

CWD Mitigation Policy Recommendations

January 11, 2018

The Concerned Sportsmen of Michigan

Jim Sweeney

With the increased sampling that occurred during the fall of 2017, in response to the finding of a CWD positive doe harvested in Montcalm County during the youth hunt, it's been confirmed that Chronic Wasting Disease is endemic in portions of Montcalm County and in portions of several adjacent counties, as well. It's highly likely that the source of this disease in Central Michigan was related to the 2008 Captive Cervid enclosure in Algoma Township, Kent Co., where a single deer tested positive for CWD.

With over 50 suspected or positive free-ranging deer found in Michigan, the reality of the situation dictates that eradication of the disease, under current circumstances, is no longer a realistic scenario. The focus moving forward needs to be two-fold; First, there needs to be expanded and focused sampling designed to identify the geographic parameters of this epidemic. Second, policies need to be established which will have the highest likelihood of containing the geographic spread of the disease, as well as limiting the prevalence rate.

The current CWD response plan was designed to provide guidance for what to do if and when the disease was discovered in free ranging deer but the situation now that it has clearly been established that the disease is not only present but endemic, necessitates a number of updates and modifications to the existing plan, to maximize it's effectiveness.

Included in this report are a series of policy recommendations, addressing a variety of issues related to Chronic Wasting Disease management. Some of these recommendations may seem unorthodox and may run counter to established policies and regulations, both in the current CWD response plan and in the efforts employed by some other state game agencies, in their efforts to thwart the spread of CWD.

The reality is that there has been very limited success in other states in limiting the spread of CWD once it's established. Future efforts may need to rely on some out-of-the-box thinking, if we want to have any sort of chance at limiting the spread within the Lower Peninsula of Michigan, as well as keeping the U.P. CWD free.

Those of you who attended the CWD Symposium this fall are aware of the steps that Norway is taking, after the discovery of CWD in their free-ranging reindeer herd for the first time. After 3 reindeer tested positive for CWD, Norway decided to kill the entire 2,000 animal herd in the area where the positives were found, in an attempt to stop the disease from spreading to other parts of the country, where herds remain un-infected. The animals that were slaughtered represent 6% of the total resource in Norway.

That is a bold and pro-active approach to CWD mitigation. While the recommendations contained in this report do not include that kind of large scale culling, they are intended to be equally bold and pro-active, as it's clear that half measures or a conservative approach to disease mitigation is likely to have little impact in containing the spread of this disease. The following list of recommendations is in no particular order of priority.

CWD Policy Recommendations

1) Creation of CWD Containment Zone

Replace existing CWD management zones

Restore DMU's within CWD Containment Zone to individual Counties

Proposed CWD Containment Zone includes 26 LP Counties

Map of proposed CWD Containment Zone attached.

2) Identify priority areas for CWD sampling and Wildlife Services sharpshooting efforts

Sampling focus designed to identify geographic scope of disease area

Priority areas include selected townships in Kent, Newaygo, Mecosta, Isabella, Gratiot & Ionia Counties

Establish sampling quotas on a per township basis

Require Mandatory testing in specified Townships

3) Incentivize mandatory testing compliance and encourage non-mandatory testing

Initiate a \$500 Reward for CWD positive deer in addition to license replacement

Have DNR specify a single elk tag allocated by drawing for those who submit deer for CWD testing during 2018 season.

Increase availability of self service containers and expand check station hours

4) Season & Restriction changes within CWD containment zone

Early Antlered Firearms season - Sept. 14 - 16th - Mandatory ≤ 6 pt. APR

Extended Firearms Season - Nov. 15 - Dec. 17th

Late Archery Season - Dec. 1st - Feb. 1st

Removal of MAPR on restricted portion of Combo License

Allow both portions of Combo License to be used as Firearms hunters choice tag.

5) Baiting & viewing regulations specific to the CWD Containment Zone.

Baiting in limited quantities allowed Sept. 1st - Feb. 1st.
2 gallon limit, shelled corn only

Establish Food Attractant Stamp (statewide) - Require possession of stamp if hunting within 100 Yards of non-naturally occurring food source (Bait, food plot, agricultural field). \$5 cost for stamp, obtain when purchasing license. Institute a \$500 fine for non-compliance with stamp regulation. Could generate \$2,000,000+ in increased revenue, which could help offset increased costs of CWD testing.

Prohibition on feeding for recreational viewing of deer outside of established hunting seasons within CWD Containment Zone.

Prohibition on Mineral attractant use within the CWD Containment Zone

6) Eliminate MDNR funded wildlife plantings in Lower Peninsula

Redirect allocated funding to increased CWD testing.

7) Moratorium of Stakeholder Mandatory APR initiatives

Minimum 3 year moratorium on any new Stakeholder APR initiatives until geographic parameters of current disease range within the LP have been identified.

8) Educational Outreach Initiative by MDNR employing "Persuasive Communication" techniques, as identified by Gore, Riley et. al (2015).

Areas of Emphasis;

Identification and benefit of targeting button bucks in disease areas

Baiting & Food Plotting disease transmission concerns

Benefit of Male focused harvest

Benefit of testing for disease, both for the individual and the whole

Educating hunters that diseased deer will usually not appear to be sick

9) Captive Cervid Regulations

Re-instate previous moratorium which precluded the importation of Captive Cervids into Michigan

Ban the production, use & importation of scent products utilizing natural deer urine

10) Carcass transport

Institute a ban on transporting or importing intact carcasses from the Lower Peninsula to the Upper Peninsula, regulations for inter-Peninsula importation should be the same as from other states where CWD is present.

In the following portion of this report, we expand on each of these proposed recommendations and attempt to flesh out the reasoning behind incorporating each of these changes into a revised CWD response plan.

1) Creation of CWD Containment Zone

Currently there are 2 separate CWD management zones, each encompassing portions of multiple counties. When these management zones were established, it was thought that the presence of CWD in Michigan was the result of a very recent introduction and that prevalence rates would be very low and geographic spread limited. So the management zones were established essentially on a township size scale. We now know that CWD is much more widespread than originally thought and there is a very high probability that it has not been detected in an even larger geographic area, due to the limited amount of testing that has occurred outside of established CWD management zones.

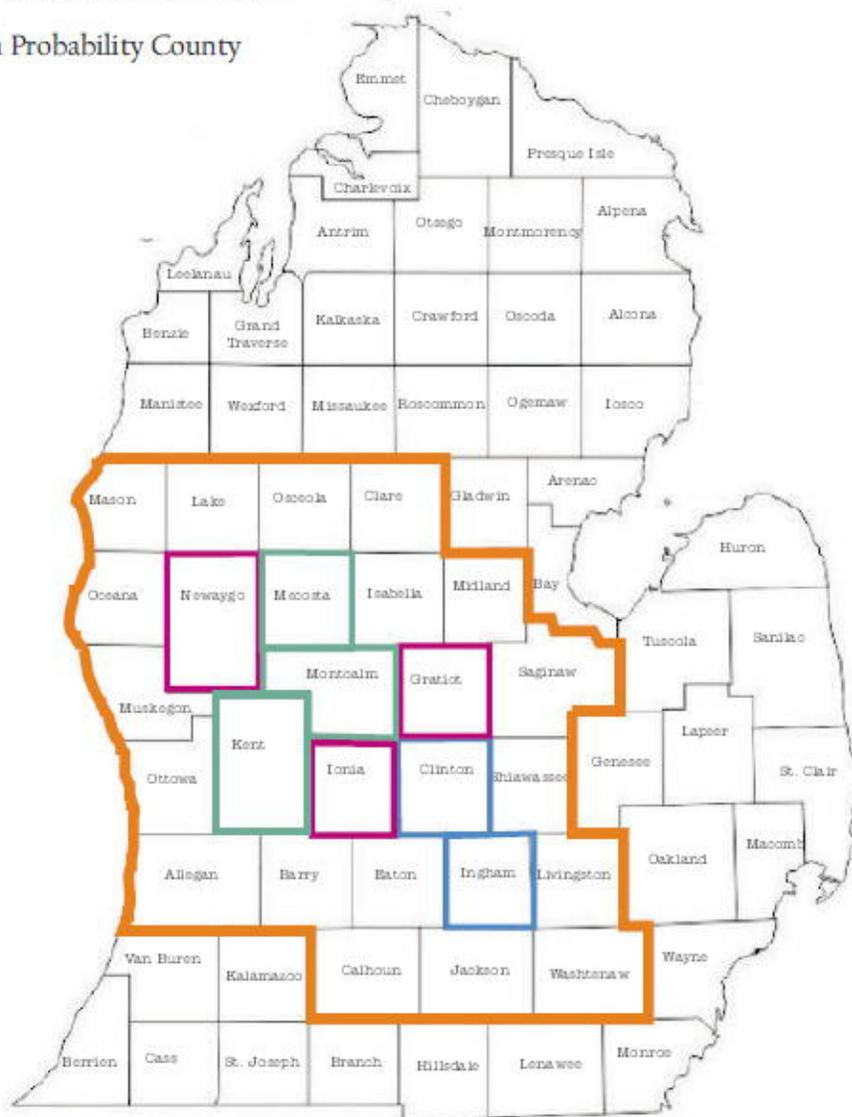
We propose a significant expansion of the existing CWD management zones and their incorporation into a uniform CWD Containment Zone. The name change is designed to emphasize the focus on containing the geographic spread of the disease. The proposed zone utilizes county scale buffer zones surrounding any counties where CWD was found in 2015 - 2017, as well as three "High Probability Counties", which are counties where sampling has been insufficient to this point in time but where CWD has been detected in townships adjacent to those High Probability Counties. County wide buffer zones are incorporated into the CWD Containment Zone to serve as areas where dispersing CWD positive deer can be harvested prior to leaving the Containment Zone. The parameters of this proposed CWD Containment Zone would be fluid and if CWD is detected in any of the buffer counties contained in the zone, it would be automatically expanded to incorporate another 1 county buffer between the newly detected county and the remaining counties outside of the CWD Containment Zone, in the Lower Peninsula.

 - 2018 Proposed CWD Containment Zone

 - 2015&16 CWD Positive County

 - 2017 CWD Positive County

 - High Probability County



2018 - The Concerned Sportsmen of Michigan

2) Prioritize areas for CWD sampling and Wildlife Services sharpshooting efforts

In a perfect world, the fastest and most effective way to identify the geographic scope of CWD in Michigan would be to test every deer that is harvested by hunters or is hit by cars, in the Lower Peninsula. The economic cost involved, however, precludes that approach as a viable one. The alternative is to use statistical sampling in an effort to increase the odds of detection and determine the geographic scope of the disease with

a reasonable confidence level. Since funding for expanded testing is limited, it's vital that testing is prioritized to those areas where we think there is a realistic expectation that the disease may have spread to. As the presence or absence of the disease in those areas is confirmed, the area of focus should be shifted accordingly. The known area where CWD has been found is already too large to require mandatory testing of all deer harvested in those counties. To test all of the deer harvested in the 5 known CWD counties would cost approx. \$2.2 Million dollars, more than was spent on testing in 2017, which would allow for zero expansion of testing into other areas.

The alternative is to prioritize testing resources to sample townships where the disease has yet to be detected but which have a high probability of having CWD. The purpose of this testing is to determine the geographic scope of the disease, not to establish what the prevalence rates of the disease may be within the boundaries of the CWD Containment Zone. The following is a list of Townships, by County, where sampling efforts should be focused in 2018. Minimum sampling goal of 300 deer per township.

Kent - Nelson, Courtland, Solon, Tyrone, Sparta, Algoma, Alpine, Plainfield, Cannon, Grattan

Newaygo - Croton, Ensley, Big Prairie, Grant, Goodwell, Norwich, Barton

Montcalm - Belvedere, Home, Richland, Day, Evergreen, Crystal, Bushnell, Bloomer

Mecosta - All Townships

Isabella - Broomfield, Rolland, Fremont

Ionia - Otisco, Orleans, Ronald, North Plains, Keene

Gratiot - Seville, Sumner, New Haven, North Shade, Fulton, Washington, Elba

3) Incentivize testing compliance and encourage non-mandatory testing

In past instances where CWD testing was made mandatory, compliance among hunters was poor. During the period after the 2008 Kent Co. deer tested positive, mandatory CWD testing compliance was approx. 37%. During 2016, mandatory testing compliance was around 48%. Since adequate sampling plays a vital part of establishing what the geographic scope of CWD in Michigan is, we need to address the compliance issue and take steps to attempt to increase the level of compliance. Part of that effort needs to include educational outreach, which is addressed in another portion of this report but we should also consider other steps that could be taken to incentivize hunters submitting heads for testing. From 2003 - 2006, the Wisconsin DNR employed a \$400 "bounty" paid to hunters who submitted heads, which tested positive. The purpose of the Wisconsin program was to increase the overall number of deer harvested, not to increase the number of deer submitted for testing. The program was ultimately discontinued after the WDNR determined that it probably had a negligible impact on increasing the overall number of deer killed in CWD eradication zones and also for public relations reasons, as some people objected to deer being killed for money. If

such a program was to be initiated in Michigan, it would be important to stress that the purpose would be to increase compliance with mandatory testing, for scientific disease mitigation sampling purposes and not for killing deer to increase the harvest.

Our recommendation would be to offer a \$500 reward to hunters who submit deer for testing, which test positive, in addition to giving them replacement tags. Again, the purpose would be to incentivize hunters to take the time to submit heads after the harvest, not to harvest additional deer, although that may be a positive un-intended consequence.

In addition, we would propose that any hunters in Michigan who submit deer for CWD testing be entered into a lottery pool and that at the conclusion of the season, the DNR choose one recipient from that pool, to be given an either sex Elk tag. This would not cost the DNR anything, as that lottery tag would simply be factored into the total elk license allocation (like the pure Michigan Elk tag) and subtracted from the total available to participants in the normal license lottery. Again, the purpose is to incentivize hunters to submit deer for testing, to increase the sample available to determine the current geographic boundaries of the disease.

The Wisconsin program was conducted in partnership with Whitetails unlimited, which shouldered some of the costs involved, it's very possible that a stakeholder organization could be found in Michigan, which would participate in a cost sharing venture with MDNR.

Another area of concern, in regards to testing non-compliance, is the complaint frequently voiced by hunters, that it is simply too inconvenient to submit deer for testing, due to distance from check stations or the fact that check station hours are typically normal business hours, when hunting frequently occurs outside of those hours. Several changes could be made to make it easier for hunters to submit deer for testing. We would support a substantial increase in the number of self-service containers, which allow hunters to drop off heads for testing at any hour of the day or night, seven days a week. This would be money well spent from our standpoint. Additionally, expanded evening hours at some check stations, during some portions of the season, should also be contemplated. Other states, such as Missouri, have had success in training and networking with taxidermists and deer processors, to increase the number of heads submitted for testing, these are also options that we should be considering.

4) Season & restriction changes within CWD containment zone

Two focal points of disease mitigation efforts are to control the overall size of the herd, reducing it if possible and also creating robust testing samples, to facilitate disease evaluation. The following regulation changes are designed to accomplish those two focal points.

We recommend instituting an early antlered firearms season, running September 14 - 16, within the 26 county CWD Containment Zone. Yearling buck dispersal has been identified as a mechanism for the geographic spread of CWD. While yearling dispersal

happens during both the early summer and the fall, according to Shaw & Rosenberry (2006) 75% of yearling dispersal occurred during the fall (Sept. - Dec.). The purpose of this early antlered season is to harvest some yearling bucks prior to fall dispersal, to prevent the further geographic spread of CWD outside of established areas. To focus harvest specifically on dispersing yearling bucks, we would employ a 6 pt. or fewer mandatory APR. According to MDNR 2016 check station data, average pt's for yearling bucks in the Lower Peninsula was 4.9 pts., while it was 8.0 pts. for antlered buck 2.5 and older, so a 6 pt maximum APR would put a majority of older bucks off limits, while focusing harvest pressure on the Yearling age class.

With the advent of modern in-line muzzleloaders, there is very little effective difference in harvest capability, when compared to the type of centerfire firearms allowed in the limited firearms zone. In 2017, in Zone 1, firearms season ran from November 15th - November 31st and muzzleloading season ran December 1st - December 17th. We would recommend simply combining these two season into a single extended firearms season, running from November 15th - December 17th. This expansion does not add any additional hunting days to the calendar but will allow some firearms hunters who do not own muzzleloading equipment to continue to hunt and harvest deer with firearms, within the CWD containment zone. We believe that enacting such a change would have a greater impact in increasing the total harvest, than utilizing stand-alone special post season firearms hunts, due to less likelihood of inclement weather having a negative impact on hunter participation during those late season special hunts.

In 2017, in selected urban areas, archery season was extended through the end of January. We would recommend adopting an archery season expansion in the CWD Containment zone, as well. The purpose of this season would be to increase the overall harvest and to offer archers an expanded season a portion of which would not run concurrently with any firearms season, as most of the late archery season currently does. Late archery season would run December 1st - February 1st. While hunter participation may drop off during the January portion of the season, due to inclement winter weather, hunter success rates should also improve during that time period, as deer become particularly vulnerable to harvest during the winter, when hunting near food sources.

Other regulatory changes which we would support within the CWD Containment Zone would be the removal of the Mandatory APR on the restricted portion of the Combo License, as has been done in the CWD Management Zones currently and also allowing the harvest of antlerless deer with either portion of the Combo License, as has been done in both the current CWD Management Zone and also in the NELP bTB Management Zone.

5) Baiting & Viewing regulations specific to the CWD Containment Zone.

As everyone is aware, baiting is an incredibly controversial issue. From a purely biological standpoint, baiting should be precluded in areas where disease is present, due to the potential that it's use has to increase both the direct and indirect transmission of CWD.

Having said that, however, the efficacy of banning baiting actually having a reductive impact on disease transmission rates is a complex question, with no clear definitive answer.

After careful consideration of all of the different factors involved in this issue, I have come to believe that an absolute ban on baiting is counter-productive to actually reducing the potential transmission of CWD. This is due to a variety of factors ranging from lack of compliance to increasing the acreage planted in food plots on private land (which can increase herd density, provide greater potential for disease transmission and decrease deer harvest vulnerability thus decreasing harvest), to name just a few.

Arkansas decided that banning baiting was counter-productive to their CWD mitigation efforts, based on the belief that it would reduce the overall harvest, leading to greater population densities, which is the opposite of what a CWD mitigation program should be trying to achieve. This idea is supported by statistical data gathered by Frawley (2002) and Winterstein (1996), which indicated that hunter success rates increased with the use of bait.

Instead of banning the use of bait, we make several recommendations regarding its use, which would both limit the potentially negative impact and also monetize its use, providing a new revenue stream for the DNR which could help to offset the increasing costs of testing for CWD in coming years.

We support allowing the use of bait in the CWD Containment Zone, from Sept. 1st - February 1st, limited to 2 gallons at a given time, of shelled corn only.

Similar to the approach that Arkansas has implemented, we support a ban on the placing of feed for recreational viewing purposes or for winter supplemental feeding purposes, outside of quantities and substances allowed during established hunting seasons.

We further support a prohibition on the use of mineral attractants on a year round basis, within the established CWD Containment Zone.

As with taxes on Alcohol and Tobacco, practices that have demonstrably negative impacts on public health are not totally prohibited, they are instead heavily regulated and taxed, to provide revenue streams used to partially offset the negative impacts related to their use. An actual tax on bait would never be successful, as legally differentiating products intended for human consumption vs. those intended for baiting use, would be impossible. Instead, we would suggest the equivalent of a "Sin Tax" for those who engage in the use of non-naturally occurring food sources as a hunting strategy. Wildlife food plots also pose similar risks of increased disease transmission as baiting sites do, so the practice of hunting over wildlife food plots should also fall under the scope of this "tax".

To avoid confusion over what constitutes a "food plot" vs. normal agricultural plantings intended for human consumption, a broad definition including any non-naturally occurring food sources, should be employed.



We recommend the creation of a "Food Attractant Permit" (similar to the now discontinued Crossbow stamp) which would be required to be in a hunters possession when hunting within 100 Yards of any non-naturally occurring food source (applies to bait, food plots and agricultural plantings). \$5 cost with a \$500 fine for non-compliance. This permit would apply statewide. Such a requirement could generate over \$2,000,000 in new revenue for the DNR, which should be allocated for use in subsidizing CWD testing.

Alabama, Nebraska & Washington all incorporate distance measurements (100 & 200 yards) into their baiting & feeding regulations and Michigan incorporates a distance restriction in the Recreational Viewing regulations, so apparently the incorporation of specific distances into a regulation has not caused enforcement issues.

Besides being a revenue source, this stamp would also serve to draw attention to the disease issue related to baiting and food plots and give the DNR a platform for further educating hunters on the negative impact that these practices may have and in turn make recommendations for "best practices", which may help minimize those risks. As mentioned, the baiting issue is a very controversial and divisive one. Policies addressing this issue need to be cognizant of the sociological and economic impacts of regulations, as well as the biological ones.

We will be addressing the baiting issue in a more comprehensive and in-depth manner in a policy white paper, in the next several months.

6) Eliminate MDNR funded wildlife plantings in Lower Peninsula

Food plots share many of the same characteristics as baiting sites, in terms of unnaturally aggregating deer, increasing levels of contact between non-family member deer and creating environmental "hot spots" resulting from sustained Prion shedding in specific locations. Attempting to educate land managers about the potential negative impact that food plots can have on disease mitigation efforts, is frustrated when the

DNR is providing financial support for planting food plots on both public and private land, some of which are located in known areas of disease. This mixed message results in confirmation bias among the people who are already planting food plots, often causing them to ignore potential problems which can result. Couple this with the increasing expense involved with CWD mitigation efforts and it is easy to make the case for eliminating MDNR funded wildlife plantings in the Lower Peninsula and redirecting that funding to CWD mitigation efforts.

7) Moratorium of Stakeholder Mandatory APR initiatives

As we discussed at the December NRC meeting, due to the fact that we currently have no idea what the geographic scope of CWD in Michigan is, we should not be considering the implementation of social regulations which could cause increased levels of disease transmission and geographic spread. We recommend enacting a moratorium on any new stakeholder APR initiatives, until that point in time when the areas, in Michigan, where CWD is and is not present have been clearly identified. There is historical precedent for such a moratorium, the NRC previously enacted a multi-year moratorium on Stakeholder Initiatives, while the guidelines for that program underwent revision. Enacting social regulations such as APR's, which can have a direct negative impact on CWD mitigation efforts, by increasing yearling dispersal rates and advancing buck age structures, would be irresponsible, at this time. The recently announced "Thumb 5" stakeholder APR initiative should be rejected from consideration and a moratorium on consideration of new Stakeholder APR initiatives, lasting a minimum of 3 years, should be enacted.

8) Educational Outreach Initiative by MDNR employing "Persuasive Communication" techniques, as identified by Gore, Riley et. al (2015).

A vital part of MDNR's response to CWD mitigation efforts in Michigan is the need to educate hunters on a variety of topics related to these efforts and to provide accurate and understandable information, in a timely and transparent manner.

There is a tremendous amount of disinformation and speculation masquerading as fact, surrounding this disease and many of the practices related to it. In their 2015 paper titled "Persuasive Communication Aimed at Achieving Wildlife-Disease Management Goals", Gore & Riley et. al. discussed techniques which can be used in disseminating information to stakeholders in a persuasive manner, which can help to achieve specific management goals. It's not just important to give hunters information but to give them information in a manner and context which will result in changing perceptions, helping to achieve desired outcomes.

Areas of emphasis for educational outreach should include the following;

Identification and benefit of harvesting button bucks in disease areas.

Disease issues related to baiting/plotting

Benefit of male focused harvest in disease mitigation efforts

Benefits of testing for disease, both to the individual and the whole

9) Captive Cervid Regulations

While recognizing that much of the regulatory burden for Captive Cervidae in Michigan is under the jurisdiction of MDARD, not MDNR, we would still make several recommendations related to that industry. If these changes fall outside of the jurisdiction of MDNR, it still has the capacity to suggest such policy changes to the appropriate department or the Governors office.

One particular policy that we would suggest be reviewed is the rescission of the moratorium on the importation of Captive Cervids into Michigan, which was in place for almost a decade and which was removed several years ago. Given the absence of a reliable live test for CWD and the apparent involvement that past instances of the importation of infected Captive Cervids have had on spreading CWD into states where it had not been previously found, it seems like prohibiting the legal importation of Captive Cervids into this State would be a sound policy.

Another recommendation that is at least worthy of consideration is a potential ban on the production, use and importation of scent products that use natural deer urine. Some other states have enacted such bans. The scientific data supporting a biological basis for such a ban is somewhat limited, at this point in time, although future research may show stronger reasoning for enacting such a ban. From our standpoint, the primary benefit of such a ban would be to further draw the attention of hunters to the possible negative impacts that CWD may have on hunting deer in this state and provide further educational opportunities on those topics. The actual prophylactic impact of banning the use of such products, in terms of introducing CWD into the free ranging herd, are probably pretty minor.

10) Carcass transport

Michigan revised some of the rules regarding the importation of intact carcasses from outside of Michigan last year and made some positive changes, which we fully support. We would recommend further expanding those regulations by instituting the same prohibition on the intra-state export of intact carcasses from the Lower Peninsula to the Upper Peninsula, as a means of keeping the U.P. free of CWD for as long as possible.

We would also recommend instituting the same type of Carcass transport regulations within the CWD Containment Zone, prohibiting the transport of intact carcasses from inside the Zone to any Counties outside of the Zone.