

Recommendations for Deer Management
in Michigan

Report of the Michigan Deer Advisory Team
to the
Director of the Michigan Department of Natural Resources

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Introduction

We, the Michigan Deer Advisory Team (DAT), offer the recommendations contained herein to the Michigan Department of Natural Resources (DNR) to help guide future management of white-tailed deer and white-tailed deer-related issues. We ask the DNR to consider these recommendations in the development of a statewide Deer Management Plan. We believe our recommendations represent the diverse interests of Michigan residents, and will guide the management of white-tailed deer for many years.

The Role of the Deer Advisory Team

The DNR recognizes that the citizens of Michigan have an interest and stake in the future of deer management and should have an opportunity to express their points of view. To address this need, the DNR, in cooperation with Michigan United Conservation Clubs (MUCC), established the DAT in the fall of 2008. Our membership represents diverse stakeholder viewpoints, including 24 agencies and organizations that represent environmental and ecological interests, hunting interests, agricultural and forestry interests, public safety interests, and private land interests.

The DAT met seven times (both one and two-day meetings) to review, discuss, and prioritize deer management issues and respond to questions posed by the DNR that were designed to draw-out collective opinions on important aspects of deer management. We were expected to provide constructive comments and guidance to the DNR, and recommend potential solutions to deer management issues.

We understand that the Deer Management Plan, scheduled for completion by spring 2010, will be strategic in nature, and our recommendations strive to be strategic as well. We agreed to seek consensus on all recommendations forwarded to the DNR. For those issues where consensus could not be reached, we did not forward a Recommendation.

While we understand the DNR has considerable latitude for selecting and implementing specific methods that will achieve strategic goals and objectives related to deer management, we encourage the DNR to develop a strategic Deer Management Plan that is reasonably consistent with our recommendations. In the following report, we offer rationale for each Recommendation to help clarify our thought process and intent, thereby helping to ensure that the Recommendation is correctly interpreted. We appreciate this opportunity to collaboratively shape the future of deer management in Michigan.

A Shared Vision of Success for Michigan's Deer Management

We were asked to create a shared vision of success for Michigan's deer management program to guide our discussions and recommendations. The DAT created the following vision:

Our vision for successful deer management in Michigan is healthy and balanced deer populations and habitats; both managed actively using science-based principles, which consider social and economic impacts, employing hunting as the primary method for managing deer demographics, to provide a variety of values to Michigan citizens.

Issues to address

The DNR provided questions related to deer and deer management that were based on a review of scientific literature, Natural Resources Commissioner's communications, and input from public meetings and e-mails. The DNR presented background information on each question and we were asked to discuss and prepare a recommendation. The questions, in the order they were addressed by the DAT, were:

- 1: Why should the DNR manage deer (for what reason)?
- 2: How (or should) the DNR get input from or represent the views of a broad spectrum of members of the public at large and members of the deer hunting community, some of which are harder to engage than others?
- 3: Should the DNR manage deer to provide recreational opportunity or as an ecological resource, or both?
- 4: How should the DNR manage deer given regional differences? Should deer management be standardized across the state or structured to address regional issues?
- 5: What is the role of deer hunting?
- 6: Should the DNR take action to address the decreasing number of deer hunters?
- 7: What role should the DNR play in protecting the future of deer hunting in comparison to or in cooperation with the hunting community, shooting sports industry, and non-government organizations?
- 8: Should the DNR play a role in creating ethical guidelines for deer hunting?
- 9: What role should the DNR play in urban/suburban deer management?
- 10: Are you supportive of the DNR using these tools to decrease deer-human conflicts? What issues exist with these tools?
- 11: Should the DNR play a role in addressing hunter access issues related to private lands?
- 12: Should the DNR support/implement deer habitat improvements?
- 13: What is a healthy deer herd?
- 14: Should the presence or potential risk of disease in deer affect the way the DNR does business?
- 15: Is the current system of assessing deer populations appropriate? If no, what changes need to be made and why?
- 16: What strategies could be used to achieve appropriate deer harvest on private land? What role should the DNR and/or stakeholder groups play?

For purposes of this report, we have reorganized these questions into headings, which include the following:

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Recommendations from the Deer Advisory Team.

Introductory Deer Management Issues

Why should the DNR manage deer (for what reason)?

Deer have significant economic, ecological, and social values. Under Public Trust doctrine, deer (and all wildlife) belong to the State, and residents of the State have a vested interest in their management. The DNR has primary legal authority for wildlife management as stated in the Natural Resources and Environmental Protection Act, Public Act 451 of 1994. Part 401 of Public Act 451 gives authority to the Natural Resources Commission and the DNR Director to issue Wildlife Conservation Orders that govern wildlife management and hunting. Therefore the DNR must manage deer according to statutory and regulatory authority for the public good.

Deer hunting is an important source of revenue for Michigan. Estimates indicate that deer hunting provides over \$1.1 billion to Michigan's economy annually. In addition, revenue necessary for operation of the DNR is generated from the sale of hunting licenses and a federal (Pittman-Robertson) excise tax on sporting arms and ammunition. Deer hunters, through their purchase of hunting licenses, sporting arms and ammunition, support a majority of the DNR's wildlife conservation activities.

In addition to revenue, we recognize that 90 percent of all hunters in Michigan are deer hunters. More than 700,000 hunters pursue deer in Michigan each year, harvesting an average of over 450,000 deer annually. Deer hunting is an important social activity each year for many hunters, and is the primary tool the DNR uses to manage deer populations. Deer hunting not only contributes to millions of outdoor recreation hours and field activity, but also provides food for many Michigan households.

Deer should also be managed to mitigate negative impacts on other resources. We feel the DNR is steward of all natural resources, and must consider overall ecological health of forests, grasslands, agriculture, and other animals when managing deer. The DNR must ensure other resources are not lost or endangered, especially due to deer depredation or disease.

We believe deer should be managed for a variety of reasons, including recreational opportunity, economic impact, and ecological balance. We recognize that recreational opportunity for people is not restricted to hunting, but that many enjoy the non-consumptive benefits of having viable deer populations in Michigan. We believe if deer were not managed, their value would decrease and they might be thought of as pests. The DNR should work to form partnerships between the DNR, private landowners, and other stakeholders to ensure effective deer management throughout Michigan.

Regarding why deer are managed, **we recommend:**

- Management of the deer herd is essential to maximize its positive and minimize its negative effects on social, biological, ecological and economic values.

- The DNR is the lead agency for effective deer management and should collaborate with private landowners and other appropriate partners and stakeholders.

Should the DNR manage deer to provide a recreational opportunity or as an ecological resource, or both?

We believe managing deer for recreational opportunity must be balanced with their value as an ecological resource. If deer populations cause losses to the ecosystem, the result could be loss of deer and deer hunting opportunities. If deer become too abundant, important ecological values and services could be lost. Deer management plans and activities should be based on regional goals influenced by land use and habitat. It is critical that deer populations are kept below ecological carrying capacity so they do not produce long-term damage to the ecosystems in which they live.

The DNR must balance a variety of demands on the State's natural resources. As previously noted, hunting generates substantial revenue for the DNR and plays an important cultural role for many Michigan residents. However, there must be a balance between consumptive demands for deer and conservation of deer habitat (which may include native and naturalized plant communities), agriculture, horticulture, and silviculture. Deer should not be managed to the exclusion of other species or ecosystems. We are also cognizant of the human health and safety risks associated with high deer numbers.

Regarding why deer are managed related to recreation and ecology, **we recommend:**

- The DNR should maintain a healthy and balanced deer herd to meet the social, economic, and recreational demands of the public, while conserving sustainable deer habitat, native plant communities, agriculture, horticulture, and silviculture, and protecting public safety.

How should the DNR manage deer given regional differences? Should deer management be standardized across the state or structured to address regional issues?

We believe deer regulations that involve the taking of deer should be statewide whenever possible to facilitate consistent interpretation and enforcement. However, we recognize that differences in human populations, social issues, climate, and habitat will necessitate use of regulations that are applied at smaller scales. We recognize that the eco-regional level may be a useful scale for regulation interpretation and implementation. We caution that "one size fits all" approaches to species conservation seldom work, and encourage the DNR to simultaneously consider regulation effectiveness and practicality.

We believe a variety of tools should be available for deer management, given different situations throughout Michigan. We think some regulations can be developed and implemented statewide, but certain issues must be dealt with at smaller scales. We acknowledge that the sizes of management or hunt areas should facilitate collection of

biologically, socially, and economically meaningful data and should correspond to the scales of decision-making and management. We encourage consideration of several scales of decision-making and management when creating, interpreting, and implementing deer management regulations, including rule simplification, ecological impacts, enforcement issues, productivity of the site, science (do we need a certain area size for data to be relevant or significant), health of the deer herd, social considerations, and ownership patterns.

The DNR currently uses a variety of regulations, data, models, and formats for public input to manage the Michigan deer herd. Though we recognize that certain aspects of this process could be improved (as we discuss in later sections of this report), the general framework is robust and consistent with how other states manage their deer herds. Here, we define the framework for deer management as the integration of regulations, data, model output, and public input that helps to inform Michigan's deer management process.

Regarding the management of deer given regional differences, **we recommend:**

- The framework of deer management (i.e., integration of social, economic, and ecological considerations) should be standardized statewide. Interpretation and implementation of results from that framework should address specific geographic areas and issues.

Assessment of Populations

Is the current system of assessing deer populations appropriate? If no, what changes need to be made and why?

Successful deer management requires population assessment so population goals and objectives can be established. Management agencies assess deer populations using a variety of methods. Some methods, including checking of harvested deer and utilizing intensive surveys to estimate populations or identify trends, are often labor-intensive and expensive. In Michigan, the DNR relies on a suite of assessment methods to assemble information used to make management decisions. These assessment methods include: voluntary deer checks, harvest mail and online surveys, sex-age kill (SAK) regression modeling techniques, winter severity index, pellet surveys, field observations, spotlight counts, and aerial surveys. In addition to formal population estimates, indices and measures, DNR's local wildlife biologists also use deer-vehicle collision rates, level of crop damage, impacts on forest regeneration, Upper Peninsula Deer Camp Surveys, and hunter satisfaction and hunter success rates when evaluating localized deer populations. While desirable, we understand it is difficult to accurately and precisely estimate the population size of free-ranging deer at the local, Deer Management Unit (DMU), or statewide level. Conditions vary across the state, and no single population estimation technique can be successfully applied statewide for all data, model, goal and decision-making needs.

We discussed different mandatory deer check options such as postcards, telephone, and in-person check stations, but, given the experiences of poor compliance in other states and Michigan's budgetary constraints, we felt the high cost to develop and implement a mandatory deer-check system did not necessarily ensure a more accurate count for the required investment.

We believe examining ecosystem or habitat impacts of the deer population would be more helpful in determining suitable population size within an area. This approach shifts the focus of planning away from deer numbers and focuses more on quality of the deer range. Some of the aforementioned tools also estimate deer impacts on ecological and social systems (like winter severity index, crop and forest damage complaints). We encourage their continued use for a more complete understanding of deer population effects.

For estimating deer numbers, the SAK model is a good tool, but the public needs more information on how inputs to the model (e.g., buck harvest, doe: buck ratio, fawn:doe ratio, age ratio) are assigned values or calculated. We feel the general public is skeptical of the data used as inputs to the SAK model.

We recognize that members of the public do not understand the intricacies and mechanics of these various methods and there is a public perception that the DNR cannot "count" deer correctly. We believe information and education on this subject is critical to build trust for the DNR. We encourage the DNR to conduct effective public education related to deer population status and deer impacts on the environment.

Regarding the assessment of populations, **we recommend**:

- That the current model(s) for assessing deer population numbers has scientific credibility. However, we recognize that the data used in the model(s) could be improved and **we recommend** that the DNR evaluate current and potential methods and inputs for improving population assessments (e.g., refined and substantiated sex ratios, deer recruitment, and age distribution).
- The importance of understanding ecosystem impacts and social factors. As such, **the DAT recommends** additional assessments include ecosystem impacts, hunter satisfaction, and other factors cited in this plan.

Deer Hunting

What is the role of deer hunting?

We understand that hunting is a tool used to manage populations of deer. In addition to management, deer hunting provides multiple values to a variety of people. Important social and cultural experiences are related to deer hunting. Family hunting camps are an important tradition for many Michigan residents. Many hunters view hunting as a special experience shared with friends and family and the actual harvest of a deer as a secondary benefit. Many hunters would find it difficult to put a price on the value of deer hunting.

Regarding the role of deer hunting, **we recommend:**

- The DNR recognize that deer hunting is more than a deer population management tool. It is a means to realize social, cultural, economic, and spiritual values.

Should the DNR take action to address the decreasing number of deer hunters?

As the number of participants in many recreational hunting opportunities continues to decline, we recognize the critical importance of hunter recruitment and retention. The DNR restricted Fish & Game Fund revenue for wildlife management is based on license sales. From 1986 to 2005, the number of distinct licensed hunters in Michigan dropped 14.3% from 925,332 to 789,244. This decline is important because of lost revenue from license sales and because it influences the amount of Federal money received through Pittman-Robertson funds. In 2005, for each certified hunter, DNR wildlife conservation programs received \$9.80 from Pittman-Robertson funds. Hunting (and associated economic benefits) in Michigan has become increasingly focused on deer hunting. In 2002, at least 91% of license buyers purchased a deer hunting license. That year, 62% of deer hunters purchased only a deer hunting license compared to 51% in 1968.

Social science research indicates decreasing hunter numbers result mainly from limitations on hunters' time, money, and access to hunting opportunities, as well as a perception of diminished gratification from hunting. We understand the DNR has initiated programs to increase recruitment and retention, such as the youth hunting season, legalization of crossbows, reduced minimum age requirements for hunting, and the Archery in the Schools program. We would like to better understand if these activities provide positive outcomes commensurate with the effort and resources invested by DNR. Due to current time and money constraints it is critical that the DNR evaluate their programs to determine if a) loss of hunters is having an impact on deer management, as well as DNR finances, and b) which actions and investments are effective in stemming and countering such losses.

Regarding the DNR's need to take action, **we recommend:**

- The DNR should:
 - ❖ Determine if the decreasing number of deer hunters is having an impact on achieving deer population goals. If it is, then:

- ❖ Determine the primary factor(s) causing the hunter decline by region and its effect on deer management.
- ❖ As needed, facilitate cooperation among non-governmental organizations and the hunting/mentoring community to develop programs targeted toward hunter retention and recruitment.

What role should the DNR play in protecting the future of deer hunting in comparison to or in cooperation with the hunting community, shooting sports industry, and non-government organizations?

Many individuals, organizations or businesses that are vested in deer management (e.g., hunting equipment manufacturers, those concerned with crop/forest/landscape damage, or those concerned about deer-vehicle accidents) have not participated in promoting deer hunting. Because some groups or individuals have expressed mistrust of the DNR, we believe it is important that the hunting community, shooting sports industry, tourism industry, and non-government organizations work together and with the DNR to promote deer hunting. We support an extensive information and education campaign that highlights the management and recreational aspects of deer hunting, ecosystem benefits, and hunting ethics. Legal, ethical hunting that observes regulations should also be stressed. The DNR credibility depends on distribution of factual information and transparency.

Regarding the DNR's role, **we recommend:**

- The DNR:
 - ❖ Continue to use hunting as a tool to manage deer as a resource.
 - ❖ Provide science-based management and factual information about hunting to add credibility.
 - ❖ Facilitate discussion/cooperation with hunting and non-hunting stakeholders (e.g., Farm Bureau, Insurance Industry, Tourism Industry, Sports Clubs, other non-governmental organizations, etc.) to proactively overcome barriers to effective deer population management tools.

Should the DNR play a role in creating ethical guidelines for deer hunting?

We recognize that opinions on the ethics of hunting-related activities vary widely among individuals (e.g., hunting over bait, hunting deer with dogs, use of buckshot, hunting confined wildlife). Therefore, we support DNR promotion of Fair Chase principles, but believe regulation should occur only if such activities represent a detriment to the resource or an infringement on the rights of others. For the purpose of this Recommendation, detriment refers to a serious threat to the long-term viability of deer, deer habitat, or deer hunting.

We agree that Fair Chase is the sporting, lawful pursuit of free-ranging wild game animals and extends beyond the hunt itself, as an attitude and a way of life based in a deep-seated respect for wildlife, for the environment, and for other individuals who share the bounty of this State's natural resources. We understand that the Fair Chase

philosophy is built into the DNR Hunter Education Program, but we also recognize these are only suggested guidelines. We believe the DNR can promote ethical behavior through education -- specifically the principles of Fair Chase -- as well as increased enforcement of prohibitions against illegal baiting, mechanized pursuit of game, wanton waste, and trespass.

We support the DNR promoting and teaching the following definition of “hunting ethics” from the Boone and Crockett Club:

Fundamental to all hunting is the concept of conservation of natural resources. Hunting in today's world involves the regulated harvest of individual animals in a manner that conserves, protects, and perpetuates the hunted population. The hunter engages in a one-to-one relationship with the quarry and his or her hunting should be guided by a hierarchy of ethics related to hunting, which includes the following tenets:

- 1. Obey all applicable laws and regulations.*
- 2. Respect the customs of the locale where the hunting occurs.*
- 3. Exercise a personal code of behavior that reflects favorably on your abilities and sensibilities as a hunter.*
- 4. Attain and maintain the skills necessary to make the kill as certain and quick as possible.*
- 5. Behave in a way that will bring no dishonor to the hunter, the hunted, or the environment.*
- 6. Recognize that these tenets are intended to enhance the hunter's experience of the relationship between predator and prey, which is one of the most fundamental relationships of humans and their environment.*

Regarding the DNR's role related to ethical guidelines, **we recommend:**

- The DNR:
 - ❖ Educate and promote established principles of fair chase for free-ranging wildlife through education and outreach materials.
 - ❖ Continue to regulate hunting methods and human behaviors that pose a detriment to the resources or the rights or safety of others.

Harvest Management and Hunter Access

What strategies could be used to achieve appropriate deer harvest on private land? What role should the DNR and other stakeholder groups play? Should the DNR play a role in addressing hunter access issues related to private lands?

While Michigan is rich in public lands open to deer hunting (nearly 7 million acres of State and National Forests), most lands that support deer populations (29 million acres) are in private ownership. About 2.2 million acres of private Commercial Forest Lands are open to public hunting, but individual private landowners make management and access decisions on the majority of lands in the State. Michigan has 438,000 “family forest” owners who own nearly 9 million acres. Overall, non-industrial private forest landowners in Michigan own more than half the forestlands.

To facilitate deer management throughout Michigan, DMUs have been established. A DMU is a geographic area within which deer management is implemented. The DNR has established deer population goals for each DMU in order to guide management decisions and strategies. Many factors associated with deer population size are considered in development of DMU population goals, including hunter satisfaction and success rates, landownership patterns, habitat quality, climate, amount of crop damage, forest regeneration concerns and deer-vehicle collisions.

The primary deer seasons in Michigan have traditionally consisted of the fall archery season, the regular November firearm season, and the December muzzleloading season. In recent years, additional seasons designed to increase antlerless harvest and provide special opportunities for young hunters or hunters with disabilities have also been established. The DNR now offers an early antlerless firearm season, a youth season, veterans who are 100% disabled season, a special firearm hunt for people with disabilities, and late firearm antlerless season in some areas of the state.

Since deer are not evenly distributed throughout a DMU, and deer and hunter densities often vary across public and private lands, antlerless deer license quotas for each DMU are established separately for public and private lands. The number of private and public land antlerless licenses is based on the estimated spatial distribution of deer on these ownership types and the impacts of these populations.

Two main issues related to managing deer on private lands are: 1) achieving sufficient harvest of antlerless deer from some areas, and 2) restriction on hunter access to private lands. Hunting pressure also varies widely between public and private ownerships and among the different hunting seasons, which may impact hunter success. We believe the DNR should support new programs that promote antlerless harvest in areas requiring a reduction in population size. Also, recent deer and social science research indicates that access to hunting grounds is one of the major reasons why individuals no longer hunt. We understand that the DNR has had a hunter access program for many years, but that the program is in decline and no longer provides effective or adequate private land hunting opportunities. The DNR should be allowed to address the issues of antlerless harvest and hunter access using a variety of management tools such as landowner incentives, landowner assurances regarding liability concerns, reducing the cost of licenses, making regulations less complex, exploring new incentives, creating different

licensing options for harvesting does (i.e., earn-a-buck, doe days, doe contests, etc.), having youth hunters harvest only does, and rewarding landowners for fulfilling antlerless harvest quotas. Information and education materials are important components to encouraging access to private lands, such as recreational liability information and draft templates for creative leasing agreements with a focus on antlerless harvest (see Recommendations for Information and Education).

Regulations created to increase antlerless harvest and access should not be universally applied; each situation should be evaluated at the eco-regional or DMU level. The DNR should create and continually evaluate season frameworks to determine when, where, in what part of the state, and during what dates antlerless deer should be harvested. We support the DNR working with partners to create a network of hunters and private landowners who can work together to achieve deer management goals throughout the state (see Recommendations on Deer-Human Conflict).

Regarding harvest management and hunter access, **we recommend:**

- The DNR should:
 - ❖ Work with stakeholders and others to increase private land access and provide networking opportunities for private landowners and hunters.
 - ❖ Add flexibility to deer hunting licenses that encourages harvest of antlerless deer where increased harvest is needed.
 - ❖ Target new or expanded private land access incentives to areas above deer population goals or where negative deer impacts are high.
 - ❖ Develop incentives to landowners who achieve desired antlerless harvest.
 - ❖ Continually evaluate the antlered license and season frameworks to make certain that they achieve desired deer harvest goals.
 - ❖ Limit antlered deer harvest opportunities to one antlered deer per hunter per year, where warranted by the evaluation, in order to place emphasis on the increased take of antlerless deer to meet population goals.

Habitat Issues

Should the DNR support/implement deer habitat improvements?

White-tailed deer occupy a wide range of habitats and can be found in every Michigan County. Deer are creatures of the forest edge and thrive in agricultural areas interspersed with woodlots and riparian habitat. Deer favor early successional forest stands in which brush and sapling browse are within reach. During harsh winters, deer use dense forest cover for winter shelter and protection. Deer habitat varies greatly across Michigan depending on climate, land use, human population density, and other factors that differ across the landscape.

Habitat management goals and land use practices are much different on private, state-, and federally-owned lands. Private landowners and public land managers operate at different scales, with different levels of public input and under different management directives or objectives.

Wildlife biologists and foresters evaluate habitat conditions and the needs of all wildlife species, including deer. This generally means planning for a diversity of forest types, grasslands, upland brush, and wetlands across the landscape, taking into consideration what each site can produce. Management of cedar, hemlock, and oak has been especially troublesome, as these forest types have proven difficult to regenerate in some areas with high deer densities. How deer populations can impact other species and communities (i.e., wildlife, plants, and forests) is also a concern.

We recognize trade-offs when managing habitat for deer. We support broad-based landowner information, education and incentive programs that encourage habitat improvement for a wide variety of species, based on a variety of considerations – such as the specific condition of vegetation on the parcel, landowner desires, and broader ecosystem goals for the area in question.

We acknowledge that deer yards (particularly cedar swamps) are important winter deer habitat, especially in the Upper Peninsula (UP) and northern Lower Peninsula.

Regarding the implementation of habitat improvements, **we recommend:**

- The DNR:
 - ❖ Should implement deer habitat improvements on state lands and support cooperative* improvements on Federal and private lands.
 - ❖ Improvement efforts should not only improve habitat for deer but include considerations for overall ecosystem health, for example, limiting negative impacts on regeneration of most native plant communities.

*For the purpose of this Recommendation, cooperative means that all parties must agree if DNR support is needed.

Urban/Suburban Deer Issues

What role should the DNR play in urban/suburban deer management?

Due to their adaptive nature, deer are often found in urban and suburban settings. In some areas, high deer densities, increases in the number of deer-vehicle collisions (DVCs), and excessive damage to personal property have resulted in low landowner tolerance for deer. Approximately 1.5 million DVCs occur on U.S. roads annually, and Michigan ranks second in the country in reported DVCs. In 2008, 61,010 DVCs occurred in Michigan resulting in 12 human deaths and 1,648 injuries to the persons involved. Diseases associated with higher deer densities also concern many people.

Currently, the DNR works with communities to educate citizens about lethal and non-lethal management tools for controlling deer numbers. Lethal tools directly address deer abundance, but may be unacceptable in areas where social or safety concerns are an issue.

We recognize many management challenges with this issue. Members of the public have opposing views and values regarding the culling of deer in urban areas. Safety concerns and local firearm and archery restrictions may impact culling in certain areas. In some cases, the public has inaccurate information on ways to reduce deer populations or damage, which causes additional confusion. Many non-lethal techniques are not effective, or can be very expensive and time-consuming, with little or no beneficial results.

We believe the DNR's role is to advise community leaders, assist in the development of deer management plans, participate on local task forces, speak at public meetings, conduct disease testing, organize culls, and provide permits for harvest activities. The DNR currently assists with many of these activities, but not necessarily in a consistent manner across the state.

We acknowledge that a community-based task force with the guidance of a professional facilitator is often recommended for dealing with urban/suburban deer issues. Also, solving human-deer conflicts in urban/suburban areas will likely involve changing stakeholder attitudes or behaviors, as well as modifying deer behavior and population size.

We support the DNR serving as a resource to help communities manage this issue. We believe education is important and that the DNR could encourage communities to harvest more antlerless deer in surrounding areas, allow archery harvest of deer where safe and practical, cooperate with MDOT on DVC avoidance (through signage, speed limits, wildlife underpasses, vegetation management of road right-of-ways, etc.) suggest deer-resilient landscaping options, put information on their web sites, and work with stakeholders to create consistent, effective messages and educational materials.

Regarding urban/suburban deer issues, **we recommend:**

- The DNR should:
 - ❖ Continue the current urban/suburban deer program and develop a manual that outlines department responses and public responsibilities to manage urban/suburban deer problems, and facilitate a process for consistent implementation.
 - ❖ Create educational materials (e.g. brochures, handouts, and website) through professional and stakeholder involvement that provide technical advice and tools.

Deer/Human Conflicts

Are you supportive of the DNR using these tools (as defined in the meeting presentation) to decrease deer-human conflicts? What issues exist with these tools?

Deer browsing causes significant damage to agricultural crops and ornamental plants in many areas throughout Michigan. In 2008, Michigan's 55,500 farms encompassed over 10 million acres, produced a net farm income of \$2.03 billion and generated \$71.3 billion in economic activity to the economy. Michigan ranks 19th nationally in total cash receipts for agricultural products and is the leading producer of crops such as dry beans, blueberries, cherries, cucumbers, and bedding and garden plants in the U.S.

Agricultural crops have been damaged by deer in every Michigan county, but most significant damage occurs in areas where deer populations are high and agricultural crops are common. Tolerance of deer damage to crops varies greatly among agricultural producers, with some showing remarkable tolerance for damage and others unwilling to sustain any crop damage. In portions of the UP, the DNR's Crop Damage Control program has been one of the more controversial wildlife management programs, due to location of farms with forested lands that are popular private and public hunting grounds.

The DNR attempts to minimize deer damage to crops and ornamental plants through a variety of tools. Non-lethal methods, including the use of fencing, repellents, habitat alterations and dogs, have shown some effectiveness, but regulated shooting of deer in addition to other techniques is generally the most effective. The DNR issues Deer Management Assistance Permits (DMAP), Crop Damage Permits and Disease Control Permits for this purpose.

We understand the DNR has encouraged hunters to harvest additional antlerless deer, especially on private lands, in order to lower deer population levels in certain areas of the state, especially southern Lower Michigan. The DNR offers several methods for increasing antlerless harvest, including discounted prices on antlerless licenses in areas with wildlife disease concerns, additional antlerless seasons, and educational efforts aimed at increasing antlerless harvest. However, these have failed to encourage hunters to harvest enough antlerless deer to keep populations at or near goals for many southern Michigan DMUs. We recognize that some landowners are unwilling to mandate sufficient antlerless harvest opportunities to their hunters, and guest hunters often choose to hold out for antlered deer. Together, they do not perceive the need for reducing deer populations, and choose not to harvest significant numbers of antlerless deer.

We recognize that hunter and farmer relationships often determine access opportunities and, where antagonistic, can limit the DNR's ability to implement antlerless harvest where needed. We support the variety of tools the DNR uses to overcome human-deer conflicts. However, these tools do not work in every situation. We would like to see more incentives or tools for increasing antlerless harvest. We support additional DNR efforts to engage Extension Offices and organizations such as Farm Bureau and MUCC to connect farmers seeking deer population reduction with hunters seeking hunting opportunities. We also believe the effectiveness of tools being used should be evaluated. Current programs may be too voluntary in nature, without adequate incentives to change

behaviors and the numbers of antlerless deer harvested and it is foreseeable that hunting (by volunteers) is no longer adequate to manage the deer herd in many places.

Another serious conflict between deer and humans is deer-vehicle collisions. Deer population control within certain areas is imperative as are education campaigns (supported by the DNR and public safety partners) that promote safe driving, and explain what to do when deer are present on roads.

Regarding deer/human conflicts, **we recommend:**

- The DNR should:
 - ❖ Evaluate the effectiveness of the tools in meeting landowners' needs and DNR deer management objectives.
 - ❖ Develop some options for managing deer in areas where voluntary programs are not effective.
 - ❖ Work with Michigan State University Extension to facilitate a relationship between hunters and farmers with crop damage permits.
 - ❖ Cooperate with public safety, transportation, and insurance stakeholders, to reduce deer-vehicle collisions.
 - ❖ Report and publicize (ex. Website) on a routine basis the number of permits (crop damage, Deer Management Assistance Permits, and Disease Control Permits) that are issued and used.

Deer Health

What is a healthy deer herd?

The DNR by statute and tradition is responsible to safeguard the health of free-ranging wildlife including white-tailed deer through its management and regulatory powers. In Michigan, white-tailed deer are susceptible to a variety of diseases and parasites. Many parasites and some diseases weaken infected animals and use them as a host but generally are not fatal. Others can be deadly to individual animals and may potentially infect local or even statewide populations. Diseases that may impact deer populations and deer management in Michigan include Epizootic Hemorrhagic Disease, Eastern Equine Encephalitis, Lyme disease, Bovine Tuberculosis, and Chronic Wasting Disease. In recent years, several significant disease outbreaks in Michigan's deer herd have stimulated public concern and influenced deer management decisions.

The Bovine Tuberculosis eradication effort has had an enormous effect on the northern Michigan deer population, the livestock industry, and Michigan's economy since the disease was discovered in Michigan in the mid-90s. At this time, the deer population within that area has been reduced by over 30% as a result. However, hunters now see fewer deer, and their willingness and ability to sustain aggressive harvests has waned, while local public resentment of control measures has grown. Some hunters and landowners have started to recognize the disease costs of high deer densities related to baiting and supplemental feeding.

We understand the deer herd must be in balance with its habitat, which includes consideration for overall ecosystem health -- for example, limiting negative impacts on regeneration of most native plant communities. We accept the overall well-being of the ecosystem as important, as well as the concept of species-specific health.

We recognize that the health of the deer herd should be assessed at a sub-population (geographic area) level, rather than as an entire statewide herd. Natural fluctuations in deer populations occur due to habitat or weather changes. These can have impacts on deer herd health and do not indicate disease impacts on deer. A deer population should always be maintained below its ecological and perhaps social carrying capacity.

Regarding deer health, **we recommend:**

- That indicators of a healthy deer herd include:
 - ❖ The herd is sustainably balanced with the habitat, which includes consideration for overall ecosystem health.
 - ❖ The herd exhibits balanced age distribution and sex ratio and good physical condition and reproduction.
 - ❖ The herd is not limited by diseases and parasites that influence herd members' wellbeing or the health of humans, domestic livestock, and other wildlife.

Should the presence or potential risk of disease in deer affect the way the DNR does business?

We recognize the DNR is legally obligated to base its decisions on the best available science to determine how it should do business given disease risks. The DNR must consider impacts on deer herd health and other wildlife, impacts on livestock and agriculture, and impacts on human health and safety.

We believe the DNR should be forthright and transparent with disease risks and make decisions based on scientific data. Responses should be proportional to the seriousness of the threat, or impacts of present or future threats. Disease plans should be created before specific disease issues arise to place the DNR in a proactive and effective reactionary position should a disease emerge in Michigan.

We strongly encourage the DNR to monitor die-offs, find causes and results, and report this information to the public as quickly as possible. We believe the DNR should work to prevent wildlife diseases. If prevention measures fail, we support the DNR working to eradicate, contain or manage disease outbreaks so they do not become statewide problems. We strongly encourage the DNR to conduct and support wildlife disease research, when deemed appropriate, to strengthen deer management in Michigan.

Regarding disease presence or risk, **we recommend:**

- The DNR:
 - ❖ Work to prevent the infection of deer by diseases that are non-endemic diseases to Michigan and/or not native to deer.
 - ❖ Manage diseases (by containment, control, or eradication when appropriate) commensurate with the threat they pose to sustainability of the deer population, impacts to agriculture, and threats to human health and other wildlife.
 - ❖ Monitor the deer herd health and conduct investigations into deer die-offs or unusual events involving sick deer.
 - ❖ Regularly and completely report findings to the public on diseases of concern and the health status of the deer herd.
 - ❖ Participate in, evaluate, and conduct research on deer herd health related issues.

Information and Education

Note: The DAT was not asked a specific question regarding a deer information and education program. We spent time discussing the topics we believe should be included within the program.

Information and Education is a major component of any management plan; however it is often overlooked. We believe the DNR should give high priority to planning and implementing an effective information and education communication strategy regarding deer. The strategy should identify audiences (internal and external), informational messages, and tools and media used to deliver messages. We recognize there are countless opportunities for the DNR to partner with many organizations to help deliver these messages. An important component of this effort should include a regular needs assessment and an evaluation of program effectiveness.

Goals of an information and education program should include the following objectives related to deer management:

- ❖ increase understanding of various deer issues
- ❖ build trust
- ❖ modify hunter behavior
- ❖ put more expectations on hunter/farmer relationships and cooperation
- ❖ reach out to stakeholders/clubs
- ❖ facilitate more partnerships/buy-in
- ❖ conduct research and evaluate effectiveness

We believe the following topics should be part of an information and education program related to deer management:

- ❖ Antlerless deer harvest results
- ❖ Current and past deer research projects
- ❖ Deer ecology
- ❖ Deer habitat needs
- ❖ Deer herd health and disease
- ❖ Deer/vehicle collisions
- ❖ Economics of deer hunting
- ❖ General access to public hunting opportunities
- ❖ History of deer, deer hunting, and deer management in Michigan
- ❖ How DNR assesses deer populations
- ❖ How to check and age deer
- ❖ Human/deer conflicts
- ❖ Impact of deer on forests and agriculture
- ❖ Permit opportunities
- ❖ Principles of Fair Chase
- ❖ Principles of quality deer management
- ❖ Process of rulemaking and regulation setting (including timeline)
- ❖ Promoting Michigan deer hunting
- ❖ Recreational liability for landowners
- ❖ Role of hunting within deer management
- ❖ Safety zone considerations

- ❖ Trespass laws
- ❖ Urban deer conflicts

Regarding information and education, **we recommend**:

- The DNR:
 - ❖ Ensure transparency by providing proactive and timely information to support deer-related education and management efforts.
 - ❖ Work with partners to use existing materials and education opportunities to the greatest degree possible.
 - ❖ Communicate a deer communication strategy to ensure consistent and accurate information is conveyed to the public concerning deer ecology and deer management in Michigan. This plan will serve to maximize public outreach and participation while being flexible so all or portions of the plan can be adapted to changing needs.

Stakeholder Engagement

How (or should) the DNR get input from or represent the views of a broad spectrum of members of the public at-large and members of the deer hunting community, some of which are more difficult to engage than others?

The DNR is responsible for managing Michigan's wildlife for all Michigan citizens. Therefore, we believe the DNR should constantly engage the public at-large. The "public" includes a variety of stakeholders. Constant engagement with interested stakeholders will lead to a better understanding of deer issues with the intention of avoiding unnecessary controversy. Public engagement should include various venues at the statewide, regional, and local levels. Communication strategies should be proactive in discovering, addressing and managing issues, while engaging partner organizations whenever possible.

The DNR must improve communications, and the way it gathers public input. We feel the DNR should engage a variety of groups, provide timely notice of meetings and events, work with stakeholders to disseminate information, and engage nontraditional users. In fact, the DNR should seek different avenues for public involvement; use local, regional and statewide venues; use sound survey methodology; help explain the basis for current or proposed management strategies; and communicate all this information through DNR field staff, partner organizations and various media channels.

We believe regional deer resource groups could assist the DNR with information and education on deer management. We believe ongoing deer advisory teams would be helpful to the DNR as conduits between the DNR, stakeholders, and Michigan citizens. Similar advisory groups on bears, furbearers, fisheries and waterfowl have been established, and are viewed as effective.

Regarding stakeholder engagement, **we recommend:**

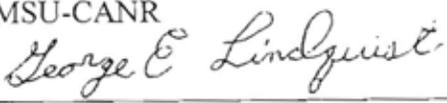
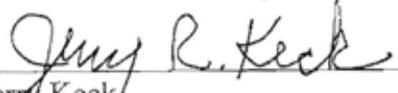
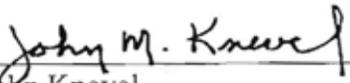
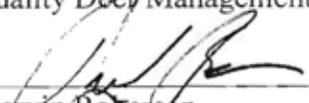
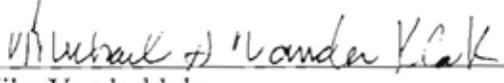
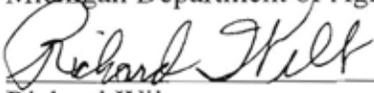
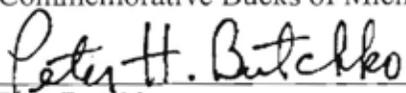
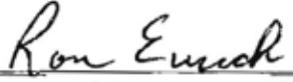
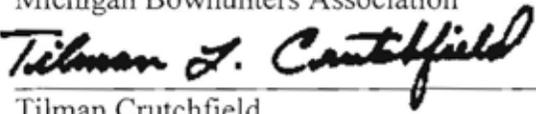
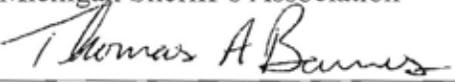
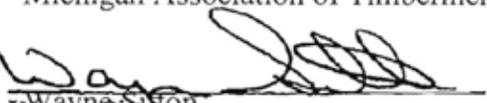
- The DNR:
 - ❖ Evaluate and strengthen its efforts to inform and solicit input on deer management from affected stakeholders as well as members of the public at large.
 - ❖ Continue to engage an ongoing DAT to ensure expanded stakeholder participation and input on deer issues and monitor implementation and evaluation of the deer management plan.

DNR Funding

In order to accomplish the goals of the deer management plan, the DNR must have consistent long-term funding. Currently, the DNR has limited General Fund support and relies heavily on restricted funds from Pittman-Robertson and Fish and Game funds. We support the DNR's need for consistent funding that is less dependent on hunter license sales.

Regarding DNR funding, **we recommend:**

- The DNR, in conjunction with stakeholders, pursue long term stable funding to implement the deer management plan.

 _____ Gary Roloff MSU-CANR	<u>November 4, 2009</u> Date
 _____ George Lindquist UP Whitetails of Marquette County /UP Sportsmen's Alliance	<u>October 27, 2009</u> Date
 _____ Jerry Keck Michigan Longbow Association	<u>October 27, 2009</u> Date
 _____ John Knevel Quality Deer Management Association	<u>October 26, 2009</u> Date
 _____ Marvin Roberson Sierra Club	<u>October 27, 2009</u> Date
 _____ Mike Vanderklok Michigan Department of Agriculture	<u>October 26, 2009</u> Date
 _____ Richard Wilt Commemorative Bucks of Michigan	<u>11-5-09</u> Date
 _____ Pete Butchko USDA Wildlife Services	<u>October 27, 2009</u> Date
 _____ Ron Eurick Michigan Bowhunters Association	<u>October 28, 2009</u> Date
 _____ Tilman Crutchfield Michigan Sheriff's Association	<u>October 30, 2009</u> Date
 _____ Tom Barnes Michigan Association of Timbermen	<u>October 29, 2009</u> Date
 _____ Wayne Simon Turtle Lake Club	<u>October 29, 2009</u> Date