

State of California
Fish and Game Commission
Finding of Emergency and Statement of Proposed Emergency Regulatory Action

Emergency Action to Amend Section 708.5
Title 14, California Code of Regulations
Re: Testing for Chronic Wasting Disease

Date of Statement: May 24, 2024

I. Statement of Facts Constituting the Need for Emergency Regulatory Action

Background

On May 6, 2024, chronic wasting disease (CWD) was confirmed in two California deer populations for the first time. Diseases can have significant long-term effects on native wildlife populations, especially novel diseases, and CWD is the most significant disease affecting cervids (deer, elk, moose, caribou) in North America. To determine the prevalence and geographic distribution of CWD, and better inform future management decisions, the California Department of Fish and Wildlife (Department) recommends that new regulations be adopted requiring that deer hunters in affected hunt zones submit appropriate samples from their harvest for CWD testing.

Chronic wasting disease is caused by a misfolded, infectious protein called a prion. These prions concentrate in the central nervous system of an infected animal, but can be found in most tissues, secretions, and excretions including muscles (meat), lymphatics, blood, glandular fluids, saliva, feces, and urine, respectively. The disease is always fatal, there is no vaccine or treatment, and all cervid species native to North America – deer, elk, moose, and caribou – are susceptible. Despite efforts to manage and contain the disease, it has continued to spread (Figure 1) due to prion ecology, limited management options, and anthropogenic movement of infectious animals or materials. Prions are extremely stable in the environment, remain infective for years to decades, and shed by infected animals long before they show any signs of disease. This can lead to seeding of the environment with infectious prions, an important factor in the spread and maintenance of CWD, before any diseased animals are seen on the landscape. Once established in an area, eradication of CWD has proven to be infeasible if not impossible.

Managing CWD now that it has been detected in California will require changes to how the Department manages deer and elk. As CWD prevalence increases in a population, population growth rates (λ) can decrease and lead to population declines. Human dimensions research suggests that hunter participation may decrease in areas where CWD has been detected, particularly as CWD prevalence increases in a population. Decreasing hunter participation and tag sales, coupled with increasing costs to manage this disease could compound and significantly affect the Department's ability to manage CWD, deer, elk, and other species in California.

While CWD has never been linked to any human diseases, significant public health concerns remain due to many unknowns when it comes to prion diseases. For instance, increasingly sophisticated diagnostic and molecular assays have shown that there are multiple strains of

CWD and that CWD prions can differentiate when passed through multiple hosts, creating new strains with altered host susceptibilities and disease characteristics. Indeed, the predominant CWD prion strain in Norway is different than the predominant strain in North America, with different characteristics. Additionally, CWD is in the same class of diseases as bovine spongiform encephalopathy (aka BSE or Mad Cow Disease), a prion disease of cows that was linked to variant Creutzfeldt-Jakob disease (vCJD), a neurodegenerative disease in people, through the consumption of BSE-tainted meat. Public health officials remain cautious when it comes to prion disease, recommending individuals and agencies do whatever possible to keep the agents of all known prion diseases from entering the human food chain.

The Department has been monitoring California deer and elk populations for CWD since 2000, testing over 6,500 deer and elk, and has been working to increase surveillance efforts with the voluntary help of hunters, taxidermists, and meat processors since 2018. Tests are done on postmortem samples and the majority of those come from hunter-harvested deer and elk, though we are only sampling and testing a small proportion of the deer and elk harvested in California. The first response action, following communication of the detections, is to enhance surveillance in the areas of the detections to determine the prevalence of CWD in the affected populations and the geographic extent of the infections. Hunter-harvested deer from the affected hunt zones is by far the most scalable and accessible source of samples for CWD testing. The Department will also increase its response to and sampling of other mortality sources or take. Enhanced surveillance in the affected populations is the necessary first step to providing better information to hunters, partners, and decision makers following these first detections of CWD in California. Knowing the prevalence and geographic extent will allow the Department to make informed decisions on CWD and deer management where CWD is detected.

II. Proposed Emergency Regulations

This rulemaking will make the following changes:

Section 708.5

Subsection (e)

Adds a new subsection defining the CWD Management Zone (CMZ) for purposes of implementing mandatory deer sampling, based on deer hunt zones where CWD has been detected in deer (Figure 1). This is necessary to enhance CWD sampling and testing in the area where CWD has been detected to both inform management recommendation and hunters, partners, and decision makers to better protect the affected deer populations. .

Subsection (f)

Adds a new subsection that requires hunters who take a deer within a CMZ to provide the Department with samples for CWD testing. This subsection also prescribes the permissible methods for hunters to provide the Department with samples. Mandatory sampling of hunter-harvested deer in affected zones is necessary, at least initially, for the Department to obtain sufficient information, using safe and reliable methods, to determine the prevalence and geographic extent of CWD where recent detections in deer have occurred, for the purpose of monitoring the spread of CWD and providing information to hunters, partners, and decision-makers.

Subsection (g)

Adds a new subsection establishing the minimum amount of information that hunters subject to subsection (f) must provide the Department to accompany CWD samples. This is necessary to ensure that the Department obtains essential information for monitoring the spread of CWD, such as the geographic location of the take, and to ensure the Department can contact hunters if CWD is detected in their harvest.

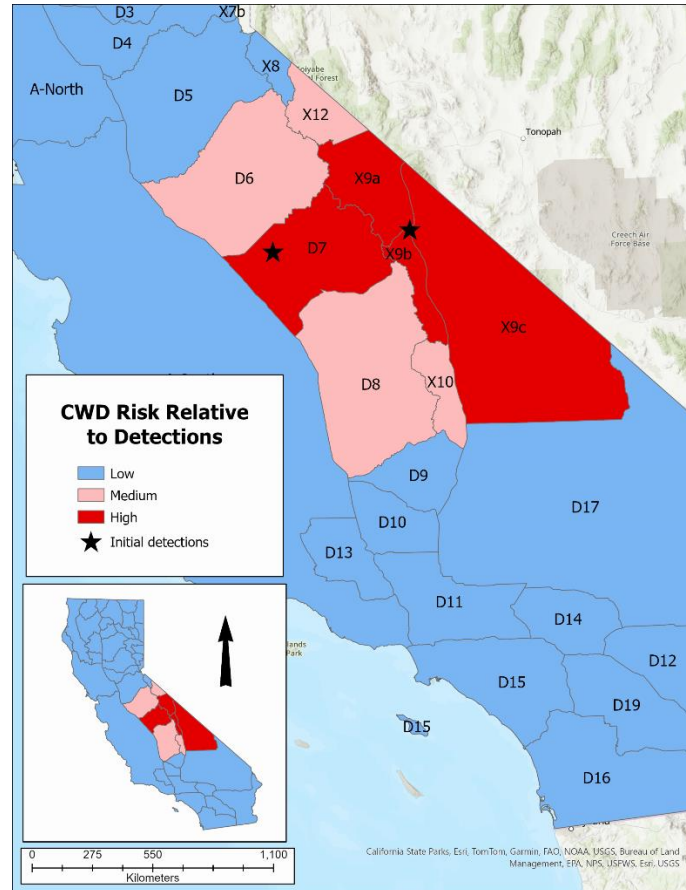


Figure 1: California’s deer hunt zones and recent CWD detections (stars) in deer. The red hunt zones are considered highest risk for having additional CWD-positive deer based on locations of the two detections and are the four hunt zones where mandatory testing would be required following this rule making. The pink hunt zones are adjacent zones with predicted medium risk of having additional CWD-positive deer.

III. Findings for the Existence of an Emergency

The Commission considered the following factors in determining that an emergency does exist at this time.

The magnitude of potential harm:

If the Department does not actively manage CWD, the implications for California’s hunting and outdoor recreation economies, as well as costs to the state’s wildlife resource management programs could be significant. Costs to manage cervids with CWD could increase precipitously (potentially as much as 8-fold in the long term), while hunter participation may decline. We first need to know the prevalence and geographic distribution of this outbreak to better advise and implement effective management strategies and any future regulatory changes. This emergency regulation is focused on increasing the number of hunter-harvested deer sampled

and tested from the affected areas. In other states that have taken similar measures, mandatory CWD testing in one or more hunting zones significantly and consistently increases CWD sample numbers and power to make informed management decisions. The data gleaned from augmented hunter sampling will be coupled with information from enhancing other sampling streams, but these other methods may take some time to implement.

The existence of a crisis situation:

CWD is the most significant disease of management concern for deer and elk in North America. The Department has worked to enhance CWD surveillance for over 6 years and has not been able to attain levels sufficient to estimate prevalence or geographic extent; the sampling strategy was developed to detect a rare event and not to determine the scope of that rare event. To determine the scope of this outbreak, more intensive sampling and testing is required. Additionally, because of the unknown risk to humans, testing as many hunter harvested deer and elk as possible and informing those hunters of the test results is a vital part of providing appropriate hunting opportunities and information for hunters to make informed decisions about their harvest, including consumption of their harvest. The World Health Organisation (WHO) and the Centers for Disease Control and Prevention (CDC) advise that keeping known sources of infectious prions (like CWD) out of the human food chain is critical. Requiring testing of harvested animals from affected hunt zones will better allow the Department to 1) determine the prevalence and geographic extent of the outbreak and 2) provide meaningful, potentially actionable, information to hunters.

The immediacy of the need:

Understanding the extent and prevalence of CWD is essential to inform hunters this 2024 hunting season and to provide vital information for management decisions that must be made in short order. The longer we wait, the more CWD-positive animals go undetected and potentially consumed by hunters that may have otherwise chosen to avoid consuming their harvest. Once a detection is made, it has usually already been in a population for years and delaying action only hampers potential positive management, which has already been delayed because of the difficulties in detecting these initial outbreaks.

Whether the anticipation of harm has a basis firmer than simple speculation:

Unmanaged CWD will have negative effects on deer and elk populations as shown by multiple peer-reviewed scientific publications for states and Canadian provinces that have had CWD for decades, as well as economic consequences for the state. A lack of understanding of the extent and prevalence of CWD also conceals the risks to humans and makes it harder to take measures to constrain its spread and limit CWD's entry into the food chain.

IV. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

(a) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State

The Department anticipates that the proposed emergency action will require additional expenditures of approximately \$543,233 to implement the proposed emergency CWD testing program (see STD. 399 and addendum). No other state agencies are anticipated to be affected by the proposed emergency regulatory action.

(b) Nondiscretionary Costs/Savings to Local Agencies: None.

(c) Programs Mandated on Local Agencies or School Districts: None.

(d) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code: None.

(e) Effect on Housing Costs: None.

V. Technical, Theoretical, and/or Empirical Studies, Reports, or Documents Relied Upon:

- Conner, M. M., M. E. Wood, A. Hubbs, J. Binfet, A. A. Holland, L. R. Meduna, A. Roug, J. P. Runge, T. D. Nordeen, M. J. Pybus, and M. W. Miller. 2021. The Relationship Between Harvest Management and Chronic Wasting Disease Prevalence Trends in Western Mule Deer. *Journal of Wildlife Diseases* 57:831–843. <http://meridian.allenpress.com/jwd/article-pdf/57/4/831/2933831/i0090-3558-57-4-831.pdf>
- Gillin, C., and J. Mawdsley. 2018. AFWA Technical Report on Best Management Practices for Surveillance, Management and Control of Chronic Wasting Disease. Association of Fish and Wildlife Agencies. Washington, DC. https://fishwildlife.org/application/files/9615/3729/1513/AFWA_Technical_Report_on_CWD_BMPs_FINAL.pdf
- Miller, M. W., and J. R. Fischer. 2016. The First Five (or More) Decades of Chronic Wasting Disease: Lessons for the Five Decades to Come. *Transactions of the North American Wildlife and Natural Resources Conference* 1–12. https://cwd-info.org/wp-content/uploads/2018/12/81st-NAWNRC-Transactions_FINAL-CWD-Excerpt.pdf
- Miller, M. W., J. P. Runge, A. Andrew Holland, and M. D. Eckert. 2020. Hunting pressure modulates prion infection risk in mule deer herds. *Journal of Wildlife Diseases* 56:781–790. <http://meridian.allenpress.com/jwd/article-pdf/56/4/781/2622096/jwd-d-20-00054.pdf>.
- Munk, B. A., N. Shirkey, M. Moriarty, L. Hansen, and L. Wood. *In Prep*. California's Chronic Wasting Disease Management Plan. Wildlife Health Lab, California Department of Fish and Wildlife, Rancho Cordova, California, USA.
- Chiavacci, S. J. 2022. The economic costs of chronic wasting disease in the United States. *PLoS One* 17: e0278366. <https://doi.org/10.1371/journal.pone.0278366>
- Numerous other states' CWD management plans accessible online through each state agency's website, including but not limited to, New York, Montana, Idaho, and Washington.

VI. Authority and Reference

Authority cited: Sections 200, 203, 265 and 1050, Fish and Game Code. Reference: Sections 1050 and 4336, Fish and Game Code.

VII. Fish and Game Code Section 399 Finding

CWD is the most significant disease of management concern for deer and elk in North America. To determine the scope of this outbreak, more intensive sampling and testing is required in the affected deer populations. Requiring hunters to submit samples from deer harvested in these affected hunt zones will better allow the Department to 1) determine the prevalence and geographic extent of the outbreak and 2) provide meaningful, potentially actionable, information to hunters and decision makers. We need to know what we have and where we have it. The Department manages a website (wildlife.ca.gov/CWD) where hunters who submit a sample for CWD testing can check the testing status of their harvest. Additionally, the Department will contact hunters directly if CWD is detected in their harvest. Those efforts are to keep hunters informed so they can make the most informed decisions about their harvest. Enhanced sampling and testing in affected areas will provide vital information for future CWD and deer management decisions. Pursuant to Section 399 of the Fish and Game Code, the Commission finds that adopting this regulation is necessary for the immediate conservation, preservation, or protection of deer and elk populations, and to help screen toward the protection of the public health of the hunters and humans who rely on deer meat for sustenance.

Informative Digest/Policy Statement Overview

Unless otherwise specified, all section references in this document are to Title 14 of the California Code of Regulations (CCR).

On May 6, 2024, chronic wasting disease (CWD) was confirmed in two California deer populations for the first time. CWD is the most significant disease affecting cervids in North America and poses long-term risks to wildlife populations. To assess the prevalence and distribution of CWD, the California Department of Fish and Wildlife (Department) recommends new regulations requiring deer hunters in affected zones to submit samples from their harvests for CWD testing. This measure aims to gather data that will inform future management decisions and help limit the spread of this disease.

CWD is caused by prions, misfolded infectious proteins that are highly stable and can remain infective for years in the environment. These prions concentrate in the central nervous system but can be found in most tissues and bodily fluids of infected animals. CWD is always fatal, and there are no known vaccines or treatments. The disease is transmitted through direct contact with infected animals and contaminated environments. The movement of infected animals or materials can spread the disease to new areas and contaminated environments maintain the disease once established in an area. Indeed, once CWD is established in an area, it is infeasible if not impossible to eradicate. The stability and longevity of prions in the environment make early detection and ongoing surveillance crucial for managing the disease.

Managing CWD in California will require changes in how the Department manages deer and elk populations. As CWD prevalence increases, it can lead to population declines and decreased hunter participation, impacting conservation funding from hunting licenses. While CWD has not been linked to human disease, given the nature of prion diseases and the history of mad cow disease, public health concerns may exist and should be a concern. Enhanced surveillance and increased testing of hunter-harvested deer are essential first steps. This will provide better data on the prevalence and geographic spread of CWD, allowing the Department to make informed management decisions and communicate effectively with hunters, partners, and the public.

The proposed changes are as follows:

Adds a new subsection defining the CWD Management Zone (CMZ) for purposes of implementing mandatory deer sampling, based on deer hunt zones where CWD has been detected in deer. This is necessary to enhance CWD sampling and testing in the area where CWD has been detected to both inform management recommendation and hunters, partners, and decision makers to better protect the affected deer populations.

Add Section 708.5(f): Hunters who harvest a deer within a CMZ are required to submit the retropharyngeal lymph nodes or the head of the deer for CWD testing within 10 days. Hunters can fulfill this requirement by taking the deer or its head to a California CWD sampling station, a participating meat processor, or taxidermist. Alternatively, hunters can self-sample their deer and submit the retropharyngeal lymph nodes to a sampling station. The Department provides a guide and data card for self-sampling on their website.

Add Section 708.5(g): Hunters must provide their name, GOID, deer tag or document number, and the harvest location (preferably GPS coordinates) when submitting samples.

Benefit of the Regulations:

The Commission anticipates benefits to the State's environment, in addition to those screening actions the Department is already taking, by taking this regulatory step to require testing of harvested animals from affected hunt zones. This regulatory action aims to help determine the prevalence and geographic extent of the outbreak for Department staff to provide updates to hunters. It is imperative to understand the prevalence and geographic distribution of this outbreak to better advise and implement effective management strategies. Further, given the potential implications for California's hunting and outdoor recreation economies, and for public consumption, tracking positive detections is necessary to keep known sources of infectious prions, e.g. CWD, out of the human food chain.

Consistency and Compatibility with Existing Regulations:

Section 20, Article IV, of the state Constitution specifies that the Legislature may delegate to the Commission such powers relating to the protection and propagation of fish and game as the Legislature sees fit. The Legislature has delegated to the Commission the power to adopt regulations governing big game hunting and population management (California Fish and Game Code sections 200, 203, 265, 1050, and 4336). No other state agency has the authority to adopt regulations governing big game hunting and population management. The Commission has reviewed its own regulations and finds that the proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Commission has searched the CCR for any regulations regarding the adoption of big game hunting and population management regulations; therefore, the Commission has concluded that the proposed regulations are neither inconsistent nor incompatible with existing state regulations.