Form 1100-002P (Rev. 11/17)

Wisconsin Department of Natural Resources
Natural Resources Board Agenda Item
MODIFIED (08/01/18)

Item #2.B.3.

SUBJECT:
Request adoption of Emergency Board Order WM-11-18(E), proposed rules affecting chapters NR 10 & 16 related to deer carcass transportation, deer farm fencing, and chronic wasting disease

FOR: August 2018 Board meeting

PRESENTER'S NAME AND TITLE: Scott Karel, Wildlife Regulation Policy Specialist & Tami Ryan, Wildlife Health Program Chief

ACTION ITEM:
This item should be placed on the August NRB agenda so that the proposed rule can be in effect prior to the 2018 deer season.

SUMMARY:
The first wild deer in Wisconsin to test positive for chronic wasting disease (CWD) was discovered in 2002. Since then, the department has promulgated rules that seek to prevent the further spread of the disease by regulating carcass transportation. However, our rules are becoming outdated as CWD positive deer are identified in additional counties. In the recent months there have been instances where we have had CWD positive test results from wild white-tailed deer in counties where CWD had not previously been detected. This proposal would create additional restrictions on the movement of deer carcasses and certain carcass parts from deer harvested in a CWD-affected county. These rule will also require enchanced fencing for all white-tailed deer farms. These restrictions will help prevent the further spread of CWD

MODIFIED: The department's memo (page 2) and the board order (pages 1, 2, 8, and 9) were updated to clarify that changes to fencing standards as a result of these rules do not apply to certain individuals and groups, who were already exempt from complying with the previous standards.

Approved by	Signature	Date
Eric Lobner, Bureau Director for	(Peter Q Engman)	7/27/18
Sanjay Olson, Division Administrator		7/27/18
Daniel L. Meyer, Secretary for		7/27/18

cc: Board Liaison – AD/8
Tribal Liaison –AD/8
Scott Karel, Wildlife Regulation Policy Specialist & Tami Ryan, Wildlife Health Program Chief
WCC Liaison-LS/8 Patrick Stevens DNR Rules Officer-LS/8

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: July 25, 2018

TO: All Members of the Natural Resources Board

FROM: Daniel L. Meyer, Secretary

SUBJECT: Background memo on Board Order WM-11-18 (E), relating to deer carcass transportation, deer farm fencing, and chronic wasting disease (CWD).

1. Subject of Proposed Rule:

The first wild deer in Wisconsin to test positive for CWD was discovered in 2002. Since then, the department has promulgated rules to seek to prevent the further spread of the disease by regulating carcass transportation, but our rules are becoming outdated as CWD positive deer are identified in additional counties. Over the recent months there have been instances where we have had CWD positive test results from wild white-tailed deer in counties where CWD had not previously been detected. The department is proposing additional restrictions on the movement of wild white-tailed deer carcasses and enhanced fencing of deer farms to help prevent the further spread of CWD.

This rule:

- Prohibits deer hunters from removing whole wild deer carcasses or certain carcass parts from the county of harvest if that county is designated as CWD-affected. Certain exceptions are allowed if extra steps are taken which reduce the risk of CWD spreading.
- Requires enhanced deer farm fencing for all white-tailed deer farmers. White-tailed deer farmers that have had a positive CWD test on their farm must install a second 8-foot high fence or a solid barrier that is at least 8 feet high. All other white-tailed deer farmers must install enhanced fencing that meets one of the following: a second 8-foot high fence, a sold barrier that is at least 8 feet high, or at least three strands of electrified wire on the inside or outside of the existing perimeter fence.

2. Background:

Chronic wasting disease is a fatal neurological disease that affects cervids. In Wisconsin CWD has been found in wild white-tailed deer as well as in deer and elk in captive facilities. The known CWD infection agent is called a prion and is very resistant to standard destruction or disinfection procedures. CWD transmission occurs when disease prions are shed by infected animals while alive or during decomposition of infected carcasses after death. Therefore, spread can occur directly through deer to deer contact or indirectly through contact between deer and a contaminated environment.

Wisconsin has seen an increase in the prevalence of the disease in existing areas of known occurrence as well as an increase in new areas of disease detection outside of the endemic area in southern Wisconsin. Areas of the western states where CWD has occurred longer than in Wisconsin, as well as various models, have shown that overall deer populations can be reduced with high levels of disease prevalence. Therefore, it is imperative that Wisconsin put measures into place which would assist with lowering the risk of CWD being introduced into new areas where the disease has not yet been found to exist. Wisconsin has a strong hunting culture and the spread of CWD would not only be damaging to our deer herd but also socially and economically in our state

3. Why is the rule being proposed?

Movement of infected animals is a key pathway in the spread of CWD. Moving a carcass from the area of harvest to an area without known occurrence of CWD, or lower prevalence rates, could introduce disease prions into the area if an infected carcass is not disposed of correctly. Human movement of carcasses will also likely cross more geographical barriers that would otherwise hinder live animal movement. CWD prions are known to persist in the environment and remain infectious for at least 3 years and potentially much longer. Studies have shown that prions bind to soil components with high affinity and that oral disease transmission may be enhanced when bound to soil.

4. Summary of the rule.

This rule removes restrictions of processing a deer in the field or leaving the carcass parts behind. It restricts the ability for deer hunters who harvest a deer in a CWD-affected county to move that deer outside of the county where the deer was originally harvested. However, it also allows a hunter to remove a deer head from a CWD-affected county if the head is being transported to an approved CWD sampling cooperator, kiosk, or staffed CWD testing center for testing the head for CWD.

This rule also creates enhanced fencing standards for deer farmers who raise white-tailed deer and removes language which allowed farm-raised white-tailed deer to be enclosed by a single perimeter fence. However, certain groups and individuals that were exempt from complying with the previous fencing standards are also exempt from the enhanced fencing standards.

5. How does this proposal affect existing policy?

Wild Carcass Movement

Harvested deer carcasses may be moved outside of a CWD affected county if taken to a licensed taxidermist or meat processor. Taxidermists and processors must follow strict rules regarding waste disposal. NR 10.105(c). Licensed meat processors and permitted taxidermists receiving a cervid carcass under this subsection shall dispose of all inedible parts not exempted under subs. (4) (a) to (i) and (6) (a) to (h), and all parts of the spinal column, brain and lymphoid tissues in a properly permitted landfill or with a renderer licensed under s. ATCP 57.10. Such restrictions are not in place for private citizens, thus they are not part of the exemption. Please see the attached documents which describe the best management practices for carcass disposal and outline carcass movement restrictions. Also attached is a department publication which includes recommendations for reducing the spread of CWD. Following passage of new rules, this guidance will be revised to reflect new regulations and recommended practices.

Enhanced Fencing

Direct or indirect contact at fences between wild cervids and captive cervids may play a role in the transmission of diseases such as CWD. Enhanced fencing such as double fences or a solid barrier would serve to reduce the potential for such interactions. Several studies have utilized video-surveillance to monitor fences for contact between wild cervids and captive cervids. Results in the number of interactions vary but all studies saw less interactions with enhanced fencing. Due to CWD being transmissible via indirect environmental contamination, direct animal to animal contact would not be necessary to potentially spread the disease in new areas. Enhanced fencing would help to mitigate indirect contact as well.

6. Has Board dealt with these issues before?

The Natural Resources Board approved a scope statement for this rule at their June 2018 meeting. The department has been promulgating rules related to CWD periodically since 2003.

7. Who will be impacted by the proposed rule? How?

Deer hunters will be the group most likely impacted by the deer carcass transportation rules. More specifically, deer hunters who hunt in a CWD-affected county who need to transport their deer outside of the county of harvest will be directly affected (e.g. they will be required to quarter their deer in a way that no part of the spinal column is attached). Farmers who raise white-tailed deer will be the group impacted by rules that require enhance deer farm fencing.

8. Small Business Analysis

This rule will primarily impact all small business farmers who raise white tail deer in Wisconsin. We expect the total economic cost of this rule will impact only small businesses. The total impact of implementing this rule to small businesses is estimated to be $2,145,554.
This estimate includes:

Farms that are actively licensed, contain white-tailed deer and have had a CWD diagnosed on their premises- 3675.5 acres (thirteen farms). These farms will have to install either a double eight-foot fence or utilize an existing 8-foot high solid barrier under these rules. The total linear feet of fencing required is estimated to be 151,833 feet. Using $5.77 per linear foot as the average cost of installing a second 8-foot fence (including labor), the cost to farmers with a CWD positive to implement these rules is estimated to be $876,364. This estimate does not include the use of an existing 8-foot high solid barrier which would reduce the cost of installing a secondary fence.

The remainder of the state's white-tailed deer farms will have the option to install enhanced fencing (0.78 per linear foot) rather than a double perimeter fence which will cost much less than a second 8-foot fence, ($5.77 per linear feet). Since electric fencing is the most cost effective, we assume that farmers will choose the cheaper option. These enhanced fencing materials would cost the remaining white-tailed deer farmers whose deer have not tested positive for CWD $1,269,190.

STATE OF WISCONSIN
DEPARTMENT OF ADMINISTRATION
DOA-2049 (R09/2016)

DIVISION OF EXECUTIVE BUDGET AND FINANCE
101 EAST WILSON STREET, 10TH FLOOR
P.O. BOX 7864
MADISON, WI 53707-7864
FAX: (608) 267-0372

ADMINISTRATIVE RULES
Fiscal Estimate & Economic Impact Analysis

1. Type of Estimate and Analysis
☒ Original ☐ Updated ☐ Corrected

2. Date
7/19/18

3. Administrative Rule Chapter, Title and Number (and Clearinghouse Number if applicable)
Chs. NR 10 & 16, WM-11-18 (E)

4. Subject
Deer carcass transportation, deer farm fencing, and chronic wasting disease

5. Fund Sources Affected
☐ GPR ☐ FED ☐ PRO ☐ PRS ☐ SEG ☐ SEG-S

6. Chapter 20, Stats. Appropriations Affected

7. Fiscal Effect of Implementing the Rule
☒ No Fiscal Effect ☐ Increase Existing Revenues ☐ Increase Costs ☐ Decrease Costs
☐ Indeterminate ☐ Decrease Existing Revenues ☐ Could Absorb Within Agency's Budget

8. The Rule Will Impact the Following (Check All That Apply)
☐ State's Economy
☐ Local Government Units
☒ Specific Businesses/Sectors
☐ Public Utility Rate Payers
☒ Small Businesses **(if checked, complete Attachment A)**

9. Estimate of Implementation and Compliance to Businesses, Local Governmental Units and Individuals, per s. 227.137(3)(b)(1).
$2,145,554.00

10. Would Implementation and Compliance Costs Businesses, Local Governmental Units and Individuals Be $10 Million or more Over Any 2-year Period, per s. 227.137(3)(b)(2)?
☐ Yes ☒ No

11. Policy Problem Addressed by the Rule
These rules are sought to prevent the further spread of CWD throughout the state. This will allow the department to continue the proper management of the deer population in a way that preserves the public welfare. A healthy deer herd and quality deer hunting are a critical component of Wisconsin's culture, economy and identity.

12. Summary of the Businesses, Business Sectors, Associations Representing Business, Local Governmental Units, and Individuals that may be Affected by the Proposed Rule that were Contacted for Comments.
Deer hunters and farmers who raise whte-tailed deer will be the primary groups that will be affected by these rules.

13. Identify the Local Governmental Units that Participated in the Development of this EIA.
None at this time. Local Government units are not anticipated to be impacted by this rule.

14. Summary of Rule's Economic and Fiscal Impact on Specific Businesses, Business Sectors, Public Utility Rate Payers, Local Governmental Units and the State's Economy as a Whole (Include Implementation and Compliance Costs Expected to be Incurred)
There are 12 white-tailed deer farms that contain 113 acres that are currently double fenced and will not be impacted by these proposed rules. There is roughly 1,779,000 total current single fencing in lineal feet surrounding white-tail deer farms in Wisconsin. This fencing surrounds roughly 30,428 acres of actively licensed white-tailed deer farms.

However, the total acres of farms that are actively licensed, contain white-tailed deer and have had a CWD diagnosed on their premises is 3675.5 acres (thirteen farms). These farms would need to install either a double eight-foot fence or utilize an existing 8-foot high solid barrier under these rules.

The linear feet surrounding these thirteen farms is 151,833. Using prior Wisconsin Department of Natural Resources property fencing bid estistimates for installing an 8-foot fence on a deer farm, the cost of a second 8-foot fence with labor is estimated to be $5.77 per linear foot. Other fencing companies expressed the ability to install a second eight-foot fence for as much as $1 to $2 less than WDNR's prior bids per linear foot, however this assumption uses the $5.77 because our most common bids on 8-foot high fencing for department projects were in the $5.50-$5.75 range.

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This means that the cost to those farmers with a CWD positive to implement these rules would be $876,364. This estimate does not include the cost of clearing any trees for this secondary fence since it impossible to determine is that is even necessary and to what extent. Also, this estimate does also does not include the use of an existing 8-foot high solid barrier which would reduce the cost of installing a secondary fence.

The remainder of the state's white-tailed deer farms will have the option to install enhanced fencing rather than a double perimeter fence which will cost much less than a second 8-foot fence. According to an estimate form the Wisconsin Department of Agriculture, Trade and Consumer Protection estimates, material costs of electrified high tensile wire and insulators are estimated to run $0.78 per linear foot. This estimates was also verified by contacting two private installers. This estimate does not include the cost of installation, corner supports for the electric fence, or the cost of tying the fence off at a gate. This estimate also does not include the use of an existing 8-foot high solid barrier which would reduce the cost of installing an enhanced fence. Alternatively, the cost of using a double fence instead of an enhanced fence is estimated to be $5.77 per linear feet. Since electric fencing is the most cost effective, we assume that farmers will choose the cheaper option. These enhanced fencing materials would cost the remaining white-tailed deer farmers whose deer have not tested positive for CWD $1,269,190.

The total cost estimate to implement these rules for enhanced fencing would cost white-tailed deer farmers $2,145,554.

15. Benefits of Implementing the Rule and Alternative(s) to Implementing the Rule

Movement of infected animals is a key pathway in the spread of CWD. Moving a carcass from the area of harvest to an area without known occurrence of CWD, or lower prevalence rates, could introduce disease prions into the area if an infected carcass is not disposed of correctly. Human movement of carcasses will also likely cross more geographical barriers that would otherwise hinder live animal movement. CWD prions are known to persist in the environment and remain infectious for at least 3 years and potentially much longer. Studies have shown that prions bind to soil components with high affinity and that oral disease transmission may be enhanced when bound to soil. By restricting both wild deer carcass movement and requiring enhanced white-tailed deer farm fencing, it is less likely that CWD will be spread to new areas of the state.

16. Long Range Implications of Implementing the Rule

The long range implications of implementing the rule will be the same as the short range implication. All new white-tailed deer farms would have to abide by the proposed enhanced fencing regulations. Additionaly, if any counties would be subsequently designated as CWD-affected, hunters in those counties would need to apply by these rules in future deer hunting seasons.

17. Compare With Approaches Being Used by Federal Government

Federal regulations allow states to manage the wildlife resources located within their boundaries provided they do not conflict with regulations established in the Federal Register. None of these rule changes violate or conflict with the provisions established in the Federal Code of Regulations.

18. Compare With Approaches Being Used by Neighboring States (Illinois, Iowa, Michigan and Minnesota)

Iowa currently only requires a single 8-foot-high fence for deer farmers. They also restrict the movement of all wild or captive deer from CWD endemic areas outside the state but don't currently restrict movement from animals within the state.

Michigan requires mandatory testing of deer killed in townships where CWD is present within 72 hours of harvest. While the state does not currently restrict wild deer carcass movement, they are proposing additional regulations that would do so. One proposal would ban the movement of a deer carcass from a five-county area unless that deer has been tested for CWD. Michigan requires a single 10 foot high exterior fence for farm raised white-tailed deer.

Illinois currently does not regulate the movement of deer carcasses within the state. Illinios does not currently have specific fencing requirements for white-tailed deer farms. They only require that all herd premises must have perimeter fencing adequate to prevent ingress and egress of cervids.

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Finally, Minnesota does not allow any harvest deer carcass to be removed from there CWD management area until after a CWD test has been completed, not even to a licensed meat processor or taxidermist. They define a CWD management area as any area within 10 miles of a known CWD positive. An individual that lives within that area may self-process their deer but they must keep the carcass parts in case the deer tests positive for CWD to be collected and disposed of by a digester. Minnesota currnely only requires a single 8-foot fence, but they are exploring adopting rules which would require any deer farm within their CWD management area to double fence.

19. Contact Name	20. Contact Phone Number
Scott Karel	608-267-2452

This document can be made available in alternate formats to individuals with disabilities upon request.

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DOA-2049 (R09/2016)

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ATTACHMENT A

1. Summary of Rule's Economic and Fiscal Impact on Small Businesses (Separately for each Small Business Sector, Include Implementation and Compliance Costs Expected to be Incurred)

This rule will primarily impact all small business farmers who raise white tail deer in Wisconsin. We expect the total economic cost of this rule will impact only small businesses. The total impact of implementing this rule to small businesses is estimated to be $2,145,554.

This estimate include:

Farms that are actively licensed, contain white-tailed deer and have had a CWD diagnosed on their premises- 3675.5 acres (thirteen farms). These farms will have to install either a double eight-foot fence or utilize an existing 8-foot high solid barrier under these rules. The total linear feet of fencing required is estimated to be 151,833 feet. Using $5.77 per linear foot as the average cost of installing a second 8-foot fence (including labor), the cost to farmers with a CWD positive to implement these rules is estimated to be $876,364. This estimate does not include the use of an existing 8-foot high solid barrier which would reduce the cost of installing a secondary fence.

The remainder of the state's white-tailed deer farms will have the option to install enhanced fencing (0.78 per linear foot) rather than a double perimeter fence which will cost much less than a second 8-foot fence, ($5.77 per linear feet). Since electric fencing is the most cost effective, we assume that farmers will choose the cheaper option. These enhanced fencing materials would cost the remaining white-tailed deer farmers whose deer have not tested positive for CWD $1,269,190.

2. Summary of the data sources used to measure the Rule's impact on Small Businesses

Estimates from companies that install fencing were used to determine the costs of installing enhanced fencing on farms. Estimates from open bidding process for fence installation for the Wisconsin Department of Natural Resource was used. Additionally, the department solicited several fencing companies for estimates regarding the installation of an eight-foot fence or an electrified high tensile wire and insulator fence. Estimates form the Wisconsin Department of Agriculture, Trade and Consumer Protection for material costs of electrified high tensile wire and insulators was also used.

3. Did the agency consider the following methods to reduce the impact of the Rule on Small Businesses?

☒ Less Stringent Compliance or Reporting Requirements
☒ Less Stringent Schedules or Deadlines for Compliance or Reporting
☐ Consolidation or Simplification of Reporting Requirements
☐ Establishment of performance standards in lieu of Design or Operational Standards
☐ Exemption of Small Businesses from some or all requirements
☐ Other, describe:

4. Describe the methods incorporated into the Rule that will reduce its impact on Small Businesses

The rule provides several options for enhance fencing for white-tailed deer farms. One of these options includes installing enhanced electric fencing to the existing permiter fence. This option costs roughly $1/7^{th}$ as much as it does to install a second eight foot fence. Another option avaiable to landowners is using an existing solid barrier that is at least 8 feet high to act as enhanced fencing. This would reduced the cost of installing enhanced fencing since this solid barrier may already exist on the property.

5. Describe the Rule's Enforcement Provisions

If a fence fails to meet the applicable standard the department may issue an order directing the person who is required to maintain the fence to bring the fence into compliance within 10 days after the issuance of the order. If the person fails to comply with the order within 10 days of its issuance, the department may revoke the applicable fence inspection certificate. Individuals are prohibited from keeping farm-raised white-tailed deer unless all of the white-tailed deer are

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contained in a fenced area for which the person holds a valid fence inspection certificate issued by the department.

6. Did the Agency prepare a Cost Benefit Analysis (if Yes, attach to form)
☐ Yes ☒ No

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
AMENDING, REPEALING AND RECREATING AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to **amend** NR 10.105 (2), NR 10.105 (4) (intro) and NR 16.45 (8) (intro); to **repeal and recreate** NR 10.105 (4) (a), NR 16.45 (2) (intro); and to **create** NR 16.45 (2) (c), (2e), (2m) (a) & (b), and (2s) relating to deer carcass transportation, deer farm fencing, and chronic wasting disease and affecting small business.

WM-11-18 (E)

Analysis Prepared by the Department of Natural Resources

1. Statute Interpreted: The chapter on wild animals and plants, in s. 29.014, "rule making for this chapter", establishes that the department shall maintain open and closed seasons for fish and game and any limits, rest days, and conditions for taking fish and game.

Additionally, s. 29.063 grants the department broad authority to manage CWD in deer with subsections (3) and (4) allowing the department the ability to regulate the transportation, possession, control, storage or disposal of the carcass of a cervid in the state.

Finally, s. 90.21 (6) directs the department to promulgate rules for the fencing of deer farms that raise white-tailed deer.

2. Statutory Authority: Statutes that authorize the promulgation of this rule order includes sections 29.014, 29.063 and 90.21.

3. Explanation of Agency Authority: The chapter on wild animals and plants, in s. 29.014, "rule making for this chapter", establishes that the department shall maintain open and closed seasons for fish and game and any limits, rest days, and conditions for taking fish and game. This grant of rule-making authority allows the department to make changes related to hunting regulations.

Section 29.063 specifically grants the department the ability to promulgate rules regulating the transportation and disposal of any cervid carcass in the state with limited exceptions.

In s. 91.21, the department is required by the legislature to promulgate rules that establish requirements for fences for which the department issues fence inspection certificates.

4. Related Statutes or Rules: This rule is related to, 17-R-02, a currently active rule being promulgated by the Department of Agriculture, Trade, and Consumer Protection. This proposed rule is related to enhanced fencing for cervid farms of all species.

5. Plain Language Analysis:

SECTION 1 removes prohibitions of quartering a deer in the field or leaving the carcass parts behind.

SECTION 2 restricts the ability for deer hunters who harvest a deer in a CWD-affected county to move that deer outside of the county that the deer was originally harvested.

SECTION 3 allows a hunter to remove a deer head from a CWD-affected county if the head is being transported to an approved CWD sampling cooperator, kiosk, or staffed CWD testing center for testing

the head for CWD.

SECTIONS 4, 5 & 7 create enhanced fencing standards for deer farmers who raise white-tailed deer.

SECTION 6 removes language which allowed farm-raised white-tailed deer to be enclosed by a single perimeter fence.

SECTION 8 clarifies changes to fencing standards as a result of these rules do not apply to certain individuals and groups, who were already exempt from complying with the previous standards.

6. Summary of, and Comparison with, Existing or Proposed Federal Statutes and Regulations:

For deer hunting there are no related federal regulations. There is a federal herd status program, although p[participation in that program is voluntary. States possess inherent authority to manage the wildlife resources located within their boundaries, except insofar as preempted by federal treaties and laws, including regulations established in the Federal Register.

7. Comparison with Similar Rules in Adjacent States:

Iowa currently only requires a single 8-foot-high fence for deer farmers. They also restrict the movement of all wild or captive deer from CWD endemic areas outside the state but don't currently restrict movement of animals within the state.

Michigan requires mandatory testing of deer killed in townships where CWD is present within 72 hours of harvest. While the state does not currently restrict wild deer carcass movement, they are proposing additional regulations that would do so. One proposal would ban the movement of a deer carcass from a five-county area unless that deer has been tested for CWD. Michigan requires a single 10-foot-high exterior fence for farm raised white-tailed deer.

Illinois currently does not regulate the movement of deer carcasses within the state. Illinios does not currently have specific fencing requirements for white-tailed deer farms. They only require that all herd premises must have perimeter fencing adequate to prevent ingress and egress of cervids.

Finally, Minnesota does not allow any wild deer carcass to be removed from their CWD management area until after a CWD test has been completed, not even to a licensed meat processor or taxidermist. They define a CWD management area as any area within 10 miles of a known CWD positive. An individual that lives within that area may self-process their deer but they must keep the carcass parts in case the deer tests positive for CWD to be collected and disposed of by a digester. Minnesota currently only requires a single 8-foot fence, but they are exploring adopting rules which would require any deer farm within their CWD management area to double fence.

8. Summary of Factual Data and Analytical Methodologies Used and How Any Related Findings Support the Regulatory Approach Chosen:

Since its discovery in Wisconsin in 2002, 55 counties either have experienced a positive test for CWD or are within ten miles of a positive testing event. Of these counties 25 are designated as such due to having a wild CWD positive deer, 16 are within 10 miles of a wild CWD positive deer and 14 have a captive CWD positive or are within 10 miles of a captive CWD positive deer. While the pathways for the transmission of CWD remain unclear, Wisconsin has made efforts to slow the progression of the disease by restricting baiting and feeding and by requiring additional fencing that restricts contact between wild

deer and captive populations. These efforts have not prevented the spread of CWD. The progression of CWD threatens the welfare of Wisconsin's unique hunting culture as well as the multi-billion-dollar hunting industry within the state.

Current rule language only requires that a white-tailed deer farmer install a single perimeter fence that meets department specification. A double fence is also currently allowed, but not required. The second fence must meet the same specifications as the perimeter fence. This proposal will require all deer farms to install either a second 8-foot-high fence, a solid barrier that is at least 8 feet high, or enhanced electric fencing attached to the existing perimeter fence. Farms where there has been a positive CWD test would be required to install a double 8-foot-high fence or a solid barrier that is at least 8-feet-high at every point.

Carcass Transportation Movement (natural or human-assisted) of infected animals is a key pathway in the spread of CWD. The infectious nature of the CWD prion contributes to an increased risk of transmission not only where live animals are concentrated, but also where dead animals are transported to if not disposed of in a proper manner. Hunter harvested deer carcasses are often moved across geographic barriers. This human assisted movement of carcasses has the potential to cause the spread of CWD where it would otherwise be much less likely through the natural movements of deer in a wild population.

Carcass movement restrictions were put into place to prevent tissues most likely to contain chronic wasting disease (CWD) infectious agents (prions) from being introduced to areas of the state where CWD does not yet exist. From 2002-2013, the CWD management zone consisted of south-central deer management units (DMUs). Starting September 1, 2009, regulations were put into place that only allowed movement of whole carcasses within the management zone and adjacent management units unless the carcass was brought to a licensed taxidermist or meat processor within 72 hours.

In 2014, the deer management units were changed to mostly county-based units. The CWD management zone was changed to CWD-affected counties. A county was considered CWD-affected if a wild or captive cervid had tested positive for CWD in the county or in a county within 10 miles. The CWD-affected counties encompassed a much larger area than the CWD management zone, including areas outside the southern endemic CWD area. This allowed hunters to move a whole carcass to more areas of the state than previously permitted.

9. Analysis and Supporting Documents Used to Determine the Effect on Small Business or in Preparation of an Economic Impact Report:

Wild Deer Carcass Transportation. While these rules may make it more difficult for individuals to home butcher their deer, the process will not be outright prohibited since statute allows the movement of specific parts of the deer to any area of the state.

Many of the state's deer hunters already take their deer to a licensed meat processor and current rules exempt the movement of deer out of a CWD affected county to any licensed meat processor. We anticipate any additional cost to sportsmen will be related to those who currently home butcher carcasses and who will elect to take their deer to a meat processor instead of moving the carcass in parts as currently permitted.

The average cost of meat processing is estimated to be about $150. We do not know how many sportsmen will opt to process their carcass at a licensed meat processor. Based on our preliminary analysis, we do not anticipate a significant economic impact to individuals or groups. If there were to be any economic cost resulting from this rule, we anticipate that it would be very minimal to moderate (between $50,000 to

$370,000). The additional cost that will be attributable to additional sportsmen opting for a licensed meat processor will be a benefit transferred to meat processors within the economy.

Enhanced Fencing. Currently, the department has registered approximately 370 locations as having farm-raised deer. Some of these 370 locations are already enclosed with enhanced fencing. Of that total, approximately 244 have white-tailed deer and 120 have other species of cervid. Locations with white-tailed deer have approximately 30,300 acres.

Fencing costs will vary depending on the acreage and terrain of the land to be fenced, labor costs, and type of fence to be installed.

Fencing materials included 8' tall woven wire high tensile fence (2096-6) 20 horizontal wires with vertical stay wires 6" apart and 96" tall. Set post was 6" x 12' treated wood post, and corner braces post were 6" x 12' treated wood post with a 5" x 12' treated wood post as a brace and 12 ½ ga. brace wire. Line post was spaced 20' apart and were 4" x 12' treated wood posts. There were 4 gate openings 14' wide and 1-14' pipe frame gate and wire over the pipe for each opening.

Labor costs will presumably be less if the owner installs the fence. Using fencing materials provided by Kencove.com, the department estimates fencing costs to be as follows per one square acre:

1. A second fence would cost approximately $1,556 per square acre ($1.85 per foot), not including labor, gates or shipping and handling, calculated and using materials as follows:
    - Using Fastlock Deer Fence, 20 horizontal lines, 96 inch height, 6 inch vertical spacing, 12.5 gauge high tensile wire, 330' roll ($363.50 per roll) and 5" x 12' tapered pine wood post ($15.15 per post).
    - One square acre would require 836 feet of fencing or 2.53 rolls of fence ($919.65) + 42 posts (20 ft spacing) (42 x $15.15 = $636.30) for a total of $1,556 per square acre.

2. Three strands of electric fence would cost approximately $75.96, or $350 per square acre ($.09 or $.41 per foot), not including labor, insulators, electric power unit, electricity, or shipping and handling, calculated using materials as follows:
    - Using 14 gauge ¼ mile (1,320 feet) electric fence wire ($31.99 per roll) and 5' steel T posts ($5.95 per post).
    - One square acre would require 836 feet of electric fencing x 3 strands ($31.99 x 3 = $99.97) + 42 posts (20 ft spacing) (42 x $5.95 = $250) for a total of $350. If the electric wire is attached directly to the existing fence posts, T posts would not have to be purchased and the total cost would be $75.96 per square acre.

10. Effect on Small Business (initial regulatory flexibility analysis):

The department estimates that the enhanced fencing portion of the rule will have a moderate economic impact on certain small businesses, particularly white-tailed deer farmers. However, these rules offer flexibility to deer farmers regarding the options that are available to them to install enhanced fencing. Landowners can choose a minimal cost option or can defray that cost by installing the fencing themselves.

Additionally, these rules may provide an economic impact to certain small businesses. Fencing installers may gain additional revenue as well as licensed meat processors.

Alternative to not imposing these rules is that CWD will continue to spread throughout the state. This

could cause a drop-in participation in white-tailed deer hunting which contributes more than $1 billion dollars to the state's economy. These rules will benefits landowners and small businesses who rely on deer hunting for revenue.

11. Agency Contact Person: Scott Karel, 101 South Webster Str., PO BOX 7921, Madison, WI 53707-7921. (608) 267-2452, scottr.karel@wisconsin.gov.

12. Place where comments are to be submitted and deadline for submission:
Written comments may be submitted at the public hearings, by regular mail, fax or email to:
Scott Karel
Department of Natural Resources
P.O. Box 7921
Madison, WI 53707
Scottr.karel@wisconsin.gov
608-267-2452
608-267-7857 (fax)

Written comments may also be submitted to the Department at DNRAdministrativeRulesComments@wisconsin.gov.

Hearing dates and the comment submission deadline are to be determined.

SECTION 1. NR 10.105 (2) is amended to read:

NR 10.105 (2) CARCASS CONDITION AND TRANSPORTATION. No person may possess a ~~deer,~~ bear~~,~~ or elk carcass that is not completely intact while in the field or during transportation from the field, except that:

(a) The entrails may be removed and disposed of while afield by field dressing.

(b) ~~Deer,~~ ~~b~~Bear, and elk may be skinned, and the lower legs of a deer from the hooves up to the tarsus joint on the hind legs and from the hooves up to the carpus joint on the front legs may be removed. All parts must be removed from the field. If in–person registration is required, the hide and lower legs must accompany the deer, bear, or elk until the time of registration. After in–person or electronic registration has been completed, and the deer, bear, or elk has been removed from the field, all parts not retained shall be disposed of in a manner in compliance with s. 287.81 (2), Stats.

(c) A ~~deer,~~ bear~~,~~ or elk may be divided into not more than 5 parts, not including the hide and the lower legs, only to facilitate removal from the field. The head and neck of the bear or elk shall remain attached to one of the other parts of the animal, not including the hide. A person who divides a ~~deer,~~ bear~~,~~ or elk while afield:

1. May not allow the ~~deer,~~ bear~~,~~ or elk to be stored or transported with any other deer or bear that has been divided while afield.

2. May not divide any bear in a manner that does not keep one part of the bear intact to allow it to be measured in a straight line from the tip of the nose to the base of the tail, to determine it was an adult bear of 42 inches or greater.

3. Must remove all parts from the field.

4. Shall exhibit all parts at the time of registration when in– person registration is required by the department.

5. Must dispose of all parts not retained in a manner that is in compliance with s. 287.81 (2), Stats., but such disposal may only occur after in–person or electronic registration has been completed, and the ~~deer,~~ bear~~,~~ or elk has been removed from the field.

SECTION 2. NR 10.105 (4) (intro) is amended to read:

NR 10.105 (4) TRANSPORTATION OF CERVID ANIMALS FROM A CHRONIC WASTING DISEASE AFFECTED AREA. Unless otherwise authorized by the department, the carcasses of deer harvested in a chronic wasting disease affected area identified by the department may not be transported outside of ~~that area~~ the county of harvest except for any of the following, or as provided under sub. (7):

SECTION 3. NR 10.105 (4) (a) is repealed and recreated to read:

NR 10.015 (4) (a) A deer head being transported to an approved CWD sampling cooperator, kiosk, or staffed CWD testing center for the purpose of testing the head for CWD.

SECTION 4. NR 16.45 (2) (intro) is repealed and recreated to read:

NR 16.45 (2) FENCE REQUIREMENTS. Except as specified under sub. (2m), farm-raised white-tailed deer herds registered under s. ATCP 10.46 shall be enclosed by enhanced fencing that includes one of following systems, or a combination of any of the following systems, that fully encloses a farm-raised deer herd and is approved by the department:

SECTION 5. NR 16.45 (2) (a) is repealed

SECTION 6. NR 16.45 (2) (c) & (2e) are created to read:

NR 16.45 (2) (c) The farm raised white-tailed deer are enclosed by a perimeter fence, at least 8 feet high at every point, that has at least three strands of electrified wire on the inside or the outside of the entire length of the perimeter fence, including gates, at heights ranging from 6 inches to 48 inches from the ground. The fence must be all of the following:

1. Electrified at all times except when power must be turned off for maintenance or other normal practices.
2. Constructed so that each strand is attached individually, each with its own insulators, to the perimeter fence.
3. Designed to exclude deer.
4. Maintained in a way that avoids the likelihood of electrical ground-out.

(2e) EFFECTIVE DATE. An enhanced fence under this sub (2) shall be completed within 90 days, or other timeline approved by the department, of the effective date of this rule. The department may inspect the fence under this section. Upon request by the department, the farm raised deer keeper shall provide transportation to inspect the fence.

SECTION 7. NR 16.45 (2m) (a) (b) & (2s) are created to read:

NR 16.45 (2m) FENCE REQUIREMENTS FOR CERTAIN WHITE-TAILED DEER FARMS. Farm-raised white-tailed deer herds registered under s. ATCP 10.46 that have had a positive chronic wasting disease test result for any deer residing in that herd, and if the herd does not depopulate all deer within the fence annually, shall be enclosed by enhanced fencing which includes one of following systems, or a combination of any of the following systems, which fully encloses a farm-raised deer herd and is approved by the department:

(a) The farm-raised white-tailed deer are enclosed by double perimeter fences in which both shall meet the requirements established in sub. (1) (a) to (i) and the 2 fences shall be at least 8 feet but not more than 16 feet apart.; or

(b) The farm-raised white-tailed deer are enclosed by one solid perimeter fence that shall meet the requirements established in sub. (1) (a) to (i) and the lower 7 feet of the fence shall be covered with solid material that prevents animals on opposite sides of the fence from making visual or physical contact. The solid perimeter fence shall contain at least one single strand electrified wire on the inside or the outside of the entire length of the perimeter fence at a height of 3 feet and shall be at a distance of 2 feet from the main fence.

(2s) EFFECTIVE DATE A double fence or solid barrier under sub (2m) shall be completed within 90 days, or other timeline approved by the department, of the effective date of this rule. The department may inspect the fence under this section. Upon request by the department, the farm-raised deer keeper shall provide transportation to inspect the fence.

SECTION 8. NR 16.45 (8) (intro) is amended to read:

NR 16.45 (8) EXEMPTIONS FOR CERTAIN PERSONS, ZOOS AND INSTITUTIONS. Each of the following is exempt from the requirements under sub. (1) (a) if approved by the department and subs. (2), (2e), (2m), (2s), (3), and (6):

SECTION ~~8~~9. STATEMENT OF EMERGENCY. The department finds that an emergency rule is necessary to prevent the further spread of Chronic Wasting Disease (CWD) so that the state can continue the proper management of the deer population in a way that preserves the public welfare. A healthy deer herd and quality deer hunting are a critical component of Wisconsin's culture, economy and identity.

SECTION ~~9~~10. EFFECTIVE DATE. This rule takes effect on the first day of the month following publication in the official state newspaper, as provided in s. 227.24(1) (c), Stats.

SECTION ~~10~~11. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on [DATE].

Dated at Madison, Wisconsin _____.

STATE OF Wisconsin DNR

DEPARTMENT OF NATURAL RESOURCES

BY _____

Daniel L. Meyer, Secretary

(SEAL)

Carcass movement restrictions

The movement of dead or alive CWD positive animals (natural or human-assisted) is a key pathway in the spread of CWD. The infectious nature of the CWD prion contributes to an increased risk of introduction and spread of CWD if dead animals are brought to areas where CWD does not exist if not disposed of properly.

Deer carcass movement in Wisconsin

Carcass movement restrictions are currently in place to assist in limiting the spread of disease. Both whole wild-deer carcasses and certain parts of carcasses from CWD affected counties [PDF] can only be moved within CWD affected counties and to a county adjacent to a CWD-affected county [PDF].

Hunters are allowed to take whole cervid carcasses or any parts of carcasses harvested in the CWD-affected counties or in any state or province where CWD has been found, into any part of Wisconsin, provided the carcass (or nonexempt parts) are taken to a licensed taxidermist or meat processor within 72 hours of registering a Wisconsin deer, or within 72 hours of entering Wisconsin from another state. Meat processors and taxidermists are excluded since they must follow strict rules regarding waste disposal, thereby removing the risks associated with improper disposal.

The department does not intend to preclude hunters from moving a deer head outside of an adjacent CWD affected county if that head is being transported to an approved CWD sampling cooperator, self-service kiosk, or staffed CWD testing location for the purpose of submitting the head for removal of tissues for CWD testing. After sample tissue has been removed from deer heads submitted via these submission routes the heads will be disposed of properly.

Recommendations

The following recommendations expand on deer carcass movement practices that can reduce the risk of spreading CWD.

- Do not transport whole wild deer carcasses or any deer brain, spinal cord or lymph node tissue to areas outside the county or adjacent county that the animal was harvested.
- Do not transport whole carcasses or any deer brain, spinal cord or lymph tissue from a state/province that has CWD into WI.
- Use processor and/or taxidermists that practice approved disposal methods.
- Hunters from other stations/provinces should be aware of their state's carcass restrictions for deer harvested in a CWD affected areas before heading home.

Exceptions

Deer parts that may be moved

- Meat that is cut and wrapped (either commercially or privately).
- Quarters or other portions of meat to which **no** part of the spinal column is attached.
- Meat that has been deboned.
- Hides with no heads attached.
- Finished taxidermy heads.
- Antlers with no tissue attached.
- Clean skull plates with no lymphoid or brain tissue attached.
- Clean skulls with no lymphoid or brain tissue attached.
- Upper canine teeth (also known as buglers, whistlers or ivories).

If not brought to a licensed taxidermist or meat processor within 72 hours, the **only** parts from wild cervids legally-harvested in the CWD affected counties that may be transported beyond those counties adjacent to the CWD affected counties are included in the table. These are the same parts that are allowed into WI from other states and provinces that have CWD.

Deer carcass movement into Wisconsin

Chronic wasting disease has been found in wild cervids in the following states and provinces [exit DNR]. Hunters from other states/provinces should be aware of their state's carcass restrictions [PDF exit DNR] of deer harvested in a CWD affected area in Wisconsin before heading home. Whole carcasses and parts of carcasses, other than those listed in the table, from these states and provinces are not allowed into Wisconsin unless taken to a meat processor or taxidermist within 72 hours of entry into Wisconsin.

- United States: Arkansas, Colorado, Illinois, Iowa, Kansas, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New York, North Dakota, New Mexico, Pennsylvania, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming
- Canadian Provinces: Alberta and Saskatchewan

Carcass disposal

Chronic wasting disease (CWD) can be spread among deer by both direct contact between animals and exposure to environments contaminated with CWD prions, the protein that causes the disease. Exposure to an area where a CWD-positive carcass has decomposed could be enough to cause infection in deer. Because of this risk, it is important that the carcasses of deer possibly infected with CWD, including all bones and other waste from butchering, be disposed of in a way that protects uninfected deer from exposure. While there are some disposal methods that destroy prions, such as incineration at 1800° F or digestion in sodium hydroxide, these methods are cost-prohibitive and not practical for most people.

Recommendations for hunters

The following, in order of efficacy and practicality, are the recommended options that hunters should use when disposing of deer-carcass waste.

1. The preferred option available is disposal in a landfill that accepts deer waste. Landfills are a safe and cost-effective option for disposing of carcass waste potentially contaminated with CWD-causing prions. Landfill disposal establishes a barrier between uninfected deer and deer-carcass waste that potentially contains infectious CWD material. Scientific research has shown that when properly disposed of in a landfill, prions are extremely unlikely to migrate from the landfill disposal site. For most people, disposal in a landfill would be accomplished either by taking that waste directly to the landfill or through their regular trash pick-up service.
2. While landfilling is preferred, another option is to bury the carcass waste. It should be buried deep enough to prevent scavengers from digging it back up. This method effectively removes the waste from the open environment and, again, places a barrier between uninfected deer and the source of infection.
3. Finally, as a last resort, and only on their own land, hunters can put their deer-carcass waste back on the landscape. This should be done as close to where the deer was harvested as possible and within the CWD-affected area or an adjacent county. Persons using this option should also, if possible, put the carcass waste in a location where other deer and scavengers are unlikely to encounter it. At no time should the head, spine or other restricted portions of deer harvested within a CWD-affected county be moved or disposed of outside of the CWD-affected area or an adjacent county. As a reminder, it is illegal to dispose of waste on any public lands or road right-of-ways. As in the rest of the state, field dressing a deer and leaving the gut pile on site on public or private land is still permitted. Although gut piles pose a risk of transmitting CWD,

evidence indicates that the risk is minimal due to their short persistence time on the landscape due to high rates of scavenging.

Recommendations for non-hunters

Deer carcasses collected from generators including taxidermists, meat processors or other facilities shall be disposed of in compliance with solid waste regulations. Contact your local Waste Management Specialist if you need further assistance in locating disposal facilities that accept deer waste. Additional information can be found on the deer carcass disposal sites page.

Sick deer guidance

If a person sees a sick deer the DNR is interested in testing the deer for CWD and can help the individual dispose of the carcass if shot. Please view the sick deer guidance for additional information.

RECOMMENDATIONS FOR REDUCING THE SPREAD OF CHRONIC WASTING DISEASE (CWD)

Wisconsin Department of Natural Resources, 2014

This document includes recommended practices to reduce and prevent the spread of CWD through voluntary implementation by Wisconsin citizens. Through the use of these recommendations with the cooperation of hunters, landowners, and other agencies and organizations, the potential influence of human related introductions of CWD may be reduced.

CONTENTS

INTRODUCTION

Background

Since 2002, when CWD was first found in Wisconsin's wild deer herd, the Department of Natural Resources (DNR) has focused management on reducing and containing the spread of the disease. The control of CWD has proven very challenging, but in the time since its first discovery in the state, much has been learned about the disease and how it is spread. This document is intended to provide information on CWD, and the guidelines developed to reduce its transmission in Wisconsin.

What is CWD and how is it spread?

CWD is a fatal neurological disease that belongs to a group of diseases known as transmissible spongiform encephalopathies (TSEs). Affecting deer, elk and moose, it causes a characteristic spongy degeneration of the brains of infected animals, resulting in emaciation, excessive drinking and urination, abnormal behavior, loss of bodily functions, and death. The known CWD infectious agent, or prion, is very resistant to destruction and disinfection by normal procedures, making it very difficult to contain[1,14].

CWD transmission occurs when disease prions are shed by infected animals through saliva, urine, feces and natural decomposition after death[16]. Because CWD prions bind to substrate[22,23] and are extremely resistant in the environment[1], transmission may be both direct and indirect[18]. This means that not only is CWD spread through contact between deer and their saliva, urine and feces, but also through contact between deer and contaminated environments[16,17].

Why do we need to reduce the spread of CWD?

CWD has persisted in the southern portion of Wisconsin since 2002. Prevalence rates show an overall increasing trend in all sex and age classes, with prevalence in adult male deer more than doubling in some areas. Wisconsin has also seen an increase in the area of occurrence of the disease, with several CWD positive deer found in areas outside the known location of disease in southern Wisconsin.

Evidence from monitoring in the western United States, where CWD has persisted for decades, along with analytic modeling, suggest that prevalence can reach high levels and increasing disease prevalence rates can reduce deer populations, perhaps drastically[10,18].

There is an ever increasing risk to Wisconsin's deer population and strong hunting culture as CWD spreads and prevalence rates increase, putting a drain on our general ability to control the disease. Without efforts to control the spread of CWD now, it has the potential to be damaging to not only our deer herd, but also the social and economic stability of many communities in Wisconsin[34].

What is being done in Wisconsin?

Since the discovery of CWD in Wisconsin in 2002, over 200,000 free-ranging deer have been tested, of which over 3,500 have tested positive. Surveillance has focused on determining prevalence trends in the southern portion of the state as well as detecting

new outbreaks throughout the state. DNR is continuing to work with stakeholders to increase our knowledge of CWD and adapt management strategies. DNR monitors and records statewide reports of sick deer and conducts testing of suspect animals. DNR also seeks to prevent the spread of CWD by reducing the potential influence of human related introductions of CWD.

RECOMMENDED PRACTICES

The following voluntary recommendations, assembled by DNR, address transmission reduction of CWD in Wisconsin, and are supplemental to current regulations.

Preventing Unnatural Concentrations of Deer

Artificial Water Structures and Disease
Water is one of the most common vehicles for environmentally transmitted diseases[13]. Although prion molecules are hydrophobic, and cannot exist freely in water, they exist bound to particulate and organic matter in aquatic environments[7]. Organic matter in water troughs allows for increased prion accumulation and the potential for prolonged infectivity compared to clean water sources[15].

Artificial water structures, such as water troughs and guzzlers, placed on the landscape, whether for agricultural purposes or specifically for wild animals, are accessed by deer. These water structures can repeatedly attract deer at concentrated sites[21], allowing for increased contact between animals and the potential for disease transmission.

Increased prion accumulation in water containing organic particulates, and increased contact rates associated with artificial water structures pose the potential risk of CWD transmission among deer.

Recommendation – follow these practices to reduce potential disease transmission at artificial water structures:

a. Place water structure in locations undesirable or inaccessible to deer
b. Keep water clean of organic matter and particulates
c. Replace water frequently
d. Frequently clean water structure with a 50:50 bleach water solution
e. Avoid the use of stainless steel and porous materials for construction of water containment structure
f. Do not intentionally place water structure on the landscape for deer

Using Scents to Attract Deer

Urine Based Scents (UBS) and CWD
UBS are used in a number of different ways, many of which involve direct contact between the scent and the environment. Use of urine-based scents has the potential to spread CWD to areas where it has previously not been detected. Assessing the risk of

UBS use is important in order to develop CWD management programs. Initial results of ongoing research indicate that CWD and other TSE prions can be found in the urine of infected animals. The effects of UBS use in the environment is unknown, however because of the nature of the CWD disease prion, the long-term cumulative effect is important to consider.

Urine used for scents and attractants is typically collected from farmed deer at both large commercial and small-scale operations. Although WI deer and elk farms that produce urine for scent products must participate in the state's CWD monitoring program, products used in WI may come from large interstate operations. There are a variety of unregulated processes used to collect this urine, and they often result in the accumulation of a mixture of secretions, therefore providing concurrent contamination risk[12]. There are currently no standard regulations to ensure that urine collected for use in scents and attractants is disease-free.

According to Wisconsin baiting and feeding regulations, scents, including UBS, may be used for hunting deer and other wild animals. Regulations establish a 2 oz. scent limit for broad application and requirement that scents shall not be placed or deposited in a manner that is accessible for consumption by deer, and scents shall be removed daily at the end of hunting hours established for deer. In addition to mandatory restrictions of scent use to limit the spread of disease, use the following voluntary alternatives that focus on a contained approach by reducing the amount of scent on the environment and the ways that deer access it, or by eliminating its use altogether.

Recommendation – use the following techniques to eliminate any contact between UBS and soil, vegetation, and deer:

a. Use commercially produced "scent-wicks" that are dipped into the bottle of scent, and hung on a twig or branch
b. Use scents in re-sealable containers that can be placed on a stake in the ground or hung upright in a tree to prevent scents from contacting the soil or surrounding vegetation
c. Consider eliminating the use of urine-based scents altogether by using synthetic or food based scents

Transporting of Carcasses

Carcass Transportation

Movement (natural or human-assisted) of infected animals is a key pathway in the spread of CWD. The infectious nature of the CWD prion contributes to an increased risk of transmission not only where live animals are concentrated, but also where dead animals are transported to if not disposed of in a proper manner[29,32].

Hunter harvested deer carcasses are often moved across geographic barriers. This human-assisted movement of carcasses has the potential to cause the spread of CWD where it would otherwise be much less likely through the natural movements of deer in a wild population[20].

In the counties of Wisconsin that are affected by CWD, restrictive carcass transportation regulations are currently in place to limit the spread of disease. With findings of CWD positive deer across the state, there are several new locations that have carcass transportation restrictions. Consider voluntary application of regulations from CWD affected counties to all areas of the state.

Recommendation – while transportation from states/provinces with CWD is already regulated, the following recommendations expand on transportation practices that can reduce the risk of spreading CWD:

a. Do not transport whole wild deer carcasses or any deer brain, spinal cord, or lymph tissue to areas outside the county or adjacent county that the animal was harvested
b. Do not transport whole carcasses or any deer brain, spinal cord, or lymph tissue from a state/province that has CWD into WI
c. Use processors and/or taxidermists that practice approved disposal methods

For more information on carcass transportation and a complete description of current regulations in WI, please view:

- deer carcass transportation regulations (DNR)

Handling of Carcasses

Field Dressing and Butchering

CWD prions accumulate in certain tissues, such as brain, spinal cord, lymph nodes, and spleen, but are still present, typically in lower concentrations, in other tissues such as fat and salivary glands[6,19]. Precautions should be observed while processing deer in order to reduce prion contamination in venison and the environment.

Recommendation – use the following guidelines to limit the spread of CWD prions while processing a deer:

Field dressing

a. Seek to minimize contact with the brain, spinal cord, spleen and lymph nodes by storing them in a sealed plastic bag until they can be disposed of in a landfill
b. Use knives and utensils dedicated for field dressing
c. Remove all internal organs
d. Dress and bone out harvested animals in field, or take directly to a processor
e. Limit contact between the carcass and the environment by placing a disposable sheet of plastic or cardboard between the carcass and the transportation vehicle
f. Double bag and seal any loose carcass parts (ie. head, quarters, innards) in transit

Processing

a. Use a disposable cutting surface such as clean plywood or paneling
b. Do not use household knives and utensils; use separate equipment for each deer
c. Process individual deer separately; store meat from individual deer in separate, well-labeled storage containers

d. Minimize contact with brain, spinal cord, spleen and lymph nodes; use designated equipment when dealing with these tissues
e. Trim meat a generous distance away from shattered bone, especially near the skull or spine
f. Avoid sawing through bone where possible, however if removing the head or antlers, use a designated, disposable saw blade; do not cut through edible portions of meat with a blade used to cut bone
g. Completely bone out the meat and remove all fat and connective tissue
h. Seal all disposable materials and equipment used for processing in plastic trash bags; dispose in a landfill

If using a licensed game processor, request that they completely bone out the animal, remove lymph nodes prior to grinding the meat, and store meat separate from other processed animals.

For more information on safe handling procedures for deer processing, view:

- UW-Madison pamphlet
- WI Division of Public Health information

Disposing of Carcasses

Carcass Disposal

Because of the risk of environmental contamination through the decomposition of a CWD-positive carcass[17], it is important that the carcasses of deer possibly infected with CWD, including all bones and other waste from butchering, be disposed of in a way that protects uninfected deer from exposure.

While there are disposal methods that destroy prions, such as incineration at 1800 degrees Fahrenheit or digestion in sodium hydroxide, these methods are cost-prohibitive and not practical for the public. Instead, the DNR recommends disposal of carcass waste in a landfill. This option is safe, cost-effective, and provides the best barrier between possibly contaminated material and the environment[4].

Recommendation – the following option is the accepted method of deer carcass disposal:

a. Dispose of carcass waste via your regular municipal waste stream or directly in a landfill.

For more information on deer carcass disposal please view:

- carcass disposal recommendations (DNR)

Decontaminating Equipment

Personal protective equipment (PPE), such as boots, gloves, clothing, etc., supplies, facilities, and vehicles exposed to potentially CWD infected tissues and environments should be properly cleaned and disinfected after each use.

General Cleanup
CWD prions persist throughout the body of an infected animal, even before the onset of clinical symptoms[9,24,26]. While handling and moving deer tissue, prions may bind to surfaces and remain infectious for long periods of time[1,6,17]. It is important to minimize the spread of infectious material by properly cleaning work surfaces, equipment, and clothing.

Recommendation – follow these procedures to properly contain and clean equipment exposed to potentially CWD infected tissues:

a. Line trash receptacles with non-porous, single-use liners that can be sealed or enclosed
b. Minimize infectious material in wastewater drains by removing and disposing of solids and other carcass debris from work surfaces, equipment, and PPE
c. Pressure wash any vehicles or equipment to be moved to and from areas of known CWD contamination
d. Properly contain carcass waste in double-lined trash bags and dispose of in acceptable landfill
e. Properly contain disposable clothing and equipment in double-lined trash bags and dispose of in landfill
f. Thoroughly wash non-disposable PPE prior to removal from contaminated site

Disinfection
Not only is it important to clean all materials and surfaces that have been exposed to potentially contaminated tissues of all organic solids, but also to use additional methods to attempt to deactivate the disease agent (prion). CWD prions are unusually resistant to traditional chemical and physical disinfection and sterilization methods[14,35]. The most generally accepted method for complete decontamination of prion infected material is incineration at 1800 degrees Fahrenheit. But because incineration is impractical for most people, it is recommended that equipment and surfaces undergo disinfection by soaking in a bleach water solution[22].

Recommendation – use these strategies to promote prion decontamination:

a. Keep instruments and other materials moist between exposure and cleaning/decontamination
b. Soak all appropriate processing equipment and surfaces in a 50:50 bleach water solution for at least 1 hr.
c. Rinse all equipment and surfaces with clean, hot water after soaking in bleach water solution

Implementing Other Strategies

Sick and Suspect Deer Reporting and Harvesting Guidelines
Public involvement in sick and suspect deer reporting not only allows for efficient removal of individual animals capable of transmitting disease throughout the population, but also increases our knowledge of disease distribution and spread.

Clinical signs of CWD include: no fear of humans, teeth grinding, notable weakness, drooping of head and ears, excessive thirst, difficulty swallowing, walking in set patterns, nervousness, loss of coordination, excessive salivation, diminished tone of facial muscles, excessive urination, severe emaciation and dehydration, inability to stand.

Recommendation – consider the following references regarding sick/suspect deer:

a. If you see a deer exhibiting clinical symptoms of CWD, contact your local DNR office, local biologist, conservation warden or law enforcement official.
    i. Outside of an open deer hunting season, a DNR or law enforcement official may dispatch the deer, or a DNR official may give you permission to do so yourself
    ii. During an open deer hunting season, you may harvest the animal with a valid deer hunting license. If possible, register the animal at a CWD sampling station to allow for efficient testing. The tag used on the sick/suspect animal will be replaced.
b. If you see multiple dead deer in an area, contact your local DNR office.

For more information on early disease detection and sick deer guidelines, please view:

- What to do if you see a sick deer

Controlling the Distribution and Intensity of CWD through Deer Harvest

While dispersal of infected animals may be the main source for disease movement across the landscape, other factors such as population density and disease prevalence may affect local rates of disease establishment, transmission and growth[27].

Continuing to hunt and harvest wild deer increases the likelihood of removing infected individuals from the landscape and likely reduces the contact between individual animals or groups of animals[33]. Not only will this potentially reduce the rate of disease spread, but also the non-direct transmission through environmental contamination by infected deer.

Recommendation – the following options present hunting opportunities:

a. Help control deer populations by continuing to hunt
b. If you own land, consider allowing hunters onto your property to hunt
c. Take advantage of agricultural damage hunting permits when possible
d. Take advantage of extended hunting seasons opportunities

Staying Informed

Although we have learned a lot about CWD since its discovery in Wisconsin, there is still much to be discovered about the disease and its impact on Wisconsin's deer herd. As new information becomes available, management strategies are adapted and new goals are developed.

It is important that Wisconsin's hunters, landowners and citizens stay informed about the latest scientific knowledge and recommendations for managing this disease, and

especially critical that we work together to support adaptive CWD management in Wisconsin.

Recommendation – use the following links to stay informed on updated CWD information:

a. Know CWD
b. CWD Alliance

SUMMARY

CWD has the potential for significant negative impacts on the future of deer and deer hunting wherever it exists. Increasing prevalence rates and expanding geographic areas of disease occurrence suggest that CWD will continue to spread throughout Wisconsin. The damaging effects of CWD (eg. decreased herd size and structure) are slow to progress, making it difficult to monitor management success; however, continuing efforts to control its spread is currently our best option. As new information is discovered, management strategies must be adapted.

The strategies described in this document can aid in the cooperative efforts of DNR, hunters, landowners and other key stakeholders to reduce the potential influence of human related introductions of CWD.

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