



Fiscal Note for Chronic Wasting Disease Rules

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Impact: State Government: Yes
Local Government: Yes
Private Impact: Yes
Substantial Economic Impact: Unlikely

Authority: G.S. 113-134; 113-306

BACKGROUND

The wildlife resources of the State belong to the people of the State, including the enjoyment of these resources (G.S. 113-131(a)). The Wildlife Resources Commission (hereinafter NCWRC or Commission) is tasked with the conservation of wildlife resources of the State (G.S. 143-239). This responsibility includes managing as equitably as possible the various competing interests regarding these resources, including the use and take of such resources (G.S. 113-131.1(a)). The statutes governing wildlife resources are found in Chapter 113, Subchapter IV of the General Statutes, and WRC has been granted rulemaking authority to implement the provisions of these statutes (G.S. 113-134). In accordance with the supply of wildlife and other factors it determines to be of public importance, the WRC may fix seasons and bag limits upon the wild animals and wild birds authorized to be taken that it deems necessary or desirable in the interests of the conservation of wildlife resources (G.S. 113.291.2(a)).

Chronic wasting disease (CWD) is a transmissible, always fatal, neurological disease that affects deer and other cervids such as elk, moose, and reindeer/caribou. It takes several decades for population effects of CWD to become noticeable. During this time the prevalence of the disease (percentage of the population that is infected) slowly climbs. As disease prevalence rises, the

average life span of deer slowly declines because more deer are becoming infected and dying earlier because of CWD. Over time CWD causes a decline in the population because does die at younger ages with less opportunity to reproduce. The NCWRC has been testing for CWD since 1999 and has tested well over 22,000 deer. CWD was detected in North Carolina in March 2022 in Yadkin County. North Carolina has four positive cases as of December 1, 2022.

Currently, routine statewide surveillance occurs each year. Samples collected come from a variety of sources including vehicle-kills, voluntary hunter submissions and those supplied from cooperating taxidermists and meat processors. Additionally, more intensive surveillance is conducted in areas where CWD has been found.

An emergency response plan was initiated by emergency powers of the NCWRC Executive Director on April 12, 2022. Subsequently, and in accordance with G.S. 113-306, temporary rules were adopted to replace the emergency powers. The proposed permanent rules will replace the temporary rules.

PROPOSED RULES

15A NCAC 10B .0501 Definitions and General Requirements

This proposed rule establishes the requirement that the rules in Section .0500 apply to any areas of the State where CWD is detected. It also establishes definitions for Chronic Wasting Disease (CWD) management, including defining the limits of “Primary Surveillance Area” and “Secondary Surveillance Area.” The Primary (PSA) and Secondary (SSA) Surveillance Areas are approximately 5- and 30- mile radii around the initial detections of CWD. These radii are based on yearling buck dispersal distances because these one-time movements of young deer away from their birth range are one of the primary drivers of CWD spread in infected deer populations. The 5-mile distance is the approximate average yearling buck dispersal distance in the southeastern US and the 30-mile distance is approximately the maximum dispersal distance. During disease response actions, these Surveillance Areas are centered on CWD-positive deer detections, with the PSA intended to encompass the known infected area and the SSA encompassing the larger area that may be infected based on long-range dispersals.

15A NCAC 10B .0502 CWD Surveillance Areas Defined

This proposed rule defines the current CWD surveillance areas in Surry, Yadkin, Davie, Forsyth, Stokes, Allegheny, Wilkes and Iredell Counties.

15A NCAC 10B .0504 Primary Surveillance Areas

This proposed rule specifies mandatory testing requirements during the blackpowder and all lawful weapons season and includes prohibitions and restrictions on transportation of cervid

carcasses and parts from inside the primary surveillance areas (PSA).

15A NCAC 10B .0505 Secondary Surveillance Areas

10B .0505 specifies mandatory testing requirements during the blackpowder and first two weeks of all lawful weapons seasons, and transportation restrictions on deer harvested in the secondary surveillance areas (SSA).

Costs

State Government

WRC pays for the costs associated with testing deer for CWD. Harvested deer are tested for CWD by removing a lymph node and shipping the sample to a laboratory. The cost for testing a lymph node is approximately \$25/sample but is \$40 for each set of two samples. The agency expects to sample 3500-4500 individual cervids in the PSA and SSA this fiscal year. This expectation is based upon average deer harvest in the SA which is tracked in WRC internal databases. That would be a cost to the agency of \$70,000 to \$112,500 depending on the total number of samples submitted and how the samples are submitted (one sample or set of two). This cost will be recurring each year.

Hunters do not remove lymph nodes for CWD sampling. Agency staff and Cervid Health Cooperators (taxidermists and meat processors) conduct all the sampling. To accomplish this, the agency has hired nine full-time temporary staff to work at check stations (locations where successful hunters take their deer to be sampled by NCWRC staff) in the PSA and SSA. This will cost the agency \$20,160/ temporary employee over a six-month period [(\$21/hr x 40 hrs = \$840/week); (\$840/week x 24 weeks = \$20,160)]. The total cost to the agency for temporary staff time is \$181,440. This cost will be recurring each year.

To encourage CWD testing and make it as easy as possible for hunters, the agency has partnered with Cervid Health Cooperators. The agency pays cooperators \$10/head or \$15/lymph node sample. Roughly half of the total number of samples in the Surveillance Areas (SA) come from cooperators (1,750-2,250). There are 25 taxidermists and nine processors throughout the SA. The estimated total amount spent on cooperator samples ranges from \$17,500 to \$33,750 [(1,750 samples x \$10/head = \$17,500) (2,250 samples x \$15/lymph node = \$33,750)]. The actual costs will depend on how many samples are brought by paid cooperators versus unpaid hunters, as well as whether they take head versus lymph node samples. This cost will be recurring each year.

Agency staff has driven 36,860 miles in the month of October for CWD related travel. This mileage is expected to remain relatively stable every month of the season. These costs are reimbursed through the Wildlife and Sport Fish Restoration federal grant. These reimbursements equate to \$16,956/month (36,860 miles x \$0.46/mile = \$16,956), or \$50,867/season (\$16,956 x 3 = \$50,867) is anticipated and will recur each year.

There have been one-time costs to the state of \$238,797 for equipment required for testing,

transport, storage, and disposal. These costs have already been incurred, but because they were incurred under the temporary rule (which cannot be considered the baseline), they are still considered impacts for purposes of this analysis.

- 14 freezers at \$385/each = \$5,390
- 1 mobile trailer cooler = \$89,891
- 2 incinerators = \$93,516
- Miscellaneous lab supplies = \$50,000

Local Government

There is the potential that deer hunters will no longer want to hunt in a CWD positive area. A decrease in the number of hunters could result in decreased tax revenues to local governments in and around the affected area. To date, there have been little to no signs that this is the case, and the agency does not anticipate this potential impact to be realized, at least not in the near term. It is more likely that any decrease in hunting activity would be the result of increased prevalence of CWD. If such a decrease were to occur, it would likely be a result of factors associated with the disease itself (i.e., reduced deer population, concerns around consuming the meat) and not the result of the proposed rules themselves.

Private

If there is a decrease in the number of hunters, this could result in decreased revenue to local businesses such as restaurants, gas stations, sporting goods stores, and convenience stores. However, to date, there have been little to no signs that this is the case according to WRC tracked harvest rate data, and the agency does not anticipate this potential impact to be realized. If such an impact were to occur, it would likely be a result of factors associated with CWD and not the result of the proposed rules.

Additionally, the restrictions on carcass transport outside of the SA could decrease the business of taxidermists and processors outside of the identified boundaries. This has the potential to affect approximately 7 taxidermists that are licensed by the WRC and located in close proximity to the SA limits. It is unknown to the agency how many total processors are in the area surrounding the SA because processors are not required to report to the Commission. The agency has no mechanism to estimate potential impacts at this time.

Taxidermists and processors in the surveillance areas may see an increase in their business, as carcasses and carcass parts cannot be moved out of the PSA or SSA. Individuals who hunt in the SA but bring their carcass and parts outside of the SA for processing or taxidermy will no longer be able to without authorization from the Commission. This could affect roughly 25 taxidermists and 9 processors, though the agency has no way to estimate those potential impacts.

Though some opportunity costs may be realized by hunters like a potential decrease in potential harvest, the agency has worked hard to keep costs close to nil for hunters. While some behaviors and practices may need to change like using a different taxidermist or processor inside the SA or

disposing of the carcass by burying it on the property where harvested (rather than transporting the carcass outside the SA), or in a landfill, no net costs should be realized for these activities.

Benefits

The goal of the proposed rules is to slow and prevent the spread of CWD. This is accomplished through the targeted monitoring of disease prevalence among the cervid population in and around areas where CWD has been identified. Requiring testing of harvested deer in the PSA and SSA helps the agency identify where CWD exists, the prevalence, and where it may spread throughout the county. The more harvested deer that are tested, the better the agency can know the severity to which CWD has spread. By requiring testing and limiting transportation of deer carcasses and parts, CWD has a greater chance of staying localized to the area in which it was identified for a longer period of time, thus slowing the spread of the disease.

The benefits of the rules will be realized over the course of many years, increasing as WRC's understanding of the prevalence of CWD increases. Benefits will likely be relatively limited in the near term as hunters become accustomed to the new requirements and assuming the prevalence of CWD remains relatively low.

Slowing the progression of CWD among the deer population will have significant long-term benefits to hunters, local businesses, wildlife conservation, and the North Carolina economy, in general. WRC does not have data on how many hunting trips are made to the impacted area specifically, but northwestern NC is known to be popular with deer hunters. The large deer population, central location in the state, and abundance of nearby lodging and restaurants make this area very attractive for hunters. In the absence of data specific to hunting activity in the impacted area, the following sources provide a general idea of the likely very high value that should be placed on the state's game lands when considering the long-term impact of the proposed rules.

- There are roughly 27,548 hunters that specifically hunt in the SA. It is not known how this will translate to the number of trips made by hunters to this specific area in a given year, but it is likely to be in the thousands. This estimate is based on a recent study of NC Wildlife Management Areas (WMAs) that predicted 436,042 total annual trips by licensed hunters to all 94 WMAs in NC. The same study estimated that total economic contributions from all WMA related spending by licensed hunters would exceed \$40 million annually. This estimate included direct effects (sales, income, jobs, taxes), indirect effects (income and employment impacts resulting from business to business commerce generated as a result of direct expenditure), and induced effects (the result of household spending by employees whose employment is a result of direct and indirect sales).¹ Although WRC does not have data on what portion of this spending will be attributable to the subject SA, it is likely to be significant based on the area's popularity among deer hunters.

¹ Casola, William et al. Economic Contributions of Wildlife Management Areas in North Carolina. July 2022. Tables 2,3.

- In 2018, North Carolina game lands received approximately 2.2 million visits total from hunters, anglers, and non licensed recreators. A recent evaluation conducted by NC State University researchers estimates that these visits generated \$180 million in game land related expenditures (gross), contributing a net added value of \$140 million to the state’s economic activity.²
- A recent study of North Carolina game land users found that hunters spend an average of \$84.19³ per trip. Local businesses benefit in the form of trip-related sales revenue from spending on lodging, restaurant, and gear.
- By avoiding losses to local business visitation and sales, the state and local governments will likely also avoid losses to their tax revenue from the economic activity generated by the deer hunting trips.
- There is a potential benefit to the state from avoiding the loss of revenue from hunting license sales. Licensed hunters provide a significant portion of funding for WMA land acquisition and maintenance through license sales, matching federal funding, and excise taxes on guns and ammunition. The proposed rules could help avoid some losses to this source of conservation funding.
- WRC surveys of hunters have found that they mainly choose to do so for the meat that will be harvested that they can then consume. ([2016-Deer-Hunting-and-Management-Survey-Report.pdf \(ncwildlife.org\)](#))
- According to annual hunter harvest surveys, deer remain the most hunted species in North Carolina. ([2021-22 Hunter Harvest Survey Estimates.pdf \(ncwildlife.org\)](#))
- According to US Fish and Wildlife annual survey, deer remain one of the most watched wildlife species in the wild.⁴
- A 2011 survey of NC hunters showed that 80% of hunters in NC hunted deer.⁴

SUMMARY

Quantifiable Impacts

State

The following quantifiable one-time costs associated with testing, transport, storage, and disposal have already been incurred but are included here because they could not be considered part of the regulatory baseline:

- Freezers = \$5,390
- Mobile trailer cooler = \$89,891
- 2 incinerators = \$93,516

² Casola, William et al. Determining Use, Economic Impacts and Value of Game Lands in North Carolina. October 2020. Appendix B.

³ Ibid.

⁴ U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

- Lab supplies = \$50,000

The following quantifiable annual costs associated with sampling are anticipated from the proposed CWD rules:

- Temporary employee salaries = \$181,440
 - Testing = \$70,000-\$112,500
 - Mileage = \$50,867
 - Cooperator Samples = \$17,500-\$33,750
- Total = \$319,807 - \$378,557 per year

Unquantifiable Impacts

State

The following unquantifiable benefits are anticipated from the proposed CWD rules:

- Clear understanding of SA boundaries and requirements within those areas
- Slowing the spread of the disease by enacting restrictions on carcass and carcass part transport and removal
- Significant avoided losses to the state economy from the revenue generated by deer hunting trips and recreational uses. This includes avoided losses from hunting license sales, tax revenue, and jobs-related income. These benefits will be realized over the long term. The magnitude of this benefit will depend on compliance of the hunting community and how successful the proposed measures are at containing the spread of CWD.

Local

The following unquantifiable benefits are anticipated from the proposed CWD rules:

- Increased business for processors and taxidermists inside the SA
- Significant avoided losses to the local economy from the revenue generated by deer hunting trips and recreational uses. This includes avoided losses from spending on lodging, restaurant, and gear. These benefits will be realized over the long term. The magnitude of this benefit will depend on compliance of the hunting community and how successful the proposed measures are at containing the spread of CWD.

The following unquantifiable costs are anticipated from the proposed CWD rules:

- Decreased business for processors and taxidermists just outside of the SA
- Decreased business inside the SA if hunters choose to hunt elsewhere

Private

The following unquantifiable costs are anticipated from the proposed CWD rules:

- Potential increased cost for processing or taxidermy inside the SA
- Additional time required for carcass disposal

The long-term benefits of slowing the spread of CWD in the subject area are likely to be significant. Although the benefits could not be quantified, it is highly likely that over the long term, they will exceed the costs associated with increased surveillance and carcass transport requirements. If no action is taken, this could eventually contribute to significant losses to the cervid population and harm to local and state economies which benefit from significant revenues generated by NC hunting.

1 **15A NCAC 10B .0501 DEFINITIONS AND GENERAL REQUIREMENTS**

2 (a) The rules in this Section apply to any area of the State where Chronic Wasting Disease (CWD) has been detected,
3 as determined by the Commission.

4 (b) The following definitions shall apply to rules in this Section:

5 (1) “Cervid” means all animals in the Family Cervidae not otherwise regulated by the NC Department
6 of Agriculture and Consumer Services.

7 (2) “Cervid Health Cooperator” means an individual authorized to collect CWD samples on behalf of
8 the Commission.

9 (3) “Chronic Wasting Disease” or “CWD” means the transmissible spongiform encephalopathy prion
10 disease affecting species within the deer (Cervidae) Family.

11 (4) “CWD Management Area” means the area delineated by the Commission where CWD has been
12 determined to be endemic and the rules of this Section apply.

13 (5) “Index location” means the approximate location where a new CWD detection has been identified.

14 (6) “Primary Surveillance Area” or “PSA” means an area within an approximate five-mile radius
15 around an index location as delineated by the Commission for CWD surveillance.

16 (7) “Sample” means tissue from a cervid suitable for CWD testing.

17 (8) “Secondary Surveillance Area” or “SSA” means an area within an approximate five- to 30-mile
18 radius around an index location delineated by the Commission for CWD surveillance.

19 (9) “Surveillance Area” means the PSA and SSA collectively.

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21 History Note: Authority G.S. 113-134; 113-306

1 **15A NCAC 10B .0502 CWD SURVEILLANCE AREAS DEFINED**

2 The following Surveillance Area is established around the Yadkin County index location:

- 3 (1) Surry County East of US 601, South of NC 268 and West of Quaker Church Road and the Ararat
4 River; and Yadkin County East of US 601, North of NC 67, West of Shoals Road to the
5 intersection with Shady Grove Church Road and West of Fairground Road are delineated as the
6 PSA.
- 7 (2) Surry County, Yadkin County, Davie County, Forsyth County, Stokes County, Alleghany County
8 East of US 21 and NC 18, Wilkes County East of NC 18 and NC 115, and Iredell County East of
9 NC 115 and North of I 40 are delineated as the SSA.

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11 *History Note: Authority G.S. 113-134; 113-306*

1 **15A NCAC 10B .0504 PRIMARY SURVEILLANCE AREA**

2 (a) Any hunter who harvests a cervid in the PSA during the blackpowder or all lawful weapons season shall submit a
3 sample to the Commission for CWD testing.

4 (b) No cervid carcass or carcass part originating from inside a PSA shall be transported outside the PSA unless
5 double bagged and taken directly to a Cervid Health Cooperator in a county included in the PSA , or the carcass
6 parts comply with Rule 10B .0503(b), or as permitted by the Commission.

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8 *History Note: Authority G.S. 113-134; 113-306*

1 **15A NCAC 10B .0505 SECONDARY SURVEILLANCE AREA**

2 (a) Any hunter who harvests a cervid in the SSA during the blackpowder season and from opening day through the
3 second Sunday of all lawful weapons season shall submit a sample to the Commission for CWD testing.

4 (b) Cervid carcass and carcass parts originating from inside an SSA may be transported to the PSA within the same
5 Surveillance Area.

6 (c) Except as provided in 10B .0503(b), cervid carcasses or carcass parts shall not be transported outside of the SSA
7 without a permit from the Commission.

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9 *History Note: Authority G.S. 113-134; 113-306*

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