



Management of Invasive Species

2022 Value-for-Money Audit

Why we did this audit

- Invasive species are non-native plants, animals or micro-organisms that have been introduced to new environments from other regions or ecosystems and that cause significant harm to the local environment, economy and/or society, including human health.
- The Ontario Invasive Species Strategic Plan (2012) aims to: prevent new invasive species from arriving and surviving in Ontario; slow or reverse the spread of existing invasive species; and reduce the harmful impacts of existing invasive species.
- The *Invasive Species Act, 2015* gives the Ministry of Natural Resources and Forestry (Ministry) inspection and enforcement powers to regulate invasive species prevention and management. The Act also sets out a legislative framework for prohibiting or restricting the possession, transfer, sale, release and propagation of listed invasive species that threaten Ontario's natural environment.

Why it matters

- Compared to other Canadian provinces and territories, Ontario is among the highest risk for new introductions and is home to the most invasive species, with at least 441 invasive plants and 191 non-native and invasive aquatic species in the Great Lakes.
- Invasive species is one of the five biggest threats to biodiversity, along with changes in land and sea use, direct exploitation of organisms, climate change and pollution.
- The economic impacts of invasive species to Ontario's agriculture, forestry, fisheries, health care, tourism and recreation sectors are estimated to be \$3.6 billion each year.

What we found

Slow Process to Regulate New Invasive Species

- The regulated list of invasive species has only been updated once in seven years, increasing the risk of introduction and spread.
 - Risk assessments for the 12 species that were newly regulated in January 2022 (excluding wild pigs, which were assessed and regulated through a separate process) were completed on average four years before they were regulated under the Act. For example, Carolina fanwort, an aquatic plant, was recognized as high-risk by the Ministry almost five years before it was regulated.
- The Ministry has not regulated many land-based invasive species that threaten Ontario's environment, and some of these species are available for sale.

RECOMMENDATION 1, 2

Province Lacks Information to Detect and Monitor Potentially Harmful Species

- The Ministry does not track at least 33 invasive species that are present in Ontario and considered high-risk in other nearby jurisdictions.
- Invasive species monitoring mainly relies on incidental observations rather than systematic, targeted monitoring, preventing the reliable analyses of trends.
- The Ministry does not consolidate and store invasive species data collected by different organizations.

RECOMMENDATION 3

Ministry Engagement with Program Partners is Insufficient

- Gaps in collaboration between Ministry and federal partners have led to inadequate invasive species management.
 - Ineffective collaboration misses opportunities to prevent and eradicate species, pushing costs and impacts to land managers, such as municipalities and conservation authorities.
- With few exceptions, the Ministry has not defined roles and responsibilities for managing invasive species and has provided minimal direction to others to guide and co-ordinate invasive species work.
- The Ministry has not leveraged existing reporting tools (like the Early Detection and Distribution Mapping System) nor planned for widespread use of emerging monitoring methods (like environmental DNA sampling).

RECOMMENDATION 4-6

Ministry Funding for Invasive Species Work is Neither Sufficient Nor Timely

- The Ministry does not provide funding to several program partners named in its strategic plan, such as municipalities and conservation authorities.
 - Invasive species-related costs incurred in 2021/22 by Ontario municipalities and conservation authorities were estimated to be over \$50 million. In contrast, the Ministry dedicates less than \$4 million annually to invasive species programming.
 - 91% of surveyed Ontario municipalities reported that they have insufficient funding to manage invasive species.
- The Ministry was regularly delayed in approving annual funding for transfer payment recipients, limiting the invasive species planning and work done in the spring and summer, when many management activities are most effective.
- Due to the lack of multi-year funding agreements and certainty of funding, organizations have had difficulty performing long-term planning and retaining staff to conduct invasive species work.
- The Ministry abruptly discontinued funding to the Ontario Invasive Plant Council (OIPC) despite recognizing this organization had a history of delivering value for money and effective products, and cutting funding would pose a threat to provincial efforts to address invasive plants.

RECOMMENDATION 7, 8

Ministry Strategy is Outdated

- There is no implementation plan associated with the Ontario Invasive Species Strategy (2012), which itself requires an update to incorporate the administration of the *Invasive Species Act, 2015* and modern detection tools.

RECOMMENDATION 9, 10

Enforcement Resources and Activities are Insufficient

- The Ministry has twice recognized the need for additional human resources to administer the *Invasive Species Act, 2015* (the Act) and requested resources from Treasury Board/Management Board of Cabinet (TB/MBC).
 - On both occasions, TB/MBC directed the Ministry to reallocate resources to invasive species work, which it did not do.
- Conservation Officers are responsible for administering the Act but are doing very little compliance and enforcement work:
 - As of March 31, 2022, Ontario's conservation officers had laid zero charges, issued zero warrants, and issued only 11 warnings under the Act.
 - Conservation officers are not well trained to identify invasive species, requiring expert assistance that is not available within the Ministry. Without internal support for identification, it can take weeks to find an expert to accompany officers on inspections.

RECOMMENDATION 11

No Performance Monitoring

- The Ministry has not developed a performance measurement framework, or established targets and collected information, to assess whether activities to prevent and manage the spread of invasive species are effective and efficient.

RECOMMENDATION 12

Conclusions

- The Ministry lacks sufficient financial and human resources to stop the introduction and spread of invasive species and administer the Invasive Species Act, 2015.
- The Ministry does not have sufficient information about potentially harmful invasive species to inform its decision-making on funding and prioritizing activities to respond to invasive species threats.
- The Ministry needs to improve its monitoring of invasive species and measure the performance of prevention and management activities to determine whether its activities are effectively and efficiently preventing the introduction and spread of invasive species.
- The Ministry needs to assess and regulate invasive species threats in a timely manner and more thoroughly conduct compliance and enforcement activities to stop invasive species from establishing in Ontario.

Read the report at www.auditor.on.ca