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 in Virginia. For CWD cases 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.

While CWD has potentially serious consequences, there is currently no evidence that it has been transmitted to humans or domestic animals. Consequently, it is important that the response to an outbreak of CWD is in proportion to the health risks and economic impact.

For the purposes of this plan, an index case is a new discovery of CWD that is not reasonably related to existing cases. An example of an index case would be a new case that is geographically distinct from existing cases. The determination of whether a new case is an index case or one that it is likely related to existing cases will be made by the CWD response management team (described in section A1.6), in consultation with additional external experts, as needed. From a management perspective, a new index case would require VDGIF to reinstantiate response actions from the beginning of the response protocol (A1). Additional positive cases geographically related to existing known cases would warrant continuation of response actions already initiated (A2), with possible geographic expansion of these actions (described in section B.9).

FIRST STEP (in any case): Upon receiving notification of a preliminary positive sample, the VDGIF Bureau Director and Deputy Directors will be notified. Immediately thereafter, the CWD response management team will be notified and will expeditiously determine whether a new case is a new index case or one that it is likely related to existing cases so that notification can proceed either via A1 or A2 below.

A1. General Response for a New Index Case:

1. Upon receiving notification of the first CWD positive sample of a new index case 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 a new area of 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. No further actions will be taken.
2. If the new index case is confirmed by a second independent USDA-approved laboratory, VDGIF will notify the hunter/landowner/facility owner who submitted the sample, 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.

3. Concurrently, intradepartmental notification will begin proceeding down the divisional chain of command. The Deputy Director and Assistant Bureau Director of the Wildlife Resources Bureau for the region in which the CWD index case has been found will be informed of the situation. VDGIF Media Relations will begin preparing a press release.

4. Concurrently, Bureau and 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 in the area where the new index case was found.

5. Within 48-72 hours of confirmation of a new index case within Virginia, the media will be advised 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 tentative CWD response management actions (likely similar to those taken in Frederick County), and any other CWD-related materials deemed needed or appropriate. Otherwise, media releases will be prepared as necessary.

6. 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 Bureau director or designee(s), wildlife veterinarian, a law enforcement representative, appropriate regional 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.

7. A limited number of VDGIF staff members (to include a Wildlife Bureau designee, the wildlife veterinarian, 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.

8. 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.

9. As soon as management actions are finalized, and not later than 3 months following confirmation of the positive case, public meetings will be held in area of the new CWD index case, as necessary.

A2. General Response for Additional Cases Geographically Related to Existing Known Cases:

1. Upon receiving notification of a CWD positive sample from a U. S. Department of Agriculture (USDA) approved laboratory, VDGIF will send back-up samples to be 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, no further actions will be taken.

2. If the positive case is confirmed by a second independent USDA-approved laboratory, VDGIF will notify the hunter/landowner/facility owner who submitted the sample. If back up samples for confirmatory testing are not available then the case will be considered a true positive.

3. Intradepartmental notification will begin proceeding down the divisional chain of command. The Deputy Director and Assistant Bureau Director of the Wildlife Resources Bureau for the region in which the CWD positive case has been found will be informed of the situation.

4. Notification of key state officials (e.g., Governor’s office) and key stakeholders may be postponed until after test results for all samples collected within the season have been received. Under some circumstances (e.g., when a press release will be prepared), these contacts can be made per A1.2 and A1.4 above.

5. Following confirmation of an additional positive case(s), or after test results for all samples collected within the season have been received, the media will be advised of the positive CWD case(s) through a press release from the VDGIF’s Richmond Office. The press release will provide information on Virginia’s ongoing CWD surveillance and management efforts. Otherwise, media releases will be prepared as necessary.

6. The CWD response management team assembled following discovery of the index case (as outlined in A1.6) will continue to guide the operational response. Members may be added or removed, as needed.

7. The Department’s CWD media relations committee assembled following discovery of the index case (as outlined in section A1.7) will continue to cover media contacts.

8. Appropriate disease management measures will be continued or expanded, as needed (described in section B.9).
9. Although public meetings may not be necessary following the discovery of each new positive case, the existence of any additional case(s) and its implications will be addressed in any public meetings or outreach efforts going forward.
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 new CWD 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-mi² area) will be drawn around the index case. The CWD Surveillance Area (SA) will be delineated to contain as much of the 79-mi² 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 +/- 5% at 90% confidence (active surveillance samples shall be from deer greater than 16 months of age, clinical suspect samples shall be from deer greater than 6 months of age). 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 a new CWD index case in Virginia, VDGIF will require that all free-ranging deer \(\geq 6\) months of age killed by hunters within the designated CWD SA - or larger area, if appropriate - be brought to specially designated CWD sampling 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 +/- 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 sampling stations by VDGIF personnel or their designees, 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 sampling stations may be established in areas adjacent to the CWD SA as necessary.
6. All unused tissues will be disposed of in licensed lined landfills; sites to be determined in consultation with the Virginia Department of Environmental Quality or incinerated at a VDACS laboratory.

7. If captive deer facilities (e.g., exhibitors, 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 ≥ 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 ≥ 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 or near the CWD SA, a CWD Containment Area (CA) will be defined using county and/or state maintained roads or other geographic features. The CA may be extended to a practical boundary for management purposes. The primary objectives of establishing a CA will be to monitor the prevalence and geographic extent of the CWD infection and contain or slow the spread of the disease. Once a CA is established:
   a. The CA will be extended as necessary to ensure a full 5-mile radius from all CWD positive cases identified as described above. A positive detected outside of the CA will result in the extension of the CA if the case is reasonably related to existing known cases. If the new case appears to be a new introduction of CWD in Virginia, it will be considered a new index case and actions under sections A1 and B will be implemented.
   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 A1.8. 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. Establishment of SAs for new positives, sample and prevalence estimation, surveillance, tissue disposal, and captive deer inspections will be performed as described in sections B.1 – B.7.
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, if possible.

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. Costs associated with indemnification will not be covered by the VDGIF or any other government agency.

2. Modify or augment the fence surrounding the facility to exclude free-ranging native deer. Costs associated with fencing improvements will not be provided by the VDGIF or any other government agency.

3. Decontaminate the facility to the maximum extent possible following the USDA APHIS guidelines. Costs associated with decontamination will not be provided by VDGIF or any other government agency.

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 a new 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 an 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 A1.8 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 CWD is known to exist 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 B.2 and B.3. Sections B.4-B.9 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.