

# Invasive Plant Species Report

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## 1.0 Issue / Origin

Invasive plant species are present within the Township of Brock, and a survey has been done to assess the severity of the problem. This will provide information on both the types of plants present as well as the feasibility of eliminating them. The purpose of this report is to provide the information required to make management decisions moving forward and which plants should take priority.

## 2.0 Background

The presence of invasive species can have a variety of negative impacts on both residents as well as wildlife and the natural environment. These impacts can range from economic, when damaging or competing with crops, and creating increased cost and time of management. Or lowering property values due to the presence of known aggressive invasive species, and the potential loss of access to recreational areas. They can introduce new crop pests or diseases, as well as provide additional hosting for existing ones.

Invasive plants can also damage forests and hinder their ability to regenerate. Out competing local plants and tree saplings can result in reduced biodiversity as well as loss of wildlife habitat and food sources. This can leave the area more vulnerable to disease and pests taking over.

It is also important to be aware of the potential threat to human health and safety posed by certain invasive plants. Plants such as Wild Parsnip and Giant Hogweed contain sap that is harmful to human skin and can result in serious burns, and long-term sensitivity to the sun. Invasive Phragmites can also create large areas of highly combustible dead stalks increasing the risk of wildfire spread.

## 3.0 Analysis

The most common invasive plant species within the township of Brock are Common Buckthorn, Dog Strangling Vine, Wild Parsnip, Phragmites, Garlic Mustard, and Tatarian Honeysuckle. Some of these species, like Common Buckthorn and Tatarian Honeysuckle are more widespread than the others. And Tatarian Honeysuckle is also being used as a garden plant at many houses. Management of these two species would require a lot of effort, especially the Buckthorn. The buckthorn is present on nearly every non-residential road in the township. Every concession and all the side roads are lined end to end with Buckthorn. Many of which have Tatarian Honeysuckle mixed in amongst them.

The other plant species however are in a much more manageable state, and with intervention and control methods should be able to be eradicated or significantly reduced in prevalence within the township. Garlic Mustard, Dog Strangling Vine, Wild Parsnip and Phragmites are all still confined to isolated patches of varying size. With swift and proper intervention, the inevitable spread of these plants throughout the township of Brock could be prevented. Some of these plants should take priority as they are either harmful to humans or very close to spreading to a level that would be very difficult to manage. These being Wild Parsnip and Dog Strangling Vine. Below is some information about the impacts of all of these plants as well as how to properly manage them. Links to additional resources have also been provided.

### **Black Swallowwort / Pale Swallowwort (Dog Strangling Vine)**

- Forms dense stands which overwhelm and crowd native plants and young trees preventing growth.
- Difficult to traverse through, it can interfere with recreational activities and forest management.
- Deer and other grazing animals avoid DSV, increasing the pressure on their preferred native plant diet.
- Can spread and grow into agricultural fields and compete with crops.

#### **Management Strategies**

- Remove outlying populations first to prevent spread.
- Extremely persistent once established, can take years to completely remove.
- Follow up checks required to make sure new seedlings aren't growing.
- Sap can cause allergic reaction in some people; use of gloves is recommended.
- Small populations can be removed manually, digging to ensure the entire root is removed is required. Plant will resprout if not. Hand pulling will result in multiple shoots from root fragments.
- Larger populations require chemical control (Discuss with OFAH)

### **Wild Parsnip / Giant Hogweed**

- Can form dense stands that out compete native plants and decrease biodiversity.
- The stem, leaves, and flowers contain chemicals that cause sensitivity to sunlight. This can lead to severe dermatitis and serious burns.
- The chemicals in the plant are known to reduce the fertility and ability to gain weight of livestock who consume it.

#### **Management Strategies**

- Wild Parsnip spreads only via seeds. Preventing the spread of seeds is important when trying to control populations.
- Remove Outlying populations initially to prevent further spread.
- Manual removal is best when removing smaller populations of the plants containing less than 400 plants.
- Larger populations will likely require systemic herbicide application to control.
- Usage of motorized tools such as snippers or mowers will not provide effective long term control and will greatly increase risk of exposure to sap.



- Plant material should be placed in 3.0 MIL gauge black plastic bags and left in direct sunlight for 1-3 weeks before being disposed.

**\*\* The sap of this plant is very dangerous, and all work should be done while using extreme caution. Protective clothing is essential. Waterproof gloves, long sleeves, pants, and eye protection. All equipment should be cleaned at site. \*\***

### **Common Buckthorn**

- Forms dense thickets crowding and shading out native plant species. Alters Nitrogen levels in the soil creating better growing conditions for itself while discouraging native plant growth.
- Can be a host for oat rust, a fungus which can damage the yield and quality of oats.
- Can host the soybean aphid and allow them to survive the winter. This species damages soybean crops.

### **Management Strategies**

- Removing outlying populations or exterior plants first can help prevent spread
- Smaller populations of plants can be removed manually
- Larger groups of plants require application of herbicide. (Discuss with OFAH)

### **Garlic Mustard**

- Displaces native wildflowers.
- Threatens many of Ontario's native species at risk.
- Interferes with the growth of fungi that bring nutrients to neighbouring plants roots.
- Is not a valuable food source for wildlife.

### **Management Strategies**

- Focusing on removing seed producing plants first is important. These are second year plants.
- Pulling the plants before or while they are flowering, but before they are seeding is the most effective way to prevent spread and control population.
- All sizes of population are most effectively controlled by pulling, and ensuring the entire root is removed.
- Control methods should stop once the plants have begun to seed, to prevent further spreading.

### **Tartarian Honeysuckle**

- Rapid growth allows it to out compete native plants.
- Release a chemical that prevents or inhibits the growth of other plants
- Less nutritious fruit that is available in abundance for migrating bird species.
- Birds who create nests in honeysuckles are not properly protected from predators.

## **Management Strategies**

- Remove outlying populations first to prevent spread
- Smaller plants can be removed by hand as the roots are shallow.
- Larger plants may require herbicide if roots cannot be properly removed. Cutting the plant down to the stem before application works best.

## **Phragmites**

- Crowds out native vegetation.
- Grows very quickly and lowers water levels for native plants.
- Provides poor habitat and food quality for wildlife.
- Fire hazard and aids in spread of wildfire

## **Management Strategies**

- Remove outlying populations first to prevent further spread.
- Management options for Phragmites include mechanical removal, flooding, herbicide, and prescribed burning.
- The most effective treatment often involves a combination of methods like herbicide and prescribed burning.
- Smaller stands may be removed using mechanical excavation and herbicide application.

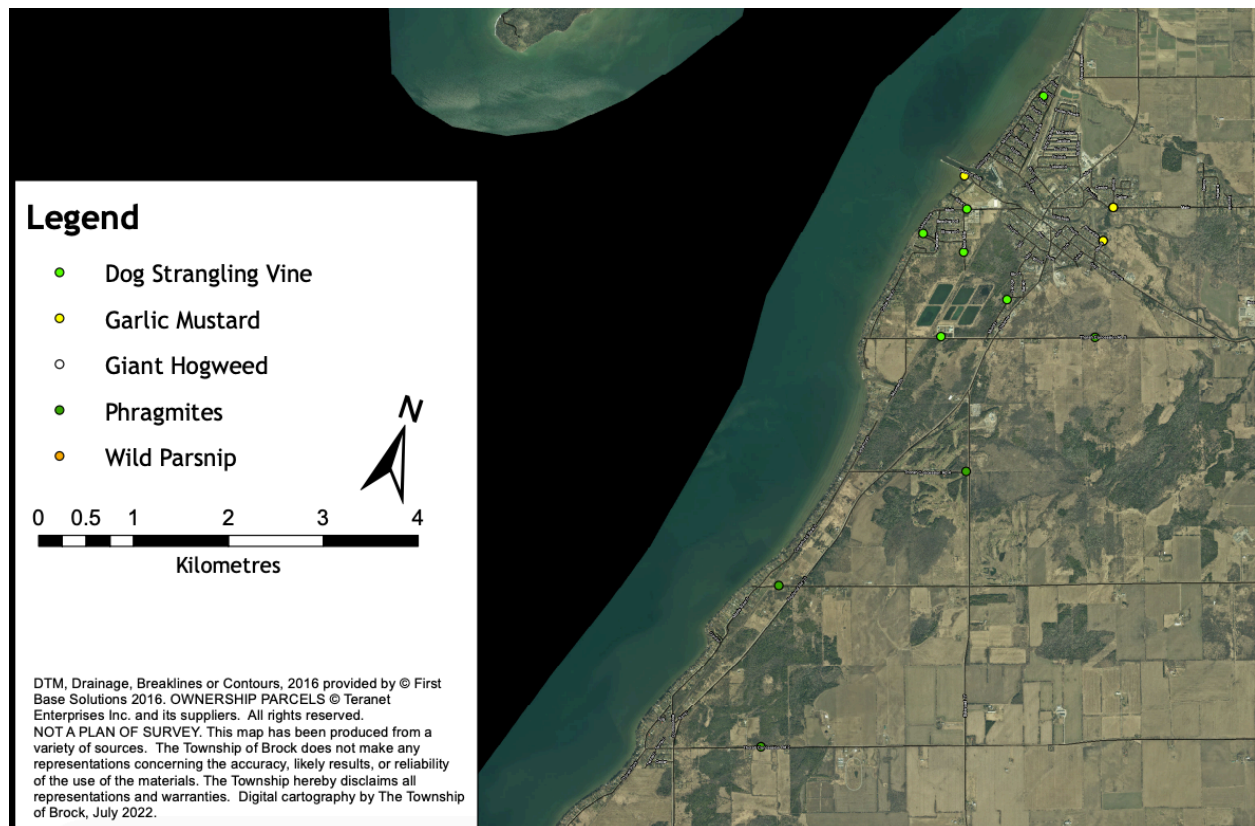


Figure 1: Map of Beaverton and Surrounding Area with Invasive Plants Shown

Shown above is a section of the township map containing Beaverton and the surrounding area. Dog Strangling Vine is already present in multiple locations around the town and will only continue to spread. This can become a nuisance to homeowners as it can spread into their gardens and anywhere else on their property. This can cost them time and money to deal with and will likely be a recurring problem until the larger concentrations are removed from the surrounding areas in the town.

## 4.0 Related Policies / Procedures

N/A

## 5.0 Financial / Budget Assessment

N/A

## 6.0 Climate Change Impacts

N/A

## 7.0 Communications

N/A

## 8.0 Conclusion

Invasive plants are present within the Township of Brock, and the situation will only continue to worsen if action is not taken to intervene with the spread. Some of the plants are more established than others and will require a great deal more effort to get under control. Preventative action taken against the lesser established species can prevent a significant amount of additional work required later when the populations have had more time to spread and further establish themselves. As well as remediation efforts that would be required to return biodiversity and native plants to the area after removal and control of invasive species is established.

Below are some links to more in depth information pertaining to the aforementioned plant species, the harms they can cause, and the most effective means of controlling them.

[Common Buckthorn](#)

[Dog Strangling Vine](#)

[Wild Parsnip](#)

[Giant Hogweed](#)

[Phragmites](#)

[Garlic Mustard](#)

[Honeysuckles](#)

## 9.0 Recommendations

Targeting the plant species which are still gaining a hold on the township and preventing them becoming fully established should be the priority. Dog Strangling Vine and Wild Parsnip are currently spreading throughout the township but mostly remain confined to isolated clusters currently. Targeted removal of these can prevent them from being a much larger and more widespread issue in the future. When Dog Strangling Vine becomes fully established in an area it can take years of consistent effort to get it under control as well as remediate the areas it took over. The same can be said for Wild Parsnip as well as the increasing risk of injury to people unaware of the danger it poses, as it becomes more widespread. These two species should be immediately targeted for removal.

Following these, Phragmites and Garlic Mustard are also gaining ground within the township. They are however less established and/or less dangerous than DSV or Parsnip. Garlic Mustard is mostly contained to small patches that can easily be removed manually to prevent further spread, if following proper guidelines outlined above. Phragmites is present in larger patches but remains mostly confined to clusters. If left to grow it can eventually become a very large and expensive problem to remove. Currently manual removal or herbicide should suffice in eliminating the patches and preventing further spread.

Buckthorn and Honeysuckles are very well established, and Honeysuckles are being used as garden plants at several residences. Removal of these at this point would be a very extensive process likely spanning many years. As these plants are past the point of becoming established efforts depending on budget or other limitations should be focused on the preventative measures for the other species first. If or when the other species are under control efforts could then be directed at the larger and long-term task of removing the Buckthorn and Honeysuckles.

With all of the plants, it is important to target and remove smaller outlying populations first to prevent them from growing into something less manageable. Then the larger populations that may require herbicide and continued maintenance can be dealt with. For specific information of removal processes and strategies relating to any of the plants discussed in this report, please refer to the linked pdf documents.





Figure 2: Full Map of Township with Plants Marked