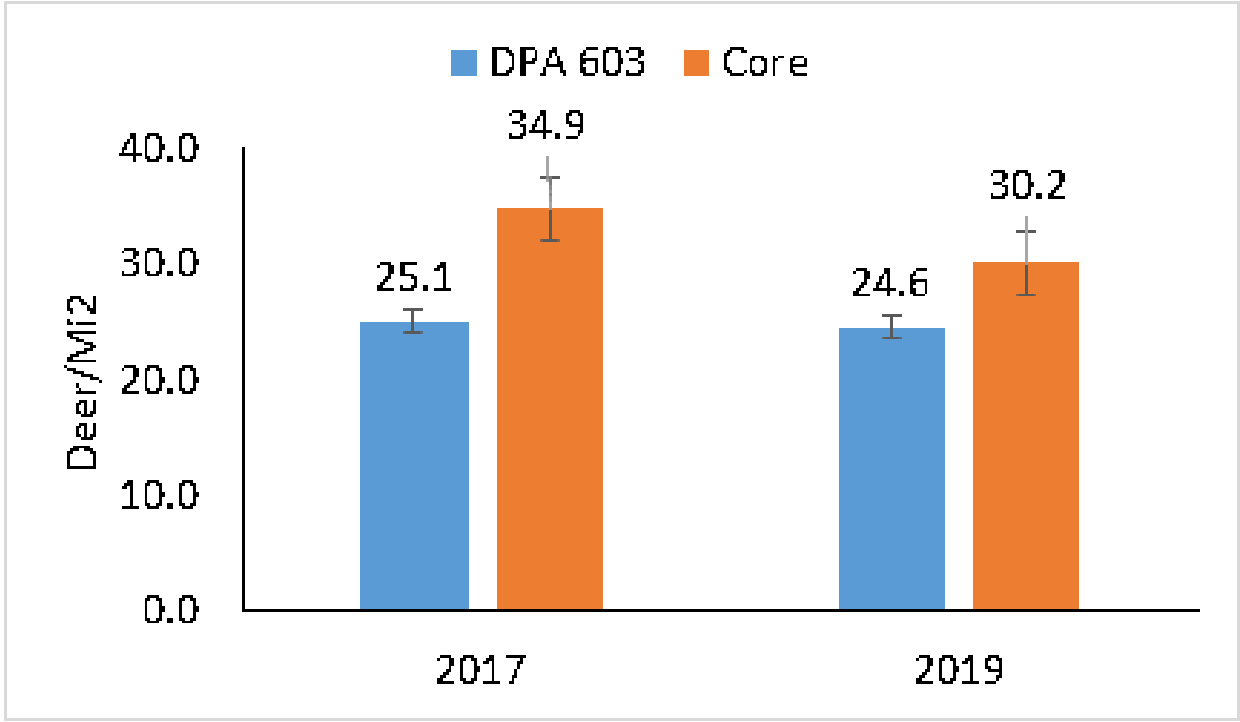
Landowner Shooting Permits



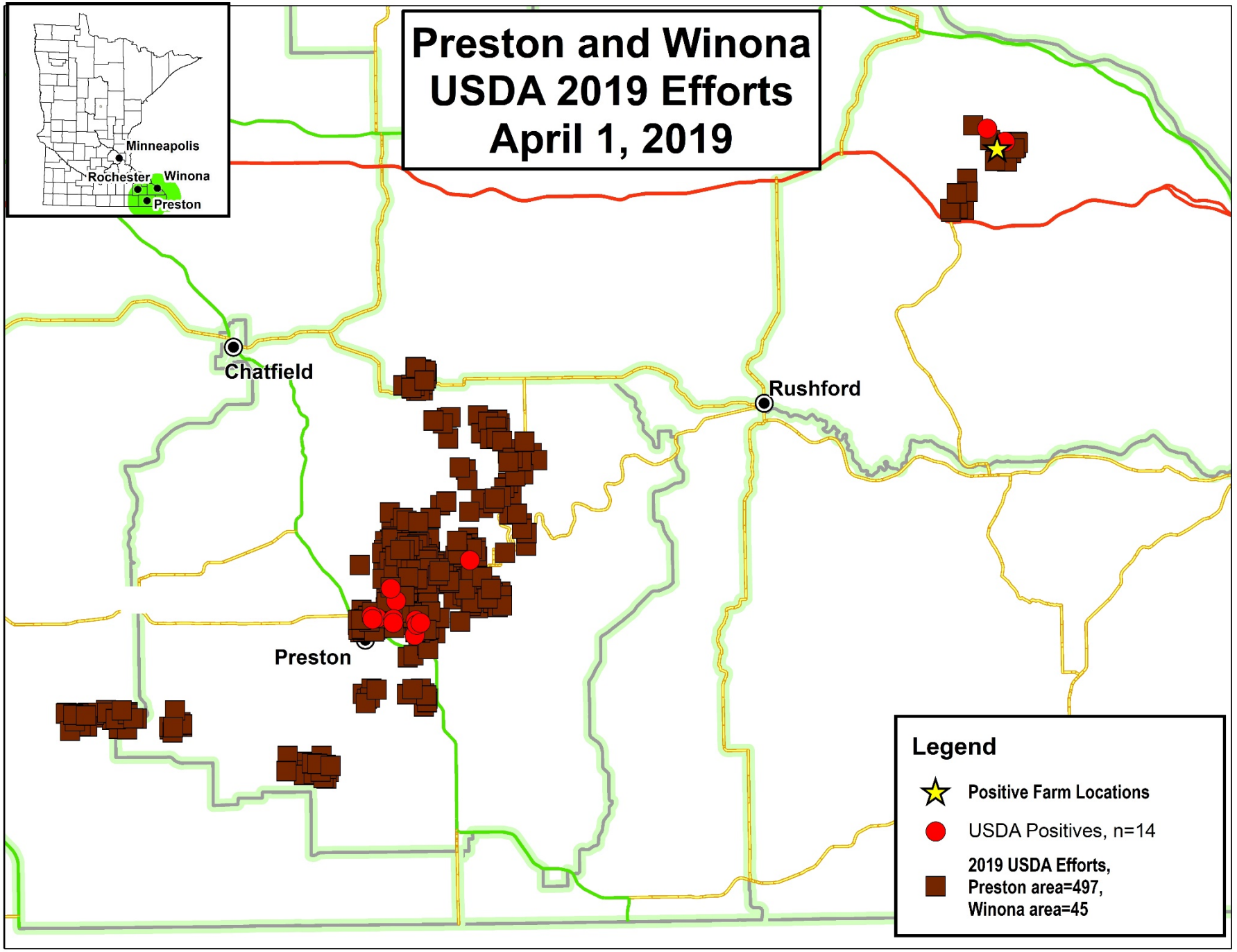
- Shooting permits were mailed to landowners with >20 acres in the expanded special hunt boundary; 3,500 permits issued
- 409 deer harvested
- One additional CWD+ deer found through this effort, but it was found dead by a landowner

Aerial Deer Survey of DPA 603



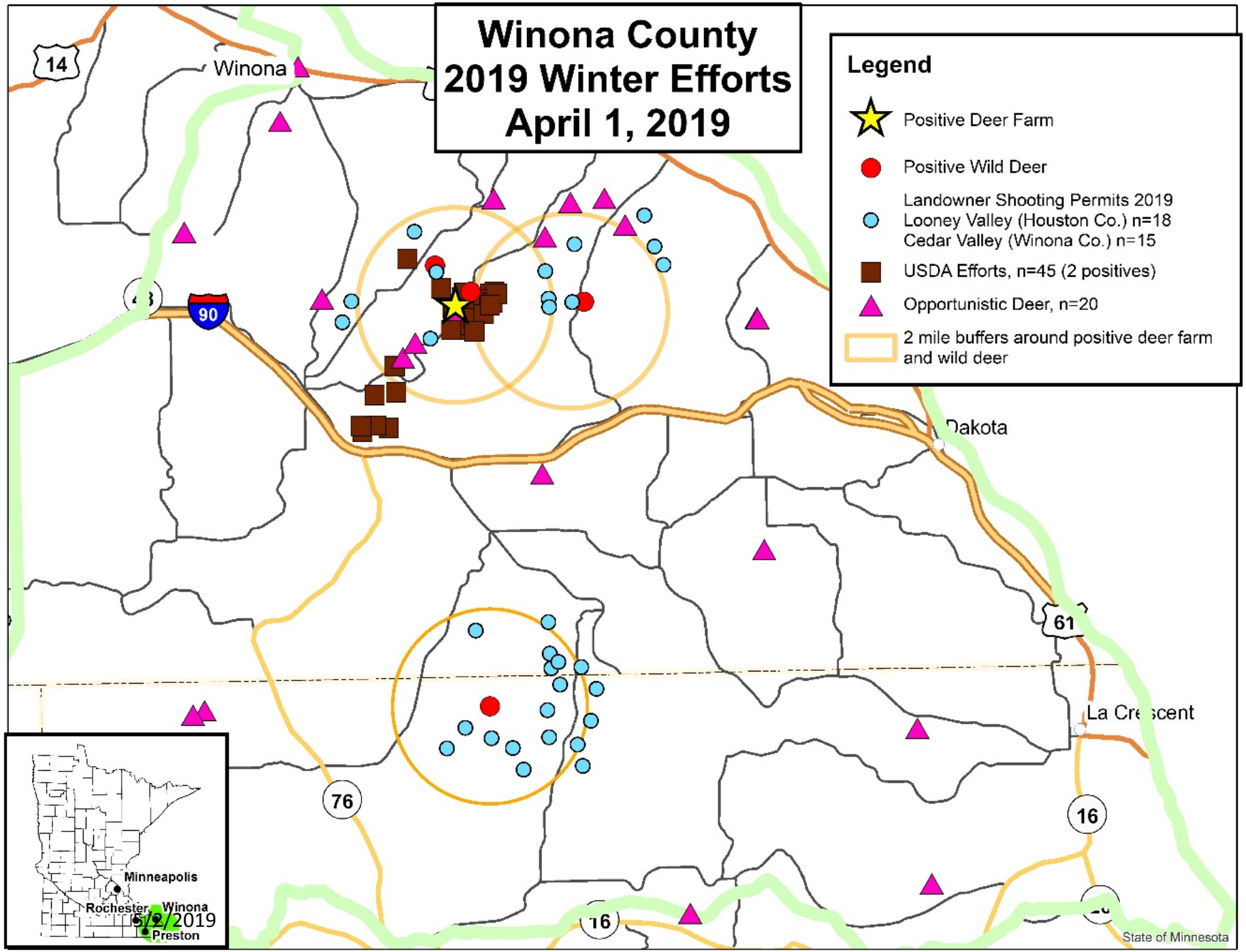


USDA-WS Targeted Culling Operation



- Work began in January, concluded 29-March
- Focused efforts on areas where known CWD+ were harvested
- 542 deer taken
- 14 CWD+ deer removed from the landscape
- ~$300,000 price tag

Winona Efforts

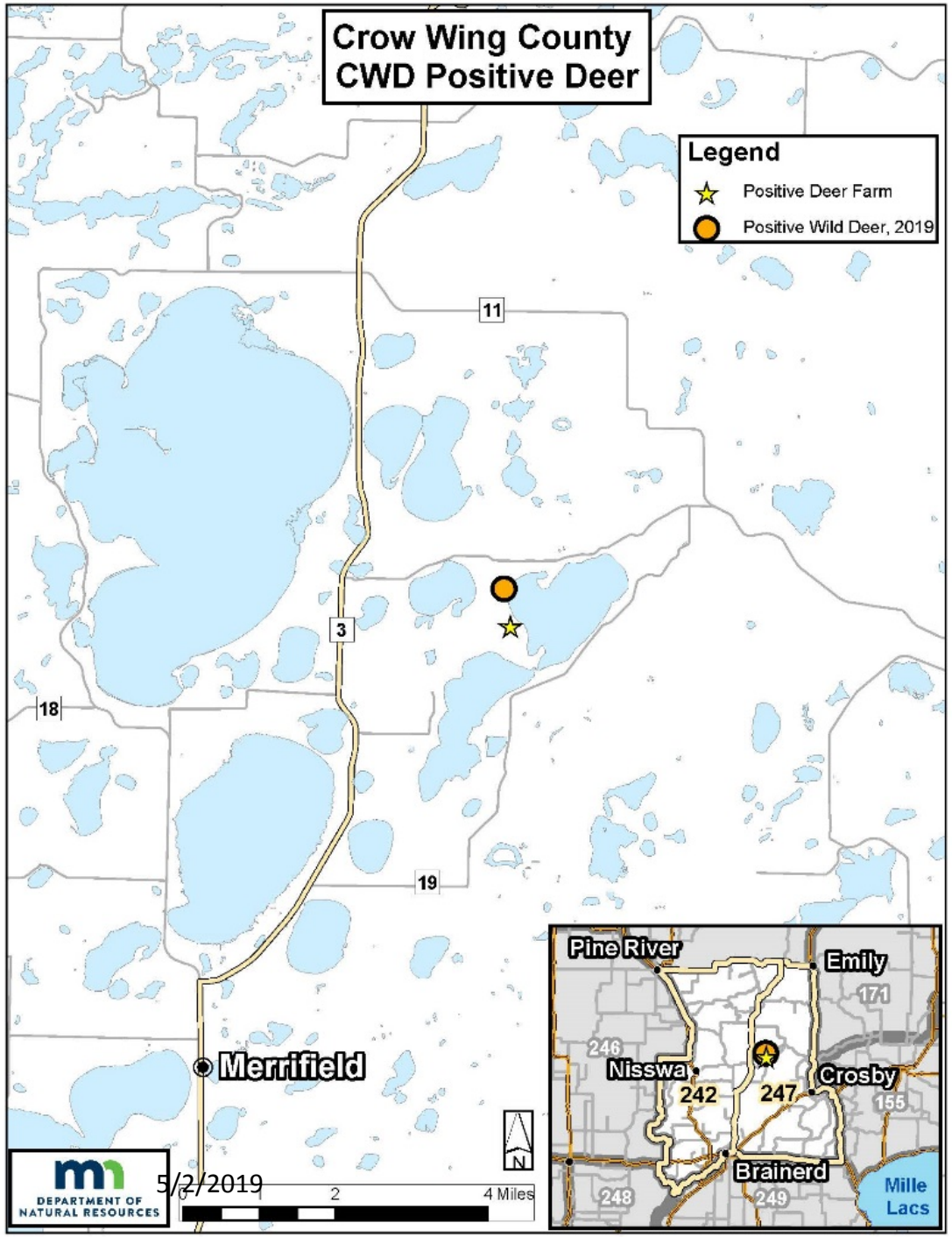


- Focused efforts on areas where known CWD+ were harvested, but timeline was short for removal work
- Landowner permits resulted in only 33 samples, no positives
- Redirected a USDA team because of positive close to farm
- USDA removed another 45, including 2 more CWD positives
- CWD+ farm appears to be the point source and disease has been outside the fence for awhile already

Processing Deer in Preston

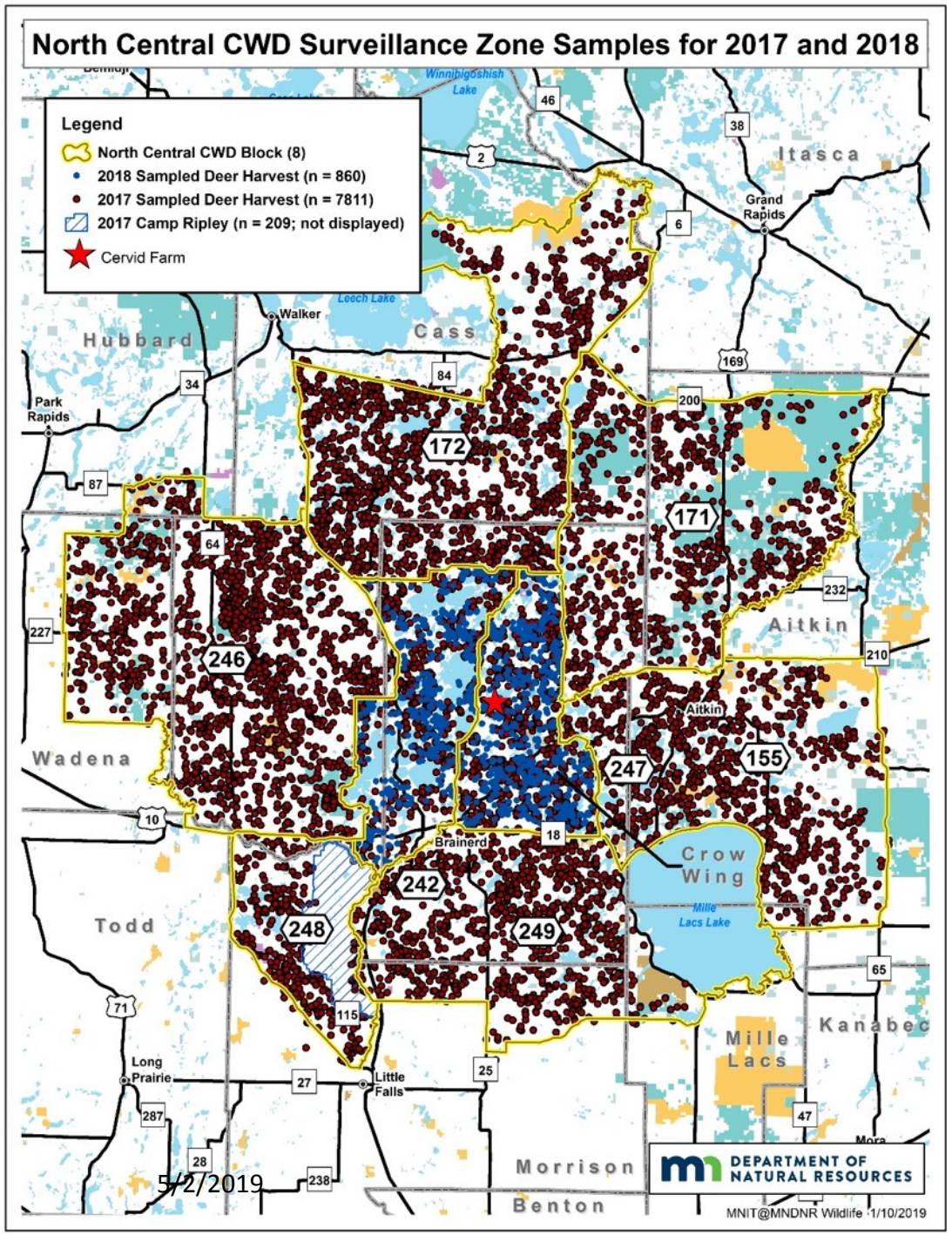
Share the Harvest – Venison Donation Program

- The public can sign up to receive donated venison from the special hunt, landowner shooting permits, and deer removal efforts this winter
- This is a partnership with Bluffland Whitetails Association (SE MN) and Turn-in-Poachers (NC MN) to utilize deer taken through efforts to manage CWD
- Only deer with “Not-Detected” test results will be released into donation program
- Interested people can sign-up through DNR website: https://www.dnr.state.mn.us/cwd/share-harvest.html
- Venison will available either as whole carcass or boxed quarters and backstraps
- ~800 people signed-up to receive venison through the website; 553 deer donated in the southeast and 66 in the north-central CWD efforts



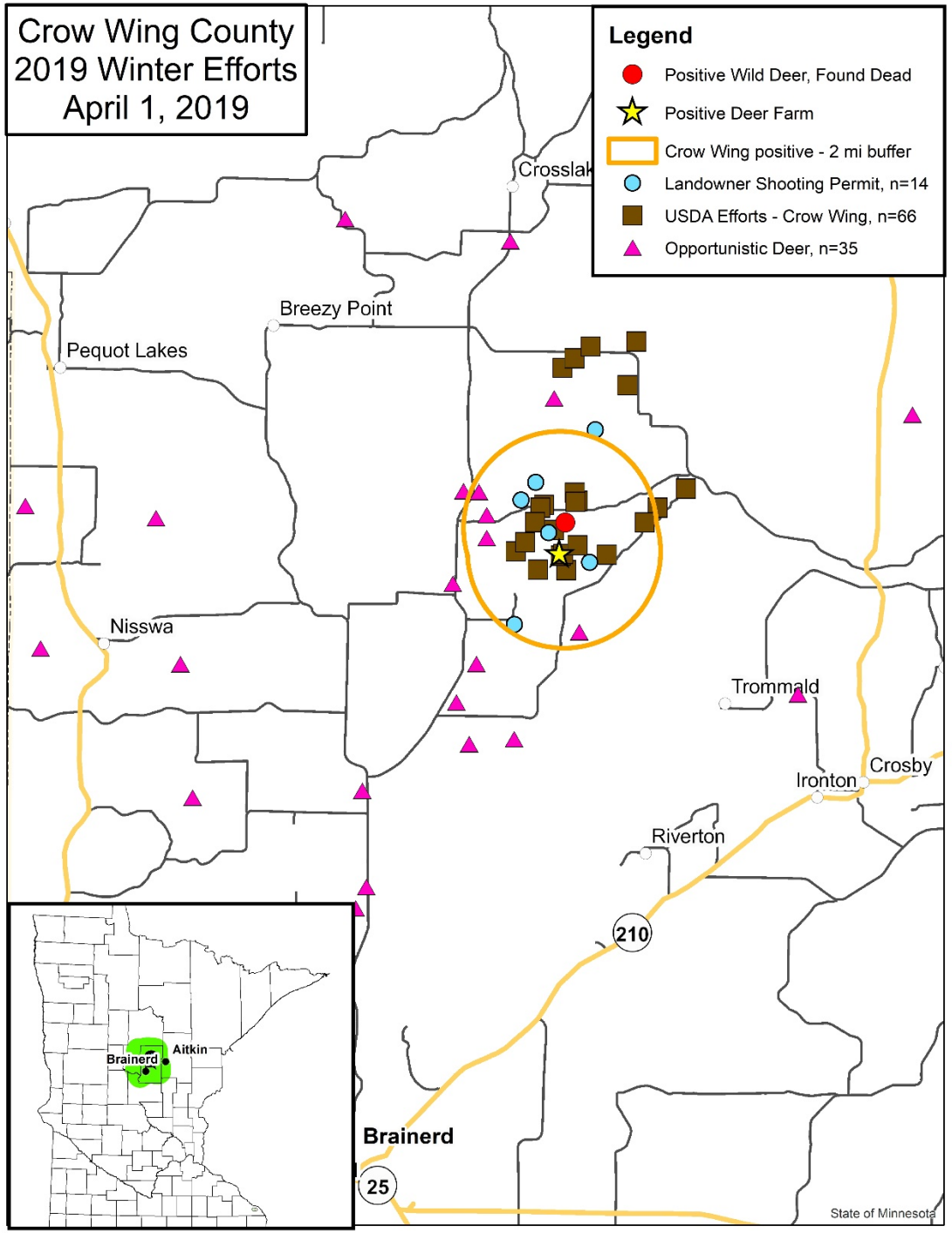
First detection of CWD in a wild deer in Crow Wing County

- Jan 23rd, a deer was found dead by a cabin caretaker and reported to DNR
- Deer was an adult doe 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
- Carcass as recovered and submitted to the University of MN for necropsy; CWD was determined to be primary cause of death
- Necropsy report posted on DNR Website



What does this CWD discovery mean?

- 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
- If additional CWD-infected deer exists near this farm, it is necessary to remove them from the landscape now versus let them potentially transmit the disease to other deer by next fall.

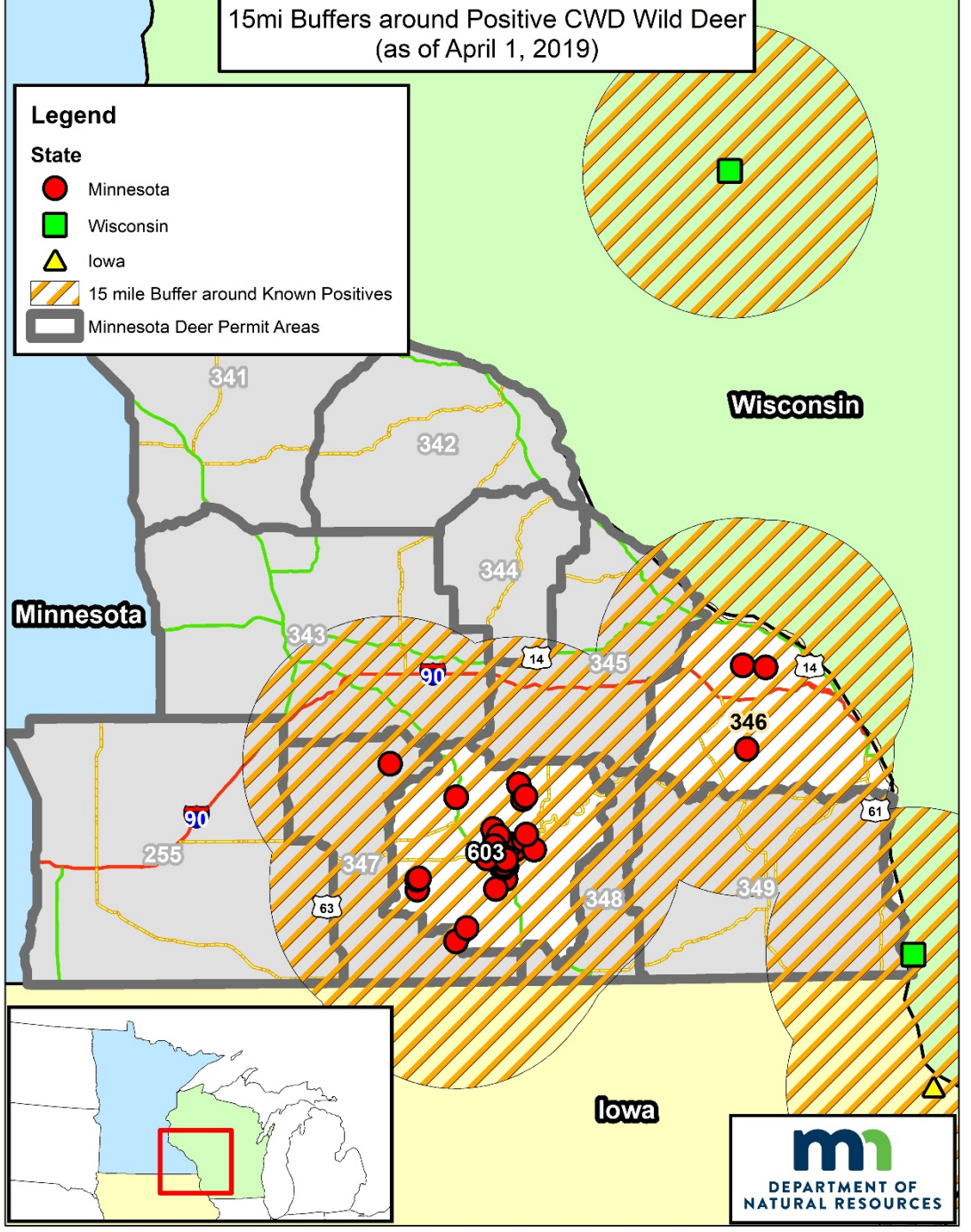


Winter Efforts in Crow Wing County

- Mailed landowner shooting permits to everyone with >10 acres of land within 2 miles of CWD+ farm and CWD+ wild deer
- Held public meeting in Merrifield
- Contracted with USDA-Wildlife Services for targeted removal of deer within focal area; 2-week shooting period
- Increase efforts to sample opportunistic deer
- Total samples this winter = 115, no positives
- CWD+ farm was depopulated last week

Next Steps

- Evaluate data in all 3 area with CWD, as well as positives near borders (WI and IA)
- Draw new boundaries and formulate plans for fall 2019
- Implement strategies and actions laid out in our CWD Management Plan
- Continued public engagement and outreach

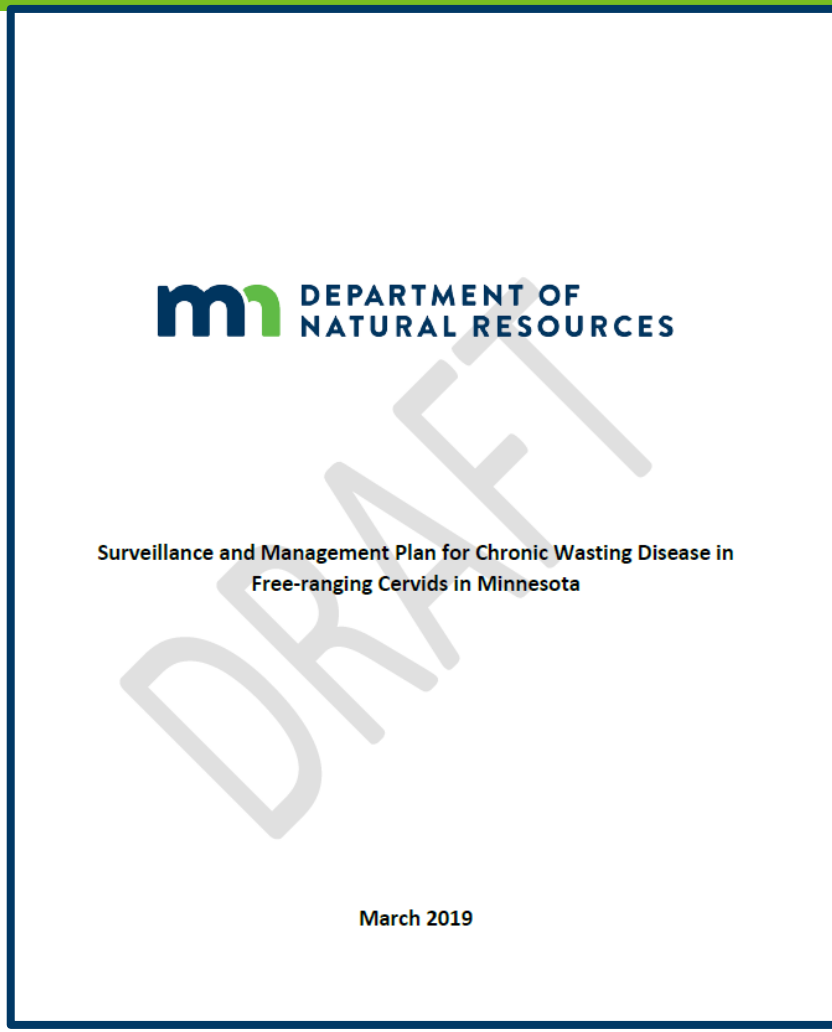


Road to Success

- The potential to eliminate CWD from the landscape requires aggressive and swift actions
- This goal will NOT be attainable without the cooperation of hunters and landowners
- If CWD becomes established here, it will remain a significant health threat to the deer herd locally and statewide
- Only through working together can we hope to successfully fight CWD and maintain a healthy and productive deer herd for future generations

DNR released update CWD Surveillance and Management Plan

- The original CWD response was written in 2011 by staff in the DNR's Wildlife Health Program
- It focused on the prescriptive steps we would take if the disease is found
- The current update was developed in 2018 and incorporates:
  - The most recent science
  - CWD plans from other states and provinces
  - Discussions with CWD experts around the country



Defining the Plan

The CWD response plan **is** a document that,

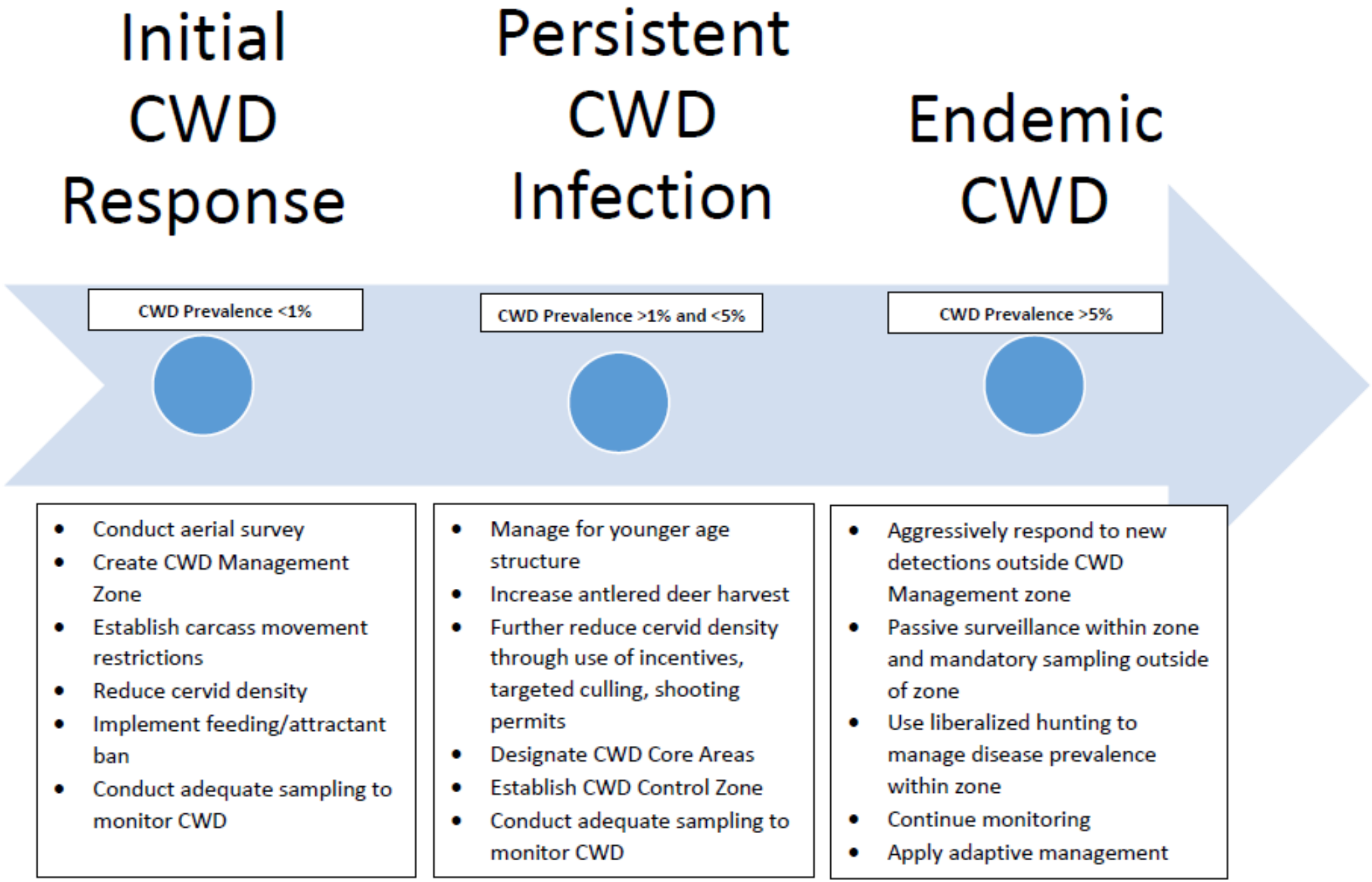
- Explains the threat of CWD to our wild deer, elk, and moose populations
- Provides goals and strategies that strive to eliminate disease
- Outlines a response to all stages of infections
- Is both prescriptive and collaborative

The CWD response plan **is not**,

- Specific to one area or just deer
- Restricted to just when infection is found in wild populations
- Just an implementation plan

Plan Elements

- **Initial Detection.** When we first find CWD (holdover from 2011)
- **Transition to a Persistent Infection.** Decision points to determine when CWD may not be eliminated
- **Persistent Infection.** Disease that we may not eliminate, but stays at low levels
- **Endemic Disease.** When CWD becomes established and self-maintaining, regardless of management intervention


Initial CWD Response
Persistent CWD Infection
Endemic CWD
CWD Prevalence <1%
CWD Prevalence >1% and <5%
CWD Prevalence >5%
• Conduct aerial survey
• Create CWD Management Zone
• Establish carcass movement restrictions
• Reduce cervid density
• Implement feeding/attractant ban
• Conduct adequate sampling to monitor CWD
• Manage for younger age structure
• Increase antlered deer harvest
• Further reduce cervid density through use of incentives, targeted culling, shooting permits
• Designate CWD Core Areas
• Establish CWD Control Zone
• Conduct adequate sampling to monitor CWD
• Aggressively respond to new detections outside CWD Management zone
• Passive surveillance within zone and mandatory sampling outside of zone
• Use liberalized hunting to manage disease prevalence within zone
• Continue monitoring
• Apply adaptive management

KEEP MINNESOTA'S DEER HERD HEALTHY

STOP THE SPREAD OF CWD

DEPARTMENT OF NATURAL RESOURCES