

**VIRGINIA DEPARTMENT OF GAME AND INLAND FISHERIES**

**CHRONIC WASTING DISEASE**

**RESPONSE PLAN**

**Bureau of Wildlife Resources  
Wildlife Division  
December, 2009**

# **VDGIF CHRONIC WASTING DISEASE RESPONSE PLAN**

## **Introduction**

The Virginia Department of Game and Inland Fisheries (VDGIF) Chronic Wasting Disease (CWD) surveillance efforts are designed to identify CWD in free-ranging and/or captive deer if it occurs within Virginia. If CWD is identified in Virginia, or close to the Virginia border, this CWD Response Plan outlines VDGIF's management activities that will determine the prevalence and geographic extent of the CWD infection and control transmission of the disease. Thus far, CWD management actions in other states have not eradicated CWD from free-ranging deer populations. Consequently, this plan is designed with the goals of containing or slowing the spread of the disease and eradication is not the primary goal for free-ranging deer.

### **A. General Response:**

1. While CWD has potentially serious consequences, there is currently no evidence that it has been transmitted to humans and domestic animals. Consequently, it is important that the response to an outbreak of CWD is in proportion to the health risks and economic impact.
2. Upon receiving notification of the first CWD positive sample from a U. S. Department of Agriculture (USDA) approved laboratory, VDGIF will advise the Governor's Office and the Secretary of Natural Resources Office that a preliminary positive case of CWD has been found in Virginia and that back-up samples are being tested for confirmation at a second independent USDA-approved laboratory. Confirmation may take a week or more from the initial positive CWD case notification. If the positive case is not confirmed, the Governor's and Secretary's offices will be notified and a press release will be written. No further actions will be taken.
3. If the positive case is confirmed by a second independent USDA-approved laboratory, VDGIF will notify the Governor's Office, the Secretary of Natural Resources Office, the Virginia Department of Agriculture and Consumer Services (VDACS) State Veterinarian, the Virginia Department of Health, USDA Area-Veterinarian-In-Charge and USDA Wildlife Services immediately. If back up samples for confirmatory testing are not available then the case will be considered a true positive.
4. Concurrently, intradepartmental notification will begin proceeding down the divisional chain of command. The regional manager of the area in which the CWD positive case has been found will be informed of the situation. VDGIF Media Relations will begin preparing a press release.
5. Concurrently, Division Directors or their designees will make calls to key constituency/stakeholder groups, including surrounding Mid-Atlantic States, appropriate federal agencies, legislators, and local community officials where the CWD positive case was found, to inform them that CWD has been identified in Virginia.

6. Within 48-72 hours of confirmation of a case within Virginia, the media will be advised of the positive CWD case through a press release from the VDGIF's Richmond Office. The press release will include media packets providing background information on CWD, a synopsis of Virginia's CWD surveillance efforts, an outline of likely CWD response management actions, and any other CWD-related materials deemed needed or appropriate. Otherwise, media releases will be prepared as necessary.

7. A CWD response management team will be assembled under the direction of VDGIF, to include VDACS, USDA, and outside experts as needed. VDGIF personnel should include the Wildlife Division director or designee(s), wildlife veterinarian (if available), a law enforcement representative, appropriate regional manager or staff, a deer program representative, and the media relations coordinator. This team will guide the operational response and will also determine the research and data needs necessary to effectively manage the outbreak. The management team will ensure this research is conducted and incorporated into the management actions. Research projects may be contracted out as deemed appropriate and necessary.

8. A limited number of VDGIF staff members (to include a Wildlife Division designee, the wildlife veterinarian [if available], and the media relations coordinator) will be assigned as VDGIF CWD media contacts through which all CWD-related questions from the public and the media would be routed, including public appearances and interviews. These persons will comprise the Department's CWD media relations committee.

9. Current regulations allow for appropriate disease containment measures. Pursuant to VAC 15-40-240 whenever the health or general condition of a species indicates the need for population reduction the director is authorized to issue special permits to obtain the desired reduction by licensed hunters on areas prescribed by VDGIF wildlife biologists. In addition, VAC 15-20-220 provides for the Director to take measures as necessary to control disease outbreaks including, but not limited to, designation of mandatory CWD testing surveillance areas, extended deer seasons and increased bag limits, special designated CWD check stations, prohibition of deer rehabilitation and deer feeding, prohibition of carcass transportation, and implementation of necessary depopulation and indemnification of captive cervids, fence security and quarantine of cervid facilities.

10. Within a month, public meetings will be held in area of the CWD index case, as necessary.

## **B. CWD Response Plan for Free-Ranging Deer:**

The primary objective of the initial CWD response efforts will be to determine the prevalence and geographic extent of CWD infection in the free-ranging deer population. In the event a CWD infected free-ranging deer (i.e., the index case) is identified in Virginia, the following management actions will be implemented as rapidly as possible:

1. Geographic Information Systems (GIS) will be used to map the exact location of the index case. A five-mile radius circle (79-mi<sup>2</sup> area) will be drawn around the index case. The CWD Surveillance Area (SA) will be delineated to contain as much of the 79-mi<sup>2</sup> area as

possible using county and/or state maintained roads or other geographic features. If a portion of the SA encompasses another state, an interstate surveillance area will be established per section D.4 of this plan.

2. Within 60 days of confirmed diagnosis of CWD in Virginia, VDGIF staff will determine the number of samples collected within the CWD SA during the previous 12 months and will collect additional samples as necessary to determine prevalence and geographic distribution. Sample size ( $n = 54$ ) will be sufficient to estimate prevalence with an error of  $\pm 5\%$  at 90% confidence. Although the prevalence rate would still be unknown, the target sample size of  $n = 54$  was based on an expected prevalence rate of 5% in the CWD surveillance area. Samples will be collected by various methods (e.g., road-kills, damage permits, collections, recreational hunting). Permission of landowners within the CWD SA to remove and test deer on their property will be sought.

3. During the first hunting season following confirmed diagnosis of CWD in Virginia, VDGIF will require that all free-ranging deer  $\geq 6$  months of age killed by hunters within the designated CWD SA be brought to specially designated CWD check stations as necessary on designated days to determine prevalence and geographic distribution. Based on the most current estimate of prevalence rate (i.e., from the initial sampling or an estimate from the previous year), annual sample sizes will be sufficient to estimate prevalence with an error of  $\pm 2\%$  at 90% confidence, if feasible. Sample size may be supplemented if needed. Hunters can check the VDGIF Web site for the test results.

4. Deer heads will be collected at designated CWD check stations by VDGIF personnel, samples taken (i.e., obex and/or medial retropharyngeal lymph nodes (RLN)) by VDGIF personnel at Department facilities or directly at the check station, and tested by immunohistochemical methods (IHC) or Enzyme Linked Immunosorbent Assay (ELISA) at a USDA-approved laboratory.

5. Targeted surveillance for CWD and collection of road-killed deer may be intensified within all counties included within, and all counties adjacent to the CWD SA, as necessary. Additional sampling of hunter-killed deer will be conducted in counties containing or adjoining the CWD SA as necessary. Designated CWD check stations may be established in areas adjacent to the CWD SA as necessary.

6. Disposal of all unused tissues will be via incineration or licensed lined landfills; sites to be determined in consultation with the Virginia Department of Environmental Quality.

7. If captive deer facilities (e.g., exhibitors, fallow deer farmers, etc.) are present within the CWD SA, they will be inspected as soon as possible following confirmation of CWD and then every six months by VDGIF personnel. Per current requirements, all captive deer  $\geq 6$  months of age that die will be tested for CWD. Facilities will be required to check the integrity of the perimeter fence.

8. If no more CWD-infected free-ranging deer are found in the CWD SA during the one-year of mandatory CWD testing of all hunter-killed deer:

- a. Annual CWD testing of hunter-killed deer  $\geq$  6 months of age will be conducted within the CWD SA for 4 additional years as described in section 3.
  - b. Heightened emphasis will continue to be placed on targeted surveillance for CWD as well as collection of hunter-harvested and/or road-killed deer as described in section 5.
  - c. The CWD SA will be considered CWD free when no new CWD cases have been found for five consecutive years.
9. If additional CWD-infected free-ranging deer are found within the CWD SA or within 5 miles of the SA:
- a. A CWD Containment Area (CA) will be defined using county and/or state maintained roads or other geographic features. The CA will be extended as necessary to ensure a full 5-mile radius from all CWD positive cases identified as described above. Cases further than 5 miles from the CA will result in the formation of a new SA. The primary objectives of these secondary CWD response efforts will be to monitor the prevalence and geographic extent of the CWD infection and contain or slow the spread of the disease.
  - b. Multiple management tools may be applied to achieve CWD containment including but not limited to, deer population reduction as well as measures outlined in Section A part 9. Some of these measures may be applied to geographic areas outside the CA. Adaptive management will be used to modify techniques based on evaluation of management actions and new information as it emerges. The response management team will be responsible for determining tools that will be applied as well as evaluating management actions.
  - c. Testing of deer, informing hunters of test results and tissue disposal will be performed as described in sections B 3, 4 and 6.
  - d. A CWD CA will be considered CWD free when no new CWD cases have been found for 5 consecutive years.
  - e. An epidemiological investigation will be conducted to determine origin of CWD index case.

### **C. CWD Response Plan for Captive Deer:**

The primary objective of the initial CWD response efforts will be to eradicate the disease from the captive herd and to determine if CWD is also present in the free-ranging deer surrounding the CWD-infected captive deer facility. In the event a CWD-infected captive deer is identified, the following measures will be implemented as rapidly as possible:

1. Under applicable statutory and regulatory authority provided by emergency regulations, depopulate all cervids from the facility where the infected deer was discovered and indemnify the owner the fair-market value as determined in consultation with VDACS and USDA.
2. Modify or augment the fence surrounding the facility, at government expense, to exclude free-ranging native deer.
3. Decontaminate the facility to the maximum extent possible, at government expense, following the USDA APHIS guidelines.
4. Quarantine the facility from all cervids for a minimum period of 5 years.
5. Trace-back and trace-forward of cervids in contact with CWD infected animals to determine the origin and prevent further infection as well as other epidemiological investigations will be conducted.
6. Implement the management actions described in section B (“CWD Response Plan for Free-Ranging Deer”) around the captive facility.

**D. Response Plan for Discovery of CWD within 50 miles of Virginia border:**

1. Upon confirmation of an index case within 50 miles of the Virginia border, VDGIF will notify appropriate parties using means identified in section A (“General Response”) above.
2. All Virginia counties that are partially or wholly included within 50-mile radius of the index case will be considered at elevated risk and surveillance will be initiated per the VDGIF CWD surveillance plan.
3. Emergency regulations and policies as described in section A number 9 will be initiated by VDGIF as necessary; e.g., prohibition of carcass transportation, deer rehabilitation, deer feeding, and the designation of mandatory CWD testing surveillance areas.
4. If a CWD positive case in a neighboring state is confirmed within 5 miles of the Virginia border, either inside or outside of Virginia, VDGIF will coordinate with the neighboring state’s wildlife agency to define and establish an appropriate interstate surveillance area. The neighboring state’s contribution may only be to provide coordinates for CWD samples taken within the area. VDGIF’s objective will be to achieve a prevalence estimate for the interstate surveillance area per Section B parts 2 and 3. Parts 4-9 of Section 2 will also guide VDGIF response as much as is reasonable and practical (e.g., depending on the extent of the area in Virginia) in the judgment of the CWD Management Team.

**Acknowledgements:**

The CWD Response Plan was developed and revised by the following staff from Virginia Department of Game and Inland Fisheries, Bureau of Wildlife Resources: Dr. Jonathan Sleeman, former DGIF Wildlife Veterinarian; Matthew Knox and Nelson Lafon, Deer Project

Coordinators; David Steffen, Forest Game Program Manager; Stephanie Shepherd, former Wildlife Data Analyst; Cale Godfrey, Assistant Director of Wildlife Division; Robert Ellis, Director of Wildlife Division.