

Legislative  
Assembly  
of Ontario



Assemblée  
législative  
de l'Ontario

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# STANDING COMMITTEE ON PUBLIC ACCOUNTS

## FISH AND WILDLIFE PROGRAM

(Section 3.06, 2007 Annual Report of the Auditor General of Ontario)

1<sup>st</sup> Session, 39<sup>th</sup> Parliament  
57 Elizabeth II

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The Honourable Steve Peters, MPP  
Speaker of the Legislative Assembly

Sir,

Your Standing Committee on Public Accounts has the honour to present its Report and commends it to the House.

A handwritten signature in black ink that reads "Norm. Sterling".

Norman W. Sterling, MPP  
Chair

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Queen's Park  
February 2009

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STANDING COMMITTEE ON PUBLIC ACCOUNTS  
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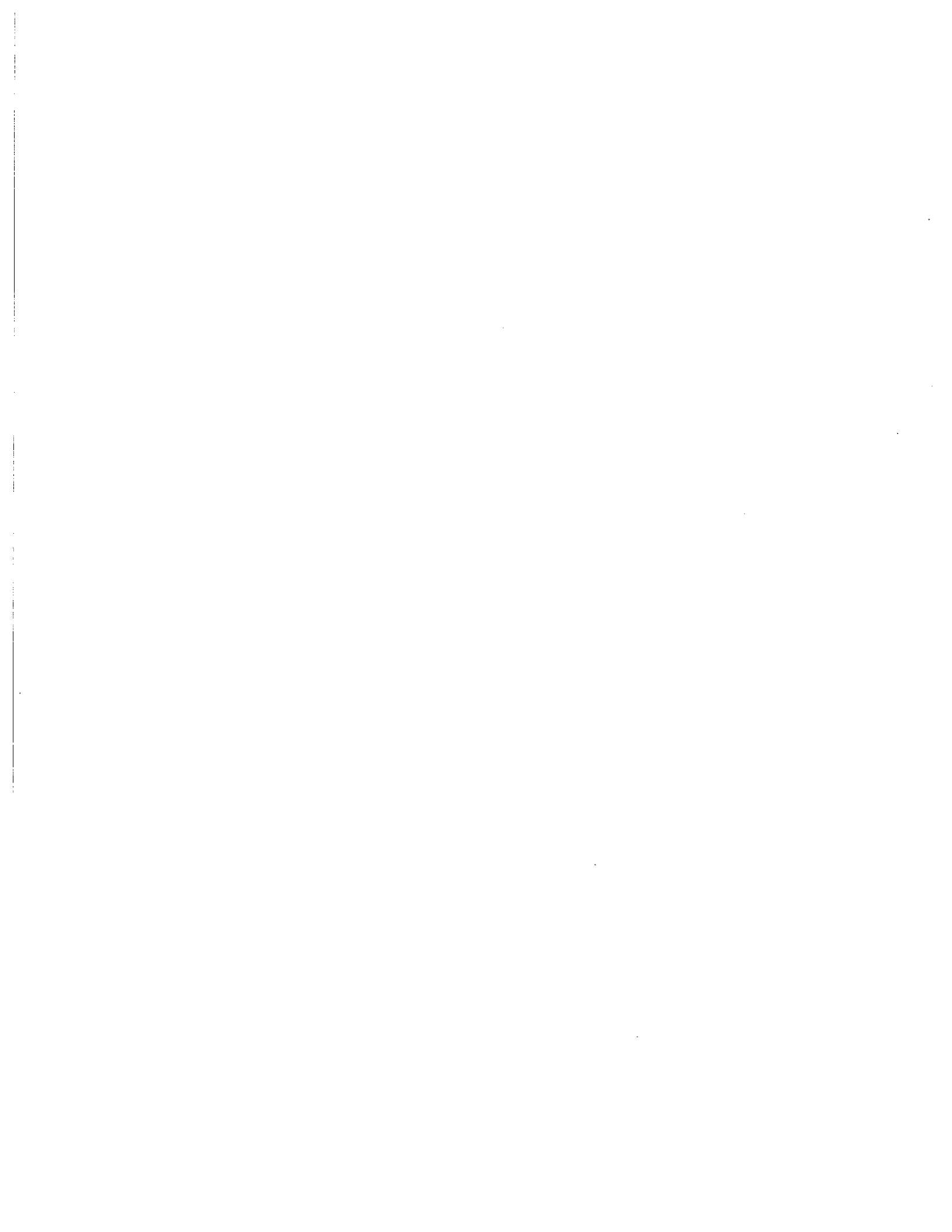
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## PREAMBLE

The Standing Committee on Public Accounts held hearings on the Auditor General's 2007 audit of the Ministry of Natural Resources' Fish and Wildlife Program on April 3, 2008. The audit findings were reported in s. 3.06 of the Auditor General's *2007 Annual Report*. The Committee has endorsed the Auditor's findings and recommendations.

This report constitutes the Committee's findings and recommendations. Background information on sections of the original audit report is followed by an overview of the hearings' main findings and, as appropriate, new recommendations. *Hansard*, the verbatim record of the hearings, should be consulted for the complete proceedings.

## Acknowledgments

The Committee extends its appreciation to officials from the Ministry of Natural Resources (Ministry) for their attendance at the hearings. The Committee also acknowledges the assistance provided during the hearings and report writing deliberations by the Office of the Auditor General, the Clerk of the Committee, and staff at the Legislative Library's Research and Information Services.

## 1. AUDIT OBJECTIVES AND MAIN FINDINGS

The Auditor's objective was to assess whether the Ministry had adequate resources in place to:

- measure and report on the effectiveness of the Program in fulfilling its mandate to manage fish and wildlife resources for sustainability; and
- ensure compliance with related legislation and ministry policy.

While the Auditor noted progress in addressing certain biodiversity and sustainability issues through the 2005 Ontario Biodiversity Strategy and the enactment of the *Endangered Species Act, 2007*, a number of examples were noted where sustainability is of increasing concern. The following concerns relate to *biodiversity*:

- **Habitat Loss and Fragmentation:** the Ministry has no comprehensive inventory of critical habitats key to the recovery or sustainability of fish and wildlife resources. Identifying these habitats would help in developing strategies to protect them.
- **Species at Risk Strategy:** acting on the Auditor's 2002 recommendation, the Ministry has drafted a strategy for the conservation, protection, restoration, and propagation of species at risk but has not yet approved or implemented it. The Ministry has 120 recovery strategies in various stages of development for endangered and threatened species. Only 22 have been released for public

comment and only two relate to endangered species (those deemed most at risk).

- **Invasive Species:** the Ministry generally had not conducted or obtained the scientific research needed to determine the long-term impacts and the long-term action necessary to contain or eradicate invasive species. Upfront research is needed to identify potential invasive species to limit both the impact on native species and restoration costs.

The Auditor noted the following with respect to *wildlife management*:

- **Moose Population:** The Ministry did not have current, complete data on moose populations. More hunting tags were issued than harvest guidelines recommended because the total huntable moose population in some areas was estimated as greater than the total estimated moose population in those areas.
- **Deer Population:** The Ministry had no management plan for dealing with an overabundant deer population. Biodiversity and species at risk can be negatively impacted by this; there is also an increased risk of exposure to transmittable diseases.
- **Black Bear Harvest:** These harvests may be occurring at unsustainable levels in some areas.
- **Forest-Dwelling Woodland Caribou:** Biologists said that the Ministry's draft recovery strategy for this threatened species (in Ontario) needs to be implemented on a more timely basis.

The Auditor noted the following with respect to *fisheries management*:

- **Management of Commercial Fish Stocks:** the Ministry has successfully managed stock sustainability but needs better monitoring and enforcement. Commercial and aboriginal operators have exceeded their catch quotas in some areas. The Ministry has no "bycatch" (the unintended catch of fish other than the target species) policy or procedures to estimate the quantity or species of the bycatch. This information is needed to determine harvest limits.
- **Fish-stocking Program:** the Ministry did not carry out enough evaluations to assess the success of its fish-stocking program. Community groups also stock lakes and rivers. The Ministry tests the fish it stocks for disease; there is no testing program for fish stocked by community groups, which poses a risk of transmission of disease to the indigenous fish population.

The Auditor noted the following with respect to *enforcement*:

- **Enforcement Units:** units reviewed by the Auditor reported a reduction of between 15% and 60% in the number of patrol hours by conservation officers from planned levels. These reductions affected such enforcement activities as patrols to stem the illegal harvest of big-game animals, monitoring of sport

fishing in sensitive fisheries, and aerial patrols of remote tourist areas. The reduction of deterrent patrols may have resulted in more illegal hunting.

- **Deployment of Conservation Officers:** the current deployment strategy has left gaps in enforcement coverage with likely detrimental effects on fish and wildlife resources.

## **2. COMMITTEE REQUEST FOR MINISTRY RESPONSE**

The Committee requests that the Ministry provide the Committee Clerk with a written response within 120 calendar days of the tabling of this report with the Speaker of the Legislative Assembly, unless otherwise specified in a recommendation.

### **2.1 Committee Recommendations**

- 1. The Ministry of Natural Resources shall provide the Standing Committee on Public Accounts with a status report on its progress in updating its web-based information system for endangered species habitat information and report on efforts undertaken to protect these habitats, in accordance with the best scientific practices currently in use. The Ministry should specify the criteria used for securing and determining habitat protection. The Ministry should also provide information on any initiatives undertaken to address unintended negative consequences for farmers or other stakeholders from the increasing populations of deer and other wildlife (particularly in southern Ontario).**
- 2. The Ministry of Natural Resources shall provide the Standing Committee on Public Accounts with a status report updating the number of recovery plans for species designated as threatened or endangered that have been completed and a projection of when the remaining plans will be done. The Ministry should specify whether it is using the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) standards or the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) standards for assessing the status of species and explain the benefits and any drawbacks associated with the standard that it has chosen to use.**
- 3. The Ministry of Natural Resources shall submit an annual report for the next five years to the Standing Committee on Public Accounts listing all identified threatened and endangered species and specifying the status of recovery strategies for each.**
- 4. The Ministry of Natural Resources shall provide the Standing Committee on Public Accounts with a status report on invasive species noting, in particular, issues related to securing inter-jurisdictional cooperation with the United States on an agreement to require all**

ships before entering the St. Lawrence River, and ultimately the Great Lakes, to flush their ballast tanks with salt water.

5. **The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on the possibility of making shipping companies liable if their ships introduce invasive species in Ontario waters through water, sludge and unpumpable slops contained in the ships' ballast tanks. In addition, the Ministry should report on the development and feasibility of technologies, such as UV filtration, designed to reduce the risk of invasive species.**
6. **The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on steps taken to review the Ministry's existing moose management policy, including information on moose population targets, whether those targets are current or need to be modified, and on the status of the Ministry's review of Ontario's model for the issuance of moose hunting tags or allocations. The Ministry should also specify whether the Ministry increases or decreases its hunting tags or allocations in proportion to increasing or decreasing moose populations.**
7. **The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on steps that it takes to ensure consistency in its aerial surveys of moose populations, giving specific consideration to the possibility that surveys by helicopter could generate more accurate data than surveys by fixed-wing aircraft.**
8. **The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on modifications planned or undertaken for its bear harvest guidelines and on the impact these modifications will have on tourist outfitters. The Ministry should also report on any increased enforcement initiatives undertaken with respect to outfitters who persistently exceed their bear harvest quotas.**
9. **The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on the current response rate for the mandatory provincial mail-in survey that is to be completed by all bear hunters, and on the possibility of making annual re-registration for hunting tags contingent on proof that a hunter has sent in the survey for the prior year.**
10. **The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on its progress in negotiations with First Nations communities over commercial fishing licenses and how it is managing cases of non-compliance.**

- 11. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on results from pilot advisory councils established in selected new fisheries-management zones for recreational fisheries. The Ministry should also report on progress in developing and implementing formal fisheries-management plans for the new zones.**
- 12. Recognizing the role of volunteer hatcheries run by community partners and that it is not the intention of these groups to introduce infectious diseases into Ontario's waters, the Ministry of Natural Resources should work with volunteer hatcheries to ensure that they are able to continue with their hatchery programs while reducing the risk that infectious diseases could be introduced into provincial waters. The Ministry shall report to the Standing Committee on Public Accounts on progress in this area.**
- 13. The Ministry of Natural Resources should monitor results under the Enforcement Branch's new risk-based compliance and enforcement approach and shall report back to the Standing Committee on Public Accounts on the impact of the new approach of protecting fish and wildlife resources in the most cost effective manner.**
- 14. In view of the large territory monitored by conservation officers, the Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on the Enforcement Branch's ability to meet its current budget while still fulfilling its planned responsibilities. The Ministry should include comparative data for other jurisdictions on resources required by conservation officers in those jurisdictions to fulfil their duties and should assess whether the resources that Ontario conservation officers currently have are adequate for their required field time.**

### **3. OVERVIEW**

The Ministry of Natural Resources estimates that 5.5 million Ontarians take part each year in recreational fishing, hunting, and wildlife viewing and that these activities are worth nearly \$11 billion a year to the provincial economy and account for more than 77,000 jobs. Ontario's commercial fishery has a processed annual value of more than \$200 million. Total funding for the Ministry's Fish and Wildlife Program in the 2006/07 fiscal year was \$74.2 million, comprising \$59.5 million from the Special Purpose Account (this is an account with all licence fees, royalties, fines and other revenues collected under the *Fish and Wildlife Conservation Act*) and \$14.7 million from the Ontario government.

#### **3.1 Scope of Operations**

Ontario is larger in size than the combined land mass of Austria, Belgium, France, Italy, the Netherlands, Slovenia and Switzerland. The Ministry manages an area

greater than a million square kilometres, including one quarter of a million lakes, hundreds of thousands of kilometres of streams and rivers, tens of thousands of species of plants and wildlife and habitats that range from the tundra in the far north to the Canadian Shield and the Carolinian forests in the south. The crown lands and waters under the Ministry's jurisdiction constitute 87% of the province's land and water area. The Ministry's responsibilities are wide ranging and diverse. It develops policies and manages programs using an ecosystems approach, under a sustainable development framework.<sup>1</sup>

### **3.2 Climate Change**

One of the biggest external challenges is climate change. The effects of climate change will have a great impact on Ontario's ecosystem, affecting forests, water and other systems. The Ministry strategy for dealing with climate change has three main goals: to obtain a better understanding of climate change; to mitigate impacts; and, to help Ontarians adapt.<sup>2</sup>

## **4. AUDIT OBSERVATIONS AND RECOMMENDATIONS**

### **4.1 Biodiversity**

#### *Ontario's Biodiversity Strategy*

In 1995, the federal, provincial, and territorial governments agreed to the *Canadian Biodiversity Strategy*. In 2005, the Ministry issued *Protecting What Sustains Us: Ontario's Biodiversity Strategy*. The Ministry's biodiversity strategy includes the following two goals:

- Protect the genetic, species and eco-system diversity of Ontario.
- Reap benefits for Ontarians through the use and development of the province's biological assets in a sustainable manner.

The Auditor noted that the Ministry has undertaken a number of steps to help conserve biodiversity but said that further progress is required to meet the commitments for 2010 under the *Canadian Biodiversity Strategy*, noting that:

- The Ministry had not incorporated its biodiversity initiatives into a detailed plan with time frames nor had it assessed the ability of its informal plans to meet timelines required to achieve the *Canadian Biodiversity Strategy's* goals.
- The Ministry had not yet defined biodiversity outcomes and established performance measures. Canadian jurisdictions such as Quebec and Saskatchewan have developed such indicators to assist in meeting commitments under the *Canadian Biodiversity Strategy*.
- During the 2006/07 fiscal year, although \$4.2 million was allocated to biodiversity, there was little real increase in funding as existing staff were simply transferred into the Ministry's biodiversity section.
- While the Ministry had good information in some areas, it had no comprehensive fish and wildlife state-of-the-resources report on a province-

wide basis. The Auditor noted a need for increased co-ordination of biodiversity efforts within the Ministry and with external stakeholders to ensure that appropriate information is collected.

The Auditor recommended that the Ministry develop a comprehensive plan and a timeline for implementing its biodiversity strategy, review the adequacy of resources devoted to biodiversity, clearly define biodiversity outcomes and performance indicators to measure progress, and prepare a comprehensive report on the overall state of biodiversity in the province.<sup>3</sup>

### *Habitat Protection*

The Ministry has identified loss or degradation of habitat as the single biggest cause of wildlife species extinction in the province; this is a particularly serious problem in southern Ontario. In northern Ontario a number of factors including resource extraction can affect biodiversity through habitat changes.

The Ministry works with a wide range of stakeholders to protect and restore habitats and has also expanded the Ontario Parks System. Other initiatives include a draft *Ecological Framework for Recreational Fisheries Management*. However, the Ministry does not have a comprehensive inventory of habitats critical to the sustainability or recovery of fish and wildlife resources.

The Auditor recommended that the Ministry identify the key habitats that are critical to the continued sustainability of native species and prepare timelines for the development of management plans to protect those habitats.<sup>4</sup>

### *Species at Risk of Extinction in Ontario*

In Ontario more species become endangered each year, often as a result of increased human activity. The Ministry provides annual funding of about \$2 million for species at risk to support protection programs and co-ordinate recovery and research projects with various stakeholders.

At the time of the audit the Ministry was still subject to the requirements of the *Endangered Species Act, 1971*. In May 2007, the Ontario Legislature enacted the *Endangered Species Act, 2007*, which comes into force no later than June 30, 2008. The new Act strengthens the Committee on the Status of Species at Risk in Ontario. The Auditor said that despite the new legislation, concerns remain regarding the Ministry's species-at-risk program.

In a 2002 audit of the Ministry's Ontario Parks program, the Auditor recommended the Ministry develop an overall strategy to protect species at risk. While the Ministry has prepared a draft Species at Risk Strategy for Ontario it has not been approved or implemented. The Ministry says its final strategy should be in place by the end of the 2007/08 fiscal year.

The Auditor said the Ministry needs to complete its recovery strategies on a more timely basis because some species are in imminent danger of extirpation (meaning they no longer exist in Ontario) or extinction (meaning they no longer exist anywhere). For example, there are thought to be only six nesting pairs of golden

eagles left in Ontario. The Auditor recommended that the Ministry finalize and put into place its Species at Risk Strategy for Ontario, and prepare and implement a recovery plan with related time frames for necessary actions for each of the species listed in Ontario as endangered or threatened.<sup>5</sup>

### *Invasive Species*

There are over 1,000 invasive species in Ontario that have been accidentally or deliberately introduced into habitats outside their normal living range, such as Asian long-horned beetles and zebra mussels. These invasive species often have no natural predators in Ontario and can significantly impair biodiversity. Experts say that prevention is the best response. The Auditor said the Ministry's approach is often reactive and that it has limited scientific knowledge of the long-term impacts and the action plans necessary to contain or eradicate these species.

Ballast water from ocean-going ships accounts for 75% of the invasive aquatic species that have entered the Great Lakes since 1970. The federal government, supported by Ontario, tried to require all ships entering the St. Lawrence River and ultimately the Great Lakes to flush their ballast tanks with salt water at least 200 miles off the shores of Canada, but this procedure was not made mandatory.

The Auditor recommended that the Ministry address knowledge gaps regarding the long-term effects of existing invasive species on biodiversity; develop action plans that set priorities for the prevention, monitoring, and eradication of invasive species based on assessments of the risks posed by invasive species; evaluate and report on the effectiveness of measures taken through these action plans; and, continue to work with the federal government to enact more stringent regulations with respect to flushing ballast tanks of ocean-going vessels before they enter Canadian waters to prevent the introduction of destructive invasive species.

In its initial response the Ministry said that it will take further steps to help prevent, monitor and eradicate invasive species, including encouraging the federal government to work with the U.S. on harmonizing ballast regulations. The Ministry also acknowledged the significance of an integrated implementation plan for Ontario's Biodiversity Strategy and said that it seeks to assign conservation status rankings to species potentially at risk (noting that the new *Endangered Species Act* will require the development of recovery strategies for all future and currently listed endangered and threatened species within specific time frames). The Ministry continues to work on habitat protection.<sup>6</sup>

## Committee Hearings

### *Ontario's Biodiversity Strategy*

The Ministry said that biodiversity is vital to a healthy ecosystem, which is important for the biological, social and economic vitality of Ontario.<sup>7</sup> The Ministry is proud of Ontario's new biodiversity strategy.<sup>8</sup>

### *Habitat Protection*

The new *Endangered Species Act*, which will take effect in June 2008, will triple the number of species and associated habitats protected.<sup>9</sup> The Act builds in



specified time periods for the Ministry to complete recovery strategies and to prepare regulations for habitat protection.<sup>10</sup> The government is providing \$18 million in funding (through the endangered species legislation<sup>11</sup>) over four years to promote activities to protect essential habitat and green space.<sup>12</sup>

The Ministry is developing a comprehensive inventory of critical habitats for fish and wildlife resources, recognizing that this is “crucially important”. The Ministry does not yet have a complete inventory but is building this with partners.<sup>13</sup> The Ministry’s Natural Heritage Information Centre (NHIC) is responsible for compiling information on the status and location of rare species, as well as their habitats. NHIC is improving its ability to map rare species habitat and the Ministry is updating its web-based system to make this information more readily accessible to others.<sup>14</sup>

The Ministry’s partners include private landowners and organizations such as the Nature Conservancy of Canada and Ducks Unlimited Canada. It also works with academics and private-sector partners on such projects as peregrine falcon recovery. Success stories included bald eagle recovery (from a critical stage) in northern Ontario. The fishery community collaborates with the Ministry to preserve and enhance fish habitat.<sup>15</sup>

In 2008-09, \$5 million is allocated for the species-at-risk stewardship fund, up from \$3 million in 2007-08. The fund is already oversubscribed for 2008-09. The Ministry believes that it has adequate funding to protect habitat for endangered species through various initiatives including money for stewardship, NHIC, land acquisition, and land securement (a portion of this funding is for protecting important habitat).<sup>16</sup> The Ministry received another \$27 million over four years for land securement in last year’s budget, which it described as “an uptick in our spending plan.”<sup>17</sup>

The Ministry leverages land securement funds by working with organizations, such as the Nature Conservancy, that are able to secure additional federal, private and corporate funds.<sup>18</sup> Collaboration between the Ministry and the Ontario branch of the Nature Conservancy is protecting habitat for the eastern blue racer snake.<sup>19</sup> Ontario’s investments are leveraged in a three-to-one ratio through participation in the Eastern Habitat Joint Venture Fund. Between 2006 and 2010 more than 10,000 acres of wetlands and uplands were secured, a further 10,000 acres were “enhanced”, and through the partnership Ontario is managing almost 500,000 acres for conservation purposes.<sup>20</sup> The Ministry works at an international level to ensure that necessary habitat is being set aside for species, such as migratory birds, that move between jurisdictions.<sup>21</sup> Sometimes, the Ministry purchases property on its own, as was the case with cottage lots off-lease in Rondeau Provincial Park. These were returned to a natural state.<sup>22</sup>

A Committee member commented that many farmers believe that the Ministry has not addressed unexpected negative impacts of creating habitat for wildlife. For example, wild turkeys have been put on conservation authority lands and in county woods. Farmers are affected because the turkeys are eating corn on agricultural lands nearby.<sup>23</sup>

### Committee Recommendation

The Standing Committee on Public Accounts recommends that:

**1. The Ministry of Natural Resources shall provide the Standing Committee on Public Accounts with a status report on its progress in updating its web-based information system for endangered species habitat information and report on efforts undertaken to protect these habitats, in accordance with the best scientific practices currently in use. The Ministry should specify the criteria used for securing and determining habitat protection. The Ministry should also provide information on any initiatives undertaken to address unintended negative consequences for farmers or other stakeholders from the increasing populations of deer and other wildlife (particularly in southern Ontario).**

### Committee Hearings (Continued)

#### *Species at Risk of Extinction in Ontario*

Ontario is home to more than 30,000 species in the province; at present more than 180 species have been identified as being at risk. The Ministry described the new *Endangered Species Act* as a milestone achievement for the government, which sets a North American standard for species-at-risk protection and recovery, and noted a substantive difference in the level of protection afforded endangered species under the new Act, in comparison with current legislation. Under the new Act there is an emphasis on a “stewardship-first” approach with greater involvement from landowners, resource users and conservation organizations.<sup>24</sup>

Within five years the Ministry will complete recovery strategies for all currently identified endangered and threatened species. The focus in the first year will be on key species (10 signature species), including woodland caribou. Its habitat regulation should be in place by June 30, 2009. Remaining identified species will subsequently be prioritized based on issues such as vulnerability and recovery strategies; habitat regulations will be completed for each within five years. The same will be done for new species added to the list, as they are identified.<sup>25</sup> The Ministry is focusing on what it describes as a “massive cleanup job” of the backlog of species whose recovery strategies are outstanding.<sup>26</sup>

The Ministry described the current legislation as “robust in its time” but now “outdated”. It offers protection only for endangered species, and not for other classifications such as species of special concern or threatened species. The legislation also lacks “any capacity for applying flexibility in a way that could support socio-economic benefits” for the citizens of Ontario, while at the same time supporting and protecting relevant species.<sup>27</sup>

Under the new Act the Ontario government’s Committee on the Status of Species at Risk in Ontario (COSSARO) must provide 60 days’ advance notice that it intends to begin assessment of a species. Assessment usually takes one year.

Following the issuance of COSSARO's report, the Minister will be able to have the species assessed automatically listed, based on information on whether the species is endangered, threatened, or of special concern. In other words the Ministry is progressing towards the automatic listing and automatic protection of significant habitat for the species, while at the same time providing adequate notice for the resource users and landowners to meet with Ministry representatives to discuss mitigation strategies.<sup>28</sup>

The Ministry created an advisory committee with broad representation, Species at Risk Public Advisory Committee (SARPAC), to facilitate this process. SARPAC will provide advice to the Minister on such issues as the use of stewardship dollars, incentive programs (that the Ministry is establishing) and appropriate "flexibility instruments". The new Act is intended to ensure robust protection and more support for recovery of species while at the same time providing for socio-economic considerations through flexibility instruments.<sup>29</sup>

Funding related to the *Endangered Species Act* totals \$13.5 million. The breakdown of funds is as follows: \$2 million in base funding, followed by an injection of an additional \$6.5 million and \$5 million for stewardship. In addition to this \$13.5 million, funds (leveraged through partnerships) are available through the land acquisition program, as described earlier.<sup>30</sup>

Much of the \$6.5 million cited above will fund implementation requirements of the new Act. This includes work on associated regulations and recovery strategy activities and the preparation of regulations for habitat protection.<sup>31</sup>

### Supplementary Information

The Ministry provided the following information on the total amount of money spent in 2007 on endangered species recovery strategies:

During the 2007/08 fiscal year, the Ministry of Natural Resources allocated funding for both the Species at Risk recovery strategies (regular business) and the implementation of *Endangered Species Act* (ESA). Due to the nature of the work related to Species at Risk, it is difficult to differentiate between the activities, as work is often complementary. The Ministry spent \$1.489M on core Species at Risk activities, including planning and creating recovery strategies planning; and an additional \$7.1M was spent on the implementation of the new ESA which has links to policy initiatives that support planning and recovery strategies.<sup>32</sup>

The Ministry provided the following information on the number of recovery strategies currently in place and identified species with recovery strategies:

There are 138 endangered, threatened and extirpated species at risk on the "Species at Risk in Ontario List". Under the new ESA, recovery strategies for the 138 species currently listed must be completed within five years. Recovery strategies have already been completed for 35 of these 138 species.

The 35 recovery strategies have been signed off by the Ministry of Natural Resources and have been transferred to Environment Canada for posting on their website (NOTE: some of the species have not yet been posted but the MNR has signed off on them).<sup>33</sup>

Please see Appendix 1 for lists of species with completed recovery strategies provided by the Ministry.

The Ministry provided the following information in response to the question whether or not there is a recovery strategy in place for the Golden Eagle:

No, a recovery strategy for the Golden Eagle has not been completed; however, the ESA requires a recovery strategy to be completed before June 2013. Preliminary fieldwork for the preparation of the Golden Eagle recovery strategy has occurred.

The Golden Eagle nests on Crown lands in the Hudson Bay Lowlands. Between 2001 and 2003, the Ministry of Natural Resource undertook extensive surveys for the Golden Eagle. This work was completed in conjunction with work on Caribou and Polar Bear. The surveys suggest that there are 10-20 pairs in Ontario; annual monitoring of the nests is continuing by researchers working along the Hudson Bay coast. There has been an increase in the number of sightings of Golden Eagles on their nesting grounds in the north and at migration watches in the south over the past 20 years.

In summer of 2002, \$25,000 was spent on surveys for Golden Eagle, Caribou and Polar Bear in the Hudson Bay Lowlands. Similar amounts of money were spent in 2001 and 2003. It is difficult to separate out the precise amount

spent on the Golden Eagle compared to the other two species at risk as the work was completed together.<sup>34</sup>

The Ministry provided the following information on recipients of stewardship funding under the Species at Risk Program:

A total of 83 projects received Species at Risk Stewardship Funding for 2007/08. The recipient list is attached (see Appendix 2). The Ministry of Natural Resources provided \$3.0M to these 83 projects, and this funding generated an additional \$5.5M (\$1.6 M in-kind and \$3.9M matching funds) in partner funding.<sup>35</sup>

### **Committee Recommendations**

The Standing Committee on Public Accounts recommends that:

**2. The Ministry of Natural Resources shall provide the Standing Committee on Public Accounts with a status report updating the number of recovery plans for species designated as threatened or endangered that have been completed and a projection of when the remaining plans will be done. The Ministry should specify whether it is using the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) standards or the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) standards for assessing the status of species and explain the benefits and any drawbacks associated with the standard that it has chosen to use.**

**3. The Ministry of Natural Resources shall submit an annual report for the next five years to the Standing Committee on Public Accounts listing all identified threatened and endangered species and specifying the status of recovery strategies for each.**

### **Committee Hearings (Continued)**

#### *Invasive Species*

The Ministry said that maintaining a healthy natural environment must include controlling the introduction and spread of invasive species. The government committed, in this year's budget, to allocate \$15 million over the next four years to establish a new invasive species research centre in Sault Ste. Marie.<sup>36</sup> The \$15 million is allocated from the \$55 million year-over-year increase in the Ministry's operating budget; none of the money is from the Special Purpose Account.<sup>37</sup> The Ministry will seek support from the federal government to develop the centre.<sup>38</sup>

The Ministry works with partners. It noted Ontario Federation of Anglers and Hunters' (OFAH) efforts to disseminate information about invasive species and to close pathways so invasive species cannot spread.<sup>39</sup> The OFAH has explained to

its members the importance of boat cleaning to stop the spread of invasive species and to make sure that they are not transferring bait between lakes or river systems.<sup>40</sup>

In recent years invasive species has become a more urgent issue in Ontario. More than 180 invasive species have been detected in the Great Lakes alone, including zebra mussels.<sup>41</sup> The Ministry estimates that there are probably two new species each year still entering the Great Lakes. The best way to control this is to prevent their entry in the first place. Many aquatic invasive species arrive in the Great Lakes through the ballast water of ocean-going vessels. Transport Canada has introduced new regulations requiring vessels to flush their tanks before entering the Great Lakes. The next critical step is for the U.S. to adopt similar policies.<sup>42</sup>

The Ministry said the U.S. regulatory regime poses a challenge.<sup>43</sup> The Ministry has good relations with state level partners on the U.S. side of the Great Lakes through various international bodies, including the Great Lakes Fishery Commission and the Council of Great Lakes Governors. The Ministry recently joined U.S. state-level colleagues on visits with members of the House of Representatives and the Senate in Washington, putting forward a Canadian position on the problem of aquatic invasive species.<sup>44</sup> However, the Ministry does need assistance with regard to U.S. national regulations.<sup>45</sup>

A Ministry representative was optimistic regarding future outcomes. Several months ago the *National Aquatic Invasive Species Act* was re-introduced at the federal level in the U.S. Two separate ballast-water bills have also been introduced – one in the Senate and one in the House. The Ministry is working with U.S. legislators, the Canadian embassy, and consular offices around the Great Lakes basin to advocate for Ontario on the ballast water issue.<sup>46</sup>

The Ministry has put regulations in place to restrict the possession of certain dangerous invasive species such as the snakehead and other kinds of carp. It works closely at the federal level with Environment Canada and other organizations regarding a national strategy for invasive species response, focused on the following four primary areas: prevention (the core area), early detection, rapid response, and effective management. The Ministry is planning to complete its own response strategy for Ontario by December 2008.<sup>47</sup>

### Supplementary Information

Ontario's Ministry of the Environment has stated that deep-water ballast tank discharge is not completely effective in preventing the entry of invasive species into the Great Lakes. The Ministry has noted the additional issue of sludge in the bottom of ballast tanks. For example, the Ministry of the Environment's publication entitled *Aquatic Non-native Invasive Species: Invaders Pose Major Threat to the Great Lakes* states the following:

Flushing and refilling a ship's ballast tanks with mid-ocean saltwater while still at sea is currently the most accepted method of control,

but even it is not 100 percent effective. A ship can carry tonnes of unpumpable slop and sediments in the bottom of its tanks.

Even a vessel that declares it has 'no ballast on board' (NOBOB) can hold a thriving load of aquatic NIS (non-native invasive species). If such a ship takes on ballast water in the Great Lakes, it becomes mixed with the unpumpable sludge and can be released in another part of the basin without any treatment or control. The majority of the ships entering the Great Lakes are NOBOB – they come in loaded – discharge cargo, then load Great Lakes ballast on top of the sludge and unpumpable slops.<sup>48</sup>

### **Committee Recommendations**

The Standing Committee on Public Accounts recommends that:

**4. The Ministry of Natural Resources shall provide the Standing Committee on Public Accounts with a status report on invasive species noting, in particular, issues related to securing inter-jurisdictional cooperation with the United States on an agreement to require all ships before entering the St. Lawrence River, and ultimately the Great Lakes, to flush their ballast tanks with salt water.**

**5. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on the possibility of making shipping companies liable if their ships introduce invasive species in Ontario waters through water, sludge and unpumpable slops contained in the ships' ballast tanks. In addition, the Ministry should report on the development and feasibility of technologies, such as UV filtration, designed to reduce the risk of invasive species.**

## **4.2 Wildlife Management**

The Ministry focuses much of its wildlife management efforts on moose, deer, and bear, which are the most vulnerable to overharvesting, and on woodland caribou, which is a threatened species. The Ministry has divided the province into areas called wildlife management units to monitor species populations, set hunting seasons, and allocate tags giving hunters the right to harvest game.

### *Moose Management*

The Ministry uses aerial surveys of management units in the core moose range to estimate moose population size and trends and to help determine the age and gender composition of herds. The issuance of hunting tags is based on survey information. The Auditor noted that approximately one quarter of the management units under review had undertaken no aerial inventory for at least

five years and one tenth had undertaken none for 10 to 20 years. The Auditor also noted that about 60% of the management units that calculate harvest quotas and tag allocation using the Ministry's moose harvest system have a huntable moose population greater than their total estimated population. As a result, more tags were issued than recommended in the harvest guidelines.

The number of moose tags available in a wildlife management unit should be related to the number of moose that Ministry biologists calculate can be sustainably harvested. Demand for hunting tags exceeds availability. The tags are allocated through a computerized draw. The Auditor concluded that the tag draw system was operating fairly but that more current information from aerial inventories is required to determine the proper number of tags to issue.

The Auditor also focused on the harvest of moose calves. The Auditor reviewed 12 management units in the core moose range, the area where the environment is most favourable for moose. In these units the number of calves per 100 cows had been declining since the mid-1970s. In 2004, the Ministry addressed the issue of calf decline by ending the policy of providing calf tags on demand in four management units but none of these units was in the core moose range.

The Auditor recommended that the Ministry develop and implement a moose management policy designed to achieve the overall target moose population; carry out population inventory assessments more frequently to accurately determine the current moose population; ensure that the huntable moose population used to determine the number of hunting tags does not exceed the estimated actual population; more severely restrict hunting in management units where the actual number of moose is significantly below target population levels; and, implement tighter calf tag requirements in management units with low calf populations.<sup>49</sup>

### *Deer Management*

Management practices for deer include balancing increasing demands from hunters with the rising incidence of human/deer conflicts and concerns over the spread of disease. The Ministry does not have an approved deer management policy. A 1991 draft policy is generally still being used.

Ontario has a Deer Harvest Decision Support System. Past harvest levels, hunter surveys, and indirect deer population indicators such as nuisance deer complaints contribute to calculations of allowable harvest levels. Some biologists said the system was useful for planning tag allocation but that the system was difficult to use. Other biologists said they used the system as a guide only.

The overall deer population in Ontario has increased to the point that overabundance of deer in some management units has exceeded the carrying capacity of the habitat. Detrimental effects can include effects on biodiversity, species at risk, forest regeneration, and damage to crops. Between 1993 and 2004 the number of motor vehicle collisions with wildlife (frequently deer) nearly doubled.



According to the Ministry, areas with high deer densities have an increased risk of exposure to transmittable diseases and parasites such as chronic wasting disease (CWD) and brainworm. Chronic wasting disease is a fatal neurological disease; brainworm is a parasite that lives harmlessly in deer but can be transmitted to other animals and cause severe neurological damage and death. Deer are moving into traditional moose ranges. This poses an increased risk of brainworm transmission to moose and could lead to further reductions in moose populations, which are already below target in a number of management units.

The Auditor recommended that the Ministry complete a deer management policy to provide strategic direction for managing deer populations; review its Ontario Deer Harvest Decision Support System to ensure that it provides biologists with appropriate, complete, and current information to set hunting quotas; and work with other jurisdictions to develop better detection and monitoring strategies for infectious diseases.<sup>50</sup>

### *Black Bear Management*

The Ministry has a provincial bear policy, dated September 1990, but does not set quotas or restrict licenses for bear hunting. Instead it uses sustainability guidelines for recommended harvests. The main source of the harvest information collected by the Ministry is a provincial mail-in survey that is to be completed by all bear hunters. In 2005 the Ministry made the survey mandatory and sent reminder notices, increasing the response rate from 50% in the prior five years, to 60%.

The Auditor examined bear harvest data from 1987 to 2004 and found that there is a risk that bear populations in some areas may not be maintained at sustainable levels. The Auditor also noted that numerous tourist outfitters in districts that the Auditor visited harvested bears in excess of the established sustainability guidelines. The Ministry had informal discussions with these operators but the operators generally have continued to harvest more bears each year than allowed. The Auditor recommended that the Ministry consider sanctions against bear hunters who fail to respond to the mandatory provincial mail-in surveys, which are needed to obtain accurate data for setting sustainability guidelines. The Auditor also said the Ministry should take action against tourist outfitters who continually exceed sustainability guidelines for the maximum bear harvest.<sup>51</sup>

### *Forest-dwelling Woodland Caribou Management*

Management practices for the forest-dwelling woodland caribou (a threatened species) focus on recovery. The range of the woodland caribou has been receding northward, largely due to habitat change. In February 2005, the Ministry drafted a Recovery Strategy for Forest Dwelling Woodland Caribou in Ontario.

At the completion of the audit, the recovery strategy was still in the draft stage; the Ministry still needed information on factors including caribou habitat requirements, predation and the effects of disease. Biologists say that if the strategy is not implemented on a timely basis, there is a risk that the woodland caribou population and its critical habitat could further deteriorate, resulting in the caribou becoming endangered or extirpated. The Auditor recommended that the

Ministry gather the necessary information to finalize and implement its recovery strategy for forest-dwelling woodland caribou on a timely basis.

In its initial response the Ministry said the government intends to regulate the protection of caribou habitat; the Ministry will continue working on recovery strategies. The Ministry will be responsive to environmental and societal changes as it implements landscape ecological management approaches for moose, deer and bear. It will continue to work with stakeholders such as the Canadian Cooperative Wildlife Health Centre on wildlife-disease monitoring and surveillance priorities, focusing in particular on current priorities which include chronic wasting disease and avian influenza.<sup>52</sup>

## Committee Hearings

### *Moose Management*

The Ministry said that Ontario has a sustainable moose population that supports a variety of uses including tourism and viewing, and hunting.<sup>53</sup> Moose is an intensely monitored and managed species in Ontario. One of the challenges is that there are approximately 100,000 moose and approximately 100,000 moose hunters in Ontario. If every hunter received a tag in one year and was successful, there would be no moose left. The Ministry is reviewing its existing moose policy, including examining Ontario's model for the issuance of licenses.<sup>54</sup>

The Ministry will conduct a public consultation, examining all options including a model suggested by an Ontario MPP to issue hunting tags by family or by hunting unit to maximize tag winning opportunities. Under the proposed family scheme, each family member would apply, hoping that at least one family member would win.<sup>55</sup>

The Committee asked the Ministry to respond to the Auditor's concern that in some areas more tags were issued than was sustainable. The Ministry has, for some time, been establishing population targets, which are essentially long-term goals for the management of the moose herd for the province, and has also been establishing goals for individual wildlife management units. The Ministry said some population targets are not being met; it is beginning to review those targets to determine whether they are current and reflective, for example, of existing climatic conditions, or whether the targets need to be updated and modified.<sup>56</sup>

The Ministry said that a news report stating that the number of hunting tags issued exceeded the number of moose in a wildlife unit was incorrect.<sup>57</sup> Confusion related to the difference between estimated and huntable moose populations. The estimated population calculation relies largely on results from aerial surveys conducted during winter, when there is snow on the ground and moose are visible. Surveys have been successfully completed in about 20 moose management areas.<sup>58</sup> The goal is to complete 12 surveys a year. Last year eight surveys were completed. Seven others were in progress but were cancelled due to factors such as bad weather or small sample sizes.<sup>59</sup> The estimated population is a conservative number that is based on the moose that are seen and visibly identified. The estimated population is used to help manage moose over the long term, but is not

used for the purpose of setting tag quotas for hunting.<sup>60</sup> The huntable population numbers are conservatively based and are used for quota allocation when issuing tags for individual wildlife management units.<sup>61</sup> The Ministry adjusts the quota for each wildlife management unit annually to sustain the moose population.<sup>62</sup>

### Supplementary Information

The Ministry provided the following information on the amount of money spent in the last 5 years on aerial surveys for the core moose ranges\*, including a correlation of costs versus management units surveyed:

Moose Aerial Inventory Costs: 2003-04 through 2007-08

| Year    | Actual Expenditure | Management Units Surveyed |
|---------|--------------------|---------------------------|
| 2007-08 | \$598,762          | 20                        |
| 2006-07 | \$285,519          | 9**                       |
| 2005-06 | \$560,753          | 15                        |
| 2004-05 | \$602,364          | 17                        |
| 2003-04 | \$644,698          | 22                        |

\*Note: MNR has provided the cost of annual surveys for all units surveyed in a given year as there is no defined core moose range

\*\*Limited suitable survey weather<sup>63</sup>

Ministry documents on moose population aerial inventories have discussed whether it is better to use helicopters or fixed-wing aircraft to conduct aerial moose surveys. One study prepared for the Ministry states that:

While helicopters do not appear to be justified for moose surveys from the biological or decision support perspective . . . they are required more from the social, safety and corporate economic perspectives. It makes little economic sense to do a survey with a less expensive fixed-wing aircraft if the survey cannot be done well, crewmembers or managers have little faith in the results and the MNR (Ministry of Natural Resources) aircraft sit on the ground. This plan recognizes these changes and attempts to accommodate them by recommending an increased number of surveys with helicopters.<sup>64</sup>

A fixed-wing versus helicopter comparative study published in the journal *Alces* concludes that:

For the highest accuracy and best classification of animals during a moose survey, helicopter counting is superior to fixed-wing counting.<sup>65</sup>

### **Committee Recommendations**

The Standing Committee on Public Accounts recommends that:

**6. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on steps taken to review the Ministry's existing moose management policy, including information on moose population targets, whether those targets are current or need to be modified, and on the status of the Ministry's review of Ontario's model for the issuance of moose hunting tags or allocations. The Ministry should also specify whether the Ministry increases or decreases its hunting tags or allocations in proportion to increasing or decreasing moose populations.**

**7. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on steps that it takes to ensure consistency in its aerial surveys of moose populations, giving specific consideration to the possibility that surveys by helicopter could generate more accurate data than surveys by fixed-wing aircraft.**

### **Committee Hearings (Continued)**

#### *Deer Management*

The Ministry believes that climate change is leading to an overlap of the white-tailed deer population with moose, resulting in increased competition. The deer are introducing diseases to the moose population and bring predators that also target moose, such as wolves.<sup>66</sup> More favourable habitat conditions (with the exception of heavy snow this past winter) and a series of milder winters have resulted in increased food availability and higher reproduction rates.<sup>67</sup>

The Committee asked how the Ministry is addressing the issue of deer eating farm crops. The Ministry said human-deer interaction is a challenge; it is drafting a human-wildlife conflict strategy. In more rural regions of the Greater Toronto Area (GTA) the Ministry is working with mayors on changing some firearms policies to allow for greater hunting opportunities, for example by allowing municipalities to opt into Sunday hunting.<sup>68</sup>

The deer hunt has doubled over the past decade. Options, besides hunting, are also under development. The Ministry is collaborating on these with a variety of stakeholders. One example could be working with the Ministry of Transportation on highway design to ensure that vegetation eaten by deer is setback far enough to help prevent deer from wandering onto highways, causing accidents. Farmers could use different styles of fencing to keep out deer and other species that cause crop damage. Farmers can obtain deer removal certificates which allow agents to come onto their property to cull deer if crop damage is occurring.<sup>69</sup>

Deer in provincial parks can also cause damage to sensitive environments, habitats and species. In certain circumstances the Ministry culls deer in various parks. The Ministry partners with First Nations organizations for the culls, which are conducted out of season, and pays close attention to safety issues.<sup>70</sup>

### *Black Bear Management*

The Ministry believes that Ontario's bear population is healthy and is being maintained sustainably. There are between 75,000-100,000 bears. This is one of the three largest bear populations on the continent. Compliance with the mandatory harvest report is increasing. The Ministry will soon consult with stakeholders on a draft enhanced bear management framework.<sup>71</sup>

The Ministry has a harvest guideline. Measurements are based on a general allocation of "so many bears per square hectare of land". The Ministry, recognizing that land in different areas can support differing bear densities (owing to available food sources etc.), will refine the guidelines to indicate areas that are capable of a greater bear harvest.<sup>72</sup>

The Ministry sets harvest quotas for outfitters. If an outfitter harvests more than the allocation, enforcement action can be considered. Following discussions with outfitters, the Ministry sometimes concludes that enforcement action may not be the appropriate response. The Ministry may, for example, determine that the harvest level specified in the guidelines is inappropriate for that specific region.<sup>73</sup> There has been significant enforcement activity in cases where outfitters have been illegally participating in the trade of bear galls etc.<sup>74</sup> In response to a Committee question, the Ministry confirmed that its Bear Wise Program is funded by Ministry contributions and not by the Special Purpose Account.<sup>75</sup>

### **Committee Recommendations**

The Standing Committee on Public Accounts recommends that:

**8. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on modifications planned or undertaken for its bear harvest guidelines and on the impact these modifications will have on tourist outfitters. The Ministry should also report on any increased enforcement initiatives undertaken with respect to outfitters who persistently exceed their bear harvest quotas.**

**9. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on the current response rate for the mandatory provincial mail-in survey that is to be completed by all bear hunters, and on the possibility of making annual re-registration for hunting tags contingent on proof that a hunter has sent in the survey for the prior year.**

### 4.3 Fisheries Management

Recreational fishing is estimated to contribute more than \$2.3 billion annually to the provincial economy, while the processed value of the commercial fishery is more than \$200 million a year.

#### *Commercial Fisheries Management*

The Ministry works with American agencies through the Joint Strategic Plan for Management of Great Lakes Fisheries to manage commercial fishery resources in the Great Lakes. The Ministry sets commercial fishing quotas by species for each commercial licence. The Auditor said sustainability was well managed but noted cases requiring better monitoring and enforcement, including the following:

- Unlicensed fishing by a native band in two fishing zones on Lake Superior resulted in significant overharvesting; the unlicensed fishing continued even after the band lost its court challenge to licensing requirements; the Ministry has taken no enforcement action.
- Licensed commercial fishing operations over harvested in two fish-management zones on Lake Huron. The Ministry said the quota was out of date but that it lacked enough science-based information to make adjustments.

The Auditor also noted that the Ministry does not have a bycatch policy or procedures for estimating bycatch.

The Auditor recommended that the Ministry take appropriate enforcement action when the number of fish harvested is above the quotas set for sustainability, and consider developing a bycatch policy to help reduce the ecological impact on aquatic ecosystems and sustainability of the bycatch species.<sup>76</sup>

#### *Recreational Fisheries Management*

District offices are responsible for managing fish resources in their areas. The Auditor noted that in districts visited, fisheries-management strategies were developed as an interim measure only. Formal plans are necessary to protect and sustain fish resources and to subsequently measure results.

In 2004, the Ministry announced a draft Ecological Framework for Recreational Fisheries Management (for inland fisheries). The framework provides for a landscape, rather than a lake-by-lake approach, and for the development of new fisheries-management zones based on biological, climatic, and social factors.

The Auditor noted that at the completion of the audit many of the framework fundamentals still had to be finalized and public consultation was continuing. The Ministry did not have a timeframe for implementing the framework; implementation of the fisheries-management zones will be phased in.

The Auditor recommended that the Ministry develop formal fisheries-management plans, along with appropriate time frames for implementation.<sup>77</sup>

### *Fish Stocking Program*

The Ministry stocks approximately 8.5 million fish each year. Approximately half is for rehabilitating existing fish populations to help species reproduce naturally. The other half supports hatchery-dependent fisheries to provide enhanced recreational angling opportunities where naturally reproducing populations are too limited or non-existent. Ministry guidelines specify that an aquatic habitat inventory or lake survey should precede stocking and that stocking should be evaluated. The Ministry lacked current lake surveys and had not carried out sufficient post-stocking evaluations.

A number of community partners also rear and stock fish, averaging 6 million fish a year between 2002 and 2006. The Ministry tests the fish it stocks for disease but there is no program to test fish stocked by its community partners. This poses a risk that infectious disease could be introduced into the province's waters.

The Auditor recommended that the Ministry perform regular lake surveys and post-stocking evaluations to determine whether the stocking objectives are being met, and establish a monitoring program for testing the health and quality of fish stocked by its community partners.

In its initial response the Ministry said current monitoring and assessment programs focus on high-priority areas, such as commercial harvest, rehabilitation of native stocks, and high-use recreational fisheries. Representative lakes will be monitored with more rigour, with the results used to develop the science needed to improve the Ministry's knowledge base. Objectives will be developed for each fisheries-management zone, and a new fisheries monitoring program will determine the health of fish stocks. Management of fish health is a shared responsibility with the federal government.<sup>78</sup>

## Committee Hearings

### *Commercial Fisheries Management*

The Ministry said that the commercial fishery is well regulated. Each licence holder is assigned a harvest quota. The data for fish harvesting is collected for the Ministry by the Ontario Commercial Fisheries' Association through a joint management agreement. This is monitored closely by Ministry enforcement staff. The actual harvest was below or within 2% of the total allowable catch for each of the Great Lakes commercial fisheries for both 2006 and 2007. Fisheries managers told the Ministry that bycatch is not threatening fish sustainability. The Ministry will continue to monitor this activity closely.<sup>79</sup>

The Ministry's preferred approach regarding First Nations communities is to negotiate aboriginal communal fishing licenses. These are working successfully in some areas. The Ministry is continuing to engage First Nations in discussions over fisheries and will consider all options, including enforcement, if necessary.<sup>80</sup>

### *Recreational Fisheries Management*

The new ecological framework for recreational fisheries management makes angling regulations easier to understand and improves the Ministry's understanding of the state of fisheries through better monitoring.<sup>81</sup> Stakeholder organizations and government partners, such as the Department of Fisheries and Oceans, are being consulted in the framework design, which will be accompanied by a broad-scale monitoring program. Implementation is planned for this fiscal year.<sup>82</sup>

The Ministry is creating advisory councils to allow anglers greater input into fisheries management.<sup>83</sup> Three pilot councils exist in Thunder Bay fisheries management zone 6, Sault Ste. Marie, and Peterborough fisheries zone 17 to support the introduction of the new framework.<sup>84</sup> Information from the monitoring process can be fed back into the councils. This will enable the councils to offer the Ministry advice as to when, where and how the Ministry should be managing individual decisions for the relevant fishery on such issues as seasons, sanctuaries, and size limits.<sup>85</sup> The Ministry said that it will be a "multi-year process" to establish fishery zone councils for the 20 new fishery zones.<sup>86</sup>

In addition to the three pilot councils, the Ministry will create three more advisory councils this year (for Lake Ontario, Lake Erie and Lake Huron).<sup>87</sup> The new ecological framework will facilitate examination of the impact on fisheries of factors such as broad climate change, invasive species, and human behaviour. The Ministry will take into account fishing pressure when making decisions regarding setting fishing limits in the new ecological zones.<sup>88</sup>

### **Committee Recommendations**

The Standing Committee on Public Accounts recommends that:

**10. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on its progress in negotiations with First Nations communities over commercial fishing licenses and how it is managing cases of non-compliance.**

**11. The Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on results from pilot advisory councils established in selected new fisheries-management zones for recreational fisheries. The Ministry should also report on progress in developing and implementing formal fisheries-management plans for the new zones.**

### Committee Hearings (Continued)

#### *Fish Stocking Program*

The Ministry is proud of work accomplished with partners in re-establishing Atlantic salmon in Lake Ontario. More than 700,000 young salmon have been stocked into the tributaries of Lake Ontario.<sup>89</sup>



The Committee requested funding information on a community hatchery in Haliburton. The hatchery was created in 2000 and stocks Haliburton gold trout; the hatchery received initial funding from the Ministry of \$100,000 over four years. In July 2008 the hatchery will receive \$3,000 a year from the Ministry; there is no commitment regarding whether this will be multi-year funding.<sup>90</sup>

The Ministry said that it operates a fish culture program, with a number of significant-sized hatcheries around Ontario. The work of the Ministry, its fish culture program and the nine stations that it operates is supplemented by a number of different community-based hatchery programs. These hatcheries are eligible for funding from the Ministry's Community Fisheries and Wildlife Involvement Program (CFWIP).<sup>91</sup> The average funding for community fish hatcheries is about \$1,000 per year. CFWIP funding is allocated on an annual basis, with groups applying each year. In 2007 the Ministry provided an additional \$200,000 over two years outside CFWIP for volunteer fish hatcheries working with the OFAH.<sup>92</sup>

The main hatchery program funding comes from the Special Purpose Account; the Ministry said that it would have to confirm whether CFWIP funding is also drawn from the SPA. The hatchery in Haliburton had a contractual arrangement with the Ministry to rear fish on behalf of the Ministry, with a specified target.<sup>93</sup>

### Supplementary Information

The Ministry provided the following summary of funding provided to the Haliburton Highlands Outdoors Association fish hatchery:

- Between 1997 and 2003, the Haliburton Highlands Outdoors Association received approximately \$340,000 from the Ministry of Natural Resources to support the construction and operation of the hatchery and related projects.
- In addition, a one-time grant of \$100,000 was provided to the hatchery from the Ministry. This funding was provided in 2003 to support hatchery operations for a 5-year period (i.e. until June 1, 2008) and was associated with the implementation of the Haliburton Lake Trout Project. This funding was provided to help the Haliburton Highlands Outdoor Association leverage other funds and ensure the long term viability of the operation. The Haliburton Hatchery Trust was created using this funding, and the Haliburton Highlands Outdoor Association was successful in raising an additional \$140,000 (approximately) from other sources.
- The Ministry of Natural Resources continues to provide in kind support to the hatchery. The Ministry is currently providing the following support:
  - Community Fisheries and Wildlife Involvement Program (CFWIP)\* funding of \$1,000 per species reared in the hatchery (i.e. currently the Haliburton Highlands Outdoors Association hatchery has three species reared in the hatchery which results in \$3,000).
  - Staff support and involvement in hatchery operations and planning. On average, this amounts to approximately 50 MNR staff days per year, and

could be recognized as a cash equivalent of approximately \$15,000 per year.<sup>94</sup>

\* Note: projects eligible for CFWIP funding must apply through the Ministry of Natural Resources.

### Committee Recommendation

The Standing Committee on Public Accounts recommends that:

**12. Recognizing the role of volunteer hatcheries run by community partners and that it is not the intention of these groups to introduce infectious diseases into Ontario's waters, the Ministry of Natural Resources should work with volunteer hatcheries to ensure that they are able to continue with their hatchery programs while reducing the risk that infectious diseases could be introduced into provincial waters. The Ministry shall report to the Standing Committee on Public Accounts on progress in this area.**

### 4.4 Enforcing Compliance with Legislation

The Ministry employs approximately 250 conservation officers, who have powers of inspection, arrest, and search and seizure under various statutes. The 190 conservation officers who work in the field are responsible for patrolling, on average, more than 5,000 square kilometres each.

#### *Enforcement Activity*

In April 2006, the Ministry centralized the enforcement function of the regional and district offices in the Enforcement Branch. The Ministry also adopted a risk-based compliance and enforcement framework with a focus on risk posed to human health and safety, natural resources, and the economy. Conservation officers are assigned to specific geographical areas; the Enforcement Branch receives funding equivalent to approximately \$9,000 per conservation officer to carry out field-enforcement activities. The Auditor noted the following:

- For the four enforcement units reviewed by the Auditor, funds budgeted in the 2006/07 fiscal year were insufficient to carry out planned enforcement activities. Conservation officer patrol hours were therefore reduced from planned levels by between 15% and 60%.
- In the units reviewed, conservation officers were only able to spend between \$75 and \$125 a week for operating costs such as meals, gas, vehicle repairs and maintenance, and travel. These resource constraints curtailed the officers' ability to carry out regular patrols.
- Reduced funding resulted in a decrease in time spent on deterrent patrols.

The Auditor recommended that the Ministry determine whether the enforcement resources allocated are sufficient to achieve the enforcement goals established in its risk-based plans.<sup>95</sup>

### *Deployment of Conservation Officers*

The Ministry uses a staff deployment model for conservation officers developed in the 1980s. The model has not been updated. Enforcement supervisors have had mixed success in achieving appropriate staffing levels. Since the 2002/03 fiscal year, the number of field conservation officers has decreased by 7%.

The Auditor said the Ministry needs to develop a conservation-officer-deployment model based on workload. Developing workload statistics and scheduling the officers accordingly could help the Ministry in determining whether it has the necessary staffing levels to achieve its goals. The current deployment strategy has left gaps in enforcement coverage that could have a detrimental effect on resources. Off-hours work is limited, primarily because of funding constraints related to the costs of overtime. The Auditor noted that failure to respond to complaints on a timely basis may increase the risk of illegal activity going undetected.

The Auditor recommended that the Ministry review its deployment strategy to determine whether conservation officer staffing is sufficient in each area to carry out effective deterrent patrols and meet local service requirements while recognizing current funding pressures.<sup>96</sup>

### *Hunting and Fishing Licence Suspensions*

Conservation officers must enter prosecution and conviction information about those suspended from hunting or fishing in one system; this data is to be matched with data in another system on all those with a valid hunting and fishing card. The purpose is to ensure that individuals suspended from hunting and fishing do not obtain a licence or qualify for a deer or moose tag. In some cases individuals were able to purchase hunting licenses even after they were suspended from all hunting activities or were able to obtain moose and deer tags.

The Auditor recommended that the Ministry improve procedures and controls to ensure that its information systems are more complete and that suspended hunters are not allowed to obtain moose and deer hunting tags.

In its initial response the Ministry said that a project is underway to prevent the sale of licenses to clients under suspension. The Ministry has implemented a risk-based compliance framework for planning enforcement operations and realigned the reporting relationship for many enforcement staff. The Enforcement Branch will continue to use risk-based planning and financial logic models. Enforcement activities will reflect priorities including focusing on activities that present the highest risk to resource sustainability and public safety.<sup>97</sup>

## Committee Hearings

### *Enforcement Activity*

The Enforcement Branch received approximately \$1.6 million in additional funding as part of increased funding for the Ministry in the 2007-08 budget. Funding for the Ministry was increased again in the 2008-09 budget. The Ministry now anticipates further increasing the Branch's funding.<sup>98</sup>

In 2006 the Ministry undertook a new risk management approach to enforcement operations, targeting enforcement activities in higher-risk areas. Conservation officers are focusing on activities that pose a greater risk to public safety and on sustaining Ontario's natural resources.<sup>99</sup> For example, the focus in fishing would tend to be more on enforcement issues related to a commercial fish operation, which may be affecting thousands of fish, as opposed to catching one or two casual anglers.<sup>100</sup> There is an important role for community outreach and public education. The Ministry said that its tips line is quite active and is hopeful that it is generating increased compliance across the province.<sup>101</sup>

The risk-based approach involves moving from an outputs-based approach to an inputs-based approach. An outputs-based approach, from prior years, would rely on metrics such as the number of miles driven by conservation officers. Under the new risk-based approach, the Ministry is looking at metrics such as the number of contacts or the number of incidents. The focus is now on strategic matters such as major risks to Ontario's natural resources, objectives to protect the natural resources, major threats, and staff time and resources.<sup>102</sup> Each year management staff and enforcement staff develop a plan to determine priorities.<sup>103</sup>

Under the prior approach, a conservation officer would drive through a hunting area or travel by boat through a fishing area. Under the new approach, the Ministry is additionally focusing on investigation to identify areas where high risk activities, such as over fishing, may be occurring. This requires both office work and field work; the risk-based approach tries to balance the appropriate amount of time allocated for field versus office work.<sup>104</sup> The Ministry is also using state-of-the-art equipment to secure good results for a territory as large as Ontario.<sup>105</sup>

Full-time staff numbers in enforcement have remained relatively constant in recent years.<sup>106</sup> (There were 266 conservation officers in 2007-08 versus 258 in 2001-02.)<sup>107</sup> The team is professional and long-experienced.<sup>108</sup> Some funding for operations has improved and is being used to support the risk-based approach.

Increased funding in 2007-08 resulted in the following: an increase of over 9,000 hours of field enforcement; an office time reduction of more than 8,000 hours, reflecting increased field enforcement activity; a 12% increase in field contacts; a 14% increase in warnings issued; and, a 4% year-over-year increase in charges laid (270 charges).<sup>109</sup> The Ministry intends to assess whether charges laid were ones that would assist in preventing significant risk of resource losses.<sup>110</sup>

The reporting and funding structures for enforcement were centralized in order to generate efficiencies. Computer, lease, insurance and training, vehicle support and purchasing costs were all centralized. In the past, each officer may have received an allowance for vehicle support; centralizing this function has resulted in lower overall costs and better value for money. The Ministry said the approximate annual amount available for conservation officers to do their jobs in 2007 was \$9,000 each, with the expenses listed above being taken care of centrally.<sup>111</sup>

The Committee raised the issue of bake sales held for conservation officers to draw attention to a lack of resources including funds for gas.<sup>112</sup> The Ministry said that it responded immediately by providing additional funding.<sup>113</sup> The Committee asked whether conservation officers now have adequate resources to respond to calls. The Ministry said that calls are assessed when received; many do not need an immediate response. Each situation will be investigated but this does not mean that the conservation officer will “have to jump in the car and go.”<sup>114</sup>

### Committee Recommendations

The Standing Committee on Public Accounts recommends that:

**13. The Ministry of Natural Resources should monitor results under the Enforcement Branch’s new risk-based compliance and enforcement approach and shall report back to the Standing Committee on Public Accounts on the impact of the new approach of protecting fish and wildlife resources in the most cost effective manner.**

**14. In view of the large territory monitored by conservation officers, the Ministry of Natural Resources shall report to the Standing Committee on Public Accounts on the Enforcement Branch’s ability to meet its current budget while still fulfilling its planned responsibilities. The Ministry should include comparative data for other jurisdictions on resources required by conservation officers in those jurisdictions to fulfil their duties and should assess whether the resources that Ontario conservation officers currently have are adequate for their required field time.**

### 4.5 Fish and Wildlife Funding

Effective April 1, 1996, the Ministry established a Fish and Wildlife Special Purpose Account (Account) in the province’s consolidated Revenue Fund. All revenues received under the *Fish and Wildlife Conservation Act* are deposited in the Account and used as directed by the Minister for making payments related to fish and wildlife resource management and conservation. In real dollar terms funding has significantly declined over the last 20 years.

The Auditor recommended that the Ministry formally prioritize its responsibilities for maintaining biodiversity and safeguarding Ontario’s fish and wildlife and allocate available funding accordingly.

In its initial response the Ministry summarized recent additional funding provided by the government and said that it will set priorities within the funding allocations, reflecting government strategies and key Ministry goals.<sup>115</sup>

### Committee Hearings

The Ministry’s base funding for the 2008-09 fiscal year is \$780 million, which is a funding increase of \$55 million year-over-year. The Ministry said this new funding will “go a long way” in addressing issues raised by the Auditor.<sup>116</sup> The government has also made capital investments in the Ministry including the

provision of 756 new satellite phones, two new helicopters and 305 vehicles for field services. Fish and wildlife staff in the Great Lakes branch will receive 14 vehicles; an additional 61 will be used by field offices as pool vehicles that will be available to fish and wildlife staff for certain activities.<sup>117</sup> The Ministry consults regularly with senior officials from the OFAH to discuss funding allocations.<sup>118</sup>

#### **4.6 Measuring and Reporting on Effectiveness**

Ministry key objectives include rehabilitating degraded populations and habitats, reducing threats to human health from fish and wildlife populations, and increasing the awareness, understanding, and involvement of stakeholders. The Auditor noted that the Ministry did not have specific performance measures for most of its objectives and only reported achievements in certain areas such as the percentage of species protected under the *Endangered Species Act*. Other jurisdictions report more comprehensive performance measures.

The Auditor recommended that the Ministry develop more comprehensive indicators for measuring and reporting on the Fish and Wildlife Program's effectiveness in ensuring that Ontario's fish and wildlife resources are healthy, diverse, and sustainable for the use and enjoyment of the people of Ontario. In its initial response, the Ministry said that it is working toward the development of an outcome-based planning, monitoring, evaluation, and reporting system that would include measures to assess Ministry performance. The Fish and Wildlife program is developing logic models that include high-level outcomes and performance measures with an initial focus on Ontario's Biodiversity Strategy.<sup>119</sup>

## NOTES

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- <sup>1</sup> Ontario, Legislative Assembly, Standing Committee on Public Accounts, *Hansard: Official Report of Debates*, 39<sup>th</sup> Parliament, 1<sup>st</sup> Session (3 April 2008): P-88
- <sup>2</sup> *Ibid.*, pp. P-88-89.
- <sup>3</sup> Ontario, Office of the Auditor General, *2007 Annual Report* (Toronto: The Office, 2007), pp. 134-135.
- <sup>4</sup> *Ibid.*, pp. 135-136.
- <sup>5</sup> *Ibid.*, pp. 136-138.
- <sup>6</sup> *Ibid.*, pp. 138-140.
- <sup>7</sup> Standing Committee on Public Accounts, *Official Report of Debates*, p. P-89.
- <sup>8</sup> *Ibid.*, p. P-90.
- <sup>9</sup> *Ibid.*, p. P-89.
- <sup>10</sup> *Ibid.*, p. P-93.
- <sup>11</sup> *Ibid.*, p. P-90.
- <sup>12</sup> *Ibid.*, p. P-89.
- <sup>13</sup> *Ibid.*, p. P-101.
- <sup>14</sup> *Ibid.*
- <sup>15</sup> *Ibid.*, pp. P-100-101.
- <sup>16</sup> *Ibid.*, pp. P-94 and P-101.
- <sup>17</sup> *Ibid.*, p. P-102.
- <sup>18</sup> *Ibid.*, pp. P-101-102.
- <sup>19</sup> *Ibid.*, p. P-96.
- <sup>20</sup> *Ibid.*, p. P-101.
- <sup>21</sup> *Ibid.*
- <sup>22</sup> *Ibid.*, p. P-102.
- <sup>23</sup> *Ibid.*, p. P-105.
- <sup>24</sup> *Ibid.*, p. P-89.
- <sup>25</sup> *Ibid.*, p. P-93.
- <sup>26</sup> *Ibid.*
- <sup>27</sup> *Ibid.*, p. P-92.
- <sup>28</sup> *Ibid.*, pp. P-92-93.
- <sup>29</sup> *Ibid.*, p. P-93.
- <sup>30</sup> *Ibid.*, p. P-108.
- <sup>31</sup> *Ibid.*, p. P-94.
- <sup>32</sup> Ontario, Ministry of Natural Resources, written responses to the Public Accounts Committee to questions raised during the audit report hearings, *Question 1: How much money was spent in 2007 on endangered species recovery strategies?*, August 14, 2008.
- <sup>33</sup> Ontario, Ministry of Natural Resources, written responses to the Public Accounts Committee to questions raised during the audit report hearings, *Question 2: How many recovery strategies are currently in place? Please identify which species have recovery strategies?*, August 14, 2008.
- <sup>34</sup> Ontario, Ministry of Natural Resources, written responses to the Public Accounts Committee to questions raised during the audit report hearings, *Question 3: Is there a recovery strategy in place for the Golden Eagle, if so can it be provided?*, August 14, 2008.
- <sup>35</sup> Ontario, Ministry of Natural Resources, written responses to the Public Accounts Committee to questions raised during the audit report hearings, *Question 4: Please provide list of people who received stewardship funding under Species at Risk*, August 14, 2008.
- <sup>36</sup> Standing Committee on Public Accounts, *Official Report of Debates*, p. P-89.
- <sup>37</sup> *Ibid.*, p. P-96.
- <sup>38</sup> *Ibid.*, p. P-89.
- <sup>39</sup> *Ibid.*
- <sup>40</sup> *Ibid.*, p. P-99.
- <sup>41</sup> *Ibid.*, pp. P-89 and P-99.

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- <sup>42</sup> Ibid.
- <sup>43</sup> Ibid., p. P-99.
- <sup>44</sup> Ibid., p. P-100.
- <sup>45</sup> Ibid.
- <sup>46</sup> Ibid.
- <sup>47</sup> Ibid.
- <sup>48</sup> Ontario, Ministry of the Environment, *Aquatic Non-Native Invasive Species: Invaders Pose Major Threat to the Great Lakes*. Internet site at [http://www.ene.gov.on.ca/envision/water/greatlakes/coa/Invaders\\_EN.pdf](http://www.ene.gov.on.ca/envision/water/greatlakes/coa/Invaders_EN.pdf), accessed September 25, 2008.
- <sup>49</sup> Office of the Auditor General, *2007 Annual Report*, pp. 140-142.
- <sup>50</sup> Ibid., pp. 142-144.
- <sup>51</sup> Ibid., pp. 144-145.
- <sup>52</sup> Ibid., pp. 145-146.
- <sup>53</sup> Standing Committee on Public Accounts, *Official Report of Debates*, p. P-90.
- <sup>54</sup> Ibid., p. P-91.
- <sup>55</sup> Ibid., p. P-94.
- <sup>56</sup> Ibid., p. P-91.
- <sup>57</sup> Ibid., p. P-95.
- <sup>58</sup> Ibid., p. P-91.
- <sup>59</sup> Ibid., p. P-108.
- <sup>60</sup> Ibid., p. P-91.
- <sup>61</sup> Ibid.
- <sup>62</sup> Ibid., p. P-92.
- <sup>63</sup> Ontario, Ministry of Natural Resources, written responses to the Public Accounts Committee to questions raised during the audit report hearings, *Question 5: How much money has been spent in the last 5 years on aerial surveys for the core moose ranges? Please provide the correlation of costs vs. management units surveyed?*, August 14, 2008.
- <sup>64</sup> Ontario, Ministry of Natural Resources, *Moose Population Aerial Inventory Plan for Ontario: 1999-2002: NWST Information Report IR-004 April 1999*. Internet site at [http://www.mnr.gov.on.ca/MNR\\_E005348.pdf](http://www.mnr.gov.on.ca/MNR_E005348.pdf), accessed September 25, 2008.
- <sup>65</sup> Gosse, John, Brian McLaren and Ewen Eberhardt, *Comparison of fixed-wing and helicopter searches for moose in a mid-winter habitat-based survey* (Alces Volume 38, 2002). Internet site at <http://find.galegroup.com/itx/infomark.do?contentSet=IAC-Documents&docType=IAC&type=retrieve&tabID=T002&prodId=AONE&docId=A120525101&userGroupName=toro57445&version=1.0&searchType=AdvancedSearchForm&source=gale>, accessed September 25, 2008.
- <sup>66</sup> Standing Committee on Public Accounts, *Official Report of Debates*, p. P-92.
- <sup>67</sup> Ibid., p. P-98.
- <sup>68</sup> Ibid.
- <sup>69</sup> Ibid.
- <sup>70</sup> Ibid., p. P-99.
- <sup>71</sup> Ibid., pp. P-89-90.
- <sup>72</sup> Ibid., p. P-107.
- <sup>73</sup> Ibid., pp. P-107-108.
- <sup>74</sup> Ibid., p. P-108.
- <sup>75</sup> Ibid., p. P-97.
- <sup>76</sup> Office of the Auditor General, *2007 Annual Report*, pp. 146-147.
- <sup>77</sup> Ibid., pp. 148-149.
- <sup>78</sup> Ibid., pp. 149-150.
- <sup>79</sup> Standing Committee on Public Accounts, *Official Report of Debates*, p. P-90.
- <sup>80</sup> Ibid.
- <sup>81</sup> Ibid., pp. P-90 and P-106.
- <sup>82</sup> Ibid., p. P-106.
- <sup>83</sup> Ibid., pp. P-90 and P-106.
- <sup>84</sup> Ibid., p. P-108.
- <sup>85</sup> Ibid., pp. P-106-107.



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- <sup>86</sup> Ibid., p. P-107.
- <sup>87</sup> Ibid., p. P-108.
- <sup>88</sup> Ibid., p. P-107.
- <sup>89</sup> Ibid., pp. P-90-91.
- <sup>90</sup> Ibid., pp. P-105-106.
- <sup>91</sup> Ibid.
- <sup>92</sup> Ibid.
- <sup>93</sup> Ibid., p. P-106.
- <sup>94</sup> Ontario, Ministry of Natural Resources, written responses to the Public Accounts Committee to questions raised during the audit report hearings, *Question 7: Please provide a summary of the funding provided to the Haliburton Highlands Outdoors Association fish hatchery*, August 14, 2008.
- <sup>95</sup> Office of the Auditor General, *2007 Annual Report*, pp. 151-152.
- <sup>96</sup> Ibid., pp. 152-153.
- <sup>97</sup> Ibid., pp. 153-154.
- <sup>98</sup> Standing Committee on Public Accounts, *Official Report of Debates*, p. P-90.
- <sup>99</sup> Ibid., p. P-90.
- <sup>100</sup> Ibid., p. P-102.
- <sup>101</sup> Ibid., p. P-90.
- <sup>102</sup> Ibid., p. P-103.
- <sup>103</sup> Ibid.
- <sup>104</sup> Ibid.
- <sup>105</sup> Ibid.
- <sup>106</sup> Ibid., p. P-102.
- <sup>107</sup> Ibid., p. P-103.
- <sup>108</sup> Ibid., p. P-102.
- <sup>109</sup> Ibid.
- <sup>110</sup> Ibid., p. P-107.
- <sup>111</sup> Ibid., p. P-103.
- <sup>112</sup> Ibid., p. P-104.
- <sup>113</sup> Ibid.
- <sup>114</sup> Ibid., pp. P-103-104.
- <sup>115</sup> Office of the Auditor General, *2007 Annual Report*, pp. 154-155.
- <sup>116</sup> Standing Committee on Public Accounts, *Official Report of Debates*, p. P-87.
- <sup>117</sup> Ibid., pp. P-87 and P-108.
- <sup>118</sup> Ibid., p. P-97.
- <sup>119</sup> Office of the Auditor General, *2007 Annual Report*, pp. 155-157.