

# Chronic Wasting Disease–

## Response to CWD Detection in California

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Nevada Department of Wildlife  
Wildlife Commission Meeting  
June 28<sup>th</sup>, 2024



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# What is Chronic Wasting Disease (CWD)?

- ▶ A fatal neurologic disease of cervids (deer, elk, moose, and caribou).
- ▶ Caused by a misfolded protein called a “prion”.
- ▶ Disease is a transmissible spongiform encephalopathy (TSE)
- ▶ Similar to Scrapie (sheep) and Mad Cow disease(cattle).
- ▶ Prions are shed in tissues, urine, feces, saliva, and collect most densely in nervous tissues

# What is Chronic Wasting Disease (CWD)?

- ▶ Prions are incredibly hardy and can last for years on the landscape
- ▶ Infection to clinical signs averages 16 months
- ▶ Clinical signs to death averages 4-9 months
- ▶ 100% fatal



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# What is Chronic Wasting Disease (CWD)?

- ▶ Was first Identified in Colorado: 1967 in captivity, 1981 in the wild
- ▶ Has spread across much of the US and continues to expand its distribution.
- ▶ Once it enters a state, eradication is almost impossible
- ▶ Prevalence can be greater than 40% in some areas with mature bucks
- ▶ Areas with very high prevalence have seen populations declines

# How is it Spread?

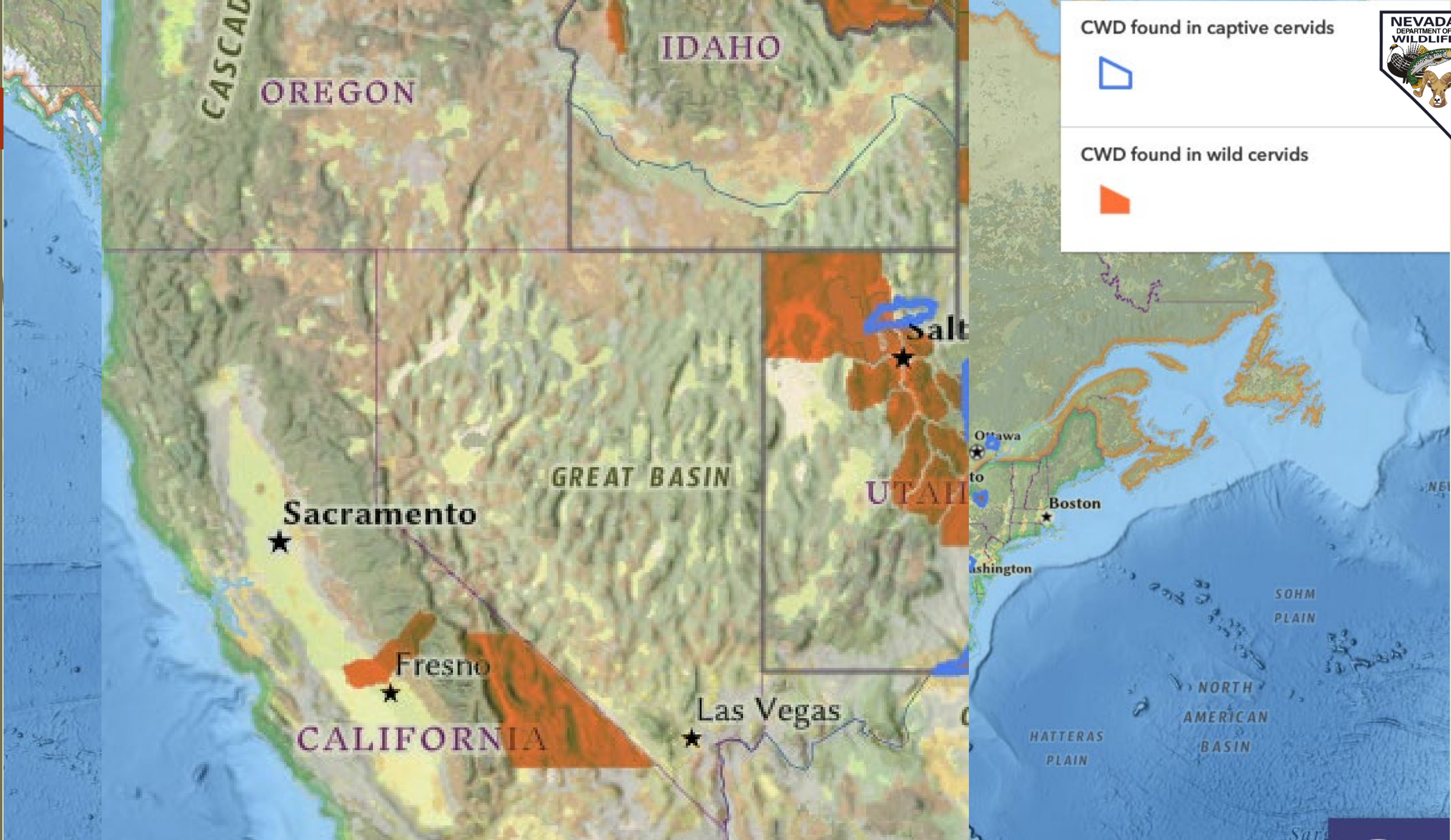
- ▶ Sources of Infection:
  - ▶ Direct contact
  - ▶ Consumption/exposure of materials contaminated by urine, saliva, and feces.
  - ▶ Decomposed carcasses, some research suggests infectious prions may be taken up in plants
- ▶ Male deer have a higher likelihood of infection than female deer.
- ▶ Movement thought to be mostly driven by cervid farming in much of the US.
- ▶ Carcass transportation and dumping is also a significant concern.
- ▶ Deer movement is a driver of spread at more local scales.



CWD found in captive cervids



CWD found in wild cervids



# What are the Impacts of CWD?

- ▶ Large financial cost to manage (25.5million in 2020 for state agencies).
- ▶ Mule deer populations have shown declines when prevalence is >20%
- ▶ High prevalence of CWD can limit growth of elk herds
- ▶ Other modeling for deer have shown declines with prevalence as low as 5%
- ▶ High prevalence limits the ability of deer populations to recover from other events (i.e., drought)
- ▶ Large impact on the hunter experience, as the CDC recommends not consuming CWD positive deer.
- ▶ CWD mortality may limit the number of older age class bucks

# Can CWD be managed?

- ▶ In short – yes, IF done early
- ▶ Higher hunting pressure, especially in the late season, is associated with stable CWD prevalence.
- ▶ Hunting changes are most effective before prevalence goes above 5%
- ▶ Harvest prescriptions promoting high buck ratios saw exponential growth of CWD
- ▶ More bucks harvested in winter are CWD positive compared to early fall.
- ▶ Nevada does not allow the import or propagation of captive cervids



# Risk of CWD Introduction to Nevada

- ▶ Prior to this spring the area with the highest risk was deemed to be either the Northeast part of the state due to proximity to positives in Utah and Idaho

OR

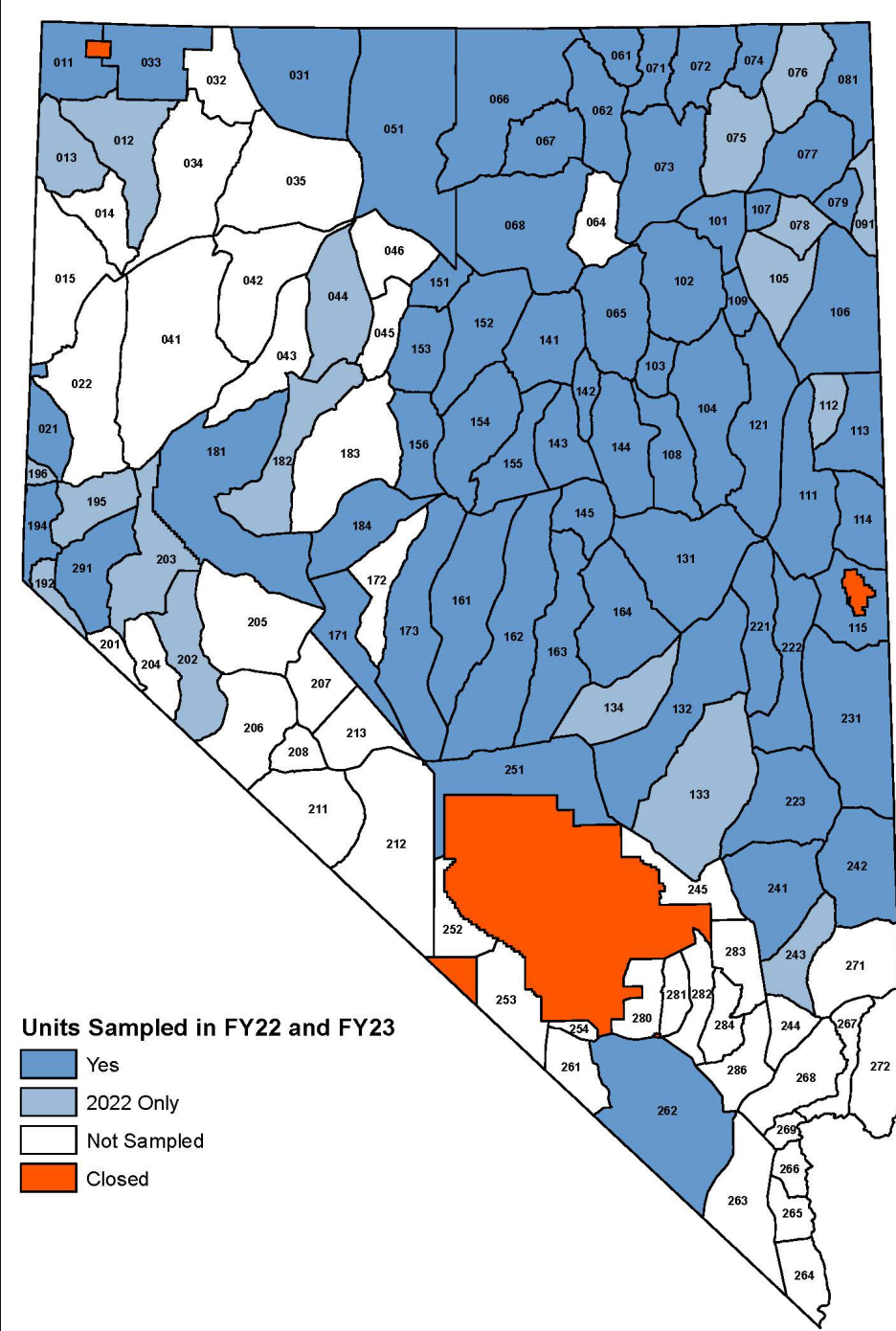
- ▶ Near urban areas or borders where carcass dumping is most likely to occur.
- ▶ California is now the newest positive state, and is the most likely source of introduction to Nevada



# CWD Surveillance in Nevada

- ▶ Nevada has never had a confirmed case of CWD
- ▶ In FY23 we sampled 340 Mule Deer and 74 Elk, all were negative
- ▶ FY24 is ongoing but has seen a significant decline in samples tested.
- ▶ Based on FY22 and FY23 our statewide detection prevalence (the prevalence of disease above which we would expect a positive) was 0.6% for deer, 2.2% for elk.
- ▶ This assumes random distribution, so some areas could have significantly higher prevalence.
- ▶ Sampling was most focused on the northeast part of the state

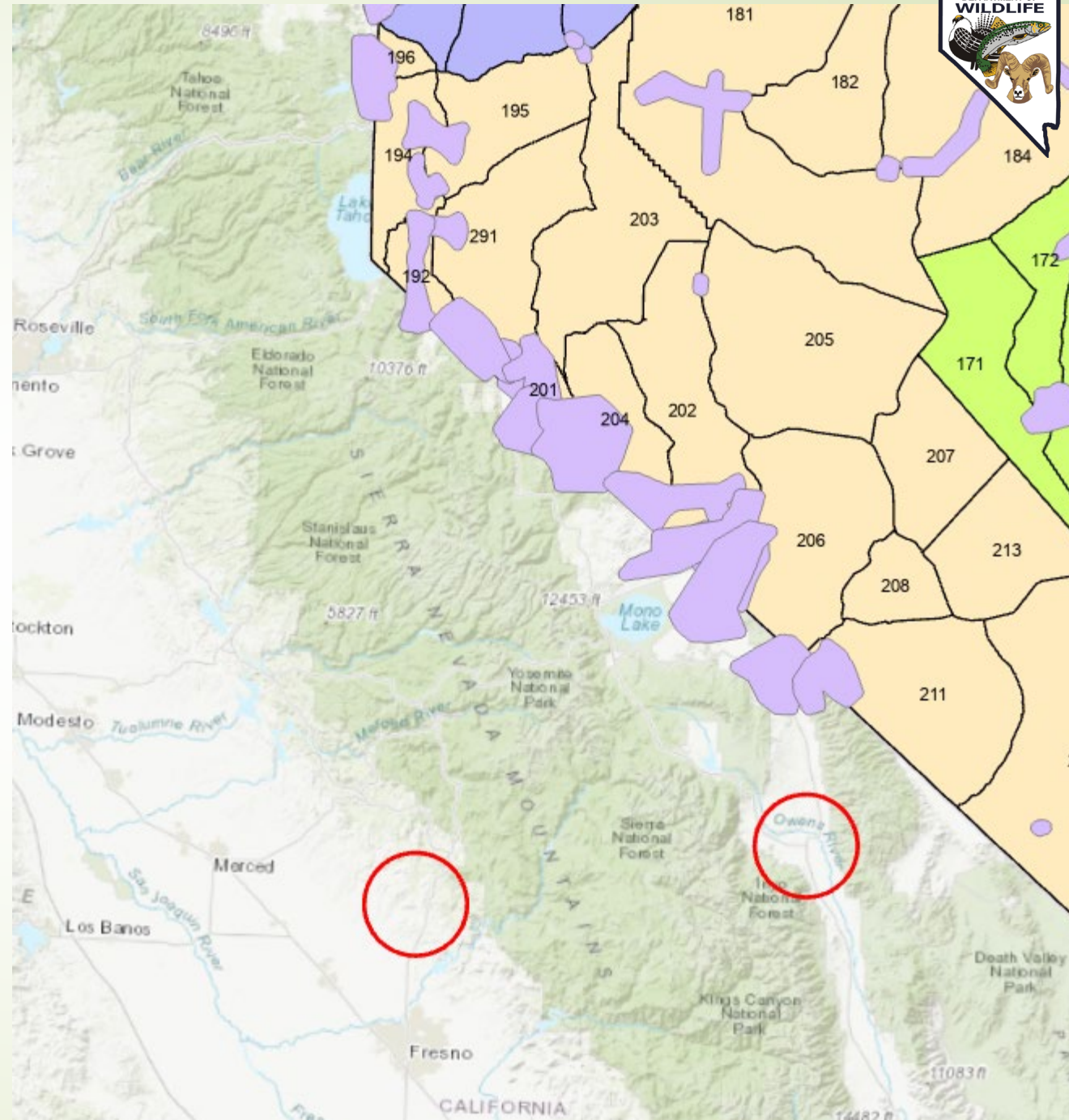
# Units sampled





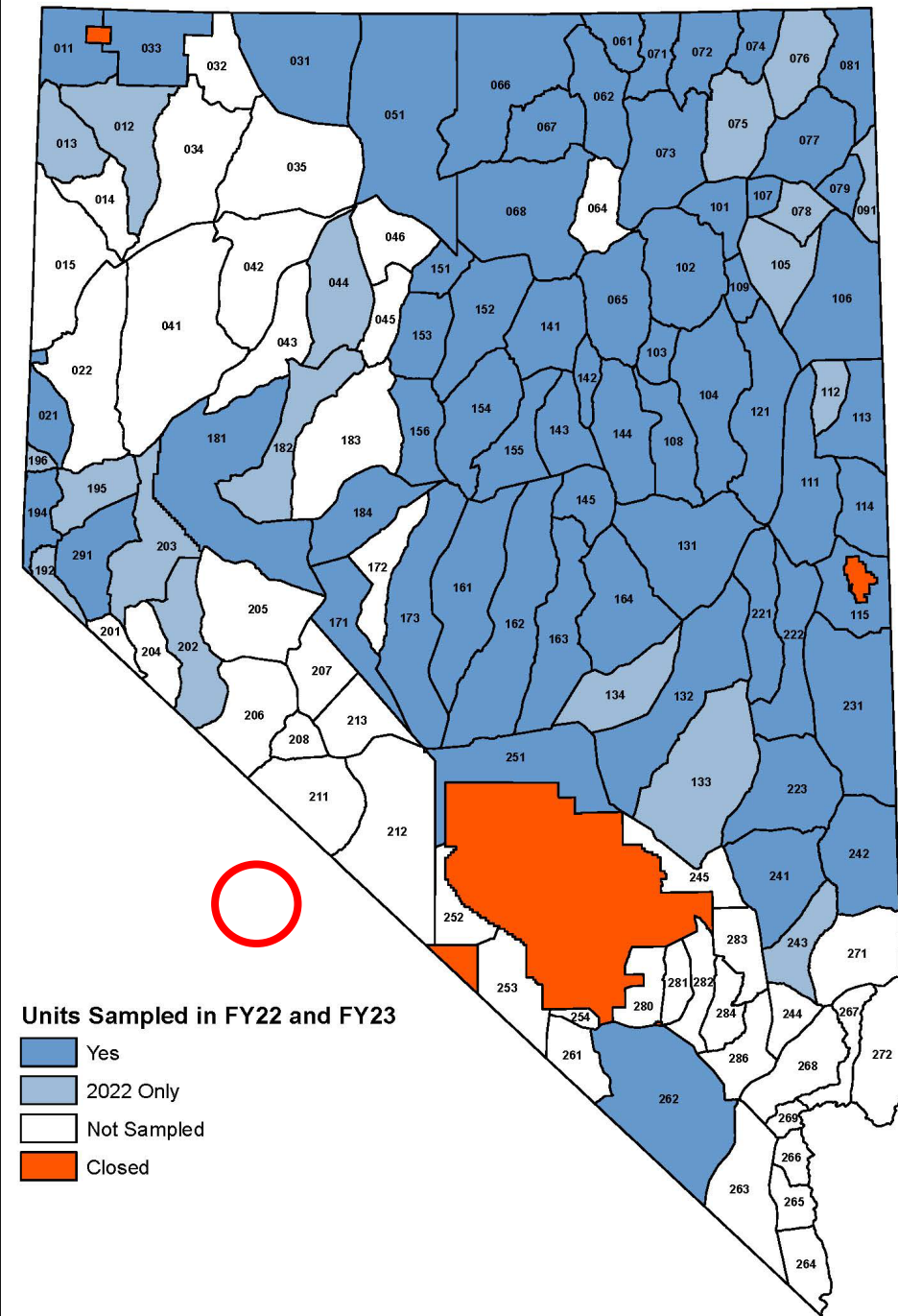
# Detection in California

- Two Detections:
  - Yosemite Lakes
    - Clinical Suspect, September 2024
  - Bishop
    - Roadkill, February 2024



# Units sampled

➔ Little to no Sampling done in the area adjacent to the detection





# Nevada Response to CWD in California

- ▶ TWO GOALS:
  - ▶ Determine if CWD is present in Nevada and if so, where.
  - ▶ Limit CWD's movement and spread



# Nevada Response to CWD in California

- ▶ TWO GOALS:

- ▶ Determine if CWD is present in Nevada and if so, where.

## **Mandatory Sampling**

- ▶ Limit CWD's movement and spread

## **Transport Restriction Zone**

# QUARANTINE ORDER

Number **Q-JG05232024**

Effective Date: 05/1232024

Name: Nevada Department of Wildlife

Address (mailing): 6980 Sierra Center Parkway, Reno, NV 89511

Phone No: 775-688-1520

Attention: Shawn Espinosa, Game Division Administrator

By authority of Nevada Revised Statutes Chapters 571 (incl.) and Nevada Administrative Code 441A, you are hereby notified that all elk, mule deer, white-tailed deer, moose, reindeer, caribou, or fallow deer under your ownership/control in Nevada Hunt Units 192-196, 201-208, 211-213, and 291 are placed under quarantine for the below identified reason:

**Detections of Chronic Wasting Disease (CWD) were discovered in California near Bishop and Yosemite and reported by the California Department of Fish and Wildlife. A Transportation Restriction Zone (TRZ) is hereby ordered to improve surveillance and prevent movement of CWD. The TRZ and following requirements are being implemented to help keep the disease from spreading into Nevada:**

It is now mandatory that anyone who harvests a deer in the TRZ (consisting of Hunt Units 192-196, 201-208, 211-213, and 291) submits a CWD sample.

It is illegal for anyone to knowingly transport or possess the carcass or any part of the carcass of any elk, mule deer, white-tailed deer, moose, reindeer, caribou, or fallow deer which were obtained in the TRZ or another state, territory, or country, EXCEPT by the parameters established by your agency (NDOW), which include:

- Wrapped meat or quarters, with no part of the spinal column, brain tissue, or head attached.
- The hide or cape with no part of the spinal column, brain tissue, or head attached.
- The clean skull plate with antlers attached and no brain tissue attached.
- The antlers with no meat or tissue other than antler velvet attached.
- The taxidermy mount with no meat or tissue other than antler velvet attached.
- The upper canine teeth including, without limitation, the bugler, whistler, and ivory teeth.
- A sample collected for CWD surveillance (separately bagged and including only the obex and lymph nodes) that can be dropped off at any NDOW office.

Within the TRZ all parts not able to be transported out of the TRZ must be disposed of in the following manner:

- Left at the site of harvest (preferred method).
- Disposed of in approved and certified landfills (see list here: <https://www.ndow.org/blog/chronic-wasting-disease/>).
- Surrendered to a NDOW office or check station for disposal.

Under NO CIRCUMSTANCES should prohibited parts be moved out of the TRZ or disposed of on the landscape (other than the location of kill).

This hold order remains in effect until February 1, 2025, or when a written release is issued by the State Quarantine Officer.





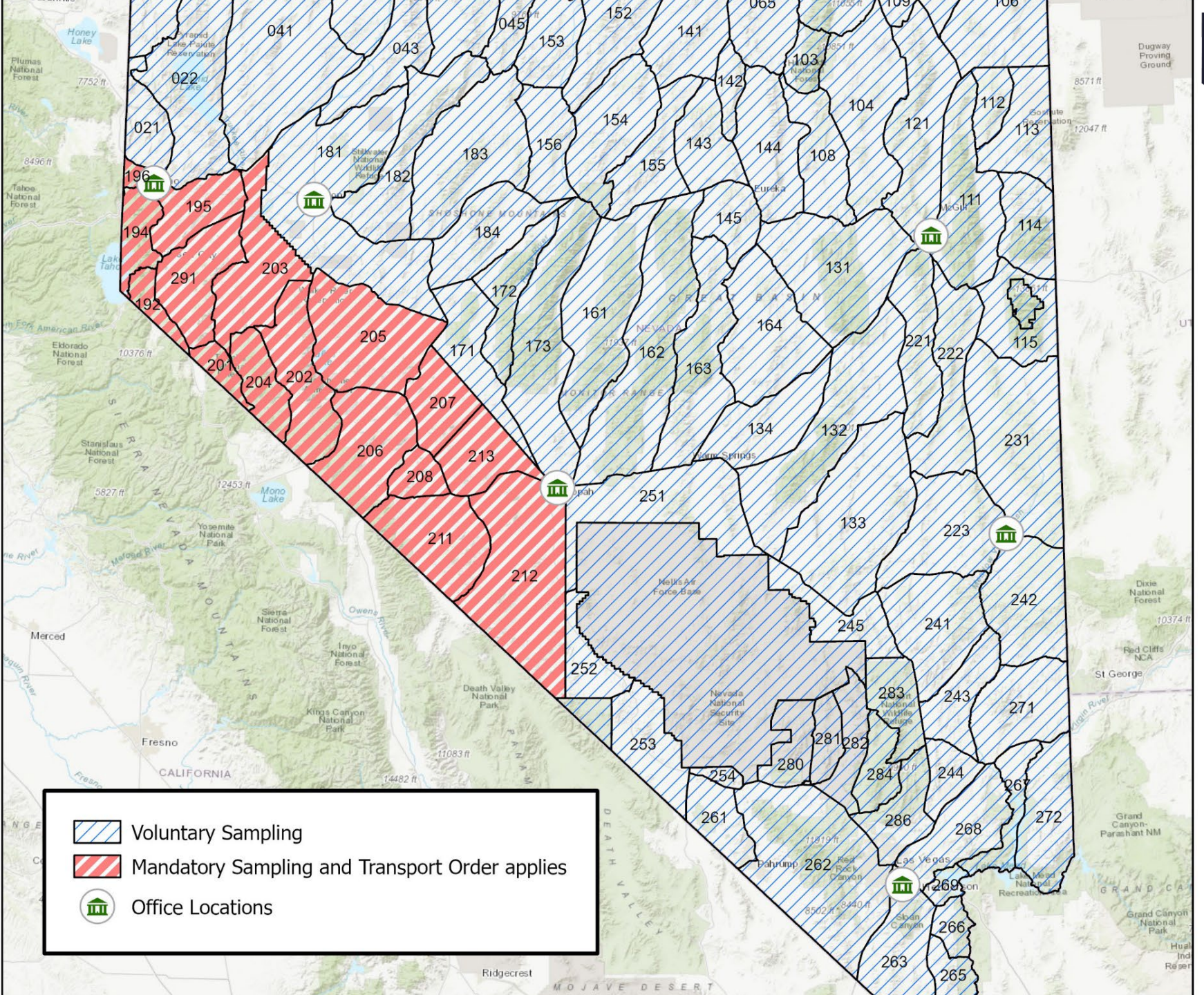
# Nevada Response to CWD in California


- ▶ Quarantine Order Issued by Nevada Department of Agriculture's Quarantine Officer
  - ▶ Establishes a Transport Restriction Zone with the following Restrictions:

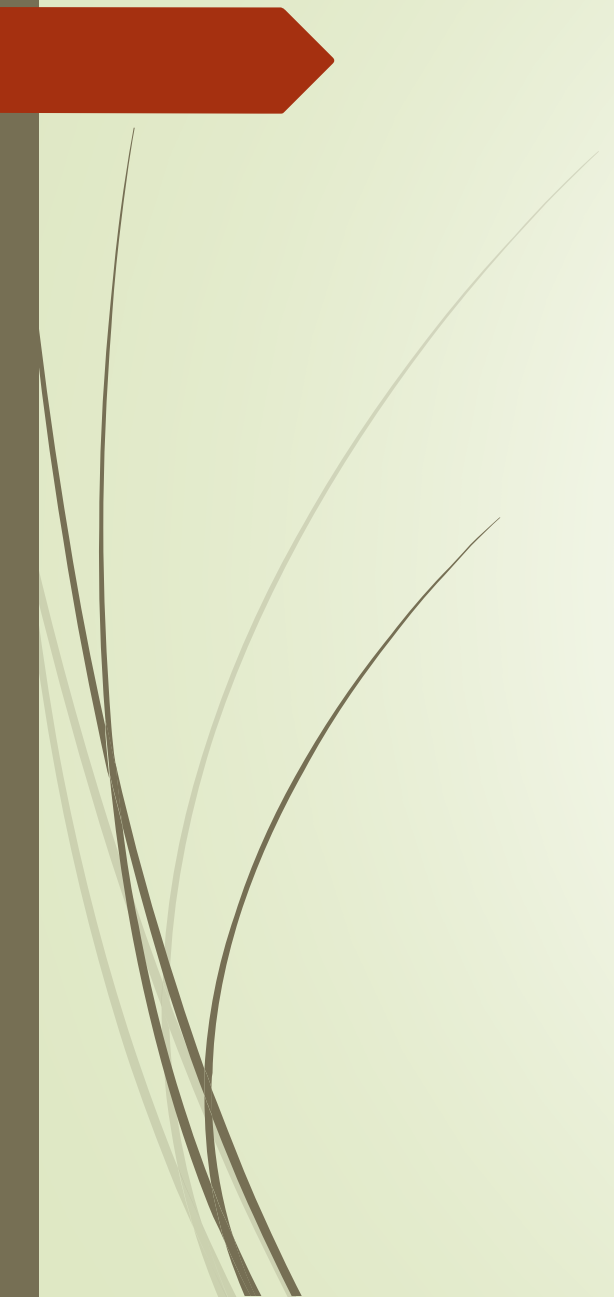


# Nevada Response to CWD in California

- ▶ Quarantine Order Issued by Nevada Department of Agriculture's Quarantine Officer
  - ▶ Establishes a Transport Restriction Zone with the following Restrictions:
    - ▶ **Mandatory Sampling**
    - ▶ **Carcass movement requirements**



	Voluntary Sampling
	Mandatory Sampling and Transport Order applies
	Office Locations





# Nevada Response to CWD in California

## ➤ **Mandatory Sampling:**

- Anyone harvesting a deer in the TRZ must submit a CWD sample.
- This can be done by:
  - Coming to an office location within the TRZ (Tonopah, Valley Rd).
  - Taking the sample yourself (sign up on the NDOW webpage)
  - Stopping by a check station (schedule will be posted on the website).
  - Call the hotline, during parts of the year staff will be on call to take samples.



# Nevada Response to CWD in California

## ► Carcass transport Restrictions

- Same Rules as Senate Bill 85 for out of state hunting.

It is illegal for anyone to knowingly transport or possess the carcass or any part of the carcass of any elk, mule deer, white-tailed deer, moose, reindeer, caribou, or fallow deer which were obtained in the TRZ or another state, territory, or country, EXCEPT by the parameters established by your agency (NDOW), which include:

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# Nevada Response to CWD in California

## ➤ **Carcass transport Restrictions**

- **Carcass Disposal:** Within the TRZ all parts not able to be transported out of the TRZ must be disposed of in the following manner:
  - Left at the site of harvest (preferred method).
  - Disposed of in approved and certified landfill
  - Surrendered to a NDOW office or check station for disposal.



# Nevada Response to CWD in California

- ▶ Outreach:
  - ▶ Full page article in the regulation booklet
  - ▶ All affected hunters received a notification with their tag.
  - ▶ We have applied to the USDA APHIS CWD grant, asking for extensive funding for advertising and outreach
  - ▶ We encourage everyone to report sick or dead deer
  - ▶ We encourage everyone to get their harvested deer or elk tested for CWD
  - ▶ We encourage everyone to abide by the transport restrictions when hunting in the TRZ or out of state.

# Goals if CWD is detected in Nevada

- ▶ Minimize effects of CWD on ungulate populations
  - ▶ minimize spread among herds
  - ▶ maintain low prevalence in infected herds
- ▶ Maximize recreational opportunities
- ▶ Minimize health risks of CWD for humans
- ▶ Maintain public trust and support
- ▶ Use Adaptive Management to evaluate management effectiveness
- ▶ Minimize cost



# If CWD is detected in Nevada

- ▶ We will expand mandatory sampling and the TRZ as needed.
- ▶ We will first attempt to determine prevalence in the affected area.
- ▶ Once prevalence is determined we will use adaptive management, including harvest prescriptions to:
  - ▶ Limit spread
  - ▶ Maintain or reduce prevalence so it is <5%

# Questions?

