

DATE: Tuesday, October 5, 2010
TO: Interested Parties
FROM: William E. Hamilton, Senior Fiscal Analyst
RE: The Treatment of Game Animals as Livestock in Michigan: Fiscal and Regulatory Issues

State Regulatory Authority over the Livestock Industry

According to data reported by the United States Department of Agriculture (USDA) Economic Research Service, the gross value of Michigan agricultural sector outputs in 2008 was \$7.654 billion. Of that amount, \$2.548 billion, approximately one-third, represented sales of livestock and animal products.¹

One of the biggest threats to livestock and commercial animal production is disease.² Livestock are susceptible to a number of diseases which can reduce productivity or result in animal death. Some diseases of livestock, *zoonotic* diseases such as rabies and influenza, can be transmitted to humans.

Michigan state government has supported agriculture almost from the inception of Michigan as a state.³ One of the most important elements in that state support has been the control and eradication livestock disease. Public Act 182 of 1885 established a State Livestock Sanitary Commission and provided for the appointment of a state veterinary surgeon. The act stated that *"it shall be the duty of the commission to protect the health of the domestic animals of the state from all contagious or infectious diseases of a malignant character, and for this purpose it is hereby authorized and empowered to establish, maintain and enforce such quarantine, sanitary and other regulations as it may deem necessary."*

Public Act 181 of 1919 abolished the State Live Stock Sanitary Commission, established a state Department of Animal Industry, and provided for the appointment of a Commissioner of Animal Industry and a State Veterinarian. The 1919 act was similar to the 1885 act in that it provided for the Commissioner of Animal Industry to have *"general charge and oversight of the protection of the health of the domestic animals of the state and the guarding of the same from all contagious or infectious diseases."* The 1919 act also provided for the use of *"quarantine, sanitary and other regulations as may be deemed necessary."*

The 1919 act was subsequently repealed and replaced with the Animal Industry Act, Public Act 466 of 1988. The stated intent of the Animal Industry Act is to *"protect the health, safety, and welfare of humans and animals."* The act provides for the appointment of a State Veterinarian within the Department of Agriculture,

¹ This data was obtained from a document on the USDA Economic Research Service website, *State Fact Sheets: Michigan* updated July 30, 2010. In addition to the \$2.548 billion related to animal industry, the \$7.654 billion figure included crop output of \$4.074 billion, as well as agriculture services and forestry product sales of \$1.032 billion. With minor exceptions, the data in the State Fact Sheet document is the same as that presented in the *Farm Economics* section of *Michigan Agricultural Statistics 2008-2009*, a collaborative effort of the USDA's National Agricultural Statistics Service (NASS), the Michigan Department of Agriculture, and Michigan State University.

² Diseases of livestock can have a catastrophic impact on the agricultural economy. One example of a high-impact disease is foot and mouth disease (FMD). According to an analysis by the Congressional Research Service (CRS), there have been nine outbreaks of FMD in the United States since 1870, "each time the disease was eradicated with strict slaughter and quarantine control procedures." The report also indicates that the most serious of those outbreaks, in 1914, originated in Michigan. The disease then spread to 22 states after it gained entry to the Chicago stockyards. Although the last outbreak of FMD in the United State was in California in 1929, FMD has appeared more recently in other counties, notably in Great Britain in 2001 and 2007, and currently in Japan. Source: CRS Report for Congress "Foot and Mouth Disease: A Threat to U. S. Agriculture." April, 16, 2001, and "Disease Threatens Japan's Beef Trade," New York Times, July 11, 2010.

³ As one example, the Michigan Constitution of 1850 provided for the establishment of a state college of agriculture. A state agricultural school, which subsequently became Michigan State University, was established in 1855.

and authorizes the department to *"protect the human food chain and livestock and aquaculture industries of the state through prevention, control, and eradication of infectious, contagious, or toxicological diseases of livestock and other animals."* The Michigan Department of Agriculture's (MDA) current regulatory authority over the livestock industry is derived from the Animal Industry Act.

Treatment of Deer and Elk as Livestock

The term *livestock* is broadly used to describe domesticated animals raised in an agricultural setting to produce food or fiber, or to provide labor.⁴ The commonly used definition of livestock was mirrored in Michigan law. Public Act 181 of 1919 charged the Commissioner of Animal Industry with the protection of the health of *domestic* animals. To the extent that deer and elk are considered wild or game animals, and not domesticated animals, they have not, until recently, been considered "livestock." The first treatment of deer or elk as "livestock" in Michigan law appears to have been in the mid-1990s.⁵

As originally enacted in 1988, the Animal Industry Act did not include *cervids* or *cervidae* – terms referring to various species of animals in the deer family, such as deer, elk, moose, caribou, and reindeer – as "livestock." The inclusion of "captive cervidae" within the definition of "livestock" in the Animal Industry Act was first made in 1994, through amending legislation, Public Act 41 of 1994. A subsequent amendatory act, Public Act 323 of 2000, replaced the term "captive cervidae" with the term "privately owned cervids."

Similarly, "cervidae" were not explicitly included in the definition of "farm product" under the original Right to Farm legislation, Public Act 93 of 1981, but were subsequently added by 1995 amendment, Public Act 94 of 1995. In 1995, the Michigan Commission of Agriculture adopted Generally Accepted Agricultural Management Practices (GAAMPs) for the care of farm animals that included a section on captive cervidae.

Captive deer and elk were first treated as a Michigan agricultural product in NASS agricultural reporting in the 1997-1998 *Michigan Agricultural Statistics* following a 1998 industry survey. In national agricultural statistical reporting, data on commercial cervid operations appeared as a separate reporting category for the first time in the 2002 NASS Census of Agriculture.

In 2000, the Legislature passed a regulatory act specific to the commercial cervid industry, the Privately Owned Cervidae Producers Marketing Act, Public Act 190 of 2000, described in detail below.

Privately Owned Cervidae Producers Marketing Act

Prior to June 1, 2001, the Michigan Department of Natural Resources (DNR) regulated all activities involving cervids under the authority of the Michigan Natural Resources and Environmental Protection Act

⁴ This definition was taken from the Wikipedia entry for "Livestock" as modified July 25, 2010. Webster's Third New International Unabridged Dictionary defines livestock as *"animals of any kind kept or raised for use or pleasure, especially meat, dairy cattle, and draft animals."*

⁵ A similar change occurred in federal law. In 1995, the USDA first recognized cervids as "livestock." An amendment to 9 CFR Part 50, published in the July 24, 1995, Federal Register (60 FR 37809) included captive cervids within the definition of "livestock," and provided for indemnification payments for captive cervids destroyed because of Bovine Tuberculosis. The Federal Register included the following background information: *"Currently, the regulations do not provide for the payment of indemnity for cervids destroyed because of tuberculosis. In the past, the number of captive cervids in this country was not seen as large enough to pose a significant health risk to other cervid herds or to cattle and bison. However, the number of captive cervids has steadily increased during the past decade, so that today there almost 2,000 deer and elk owners in the United States, raising about 135,000 animals."*

The Federal Register background statement noted that a National Cooperative State-Federal Bovine Tuberculosis Eradication Program for cattle and bison had been in place since 1917, and that in 1993 the United States Animal Health Association resolved to include captive cervids in this eradication program. According the Federal Register statement, *"captive cervids affected with tuberculosis pose a significant health risk to other herds of cervids, and to cattle and bison."*

(MNREPA), Public Act 451 of 1994.⁶ The DNR regulated the hunting of wild deer and elk through the issuance of hunting licenses. The DNR also regulated the raising of privately-owned cervids, for sport, hobby, or for commercial purposes.

In 2000, House Bill 4427 was enacted as the Privately Owned Cervidae Producers Marketing Act (Cervidae Act). This act defined and regulated privately owned cervids as an agricultural enterprise in Michigan. A companion bill, House Bill 4428, amended MNREPA to exempt privately owned cervids from regulation as game animals by the DNR. This bill was enacted as Public Act 191 of 2000. The effective date of both acts was June 1, 2001.

The Cervidae Act established standards governing privately owned cervid livestock facilities. The act required the registration of cervid livestock facilities and established a regulatory/inspection process. The act gave primary authority for administration of the act to the MDA.

In April 2004, Governor Granholm issued Executive Order 2004-3. The Executive Order transferred primary regulatory responsibility and authority under the Cervidae Act from the MDA to the DNR. The effective date of this Executive Order was June 14, 2004. The transfer was based on the findings of the Governor's Chronic Wasting Disease Task Force which found that the DNR could most effectively perform the regulatory functions established under the Cervidae Act. The task force also recommended that the DNR conduct a complete audit of privately-owned cervidae livestock facilities. The DNR audit was issued on March 10, 2005.

Although regulatory functions under the act were transferred to the DNR, animal health and testing functions remained with the MDA. In addition, MDA continued to determine import and movement requirements, and retained authority to issue quarantines to contain disease outbreaks.

In 2006, the Cervidae Act was amended by House Bill 6245, enacted as Public Act 561 of 2006. The bill reflected the Executive Order 2004-3 transfer of primary authority for administration of the act to the DNR; the bill directed that the MDA and the Department of Environmental Quality provide consultation to the DNR. The bill also changed the regulatory fee structure and increased certain fees. The effective date of the amendatory act was December 29, 2006. Cervid regulatory fees and costs of the regulatory program are discussed further below.

Cervid Industry Regulatory Program Costs, Fees, and Funding Issues

At the time the state cervid industry regulatory program was first established in 2001, there was no specific appropriation for the program in the MDA budget. The department's cervid industry regulatory activities were funded out of the existing and broadly-scoped Animal Health and Welfare line item in the Agriculture budget. Funding was initially provided in part from restricted revenue from licensing fees established in the Cervidae Act, and in part from state General Fund appropriations.⁷ Starting in 2004, when both primary authority for the regulatory program and related licensing fee revenue were transferred to the DNR, all MDA cervid industry program activities have been supported with state General Fund revenue.

From the inception of the state regulation of privately owned cervid facilities in 2001, regulatory fees have not provided the full cost of regulatory program requirements. Fee revenue has not been enough to support

⁶ Effective January 17, 2010, Executive Order 2009-45 merged the Department of Natural Resources and the Department of Environmental Quality into a new Department of Natural Resources and Environment. Our paper primarily deals with activities prior to the merger and uses the abbreviation "DNR" throughout.

⁷ The Cervidae Act did not specifically restrict the use of cervid facility licensing revenue; however, in practice, the revenue has been treated as state restricted revenue and used to partially support cervid regulatory programs.

the regulatory activities of either the Departments of Agriculture or Natural Resources separately, and obviously not enough to support total program costs.

As shown in **Table 1**, fee revenue for the four fiscal years ending September 30, 2006, averaged only \$34,248 while on-going regulatory costs, including monitoring for Chronic Wasting Disease (CWD), averaged \$600,473. After the increase in regulatory fees in 2006, average fee revenue for the three-year period ending September 30, 2009 increased to \$106,640; however, average regulatory costs, included CWD monitoring, increased to \$1.36 million.⁸ State agency costs not covered by regulatory fees were provided by state General Fund appropriations.

The increase in costs in 2008 and 2009, as compared to prior years, was due largely to activities related to the discovery, in August 2008, of CWD in a deer held on a privately-owned cervid facility in Kent County. That incident resulted in the depopulation of that facility's fifty-deer herd, a September 2008 statewide quarantine on the movement of deer and deer byproducts, and statewide testing. The incident also caused the DNR to issue a ban on the feeding and baiting of deer in the Lower Peninsula.

Costs associated with the CWD incident included closer monitoring of cervid facility operations by the DNR, such as review of fencing, and recordkeeping, and increased MDA disease surveillance and response activities. The MDA anticipates that this higher level of program expenditures will continue for some time into the future.

Note on Indemnification: The cost figures discussed above represent only the ongoing costs of the state's cervid industry regulatory program. Over the seven-year fiscal year period ending September 30, 2009, an additional \$464,171 in state funds were spent to indemnify owners of deer destroyed due to Bovine Tuberculosis (TB) infection. Payment of these indemnification costs was made from state General Fund revenue appropriated in state Agriculture budgets. In addition to state payments to owners of destroyed captive cervids, over the same seven-year period, the USDA made two indemnification payments to cervid owners. The USDA indicates that in 2008, it made a \$2,250 payment for cervids destroyed as a result of Bovine TB infection. Also in 2008, the USDA paid \$103,897 to the owners of the Kent County facility depopulated due to CWD.⁹ The federal payments are not shown in Table 1 and were not included in state appropriations.

⁸ If DNR CWD-related costs are excluded from the calculation, total DNR/MDA regulatory costs alone averaged \$380,779 for the four-year period ending September 30, 2006, and \$723,938 for three-year period ending September 30, 2009.

⁹ Although only one animal tested positive for CWD, the entire herd was destroyed because of exposure to the infected animal.

Table 1
State Agency Costs of Cervid Regulatory Program
FY 2002-03 through FY 2008-09

	2002-03	2003-04	2004-05	2005-06	Four-Year Average	2006-07	2007-08	2008-09	Three-Year Average	Seven-Year Totals
Department of Natural Resources										
Privately-owned cervid regulatory	\$0	\$562,736	\$115,223	\$158,748	\$209,177	\$178,287	\$256,490	\$169,164	\$201,314	\$1,440,648
CWD-related ¹	167,950	232,790	250,416	227,620	219,694	161,119	584,267	1,161,816	635,734	2,785,978
Total DNR	\$167,950	\$795,526	\$365,639	\$386,368	\$428,871	\$339,406	\$840,757	\$1,330,980	\$837,048	\$4,226,626
Michigan Department of Agriculture										
Salaries, Wages, and Benefits	\$78,347	\$68,245	\$38,770	\$164,542	\$87,476	\$166,736	\$244,289	\$443,862	\$284,962	\$1,204,791
Reimbursement of DNR Costs ²							\$215,000		71,667	215,000
USDA Wildlife Services ³						67,497			22,499	67,497
Supplies and Materials	38,311	20,277	8,800	21,133	22,130	5,181	8,950	26,861	13,664	129,513
Travel	42,950	5,367	20,162	27,004	23,871	21,629	24,104	23,801	23,178	165,017
MSU Laboratory Fees ⁴	14,539	22,243	21,877	93,842	38,125	69,662	66,485	183,815	106,654	472,463
Total MDA	\$174,147	\$116,132	\$89,609	\$306,521	\$171,602	\$330,705	\$558,828	\$678,339	\$522,624	\$2,254,281
Total on-going DNR/MDA regulatory costs	\$342,097	\$911,658	\$455,248	\$692,889	\$600,473	\$670,111	\$1,399,585	\$2,009,319	\$1,359,672	\$6,480,907
Indemnification Payments ⁵	\$12,200	\$6,700	\$3,800			\$432,803	\$8,668			\$464,171
Cervidae Act Regulatory Fee Revenue ⁶	\$50,795	\$8,648	\$39,148	\$38,400	\$34,248	\$85,329	\$120,620	\$113,971	\$106,640	\$456,911

Table Footnotes:

1. FY 2007-08 DNR CWD costs of \$584,267 are net of \$215,000 reimbursement from MDA, shown as an MDA cost below.
2. In FY 2007-08 the MDA reimbursed the DNR for staff efforts related to CWD investigation, monitoring, and quarantine.
3. USDA costs related to depopulation of infected or exposed cervids.
4. These represent the costs of TB tests, CWD tests, and sample extraction and disposal. Tests are conducted at the Diagnostic Laboratory on the MSU campus.
5. Indemnification payments are made from state General Fund revenue appropriated in state Agriculture Budgets.
6. From FY 2000-01 through FY 2002-03 regulatory fees were collected and retained by the MDA; starting in FY 2003-04 regulatory fees were collected and retained by the DNR.

Although not shown in this analysis, MDA collected fee revenue of \$38,240 in FY 2000-01, and \$48,365 in FY 2001-02. The six year average of fee revenue, from the start of the regulatory program in FY 2000-01 to FY 2005-06 is \$37,266.

Economic and Fiscal Impact of Cervid Industry

There have been two NASS surveys of the cervid industry in Michigan, the first in 1998 and the second in 2008. A summary of the results of that survey is shown in **Table 2**, below.

Table 2				
Survey of Cervid Industry				
	1998 Survey		2008 Survey	
	Number	Dollar Value	Number	Dollar Value
Deer	16,800	\$18,385,000	26,000	\$53,840,000
Elk	2,000	<u>11,033,000</u>	2,850	<u>6,565,000</u>
Total		\$29,418,000		\$60,405,000
<i>Source: National Agriculture Statistics Service reports.</i>				

The 2008 NASS study stated: *"Hunting preserves provide a large economic benefit to the Michigan economy by bringing in over \$10.2 million annually from out of state hunters. The deer and elk industries are important contributors to the Michigan economy, with investments of \$215 million in their operations."*

While the commercial cervid industry contributes to the Michigan economy, it is hard to establish what the industry contributes in state tax revenue. Aside from the regulatory fees noted above, the cervid industry is exempt from most other state business taxes. Charges for hunting, guides, meat processing, and taxidermy are exempt from state sales and use tax, as is the sale of breeding stock or semen. In addition, as "Qualified Agricultural Property," cervid farms and ranches are eligible for exemption from local school operating millages, which may be up to 18-mills under Section 1211 of the School Aid Code,¹⁰ and are eligible for property tax shelter programs under Part 361 (Farmland and Open Space Preservation) of MNREPA.¹¹ As an agricultural enterprise, cervid ranches would also appear to be eligible for Farm registration vehicle plates, which are taxed at lower rates than non-farm vehicles.

Classification of Cervid Facilities, Regulatory Requirements, Comparison with other Livestock Production

As noted above, the commercial cervid industry was first recognized in Michigan law as an agricultural enterprise, and considered part of the farming and agriculture industry of the state, in the mid 1990s – through 1994 amendment of the Animal Industry Act, 1995 amendment of the Right to Farm Act, and through enactment of the Cervidae Act in 2000. However, those acts do not clearly describe the nature of the cervid industry, the related regulatory environment, or the differences between the cervid industry and the traditional livestock farming. One could not read the acts, without reference to external sources or guides, and come away with a fair understanding of what cervid facilities are, how they are regulated, or how they differ from other agricultural enterprises.

Public Act 323 of 2000, which amended the Animal Industry Act, replaced the term *"Captive cervidae,"* with the term *"Privately owned cervid."* Public Act 323 also added new definitions: *"Privately owned cervid farm,"* which refers to a facility *"that does not have any privately owned cervids removed by the hunting method,"* and *"Privately owned cervid ranch,"* and *"Privately owned white-tailed deer or elk ranch,"* which do have cervids, deer, and elk *"removed by the hunting method."* These terms are used in Section 30d of the act regarding testing requirements, however, this section also includes the term *"privately owned white-tailed*

¹⁰ The property tax exemption of qualified real and personal agricultural property is found in Section 9(1)(j) of the General Property Tax Act. The specific exemption of cervid facilities is addressed in the State Tax Commission's *Qualified Agricultural Property Exemption Guidelines*, issued June 2010.

¹¹ The Farmland and Open Space Program is commonly referred to as the PA 116 program.

deer or elk farm" which is not defined in the act. The classification of cervid facilities in the Animal Industry Act is different than the facility classes established in the Cervidae Act.

The Cervidae Act provides for a licensing fee structure for four separate classes of cervid facilities – see **Table 3**. However, neither the nature of these classes, nor the different regulatory requirements for each class, are defined in the act itself. Instead the act incorporates by reference an external document "*Operational Standards for Registered Privately Owned Cervid Facilities*" as revised December 2005, and adopted by the Michigan Commission of Agriculture on January 9, 2006, and the Natural Resources Commission on January 12, 2006.

The nature of the different facility classes, as described by MDA and DNR officials, is as follows:

Hobby Class and **Exhibition Class** facilities typically exhibit reindeer or other cervids as a tourist attraction, or as a part of Christmas-themed programs and events, e.g. Christmas tree farms. No live animals are allowed to leave a **Hobby** class facility; live animals are allowed to leave an **Exhibition** facility for no more than 60 consecutive days, and can have no direct contact with other livestock. Both facilities require prior MDA approval for the addition of cervids to the herd, other than by natural reproduction.

Ranch Class facilities are effectively hunting ranches. No live animals are allowed to leave the facility.

Full Registration Class facilities are breeding facilities. They are the only registration class allowed to sell live animals. In effect, these licensees sell live cervids or semen to other facilities, primarily to develop animals for hunting at ranch facilities.¹²

The major differences between the registration classes are in the ability to sell live cervids, and in identification and recordkeeping requirements. As noted above, **Full Registration Class** facilities are the only facilities authorized to sell live cervids.

With regard to identification and recordkeeping, **Hobby**, **Exhibition**, and **Full Registration Class** facilities are required to comply with all recordkeeping requirements of the Cervidae Act and the Operational Standards. **Ranch Class** facilities are required to comply with all identification and recordkeeping requirements for animals added to the herd from other facilities, but not for animals added to the herd by natural reproduction. Identification of all animals on cervid ranches is impractical. In many cases, ranches are too large to allow for the effective capture of animals for tagging – one of the largest ranches in Michigan is approximately 6,000 acres.

Both MDA and DNR personnel indicate that the economic value of the cervid ranches and breeding facilities is almost exclusively in deer and elk hunting. Ranches charge from \$1,500 to \$20,000 for successful hunts of trophy deer and elk.¹³ Unlike traditional livestock industries, animals are generally not raised for the sale of meat for public consumption. MDA officials indicated that of the 361 ranch and breeding facilities, fewer than 10 offer meat for sale to the public.¹⁴ Unlike traditional livestock operations, cervid facilities are not apparently subject to the Humane Slaughter of Animals Act (Public Act 163 of 1962) or related administrative rules.

¹² An August 2007 study by the Agricultural and Food Policy Center of Texas A&M University, *Economic Impact of the United State Cervid Farming Industry* indicated that "Breeding operations represent the largest segment of the cervid farming industry," and that the trophy hunting segment of the industry "represents the primary end market for the breeding stock industry."

¹³ Based on internet search of Michigan cervid facility websites, August 2010. Charges for hunts are generally based on the number of antler points of the deer or elk taken.

¹⁴ An August 2010 internet search in preparation of this memo found only one Michigan cervid facility offering venison steaks for sale to the public.

Table 3		
Active Cervid Facility Registrations/Registration Fee by Class		
Class	Total Facilities	Three-Year Registration Fee
Class I (Hobby)	52	\$450
Class II (Exhibition)	36	\$450
Class III (Ranch)	138	\$750
Class IV (Full)	<u>223</u>	\$750
Total Facilities/Fees	449	
<p><i>Notes: The Hobby Class was established in the Cervidae Act as first enacted in 2000; however, the 2006 amendment to the act eliminated this class for new applicants and allowed only renewal applications for the Hobby Class licensees in existence on the effective date of the amendment, December 29, 2006.</i></p> <p><i>The registration fees are for a three-year license period. The Class I and Class II fees are effectively \$150 per year; the Class III and Class IV fees are effectively \$250 per year.</i></p> <p><i>Sources: DNR, August 2010; Cervidae Act</i></p>		

Relationship of Cervid Industry to Feral Swine

MDA and DNR personnel believe that there is a relationship between the private deer hunting ranches in Michigan and the introduction of feral Razorback swine or European wild boars into Michigan. While there are some hunting facilities that offer only swine hunting, a number of cervid ranches also advertise swine or boar hunting as an added hunting experience. One might say that the set of cervid ranches intersects with the set of swine hunting facilities.

There is currently no regulation of commercial swine hunting in Michigan.

At the time of this publication, the Natural Resources Commission was considering a staff recommendation that feral swine be classified as an invasive species – a determination that would effectively prohibit their possession in Michigan.

Summary

Beginning in the mid-1990s, Michigan law began to recognize the privately owned cervid industry as an agricultural enterprise, and conveyed on the industry benefits enjoyed by traditional agricultural enterprises – protection from nuisance lawsuits and exemption from some local zoning restrictions under the Right to Farm Act, indemnification for diseased animals killed under the authority of the Animal Industry Act, and shelter from certain property taxes under the General Property Tax Act and the MNREPA.

The cervid industry differs from traditional agricultural activities in that its economic benefit is not primarily food or fiber, but rather in the hunting experience – in particular trophy deer and elk. While the commercial cervid industry undoubtedly contributes to the Michigan economy, there are also economic externalities associated with the industry – primarily the risk of disease occurring in privately held cervid herds and subsequent transmission to the free ranging deer population or to domestic cattle. Those risks have driven the state regulatory program.¹⁵

¹⁵ The 2005 *Risk-based Audit of the Captive/Privately owned Cervid Industry in Michigan* included a discussion of some risks associated with the privately owned cervid industry. An extended quotation from that Audit is included as Appendix I of this analysis.

As noted in the above analysis, regulatory fees established under the Cervidae Act have not covered the costs of the state regulatory program; they represent approximately 7% of on-going program costs for the seven-year period ending September 30, 2009, exclusive of indemnification payments. In fact, over that seven-year period, fee revenue was less than the amount of indemnification payments to cervid owners for destruction of diseased deer.

Because regulatory fees established in the Cervidae Act do not provide sufficient revenue to maintain the regulatory and inspection programs mandated by the act, the shortfall has been made up with state General Fund revenue. With regard to the MDA, the use of General Fund revenue for the cervid regulatory program has effectively reduced General Fund support for other MDA Animal Health and Welfare activities. Those programs eliminated or significantly reduced include MDA regulatory activities related to pet shops, dog pounds, animal shelters, aquaculture, livestock dealers, and riding stables.

Given reductions in available state General Fund revenue, the Legislature may reduce funding for privately-owned cervidae regulatory and inspection programs. However, at reduced funding levels, it is unlikely that the MDA and the DNR could effectively perform the regulatory activities currently mandated by the Cervidae Act.

Sources

The following is a list of additional information on state recognition of the captive cervid industry as an agricultural enterprise, and related issues:

Analysis on the Michigan Legislature website of the Cervidae Act, Public Act 190 of 2000

For the original legislative analysis of House Bill 4427 of the 1999-2000 Legislative Session

<http://legislature.mi.gov/doc.aspx?1999-HB-4427>

For analysis of the 2006 amendments in House Bill 6245 of the 2005-2006 Legislative Session

<http://legislature.mi.gov/doc.aspx?2006-HB-6245>

House Fiscal Agency Website

House Fiscal Agency March 2005 Analysis of the Cervidae Act

<http://www.house.mi.gov/hfa/PDFs/cervidae%20memo.pdf>

House Fiscal Agency June 2008 Analysis of the Fiscal Impact of Pseudorabies and Feral Swine

<http://www.house.mi.gov/hfa/PDFs/pseudorabies.pdf>

APPENDIX I

Discussion of CWD from the 2005 Risk-Based Audit

Chronic Wasting Disease (CWD) is a naturally occurring progressive nervous system disorder disease of certain North American deer. It is apparently similar to other diseases such as BSE (Mad Cow Disease) and Scrapie Disease of sheep.

On March 10, 2005, the DNR released an audit of cervid livestock facilities. The audit, *A Risk-based Audit of the Captive/Private owned Cervid Industry in Michigan*, was one of the recommendations of the Governor's CWD Task Force.

In discussing the risks associated with transmission of CWD in the captive cervid industry, the report stated that, *"Practices which concentrate animals (such as baiting, and feeding, or maintenance in captivity) likely increase transmission rates."* Although the report acknowledged that risk of human infection, if any, is low, it does note that *"concern has arisen that the disease might be capable of infecting humans."* Subsection 1.2.3 of the report, *Relevance*, further describes CWD risks as follows:

"CWD is contagious, and epidemics of the disease are self-sustaining in both C/P-O [i.e. captive privately owned cervids] and free-ranging deer and elk (Miller and Wild 2004; Miller et al. 1998, 2000). Currently the geographic distribution of CWD in free-ranging cervids is relatively limited and the natural rate of expansion has been slow (Williams et al. 2002). Nevertheless, there are concerns, and in the opinion of some, evidence (Nebraska Game and Parks Commission 2002; Williams et al. 2002), that CWD can be spread much more widely and rapidly with human assistance, through movement of live animals or carcasses. Given CWD's known persistence in the environment (Miller et al. 2004), its ability to infect over 80% of the animals in a WTD [white tail deer] herd within four years of initial exposure (Miller and Wild 2004), its high probability of becoming established once it has been introduced into a population (Miller and Williams 2003), and disease models which project high rates of death in affected populations (Gross and Miller 2001), concern for risks to the health of both C/P-O and free-ranging Michigan cervids is clearly warranted. Introduction into Michigan's C/P-OC population would result in substantial costs to producers due to quarantines and loss of sales, and indemnity costs for government. The importance of free-ranging deer and elk to both the culture and economy (Joly et al. 2003) and the threat of unsubstantiated human health concerns about CWD eroding public participation in hunter harvest (Williams et al. 2002) make the potential consequences of CWD introduction even more grave. In short, CWD clearly has the potential to impair the long-term viability of both cervid farming and wildlife management in Michigan."

Although the audit, in accordance with the CWD Task Force mandate, was specific to CWD risk, the problems noted in the audit could also increase the risk of transmission of other diseases.

The entire 2005 report, *A Risk-based Audit of the Captive/Private owned Cervid Industry in Michigan* is available from the Michigan.gov website at: http://www.michigan.gov/dnr/0,1607,7-153-10370_12150---.00.html