



Wyoming Game and Fish Department 2024 Chronic Wasting Disease Surveillance Report March, 25th 2025

Overview

Chronic wasting disease (CWD), a fatal prion disease of cervids, continues to spread across the state since its initial detection in 1985 (Figure 1). The Wyoming Game and Fish Department (WGFD) CWD surveillance program focuses on two to three herd units from the eight WGFD regions each year. Efforts are concentrated on hunter-harvested adult male deer and adult elk (both sexes), with a sample target of 200 (collected within 1-3 consecutive years) in most deer and elk herd units. In non-endemic areas, where CWD has not been detected, opportunistic surveillance continues and utilizes hunter-harvested, road-killed, and targeted animals (targeted defined as showing signs of the disease or found dead with no apparent cause). This design allows for adequate sample sizes without exceeding the WGFD's Wildlife Health Laboratory (WHL) testing capacity.

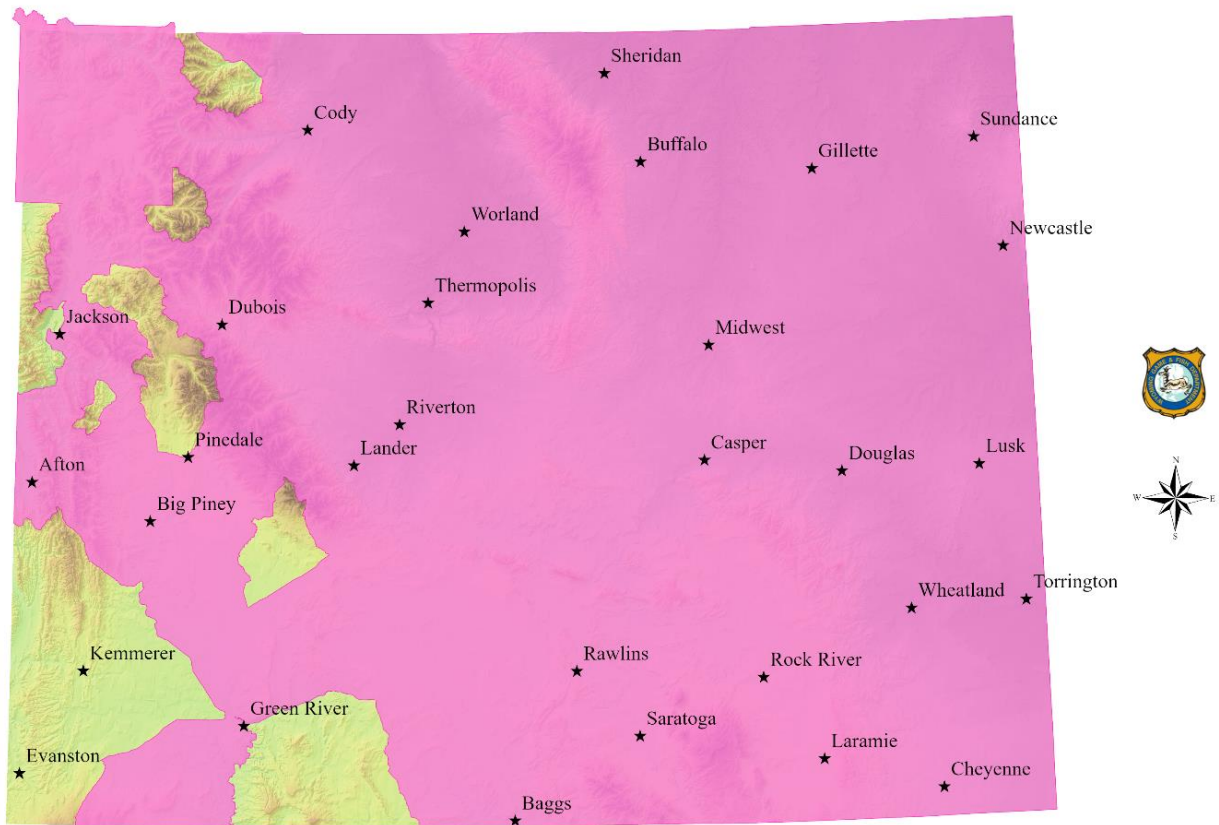


Figure 1. 2024 Statewide CWD distribution: All species.

2024 CWD Surveillance

Hunter harvested deer, elk, and moose samples were collected at points of concentration (i.e., meat processors, check stations, and regional offices), with additional opportunistic samples collected from euthanized animals and mortalities. Retropharyngeal lymph nodes were predominantly collected due to their ease of extraction and suitability as a diagnostic tissue. Teeth were collected whenever possible to evaluate age structure, and age specific CWD prevalence within deer herd units.

The WHL is an accredited laboratory for CWD diagnostics and utilizes enzyme-linked immunosorbent assays as the primary diagnostic tool. Immunohistochemistry is utilized as a confirmatory test when necessary. Individual CWD test results are available on the agency's website in less than three weeks of sample submission.

Priority Deer and Elk Herd Units for 2024

For mule deer, the 2024 CWD surveillance focused on thirteen herd units; including mandatory CWD sampling in six hunt areas (Figure 2). For elk, the 2024 CWD surveillance focused on seven herd units (Figure 3). The Sublette and Wyoming Range mule deer herds, along with the Afton, Fall Creek, and Jackson elk herds are prioritized annually.

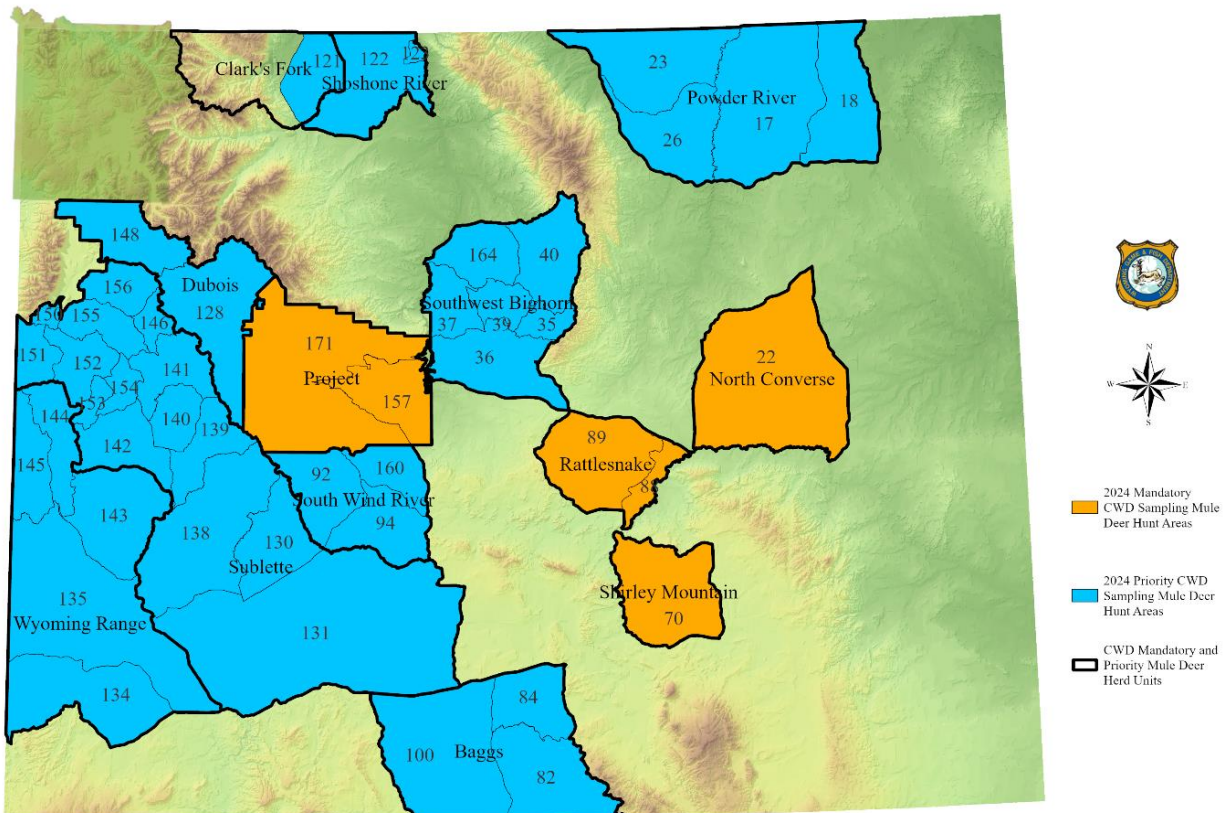


Figure 2. CWD sampling priority and mandatory mule deer herd units and hunt areas (2024).

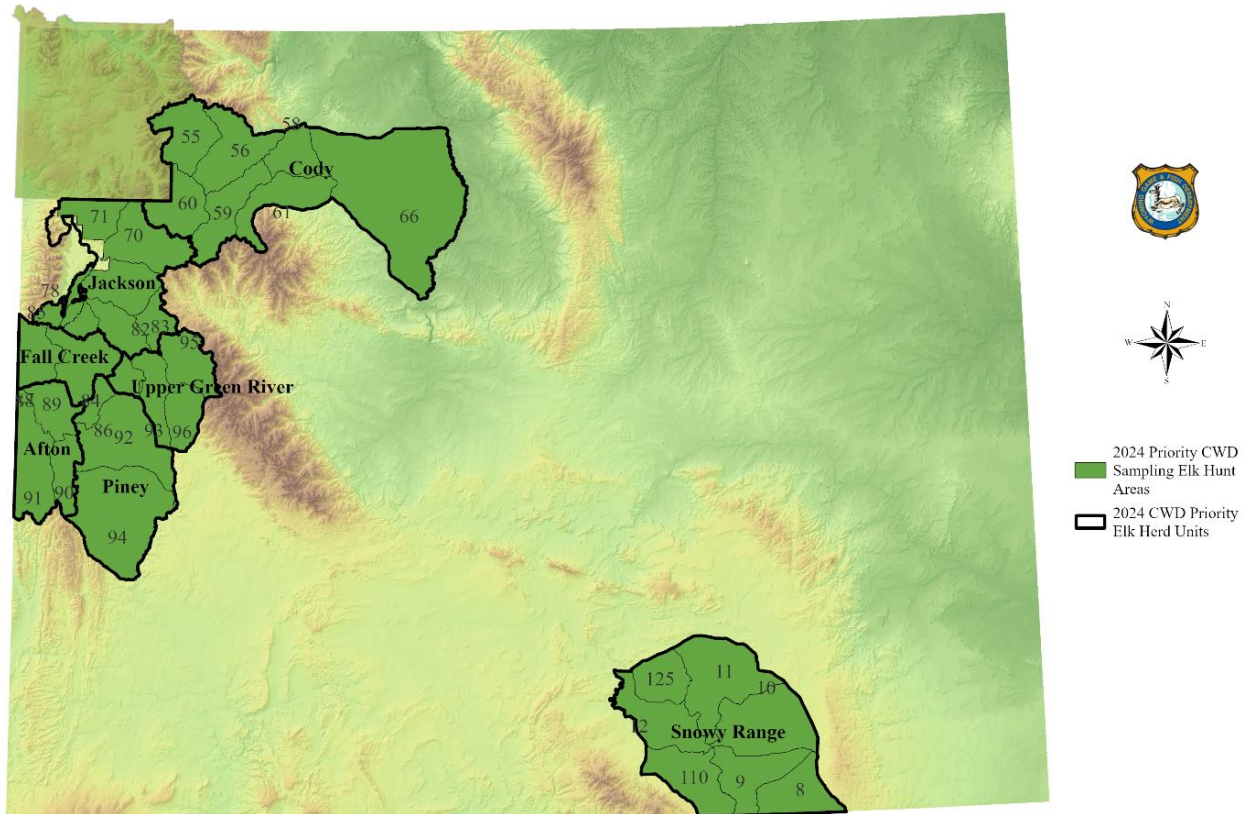


Figure 3. CWD sampling priority elk herd units and hunt areas (2024).

2024 Results and Discussion

The WHL analyzed a total of 5,276 deer, elk, and moose, with 726 of those samples testing positive for CWD. This total includes samples from all surveillance categories (hunter-harvest, targeted, and road-killed), and all sexes and age classes (Table 1). Table 2 outlines samples received from hunter-harvest adult (≥ 2 years old) male deer, adult elk and adult moose (both sexes). Overall submissions were up slightly from 2023 (5,100).

Table 1. CWD surveillance totals by species and category (all ages and sexes; 2024).

Surveillance Category	Mule Deer		White-tailed Deer		Elk		Moose		Total	
	Total	CWD Pos	Total	CWD Pos	Total	CWD Pos	Total	CWD Pos	Total	CWD Pos
Hunter-harvest	1,797	319	937	201	1,772	39	45	0	4,551	559
Targeted	236	97	29	21	126	19	17	0	408	137
Road-kill	204	26	25	2	72	2	16	0	317	30
Total	2,237	442	991	224	1,970	60	78	0	5,276	726

Table 2. CWD surveillance of hunter-harvest adults according to species and sex (2024).

Adult Male Mule Deer		Adult Male White-Tailed Deer		Adult Elk		Adult Moose		Total	
Total	CWD Pos	Total	CWD Pos	Total	CWD Pos	Total	CWD Pos	Total	CWD Pos
1,440	280	432	126	1,533	36	40	0	3,445	442

The 2024 surveillance effort identified CWD in three new mule deer hunt areas (31, 53, 94; Figure 4) and three new elk hunt areas (23, 84, 126; Figure 5). As of the end of 2024, CWD had been detected in 35 of 37 (95%) of mule deer herds and 108 of 127 (85%) of mule deer hunt areas. For elk, as of the end of 2024, CWD had been detected in 21 of 34 (62%) designated elk herd units and 44 of 105 (42%) of elk hunt areas.

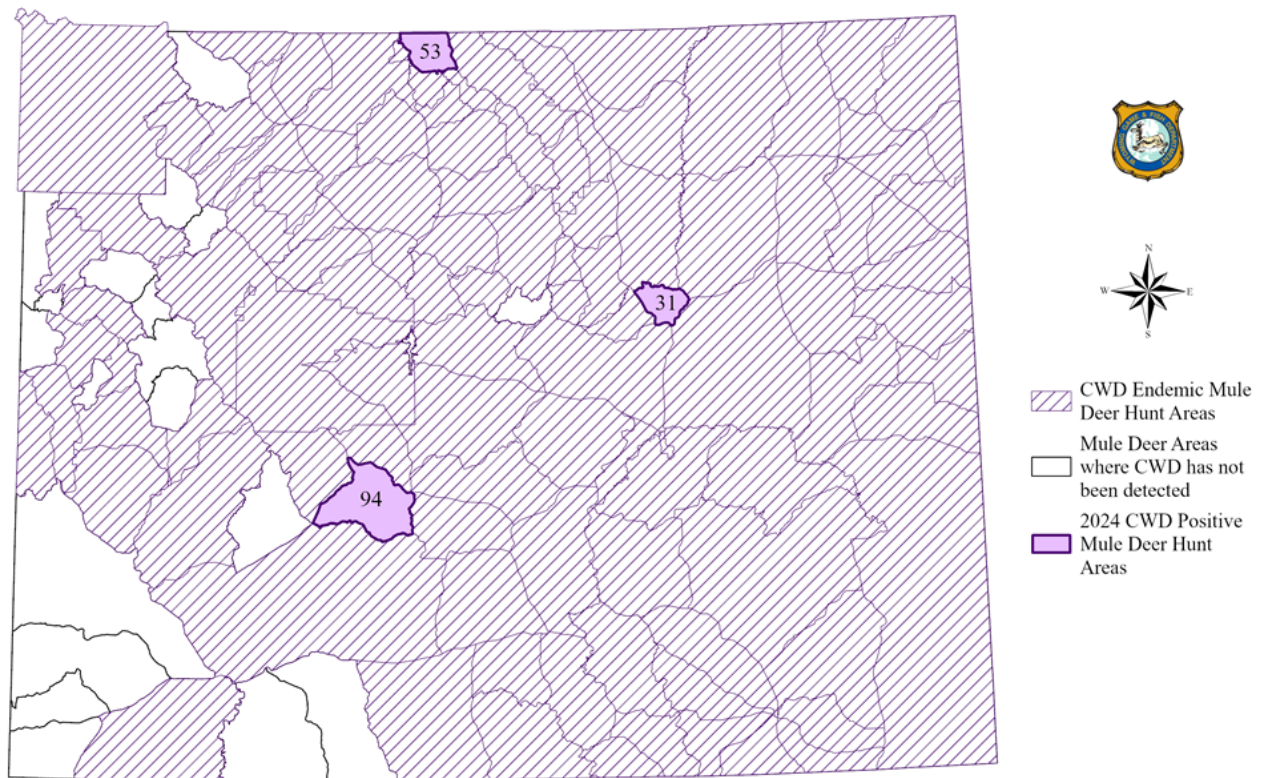


Figure 4. CWD endemic mule deer hunt areas and 2024 detections

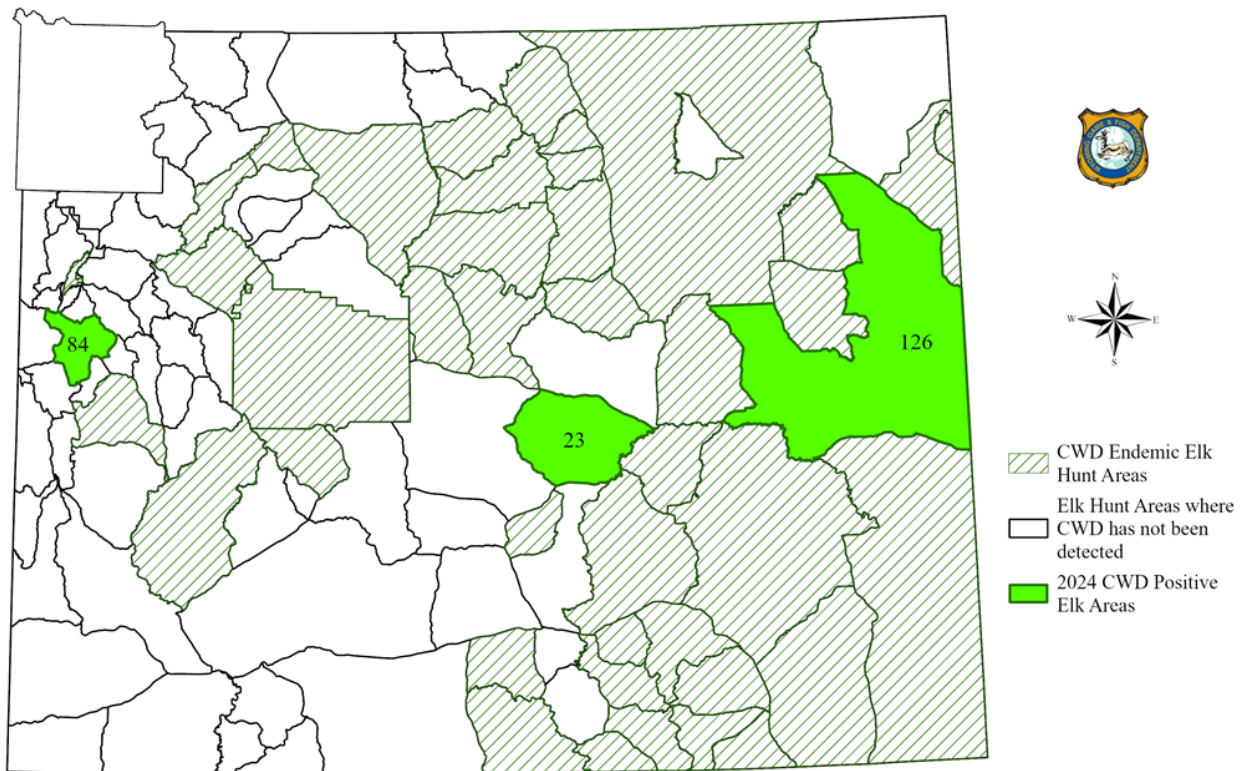


Figure 5. CWD endemic elk hunt areas and 2024 detections.

Monitoring CWD Prevalence

In 2024, statewide CWD prevalence in hunter-harvested, adult, male, mule deer was 19.4% (95% CI: 15.5% - 20.4%), representing an increase from 2023 (18.9%; 95% CI: 14.2% - 21.0%). Statewide prevalence in hunter-harvested, adult, male white-tailed deer in 2024 was 29.2% (95% CI: 21.1% - 31.1%) in 2024, a decrease from 2023 (30.3%; 95% CI: 19.6% - 35.0%). Finally for statewide elk prevalence in 2024, hunter-harvested adults was 2.3% (95% CI: 2.0% - 2.8%), a decrease from 2023 (2.8%; 95% CI: 2.0% - 3.9%).

To determine CWD prevalence in individual herds, five-year averages were calculated to ensure a significant sample size (Figures 6 and 7). The ‘Project herd’ continues to have the highest CWD prevalence in tested mule deer herds in the state at 66.3% (95% CI: 32.8% - 73.1%), followed by ‘Shoshone River’ at 47.6% (95% CI: 26.3% - 55.0%, ‘Greybull River’ at 47.0% (95% CI: 25.3% - 53.3%)) and ‘Goshen Rim’ at 35.0% (95% CI: 20.7% - 41.8%).

The ‘Iron Mountain’ herd had the highest CWD prevalence in tested elk herds in the state at 10.1% (95% CI: 7.2% - 12.7%), followed by ‘North Bighorn’ at 9.1% (95% CI: 5.7% - 12.8%) and ‘South Bighorn’ at 5.6% (95% CI: 3.0% - 9.0%). The North Bighorn elk herd’s five-year prevalence had a noticeable increase to 9.1%, up from the 7.0% (95% CI: 4.3% - 10.2%) average for years 2019 through 2023.

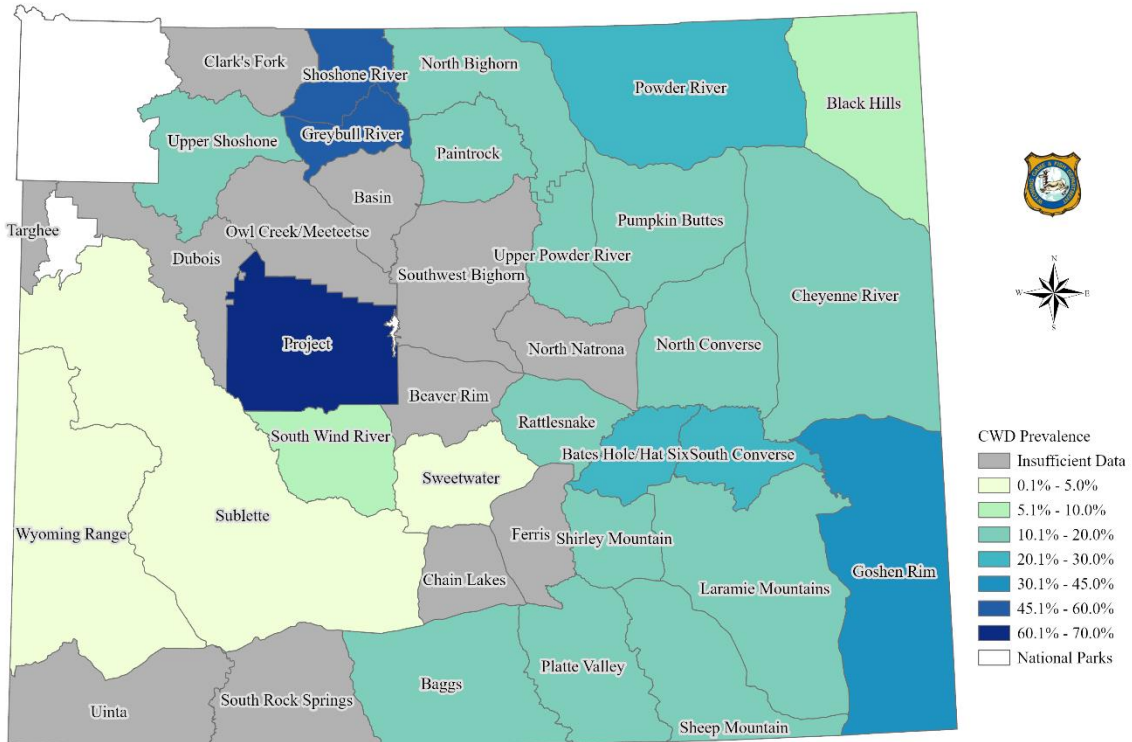


Figure 6. Chronic wasting disease prevalence in hunter harvested adult male mule deer by herd unit (2020-2024; data insufficient if less than 100 samples in consecutive 3 year period).

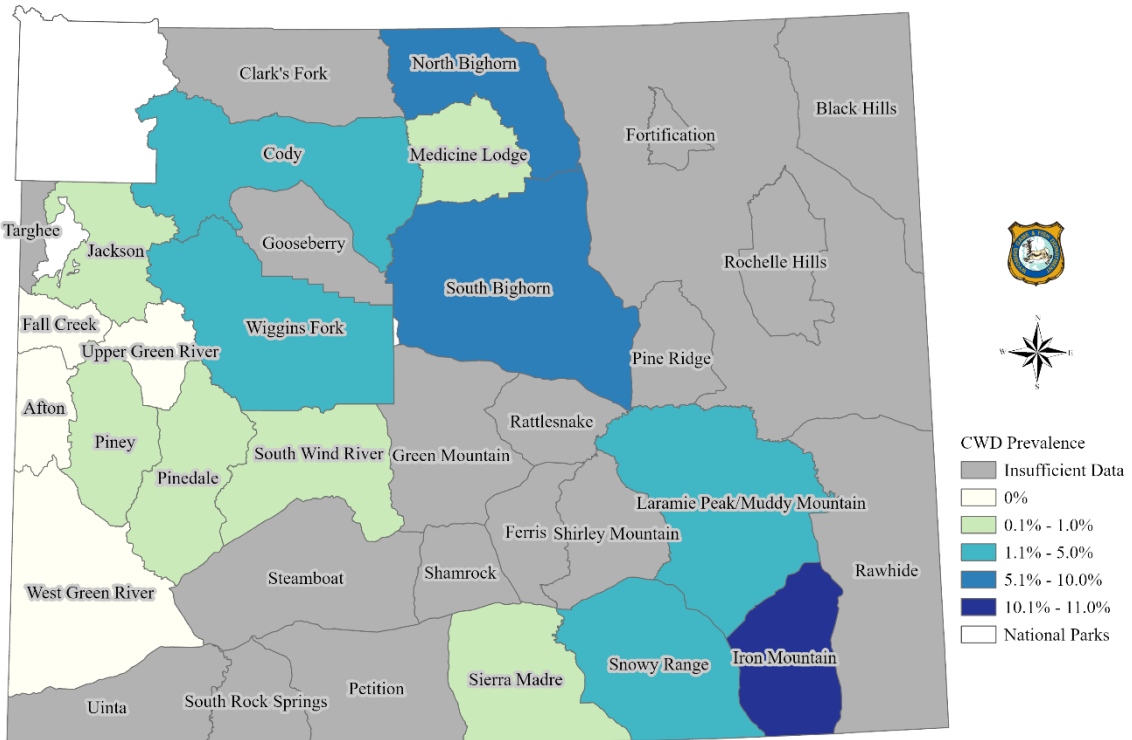


Figure 7. Chronic wasting disease prevalence in hunter harvested adult elk by herd unit (2020-2024; data insufficient if less than 100 samples in a consecutive 3 year period).

Knowing where sampling efforts were concentrated provides a deeper understanding into prevalence (Figures 8 and 10). Prevalence calculated at the herd unit level provides managers with perspective on herd health and can direct herd level management actions, however, CWD levels are not uniform across a herd and can accumulate in “hot spots” of higher concentrations within these herd units (Figures 9 and 11).

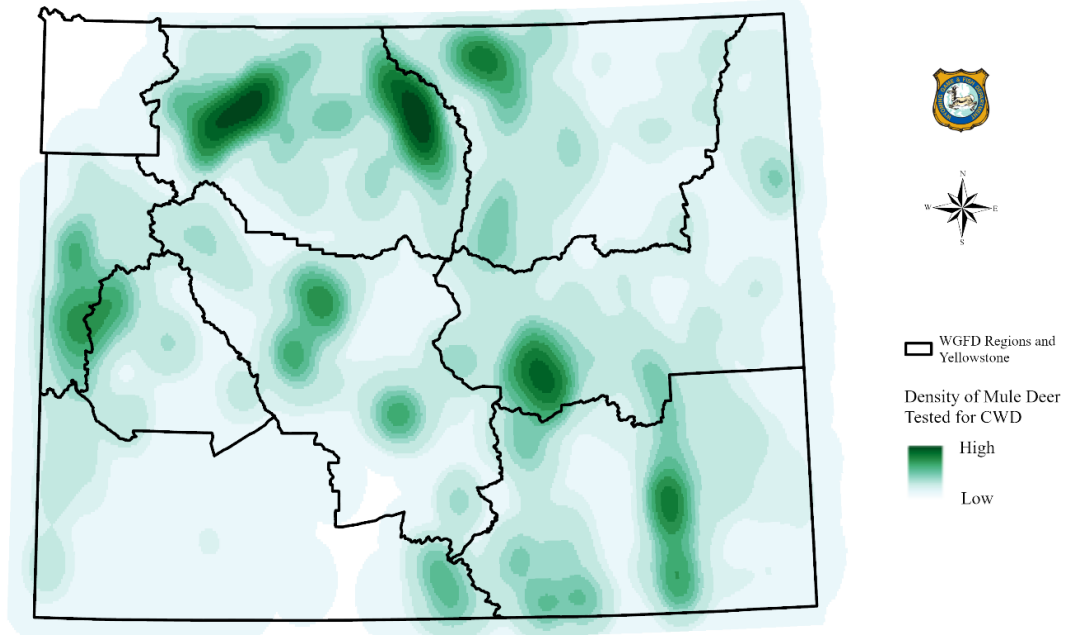


Figure 8. Mule Deer CWD sampling density: all age, sex and surveillance type (2020-2024).

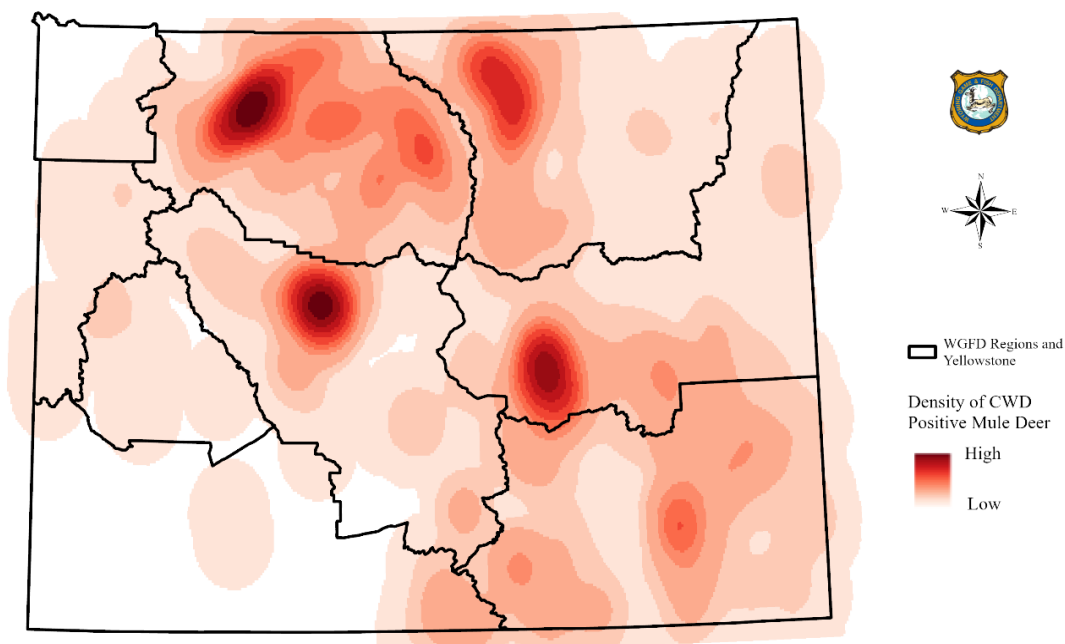


Figure 9. Mule Deer CWD positive sample density: all age, sex and surveillance type (2020-2024).

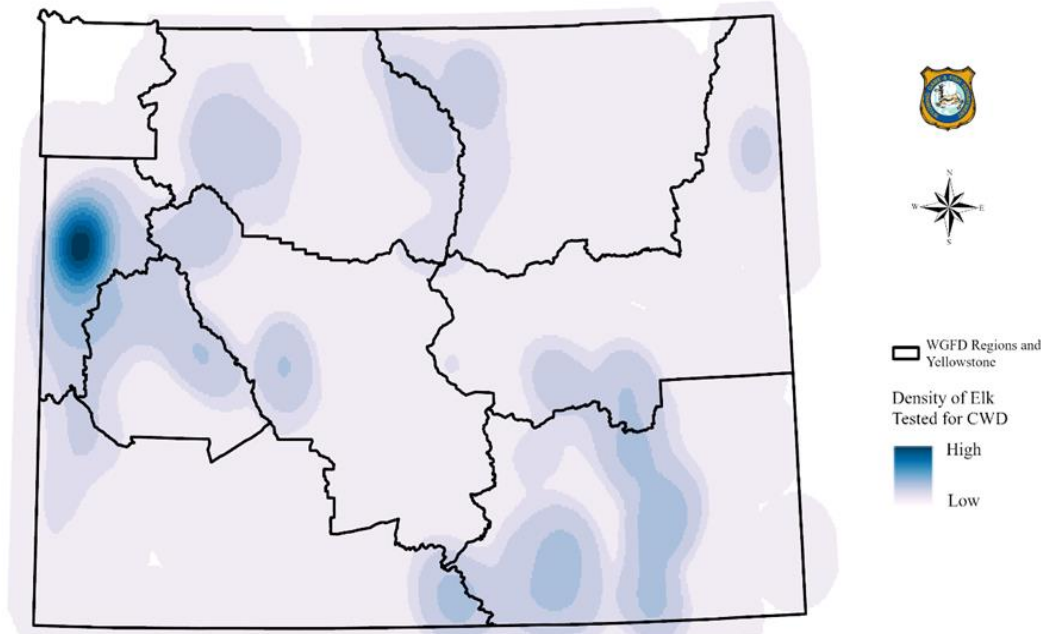


Figure 10. Elk CWD sampling density: all age, sex and surveillance type (2020-2024).

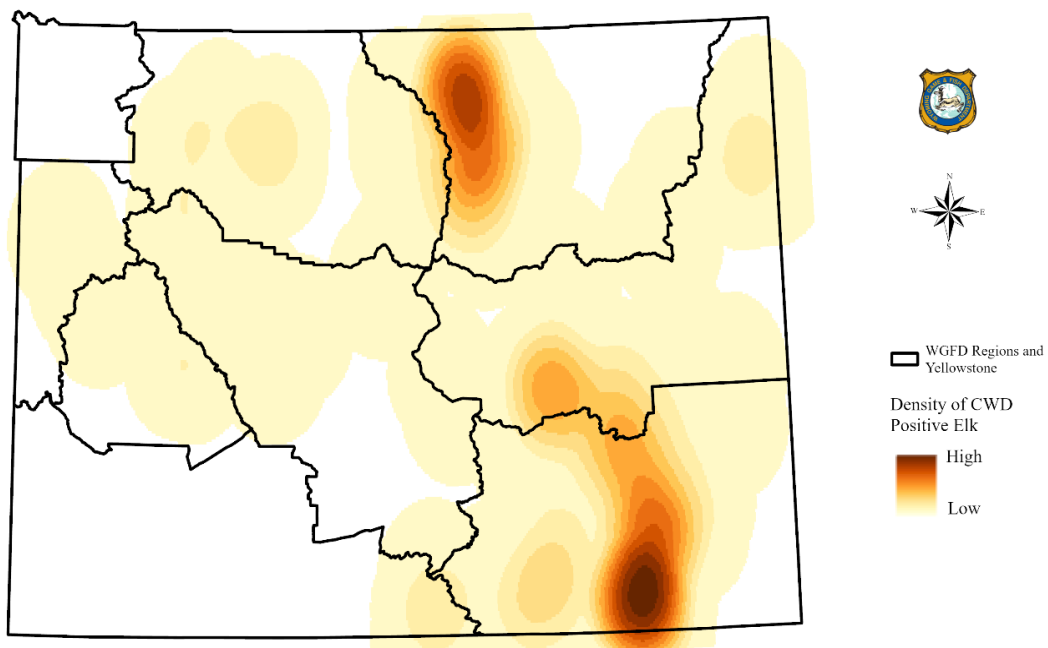


Figure 11. Elk CWD positive sample density: all age, sex and surveillance type (2020-2024).

CWD in Western Wyoming and the Elk Feedgrounds

As sampling efforts have increased from year to year, so have CWD detections in new hunt areas. In 2024, CWD was detected in two new deer hunt areas, and one new elk hunt area in western Wyoming. Between 2020 and 2024, CWD was detected in twenty-one deer and five elk that were collected from hunt areas that contain at least one elk feedground. CWD was also detected, for the first time on an elk feedground, Scab Creek Feedground, near the end of December. Yearly

prioritized sampling in herds where feedgrounds exist has generated increased sample sizes in those areas.

Sampling Effort in Non-Endemic Hunt Areas

As of the end of 2024, 15% of Wyoming’s deer hunt areas and 58% of elk hunt areas were considered non-endemic. Opportunistic surveillance for the disease continues in the non-endemic areas by utilizing hunter-harvested, road-killed and targeted animals (Table 3). Adequate sample sizes in these hunt areas are critical for early detection of the disease as management strategies can change with the status of CWD prevalence.

Table 3. Chronic wasting disease surveillance in non-endemic hunt areas of adult animals by species and surveillance type (2024).

Species	Hunter-harvest	Road Killed	Targeted	Total
Adult deer*	56	6	3	65
Adult elk	495	37	55	587
Adult moose	40	10	9	59
Total	591	53	67	711

*Includes both mule deer and white-tailed

2025 CWD Detections

Elk areas 87 and 93, in the Pinedale region and elk area 62 in the Cody region had their first CWD positive animals confirmed in 2025. Several elk have tested positive on additional elk feedgrounds including the Dell Creek Feedground, Black Butte Feedground and Horse Creek Feedground. The department continues to actively monitor and sample any euthanized or dead animals on feedgrounds to increase surveillance numbers.

For complete information on CWD in Wyoming, please visit: <http://wgfd.wyo.gov/CWD>