

White-tailed Deer

Management Policy for Ontario



Ontario Ministry of Natural Resources and Forestry

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Cervid is a term used to describe members of the deer family (*Cervidae*). Ontario has four wild cervid species including moose, woodland caribou, American elk and white-tailed deer. White-tailed deer (*Odocoileus virginianus*), is the most abundant cervid species in Ontario (referred to as 'deer' in the rest of this policy). They are an important component of Ontario's ecosystems, and can be found from the boreal forest to the southern Ontario agricultural belt. In Ontario, winter severity is considered the main factor limiting population growth and northern range expansion, and as a result, their range and density can change over time, in response primarily to weather (short-term), climate (long-term) and changes in habitat.

Deer contribute substantial ecological, social and economic benefits to the people of Ontario. They are one of the most sought after big game species for harvest by licensed hunters as a heritage activity and food source. They are also very popular for non-consumptive activities such as wildlife viewing. In some situations, deer come into conflict with people, as they can damage agricultural crops, impact protected areas and are the most common big game species involved in collisions with vehicles. As a result, deer are one of Ontario's more intensively managed species.

There are established and asserted Aboriginal and treaty rights to harvest deer throughout much of Ontario. Deer hold cultural significance for many Indigenous communities and continue to be an important traditional food source.

Ontario's White-tailed Deer Management Policy is based on a wide range of ecological knowledge, socioeconomic considerations, the best available science and awareness that there are inherent uncertainties and risks associated with various management actions. The challenges associated with managing wildlife across Ontario's diverse and complex ecosystems are recognized, as is the need to consider and integrate management strategies for different species and their habitats, other resources, human activities and stressors including climate change as well as disease and parasites (pathogens). There is a need for provincial level guidance with enough flexibility to accommodate regional and local level ecological and socioeconomic circumstances and objectives. This policy provides the broad direction to manage deer within the larger landscape and ecosystem context and to help guide management planning. It captures existing management approaches for deer, in addition to providing direction, including guiding principles, objectives and key management strategies required to support the sustainable and adaptive management of deer.

Ontario's White-tailed Deer Management Policy is consistent with the recommended actions identified in the ministry's broader strategic policy documents. Ontario's deer management program contributes to the conservation of deer populations and the habitats on which deer and other species depend, thereby assisting Ontario in achieving biodiversity and conservation goals.

The primary basis for this policy stems from the Ministry of Natural Resources and Forestry's (MNRF) strategic direction documents *Horizons 2020* (2015), *Ontario's Biodiversity Strategy* (2011), *Biodiversity: It's in Our Nature* (2012) and *Taking a Broader Landscape Approach* (2013). These strategies and policies outline the need to sustain healthy ecosystems by strengthening natural resource management, use Ontario's biological assets sustainably, protect the genetic, species and ecosystem diversity of Ontario and manage wildlife at appropriate spatial and temporal scales to ensure that they are available for the enjoyment and use of future generations. Ontario is adopting a modern and sustainable approach to managing Ontario's natural resources over broader areas and longer time periods to support, enable and advance ecosystem-based, landscape management approaches.

Ontario's cervid populations are an important component of natural biodiversity and provide many benefits to Ontarians. Deer have an intrinsic value within the ecosystems they inhabit and provide many benefits including recreation in the form of hunting and viewing, economic benefits from the regulated deer hunt and tourism, contributing significantly to the funding of wildlife programs through the Fish and Wildlife Special Purpose Account, and serving as a wild food source.

Ontario's 2009 Cervid Ecological Framework (CEF) addresses cervid management at appropriate landscape and ecological scales. It consolidates and integrates Ontario's approach to managing cervid species in relation to each other with consideration of the broader ecosystems they share. Ontario's White-tailed Deer Management Policy fits within the overarching cervid management goal, guiding principles and broad deer management objectives set out in the CEF.

The overall legal basis for this policy includes the *Fish and Wildlife Conservation Act, 1997* (FWCA), the *Endangered Species Act, 2007*, the *Crown Forest Sustainability Act, 1994*, the *Environmental Assessment Act*, the *Provincial Parks and Conservation Reserves Act, 2006*, the *Planning Act* through the Provincial Policy Statement (2014), and the *Trespass to Property Act, 1990*. While the FWCA provides authority to manage the harvest and other activities associated with deer, many of the other instruments listed above may influence habitat management.

MANAGEMENT GOAL

The goal of Ontario's White-tailed Deer Management Policy is to manage for sustainable deer populations and the ecosystems on which they rely for the continuous provision of ecological, cultural, economic and social benefits to the people of Ontario.

GUIDING PRINCIPLES

The following are the guiding principles for deer management, which are informed by the guiding principles for the management of cervids outlined in Ontario's Cervid Ecological Framework (2009). They have been developed in the context of the Strategic Direction section of this document:

- Deer are an important part of Ontario's natural biodiversity and have an intrinsic value within the ecosystems they inhabit.
- Deer management will respect Indigenous peoples' unique perspectives, local and traditional ecological knowledge, and practices related to deer and the exercise of constitutionally protected Aboriginal and treaty rights.
- Deer populations and habitat will be managed at the appropriate landscape scale to achieve broader management goals and objectives for each Cervid Ecological Zone (CEZ), and where necessary, to consider finer scale management actions that address local needs.
- Deer, and the ecosystems in which they occur, will be managed sustainably using an adaptive management approach, to maintain biodiversity and provide an optimal balance of benefits for the people of Ontario.
- Deer management will recognize the interests and contributions of hunters and landowners in providing valuable resources and information to support deer conservation and continue to recognize hunting as a culturally, socially and economically important activity.
- Deer are important to the people of Ontario, and as a result, deer management will collect and consider the best available knowledge (including scientific, local and traditional ecological knowledge), as well as social, cultural and economic information and will include the management of both population and habitat with consideration of potential stressors.

OBJECTIVES AND STRATEGIES

Population Management

Deer population objectives will define the expected and desired range of deer abundance at the appropriate landscape scale. Deer population objectives need to consider a range of ecological, cultural, social and economic factors. Biological and ecological considerations include deer density effects on ecosystem health, key interactions with other species, and unique aspects of deer biology and behaviour across the various climates and landscapes of Ontario. For example, deer serve as hosts for parasites (e.g. meningeal brain worm and liver flukes) that while not lethal to deer, can at times have significant impacts to the health and/or survival of other cervids where their distributions overlap.

The demand for deer harvest may exceed supply in some cases and in others, harvest may have limited ability to influence populations. Monitoring of deer population indices relative to variable harvest pressure allows for adaptable harvest management to help achieve deer population objectives. Targeted research is another key component of a deer management program to address unknowns and support informed decision-making, sound policy development and the adaptive management of deer.

Objective 1: Manage for sustainable deer populations at the appropriate landscape scale consistent with guidance found in Ontario's Cervid Ecological Framework (CEF).

Strategy 1.1: Building on the CEF, develop guidance to set deer population objectives at the appropriate landscape scale.

- Develop population objective setting guidelines to provide direction for determining expected and desired deer population objective ranges at the appropriate landscape scale throughout deer range in Ontario.

- Periodically review and revise population objectives to address changing ecological and socioeconomic considerations.
- Engage the public (including landowner and rural residents), stakeholders and Indigenous communities and organizations on the development and review of proposed population guidelines and objectives.

Strategy 1.2: Assess the status and trends of deer populations at the appropriate landscape scale using direct or indirect measures.

- Utilize an effective and efficient population assessment method using new and/or existing data sources.
- Update and refine population models to estimate the potential impacts of different management scenarios on deer populations, with the flexibility to incorporate new data sources as they become available.

Strategy 1.3: Collect and manage hunter activity, regulatory compliance and hunter harvest information needed to manage deer populations effectively.

- Continue to collect and use hunter activity and harvest data to support deer management in Ontario.
- Clearly define appropriate data requirements, incentives and deterrents to support the collection of required data.
- Incorporate new effective methods of collecting data as they become available.
- Collect additional biological and socioeconomic information when necessary to evaluate specific issues and management actions as needed and as resources allow.
- Work with Indigenous communities and organizations to develop a better understanding of historical and current harvest levels, as well as future needs, to inform deer management planning.

Strategy 1.4: Develop harvest management guidelines to define the range of management tools, and decision support tools for quota development to help meet ecologically, and socially-based deer population goals and objectives.

- Review the existing deer harvest management framework to consider relevance of current approaches (e.g. controlled deer hunt, additional deer seals, WMU-specific management regimes), and explore opportunities to modernize and improve consistency of harvest management at appropriate landscape scales.
- Manage deer populations through continued application of the selective harvest system and the development and application of new tools as necessary.
- Update decision support tools as necessary to guide development of deer allocation for hunting at appropriate landscape scales and time periods.
- Engage the public (including landowner and rural residents), stakeholders and Indigenous communities and organizations on the development and review of proposed harvest management guidelines.

Strategy 1.5: Improve the understanding of potential effects of climate change on deer populations.

- Support research/monitoring initiatives to assess effects of climate change on deer populations (including parasites and diseases) at the appropriate landscape scale.
- Revise deer population objectives and management approaches as necessary in response to landscape scale effects of climate change.

Deer Habitat

On Crown lands in central and northern Ontario where commercial forestry occurs, habitat management in forested ecosystems is primarily conducted through the preparation of forest management plans under the *Crown Forest Sustainability Act, 1994*, and following direction in forest management guides to protect and maintain habitat for wildlife.

On private and municipal lands, MNRF recommends habitat management objectives similar to those used on Crown lands through the appropriate land use planning processes. *The Natural Heritage Reference Manual* (2010) and the *Significant Wildlife Habitat Technical Guide* (2000) are primary mechanisms for addressing wildlife habitat needs and considerations on private and municipal lands under the authority of the *Planning Act, 1990* and the *Provincial Policy Statement* (2014). Local stewardship projects and incentive programs (e.g. conservation land tax incentive program, managed forest tax incentive program) and private land forestry practices involving wildlife habitat should be guided by the aforementioned legislation and guidance.

Ontario's provincial parks and conservation reserves are integral in maintaining and restoring ecological integrity and are significant contributors to wildlife habitat across the province. Any habitat management within provincial parks and conservation reserves are governed by management direction for the specific protected area and the principles of the *Provincial Parks and Conservation Reserves Act, 2006*.

Habitat management considerations for deer take strategic guidance from the CEF based on the ability of the various landscapes of Ontario to support deer populations and interactions with other cervid species. Deer biology and behavior requires further consideration of deer populations relative to finer scale landscape features (e.g. winter deer yards, sensitive plant communities) to ensure a balance between sustainable deer population management and protection of habitat features which ultimately support deer.

Objective 2: Under guidance from the CEF, support the provision of suitable deer habitat to meet deer population objectives at the appropriate landscape scale.

Strategy 2.1: Consistent with the CEF, integrate deer habitat management into land use planning and other resource management processes.

- Where appropriate, incorporate deer habitat requirements into Crown land resource management guidance (e.g. Crown forest management).
- Provide advice to landowners and municipalities about deer habitat management to support the consideration of deer habitat (e.g. deer wintering areas) in development decisions consistent with existing legislation and guidance.
- Support and promote stewardship and community-based programs which contribute to habitat provision and restoration through partnerships, education, and landowner incentive programs.
- Use the best available science to project the potential impacts of climate change on deer habitat and to explore methods to mitigate and/or adapt deer management objectives in response to those impacts.

Deer Health

As with many cervid species, deer are susceptible to a variety of pathogens (e.g. chronic wasting disease, epizootic hemorrhagic disease). A disease outbreak within Ontario's deer population could have socioeconomic and environmental implications including deer population decline, loss of biodiversity, the potential for disease transmission to other species (e.g. wild, farmed and captive), cascading ecological impacts as well as alterations to cultural practices and recreational opportunities (e.g. hunting and viewing). Canada's National Wildlife Disease Strategy (2004) articulates federal and provincial government commitments to address any wildlife disease that may cause significant socioeconomic or ecological harm. MNRF played a key role in the development of this strategy and continues to be committed to its goals and objectives.

Chronic Wasting Disease (CWD) is a neurological disease that is fatal and is currently untreatable in North American cervid species. CWD is widespread throughout the United States and is present in some Canadian Provinces (e.g. Alberta & Saskatchewan). The Ontario Chronic Wasting Disease Surveillance and Response Plan (2005) outlines key actions being taken to monitor for evidence of CWD in Ontario and actions proposed to address an outbreak in Ontario's wild, farmed or captive cervid populations. This plan was developed in collaboration with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Ministry of Health and Long Term Care (OMHLTC), and the Canadian Food Inspection Agency (CFIA). Since 1998, CWD surveillance has occurred in wild, farmed and other captive deer and elk populations across Canada and many states. To date, this surveillance has not detected CWD in any of Ontario's cervid populations. MNRF continues to work with the OMAFRA, OMHLTC and CFIA to achieve the objectives of this plan by adopting and implementing the recommended actions.

Objective 3: Promote a healthy deer population.

Strategy 3.1: Identify current or potential deer health concerns.

- Work with the partners (e.g. Canadian Wildlife Health Cooperative) to determine cause of death in deer mortalities where possible.
- Monitor the health of deer and other cervid populations by using appropriate disease surveillance methods.
- Work with partners to minimize the risk of pathogen transmission between farmed and other captive cervids, and wild deer populations.
- Remain informed on current status (including climate change effects) of diseases to which deer are susceptible.

Strategy 3.2: Explore approaches and, where necessary, take preventative action to address threats to deer health.

- Continue to discourage and, where appropriate, take measures to prevent the supplemental feeding of deer to minimize the likelihood of entry and/or spread of pathogens into Ontario.
- Collaborate with other agencies and partners on research and surveillance that facilitates early detection of disease in wild, farmed and other captive deer populations.
- Prepare for a disease outbreak in deer populations by collaborating with partner agencies to establish roles and responsibilities, and develop appropriate actions for various threats.

- Ensure deer management supports the implementation of relevant disease management plans (e.g. Ontario Chronic Wasting Disease Surveillance and Response Plan (2005), Canada-Ontario Foreign Animal Disease Emergency Response Plan (2015)).
- In partnership with enforcement, other ministries and stakeholder groups, investigate options to detect and prevent contact between wild deer and farmed and other captive cervids and livestock.
- Pursue effective measures that reduce the likelihood of disease spread among cervids.

Benefits of Deer to Ontarians

It is recognized that deer have an intrinsic value within their ecosystems and provide direct benefits to Ontarians through deer viewing and harvest opportunities. Using an adaptive approach when managing recreational opportunities allows for appropriate adjustments to be made to management intensity and supports the sustainability of Ontario's deer population and the benefits it provides. It is also recognized that after conservation and public safety goals are met, existing Aboriginal and treaty rights take priority over other uses.

Objective 4: Provide a balance of benefits from sustainable deer populations through harvest planning and management of deer-related activities (e.g. viewing).

Strategy 4.1: Consider all user groups when determining the allocation and harvest of deer in relation to the available supply.

- Monitor the supply and demand of deer harvest opportunities to determine if current allocation strategies are sufficient and effective.
- Periodically evaluate Ontario's deer harvest allocation system to determine if refinements are required to operate at various landscape scales and examine if benefits are being realized.
- Maintain and, where appropriate, increase opportunities for people to experience deer in the wild with landowner permission, as required.

Strategy 4.2: Manage deer in a manner that is consistent with the constitutional recognition of Aboriginal and treaty rights and that considers the interests of Indigenous communities.

- Place appropriate priority on Aboriginal and treaty rights when allocating deer harvest opportunities.

- Consider and incorporate local and traditional ecological knowledge into deer management planning and decision-making where available and appropriate.
- Work with Indigenous communities and organizations to expand public knowledge of Aboriginal and treaty harvesting rights and to include Indigenous perspectives in communication and education materials as appropriate.

Strategy 4.3: Provide a reasonable and equitable distribution of opportunities to harvest deer in the regulated hunt.

- Maintain and, where possible, increase opportunities and participation in deer hunting.
- Where permitted and appropriate, enable all licensed deer hunters to participate in an annual hunt of some type for deer.
- Continue to provide flexibility to allow hunters to hunt deer alone or in a group (party hunting).

Strategy 4.4: Communicate, monitor and enforce legislation to promote compliance.

- Work within MNRF to align enforcement and deer management priorities using a risk-informed approach to focus enforcement efforts on high risk areas where deer population sustainability may be affected.
- To the extent feasible, ensure legislation and procedures are streamlined, accessible, easy to understand and enforceable.
- Continue to actively involve resource users and the public in regulation development and compliance awareness.
- Respect landowner property by encouraging hunters and all those enjoying deer to seek permission to access private lands.
- Examine opportunities to further reduce the complexity of deer management regulations.

Human – Deer Conflict

Conflicts between humans and deer have on occasion occurred in most areas where they share the land base. Such conflicts include collisions with vehicles, damage to agricultural crops and farming infrastructure, damage to suburban and residential property, and overbrowse in protected areas. Conversely, deer have been negatively affected by a variety of human activities including, but not limited to, land development, habitat fragmentation, degradation and loss, harassment (e.g. pets at large), conflicts with cervid farming operations (e.g. disease transmission, escapees), and poaching.

Social carrying capacity for deer is the idea that desired deer population abundance for an area may be lower than either the ecological or environmental carrying capacity due to human-deer conflict such as vehicle collision, crop depredation and property damage. Management tools such as deer removal authorizations and additional deer seals may help in maintaining the deer population at or below the social carrying capacity for local areas. A sustainable deer population still needs to consider social carrying capacity alongside biological sustainability to maintain both biodiversity within the ecosystem and provide the benefits of a self-sustaining deer population (e.g. viewing, harvest).

The Strategy for Preventing and Managing Human-Wildlife Conflict in Ontario (2007) released by the Government of Ontario outlines approaches to address human-wildlife conflicts, including a focus on community and partnership-based actions, identifying leadership roles and responsibilities, and public awareness. The Strategy for Preventing and Managing Human-deer Conflicts in Southern Ontario (2007) was also developed to provide guidance to help minimize conflicts with deer in the southern part of the province. The strategy includes information on the challenges of human-deer conflict (e.g. agricultural issues, environmental impacts, public safety) and documents

government programs (e.g. road planning, population management, monitoring) related to the management of these conflicts. Ontario will continue to work with partners, stakeholders, and the public to address these conflicts.

Objective 5: Consistent with existing government strategies, support the reduction of human-deer conflict through prevention, education and awareness, reporting and response.

Strategy 5.1: Support the adoption and implementation of the objectives and strategies identified in the Strategy for Preventing and Managing Human-wildlife Conflict in Ontario (2007) and the Strategy for Preventing and Managing Human-deer Conflicts in southern Ontario (2007) more broadly across the province where appropriate/relevant.

- Recognize that all residents of Ontario share responsibility for preventing and managing human-deer conflicts.
- Increase public awareness of deer behavior, populations, and their habitat and how these may interact with human-related factors (e.g. roads) that contribute to conflicts.
- Clarify roles and responsibilities and identify the range of options available to address human-deer conflict at the appropriate landscape scales.

IMPLEMENTATION

The implementation of the strategies outlined within this policy will require periodic evaluation and discussion to identify areas for improvement, and new priorities in recognition of available resources. Development of future policy documents (e.g. harvest management guidelines, population objective setting guidelines) will also support the implementation of this policy.

The Ontario Ministry of Natural Resources and Forestry will lead discussions on the implementation of the contents of this policy and engage with the public (including landowners and rural residents), Indigenous communities and organizations, stakeholders and other partners on proposed changes.

