



Risk Management Considerations for Ontario Invasive Species Act

Invasive species are non-native plants, animals or micro-organisms that, when introduced or spread negatively, impact the native biodiversity, economy and society, including human health.

Invasive species are estimated to have a financial impact of \$1.4 trillion globally. This is equivalent to five per cent of the global economy and seven times the cost of natural disasters. With climate change and the swift large-scale movement of goods and people, the spread of invasive species is expected to increase.

The zebra mussel, for example, has cost the City of Windsor almost half a million dollars to remove “taste and odor problems from municipal water supplies.” Likewise, the City of Toronto has been greatly affected by the emerald ash borer, which has destroyed over one million trees. The cost to remedy this issue is \$37 million over five years. Furthermore, Ontario Wetland Wildlife has been severely affected with “habitat losses for several species” due to invasive phragmites.¹

Legislation

The Ontario government has passed legislation that gives the province additional powers to control the transportation of specific invasive species and boost the enforcement

efforts and penalties levied against those who break the rules. It also bolsters the province’s ability to react quickly to the spread of invasive species. The *Invasive Species Act* comes into effect November 3, 2016 and municipalities should be planning for it.

According to a November 3, 2015 Government of Ontario news release, the *Invasive Species Act* will specifically “ban the possession and transportation of certain invasive species, allow for earlier intervention and rapid response to keep invasive species from spreading, for example, by preventing the movement of contaminated firewood, and help ensure compliance through modernized inspection and enforcement measures.” At a local level, municipalities can help to manage the introduction and spread of invasive species. Because they work directly with the community, municipalities can play an important role in engaging citizens to be actively involved with the management of invasive species.

Municipalities are some of the largest land managers in Ontario and it is crucial they have the proper tools in place to address the issue of invasive species.

Municipalities are responsible for municipally designated street trees, forests, parks and natural areas. Municipalities

¹ <http://www.theontarion.com/2015/11/invasive-species-act-receives-royal-assent/>

are also responsible for appointing a local weed inspector and enforcing the Weed Control Act and employing by-law enforcement officers.

Additionally, municipalities need to work in partnership with neighbouring communities to communicate potential threats and best management practices. A united local approach can help to prevent the introduction or slow the spread of already introduced species.²

Invasive species management has become an increasingly prevalent component of municipal, provincial and federal projects. Certain municipalities have undertaken invasive species mapping and inventorying projects followed by an evaluation of management strategies (e.g., prevent, control, manage or remove).³

Stages of Invasive Species Management Cycle

The stages of the invasive species management cycle are as follows: prevent, detect, respond and control, and manage and adapt.

Prevention

On a regional level, prevention focuses on ensuring that an invasive that has already been introduced to a neighbouring province or state, or within a province or state, does not spread beyond the initial introduction. This often includes extensive education to the community to communicate the potential threat and ways to prevent the introduction.

Detection

It is important to quickly detect the species to ensure there is rapid response to prevent its spread and establishment. Research and education are critical parts of the early detection process.

Respond and Control

It is important to respond quickly and put in place control actions. A rapid response can help to lower the overall impact of an invasive species. While eradication may be the ultimate goal, this can be challenging and costly.

There are three main methods to control invasive species. These include: biological, chemical, and mechanical.

The three methods can be used individually or in conjunction with each other to get the best results. Research and use best management practices to select the appropriate method for the species, and to understand the timing of control. Using a method at an inappropriate time in the year or life stage can be an inefficient use of resources and could potentially impact native species.⁴

Review and report on the effectiveness of the measures taken to ensure best results.

How can invasive species result in claims for municipalities?

1. Zebra mussels have sharp edges and can cut bare feet on beaches. They can also attach themselves to water infrastructure causing damage and clogging sewage pipes. Wild parsnip, and its close relative giant hogweed, can burn skin and cause temporary blindness.
2. Common buckthorn branches end in a short, sharp thorn which may inflict injury to users of recreational trails. It can host oat rust and soybean aphids which may affect agricultural crops.
3. Phragmites grows rapidly and may reduce visibility at rights of ways, increasing the risk of car accidents. It is also extremely flammable and can fuel brushfires.
4. Invasive plants growing on public land can spread to private property resulting in the private owner commencing a claim against the municipality to recover costs for eradication.

Risk Management for Municipalities

5. Create an invasive species management plan. The Ontario Invasive Plant Council has a guide on their website to assist.⁵
6. Educate municipal employees to inspect for invasive species and report.
7. Educate the public through inserts in property tax bills and signage on trails and at fishing spots.
8. Consider offering free tipping fees to the public for invasive plant material.
9. Refer to the Invasive Species list to ensure invasive species are not being planted in public gardens. The OIPC has produced a publication entitled: "Plant this Instead" that will aid in the selection of non-invasives for planting in municipal gardens.

2 http://www.sustainablesevernsond.ca/images/uploads/DOCS/OntarioInvasivePlantCouncil_ManagementFramework_KellieSherman.pdf

3 <http://www.aquaterra.ca/environmental-consulting-services/terrestrial-services/invasive-species-mapping-management.html>

4 <http://www.ontario.ca/page/published-plans-and-annual-reports-2015-2016-ministry-natural-resources-and-forestry>

5 <http://www.ontarioinvasiveplants.ca/index.php/municipalities>

10. If municipalities are involved in Biocontrol, they need to ensure they are not introducing invasive species.
11. Monitor fishing sites to ensure that fishermen are not using invasive species (gobies) as bait or disposing of unwanted bait into the water or within 30 metres of water.
12. Have a program to monitor and inspect for invasive species on recreational trails because invasive plants can be transported on hiker's boots.
13. Inspect and clean landscaping equipment before moving from site to site.
14. Although the Act only applies to invasive species listed in it, municipalities would be wise to learn of invasive species in general as they may become listed at a later date and they may be able to utilize preventative measures to save eradication costs in the future.
15. Bylaws should be enacted regarding invasive species that prohibit property owners from planting and growing invasive plants and to properly eradicate specific listed species from their property or ensure they do not spread from their property.
16. Eradicate invasive species when they are detected.

This tool, at www.eddmaps.org/ontario is free to use to register and report sightings.

Sightings may also still be reported to the Invading Species Hotline at 1-800-563-7711 or by email info@invadingspecies.com.