Chronic Wasting Disease Program Standards

July 2012
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Introduction

These Program Standards will be reviewed at least annually by representatives of the cervid industry and appropriate State and Federal agencies. A notice may be published in the Federal Register to inform stakeholders of any revisions APHIS plans to the Program Standards. These Program Standards also may be amended in the future by replacing pages or by adding new pages.

Part A. Herd Certification Program

These Program Standards are the minimum standards adopted and approved by the Deputy Administrator, Veterinary Services (VS), Animal and Plant Health Inspection Service (APHIS), United States Department of Agriculture (USDA). They were established for three primary purposes:

1. To assist Federal and State agencies in maintaining CWD-certified herds of deer, elk, and moose (all *Odocoileus* spp. and *Cervus* spp. and their hybrids and *Alces alces*).

2. To provide guidance on procedures to certify herds as a low risk for CWD by remaining in continuous compliance with the CWD Herd Certification Program requirements found in 9 CFR Part 55.

3. To provide guidance on complying with the minimum requirements for interstate movement of cervids found in 9 CFR Part 81.

Part B. Guidance on Response to CWD-Affected Herds

The CWD regulations at 9 CFR part 55 describe minimum requirements in response to the finding of a CWD-affected herd in accordance with the national CWD HCP. This section further provides suggested best management practices that may be used by a State and herd owner to investigate and manage CWD-affected herds, including quarantine, depopulation, cleaning and decontamination, and herd plans.
Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Accredited Veterinarian</td>
<td>A veterinarian approved by the Administrator in accordance with Part 161 of this chapter to perform functions specified in subchapters B, C, and D of this chapter.</td>
</tr>
<tr>
<td>Administrator</td>
<td>The Administrator of APHIS or any employee of APHIS who is authorized to act for the Administrator.</td>
</tr>
<tr>
<td>Animal</td>
<td>Any farmed or captive deer, elk, or moose.</td>
</tr>
<tr>
<td>APHIS Employee</td>
<td>Any individual employed by the Animal and Plant Health Inspection Service who is authorized by the Administrator to do any work or perform any duty in connection with the control and eradication of disease.</td>
</tr>
<tr>
<td>Animal Status</td>
<td>See Program Animal Status</td>
</tr>
<tr>
<td>Approved CWD State</td>
<td>A State that the Administrator has determined has an Approved State CWD Herd Certification Program.</td>
</tr>
<tr>
<td>Approved CWD State Herd Certification Program</td>
<td>A program operated by a State government for certification of cervid herds with respect to CWD that the Administrator has determined to meet the requirements of 9 CFR Part 55.</td>
</tr>
<tr>
<td>Approved Laboratory</td>
<td>A diagnostic laboratory approved by the Administrator to conduct official tests for CWD in accordance with 9 CFR 55.8.</td>
</tr>
<tr>
<td>Area Veterinarian in Charge (AVIC)</td>
<td>The APHIS veterinary official assigned by the Administrator to supervise and perform the official APHIS animal health work in the State concerned.</td>
</tr>
<tr>
<td>Certified Herd</td>
<td>A herd that has attained certified status as defined in these Program Standards.</td>
</tr>
<tr>
<td>Certified CWD Sample Collector</td>
<td>An individual who has completed appropriate training recognized by his or her State on the collection and preservation of samples for CWD testing and on proper recordkeeping, and who has been certified to perform these activities by his or her State regulatory authority for farmed and captive cervids.</td>
</tr>
<tr>
<td>Cervid</td>
<td>All members of the Cervidae family and hybrids including deer, elk, moose, caribou, reindeer, and related species.</td>
</tr>
<tr>
<td>Chronic Wasting Disease, (CWD)</td>
<td>A transmissible spongiform encephalopathy of cervids.</td>
</tr>
<tr>
<td>Commingled, commingling</td>
<td>Farmed cervids are commingled if they are housed or penned together having direct physical contact with each other, have less than 10 feet of physical separation (except in cases of “limited contact”; see definition) or any activity where uninhibited contact occurs such as sharing an enclosure, a section of a transport vehicle, or sharing equipment, pens or stalls, pasture, or water sources/watershed (i.e., housed in a pen that receives runoff or shares a natural or manmade body of water with another pen). Commingling includes contact with bodily fluids or excrement from other farmed animals. Farmed cervids commingled with other farmed cervids assume the status of the lowest program status animal in the group.</td>
</tr>
<tr>
<td>CWD National Database</td>
<td>A database administered by APHIS or a State database approved by the Administrator as compatible with a CWD National Database for the CWD program.</td>
</tr>
<tr>
<td>CWD-Exposed Animal</td>
<td>An animal that is part of a CWD-positive herd, or that has been commingled with a CWD-positive animal or resided on contaminated premises within the 5 years before diagnosis.</td>
</tr>
<tr>
<td>CWD-Exposed Herd</td>
<td>A herd in which a CWD-positive animal has resided within 5 years before that animal’s diagnosis as CWD positive, as determined by an APHIS employee or State official.</td>
</tr>
<tr>
<td>CWD-Positive Animal</td>
<td>An animal that has had a diagnosis of CWD established through official, confirmatory CWD testing conducted by the National Veterinary Services Laboratories (NVSL).</td>
</tr>
<tr>
<td>CWD-Positive Herd</td>
<td>A herd in which a CWD-positive animal resided at the time it was diagnosed.</td>
</tr>
<tr>
<td>CWD Source Herd</td>
<td>A herd identified through testing, tracebacks, or epidemiological evaluations to be the source of CWD-positive animals identified in other herds.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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## Chronic Wasting Disease—Program Standards

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<tr>
<th>Term</th>
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<tr>
<td><strong>Limited Contact</strong></td>
<td>Any brief contact with a farmed animal such as occurs in sale or show rings and alleyways at fairs, livestock auctions, sales, shows, and exhibitions. Limited contact does not include penned animals having less than 10 feet of physical separation or contact through a fence, or any activity where uninhibited contact occurs such as sharing an enclosure, a section of a transport vehicle, sharing equipment, food, or water sources, or contact with bodily fluids or excrement. Pens at fairs, livestock auctions, sales, shows, and exhibitions must be thoroughly cleaned and all organic material removed after use and before holding another animal.</td>
</tr>
<tr>
<td>National Veterinary Services Laboratories (NVSL)</td>
<td>The USDA APHIS National Veterinary Services Laboratories.</td>
</tr>
<tr>
<td><strong>Noncompliant Herd</strong></td>
<td>Any source, suspect, exposed, or positive herd whose owner declines to enter into a herd plan agreement within 60 days of being so designated or whose owner is not in compliance with an existing herd plan agreement; any herd whose owner has misrepresented, or who employs a person who has misrepresented, the herd status of an animal or any other information on a certificate, permit, owner statement, or other official document within the last 5 years; or any herd whose owner or manager has moved, or who employs a person who has moved, an animal in violation of 9 CFR Parts 55 or 81 within the last 5 years.</td>
</tr>
</tbody>
</table>
| **Official Animal Identification**         | A device or means of animal identification approved by APHIS for use in the Certification Program to uniquely identify individual animals. The official animal identification must include a nationally unique animal identification number that adheres to one of the following numbering systems:  
(1) National Uniform Ear Tagging System.  
(2) Animal Identification Number (AIN).  
(3) Premises-based number system using a Premises Identification Number (PIN) in conjunction with a livestock production numbering system.  
(4) Any other numbering system approved by the Administrator for the identification of animals in commerce.  |
<p>| <strong>Official CWD Test</strong>                      | A program-approved test method for CWD diagnosis that is approved by the Administrator in accordance with 9 CFR 55.8 and conducted at the NVSL, an APHIS-approved laboratory, or another laboratory to which NVSL has referred a case for confirmatory testing. Certain CWD test methods, such as enzyme-linked immunosorbent assay (ELISA) tests, also may require Center for Veterinary Biologics licensure to be used as official CWD tests. |
| <strong>Owner</strong>                                 | An individual, partnership, company, corporation, or other legal entity that has legal or rightful title to an animal or herd of animals.                                                                                                                                                                                                     |
| <strong>Premises</strong>                              | The ground, area, buildings, water sources, and equipment commonly shared by a herd of animals.                                                                                                                                                                                                                                           |
| <strong>Premises Identification Number</strong>        | A unique number consistent with official animal identification as set forth in USDA’s Animal Disease Traceability framework, used to identify the premises on which a herd resides. This number is recorded in the CWD national database.                                                                                                                                                   |
| <strong>Premises Plan</strong>                         | The section of a herd plan which outlines actions to be taken with regard to possible environmental contamination due to a CWD-positive or exposed herd.                                                                                                                                                                                         |
| <strong>Presumptive Positive Diagnostic Test</strong>  | The result of a CWD laboratory test conducted at an approved laboratory that may be interpreted as positive but that must be confirmed positive by NVSL.                                                                                                             |
| <strong>Program Animal Status</strong>                 | The status of an animal assigned under the Herd Certification Program indicating the animal’s relative risk for CWD. An animal’s status is equivalent to the status of the herd in which that individual animal resides.                                                                                                      |
| <strong>Program Herd Status</strong>                   | The status of a herd assigned under the Herd Certification Program indicating a herd’s relative risk for CWD.                                                                                                                                                                                                                   |
| <strong>Quarantine</strong>                            | An order issued by a State prohibiting movement of animals from or into a premises for a given period of time.                                                                                                                                                                                                                         |
| <strong>Research Animal</strong>                       | An animal held captive for research purposes.                                                                                                                                                                                                                                                                                        |</p>
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<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>SCS- Core One</td>
<td>Surveillance Collaboration Services – Core One is a module of the VS Comprehensive and Integrated Animal Health Surveillance System. SCS –Core One supports routine animal health surveillance and program management under the purview of the VS National Center for Animal Health Programs (VS NCAHP) and the National Surveillance Unit (NSU).</td>
</tr>
<tr>
<td>State</td>
<td>Each of the 50 States, the District of Columbia, Puerto Rico, and all territories or possessions of the United States.</td>
</tr>
<tr>
<td>State Official</td>
<td>An individual employed in livestock animal health or wildlife activities by a State or a political subdivision of a State who is authorized by the State or political subdivision to perform the activities involved.</td>
</tr>
<tr>
<td>State Veterinarian</td>
<td>The veterinary official of a State authorized by the State to supervise and perform the official animal health work of the State concerned.</td>
</tr>
<tr>
<td>Status Date</td>
<td>The day, month, and year on which the respective State or APHIS official approves a change in the status of a herd in regard to CWD.</td>
</tr>
<tr>
<td>Trace-back Herd</td>
<td>A herd in which a CWD-positive animal formerly resided, or a herd being investigated from which animals were purchased and added to the CWD-infected herd in which the CWD-positive animal was a natural addition.</td>
</tr>
<tr>
<td>Trace-Forward Herd</td>
<td>A herd that has received exposed animals from a CWD-positive herd within 60 months before the diagnosis of CWD in the positive herd or from the identified point of entry of CWD into the positive herd.</td>
</tr>
<tr>
<td>Unapproved CWD State</td>
<td>Any State other than an Approved State including a State having a CWD Herd Certification Program that does not meet minimum standards of the national CWD Herd Certification Program, or a State without a CWD Herd Certification Program.</td>
</tr>
<tr>
<td>Veterinary Services, (VS)</td>
<td>The APHIS unit authorized to conduct prevention, control, and eradication programs for diseases of livestock and poultry.</td>
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Part A. Herd Certification Program

(1) Administrative Procedures

The CWD Herd Certification Program (HCP) is a cooperative effort between APHIS, State animal health or wildlife agencies, and farmed/captive deer, elk, or moose owners. Under the program, APHIS reviews State CWD HCPs and approves the programs if they meet Federal standards, monitors them to ensure consistency with Federal standards, and administers the national CWD HCP, subject to the availability of appropriated funds, in States that do not have an approved State CWD HCP.

APHIS will execute a Memorandum of Understanding with States having an approved CWD HCP.

(1.1) Supervision

Routine supervision is provided by full-time State officials or APHIS employees.

(1.2) Entering Premises

In accordance with the MOU, persons working in the program must be authorized by the State to enter premises to carry out program activities. While on those premises, they must use standard sanitary procedures to minimize the risk of disease transmission to other premises.

(1.3) Providing Services

Owners may need to engage accredited veterinarians or other appropriate animal health professionals to perform program activities at the owner’s expense.

Owners are responsible for assembling, handling, and restraining their animals.

If resources are available, program services may be rendered by State and Federal agencies without expense to the herd owner.

(1.4) Reporting Activities

All CWD activities shall be reported as directed in the Program Standards.

(1.5) Designated Epidemiologist

A State official or Federal employee (where applicable) with epidemiology training or experience to: 1) make decisions about the use of CWD diagnostic test results; 2) participate in field epidemiologic investigations; 3) to manage CWD-infected herds; and 4) ensure data quality and accuracy for the CWD program in his or her State or Area.

In each State, a designated epidemiologist may be selected jointly by the State animal health official and the APHIS AVIC. Only persons with the requisite epidemiology training or experience should be selected.
(1.6) **Designated CWD HCP Coordinator**

The State has designated at least one State animal health official, or has worked with APHIS to designate an APHIS official, to coordinate CWD HCP activities in the State in accordance with 9 CFR 55.23.

(1.7) **Review of Approved State HCP Progress**

APHIS may periodically review an approved State’s CWD program. Objectives of the review include:

1. Evaluate program activities to verify Approved State status.
2. Identify and provide guidance on State problems in complying with Federal requirements.
3. Review farmed cervid surveillance activities and enrolled herd owner compliance.
4. Review records and documents on enrolled herds, including laboratory reports and herd inventories.
5. Review epidemiological reports submitted by the State designated epidemiologist to the Regional Epidemiologist and national CWD program manager.
6. Assess compliance and completeness with data entered into the national CWD database or equivalent State database.
7. Review educational and outreach efforts to producers.
8. Evaluate personnel and other resource needs.
9. Conduct site visits in accordance with VS Guidance 5509.1.

(1.8) **Selection of States for Approved State HCP Review**

CWD Regional Epidemiologists, with input from Area and Regional leadership and national program staff, will consider States with compliance or program consistency issues, States with varying sizes of cervid industry, Regional balance (selecting States from each Region), and review intervals (at least once every 5 years).

(1.9) **Approved State Review Report**

APHIS will give a State Review report to the Approved State that will include the findings of the review, and a request to the State to develop a response which could include an action plan. The plan will include a list of recommendations or requirements to address specific issues identified and a specified period of time to complete.

(2) **Participation**

The regulatory authority for the requirements for participation in the national CWD HCP is found in 9 CFR Part 55 Subpart B.
(2.1) **Approving Existing State CWD Herd Certification Programs**

APHIS will accept applications to become an Approved State CWD herd certification program and will review the State’s documentation of the CWD programs already existing within the State to determine if the State meets the program requirements. Existing State CWD programs and farmed or captive elk, deer, and moose owners participating in them will be approved if they meet the minimal requirements of the APHIS national CWD program. The date that these herds enrolled in a State program that APHIS subsequently determines qualifies as an Approved State CWD herd certification program would be considered their enrollment date in the national CWD HCP. This process will allow herds participating in approved State programs to retain their State status in the APHIS national CWD HCP. A list of Approved State CWD HCPs will be posted on the APHIS CWD Web site.

(2.2) **Provisional Approval**

Provisional approval may be granted to States that do not meet all the national CWD HCP minimum requirements upon application to the program. APHIS and the State will work to develop a plan with appropriate time frame to meet program requirements.

(2.3) **Participating Approved State: Requirements**

States must submit an application, including a completed VS Form 11-2 and supporting documentation, describing their ability to meet the national CWD HCP requirements. In reviewing a State program's eligibility to be designated as an Approved State, the Administrator or his or her designee will evaluate the State statutes, regulations, and directives pertaining to the State agency responsible for farmed or captive cervids, as well as relevant reports and publications of the State animal health or State wildlife agency. The Administrator or designee will also review a written statement from the State animal health or State wildlife agency describing State CWD control and farmed or captive elk, deer, and moose herd certification activities. In determining whether the State program qualifies, the Administrator or his or her designee determines whether the State:

1. Has the authority, based on State law or regulation, to quarantine and restrict intrastate movement of all CWD-positive, CWD-suspect, and CWD-exposed animals.

2. Has the authority, based on State law or regulation, to require the prompt reporting of any animal suspected of having CWD; and forward test results for any animals tested for CWD to APHIS and State animal health officials, or State wildlife authorities when they are the appropriate regulatory authority.

3. Has signed a Memorandum of Understanding (MOU) between APHIS and the State that delineates the respective roles of each in CWD HCP implementation. A link to the MOU form can be found in Appendix VIII.

4. Has placed all known CWD-positive, CWD-exposed, and CWD-suspect animals and herds under movement restrictions, with movement of animals from them only for destruction with appropriate carcass disposal, or under permit.

5. Has effectively implemented policies to:
a. Promptly investigate all animals reported as CWD-suspect animals within 7 days of notification.

b. Designate herds as CWD-positive, CWD-exposed, or CWD-suspect and promptly restrict movement of animals from such herds after an APHIS employee or State official determines that the herd contains or has contained a CWD-positive animal.

c. Remove herd movement restrictions only after completion of a herd plan.

d. Conduct an epidemiological investigation of CWD-positive, CWD-exposed, and CWD-suspect herds that includes the designation of suspect and exposed animals and that identifies animals to be traced in accordance with recommended guidelines.

e. Initiate and conduct trace-backs of CWD-positive animals in affected herds and trace-outs of CWD-exposed animals.

f. Report, within 45 days following notification of a CWD-positive animal, any out-of-State traces to the appropriate State and APHIS officials.

g. Conduct trace-backs based on slaughter sampling. Investigation should be initiated promptly following notification of a CWD-positive animal at slaughter.

6. Effectively monitors and enforces State quarantines or hold orders and State reporting laws and regulations for CWD, documenting any noncompliance with quarantines, hold orders, or reporting.

7. Has designated at least one State official to coordinate CWD HCP activities in the State.

8. Has programs to educate those engaged in the interstate movement of farmed or captive elk, deer, or moose regarding the identification and recordkeeping requirements of 9 CFR Part 81.

9. Requires, based on State law or regulation, official identification of all animals in herds participating in the CWD herd certification program, effectively enforces this requirement, and documents any noncompliance with this requirement.

10. Maintains the following information in the CWD National Database administered by APHIS (SCS Core One – National Instance), or in a State database recognized by the Administrator as meeting the data requirements in the CWD National Database as outlined below:

   a. Premises information and assigned premises numbers.

   b. Individual animal information on all farmed or captive elk, deer, and moose in herds participating in the CWD HCP in the State.

   c. Individual animal information on all out-of-State farmed or captive elk, deer, and moose to be traced.

   d. Accurate herd status data.
See Section A3, “Registration, Identification, and Recordkeeping” for detailed information on data requirements.

11. Requires that tissues from all CWD-exposed and suspect animals from affected herds that die or are depopulated or otherwise killed be submitted to a laboratory authorized by the Administrator to conduct official CWD tests.

12. Requires appropriate disposal of the carcasses of CWD-positive, CWD-exposed, and CWD-suspect animals (Appendix V).

13. Enforces all testing and disposal requirements, and documents any noncompliance.

Further ensures that herds comply with program requirements including physical herd inventories at least every 36 months, annual herd and premises inspections, and verification of required CWD surveillance.

Farmed or captive elk, deer, and moose herd owners who do not wish to move their animals interstate or who cannot meet the requirements of the National CWD Herd Certification Program may choose not to participate. Commercial hunt facilities (shooter herds) that receive animals from multiple sources are of particular concern. Such herds provide a unique opportunity for CWD surveillance and, if left unmonitored, present an increased risk of CWD to wild and farmed or captive cervids in the State in which they reside. However, many such herds may see little advantage in participating in the National CWD HCP because they have no need to move live animals interstate or know that they cannot meet the inventory and surveillance requirements of the program. While APHIS cannot require States to institute monitoring programs for these herds, we recommend States develop surveillance monitoring programs for such herds that are not part of the National CWD HCP.

(2.4) Participating Herd: Requirements for Enrollment

A. Herd owners already participating in an Approved State CWD HCP will maintain the same enrollment date for the National CWD HCP as the first date that the herd participated in the Approved State program.

B. Herd owners may be able to enroll directly in the National CWD HCP, subject to the availability of appropriated funds, if they do not have an Approved State CWD HCP in their State. Their enrollment date will be the earlier of:
   1. The date APHIS approves enrollment; or
   2. A date no more than 3 years before the date APHIS approved enrollment if the owner has demonstrated the herd has been maintained in a manner that substantially meets the requirements listed in Sections A 2.4 (C) and 2.5.

C. Herd owners enrolled in either the Approved State CWD HCP or directly enrolled in the national CWD HCP agree to maintain their herds in accordance with the following requirements:
   1. Each animal in the herd must be identified before reaching 12 months of age using means of identification described in Section A 3.2 of these Program Standards.
2. The herd premises must have perimeter fencing adequate to prevent ingress or egress of cervids. This fencing must comply with any applicable State regulations, and follow the guidance provided in these Program Standards.

3. The owner must immediately report (within 1 business day of discovering a dead animal) to a State official of the Approved CWD HCP or to an APHIS employee (where applicable) all deaths of farmed or captive deer, elk, and moose aged 12 months or older (including animals killed on premises maintained for hunting and animals sent to slaughter), and must make the carcasses of such animals available for tissue sampling and testing. The owner must make the carcasses available in accordance with instructions from the State representative (Approved State CWD HCP) or APHIS representative (where applicable). State or APHIS representatives may approve reporting schedules other than immediate notification when herd conditions warrant it in the opinion of both APHIS and the State.

4. The owner also must immediately report (within 1 business day of discovery) to a State official (Approved State CWD HCP) or an APHIS employee (where applicable) animals that are missing or have escaped from the premises as well as entry of any wild cervids into the facility.

5. Records, including a complete inventory of animals, must be kept in accordance with Section A 3.3 of these Program Standards. Herd owners must make animals and records available to accredited veterinarians, APHIS employees, or State representatives for inspection. Owners are responsible for assembling, handling, and restraining animals for physical inventories or other inspections under conditions that will allow the accredited veterinarian, APHIS employee, or State official to safely read all identification on the animals. The owners are responsible for the costs that may be incurred to present the animals for inspection and must agree that any liability or injury to the animals during handling rests with the owner.

6. If an owner wishes to maintain two or more separate herds, he or she must maintain separate herd inventories, records, working facilities, water sources, equipment, and land use. There must be a buffer zone or geographic zone of at least 30 feet between the perimeter fencing around the separate herds, and no commingling of animals may occur. Movement of animals between herds must be recorded as if they were separately owned herds.

7. New animals may be introduced into the herd only from other herds enrolled in the CWD herd certification plan and under the conditions outlined in Section A 2.6.

Failure to comply with any of the listed HCP requirements will affect the herd status and could result in suspension or removal from the national CWD HCP.

(2.5) Herd Owner Enrollment and Advancement

A. Individual herd owner direct enrollment will be for herds that reside in States that do not have an Approved State HCP and is subject to availability of appropriated funds. Herd owners wishing to participate in the National CWD HCP must first submit a signed application for enrollment form (VS Form 11-1), a current inventory, documentation showing that all
animals in the herd 12 months of age and older were inspected and inventoried within the previous 12 months, and a statement attesting to the requirements listed in Section A 2.4 of the Program Standards.

APHIS will determine the herd enrollment date for HCP participation on receipt and evaluation of the information provided. The enrollment date may include no more than 3 years of credit time if the owner can demonstrate the herd has been maintained in a manner that substantially meets the requirements in Section A 2.3.

The enrollment date will be the day, month, and year in which an owner’s herd is officially enrolled in the HCP. This date is important because it would typically be used to calculate when herds may advance to a higher herd status under the HCP after completing successive years without CWD being diagnosed in the herd. For a herd that only adds animals from herds with the same or greater status, the enrollment and status dates will remain the same. However, for herds that add animals from herds with a lesser status the enrollment and status dates for the receiving herd will reflect the lowest status date. The enrollment date is a fixed date, while the status date may change based on herd additions or status progress.

B. When initially enrolled in an Approved State CWD HCP or directly enrolled in the national CWD HCP, all herds will be placed in First Year status. Each year, on the anniversary of the enrollment date or status date (whichever is later) and of meeting the HCP requirements, the herd status is upgraded by 1 year; i.e., Second Year status, Third Year status, Fourth Year status, and Fifth Year status. One year from the date a herd is placed in Fifth Year status with no findings of CWD in the herd after 5 continuous years of testing, the herd status is changed to Certified, and the herd remains in Certified status as long as continuous enrollment is maintained in the program and the herd continues to meet all of the program requirements.

Herds that are established and sourced solely from other Certified herds will be enrolled as Certified herds and must continue to demonstrate compliance with program requirements to maintain Certified status.

Eligibility for advancement from one status to the next is based on compliance with program requirements, including the submission of samples. Should the herd owner not be in compliance with the standards, State and APHIS officials will withhold advancement or lower, suspend, or revoke the status.

(2.6) Additions of Animals or Genetic Material (Germplasm) to a Herd: Effects on Status
A herd may add animals from herds with the same or a greater status in the national CWD HCP with no negative impact on the status of the receiving herd.

If animals are acquired from a herd with a lesser status, the receiving herd reverts to the status of that source herd. If a herd participating in the program acquires animals from a nonparticipating herd, the receiving herd reverts to First Year status with a new status date listed as the date of acquisition of the animal. The enrollment date in the national CWD HCP would remain unchanged but the herd status level would be modified (and modification date recorded).

If a herd acquires animals from herds with a lower or nonparticipating status, the owner must notify a Federal or State official within 5 business days of such acquisition.
At this time there is no scientific evidence that germplasm (embryos or semen) may transmit CWD. However, there is no scientific evidence that embryos or semen from positive animals do not serve as a route of transmission for CWD. Because of the lack of scientific information on transmission potential, APHIS recommends that germplasm from known CWD-positive animals should not be used. If more definitive evidence of the role of embryos or semen in the transmission of CWD should become available, this guidance will be changed.

New herds assembled from multiple sources will be assigned the status of the lowest status source herd (i.e., will be given the status date of the lowest status herd).

Other sources of equivalent or higher status animals may include cervid herds enrolled and at an appropriate level in a CWD herd certification program in another country where APHIS recognizes the HCP to be at least equivalent to the APHIS national CWD HCP.

(2.7) Inspections and Inventories

Inspections are conducted annually and physical inventories are conducted every 3 years as described below. Records must be reconciled during inspections and inventories.

A complete physical herd inventory in which all animals in the herd must be restrained and individual identification recorded must be performed on a herd in accordance with this paragraph at the time a herd is enrolled in the CWD HCP. APHIS may accept a complete physical herd inventory performed by a State representative, an accredited veterinarian, or an APHIS employee not more than 12 months before the herd's date of enrollment in the CWD HCP as fulfilling the requirement for an initial inventory. Thereafter, a complete physical herd inventory including restraint of each animal in the herd must be performed for all herds enrolled in the CWD HCP no more than 3 years after the last complete physical herd inventory for the herd.

In addition, herd and premises inspections to include record inventories will be conducted and reconciled annually. These annual inspections will ensure compliance with the provisions of this program. Herds may not advance in status until the annual inspections have been completed, submitted, reconciled, and approved.

These inspections and inventories will be conducted by State officials, accredited veterinarians, or APHIS employees (subject to the availability of Federal funding), and will consist of inspections of the herd and facilities as well as inventory verification. Inventory verification includes inspection of the individual animals, verification of identification for each individual, and reconciliation of the animal inspection and identification verification findings to the written records.

(2.8) Loss of Certification Status

Failure to Comply with Program Requirements

Herds may lose national herd certification status if the Administrator or his or her designee, in consultation with the respective Approved State, has determined that the herd owner failed to comply with the program requirements. The Administrator will determine owner compliance failures for herds enrolled directly in the national CWD HCP in States without an Approved State CWD HCP.
**CWD-Positive or Exposed Herd**

If a herd is designated a CWD-positive herd or a CWD-exposed herd, it immediately loses its program status, and may only re-enroll after completing a herd plan.

**CWD Suspect, Trace Back, or Trace Forward Herd**

If a herd is designated a CWD-suspect herd, a trace back herd, or a trace-forward herd, it will immediately be placed in suspended status pending an epidemiological investigation by the State animal health agency. During suspended status, a herd loses all status related to the CWD herd certification plan and interstate movement. A herd may remain in suspended status until the epidemiological investigation ends and appropriate actions are taken.

If the epidemiological investigation determines that the herd was not commingled with a CWD-positive animal, the herd is reinstated to its former program status, and the time spent in suspended status counts toward its advancement to the next herd status level.

If the epidemiological investigation determines that the herd was commingled with a CWD-positive animal, the herd loses its program status and is designated a CWD-exposed herd. (See definitions of “commingled” and “limited contact” in the Definitions Section.)

If the epidemiological investigation is unable to determine the exposed versus negative status of the herd because the animal or animals of interest are no longer available for testing (for example, a trace animal from a known positive herd died and was not tested) or for other reasons, the herd status would continue to be considered suspended until the following actions are taken for the types of herds listed:

1. If the herd is enrolled in the CWD HCP and is in good standing, the herd should continue in the program. However, the initial status date of the herd will be changed to the date of entry into the herd of the exposed animal no longer available for testing. For example, if the herd is certified and the animal in question entered the herd 3 years ago, the herd should drop back to a Third Year status level. In addition, a herd plan should be developed to address any other risk identified by the epidemiological investigation.

2. If the herd is enrolled in the CWD HCP but is not in good standing, it will be allowed to re-enroll in the program and begin again at the First Year status level. The enrollment date is the date the herd entered suspended status. Testing of all animals 12 months of age and older that die for any reason is required for advancement in the program. Submitted samples will be required to be testable.

3. If the herd is not already part of the certification program, it will be allowed to immediately enroll in the certification program and conduct surveillance on all animals 12 months of age and older that die in the herd for any reason.

4. If herds described in numbers 2 or 3 decide against enrollment in the program, they should be quarantined by the State authority as exposed and a herd plan developed.

For all three types of herds, movement restrictions for animals in the herd also may be considered based on epidemiological evidence regarding the risk posed by the animals in question.
(2.9) **Relocation of Herd**

If a herd moves either within a State or to another State, it must meet all intrastate or interstate movement requirements. In addition, the appropriate State or Federal officials administering the CWD program must be notified of the relocation within 30 days.

If a herd is moved to an area defined or designated by the State as an area where CWD is established in the wild cervid population, then the herd will be required to enter the program at the First Year status level regardless of the status of the source herd. In addition, APHIS recommends the herd owner and State authority work to develop a herd plan agreement to minimize risk of introduction of CWD.

If the herd is being moved to a previously depopulated positive premises, the herd owner must enter into a herd plan agreement with the State authority.

Depending on the epidemiological assessment of the previously depopulated herd and the premises, as well as the length of time since depopulation, there could be a loss of status for the herd being moved as well as movement restrictions. Herds moved into a previously depopulated premises may be considered commingled and subsequently classified as exposed if the time between depopulation and reintroduction of animals to the premises is less than 5 years.

(2.10) **Cancellation of Participation**

**Mandatory Cancellation**

The Administrator, in concurrence with the Approved State, may cancel the enrollment of an enrolled herd by giving written notice to the herd owner. The Administrator may cancel enrollment after determining that the herd owner failed to comply with any HCP requirements.

Before enrollment is canceled, an Approved State or an APHIS representative will inform the herd owner of the reasons for the proposed cancellation. The herd owner may appeal the proposed cancellation in writing to the Administrator within 10 business days after being informed of the reasons for the proposed cancellation. The appeal must include all of the facts and reasons on which the herd owner relies to show that the reasons for the proposed cancellation are incorrect or do not support the cancellation. The Administrator may grant or deny the appeal in writing as promptly as circumstances permit, stating the reason for his or her decision. If there is a conflict as to any material fact, a hearing will be held to resolve the conflict. The Administrator sets the rules of practice concerning the hearing.

In the event of cancellation, the herd owner may reapply to enroll in the national CWD HCP but will not reach Certified status until 5 years after APHIS approves the herd owner’s new application for enrollment regardless of the status of the animals in the herd.

**Voluntary Cancellation**

An owner may decide to cancel participation in the CWD HCP at any time unless otherwise required by State regulations or a herd plan. The cancellation should be in writing. Owners who voluntarily cancel their participation may re-enroll at any time as a First-Year status herd and will receive a new enrollment and status date.
(3) Registration, Identification, and Recordkeeping

The regulatory authority for registration, recordkeeping, and identification for each animal within enrolled herds is found in 9 CFR 55.23.

(3.1) Premises ID

All participating premises must have a unique Premises Identification Number (PIN).

Premises locations must be specifically identified by latitude and longitude using global positioning system (GPS) readings taken at the entrance of the driveway and a detailed address (not a post office box). A detailed written description of the premises and the physical facilities as well as a map depicting the same is also required.

(3.2) Animal Identification

All animals in the herd must be identified with two animal identifications for each individual. One of these animal identifications must be a nationally unique official animal identification. The official animal identification must be a device using an APHIS-approved animal identification numbering system that uniquely identifies individual animals as described in Appendix I. Information on official animal identification and devices can be found on the APHIS Traceability Web site: http://www.aphis.usda.gov/traceability/downloads/AIN_device_list.pdf

The official animal identification device must be approved by APHIS, and must be a legible ear tattoo, tamper-resistant ear tag, electronic implant, legible flank tattoo, or other approved device (see Appendix I).

The official animal identification must be linked to that animal and herd in the National CWD Database (SCS Core One – National Instance) or State database recognized by APHIS as equivalent to the National CWD database.

The second animal identification must be unique for the individual animal within the herd and also must be linked to that animal and herd in the National CWD Database (SCS Core One – National Instance) or State database recognized by APHIS as compatible with the National CWD database.

Natural additions to the herd must be identified by 12 months of age. However, any animal must be properly identified as described in this section and Appendix I to move interstate regardless of age (i.e., animals less than 12 months of age that are to be moved interstate must be identified).

If, at the time of enrollment in the national CWD HCP, identification of animals in a herd does not meet the above criteria, the herd owner must bring the herd and animal identifications into compliance as soon as possible and no later than the next time the animals are handled.

(3.3) Herd Inventory – Records

Each owner must maintain a herd inventory which must include, at a minimum, the following records for each animal:

1. All identification (tags, tattoos, electronic implants, etc.).
2. Birth date.
3. Species.

4. Sex.

5. The date of acquisition and source of each animal that was not born into the herd (owner name, city, State).

6. The date of removal and destination of any animal removed from the herd (owner name, city, State).

7. Date and cause of death for animals dying within the herd.

8. Date of CWD sample submission, submitter, owner, premises, and animal information, and official CWD test results from NVSL or approved laboratory for samples required by the program.

(3.4) **National Herd Inventory Electronic Record Keeping**

Data will be kept in a National CWD database (SCS Core One – National Instance) or APHIS-approved State database compatible with the CWD program.

Data for the following should be entered into the National CWD database or equivalent State database in a timely manner:

1. Herds enrolled in the CWD certification program.

2. Herds designated as positive.

3. Herds designated as exposed, suspect, or epidemiologically linked to positive herds.

4. Herds that have achieved certified status.

The information should include all items required by these Program Standards, including but not limited to:

1. Premises and owner information (location, addresses, and contact information).

2. Program status of enrolled herds.

3. Any restrictions to herds including disease status.

4. All program actions such as changes to status, depopulation, and adoption of herd and premises plans.

Changes to program status must be reported to the corresponding Area Office within 10 days.

(3.5) **Data Security in the Electronic National CWD Database (PENDING)**

Data stored in the CWD National Database will be secured to protect data at the State level. Users in a State will not be able to review or change data for another State. “Read Only” data viewing privileges between State users may be granted by mutual agreement. CWD program staff will have access to national data for reporting purposes.

(4) **Fencing Requirements**

The regulatory authority for fencing requirements of enrolled herds is found in 9 CFR 55.23.
The herd premises must have perimeter fencing adequate to prevent ingress or egress of cervids and minimize direct contact between farmed and free-ranging cervids. In herd premises already existing at the time of the effective date of the CWD rule, fencing must comply with any existing State regulations or requirements. For herds established after the effective date of the CWD rule, the fence must be a minimum of 2.4 meters (8 feet) high and must comply with any other existing State regulations or requirements. In either case, the fence must be structurally sound, maintained in good repair, and of sufficient construction to contain the animals.

In some situations where CWD is known to exist in the free-ranging cervid population, additional efforts and barriers to separate farmed and free-ranging wild cervids are recommended to minimize risk of transmission of CWD between these populations. Reference information on these topics is located in Appendix II.

The program does not intend to have “double fencing” as a comprehensive program standard for farmed cervids. The program does recognize risks of CWD infection to farmed cervids held in facilities that operate in areas known to have CWD in free-ranging cervids. In areas where CWD is not known to occur in free-ranging cervids, risk for CWD transmission to captive cervids is recognized as minimal. However, the program believes that the risk of CWD transmission between farmed cervid and free-ranging cervid populations should be assessed by individual States and addressed by State fencing requirements as necessary.

Fencing alone does not delineate individual herds, which must be separated by a distance of 30 feet or greater. See “herd” definition in the definitions section.

(5) Surveillance and Sampling

The regulatory authority for surveillance and sampling of animals in enrolled herds is found in 9 CFR 55.23.

This section outlines surveillance and sampling requirements as well as monitoring principles used with CWD in farmed or captive cervids. The procedures listed below are required for all herds participating in the certification program.

Farmed cervid herds cannot achieve certified status without conducting CWD surveillance on all mortalities for at least 5 consecutive years unless:

1. The herd owner purchases or assembles a herd of animals from known certified status herds and concurrently enrolls in a State HCP.

2. The enrolled herd owner can adequately document that he or she has maintained a closed herd of animals for at least 5 years; had no on-farm mortalities; had no “missing” animals; and did not move any animals off the premises during that time for any reason.

If the enrolled herd owner does not have any on-farm animal deaths meeting surveillance criteria for the year and has not moved, transferred ownership, or sold animals as described above, the enrolled owner is considered to be in compliance with surveillance requirements for the year.

(5.1) Reportable Disease

CWD is a reportable disease. The owner must immediately report to a State official, accredited veterinarian, or an APHIS employee all suspected cases of CWD. These are to include any animal
exhibiting signs of a neurological or wasting disease as described in Section A 5.2. These animals must be made available for monitoring, and if they die, the carcasses must be made available for tissue sampling and testing. Clinical CWD suspects that die or are euthanized should be tested for CWD regardless of age.

(5.2) CWD-Suspect Animals
CWD-suspect animals are defined in the definitions section of these Program Standards. The clinical signs associated with CWD are nonspecific and could be caused by other diseases affecting farmed or captive elk, deer, and moose; thus, laboratory confirmation is required for CWD diagnosis. Not all animals display all clinical signs of disease. Duration of clinical signs varies from a few days in unusual cases to as long as a year, but is most often 2 to 3 months.

Usually, the earliest clinical signs displayed are behavioral changes which may include alterations in interaction with humans and members of the herd. These subtle changes are often only recognized by caretakers familiar with the individual animal. With disease progression, behavioral changes may include periods of stupor and depression. In addition, progressive weight loss is characteristic of CWD and may occur over a long time. At the terminal stages of disease, animals are emaciated. However, concurrent disease, especially aspiration pneumonia, may cause an affected animal to die while still in good to fair body condition. In the later stages of disease, clinical signs may include increased drinking and urinating, excessive salivation, and lack of coordination and trembling.

Animals with progressive neurological disease or wasting syndromes that are not responsive to treatment may be considered CWD clinical suspects. CWD clinical suspects should be euthanized and tested. If an owner of a clinical suspect refuses to allow euthanasia, the animal should be tested after it dies in accordance with program requirements.

(5.3) On-Farm Surveillance
Owners must report all deaths of farmed or captive cervids 12 months of age or older to a State official or an APHIS employee within 1 business day of the discovery of the dead animal and ensure that the obex and medial retropharyngeal lymph nodes (MRPLN) are submitted for CWD testing.

State or APHIS officials may approve reporting schedules other than immediate notification when they believe herd conditions or circumstances warrant.

Samples should be available for CWD testing from all mortalities including animals slaughtered on the farm regardless of cause of death or condition of the sample.

Exceptions to the testing requirement may be made by the appropriate State agency having CWD program oversight for extenuating circumstances beyond the control of the herd owner.

In the case of a hunt (shooter) facility where clinically normal animals are harvested over time, there may be allowance for reporting groups of animals that have been killed over a specified time period. The delayed notification must include the identification numbers of the animals involved and the actual or estimated time and date of death. See Section 5.4.
(5.4) **Shooter Animal Surveillance**
All shooter animals 12 months or older harvested by hunters as well as natural mortalities on hunter (shooter) premises must be made available for testing if the shooter facility is enrolled in the national CWD HCP.

Based on State regulatory authority, herd owners enrolled in the national CWD HCP who send animals to shooter facilities shall be responsible for meeting State CWD testing and surveillance requirements for those animals.

(5.5) **Slaughter Surveillance**
Based on State regulatory authority, herd owners enrolled in the national CWD HCP who send animals for commercial slaughter shall be responsible for meeting State CWD testing and surveillance requirements for those animals.

This includes farmed or captive deer, elk, or moose moving interstate for slaughter. Such animals must be moved directly to a recognized slaughter establishment, must have two forms of animal identification, one of which is official animal identification, and must be accompanied by a certificate of veterinary inspection (CVI). See Sections A 8.1 and 8.2 for details.

Samples for CWD testing from animals 12 months or older slaughtered on the farm must be submitted as part of the on-farm surveillance required for the herd certification program.

APHIS recommends that animals moved under permit to a slaughter facility from a CWD suspect, exposed, or positive herd shall be tested for CWD as described in the Herd Plan (See Section B 1). Owners are responsible for making necessary arrangements for CWD sample collection before moving animals for slaughter. These arrangements could include coordination with an accredited veterinarian, State or Federal animal health official, certified collector, State or Federal meat inspection agency, and the slaughter facility.

(5.6) **Sample Collection: Owner Responsibility**
Good quality sampling and complete tissue collection of obex and MRPLN from dead animals is essential for successful surveillance. It is the owner’s responsibility to submit good quality tissue for sample collection and insure that all required samples are collected.

Failure to comply with the provisions of this section may result in loss of program status or other actions applicable under State or Federal regulation.

Owners may remove and submit the entire head with all attached identification devices to an approved CWD laboratory. Samples will be collected by laboratory personnel.

Samples may not be collected by herd owners unless they are approved by their State authority as a certified or designated CWD sample collector. Samples may only be collected by State or Federal officials, accredited veterinarians, or State certified or designated CWD sample collectors.

(5.7) **Collection and Submission Procedures**
The obex and MRPLN are required samples and should be collected from all CWD-susceptible individuals regardless of species. Other lymphoid tissues such as tonsils and rectoanal mucosa-associated lymphoid tissue (RAMALT) also may be submitted for additional evaluation and at
additional cost. The obex and MRPLN should be submitted in 10 percent buffered formalin or as otherwise instructed by State or APHIS personnel.

If only one required tissue is submitted or is unsuitable for testing, the sample is considered to be incomplete and may result in delayed advancement or alteration of status in the HCP. A positive test result on any sample submitted will be considered a presumptive positive to be confirmed by NVSL. If no protease resistant prion protein (PrP\textsuperscript{res}) is detected in the single tissue submitted, the submission will not be counted in the required mortality sampling protocol.

All manmade identification devices with part of the ear or hide skin to which they are attached should be submitted chilled or frozen and linked with the formalin-fixed or fresh tissues from the same animal. These additional samples allow for alternative testing and genetic testing should the need arise.

Basic chain of custody techniques should be used to ensure that the samples remain appropriately linked to the source animal from the time of sample collection to the end of the testing process. Samples should be submitted using VS Form 10-4 or an equivalent State form (see Appendix VIII). Samples collected and preserved in 10 percent buffered formalin for immunohistochemistry (IHC) testing should be submitted to an approved laboratory within 7 days. Samples that may be collected as fresh tissue for Western blot testing should be submitted within 24 hours. Detailed instructions regarding sample collection and submissions can be found in Appendices III and VIII.

(5.8) Quality Control
State officials or Federal officials have the authority to adjust herd status if incomplete or poor quality samples are repeatedly submitted from a premises. Poor quality samples include samples that are severely autolyzed (decomposed), that are from the wrong portion of the brain, the wrong tissue, or not testable for other reasons.

Approved laboratories should closely monitor sample quality. They are responsible for providing feedback to the producer and State and Federal officials regarding the receipt of poor quality samples.

(5.9) Consequences of Poor Quality and Missing Samples
Surveillance of all animal mortalities is the key to ensuring valid herd certification status. All mortalities must be reported to program officials as described in Section A 7.3. Failure to test for CWD of any animal over 12 months of age that dies, is slaughtered, escapes, or is lost resulting in missing samples, or submission of incomplete or poor quality samples, may be cause for delayed advancement, loss of or reduction in status, or cancellation from the program as determined by APHIS and the Approved State.

Poor Quality and Missed Samples
APHIS requires that all on-farm mortalities older than 12 months of age be tested for CWD. However, APHIS also recognizes the challenges involved with meeting this requirement.

Subsequently, if an animal meeting surveillance criteria dies on the farm and is not tested for any reason, the owner can make up this missed sample by testing two other animals (meeting surveillance criteria) originating from the herd.
These animals could include:

1. Cull animals slaughtered by the producer/owner.
2. Animals hunted or harvested on a separate facility owned by the same producer.

The owner would be responsible for adequately documenting the tested animal’s origin. In addition, the owner would be responsible for making these arrangements and ensuring that sampling and testing is conducted.

**Note:** “Makeup” samples would be in addition to the surveillance samples mentioned previously. Owners would have to complete these makeup samples within the following 12-month period without affecting the herd status, after which a penalty could be imposed by the approved State in consultation with APHIS.

**Exceptions**

Exceptions to missed sample testing may be granted by the Administrator due to special circumstances such as animals that die during a natural disaster, mass losses from an infectious disease outbreak, or from a known zoonotic disease where sample collection would pose a public health risk.

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**6 Diagnostics**

The regulatory authority for official CWD tests and laboratory approval is found in 9 CFR 55.8.

**6.1 Testing Authority and Approved Laboratory**

Laboratories will be approved by NVSL, as designated by the APHIS Administrator, to conduct official CWD testing in accordance with 9 CFR 55.8.

A. General Qualifications

Only State, Federal, and university laboratories that also are members of the National Animal Health Laboratory Network (NAHLN) will be approved to conduct official CWD diagnostic testing.

Laboratories that currently are approved to conduct official CWD diagnostic testing must meet the requirements for changes to, and maintenance of, laboratory approval as described in this document within 30 days of receiving a copy of these requirements. However, currently approved laboratories are not required to submit a new application package.

Only program-approved tests conducted in approved laboratories, at the National Veterinary Services Laboratory (NVSL), or at another laboratory to which NVSL has referred a case for confirmatory testing, are considered to be official diagnostic tests for CWD.

Results for immunohistochemistry (IHC) testing will be reported, as directed by APHIS, within 10 business days of sample receipt. Further, all presumptive positive, suspect, repeat, and inconclusive results also must be reported by email to the NVSL within 1 business day after testing is completed.
The approved laboratory must submit all specimens with an initial (presumptive) positive, suspect, repeat, or inconclusive test result, and all specimens from suspect animals, to NVSL for confirmation within 5 business days.

Repeat or additional testing is the preferred method for confirming an initial (presumptive) positive or inconclusive test result. NVSL may, however, confirm an initial (presumptive) positive or inconclusive test result based on the review of slides from an IHC test or a developed Western blot if appropriate tissues or tissue blocks are not available or are not suitable for repeat or additional testing.

B. Laboratory Approval

Initial requests for laboratory approval should be made in writing to the NVSL director or his or her designee. On receiving a request for laboratory approval, the NVSL Director or designee will notify the national CWD program manager as well as the appropriate APHIS Regional Director and Area Veterinarian in Charge (AVIC) based on the location of the laboratory.

A copy of this document and the NVSL standard operating procedure (SOP) for CWD diagnostic tests will be sent to the laboratory requesting approval.

Application package: The laboratory must submit the following information (original plus three copies) to the NVSL Director:

1. Name and address of the laboratory.
2. Name and contact information (street address, telephone number, and email address) of the legally responsible laboratory official and, if different, the name of the laboratory director.
3. A copy of the laboratory’s permit from the National Center for Import and Export (as required in 9 CFR part 122) for receipt of proficiency panels.
4. A statement that the laboratory is an approved NAHLN laboratory.
5. A description of the laboratory facilities and equipment that will be used to perform CWD diagnostic tests based on the NVSL SOP.
6. A list of the specific CWD diagnostic tests for which laboratory approval is requested.
7. For each diagnostic test, a list of the types of tissues for which laboratory approval is requested. A laboratory may request approval to conduct one or more types of tests on one or more types of tissue. However, the laboratory will be required to obtain approval for specific types of tissues before the tissues can be used with a specific test kit or test method, as determined by NVSL. Note: Approval to conduct the same test on additional tissues may require additional proficiency testing or training.
8. The SOP for each test, including methods, materials, equipment, and other relevant information. These procedures must be consistent with the NVSL SOP and the manufacturer’s instructions for licensed test kits unless the NVSL SOP instructs otherwise.
9. Names of the individuals performing specific tests and a detailed statement of each individual’s qualifications based on education, training, and experience. The individuals should have been trained by NVSL or have completed equivalent training approved by NVSL. This list should also designate one individual as the laboratory’s contact person responsible for technical issues regarding CWD testing. The package should include the street address, telephone number, and email address for each individual.

10. A description of the specific procedures to be used to report test results. Approval requires that results for tests supported by the VS Laboratory Submission (VSLS) system be reported through the VSLS Web page or by using an electronic message in the format specified by VS. Other test results will be reported via spreadsheets or other formats provided by NVSL.

Results for IHC testing will be reported, as directed by APHIS, within 10 business days of sample receipt. Results for ELISA testing and other assays must be reported within 3 business days of sample receipt. Further, all presumptive positive, suspect, repeat, and inconclusive results must also be reported by email to the NVSL within 1 business day after testing is completed.

11. A description of recordkeeping procedures. To retain approval, facilities must keep records from all specimens for at least 1 year and records pertaining to cases with positive, suspect, repeat, or inconclusive test results for at least 5 years.

12. A description of sample/tissue holding and retention procedures. Approval requires that slides, blocks, and other specimens for all submissions be retained for at least 1 year, except when NVSL has authorized other retention times. This is the case for formalin-fixed tissues not in blocks, or for fresh or frozen tissue from accessions where no specimens are either pending confirmatory testing or were confirmed positive. All materials for cases with positive, repeat, suspect, and inconclusive test results must be forwarded to NVSL by overnight shipping within 1 business day after testing is completed.

13. Evidence of current accreditation or certification by the American Association of Veterinary Laboratory Diagnosticians or the International Organization for Standardization, or a copy of the laboratory’s current quality assurance manual or other written documentation of a satisfactory quality control or assurance system.

14. A statement authorizing APHIS to inspect the laboratory, without prior notice, during normal business hours. The inspection may include, but is not limited to, review and copying of records, review of slides, observation of tests being conducted, and interviews of personnel.

C. NVSL and National CWD Program Manager Responsibilities

Upon receiving a request for laboratory approval, the NVSL Director, or his or her designee, will notify the national CWD program manager as well as the appropriate APHIS Regional Director and AVIC based on the location of the laboratory.
The NVSL Director, or his or her designee, will give the requesting laboratory a document listing the requirements for laboratory approval and discuss the requirements with the laboratory director or other appropriate individuals.

Authorized NVSL personnel will review the application package on receipt.

If the application package is complete and stated test procedures are consistent with protocols provided by NVSL or the manufacturer’s instructions for licensed test kits, authorized NVSL personnel will schedule and conduct a site visit of the applicant laboratory. The Regional Director and the AVIC will be notified before the site visit. During the site visit, authorized NVSL personnel will review the test procedures the laboratory intends to use, confirm that the information in the application package is accurate, and determine if the applicant laboratory meets the requirements for approval.

If the application package is unsatisfactory, it will be returned to the laboratory with a statement providing the reasons for denying approval. The laboratory can address the deficiencies and resubmit the application package.

D. Recommendation for Approval

After review of the application package and the site visit, if the laboratory meets all requirements, the NVSL Director, or his or her designee, will notify the laboratory director and the national CWD program manager that the laboratory is approved to conduct the specific tests on the specified tissues listed in the application package. Approval will be granted if the laboratory:

1. Completes proficiency testing for the specific test, as directed by NVSL. Satisfactory performance requires that the laboratory correctly identify the CWD status of all samples in the test panel. If discrepant results are obtained, NVSL, the participating laboratory, and others as required will investigate the cause. If the apparent cause of discrepant results is determined and rectified to the satisfaction of NVSL, no additional corrective actions may be needed.

   At the discretion of NVSL, additional proficiency testing or additional training of personnel may be required. A second failure of a proficiency test is grounds to deny the laboratory approval for the specific test.

   NVSL will forward proficiency test results to the national CWD manager.

2. Demonstrates the ability to receive submission information and transmit test results by one or more of the following methods:

   a. Accessing submission information entered previously by field collectors or submitters on the appropriate VSLS Web site, and entering submission information for other specimens not submitted electronically.

   b. Entering test results on the appropriate VSLS Web site or submitting test results via electronic messaging to the VS database, as directed.

   c. Supplying submission information and test results using a spreadsheet or other NVSL-provided format for tests not supported by VSLS.
If the results of a laboratory's proficiency testing are unsatisfactory or it cannot sufficiently demonstrate its ability to electronically receive and transmit test results, the NVSL Director will indicate the deficiencies in writing and send this information to the laboratory director and the national CWD program manager.

Laboratories may reapply for approval by submitting a report detailing the cause of the errors and the steps implemented to prevent recurrence in addition to the original application package. An original and two copies of this reapplication package must be submitted to the NVSL Director or designee. A copy must also be forwarded to the national CWD program manager.

If the report detailing the errors and the steps to prevent recurrence is satisfactory to both the NVSL Director or his or her designee and the CWD program manager, the NVSL Director will notify the laboratory director to arrange for additional proficiency testing or a re-evaluation of the laboratory’s ability to receive and transmit data electronically.

Failure of the subsequent proficiency test or electronic data transmission test will be grounds to deny laboratory approval. A laboratory denied approval as a result of failed proficiency testing may be required to wait until the next scheduled round of proficiency testing to complete the testing and submit a new application package. A laboratory denied approval as a result of a failed electronic data transmission test may be approved within 12 months of a successful diagnostic proficiency panel upon a successful electronic data transmission test. Laboratories failing to demonstrate electronic data transmission proficiency within this 12-month period must submit a new application package. The new application package must detail the factors associated with the denial of the previous application and the actions implemented to prevent similar recurrences.

E. Changes to Laboratory Approval

A laboratory must notify the NVSL Director, or his or her designate, of any changes in the information contained in the application package within 30 days of the effective date of the change. Changes in procedures or equipment must be approved by NVSL before they are made. Changes in personnel requiring notification include individuals serving as the responsible laboratory official, laboratory director, or the individual responsible for CWD testing technical issues; or the contact information for these individuals. An original and three copies of amendments must be submitted to NVSL.

The amendments will be reviewed for approval as described in this document. NVSL may elect to conduct a new site visit or may require additional proficiency testing before approving the amendment, depending on the nature and scope of the requested change.

1. If the amended application is approved, the NVSL Director, or his or her designate, will notify the laboratory director and the national CWD program manager.

2. If the amended application is not approved, the NVSL Director will give the laboratory director and the national CWD program manager a statement of the reasons for denying approval. The laboratory can address the deficiencies and resubmit the amendment.

F. Maintaining Laboratory Approval

To maintain approval, laboratories must demonstrate satisfactory completion of proficiency tests annually or as deemed necessary by NVSL. A final score of 100 percent correctly identified
samples is considered a satisfactory score. The procedure described in this document will be used if discrepant results are obtained.

To maintain approval, laboratories will undergo annual inspections or audits, as designated by NVSL. A laboratory may request a copy of the checklist to be used by NVSL before the scheduled inspection. The inspection or audit will address:

1. Records
2. Maintenance of archival samples
3. Compliance with SOPs
4. Compliance with 9 CFR 55.8

G. Removal of Laboratory Approval

The NVSL Director, acting on behalf of the Administrator, may withdraw or suspend approval of a laboratory for the following reasons:

1. Failure to meet any of the conditions stated in 9 CFR 55.8.
2. Failure to meet one or more criteria for obtaining or maintaining approval.
3. A request by the approved laboratory to withdraw approval.
4. Unsatisfactory performance on regular samples submitted for testing or required proficiency tests.
5. Unsatisfactory conditions or procedures at the laboratory.
6. Failure to accurately input test data and report results in the manner and within the timeframes specified in these Program Standards, in the SOP provided by NVSL, or in a contract, blanket purchase agreement, or other binding agreement.

The NVSL Director, acting on behalf of the Administrator, may withdraw or suspend a laboratory’s approval to conduct a specific test kit or method on any or all tissues approved to be tested using the kit or method based on proficiency test failures on any tissue using the kit or method. For example, a laboratory that fails a second proficiency test for approval to conduct the IHC on the obex may also have its approval to conduct the IHC on additional tissue types withdrawn.

The NVSL Director, acting on behalf of the Administrator, will provide written notice of a proposed withdrawal to the laboratory director and will allow the laboratory to respond. Any conflicts concerning the reasons for withdrawal will be resolved by holding a hearing. A hearing will include the NVSL director, the requesting laboratory’s director, the national CWD program manager, and their respective subject matter experts.

H. List of Approved Laboratories

The national CWD program manager and the NVSL Director will maintain a list of the types of tests and tissues approved for all laboratories that conduct official diagnostic tests for CWD. The list will be available on request to Regional Directors, AVICs, and other interested parties.
A list of laboratories approved to conduct CWD testing is available at:

(6.2) Confirmatory Testing
A presumptive positive diagnostic test is based on postmortem brain and lymphoid tissue testing done at an approved CWD laboratory. Detection of PrP$^{\text{res}}$ must have been made in either the obex or MRPLN.

A presumptive positive diagnostic test at an approved laboratory must be confirmed by NVSL to establish a diagnosis of CWD.

(6.3) Official CWD Test
Currently the official test for routine CWD HCP surveillance in farmed or captive cervids is the IHC test. Western blot also is an official test often used on tissues unsuitable for IHC testing.

The Administrator may approve new official tests for the diagnosis of CWD conducted on live or dead animals, and will base the approval of a new test on criteria described in 9 CFR 55.8.

Certain CWD test methods, such as ELISA tests, also may require Center for Veterinary Biologics licensure to be used as official CWD tests.

(6.4) Test Results
As described in Section A 5.7, sections of brainstem and MRPLN are evaluated by an official test in an approved laboratory to demonstrate the presence of the abnormal protease resistant prion protein (PrP$^{\text{res}}$). PrP$^{\text{res}}$ is a molecular marker for the transmissible spongiform encephalopathies (TSE). PrP$^{\text{res}}$ must be detected in at least one of those tissues. Detections of PrP$^{\text{res}}$ in samples tested at approved laboratories are considered to be presumptive positive pending further testing at NVSL.

A CWD-positive animal is an animal that has had a diagnosis of CWD established by means of official confirmatory CWD testing conducted by NVSL. Brainstem or lymph node tissues from an animal in which PrP$^{\text{res}}$ is not detected by an official test does not mean absence of disease, only that the disease was not detected in those tissues from that animal at that time. Based on current TSE research and pathogenesis studies, it is possible to have PrP$^{\text{res}}$ present at levels below the sensitivity of the test. PrP$^{\text{res}}$ also may be present in tissues other than those that were examined. Hence, “not detected” test results may not indicate the true status of the animal if it is in the early stages of the disease.

Several sample quality control concerns are described in Section A 5.9 that can affect test results. For example, a test result of “unsuitable sample” indicates that the submitted sample had insufficient properties, was taken from an improper tissue, or was too autolyzed (decayed) for testing. A test result with a “location statement” attached indicates that the submitted sample was taken from an area of the brain other than the obex or is considered a poor quality sample.

(6.5) Autolyzed Samples
Autolyzed samples will be considered to be poor quality samples and may not be acceptable for testing. The sample must be verified as brain or lymphoid material by the collector. The samples are to be tested by a method specifically used for autolyzed samples and approved by the APHIS
Administrator. If a majority of samples from any one premises continue to be autolyzed, these will be considered as poor quality and missed samples. See Section A 5.9 of these Program Standards for more information on the consequences of submitting poor quality samples.

(6.6) Reporting of Results
Positive test results are to be reported to the submitter, corresponding State authority for farmed cervids in the State where the herd resides, and the corresponding Area Office or AVIC. The Area Office will forward that result to the appropriate APHIS regional epidemiologist and the National CWD Program manager.

Negative results are to be reported to the submitter with copies provided to the corresponding State authority for farmed cervids in the State where the herd resides.

(7) National Reports
This section outlines the recommendations for data entry in the national CWD database (SCS Core One – National Instance) or approved State database and the submission of reports. Approved States maintaining data in a State-level database must give CWD HCP information and reports to APHIS on request. The information is critical to ensure that Federal and State personnel responsible for administering the CWD Program have the necessary data to do so effectively and efficiently.

(7.1) Data Entry and Purpose
This data will be used to monitor program performance, monitor disease control efforts, and assist States in completing epidemiological investigations.

See Section A 7.4 for details regarding data required to be entered into the CWD National Database or equivalent approved State database.

(7.2) Regularity
Data on positive and exposed herds will be entered within 5 business days after these designations are made.

Data on enrolled herds and premise identification numbers should be entered within 10 business days after it is available.

Comprehensive annual reports of HCP status and activities of enrolled herds as described in Section B 1.3 will be provided to the APHIS Administrator by June 30 each year. Quarterly or midyear status reports may be required as appropriate. Reports will be submitted to the respective APHIS Area Office and will be routed to the corresponding Regional Office and to CWD program staff.

(7.3) Components of Report
Reports should include information related to numbers of enrolled herds by State, status summaries, and summary of the level of mortality surveillance. As the reports will be used to monitor program performance and disease control efforts, the following data will be a component of the reports:
1. CWD samples and tests—number of animals tested during the reporting period, species, herd type (breeder, hunting operation, etc.) and test results.

2. CWD-positive herds—under quarantine, depopulated and released from quarantine, not under quarantine, under herd plans, number of animals in each herd.

3. CWD-exposed herds—under quarantine, depopulated and released from quarantine, not under quarantine, under herd plans, number of animals in each herd.

4. Epidemiological information—traceouts initiated, traceouts pending, and traceouts completed.

5. Enrolled herds—by State and certification status, species, number of animals in each herd, number due for inspection during each reporting period, number actually inspected.

Reports are to be submitted using VS Form 11-2 in the format provided by the national CWD program.

(8) Interstate Movement

The requirements for interstate movement are described in 9 CFR 81.3. The requirements for issuing certificates for interstate movement are in 9 CFR 81.4

(8.1) Requirement for Interstate Movement

No farmed or captive deer, elk, moose, or other Cervus, Odocoileus, and Alces species or their hybrids may move interstate unless the animals meet the following requirements:

For animals in the national CWD HCP: The animal is enrolled in the national CWD HCP and the herd has achieved Certified status. The animal must also be accompanied by a certificate issued in accordance with 9 CFR 81.4 that identifies its herd of origin and states that the animal has achieved Certified status, and that the animal does not show clinical signs associated with CWD.

For cervids captured from a wild population for interstate movement and release: Each animal must have two forms of animal identification, one of which is official animal identification. The certificate issued in accordance with 9 CFR 81.4 that accompanies the animal must state that the source population has been documented to be low risk for CWD based on a CWD surveillance program in wild cervid populations approved by the government of the receiving State and by APHIS. This may include a review of the surveillance plan by APHIS Veterinary Services’ National Surveillance Unit.

See Section A 8.3 for exemptions to interstate movement requirements.

(8.2) Issuance of Certificates (CVI) for Interstate Movement

The certificate of veterinary inspection (CVI) issued for interstate movement must contain the following information:

1. Consignor and herd of origin with complete address and premises identification.

2. The CWD HCP status.

3. Total number of animals being moved.
4. Purpose of movement.
5. Consignee and point of destination with complete address.
6. Identification for each animal in shipment.
7. A statement that the animals are not known to be from a CWD-exposed or CWD-suspect herd. The veterinarian must also certify that the animals were not exhibiting clinical signs of disease at the time of examination.

The consignor or owner should contact the State animal health official in the State of destination to determine if there are any additional requirements.

(8.3) Exemption for Interstate Movement
Animals Moved Directly to Slaughter
Farmed or captive deer, elk, moose, or other species of *Cervus, Odocoileus and Alces* and their hybrids may move interstate directly to a recognized slaughter establishment for slaughter. Owners must notify the State official or APHIS employee coordinating CWD activities in their State of plans to ship directly to slaughter (See Section A 5.5 for details).

The consignor or owner should contact the State animal health official in the State of destination to determine if there are any additional requirements.

Research Animals
A research animal permit is required for interstate movement of cervids for research purposes. The VS Form 1-27, “Permit to Move Restricted Animals,” may be used for movements of CWD-exposed, CWD-suspect, and CWD-infected animals.

Interstate Movements Approved by the Administrator
Interstate movement of farmed or captive deer, elk, and moose may be allowed on a case-by-case basis when the Administrator determines that adequate survey and mitigation procedures are in place to prevent the dissemination of CWD and issues a permit for the movement.
Part B. Guidance on Response to CWD-Affected Herds

The CWD regulations at 9 CFR 55 describe minimum requirements in response to the finding of a CWD-affected herd in accordance with the national CWD HCP. Information in this section further provides suggested best management practices that may be used by a State and herd owner to investigate and manage CWD-affected herds. APHIS will serve in an advisory capacity on details presented in this section. Recommended management procedures include quarantine, depopulation, cleaning and decontamination, epidemiology investigations, and development of herd plans.

(1) Herd Plan

States should develop a written herd plan for any CWD-positive, exposed, or suspect herds. These individual plans are based on the evaluation of the affected premises and herd by State officials and provided to the owner for agreement. The plans may be reviewed by appropriate VS personnel. Herd plans are to be signed by the herd owner and the appropriate State officials, and should be adopted within 60 days of a confirmed diagnosis of CWD.

In general, a herd plan includes:

1. Specified means of identification for each animal in the herd.
2. Regular examination (time period as determined by the State or APHIS officials) of animals in the herd by a veterinarian for signs of disease.
3. Reporting to a State or APHIS representative of any signs of central nervous system or wasting disease in herd animals.
4. Maintaining records of births and deaths as well as of the acquisition and disposition of all animals entering or leaving the herd, including the date of acquisition or removal, name and address of the person from whom the animal was acquired or to whom it was disposed, and the cause of death, if the animal died while in the herd.
5. Testing of all mortalities. Records should be maintained for all samples submitted for CWD testing.

A herd plan may also contain additional requirements to prevent or control the possible spread of CWD, depending on the particular condition of the herd and its premises, including but not limited to:

1. Depopulation of the herd.
2. Specifying the time for which a premises must not contain cervids after CWD-positive diagnosis.
3. Removal of exposed or suspect animals from the premises.
4. Fencing requirements.
5. Selective culling of animals.
6. Restrictions on use and movement of possibly contaminated livestock equipment.
7. Cleaning and disinfection requirements, or other requirements. If a positive or exposed herd is depopulated, the written herd plan will consist only of premises cleaning and disinfection and restocking requirements.

A herd plan may be reviewed and changes proposed at any time by any party signatory to it in response to changes in the situation of the herd or premises. The plan may also be changed if improvements in understanding of the nature of CWD epidemiology; or techniques to prevent its spread, occur. However, any proposed changes must be reviewed and approved by all signatories before they are adopted.

If a producer does not follow the terms of the herd plan and CWD recurs in animals on the premises, the owner may be liable for infecting other cervids and herds, and subject to any regulatory penalties by the State.

Additional information on herd plans is provided in Appendix IV.

(1.1) **Herd Plan: CWD-Positive Herds**

A. **Whole Herd Depopulation With or Without Repopulation**

1. Depopulation of the whole herd is the preferred option for response to CWD-positive herds.

2. CWD-positive and exposed animals that are depopulated must be tested and disposed of according to VS guidelines for CWD carcass disposal (Section B 2 and Appendix V of these Program Standards) and all applicable Federal, State, and local regulations.

3. Herd plans must also include a premises plan because of possible environmental contamination. Premises plans include cleaning and disinfecting actions, future land use in terms of restocking, maintenance of fencing to prohibit access by wild cervids, and the time period for surveillance before interstate animal movement is allowed if restocking occurs. Further herd plan guidelines are located in Appendix IV.

B. **Quarantine With or Without Selective Culling of Animals**

If long-term quarantine of the affected herd instead of depopulation is implemented by State animal health officials in discussion with the owner, then additional restrictions will be required on the cervids remaining on the premises.

1. After an evaluation of the quarantined herd, this plan may include euthanasia, testing, and disposal of selected animals dependent on exposure. Any CWD-positive animals must be disposed of according to VS guidelines for CWD carcass disposal (Section B 2 and Appendix V of these Program Standards) and all applicable Federal, State, and local regulations.

2. The herd will remain under quarantine for 60 months from the last case. During this time, the herd may be required to undergo monthly inspections by State personnel with removal and CWD testing of any suspect animals. Exceptions to the inspection schedule may be allowed by the State official after consultation with the AVIC or other appropriate VS personnel.
3. The owner will maintain an inventory complete with the following information for each individual animal:

   a. All identification (tags, tattoos, electronic implants, etc.).
   b. Date of birth.
   c. Sex.
   d. The date of acquisition and source of each animal that was not born into the herd.
   e. The date of removal and destination of any animal removed from the herd (animals in quarantined positive herds may only be removed for destruction or under permit).
   f. Mortality date for animals dying within the herd and CWD official test results for all animals tested.
   g. Method and location of carcass disposal.
   h. Date of submission, submitter, and official CWD test results for samples required by the herd plan.

   The inventory for a newly identified positive herd must be verified by a State official or accredited veterinarian and provided to APHIS within 30 days of the positive diagnosis. The owner will help complete the inventory verification. State or Federal personnel will verify this written (paper) inventory annually.

4. The herd premises must have perimeter fencing adequate to prevent entry or exit of cervids. This fencing must comply with any applicable State regulations and follow the guidance provided in these Program Standards. The fence must be structurally sound, maintained in good repair, and of sufficient construction to contain the animals. Based on studies referenced in Appendix II, APHIS recommends the perimeter fencing to be a minimum of 2.4 meters (8 feet) high.

   In areas where CWD is not known to be present in free-ranging wild cervids, a second barrier is recommended that is adequate to prevent fenceline contact of wild cervids with this exposed herd. Examples of barriers are described in Appendix II.

   The effectiveness of these fencing requirements for the species included in the CWD rule is being evaluated and requirements may change based on future research findings.

5. Herd surveillance (mandatory mortality reporting and CWD testing of animals of all ages that die or are euthanized) is to be conducted during the quarantine and continues for 60 months from the last case.

6. If CWD continues to be detected and the producer decides that he or she will not be able to successfully manage the herd out of the disease, herd depopulation should be considered.

(1.2) **Herd Plan: CWD Exposed Herds**

A trace-forward exposed herd is a herd that has received an animal from a CWD-positive herd within 60 months before the diagnosis of CWD in the positive herd. A trace-back exposed herd is
a herd in which a CWD-positive animal had resided in any of the 60 months before diagnosis of CWD in the positive herd. If the positive animal was a natural addition, the origins of all purchased animals for the previous 60 months should be evaluated to locate a possible source herd for introduction of the CWD infection.

**Trace-Forward Exposed Herd**

**A. Herd Plans for Trace-ForwardExposed Herds**

1. APHIS recommends that exposed animals traced to a herd be removed and tested at the expense of the owner, the State, or both.
   
   a. If the animal is CWD-positive, the herd is considered to be positive and handled as in Section B 1.1.
   
   b. If the animal is negative, no additional actions are required.

2. If an exposed animal traced to the herd is not removed, the herd plan should stipulate the following:
   
   a. The whole herd in which the trace-forward animals reside will remain under quarantine for 60 months from the date of the arrival of the exposed animal into the herd. During this time the herd will undergo monthly inspections by State or Federal personnel with removal and CWD testing of any suspect animals. Exceptions to the inspection schedule may be allowed by the designated epidemiologist in consultation with the State or the AVIC.

   b. If the herd has been participating in surveillance as part of the herd certification program, surveillance performed after arrival of the exposed animal may count as time in quarantine at discretion of the State animal health official and APHIS.

   c. The owner will maintain an inventory with the following information for each individual animal:
      
      - All identification (tags, tattoos, electronic implants, etc.).
      - Date of birth.
      - Sex.
      - Species.
      - The date of acquisition and source of each animal that was not born into the herd.
      - The date of removal and destination of any animal removed from the herd (animals in quarantined exposed herds may be removed only for destruction or under permit).
      - Mortality date for animals dying within the herd and CWD test results for all animals tested.
      - Method and location of carcass disposal.
      - Date of submission, submitter, and results for samples required by the herd plan.
The inventory for a trace-forward exposed herd that chooses quarantine must be verified by a State official or accredited veterinarian and provided to APHIS within 30 days of the identification of the trace-forward exposed animals. The owner will provide the necessary assistance to complete the inventory verification.

State or Federal personnel will verify this written (paper) inventory annually.

3. The herd premises must have perimeter fencing adequate to prevent ingress or egress of cervids. This fencing must comply with any applicable State regulations and follow the guidance provided in these Program Standards. The fence must be structurally sound, maintained in good repair, and of sufficient construction to contain the animals. Based on studies referenced in Appendix II, APHIS recommends the perimeter fencing to be a minimum of 2.4 meters (8 feet) high.

In areas where CWD is not known to be present in free-ranging wild cervids, a second barrier is recommended that is adequate to prevent fenceline contact of wild cervids with this exposed herd. Examples of barriers are described in Appendix II.

The effectiveness of these fencing requirements for the species included in the CWD rule is being evaluated and requirements may change based on future research findings.

4. Herd surveillance (mandatory death reporting and CWD testing of animals of all ages which die or are euthanized) is to be conducted during the quarantine.

5. If the producer chooses quarantine and CWD is diagnosed during the quarantine period, herd depopulation should be considered.

**Trace-Back Exposed Herd**

**B. Herd Plans for Trace-Back Exposed Herds**

1. The preferred action in herds identified as trace-back exposed is, in most cases, whole-herd depopulation and testing. However, if the epidemiological investigation is able to pinpoint the likely point of infection of the positive animal, depopulation of herds in which the animal resided before that point may not be necessary. If not already participating, these herds should be encouraged to enroll in the program.

Animals that moved from trace-back herds during the time the positive animal was in residence also should be traced.

2. If the herd owner decides against depopulation, the herd will remain under quarantine for 60 months from the last case traced back to the herd. The owner must also agree to a herd plan. During this time, the herd plan will include:

   a. Monthly inspections by State or Federal personnel with removal and CWD testing of any suspect animals. Exceptions to the inspection schedule may be allowed by the designated CWD epidemiologist in consultation with the State, the AVIC, or both.

   b. If the herd has been participating in surveillance as part of the HCP, time in surveillance after arrival of the exposed animal may count as time in quarantine
at the discretion of the designated epidemiologist and Federal and State animal health officials.

c. The owner will maintain an inventory complete with the following information for each individual animal:
   
   - All identification (tags, tattoos, electronic implants, etc.)
   - Date of birth.
   - Sex.
   - The date of acquisition and source of each animal that was not born into the herd.
   - The date of removal and destination of any animal removed from the herd (animals in quarantined exposed herds may be removed only for destruction or under permit).
   - Mortality date for animals dying within the herd and CWD test results for all animals tested.
   - Method and location of carcass disposal.
   - Date of submission, submitter, and results for samples required by the herd plan.

The inventory for a trace-back exposed herd that chooses quarantine must be verified by a State official or accredited veterinarian and provided to APHIS within 30 days of the identification of the herd as a trace-back exposed herd. The owner will help complete the inventory verification. State or Federal personnel will verify this inventory annually.

3. The herd premises must have perimeter fencing adequate to prevent ingress or egress of cervids. This fencing must comply with any applicable State regulations and follow the guidance provided in these Program Standards. The fence must be structurally sound, maintained in good repair, and of sufficient construction to contain the animals. Based on studies referenced in Appendix II, APHIS recommends the perimeter fencing to be a minimum of 2.4 meters (8 feet) high.

In areas where CWD is not known to be present in free-ranging wild cervids, a second barrier is recommended that is adequate to prevent fenceline contact of wild cervids with this exposed herd. Examples of barriers are described in Appendix II.

The effectiveness of these fencing requirements for the species included in the CWD rule is being evaluated and requirements may change based on future research findings.

4. Herd surveillance (mandatory death reporting and CWD testing of all age animals which die or are euthanized) is to be conducted during the quarantine.

5. If the producer chooses quarantine and CWD is diagnosed during the quarantine period, herd depopulation should be considered.
(1.3) Quarantine
CWD-positive or exposed herds are to be issued quarantines or hold orders by the State animal health official. Exposed animals in a positive or trace herd must remain on the premises unless a State or Federal permit for movement (such as VS Form 1-27) to a depopulation site or to a research facility has been obtained.

APHIS defines quarantine as an order issued by a State official prohibiting movement of animals from or into a premises for a given period of time. Some State regulations do not prohibit movement of animals onto a quarantined premises. If captive cervid herds in which CWD is confirmed are not depopulated, they will remain under quarantine for a minimum of 60 months after the last case has been confirmed.

(1.4) Release from Quarantine
Quarantine may be released only after all herd plan requirements have been met.

(1.5) Depopulation
Whole-herd depopulation and testing of all cervids on the premises is the preferred action to be taken in response to a positive herd. Depopulation activities will be at the cost of the owner, the State, or both.

Depopulation and testing may also be the preferred action for trace-forward exposed animals and trace-back herds that are epidemiologically implicated as source herds or exposed herds.

(2) Carcass Disposal
This section outlines the guidelines that States and herd owners can use for the disposal of carcasses from positive or exposed herds or from trace-exposed animals.

(2.1) Suitable Disposal Methods
Remains of CWD-positive or exposed animals should be disposed of in compliance with all Federal, State, and local regulations. Incineration, alkaline digestion, disposal of materials in appropriate landfills, and burial onsite are the most suitable options. Detailed disposal guidelines can be found in Appendix V.

(3) Sanitary Precautions/Biosecurity
Cleaning, disinfection, and decontamination instructions are located in the Herd Plan guidelines in Appendix IV.

Any third-party vehicle used to transport cervids must be cleaned and disinfected before and after transporting cervids. The owner will require the transporter to provide a statement that the truck or trailer was cleaned and disinfected and will keep a copy of the statement.

Producer-owned equipment for transport of animals must be cleaned and disinfected if it is to be used for multiple herds managed by the same producer. Producers should keep records of this activity.

Vehicles such as cars, pickup trucks, and tractors only may be shared among herds or premises under common ownership. These are considered to be commingled herds.
Equipment that tends to be heavily contaminated with soil or feces such as manure spreaders and 
drags may not be shared among herds or premises unless it is cleaned and disinfected each time.

Other equipment that should not be shared unless herds are commingled includes, but is not 
limited to, feed bunks, water troughs, chutes, buckets, and multiple-use medical equipment (antler 
removal equipment, bolus guns, multiple-dose syringes, etc.).

For herds managed by the same owner, personnel working with these herds must wear different 
outerwear (e.g., boots and coveralls) when moving from one herd to another.

(4) Epidemiology

This section is an outline for States on epidemiological investigation methods and responsibilities 
for determining the source of infection as well as the extent of exposure when an infected animal 
has been identified.

(4.1) Responsibility

An epidemiological investigation will be conducted by a State representative once an animal has 
been confirmed to have CWD. When appropriate, and when there are available Federal funds, VS 
personnel will assist with the investigations. The investigation should be started within 7 business 
days of the laboratory confirmation by a State official or designee.

Case investigation and reporting information should be entered into the Emergency Management 
Response System.

Where possible, VS personnel will work with the State and the Area Office to prepare educational 
materials about CWD that can be provided to owners to mitigate future disease transmission.

(4.2) Investigation

The investigation identifies the source of infection in a herd as well as other animals that may 
have been exposed to CWD. See Appendix VII for an example of an Epidemiology Report 
template.

The investigation should identify:

1. Source of infection in a positive herd when the positive animal was a natural addition 
   (born in the infected herd and resided there for its lifetime). The focus should be on how 
   CWD may have been introduced into the herd (e.g., movement of other animals into the 
   herd or potential exposure to infected wild cervids). The origin of all purchased animals 
   into the herd should be evaluated to determine if the source of CWD infection can be 
   identified.

2. Trace-back herds – An exposed herd in which a CWD positive animal resided in any of 
   the 60 months before the diagnosis. If the positive animal was a natural addition, the 
   origins of all purchased animals for the previous 60 months should be evaluated to locate 
   a possible source herd for introduction of the CWD infection.

3. Trace-forward herds – A herd that has received exposed animals from a positive herd 
   within 60 months before the diagnosis of CWD in the positive herd or from the identified 
   point of entry of CWD into the positive herd.
4. Any other susceptible animals which may have been exposed to CWD from direct or indirect contact (e.g., exposure to wild cervids).

**4.3 Trace-Back and Trace-Forward Notifications**

Trace-back and trace-forward herd owners and their respective State authorities should be notified within 15 business days after their herds are identified as exposed. All notification should be provided in writing to the respective State or States and a copy provided to the AVIC in the corresponding Area Office even if the initial contact was verbal.

If these herds reside in States different than the positive herd, notification will be accomplished through the respective Federal or State official. On notification, actions regarding trace-back and trace-forward herds enrolled in the national CWD HCP should be taken as prescribed in these Program Standards.
Appendix I. Official Animal Identification

The requirements for Official Animal Identification are described in 9 CFR 55.25.

Each animal required to be identified must have at least two forms of identification attached to its body.

One of the animal identifications must be official animal identification with a nationally unique animal identification number that is linked to that animal in the CWD National Database (SCS Core One – National Instance) or equivalent State database.

The type of official identification device must be approved by APHIS. The devices can be an electronic implant, legible flank tattoo, legible ear tattoo, tamper-resistant ear tag, or any other device approved by APHIS.

The official identification number must use one of the APHIS-approved numbering systems to provide a nationally unique identification number. These numbering systems include:

1. National Uniform Eartagging System.
2. Animal Identification Number (AIN).
3. Premises-based number system using a Premises Identification Number (PIN) in conjunction with a livestock production numbering system.
4. Any other numbering system approved by the Administrator for the identification of animals in commerce.

The device must be applied by the owner of the herd or his or her agent and be linked to that herd in the National CWD Database (SCS Core One – National Instance) or equivalent State database. If a microchip is used and the animals will be slaughtered under State or Federal meat inspection, it should be used in compliance with applicable State or Federal regulations.

The second animal identification must be unique to the individual animal within the herd and also be linked to that animal and herd in the National CWD Database (SCS Core One – National Instance) or equivalent State database. As an example, the unique Animal Identification Number may be used on two separate identification devices on the same animal to fulfill the identification requirements if desired.

See APHIS Web site link for additional information on animal identification:
Appendix II. Fencing Requirements and References

The herd premises must have perimeter fencing adequate to prevent entry or exit of cervids. In herd premises already existing at the time of the effective date of the CWD rule, fencing must comply with any existing State regulations or requirements. For herds established after the effective date of the CWD rule, the fence must be a minimum of 2.4 meters (8 feet) high and must comply with any other existing State requirements. At least one study (VerCauteren, et al. 2010) recommends fence height greater than 2.4 meters (at least 10 feet) to ensure 100 percent containment. In general, the fence must be structurally sound, maintained in good repair, and of sufficient construction to contain the animals.

Selected Studies on Farmed Cervid Fencing

VerCauteren, et al. (2010) evaluated the ability of wild-caught white-tailed deer to jump progressively taller woven-wire fences. They documented a 100 percent deterrence rate when the test fence was 2.4 m tall, suggesting that a 2.4 m fence will contain or exclude most deer under similar conditions. However, a survey of 150 wildlife biologists found six individuals who had witnessed deer jump fences higher than 2.4 m, suggesting that only a higher fence could achieve 100 percent deterrence. Other factors that may reduce a fence’s effective height include topography, snow depth, and the motivation level of the cervid to penetrate the fence.

VerCauteren, et al. (2007a and b) also measured behaviors and contacts through game-farm fences between farmed and wild white-tailed deer in Michigan and between farmed elk and wild elk and mule deer in Colorado. All sites in Michigan employed a single 3 m high woven-wire fence. Fence types in Colorado included a single woven-wire fence (2.4 m high), double woven-wire fences separated by 1 to 4 m (2.4 m high), and a single woven-wire fence (2.4 m high) plus a 3-strand offset electric fence either inside or outside the woven-wire fence. The study recorded only two direct naso-oral contacts between wild and farmed deer in Michigan during more than 77,000 hours of camera monitoring. Conversely, 77 interactions were documented between wild and farmed elk involving naso-oral contact. No direct contacts were observed through double woven-wire fences. Risk of direct contact was about 3.5 times greater for single woven-wire fences compared to an offset electric fence attached to the single woven-wire fence.

Expanding on the offset electric fence type, Fischer, et al. (2011) examined the effectiveness of a baited electric fence, as an addition to an existing single woven-wire fence (2.4 m high), for reducing fenceline contact between captive elk. They reported 426 direct contacts between elk through the existing woven-wire fence during trials without the electric fence; 0 direct contacts occurred between adult elk or the woven-wire fence when the baited-electric fence was in place.

Literature Cited


Appendix III. Sample Collection

When CWD is suspected in a live or dead animal, or when an animal dies and is over 12 months of age, the owner must contact, within 1 business day of discovery, a State animal health official, an accredited veterinarian, or a CWD-certified sample collector to ensure samples are submitted for CWD testing. APHIS or State representatives may approve reporting schedules other than immediate notification when herd conditions or circumstances warrant it in the opinion of both APHIS and the State. It is the responsibility of the herd owner to have samples collected and preserved properly or to preserve the head by refrigeration for sampling. Refrigerated heads also may be shipped to an APHIS-approved CWD laboratory for this purpose (see Head Removal and Whole Head Packaging Procedures section for instructions). Owners also must ensure that fresh samples or heads can be refrigerated over weekends and holidays.

While whole brain specimens are preferred, especially in the case of CWD suspect animals, collection of brain stem including the obex area is a valid alternative if whole brain collection is not practical. In deer, the medial retropharyngeal lymph node (MRPLN) usually becomes immunohistochemistry (IHC) positive first; hence, it also is an important tissue to sample. However, in elk and other *Cervus* species and some deer, the obex may become positive first; therefore, we require that the obex and MRPLNs be collected from all susceptible animals regardless of species.

The obex and MRPLNs should be fixed in 10 percent buffered formalin. Animal identification (eartags, tattoos, etc.) should be submitted with a portion of the skin or ear to which they have been affixed. These samples can be used for DNA testing if there is some dispute regarding origin of the sample. Chain of custody techniques should be followed in the field and the laboratory to assure the owner that there is no chance of a mixup. The owner may observe the sampling and labeling procedures to assure his or her sample is properly identified.

A link to VS Form 10-4 can be found in Appendix VIII.

The collector will include the following with each diagnostic submission:

1. Completed VS Form 10-4 or an equivalent form with the same information found on the 10-4. *(Note: the VS Form 10-4 is for use only by an APHIS representative, a State animal health official, or an accredited veterinarian with approval of the AVIC.)* In the case of whole heads submitted to a laboratory by the owner, the owner’s name, address, phone number, herd ID, and the animal’s ID numbers, age or date of birth, breed, sex, and any clinical signs observed should be included with the shipment.

2. All ID devices, tattoos, and any brands on the animal.

3. Age of animal based on owner records.


5. Obex/brainstem and MRPLN collected and packaged as described below.

6. Any additional samples as requested by the State Veterinarian or AVIC, including samples requested for research.
A. Safety Precautions

It is the responsibility of the collector to take appropriate safety precautions. Measures should be taken to avoid contact with specimens. To minimize exposure to pathogens, the following precautions should be taken:

1. Wear personal protective equipment (PPE) at all times.
2. Cover cuts, abrasions, and wounds with waterproof dressing if not covered by PPE.
3. Use face and respiratory protection, including a well-fitted respiratory mask and face shield or goggles to protect from infective droplets or tissue particles. Wear gloves while handling specimens and formalin.
4. Use 10 percent buffered formalin in a well-ventilated area.
5. Take steps to avoid creating aerosols, splashes, and dusts.
6. Wash hands and exposed skin following collection procedures.
7. Wash and disinfect protective clothing and instruments thoroughly after use. Use 50 ounces (6 1/4 cups) bleach to enough water (78 ounces or 9¾ cups) to give 1 gallon of solution at room temperature (at least 18.3 °C or 65 °F for 1 hour.)
8. If rabies is suspected, do not proceed with any tissue collection. Instead, submit the entire brain to the rabies laboratory. Try to arrange in advance with the rabies laboratory to collect and place the obex in formalin. After rabies testing is completed, proceed with CWD sampling on rabies-negative brains.

B. Personal Protective Equipment

Personal protective equipment (PPE) is designed to minimize exposure to pathogens while collecting samples.

According to the Occupational Safety and Health Administration, PPE is defined as “specialized clothing or equipment worn by employees for protection against health and safety hazards.” PPE is designed to protect many parts of the body (i.e., eyes, head, face, hands, feet, and ears.). PPE is selected based on the environment, physical hazards, and ability to complete the task. PPE is a balance between protection and comfort. PPE should protect an individual from the physical hazards of the collection environment while allowing the individual to comfortably collect specimens. Even though the environment where collecting specimens will differ, the following PPE must be worn at all times during collection of CWD specimens:

1. Skin Protection

   Protect your skin from contact with fluids during specimen collection. Wear waterproof coveralls, preferably disposable, or coveralls with a waterproof apron and forearm protectors.

2. Eye and Face Protection

   Protect your eyes and face from any aerosols, splashes, or dusts that may be created while collecting specimens. Eye protection includes safety glasses, safety goggles, or a face shield.
3. **Hand Protection Gloves**
   a. Wear metal or mesh gloves. Always wear the cut-resistant glove (Hantover, Koch, or Packer) on your off hand (left hand for right-handed individuals and right hand for left-handed individual.) Find a cut-resistant glove that fits against your skin and then wear a rubber glove on top of it.
   b. Wear latex or nitrile examination gloves or thick rubber gloves that extend halfway up the forearm. Many people prefer the long, thick rubber gloves for the added protection.

4. **Foot Protection**
   Protect your feet from injuries such as spills or splashes, impact, compression, or exposure. Wear steel-toed rubber boots when collecting specimens. If steel-toed boots are not available, pullover rubber boots are acceptable.

5. **Respiratory Protection**
   Face masks or respirators are recommended if the environment includes aerosols, splashing, or flying debris as may be encountered with certain methods of brain removal or tissue handling. CWD cannot be transmitted through the air or to humans. However, other zoonotic diseases such as rabies may be present during CWD collection. Also, *Listeria (Arcanobacterium) pyogenes* is known to cause brain abscesses in cervids and should be considered a potential zoonotic agent.

**Instructions for Veterinarians and Animal Health Technicians**

1. **Collector’s Responsibility**
   Specimens submitted to NVSL or the approved laboratories must be traceable to the source animal and farm. The sample collector should follow all instructions for sample collection, completing VS Form 10-4 or its equivalent and labeling sample containers. The sample collector must accurately complete the specimen collection and submission process. Failure to do so may result in the erroneous destruction of animals or loss of herd status, which is an irretrievable economic loss to herd owners.

   When collecting specimens:
   a. Properly collect brainstem with obex, and both left and right MRPLN.
   b. Correctly label specimen collection containers.
   c. Correctly package specimens to meet Federal transportation guidelines. For Category B (UN3373) packaging and shipping details, contact the receiving laboratory, or NVSL, or visit the following Web site: www.aphis.usda.gov/animal_health/lab_info_services/packaging_labeling.shtml
   d. Properly complete the specimen submission form (VS Form 10-4 or electronic 10-4, or equivalent submission form). Be sure to indicate whether the animal was an exposed animal or an animal with no known exposure. Also indicate whether
the animal was exhibiting clinical signs. If the animal exhibited clinical signs, list the signs in the Additional Data Section of the VS Form 10-4 or equivalent form.

e. Make four copies of the completed VS Form 10-4 or equivalent form:
   - One for your files (submitter’s copy).
   - One for the animal owner or collection site.
   - One for the VS Area Office.
   - One to be submitted with the specimen.

f. Follow the laboratory’s procedure for notifying the laboratory of incoming specimens.

g. Contact the delivery service. Ensure that the package containing any fresh tissues for CWD testing will be shipped with ice packs for overnight delivery to the laboratory.

2. Sample Quality

Tissues without autolysis (decomposition) should be collected and submitted to any APHIS CWD-approved laboratory. A list of laboratories approved to conduct CWD testing is available at: http://www.aphis.usda.gov/animal_health/lab_info_services/approved_labs.shtml.

Samples with mild or moderate autolysis should be submitted only if they meet the criteria listed below. Approved labs should evaluate the condition of the autolyzed samples to determine if the samples are of sufficient quality to be reliably tested or if the samples should be sent directly to NVSL.

   a. Brain stem samples with mild or moderate autolysis may be submitted if the obex can be identified.

   b. MRPLNs with mild or moderate autolysis should be submitted as long as the capsule (outer membrane) is still intact.

3. Labeling Sample Containers

The specimen collection containers must be properly labeled. The information on the label provides detailed information to the laboratory regarding the specimens. The sample number or sample bar code on the container must be the same as on the completed VS Form 10-4 (or equivalent form).

Clearly label both the top and the side of the sample container. Identify the sample by typing the information, using a permanent marker, or affixing the bar code (if available). Verify that the sample number that appears on the top and side of the sample container and the completed VS Form 10-4 (or equivalent form) are identical.

The side label must include:

   a. Date of collection.
b. Producer name.

c. Species.

d. Type of specimen.

e. Official animal ID number.

f. Sample ID number (number assigned to this sample on the VS Form 10-4 or equivalent form).

4. **Samples and Sample Packaging**

Properly preserve CWD specimens to ensure accurate test results. CWD diagnosis may require the submission of fresh and fixed specimens.

**Fresh tissue specimens are used for Western blots.** *Fresh tissue specimens must be kept chilled.* While dry ice may be used, it is usually best to ship the chilled tissues overnight on ice packs.

**Formalin-fixed specimens** are used for IHC testing, histopathology and DNA comparison. The specimen must be submerged in 10 percent buffered formalin (follow the guideline of 10 parts buffered formalin per 1 part specimen). **Do not freeze the formalin-fixed specimens.**

Use the following three tables as a guide for the proper tissue specimens that must be collected for an animal based on its situation. **Note:** Ensure the sample container correctly lists all specimens included.

### Table 1. Tissue specimens for non-exposed animals without clinical signs (routine submission).

<table>
<thead>
<tr>
<th>10 percent buffered formalin: Single container for each animal</th>
<th>Fresh: Western blot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left and Right MRPLNs</td>
<td>Left and Right MRPLNs</td>
</tr>
<tr>
<td>Obex with 1-2 cm brain stem (including the apex of the “V” in the obex)</td>
<td>Obex with 1-2 cm brain stem (including the apex of the “V” in obex)</td>
</tr>
<tr>
<td>Tonsils (optional)</td>
<td>Tonsils (optional)</td>
</tr>
<tr>
<td>Animal ID device(s). Collect all animal ID devices with a quarter-sized piece of tissue (ear, hide, etc.) attached to each device. This will allow DNA verification if necessary. This should be kept fresh, but some laboratories will accept ID tissue samples in formalin. Verify with the receiving laboratory.</td>
<td>Animal ID device(s). Collect all animal ID devices with a quarter-sized piece of tissue (ear, hide, etc.) attached to each device. This will allow DNA verification if necessary. This should be kept fresh, but some laboratories will accept ID tissue samples in formalin. Verify with the receiving laboratory.</td>
</tr>
</tbody>
</table>
Table 2. Tissue specimens for exposed animals, suspect animals, or animals with specific clinical signs suggestive of CWD**.

<table>
<thead>
<tr>
<th>Specimens</th>
<th>Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 percent buffered formalin: Single container for each animal</td>
<td>Fresh: Western blot</td>
</tr>
<tr>
<td>Left and Right MRPLNs</td>
<td>Left and Right MRPLNs</td>
</tr>
<tr>
<td>Obex with 1-2 cm brain stem (including the apex of the “V” in the obex)</td>
<td>Obex with 1-2 cm brain stem (including the apex of the “V” in the obex)</td>
</tr>
<tr>
<td>Tonsils (optional)</td>
<td>Tonsils (optional)</td>
</tr>
</tbody>
</table>

** Animals with “specific clinical signs” include those that are non-ambulatory, ante-mortem condemned or die before slaughter, or are ataxic. Suspect animals are highly suspicious for CWD because they are exhibiting central nervous system (CNS) signs. Suspect and presumptive-positive animals should be submitted on separate VS Form 10-4s and shipped separately to allow NVSL to prioritize testing these cases. Note: If rabies testing is required, submit entire brain to the rabies laboratory unless arrangements have been made in advance with the rabies laboratory to collect and place the obex in formalin. After rabies testing is completed, proceed with CWD sampling on rabies-negative brains from animals presenting with neurologic symptoms, are unthrifty (debilitated), may be salivating, or exhibiting nonspecific respiratory signs.

5. Collection Procedures

The collection of the obex and MRPLNs can be completed using several methods. However, these collection procedures describe the preferred methods to prevent inadvertent damage to the tissues during collection. Other methods may be used. Contact an experienced professional for more information regarding alternative collection methods. The link to the CWD Program Sample Collection Guidance with dissection photos and instructions can be found in Appendix VIII.

The following equipment will help ensure proper specimen collection:

a. Sharp boning knives.

b. Disposable scalpels, disposable scalpels, or a large scalpel blade is acceptable.

c. Brown-Adson or rat-tooth forceps.

d. Meat cutting bone saw, hacksaw, or electric saw when brain removal is required.

e. Disposable cutting surfaces such as cardboard, plastic or Styrofoam.

f. Small hand nippers can be used on the hyoid bones or you may cut through at the joint using a knife.

g. Sharp stainless steel scissor.

h. Brain stem/obex spoon, grapefruit knife, or other brain stem scoop.
6. **Obex Collection Procedure (Via Foramen Magnum)**
   
a. Incise the head of the animal at the atlanto-occipital joint (between skull and first vertebra). Cut behind the back of the ears and extend the cut around and through the front of the larynx. Sever the brain stem as far to the posterior as possible during the removal process.

b. Position the head upside down (ventral side up). Locate the occipital condyles and foramen magnum (FM). Locate the brain stem inside the FM. Trim the dura mater around the brainstem and cut the attached cranial nerve trunks.

c. Gently lift the brain stem with forceps and insert the spoon into the **dorsal** aspect of the FM between the brainstem and **dorsal** calvarium.

d. Advance the spoon 2-3 inches rostrally until it contacts bone to sever the cerebellum.

e. Reposition the spoon in the **ventral** aspect of FM between the brainstem and the **ventral** calvarium. Advance the spoon until it contacts bone and transversely sever the brain stem.

f. Remove the brain stem using the spoon and forceps. Examine to ensure the proper obex sample (bifurcation or “V”) is preserved.

g. Further trim the brain stem section by making a transverse cut 3/4 inch in front of the “V” shape bifurcation and an equal distance behind the bifurcation for good fixation.

   **For IHC testing:** Place the trimmed obex and brainstem pieces in a jar of 10 percent buffered formalin (10:1 ratio of formalin to tissue sample).

7. **Medial Retropharyngeal Lymph Node (MRPLN) Collection Procedures**

   The MRPLN’s are medial to the stylohyoid bones on the dorsolateral surface of the pharyngeal muscles and dorsal to the carotid artery.

   a. With the head positioned upside down, locate the esophagus and trachea above the FM.

   b. Lift the trachea and dissect muscles forward of the FM (rostrally). Locate the left and right medial retropharyngeal lymph nodes (RPLN) halfway between each corner of the jaw bone and the FM, caudal to the nasopharynx, and deep to the salivary gland. Lymph node consistency is much firmer and rounder than the surrounding tissue.

   c. Remove each left and right medial RPLN and longitudinally incise each LN to confirm lymphoid tissue.

   **For IHC testing:** Place the medial RPLNs in the same formalin jar with the obex.
8. **Head Removal and Whole Head Packaging Procedure That May be Used by Owners for Submission to Laboratory**

**Tools**

a. Sharp boning knife.

b. Two heavy duty plastic bags and ties.

c. If shipping the head, shipping container with cooler, large heavy-duty plastic bag, absorbent material and four frozen cool packs. Contact your inspector or the VS Area Office for shipping containers. A list of Area Offices can be found at [http://www.aphis.usda.gov/animal_health/area_offices/](http://www.aphis.usda.gov/animal_health/area_offices/)

**Procedures**

a. If the carcass is intact, remove the head. This is done at the atlanto-occipital joint, which is where the skull meets the first cervical vertebrae.

b. Position the animal in ventral recumbency (lying on its abdomen).

c. Remove the head at the hinge joint where the skull meets the first cervical vertebrae (just behind the ears) using the following steps:

   - To locate the “hinge” area where the skull meets the first cervical vertebrae, grasp the nose and move the head up and down to locate the joint.

   - Insert the knife into the neck between the first cervical vertebrae and the throat. Cut downward (ventrally) with blade directed away from you through the throat tissue and skin. (Cutting down through the skin readily dulls the blade.)

   - Cut down to the membrane that covers the spinal cord; cut through the membrane exposing the spinal cord. Then cut the spinal cord as far from the head (caudally) as possible so that it is kept as long as practical.

   - Cut the lateral ligaments connecting the skull to the vertebra in a ventral to dorsal direction on both sides. This is usually best accomplished with the tip of the knife directed between the skull and vertebra.

   - Once the lateral ligaments have been severed, cut through the remaining tissue to remove the head from the carcass.

   - Now move the head with a portion of the spinal cord protruding from the foramen magnum to a comfortable height for sample collection or to package the whole head.

   - Ideally, specimens should be collected from the head onsite by an accredited veterinarian or certified CWD sample collector; however, sometimes it may be necessary to ship the entire head to the laboratory. When this is the case, skin the head leaving the ears with identification in place and place the head in a large heavy-duty plastic bag. If you are presented with a skinned head (as may occur at slaughter plants), place the animal’s identification with
about a quarter-sized piece of ear tissue attached to each ear tag in a separate bag with the bagged head inside the second bag.

- Double bag the head.
- Secure each bag in a manner that will prevent leakage by tying a knot in the bag or using twist ties, string, or cord.
- Chill the head before placing in the cool box and refrigerate the head until and during shipment to the laboratory in the cool box.

d. To pack the cool box: Put cool packs in the bottom, insert large plastic bag, insert absorbent material, insert double bagged heads, and seal bag. Place cool packs on top of bag and close cooler top. Insert submission form between cooler top and exterior box. Ship overnight. Use at least four chill packs per box and an additional chill pack for each additional head if more than two heads are shipped in the same cool box.
Chronic wasting disease (CWD) is an infectious disease of cervids. The agent is believed to be transmitted laterally. Current models show that environmental contamination may be important in transmitting and perpetuating the disease. Once a CWD-positive animal is identified on a premises, the premises must be quarantined until adequate decontamination has been performed. This is required to reduce the risk of the contaminated premises causing CWD infection in new animals placed on that site once a positive or trace herd has completed a herd plan.

These guidelines base the suggested preferred herd plan on depopulation of the entire herd following detection of the index positive animal. If a producer chooses long-term quarantine, additional restrictions on the herd may be required and will be specified in the herd plan. The State will give the plan to the owner of the premises for agreement. The basic guidelines below provide a framework for developing these herd plans.

None of the following cleaning and inactivation procedures guarantees elimination or inactivation of the infectious agent; however, the methods listed below are the most effective procedures to reduce prion levels and activity based on current information. These recommended procedures may be altered as new information becomes available.

If a producer does not follow the recommendations in the herd plan and CWD reoccurs in animals on the premises, the producer will not be compensated for the destruction of the animals and may be held liable for infecting others.

**Principles and Approach:**

- The primary methods of transmission and the time from infection to shedding are not known. Therefore, it is assumed that animals may shed the CWD agent into the environment before the onset of clinical disease.

- The agent may be shed into the environment with saliva, urine, feces, or with uterine fluids and the placenta at the time of parturition.

- Prions resist breakdown in the environment (i.e. to exposure to sunlight, freezing, or desiccation) but may slowly break down with time.

- Decontamination procedures will be directed at portions of the facility or items most likely to harbor the agent. Areas where animals (particularly positive animals) have resided will be the most contaminated. These areas should be evaluated by:
  - Assessing the facility in detail to document areas of animal congregation or particular movement patterns.
  - Characterizing the entire facility in terms of concentration of animals over time. This includes identification of fence lines (past and present), pens, corrals or handling facilities, watering and feeding areas (including natural water sources), points of concentration in a landscape (i.e. sheltered areas, woodlots etc.), drainage areas, and calving areas.
  - Identifying where known positive or suspicious animals resided relative to the areas of animal concentration. In the case of clinical animals, identify those areas where they resided during the time they were clinical.
Considering the physical nature of surfaces as well as topography and drainage of the area that might create concentration of the agent.

**Categorization of Premises:**
Premises will be categorized as premises with “No to Minimal Environmental Contamination” or “Moderate to Severe Environmental Contamination”. Where applicable, the State or Federal designated epidemiologist, with concurrence of the State or APHIS veterinarians, will assess the premises.

**Factors Used in Decisionmaking:**
1. Origin of the positive animals (born to the premises or introduced).
2. Herd history verified through records to give confidence in the herd CWD status (i.e., degree of certainty, or uncertainty, in relation to possible unreported cases).
3. The number of CWD cases (clinical and preclinical) originating from or occurring over time on a premises.

**Basic Definitions for Categories**
- “No to Minimal Environmental Contamination”: A premises where there is little evidence that there has been transmission on the premises and there is no evidence of longstanding infection of the herd. The number of cases is minimal and history and records indicate that the animals likely contracted the disease on another premises (i.e., trace animals). The animals are preclinical at the time of CWD diagnosis or are early in the clinical course of the disease.
- “Moderate to Severe Environmental Contamination”: Those premises where there is evidence that CWD has been transmitted and the premises has been contaminated; or those premises where a positive animal exposed in another herd dies of CWD or is euthanized late in the clinical course of the disease (i.e., animals are not removed from the herd while they are preclinical or early in the clinical course of the disease).

**Premises Categorized as “No to Minimal Environmental Contamination”**

**Pastures**
Intensive measures are not required.

**Dry lot – Where CWD-positive animals have been held in close confinement:**
Remove all bedding, manure, feed, or other organic material. Deeply bury (or first compost to reduce the volume, then bury composted materials) the removed material in areas not accessed by domestic animals or wildlife. Composted material should be buried deeply, incinerated, or digested by alkaline hydrolysis after composting is complete.

**Nonearth Surfaces**
(These include cement, wood, metal, tools, equipment, instruments, and other artificial items)
Remove all organic material or items (such as wooden feed bunks) and incinerate by high temperature incineration methods if possible.

Clean and wash surfaces and other items using hot water and detergent.
Allow all surfaces, tools, and equipment to dry completely before disinfecting and sanitizing using the methods outlined in Appendix VI.

**Restocking**
The premises may be restocked with non-cervid species immediately after decontamination. The premises may be restocked with cervids 1 year after decontamination. If premises are restocked with cervids they must immediately enroll in the herd certification program and all mortalities must be reported, investigated, and CWD tested regardless of age. If the premises are located in a CWD-endemic area, or any area where CWD has been found in free-ranging cervids, restocking with cervids is not recommended regardless of time frame.

**Fencing Requirements**
Fences should be maintained to prevent escape of captive animals and the entry of free-ranging cervids for at least 5 years. Such events must be reported immediately to the State authority.

**Premises Categorized as “Moderate to Severe Environmental Contamination”**

**Pastures**
Effective inactivation of the agent will destroy the forage and should only be considered where exclusion of animals from high-use areas is not an option. These will be approached on a case-by-case basis.

Small pastures where CWD-positive animals have resided or particular areas in a pasture where animals are known to have congregated may be treated as dry lots in some cases.

**Dry lot – Where CWD-positive or CWD-exposed animals have been held in close confinement (this includes but is not limited to corrals, pens, stalls, and alleyways or pathways):**
Remove all bedding, manure, feed, or other organic material. This material may be buried deeply, incinerated, chemically digested, or composted (to reduce the volume). If material is composted, it should be done in an area inaccessible to domestic animals or wildlife. Composted material should be buried deeply, incinerated, or chemically digested after composting is complete.

Remove the top 1 to 2 inches of soil. The soil removed may be buried deeply or incinerated.

**Nonearth Surfaces**
(These include cement, wood, metal, tools, equipment, instruments, and other artificial items)
Remove all organic material or items (such as wooden feed bunks) and bury deeply, or incinerate by high temperature incineration if possible.

Clean and wash surfaces and other impermeable items using hot water and detergent to remove organic materials.

Allow all surfaces, tools, and equipment to dry completely before disinfecting and sanitizing using the methods described in Appendix VI.

**Restocking**
The premises may be restocked with non-cervid species 1 month after decontamination. The owner must report all mortalities of non-cervid species to the State authority, and the causes of death must be determined. Non-cervid animals exhibiting clinical signs of progressive debilitating
disease with or without a neurologic component, and which also may not respond to medical treatment, should be sent for complete necropsy evaluation.

The premises may be restocked with cervids 5 years after decontamination. If premises are restocked with cervids they must immediately enroll in the certification program and all mortalities must be CWD tested regardless of age. If the premises are located in an endemic area, or any area where CWD has been found in free-ranging cervids, restocking with cervids is not recommended regardless of time frame.

**Fencing Requirements**
Fences should be maintained to prevent the escape of captive animals and the entry of free-ranging cervids for at least 5 years. Such events must be reported immediately to the State authority.
Appendix V. Carcass Disposal of Positive Animals or Animals of Unknown Status

Destruction or inactivation of PrP<sub>res</sub> is difficult and few treatments have been documented as completely successful. In addition, there are currently no quality assurance or quality control methods to ensure successful prion inactivation. For that reason, we have provided a list of processes reported to be ones that reduce the amount or activity of the infectious prion material.

The following is a list of acceptable options for disposal of animals infected with chronic wasting disease (CWD) and animals from CWD-positive or exposed herds euthanized as part of a diagnostic or depopulation effort.

Options:

1. Incineration of carcasses in an Environmental Protection Agency-approved conventional incinerator, air curtain incinerator, or cement kiln. After incineration, ashes should be buried in an active, licensed landfill at a depth that meets local and State regulations to prevent scavenging or contamination of groundwater. Incineration of animals onsite with a mobile incinerator is an option as it presents the least risk of spreading contaminated materials by moving animals. However, mobile incinerators require large amounts of fuel to maintain an even, high temperature appropriate for prions.

2. High-pressure alkaline hydrolysis of carcasses followed by burial of the treated material in an active, licensed landfill at a depth that meets local and State regulations.

3. Removal of high-risk materials such as heads (with brain), spinal cords, and lymphoid tissues (including entire gastrointestinal tract) for incineration or alkaline hydrolysis followed by burial of the treated high-risk materials as well as the remainder of the carcass in an active, licensed landfill at a depth that meets local and State regulations for animal carcass disposal. Please note that CWD prions may be found throughout the body including skeletal muscle; therefore, this approach is not the most effective for prion reduction.

4. Rendering of carcasses. If a rendering facility is used, it must be one that does not provide rendered material for use in animal feeds. Food and Drug Administration Center for Veterinary Medicine guidance on rendering can be found at: [http://www.fda.gov/downloads/AnimalVeterinary/GuidanceComplianceEnforcement/GuidanceforIndustry/UCM052506.pdf](http://www.fda.gov/downloads/AnimalVeterinary/GuidanceComplianceEnforcement/GuidanceforIndustry/UCM052506.pdf)

5. Burial of carcasses in an active, licensed landfill at a depth that meets local and State regulations for animal carcass disposal.

6. Burial of carcasses onsite at a depth that meets local and State regulations for animal carcass disposal.

With all of the recommended methods, carcasses must be carefully transported between the collection location and treatment or burial sites to prevent the spread of potentially contaminated and infectious materials. Precautions should be taken to prevent ashes, blood, tissues, or feces from leaking from transport vehicles.
APHIS recommends first testing individual animals for prion protein by IHC or other official test and delay disposal until test results are obtained. Subsequently, disposal options involving incineration, alkaline hydrolysis, or rendering with burial of the treated materials can be used for the positive animals, and simple carcass burial in a landfill or onsite may be used for the negative animals.

These options provided are based on the available science of CWD inactivation. Changes will be made as appropriate as new information on CWD becomes available.
Appendix VI. Disinfection and Decontamination Procedures

None of the following suggested disinfection and inactivation procedures will guarantee elimination or inactivation of the infectious agent. However, based on current information on the efficiency under laboratory conditions of the disinfection methods listed, it is likely that these procedures will reduce the amount of infectivity in the environment. Until more specific information becomes available, good sanitary practices are recommended for all cervid husbandry activities. The following methods below should be applied where infected or exposed animals have been housed or maintained.

A. Pastures
1. If practical, till soil under or do not use area to graze susceptible animals.
2. If this is not practical, do not use the pasture until the animal waste has decomposed and the weather has had an opportunity to dilute any infectivity.
3. Organic material (hay, accumulations of manure, etc.) in areas of congregation should be buried. Congregation areas include animal shelters, feeding grounds, and water sources (if applicable).

B. Dry lots
Remove organic material (manure, feed, and bedding) and, when practical, the top 1 to 2 inches of soil to reduce contamination. Bury the removed material in areas not accessed by farmed or wild cervids.

C. Earth Surfaces Inside Structures or Used for Confinement
Remove the organic material and, when practical, the top 1 to 2 inches of soil to reduce contamination. Bury the removed material in areas not accessed by farmed or wild cervids.

D. Nonearth Surfaces
(These include cement, wood, metal, tools, equipment, instruments, grain feeders, hay feeders, panels, chutes, and working facilities).
1. Remove all organic material. Bury the removed material in areas not accessed by farmed or wild cervids.
2. Clean and wash surfaces of items using hot water and detergent. A high-pressure washer after initial manual removal of organic debris and cleaning surfaces is recommended for thorough cleaning of large equipment items. Allow all surfaces, tools, and equipment to dry completely before disinfecting and sanitizing using the following suggested methods:
   a. Autoclave instruments, small tools, and other items at 136°C (277 °F) for 1 hour. This method is more effective when preceded by the treatment described in b or c, below.
   b. To clean dry surfaces, apply a 2 percent-available chlorine solution (equivalent to about 20,000 ppm available chlorine at room temperature (at least 18.3 °C [65 °F])
for 1 hour. This can be achieved by mixing 50 ounces [6 1/4 cups] of household bleach with enough water (78 ounces. or 9¾ cups) to make 1 gallon of solution. Rinse to remove solution after 1 hour of contact time.

c. For environmental purposes, use this disinfection method when the preceding methods are not available: Expose dry surfaces by applying a 1-molar solution of sodium hydroxide (an approximately 4 percent solution [5 ounces sodium hydroxide dissolved in one gallon of water]) at room temperature (at least 18.3 °C [65 ° F]) for at least 1 hour. Rinse equipment to remove solution after 1 hour of contact time.

Precautions: Professional judgment should be exercised in the choice and use of disinfectants. All disinfectants are hazardous to humans, animals, and the environment. Label directions should be carefully read and followed. If corrosive disinfectants are used directly on metal items, the items must be thoroughly rinsed with fresh water to minimize damage.

Synonyms for sodium hydroxide (NaOH ) are caustic soda, soda lye, and sodium hydrate. Sodium hydroxide is a white, brittle solid that dissolves readily in water to form a strong alkaline and caustic solution and is used as an alkalinizing agent. Sodium hydroxide is very caustic and in solution is extremely corrosive. For environmental reasons, only use this disinfection method when the preceding method is not available.

Disinfectants, especially in concentrated form, may irritate the skin, eyes, and respiratory systems. Protective equipment such as coveralls, rubber boots, rubber gloves, masks, or respirators as well as eye protection should be worn while mixing and applying some disinfectants. If areas of the body are exposed directly to a disinfectant, they should be washed thoroughly with water. Any employee should notify his or her supervisor if excessive human or animal exposure to disinfectants occurs or if there is an accidental release into the environment.
Appendix VII. CWD Epidemiology Investigation and Report Template

A. Outline of Information

**Preliminary Information**: The following format is used to generate a summary of pertinent premises information. This summary typically precedes each situation report and does not change unless new or additional information becomes available.

1. Information about Owners:
   a. Owner name or names.
   b. Owner physical addresses (if different from facility address) including county.
   c. Other contact information (i.e. home phone, cell phone, or email address).
   d. Herd or farm manager names and contact information (if applicable).
   e. Facility or premises owners and contact information (if applicable).

2. Information about the Index Case:
   a. Index animal: Species, age, gender, breed, color, all forms of identification, other information or descriptions if applicable.
   b. Clinical signs exhibited by index animal? If so, list signs, duration, and whether died or euthanized.
   c. Location of index animal when clinical signs first observed (mortality/slaughter surveillance, on-farm, first-point, or other)
   d. CWD test confirmed positive (date, screening laboratory, other necessary information)?

3. Information about the Facility or Premises:
   a. Physical location of facility (i.e., street address, GPS coordinates).
   b. Type of facility (i.e. breeding, feeding, exhibition, hunt preserve, other).
   c. Other facilities associated with index facility or premises?
   d. When was facility established?
   e. General description of facility (i.e., total acreage, confinement or modified confinement, type and condition of fencing and enclosure, flooring, traffic in and out of facility, other necessary information).
   f. A map or schematic of the facility will help officials understand the situation.
   g. Biosecurity of facility? Risks? Implementation?
   h. Handling facilities available on premises?

4. Information about other animals in the index facility or adjacent to the facility or premises:
   a. Number and type of animals housed at facility or premises (physical inventory with identification).
   b. Other susceptible animals or species located on facility.
   c. Any other animals or species on facility affected? Clinical signs observed?
   d. Number of other animals on facility affected?
   e. Transmission believed to have occurred on premises?
   f. Testing history and level of testing for disease of concern (required monitoring or surveillance, etc.)
   g. Proximity of other susceptible species in adjacent facilities or enclosures or susceptible wild species. Potential for exposure to affected animals at facility?
(h) Types of facilities adjacent to the index premises and related information (i.e., distance, number of animals, type of facility, nature of exposure).

(i) Facility quarantined? Conditions of quarantine? Level of biosecurity?

(5) Facility Management Information:
(a) Identification systems used at facility? Any official identification in use?
(b) Level of management regarding but not limited to recordkeeping and availability of herd records.
(c) Management practices such as vaccination programs, feed sources and storage, sources of herd additions, marketing practices, animal movements, level of biosecurity maintained, and other areas.

Follow-up Information to be Included in Situation Reports or Final Narrative:

(1) Records/Regulatory issues:
(a) Record review: Herd additions and dispositions in preceding years; confirm existing inventory.
(b) If State requires an annual inventory, are owner’s records consistent with State’s records?
(c) Date of last regulatory inspection and findings.
(d) Has the owner complied with applicable regulatory requirements?

(2) Animal Movements (i.e., traces):
(a) Movements in and out of the facility without change in ownership and reasons for movements (such as exhibition, breeding, or seasonal grazing).
(b) Movements into facility
   i. Purchase of herd additions or trades to acquire new additions.
(c) Movements out of facility
   i. Sale or marketing of animals (slaughter, exhibition, etc.) and channels (such as auction market, private treaty, commercial feeding or slaughter, or hunting).
   ii. Mortalities
(d) Identification of other facilities that animals may have moved to (trace forwards).
(e) Identification of source facilities, especially if linked to index cases (trace backs).
(f) Dates of movements (acquisitions, dispositions). Investigation should extend back at least 5 years for CWD.
(g) Disease status of other linked facilities? Quarantine status of linked facilities?

(3) Additional premises information that might affect disease control, depopulation, or cleaning and disinfection:
(a) Pen layouts, pen sizes, structures (types and construction), equipment (types and materials), enclosure materials, and cover vegetation.
(b) Accessibility of animal pens.
(c) Soil types, general terrain.
(d) Surface and groundwater proximity and vulnerability.
(e) Proximity to other residences, businesses, and other entities and nature of these entities.
(f) Presence of other nonsusceptible species (domestic or wild) or human traffic that could compromise biosecurity.
(g) Access by index animals to various areas (such as pens) in facility.
(h) Other activities that may contribute to the risk of disease introduction (such as taxidermy, offsite hunting, breeding loans, or other hobbies).

(4) Other facilities:
   (a) If epidemiologically linked to index premises, are these other facilities under State quarantine?
   (b) Linked premises’ regulatory compliance, testing history, monitoring, etc.
   (c) Any animals on linked premises exhibiting clinical signs?

**Herd Summary Information:**

1. If selected animals or entire herd is depopulated, what is the suspected disease prevalence in the herd?

2. What is the distribution of disease in the herd (i.e., restricted to certain areas in the facility or certain classes of animals)?

3. Cleaning and disinfection considerations related to suspected level and distribution of environmental contamination in the facility.

**Summary of Various Reports:**

**Situation Reports:**
Situation reports (sitreps) are generally reserved for incidents or situations related to identification of newly infected herds or changes in State status (i.e., newly documented CWD in captive herds or wildlife). Information accrues rapidly early in an incident. The corresponding need for information is critical; a situation report may be necessary daily or semiweekly.

**Supplemental Epidemiological Reporting:**
Additional epidemiological information may be requested if not provided in sitreps or other reports from the State. This information can be used for planning or additional risk assessment related to herd plan development and could include information such as:

- Map or schematic of facility, pens, structures, etc.
- Proximity to surface water or groundwater.
- Availability of handling facilities.
- Terrain/soil types/surrounding land use.
- Identification used on susceptible species.
- Testing history.
- Any other information including, but not limited to, the information specifically mentioned in pages 1-3 of this document.

**Final Epidemiological Report Narrative:**
The final epidemiological report should contain sufficient detail to convey the known epidemiology of the outbreak or incident to the intended audience. The final report should also comment on elements of the herd plan and how these elements correspond to epidemiological findings, or how the herd plan is substantiated by epidemiological findings.
B: Situation Report (Sitrep) Format and Content

Facility/Premises Information:
A sitrep is always preceded by an initial summary of the farm or facility information. Most of this information should not change substantially from one sitrep to the next; however any changes or corrections identified should be noted.

This section briefly provides relevant background information and history related to the facility and index animal and may include information such as:

- Owner name, address, geographic information system/global positioning system (GIS/GPS) information, farm name, and other information (depending on level of disclosure).
- Name of county or State where premises is located.
- Primary species (susceptible species), index case information (species, breed, age, sex, etc.)
- Disease identified, date of testing or confirmation, laboratory where testing occurred, and reason for testing.
- Type of facility (such as breeding, hunt preserve, or other) and when established.
- Type and condition of enclosure.
- Number of susceptible animals remaining at index premises.
- Proximity to other susceptible animals.

Current Status:
This section contains relevant information and findings that have developed since the previous sitrep. Information in this section includes:

- New laboratory results of interest from the index herd.
- Notable activities by producer.
- Changes in quarantine status of farm or breaks in quarantines.
- Completion of final depopulation plan or herd plan.
- Activities being conducted such as appraisal, depopulation, or cleaning and disinfection.
- Signature of herd plan, VS Form 1-23, and other necessary documents by owner and related agency authorities.
- Additional issues not previously identified.

Epidemiological Investigation
This section should relate information such as:

- Findings of record reviews.
- Progress of traceouts.
- Identification of new traces and how they are associated with index premises.
- Identification of new risk factors (biosecurity risks).
- Closed-out traces.

**Planning:**

This section should provide information related to planned or pending activities such as:

- Contingency planning for newly identified risks.
- Plans for additional surveillance (traceout herds).
- Plans for wildlife surveillance.
- Plans for depopulation, cleaning and disinfection, and other needed activities.

Note: In addition to the information specifically mentioned above, preparers should maintain an archive of previous sitreps, and attach them to any current sitrep to serve as a historical reference to the reader if needed.
Appendix VIII. Links to Forms and Documents

- VS Form 10-4 can be found at:

- VS Form 10-4A can be found at:

- Forms 11-1 and 11-1A (pending)
- Form 11-2 (pending)
- MOU Between State and APHIS for CWD HCP (pending)
- CWD Program – “CWD Sample Collection Guidance” can be found at: