

California Department of Fish and Wildlife Chronic Wasting Disease (CWD) Surveillance Technical Report (2025)



Historic Surveillance

The goal of California's CWD surveillance program is to detect CWD where it occurs, monitor disease prevalence, and inform management decisions. The California Department of Fish and Wildlife (CDFW) has tested over 10,000 California deer and elk for CWD since 2000. The first CWD detections in California were confirmed in May 2024. In response, the Fish and Game Commission amended the California Code of Regulations Title 14, Section 708.5 Deer tagging and Reporting Requirements to define a CWD Management Zone (CMZ) and provide the Director authority to require mandatory sampling of hunter-harvested deer and/or deer carcass movement restriction within these zones (Figure 1). Mandatory sampling significantly increased our CWD surveillance within CMZs. In 2025, the WHL received 1,985 samples for CWD testing, 1,976 of those were from deer or elk that died in 2025, the remainder died in previous years but were submitted to the WHL in 2025. Current and historic CWD testing and detection records can be found on the California Department of Fish and Wildlife's (CDFW) [Where is CWD in California?](#) dashboard at [wildlife.ca.gov/CWD](#). This analysis focuses on samples from deer and elk that died in 2025, with supplemental discussions around detections in animals that died in 2023 (n = 1) and 2024 (n = 2).

California's CWD Detections to Date

The first CWD detections in California were from two adult bucks, one was found dead from unknown causes on September 20, 2023, from Yosemite Lakes Park homeowners association in Madera County and the other from the town of Bishop in Inyo County was found dead on February 6, 2024, after a vehicle collision. Samples from these animals were received at CDFW's Wildlife Health Laboratory (WHL) in February and March 2024, respectively, and sent to the Washington Animal Disease Diagnostic Laboratory (WADDL) for testing on April 4, 2024. Preliminary findings were reported by WADDL on April 29, 2024, and confirmatory testing completed at the National Veterinary Services Laboratories (NVSL) in Ames, Iowa on May 6, 2024. Two additional CWD detections were confirmed by WADDL on February 3, 2025. Both were adult deer from the Bishop area, within 5 miles of the first detection in this area. One, a small adult buck found dead of unknown causes, was noted to be skinny and the other, an adult female, was euthanized due to clinical signs suggestive of CWD. After another season of mandatory sampling in the CMZs, another sick deer in the town of Bishop was euthanized and confirmed with testing 2 weeks later in December of 2025 (Figure 2). To date, there have been 4 confirmed detections within the town of Bishop and 1 confirmed detection in Yosemite Lakes Park.

California's CWD Surveillance Strategy

Surveillance for CWD in California consists of testing postmortem samples taken from deer and elk from hunter harvests, roadkill, clinical suspects, and other mortality sources. For deer, fresh medial retropharyngeal lymph nodes (RPLN) are the preferred samples tested via enzyme-linked immunosorbent assay (ELISA). From elk, we request RPLN and obex (a specific region of the brainstem) fixed in formalin then tested via immunohistochemistry (IHC). Samples are sent to CDFW's Wildlife Health Laboratory (WHL) for processing and data recording in our lab information management system (LIMS). Samples are examined and if determined not to be RPLN or obex, that information is recorded and those samples are not sent for testing. RPLNs are bisected, half of each sent to the Washington Animal Disease Diagnostic Laboratory (WADDL) for testing, along with any formalin-fixed samples, and the other half saved at WHL for potential genetics and archives. During the hunting season, shipments to WHL and from WHL to WADDL were made weekly (Figure 3). The RPLNs that are sent to WADDL and considered not testable, due to inappropriate or insufficient sample, or are suspect via ELISA, are moved on to testing via IHC. Whenever feasible, the first incisor is taken for cementum annuli aging.

2025 Surveillance Synopsis

In 2025, CDFW and partners sampled 1,976 California native deer and elk for CWD testing. Surveillance efforts focused on deer (n = 1,866), only 5.62% of CWD sampling came from elk. Samples were from hunter-harvests (69.18%), roadkill (18.73%), clinical suspects (0.15%), and all other mortality sources (11.94%). Most (75.25%) were from bucks. Age estimates were recorded for 45.14% of the animals sampled (Table 1). Almost half (42.66%) of the samples in 2025 came from the four CMZs. Most samples from CMZs were from hunter-harvested deer (>85.88%) and 88.26% of those samples were from bucks (Table 2). The average turnaround time for test results from WADDL was 12 days (Figure 4).

Out of 1,976 samples collected in 2025, 78.09% were “Not Detected” via ELISA, 18.93% were moved on to IHC testing (because they were not testable or suspect via ELISA), and 2.99% were “Not Tested” because no lymphoid tissue was present in the sample. Of the 374 samples that were forwarded onto IHC testing, 306 were “Not Detected,” two (2) were confirmed CWD “Detected,” and 70 were unsuitable, unacceptable or had insufficient lymphoid follicle for testing. Thus, a total of two deer sampled in 2025 were CWD-positive and 130 (6.58%) were recorded as “Not Tested” (Table 3).

Summary and Discussion

California’s surveillance targets are to test 300 deer per Deer Sampling Unit (Figure 5) per sampling period (a calendar year). Annual testing targets were exceeded in the three DSUs, two of which contained CMZs with mandatory sampling rules in place (DSUs 4 and 5). Sampling goals were exceeded in DSU 3 (n = 478); however, nearly half of those samples were collected around Fort Hunter Liggett (FHL) in A South (Table 4). Sampling efforts were skewed heavily towards deer populations with tightly controlled hunts like FHL or where regulations required sampling of hunter-harvests. This clumped sampling, both within and between DSUs, may lead to gaps in our ability to detect CWD in new areas and monitor prevalence where CWD has been detected.

To date California’s CWD detections have only occurred in roadkill and clinical suspect animals in residential areas (Table 2) yet 69.23% of our samples statewide and over 85.88% of our samples from CMZs were from hunter harvested deer. This discrepancy in detections and sampling effort might make it difficult to detect CWD in residential deer at low prevalence and make it difficult to estimate a robust prevalence where CWD has been detected.

Hunter-harvested samples had the lowest proportion of “Not Tested” results at 4.17% whereas other sampling streams were between 11-13% due to poor sample quality or samples unidentifiable as lymph node (Table 1). This may be due to direction from the WHL that decomposing carcasses can be sampled and tested if an RPLN is identifiable. Where CWD occurs, analyses suggests that deer with clinical signs of CWD and deer killed by vehicle strike are more likely to be CWD positive than the average hunter harvested deer. Thus, these are high value samples for detecting CWD and, despite the increased likelihood of a “Not Tested” result due to sample quality, should still be sampled if a RPLN can be identified.

Current surveillance suggests that detections are likely localized and prevalence in these areas is low. CWD was detected in 0.09% of tested animals in D7 and 0.74% of tested animals in X9a-c during 2024 and 2025 surveillance. However, when examining the distribution of known harvests tested, the number of samples collected in each hunt zone, and whether any samples were collected in a hunt zone, it becomes clear that many areas remain under sampled. In these areas it is difficult to know the CWD status of deer and elk herds with certainty. This is why it’s important to not only vigilantly sample effected areas to assess prevalence but also sample areas where CWD has not yet been detected, ensuring greater confidence that the disease is absent from those regions as well.

Testing Timeline for Hunters

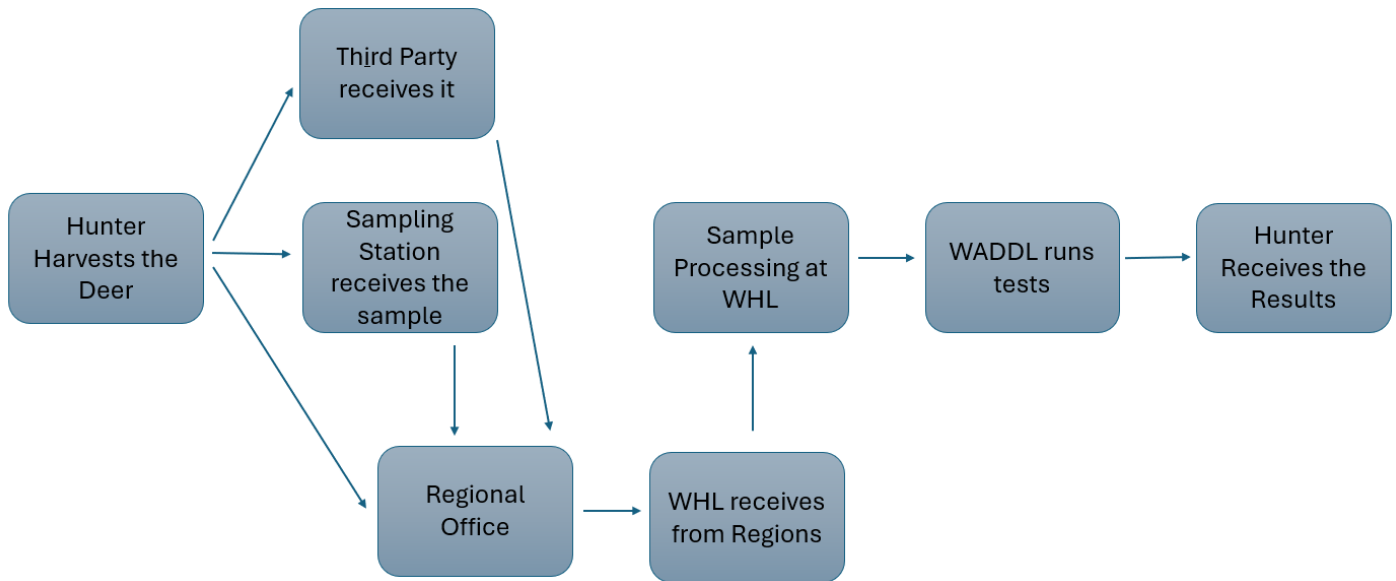


Figure 3: Diagram of journey a sample must take to be collected, transported, processed, and submitted for testing so a hunter can receive their results.

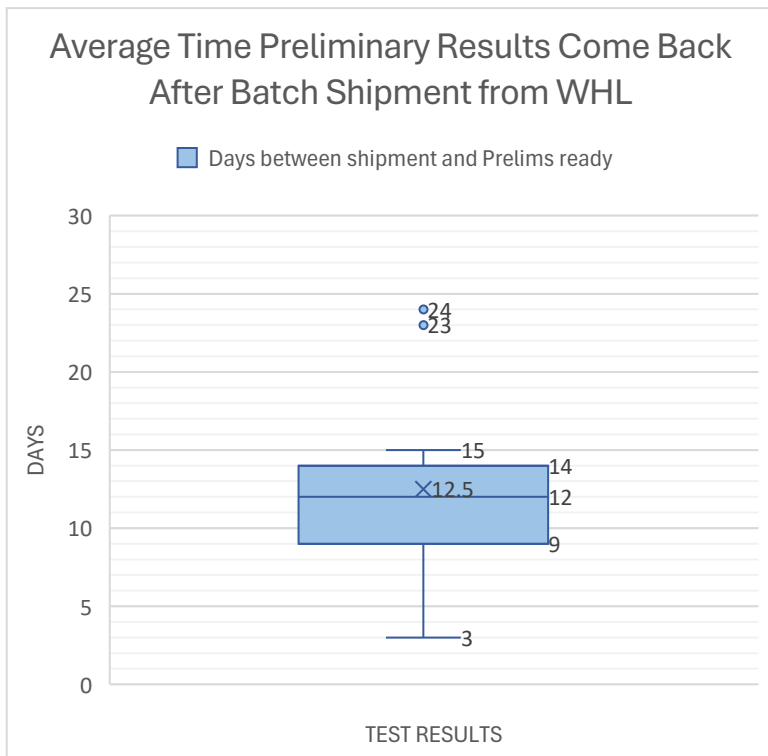


Figure 4: Box plot showing a median and interquartile range of how long it takes for results to return to the lab after shipping a batch to WADDL.



Figure 5: California's deer Disease Sampling Units (DSU).

| | Statewide 2025 | Hunter Harvest | Roadkill | Clinical | Other | Totals |
|-------------|----------------|----------------|----------|----------|-------|--------|
| Species | Native Deer | 1286 | 364 | 2 | 213 | 1865 |
| | Native Elk | 82 | 6 | 1 | 22 | 111 |
| | Other | 0 | 0 | 0 | 0 | 0 |
| | | | | | | 1976 |
| Sex | Male | 1229 | 163 | 0 | 95 | 1487 |
| | Female | 48 | 171 | 3 | 103 | 325 |
| | Unknown | 91 | 36 | 0 | 37 | 164 |
| | | | | | | 1976 |
| Age | Adult | 335 | 151 | 1 | 87 | 574 |
| | Sub-Adult | 291 | 156 | 1 | 62 | 510 |
| | Unknown | 742 | 63 | 1 | 86 | 892 |
| | | | | | | 1976 |
| Test Result | Not Detected | 1311 | 327 | 2 | 204 | 1844 |
| | Detected | 0 | 0 | 1 | 1 | 2 |
| | No Result | 57 | 43 | 0 | 30 | 130 |
| | Totals | 1368 | 370 | 3 | 235 | 1976 |

Table 1: Statewide sampling by sampling streams (Hunter Harvest, Roadkill, Clinical Suspect, and Other Mortalities) stratified into other variables such as species, sex, age, and test results.

| | CMZ | D7 | X9a | X9b | X9c | Totals |
|-------------|------------------|-----|-----|-----|-----|--------|
| Species | Native Deer | 563 | 184 | 52 | 41 | 840 |
| | Native Elk | 1 | 0 | 2 | 0 | 3 |
| | | | | | | 843 |
| Sample Type | Hunter Harvest | 530 | 120 | 41 | 33 | 724 |
| | Roadkill | 15 | 61 | 8 | 8 | 92 |
| | Clinical Suspect | 1 | 1 | 0 | 0 | 2 |
| | Other | 18 | 2 | 5 | 0 | 25 |
| | | | | | | 843 |
| Sex | Male | 523 | 140 | 43 | 38 | 744 |
| | Female | 18 | 34 | 8 | 3 | 64 |
| | Unknown | 23 | 10 | 3 | 0 | 36 |
| | | | | | | 843 |
| Age | Adult | 39 | 102 | 27 | 17 | 185 |
| | Sub-Adult | 69 | 59 | 18 | 18 | 164 |
| | Unknown | 456 | 23 | 9 | 6 | 494 |
| | | | | | | 843 |
| Test Result | Not Detected | 537 | 170 | 45 | 40 | 792 |
| | Detected | 0 | 1 | 1 | 0 | 2 |
| | No Result | 27 | 13 | 8 | 1 | 49 |
| | Totals | 564 | 184 | 54 | 41 | 843 |

Table 2: CMZ's (D7, X9a, X9b, and X9c) are categorized and broken down into variables species, sex, age, and test results.

*The 0 indicates that although no detection was found there in 2025, there is still a detection a sampled 2023 in D7 (n=1) and another was sampled in Bishop area intersecting X9a, X9b, and X9c in 2024 (n=2).

| Test Type | Definitive Result Established | No Result/ Insufficient samples that moved to IHC/ IHC only | Did not move on to IHC/ Not Tested due to improper sample | Total |
|-----------|-------------------------------|---|---|-------|
| ELISA | 1,543 | 374 | 59 | 1,976 |
| IHC | 308 | 70 | - | 378 |

Table 3: Diagnostic outcomes by test type. Samples were initially screened using ELISA. Samples with suspect results or inadequate tissue quality could be submitted for IHC confirmation or additional evaluation.

| Hunt Zone | ALL Sampled 2025 | Hunter Harvest Sampled 2025 | Roadkill Sampled 2025 | CWD Clinical Suspect 2025 | All Other Methods Sampled 2025 | Proportion of samples from Hunter Harvest | Deer | Elk | Male | Female | Unrecorded Sex | Positives Sampled in 2025 | All Positives Recorded in California |
|-------------------------|------------------|-----------------------------|-----------------------|---------------------------|--------------------------------|---|-------------|------------|-------------|------------|----------------|---------------------------|--------------------------------------|
| B1 | 37 | 23 | 6 | 0 | 8 | 62.16% | 31 | 6 | 25 | 10 | 2 | 0 | 0 |
| B2 | 28 | 25 | 3 | 0 | 0 | 89.29% | 28 | 0 | 19 | 0 | 9 | 0 | 0 |
| B3 | 6 | 4 | 2 | 0 | 0 | 66.67% | 6 | 0 | 5 | 0 | 1 | 0 | 0 |
| B5 | 18 | 9 | 2 | 0 | 7 | 50.00% | 18 | 0 | 10 | 6 | 2 | 0 | 0 |
| B6 | 48 | 19 | 7 | 0 | 22 | 39.58% | 46 | 2 | 26 | 12 | 10 | 0 | 0 |
| DSU 1 | 137 | 80 | 20 | 0 | 37 | 58.39% | 129 | 8 | 85 | 28 | 24 | 0 | 0 |
| C1 | 16 | 6 | 5 | 0 | 5 | 37.50% | 15 | 1 | 9 | 6 | 1 | 0 | 0 |
| C2 | 3 | 2 | 0 | 0 | 1 | 66.67% | 3 | 0 | 2 | 0 | 1 | 0 | 0 |
| C3 | 10 | 5 | 3 | 0 | 2 | 50.00% | 10 | 0 | 8 | 2 | 0 | 0 | 0 |
| C4 | 16 | 10 | 2 | 0 | 4 | 62.50% | 16 | 0 | 10 | 1 | 5 | 0 | 0 |
| X1 | 20 | 10 | 8 | 0 | 2 | 50.00% | 19 | 1 | 11 | 7 | 2 | 0 | 0 |
| X2 | 18 | 2 | 13 | 0 | 3 | 11.11% | 18 | 0 | 11 | 7 | 0 | 0 | 0 |
| X3a | 31 | 11 | 18 | 0 | 2 | 35.48% | 31 | 0 | 17 | 10 | 4 | 0 | 0 |
| X3b | 10 | 5 | 4 | 0 | 1 | 50.00% | 10 | 0 | 7 | 3 | 0 | 0 | 0 |
| X4 | 3 | 3 | 0 | 0 | 0 | 100.00% | 3 | 0 | 2 | 0 | 1 | 0 | 0 |
| X5a | 1 | 0 | 1 | 0 | 0 | 0.00% | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| X5b | 2 | 0 | 2 | 0 | 0 | 0.00% | 2 | 0 | 0 | 2 | 0 | 0 | 0 |
| X6a | 22 | 9 | 13 | 0 | 0 | 40.91% | 22 | 0 | 14 | 7 | 1 | 0 | 0 |
| X6b | 2 | 1 | 1 | 0 | 0 | 50.00% | 2 | 0 | 1 | 1 | 0 | 0 | 0 |
| X7a | 1 | 1 | 0 | 0 | 0 | 100.00% | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| X7b | 0 | 0 | 0 | 0 | 0 | 0.00% | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| X8 | 1 | 0 | 1 | 0 | 0 | 0.00% | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| DSU 2 | 156 | 65 | 71 | 0 | 20 | 41.67% | 154 | 2 | 93 | 48 | 15 | 0 | 0 |
| A North | 75 | 54 | 5 | 0 | 16 | 72.00% | 62 | 13 | 55 | 18 | 2 | 0 | 0 |
| A South | 387 | 269 | 85 | 1 | 32 | 69.51% | 312 | 75 | 267 | 70 | 50 | 0 | 0 |
| B4 | 1 | 1 | 0 | 0 | 0 | 100.00% | 1 | 0 | 1 | 18 | 0 | 0 | 0 |
| D13 | 16 | 13 | 3 | 0 | 0 | 81.25% | 16 | 0 | 14 | 18 | 0 | 0 | 0 |
| DSU3 | 479 | 337 | 93 | 1 | 48 | 70.35% | 391 | 88 | 337 | 124 | 52 | 0 | 0 |
| D3 | 13 | 12 | 1 | 0 | 0 | 92.31% | 13 | 0 | 11 | 2 | 0 | 0 | 0 |
| D4 | 20 | 9 | 6 | 0 | 5 | 45.00% | 19 | 1 | 15 | 4 | 1 | 0 | 0 |
| D5 | 50 | 30 | 14 | 0 | 6 | 60.00% | 50 | 0 | 34 | 11 | 5 | 0 | 0 |
| D6 | 48 | 31 | 7 | 0 | 10 | 64.58% | 48 | 0 | 35 | 8 | 5 | 0 | 0 |
| D7 | 565 | 530 | 15 | 1 | 19 | 93.81% | 564 | 1 | 523 | 19 | 23 | 0 | 1 |
| DSU 4 | 695 | 612 | 43 | 1 | 39 | 88.93% | 693 | 2 | 618 | 44 | 34 | 0 | 1 |
| D8 | 58 | 46 | 4 | 0 | 8 | 79.31% | 53 | 5 | 46 | 6 | 6 | 0 | 0 |
| D9 | 14 | 7 | 6 | 0 | 1 | 50.00% | 14 | 0 | 9 | 2 | 3 | 0 | 0 |
| D10 | 21 | 1 | 10 | 0 | 10 | 4.76% | 21 | 0 | 14 | 7 | 0 | 0 | 0 |
| D11 | 3 | 1 | 0 | 0 | 2 | 33.33% | 3 | 0 | 1 | 2 | 0 | 0 | 0 |
| D12 | 1 | 1 | 0 | 0 | 0 | 100.00% | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| D14 | 16 | 2 | 8 | 0 | 6 | 12.50% | 16 | 0 | 7 | 8 | 1 | 0 | 0 |
| D15 | 54 | 0 | 7 | 0 | 47 | 0.00% | 54 | 0 | 21 | 23 | 10 | 0 | 0 |
| D16 | 10 | 3 | 5 | 0 | 2 | 30.00% | 10 | 0 | 5 | 5 | 0 | 0 | 0 |
| D17 | 1 | 0 | 1 | 0 | 0 | 0.00% | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| D19 | 2 | 2 | 0 | 0 | 0 | 100.00% | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| X9a | 184 | 120 | 61 | 1 | 2 | 65.22% | 184 | 0 | 140 | 34 | 10 | 1 | 2 |
| X9b | 54 | 41 | 8 | 0 | 5 | 75.93% | 52 | 2 | 43 | 8 | 3 | 1 | 1 |
| X9c | 41 | 33 | 4 | 0 | 0 | 80.49% | 41 | 0 | 38 | 3 | 0 | 0 | 0 |
| X10 | 4 | 4 | 4 | 0 | 0 | 100.00% | 4 | 0 | 4 | 0 | 0 | 0 | 0 |
| X12 | 38 | 12 | 4 | 0 | 3 | 31.58% | 37 | 1 | 22 | 12 | 4 | 0 | 0 |
| DSU5 | 501 | 273 | 122 | 1 | 86 | 54.49% | 493 | 8 | 352 | 111 | 38 | 2 | 3 |
| Unknown or Out of state | 8 | 0 | 2 | 0 | 5 | 0.00% | 5 | 3 | 2 | 5 | 1 | 0 | 0 |
| Totals | 1976 | 1367 | 351 | 3 | 235 | 69.18% | 1865 | 111 | 1487 | 359 | 164 | 2 | 5 |

Table 4: Sampling streams, such as hunter harvests, are recorded to understand the origins of the samples. Hunter harvest is typically the most effective stream for CWD sample collection and is compared with reported harvest data in the ALDS to identify opportunities for improving future sample collection.