

# Animal Disease Prevention

House Ag and Natural Resources Appropriations Committee  
*November 7, 2019*



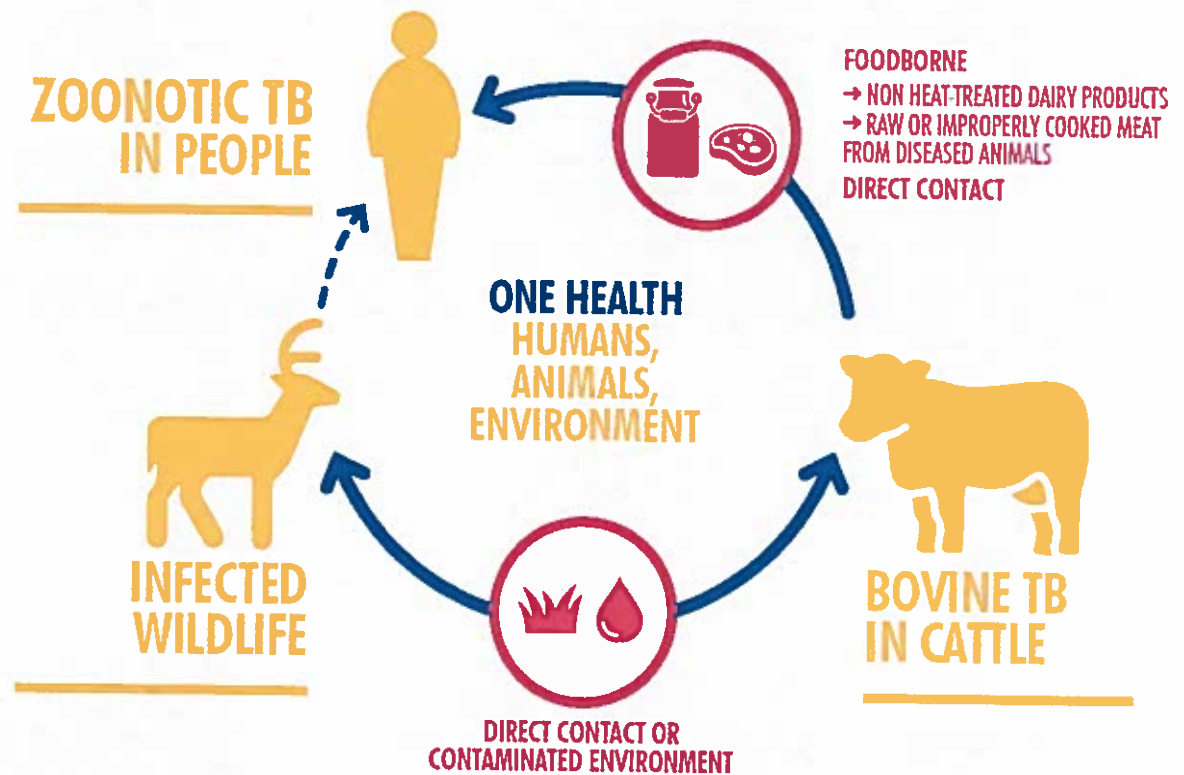
**Dr. Nora Wineland and Dr. Kelly Straka**  
State Veterinarian and State Wildlife Veterinarian

- MDARD
  - Bovine Tuberculosis (TB)
- DNR
  - Bovine TB
  - Chronic Wasting Disease
  - Eastern equine encephalitis
- Summary and Questions



# Impact on Human Health

## BREAKING THE CHAIN OF TRANSMISSION STOPPING ZOOBOTIC AND BOVINE TUBERCULOSIS IN THEIR TRACKS



### ACT NOW TO SAVE LIVES AND SECURE LIVELIHOODS

# History of Bovine TB in Michigan



*Bartlett, 1938; Jenkins and Bartlett, 1959*

# How Did it All Start Again?

- **1975:** Positive deer found in NE lower MI
- **1979:** Michigan achieves TB Free Status for cattle
- **1994:** Hunter-harvested deer found positive
- **1998:** First positive cattle herd
- **2000:** Michigan loses TB Free Status for cattle



Dave Richey: Detroit Free Press

# Loss of Free State Status

- Modified Accredited Status
- Entire State Subjected to
  - Annual whole herd testing dairies
  - Beef herds require whole herd test in order to move animals
  - Individual animals must have a movement test within 60 days of movement
- Pursue Split State Status





TB  
Testing

# Split State Status

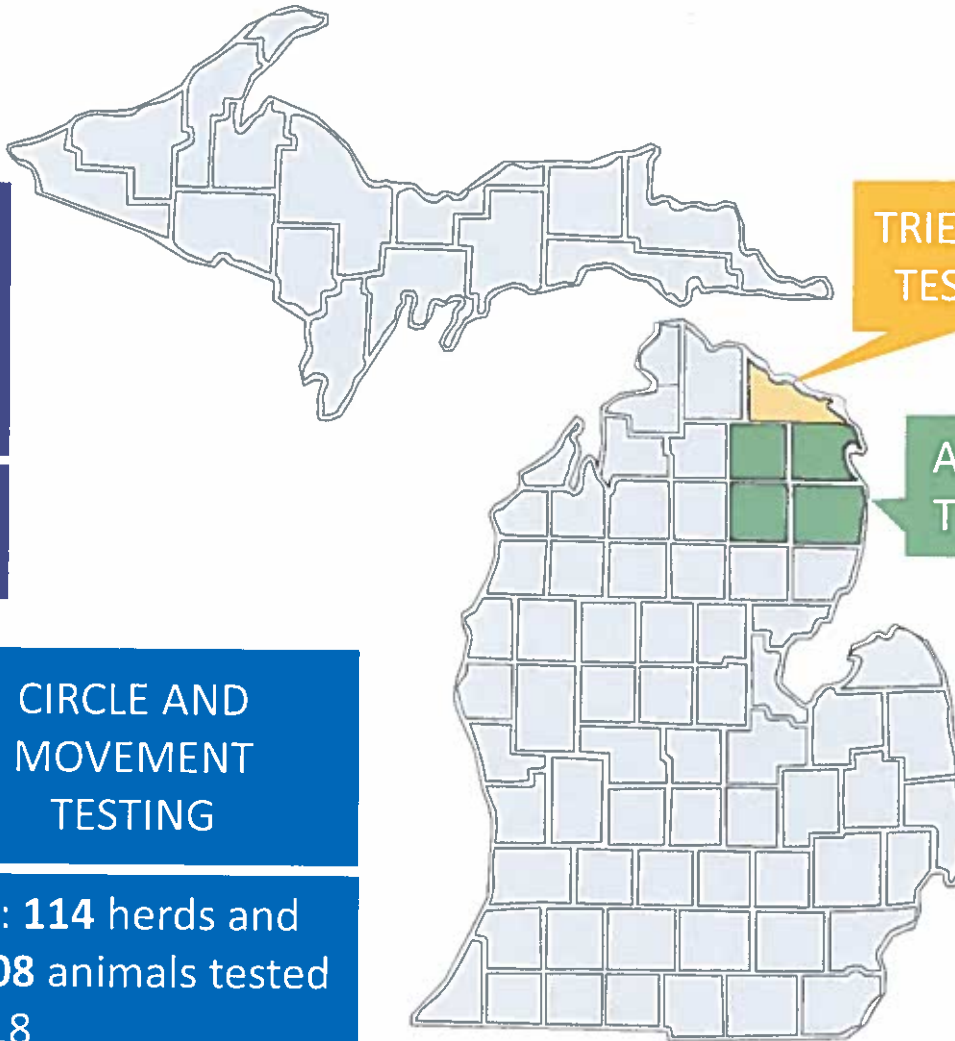
- First achieved in 2004
- Recognize Free zone and Modified Accredited Zone
- MOU with USDA
  - Testing of cattle and deer (surveillance)
  - Movement controls and traceability for cattle
  - Adequate resources to support surveillance and movement controls
  - Enforcement of feeding and baiting ban
  - Response to finding any positives in cattle and deer
  - Wildlife Biosecurity
  - Renewal/change if find increased level of disease inside MAZ or disease outside MAZ



# Surveillance

SURVEILLANCE AT  
FEDERALLY  
INSPECTED  
SLAUGHTER PLANTS

FY'17 172,390 cattle  
inspected



TRIENNIAL  
TESTING

ANNUAL  
TESTING

MAZ : 302  
herds and  
14,624  
animals  
tested FY'18

CIRCLE AND  
MOVEMENT  
TESTING

AFZ: 114 herds and  
5,308 animals tested  
FY'18

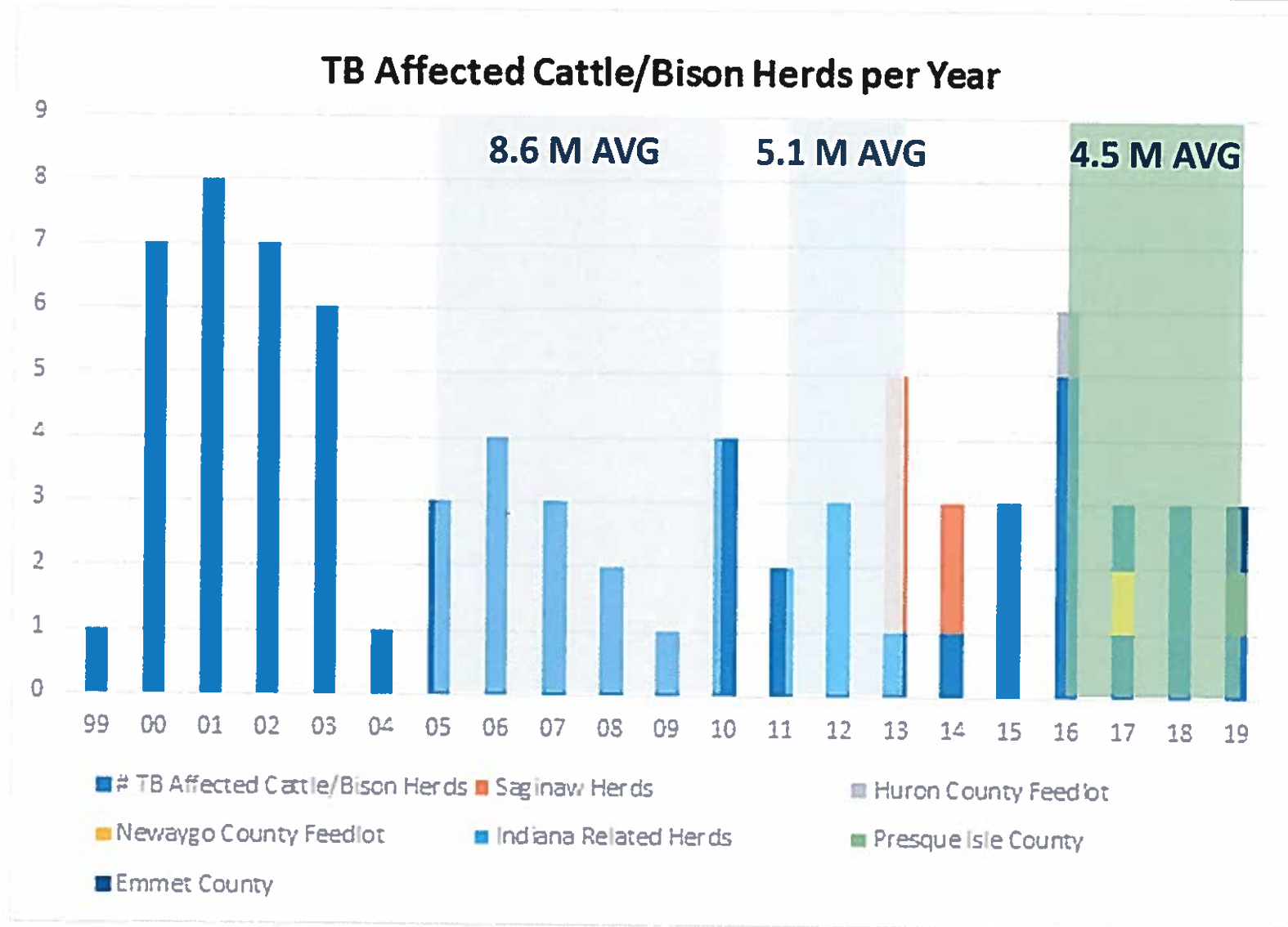
Trace Testing  
Source (6-4A)  
Exposed (6-4B)  
Slaughter (6-35)

# Traceability

- Michigan law requires **all cattle to be identified with RFID** tags prior to leaving the farm – may be applied at approved markets. MAZ cattle require permit to move.
- **RFID readers** in cattle markets and slaughter plants
- **TB testing** veterinarians electronically capture RFID
- **Secondary ID Required** in MAZ cattle
  - Allows for effective inventory reconciliations
  - Linked to RFID for improved traceability



# Bovine TB Positive Herds



# Wildlife Biosecurity



# Protecting Cattle from TB in Deer

**...separating deer from cattle  
literally and conceptually**



# Protecting Cattle from TB in Deer

## Wildlife Risk Mitigation

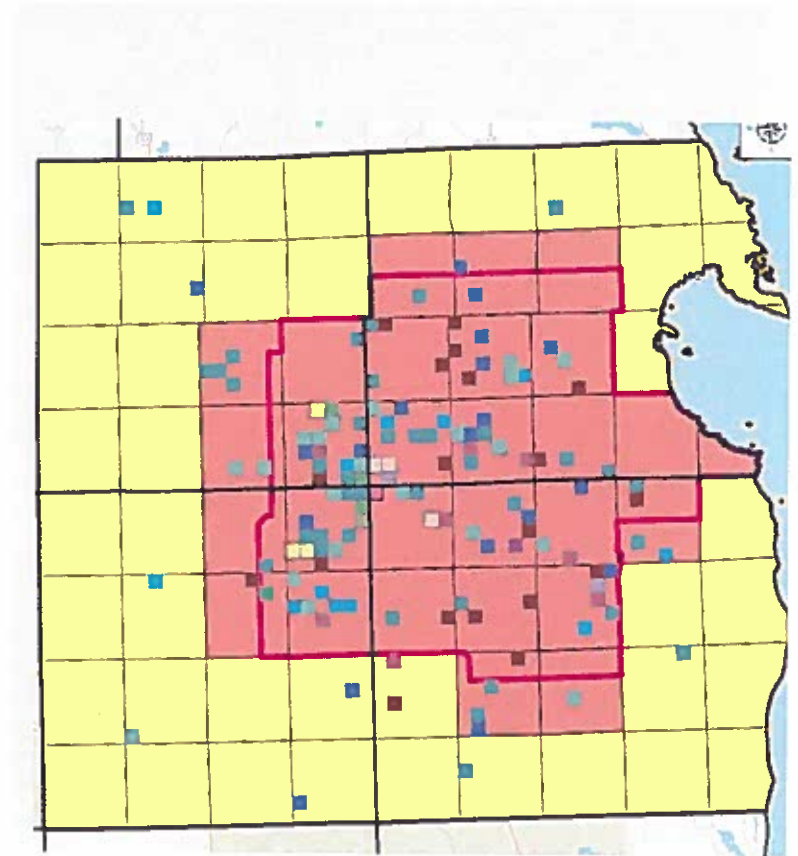
MAZ outside of the EWB, Presque Isle, Cheboygan and Otsego Counties

## Enhanced Wildlife Biosecurity (EWB)

Highest Risk Area of the MAZ

Components:

- Farm Assessment and Risk Mitigation
- Targeted Deer Removal

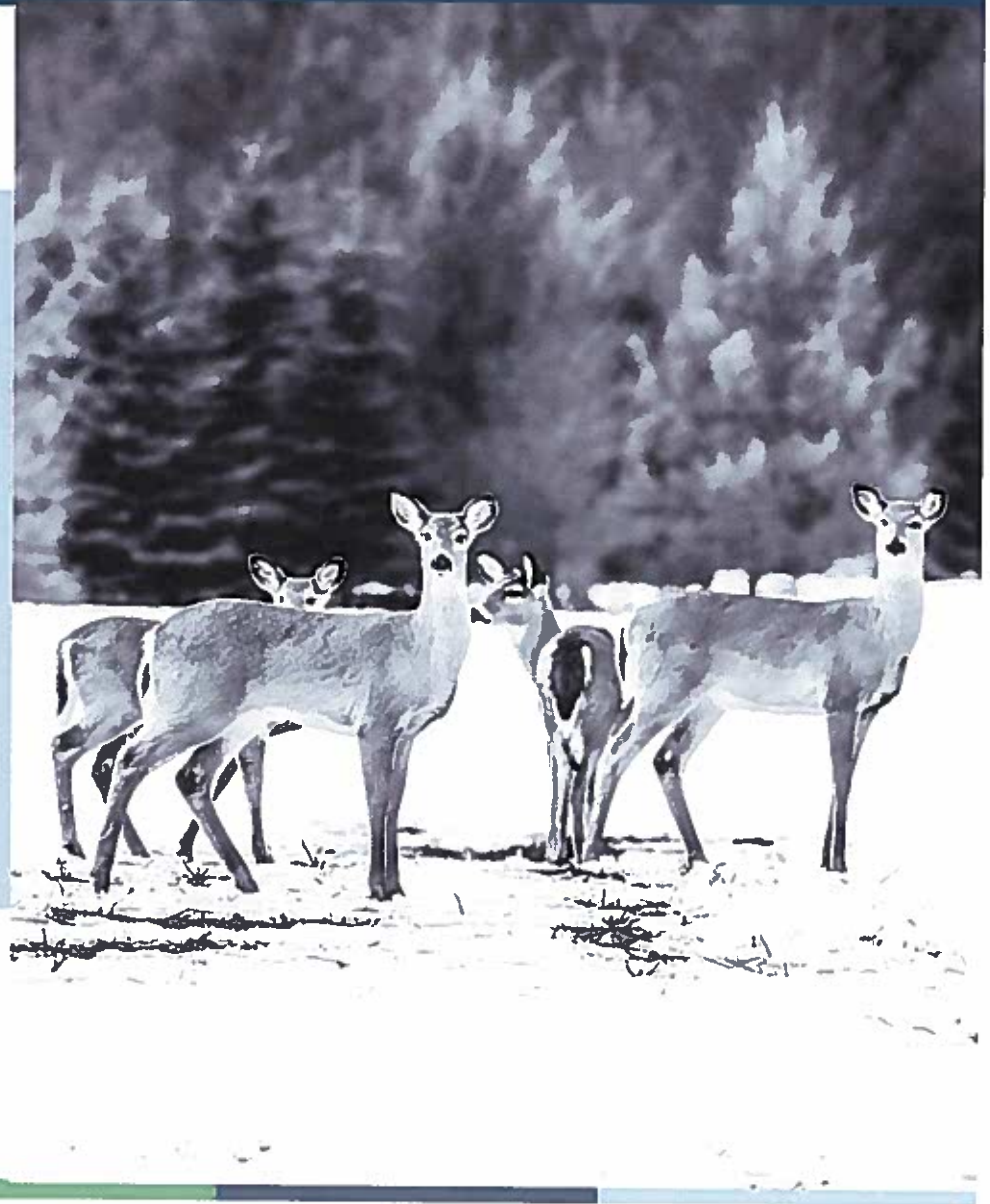


# Cost-Share Program - EWB



# Targeted Deer Removal

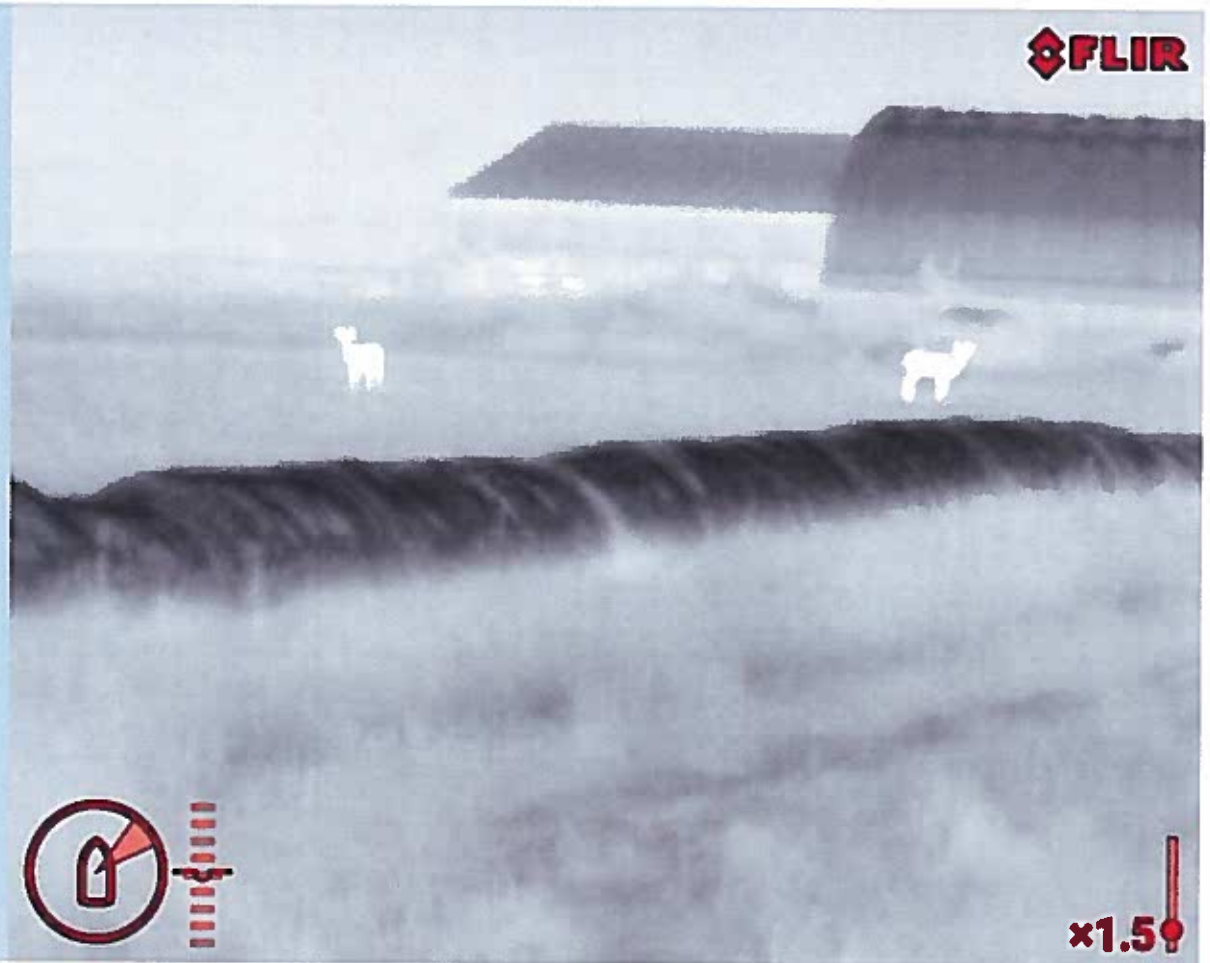
USDA WS partners with MDARD to remove deer that present a direct risk to the farm





# Identifying Deer for Removal

Deer activity on individual farms is monitored by WS four different times, during three separate seasons, resulting in 1,464 farm surveys.



- Michigan's TB Program is required in order to maintain compliance with our MOU
- Failure to comply with MOU could result in entire state status drop
- The MOU is available at [www.michigan.gov/bovineTB](http://www.michigan.gov/bovineTB)

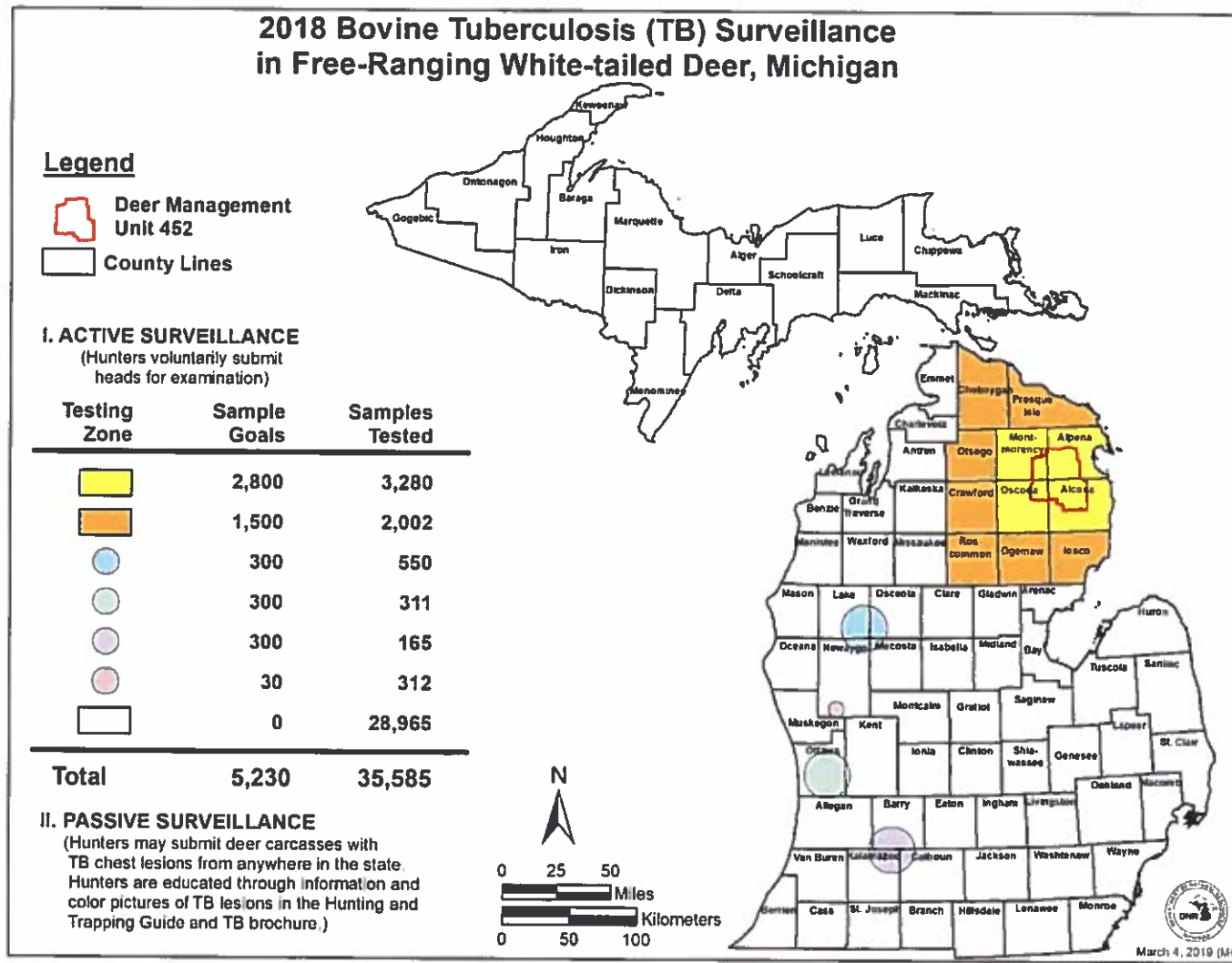




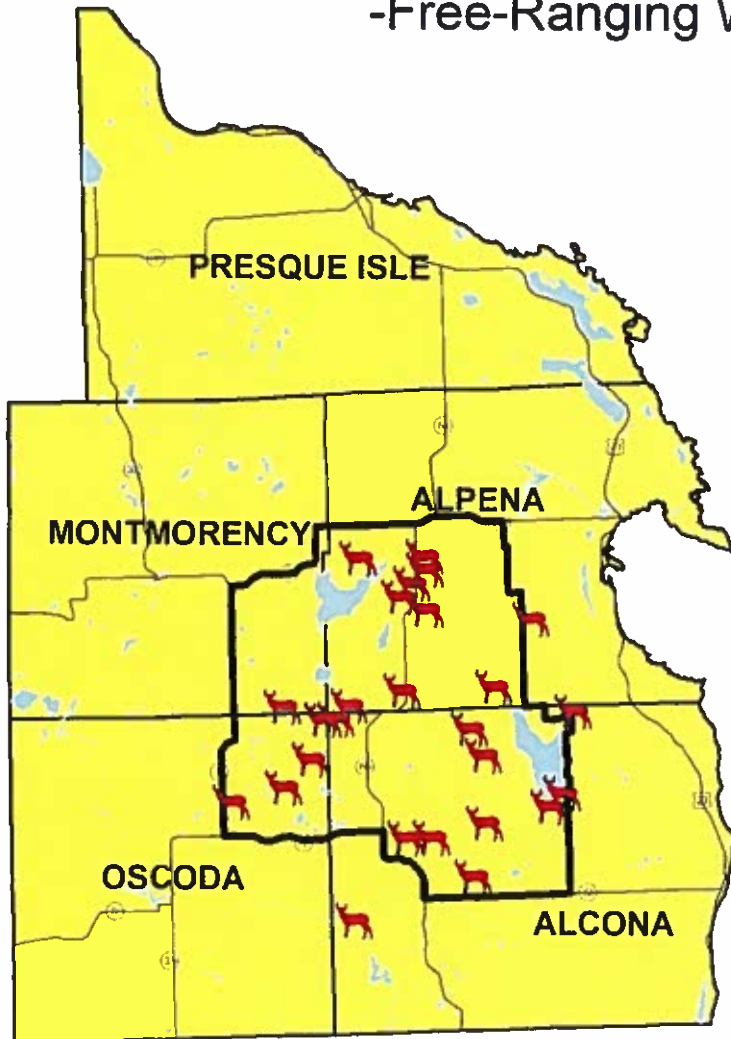
Bovine TB in  
Deer

Michigan Department of Natural Resources  
2018-2019 update

# Bovine TB – 2018 Surveillance Summary



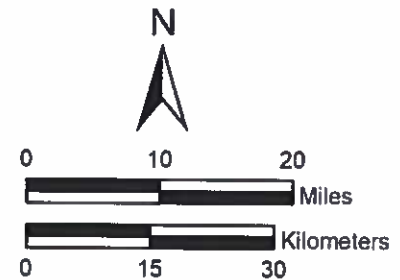
# 2018 Bovine Tuberculosis Survey Results -Free-Ranging White-tailed Deer-



## Legend

- Location of TB Positive Deer
- DMU 452
- County with Positive Deer 1975-2018
- County Line
- Water
- Highway

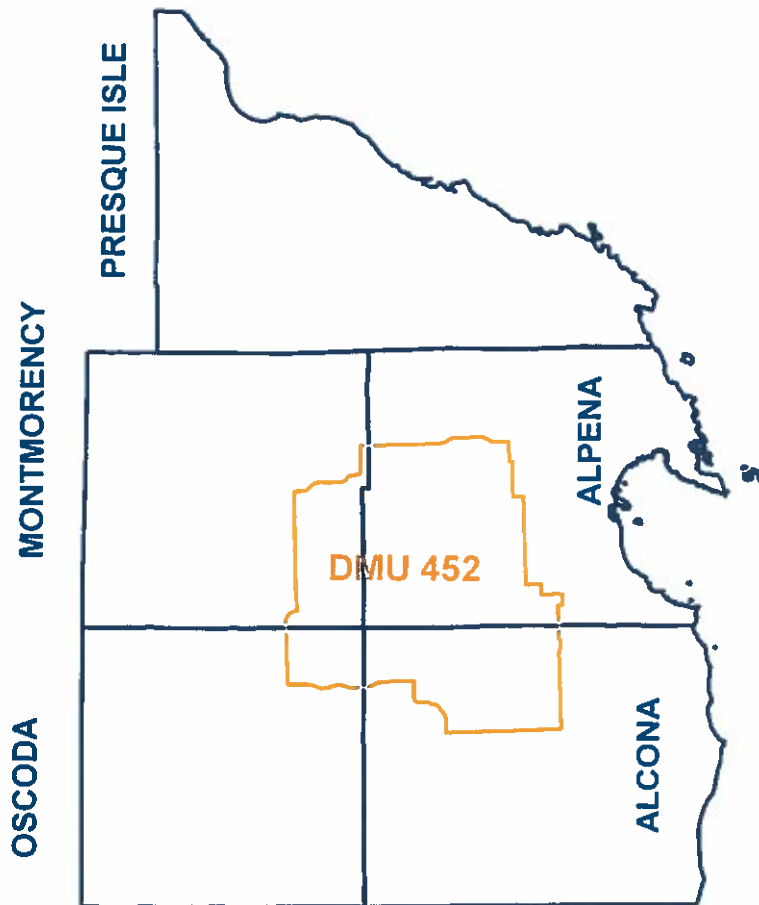
**Positive Deer 2018 = 26**  
**Positive Deer 1975-2018 = 898**



February 15, 2019 (MC)

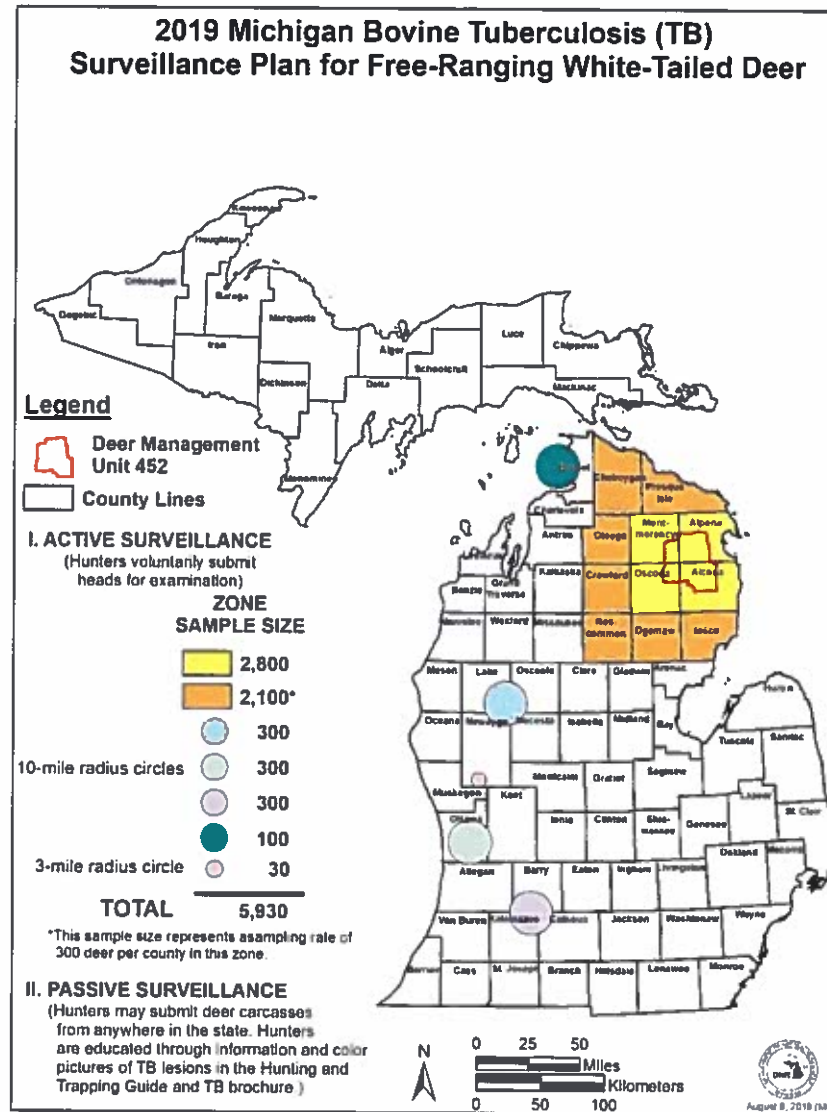
# Bovine TB –Surveillance Summary

## Apparent TB Prevalence in White-tailed Deer



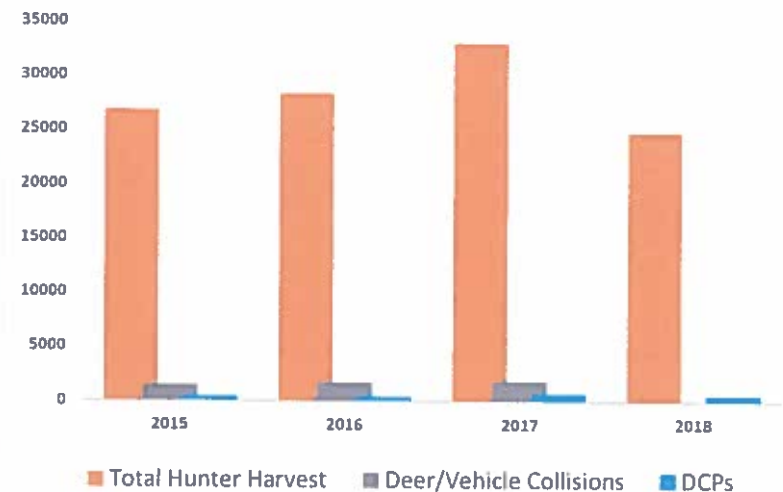
Year	DMU452	5-Co.Outside DMU452
1995	4.9%	(no testing)
1996	2.5%	0.2%
1997	4.7%	0.4%
1998	2.7%	0.3%
1999	2.4%	0.2%
2000	2.5%	0.4%
2001	2.3%*	0.5%
2002	2.6%	0.5%
2003	1.7%	0.2%
2004	1.7%	0.2%
2005	1.2%	0.1%
2006	2.3%	0.3%
2007	1.4%	0.2%
2008	1.9%	0.3%
2009	1.9%	0.4%
2010	1.8%	0.2%
2011	1.2%	0.1%
2012	1.7%	0.3%
2013	1.7%	0.2%
2014	1.0%	0.2%
2015	2.7%	0.3%
2016	2.0%	0.3%
2017	2.3%	0.6%
<b>2018</b>	<b>2.1%</b>	<b>0.1%</b>

# Bovine TB – 2019 Surveillance Goals




# DNR's Actions: Bovine TB

- Additional hunts in January 2017 and 2018 in the high-risk area of the MAZ to increase antlerless deer harvest
- More accessible disease control permits for no cost, year-round use for producers and adjacent landowners
- Full time wildlife health specialist to foster relationships and deer removal efforts with hunters and farmers
- Hunting Access Program opened over 4,000 acres of private land for deer hunting in DMU487





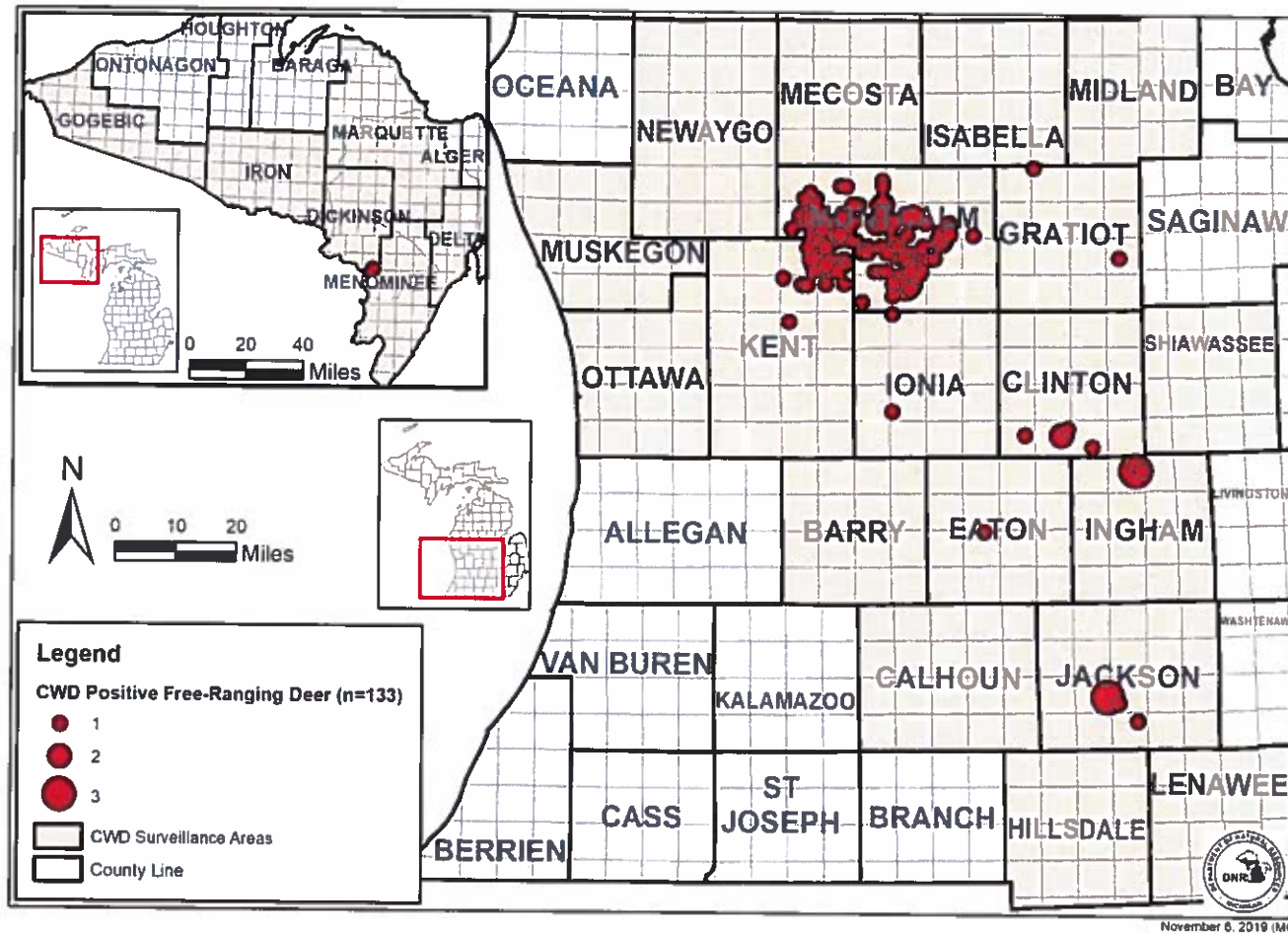


Chronic  
Wasting  
Disease  
(CWD)

Michigan Department of Natural Resources  
2018-2019 update

# CWD–Surveillance Summary

## Free-ranging White-tailed Deer Positive for Chronic Wasting Disease (CWD) Michigan as of November 6, 2019



## 2018 Chronic Wasting Disease (CWD) Surveillance in Free-ranging White-tailed Deer, Michigan

### Legend

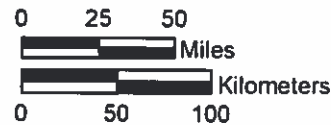
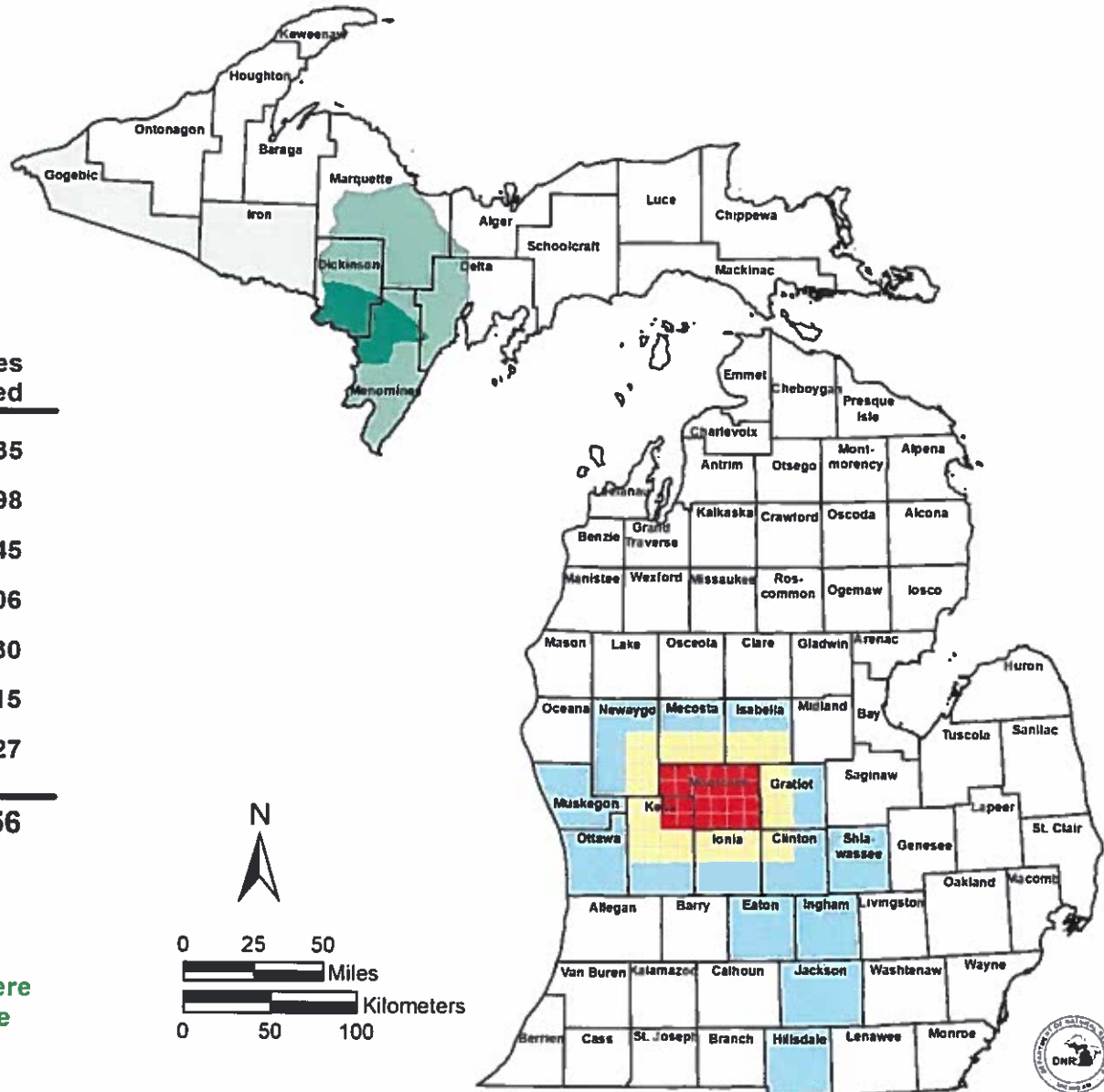
County Lines

### I. ACTIVE SURVEILLANCE (These samples were also tested for bovine tuberculosis)

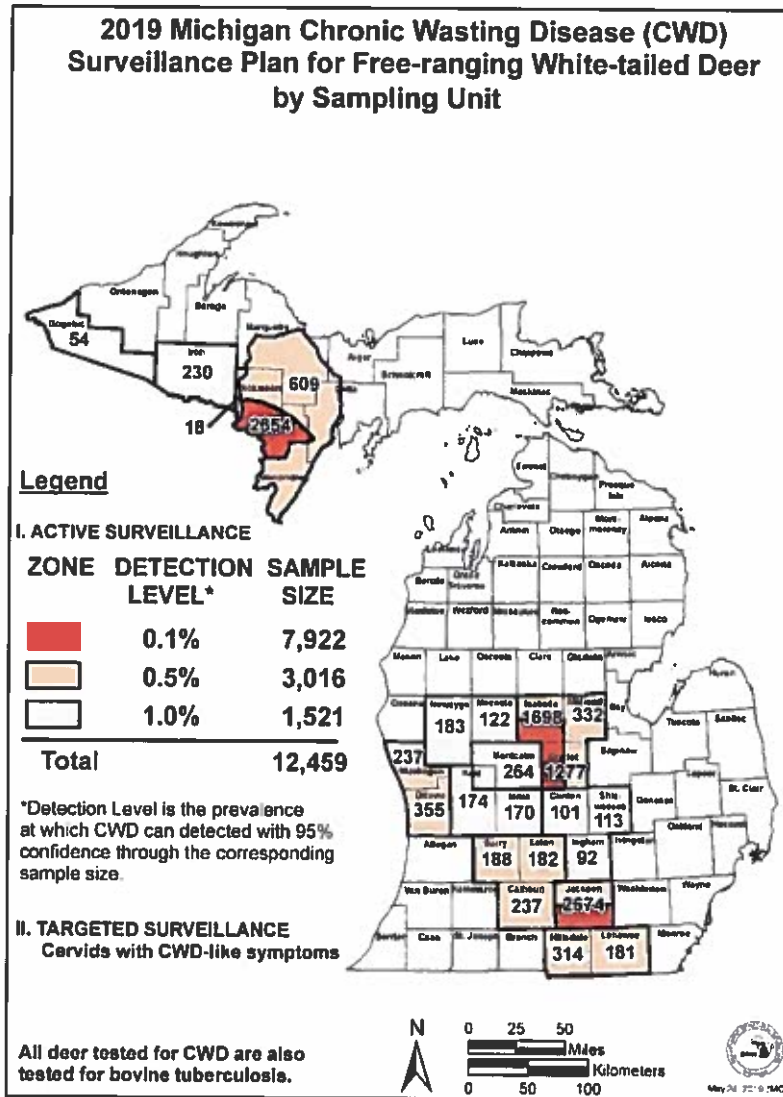
Testing Zone	Sample Goals	Samples Tested
	300	4,435
	8,475	5,598
	6,260	14,445
	155	306
	300	830
	600	915
	0	4,227
<b>Total</b>	<b>16,090</b>	<b>30,756</b>

### II. TARGETED SURVEILLANCE Cervids with CWD-like symptoms

229 of the 30,756 deer tested in 2018 were tested as part of targeted surveillance



# 2019 CWD Surveillance Goals



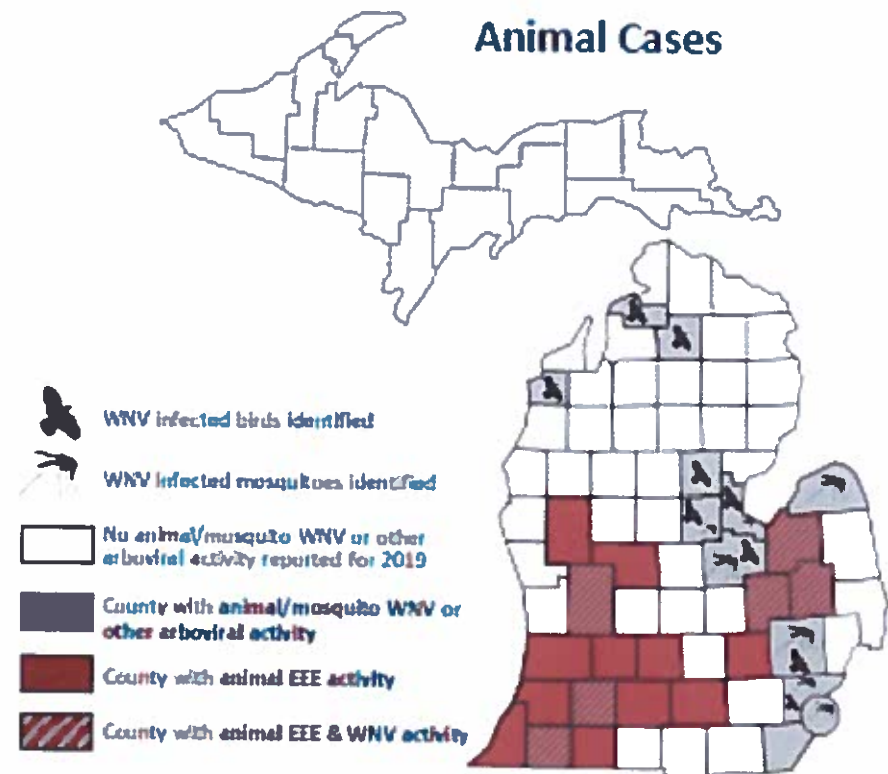


Eastern  
Equine  
Encephalitis  
(EEE)

Michigan Department of Natural Resources  
2019 update

# Eastern Equine Encephalitis-2019

- 164 deer with nervous system signs (aka “targeted” deer)
- 31 deer, 2 elk tested (had screening tests consistent with EEE)
- 14 Positive deer to date
- Highest number of positives previously: 7 (2005)



# Questions?

**Nora Wineland, DVM, MS, Dipl. ACVPM**

State Veterinarian

[winelandn@michigan.gov](mailto:winelandn@michigan.gov)

517-284-5667

**Kelly Straka, DVM, MPH**

State Wildlife Veterinarian

[strakak1@michigan.gov](mailto:strakak1@michigan.gov)

517-336-5030

