



## **DUFFERIN OUTDOOR RECREATION ADVISORY TEAM AGENDA**

**Tuesday, March 5, 2024 at 7:00 pm**

**W & M Edelbrock Centre, Dufferin Room, 30 Centre Street, Orangeville ON**

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### Land Acknowledgement Statement

*We would like to begin by respectfully acknowledging that Dufferin County resides within the traditional territory and ancestral lands of the Tionontati (Petun), Attawandaron (Neutral), Haudenosaunee (Six Nations), and Anishinaabe peoples.*

*We also acknowledge that various municipalities within the County of Dufferin reside within the treaty lands named under the Haldimand Deed of 1784 and two of the Williams Treaties of 1818: Treaty 18: the Nottawasaga Purchase, and Treaty 19: The Ajetance Treaty.*

*These traditional territories upon which we live and learn, are steeped in rich Indigenous history and traditions. It is with this statement that we declare to honour and respect the past and present connection of Indigenous peoples with this land, its waterways and resources.*

### Roll Call

### Declarations of Pecuniary Interest by Members

### **DISCUSSION**

1. DUFFERIN OUTDOOR RECREATION ADVISORY TEAM – March 5, 2024 – ITEM #1  
Introductions

- Member introductions
- Terms of Reference review

2. DUFFERIN OUTDOOR RECREATION ADVISORY TEAM – March 5, 2024 – ITEM #2  
Dufferin County Forest & Dufferin Rail Trail

A brief introductory presentation on the County Forest and Rail Trail.

3. DUFFERIN OUTDOOR RECREATION ADVISORY TEAM – March 5, 2024 – ITEM #3  
Invasive Species Management Plan Implementation

An overview of the Invasive Species Management Plan.

4. DUFFERIN OUTDOOR RECREATION ADVISORY TEAM – March 5, 2024 – ITEM #4  
Oak Wilt Response Plan

An overview of the County Forest Oak Wilt Response Plan.

5. DUFFERIN OUTDOOR RECREATION ADVISORY TEAM – March 5, 2024 – ITEM #5  
Main Tract Trail Mapping

Discussion/input on improving the design of the Main Tract trail map. This will not be a discussion about adding or removing trails, only about the design and layout of the map.

### **Next Meeting**

To Be Determined

## **Dufferin Outdoor Recreation Advisory Team**

### **Terms of Reference**

#### **Purpose**

The purpose of the Dufferin Outdoor Recreation Advisory Team (DORAT or DORA Team) is to:

- provide a forum for discussion of issues related to recreational use of County assets
- provide community input and advice to County staff regarding recreational use of the Dufferin County Forest and the Dufferin Rail Trail and implementation of the Outdoor Recreation Plan
- assist County staff in communicating information about the Outdoor Recreation Plan and related by-law (2017-39) and any revisions

The Dufferin Outdoor Recreation Advisory Team is an advisory body and may make recommendations to County staff and County Council (through staff), but in general will not be making decisions regarding uses of County assets.

#### **Member Expectations**

Committee members are expected to adhere to the following conduct and practices:

- That all committee members, in all forms of communication, when speaking about the work of the committee, or members of the committee do so in a respectful manner
- That committee members address differences of opinions or conflict with other committee members in a respectful manner
- That all committee members respect confidentiality and privacy
- That all committee members are required to attend a minimum of 75% of committee meetings

Assumptions:

- outdoor recreational pursuits on County land are a privilege, not a right;
- the Dufferin County Forest and the Dufferin Rail Trail are not parkland, preserve, or for single-use, however, all areas may not be suitable for all activities and;
- the Dufferin County Forest and the Dufferin Rail Trail are owned and managed by the Corporation of the County of Dufferin, and are not Crown land.

Criteria for Analysis of Recreational Activities/Events:

- activity must have minimal environmental impact;
- activity must not have significant impact on other users;
- activity must be compatible with County management activities;
- activity must not pose significant liability concerns to the County and;
- activity should not require significant County staff intervention for administration or policing.

## Composition

Role	Member
Committee Chair	To be filled by a member of the Committee
Group/Club Representation	One representative from each group/club known to use the Dufferin County Forest and/or Rail Trail
Community Members	2 members appointed from the community
Support Staff	County Forest Manager or designate and other staff as required

Groups will be asked to keep diversity, equity and inclusion principles in mind when choosing representatives. Group representatives will be added at the discretion of the County with input from Dufferin Outdoor Recreation Advisory Team members. The County may request an alternate representative if an individual is not adhering to the Terms of Reference of the Team. Representatives should have:

- commitment to advancing the purpose of the Dufferin Outdoor Recreation Advisory Team;
- respect for their fellow recreational users;
- respect for the procedures agreed to by the members; and
- willingness to serve as volunteers on the Dufferin Outdoor Recreation Advisory Team.

Members will act as a liaison between their organization or stakeholder group and the County.

The Dufferin Outdoor Recreation Advisory Team may choose to obtain feedback from recreational users and the broader public and may establish sub-groups if desired.

## Remuneration

Remuneration will be provided in accordance with Policy 1-2-2 – Committee Structure and Mandates.

## Term of Office

The Committee members shall be appointed for the term of Council (4 years).

## Meetings

The Committee will meet at least once, and up to four times, annually.

# Dufferin County Invasive Species Management Plan

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# Executive Summary

## Invasive Species in Dufferin County

The Dufferin County Forest is a 1,066 hectare (2,636 acre) multi-tract forested area owned and managed by the county. The County Forest serves important functions in terms of erosion and water control, natural heritage protection, biodiversity, wildlife habitat, recreational opportunities, and support of the rural economy through timber production and employment opportunities.

In addition to its managed forests, the County of Dufferin also maintains infrastructure and properties that are at risk of invasive species. This includes:

- 1,845 kilometres of roadway
- The 38 km Dufferin Rail Trail
- 34 housing units within Orangeville, Shelburne, and Grand Valley
- The Museum of Dufferin (936029 Airport Rd, Mulmur)
- Administrative buildings, community services, and health centres: County of Dufferin administrative offices (55 Zina St., Orangeville); W & M Edelbrock Centre (30 Centre St., Shelburne); Dufferin Oaks and Mel Lloyd Centre (167 Centre St., Shelburne)

Invasive species are non-native organisms which are harmful to the environment, the economy, or societal values like human health. Not all non-native species are considered invasive. Those that are invasive are typically capable of rapidly expanding their populations to the detriment of native species, either because they outcompete and exclude local species or because they cause damage or disease. Invasive species can become prevalent in non-native environments due to the absence of controlling factors which evolved alongside them in their native range such as predators, diseases, defences, and the competitive abilities of other species.

The classification of species as invasive in Ontario is mostly informal and subject to change as new information becomes available; however, for the purposes of this document, species are included which are widely recognized as invasive by relevant organizations in the province.

Risk of invasive species introduction in the County Forests is high since multi-use traffic and proximity to residences and agriculture increase possible seed transfer of non-

native species. Several invasive plants and insects have been identified within the county's managed forests.

Invasive species have detrimental consequences for forest ecosystems. Invasive plants consume light and nutrient resources, outcompeting and crowding out native species. Invasive plants can also alter the soil chemistry, also making it difficult for native species to thrive. Proliferation of invasive species inhibits native species' regeneration and disrupts natural succession. Where tree seedlings are prevented from establishing and growing, invasive species can pose an existential threat to forests.

In addition to ecological damage, invasive species cause damages to community and economic values. Dufferin County Forest is utilized by the community as a source of recreation for hiking, biking, horseback riding, snowmobiling, and hunting. Degradation of the forest ecosystem by invasive species will produce negative consequences for these recreational values.

Disturbance from invasive species also causes negative effects for the local and broader Ontario economy. Through forest management initiatives, the county sustainably harvests timber which is sold and utilized within the Ontario economy. Invasive species inhibit regeneration of merchantable tree species.

Although there is a trend of declining agricultural use in the county, a portion of the county's economy still relies on agriculture. In 2011, there were 795 farms in Dufferin County covering an area of 69,745 hectares (172,344 acres). Many of these farms neighbour the County Forest. Some invasive species which inhabit forests may spread into agricultural areas, while others serve as hosts to pests and diseases which cause significant damage to field crops. Cross-contamination of non-native species is a concern, and movement of invasive species is not only costly to County Forest ecosystems, but also to agricultural production due to increased pesticide or herbicide costs and lower crop yields.

Several of the invasive plant species discussed in this document are listed in the Noxious Weeds Schedule of Ontario's Weed Control Act. The Act requires that these plants be destroyed if they are negatively impacting agricultural lands. Invasive plant species present in the County Forest which are also listed as noxious weeds include dog-strangling vine, common buckthorn, wild chervil, and wild parsnip.



# Overview of Management Actions

While many of the invasive species discussed in this document are still not widespread in Dufferin County Forests, it is anticipated that their presence will increase over time due to their invasive nature and their spread being magnified by increased recreational use and presence nearby on the landscape.

The presence of invasive species will be monitored, particularly in High Conservation Value Forests/natural forest, before and after forest management operations, and along recreational trails. Where deemed necessary, appropriate control measures will be implemented to minimize the spread and invasion of these species in the County Forest. Eradication will focus on High Conservation Value Forests/natural forest areas due to their more significant ecological value. For more detail on management action prescriptions for invasive plant species, refer to the Invasive Plant Management document.

Outside the County Forest, forest management staff will collaborate with operations and maintenance staff to identify and remove or report invasive species found on other County-maintained sites (roadways, rail trail, the Museum of Dufferin, and all other county managed properties).

## Previous Inventories of Invasive Plant Species

Up to 2023, County Forest staff have noted observances of invasive species and tracked their spread on an ongoing basis while conducting other activities in the field. However, more formal inventories of invasive plant species have been conducted as follows:

- As part of the 2013 inventory contract.
- In 2015, the recreational trails in the Hockley, Little, Main (in part), Mono, and Randwick Tracts were checked for dog-strangling vine. These tracts were chosen because they get the most public use. At the time, dog-strangling vine had not been observed in the Forest and was considered a serious potential threat.
- In 2016, plots were established at the Melancthon, Mono, and Randwick Tracts to monitor the growth, development, and spread of garlic mustard. Monitoring evidence suggested that large infestations of garlic mustard may eventually produce an inhospitable habitat for the species, leading to a natural decline in population.
- In 2020, trails were walked to conduct inventory, or, where there were no trails, a random survey was done. Inventory focused on surveying for Scots pine, garlic

mustard, dog-strangling vine, and common buckthorn. The following areas were chosen for surveying because they were designated as “natural forest” in the most recent long-term management plan and are more ecologically significant:

- Amaranth North (42a)
- Hockley
- Leening
- Levitt
- Little
- Main (30d and 31c)
- Melancthon (32c, 33c, 34a, and 35a)
- Riverview (38c)

## **Current Management and Monitoring Strategy**

As of 2023, this document and the Invasive Plant Management document are to guide a more methodical approach to invasive plant species management in the County Forests.

All known populations of invasive plants will be quantified, with findings used to determine appropriate management strategies and provide baseline data for future monitoring. Data collection, which will include patch size and density, life cycle information, and site characteristics, will be repeated as necessary to track spread and assess the effectiveness of any control measures undertaken.

Control measures will be implemented according to best management practices as recommended by expert forestry and conservation organizations, professionals, and government departments. Pesticides will only be used where other methods have been proven ineffective and management is considered necessary, in accordance with Integrated Pest Management (IPM) practices. The principles of IPM will also be applied by ensuring that data collection extends to post-control monitoring, and that management practices are adapted in response to assessed effectiveness.

Given that the time and resources available for invasive species management are limited, invasive plant populations will be prioritized for management based on the likelihood of successful control, the conservation value of the affected forest, and the threat posed by the species.

Monitoring of invasive species in other taxonomic groups, including invertebrates, fungi, and viruses, will continue to take place in conjunction with other forest management operations. County Forestry Division staff monitor for forest health issues when conducting all other work in the County Forest, and ongoing forest inventory data collection includes documenting information related to any forest pests and pathogens.

Management responses for detected invasive pests and diseases vary depending on the pathogen and the severity of the issue.

# Stakeholder Engagement

Invasive plant species spread within a region through seed transfer or transportation of other plant materials capable of establishing in new locations. This can occur by means of wind, water, and wildlife, but human activity is frequently a significant source of spread. Invasive insects and diseases are also spread by human actions, often at rates and across distances far greater than these organisms are capable of moving on their own.

Since Dufferin County Forests are multi-use and are adjacent to residences and agriculture, an effective prevention strategy will require a collaborative approach with the broader community and stakeholders.

## Public Education and Engagement

A multi-faceted approach to public education on invasive species includes:

- Increased signage and information at County Forest tracts
- More readily available information on the Dufferin County Forest website
- Public engagement initiatives through community events

Public education will help mitigate new invasive species introductions, since invasive species can be transferred by humans from residences or other locations with infestations. Some prevention strategies that can be communicated to the public include:

- Promotion of cleaning gear and animals before visiting trails:
  - Mountain bikers should clean their tires
  - Hikers should clean their footwear
  - Horseback riders should ensure hooves and shoes are clean
  - Dog owners should ensure their pets' paws and fur are free of seeds and soil
- How to properly dispose of yard waste, and how to report dumping of organic waste that can spread invasive species
- Information about how moving firewood can spread invasive insects

## **Engagement of Neighbouring Landowners**

Invasive species do not see property boundaries. It is therefore imperative that healthy communication lines exist between neighbouring agricultural or residential landowners. Invasive plants and insect infestations can spread and encroach from adjacent private land. Likewise, invasive species that are currently a problem in certain County Forest tracts could create problems in neighbouring woodlots and yards and increase pest management costs on agricultural land. Where possible, the county can collaborate with landowners to prevent cross-contamination and to work together to remove invasive species.

## **Engagement of Other Stakeholders and Partners**

Dufferin County Forest partners with a multitude of stakeholders, particularly with contractors which support forest management and harvesting. This includes contractors for controlled burns, herbicide/pesticide application, tree marking, and harvesting. Communicating the risks of operations within the forests includes ensuring that equipment is clean and that disturbance from machines during operations does not transport seed, roots, or insects.

Continued collaboration with neighbouring counties will also be integral to resource and information sharing with respect to invasive species management. This includes Simcoe (bordering the Main Tract), Peel (near the Hockley Tract), Grey (bordering the Riverview Tract), and Wellington.

# Invasive Species of Concern in the Dufferin County Forest

## Invasive Plants Present in the Dufferin County Forest

The species listed below have been detected in the Dufferin County Forest. Management strategies have been developed for each of them.

- Autumn olive (*Elaeagnus 10etiolate*)
- Black locust (*Robinia pseudoacacia*)
- Common (European) buckthorn (*Rhamnus cathartica*)
- Creeping bellflower (*Campanula rapunculoides*)
- Dog-strangling vine (*Vincetoxicum rossicum*)
- Garlic mustard (*Alliaria 10etiolate*)
- Glossy buckthorn (*Frangula alnus*)
- Goutweed (*Aegopodium podagraria*)
- Greater celandine (*Chelidonium majus*)
- Honeysuckle species (non-native) (*Lonicera* spp.)
- Japanese knotweed (*Fallopia japonica*)
- Lily of the valley (*Convallaria majalis*)
- Multiflora rose (*Rosa multiflora*)
- Norway maple (*Acer platanoides*)
- Oriental bittersweet (*Celastrus orbiculatus*)
- Periwinkle (*Vinca minor*)
- Purple loosestrife (*Lythrum salicaria*)
- Scots pine (*Pinus sylvestris*)
- Wild chervil (*Anthriscus sylvestris*)
- Wild parsnip (*Pastinaca sativa*)

## Watch List Invasive Plant Species

The following invasive plant species have not yet been detected in the County Forest, but are present in the province and may become an issue. They will be monitored for incidence.

- Common barberry (*Berberis vulgaris*)
- Dame's rocket (*Hesperis matronalis*)
- Giant hogweed (*Heracleum mantegazzianum*)
- Himalayan balsam (*Impatiens glandulifera*)

- Japanese barberry (*Berberis thunbergii*)
- Kudzu (*Pueraria montana*)
- Mile-a-minute weed (*Persicaria perfoliata*)
- Phragmites (non-native) (*Phragmites australis*)
- Yellow flag iris (*Iris pseudacorus*)

## **Invasive Insects and Diseases Present in the Dufferin County Forest**

The species listed below have been detected in the Dufferin County Forest. Management and/or monitoring strategies have been developed for each of them.

- Beech Bark Disease (*Neonectria faginata* and *Cryptococcus fagisuga*)
- Butternut Canker (*Ophiognomonia clavignenti-juglandacearum*)
- Emerald Ash Borer (*Agrilus planipennis*)
- Spongy Moth (*Lymantria dispar dispar*)

## **Watch List Invasive Insects and Diseases**

The following invasive insects and diseases have not yet been detected in the County Forest, but are present in the province or close to provincial borders and may become an issue.

- Asian Long-Horned Beetle (*Anoplophora glabripennis*)
- Beech Leaf Disease (*Litylenchus crenatae mccannii*)
- Chestnut Blight (*Cryphonectria parasitica*)
- Hemlock Woolly Adelgid (*Adelges tsugae*)
- Oak Wilt (*Bretziella fagacearum*)
- Spotted Lanternfly (*Lycorma delicatula*)
- Sudden Oak Death (*Phytophthora ramorum*)
- Thousand Canker Disease (*Pityophthorus juglandis* and *Geosmithia morbida*)

## **OAK WILT RESPONSE PLAN**

### **PURPOSE:**

To combat the arrival and spread of oak wilt, a deadly invasive disease of oaks.

### **STATEMENT:**

This response plan will be applied to all applicable work performed by and for the County of Dufferin.

### **PROCEDURES:**

Oak wilt is an exotic invasive disease that kills all species of oak, preferring those in the red oak group which includes red and black oak. In the summer of 2023, oak wilt was confirmed in three locations in Ontario: Niagara Falls, Springwater Township (near Barrie), and Niagara-on-the-Lake.

In 2005, as part of the celebration of the 75th anniversary of the Dufferin County Forest, red oak was declared as the official tree of Dufferin County. This species of deciduous tree represents a significant component of several stands within the Dufferin County Forest, particularly in the Main Tract. Many of these stands are also part of the Oak Ridges South Slope Area of Natural and Scientific Interest, which is recognized in part for its oak component.

Research into the establishment and spread of oak wilt in Ontario is ongoing. The Canadian Food Inspection Agency continues to survey for possible new infection sites. As new information becomes available, both because of research and new finds of oak wilt, this plan will be updated.

Oak wilt spreads mostly by three means: direct human activity (firewood/wood movement), sap beetles, and root grafts.

To combat these three means of spread, the County will follow these procedures:

#### **Direct Human Activity**

The most significant factor in the speed and distance at which oak wilt spreads is the human movement of infected firewood and other wood products. However, it is not within the County's ability to limit or control the movement of any wood products, including firewood. Therefore, a significant part of the communications plan will be to try to limit this type of activity by communicating the dangers of moving firewood/wood products that



spread many insects and diseases, including oak wilt, emerald ash borer, and Asian long-horned beetle.

Equipment (e.g., chainsaws, pruning saws, tree climbing spikes) that has been used on infected trees can spread oak wilt spores. All equipment used on infected oak trees should be treated with a solution of 10% bleach in water after being used on oak.

Communications, particularly in the late winter (prior to April 1) to encourage the following of these restrictions on private property.

### **Sap Beetles**

Sap beetles are attracted to open wounds on oak trees. Therefore, during the high-risk period for sap beetles, **April 1-July 31**, there will be no cutting, pruning, or otherwise injuring of oak trees. This is especially important in situations where oaks are dominant as once oak wilt enters an individual tree it can spread to neighbouring trees through root grafts. This prohibition applies to all work by County staff and volunteers, as well as County contractors and consultants. If it is necessary (e.g., for safety reasons) to cut or prune an oak tree during this period the wound must be **immediately and completely** covered with latex paint or pruning paint to prevent the sap beetles from being attracted to it.

Communications to the public, particularly in the late winter (prior to April 1) to encourage the following of these restrictions on private property.

### **Root Grafts**

If oak wilt becomes established in an area dominated by oaks growing in proximity (e.g., oak-dominated stands in the County Forest), it will be necessary to implement a program of trenching to cut root grafts around infected areas to prevent the disease from spreading.

### **Timber Harvesting in the Dufferin County Forest**

In 2018, as a precautionary measure, the County introduced a restriction on harvesting stands in the County Forest that had a component of oak from April 1-July 31. With the implementation of this plan, the following will apply to timber harvesting in the Dufferin County Forest in an effort to reduce infection by oak wilt:

1. Stands that have more than 5 m<sup>2</sup>/ha of oak will not be harvested from April 1-July 31. Since there is currently a restriction on harvesting anywhere in the County Forest from May 1-July 31 to minimize impact on breeding birds and harvesting operations are often impacted by spring load restrictions, the practical impact of this should be minimal.
2. In hardwood, mixed wood, or conifer stands that have scattered oak (less than 5 m<sup>2</sup>/ha), the oak will not be marked for removal and every effort will be made to prevent damage or injury to the oak during the harvesting operation. These stands will still not be harvested from May 1-July 31 to minimize impact on breeding birds

and since harvesting operations are often impacted by spring load restrictions, it is unlikely that these stands will be harvested during the high-risk period of April 1-July 31.

### **Disposal of Oak Material**

Removal and disposal of oak material infected with oak wilt will be conducted in accordance with Canadian Food Inspection Agency protocols in effect at the time.

Disposal of oak material not infected with oak wilt will be conducted so that the material is moved the shortest distance practical for disposal to reduce the possible spread of undetected oak wilt as well as other insects and diseases.

Yard waste and wood waste brought to the transfer station cannot be removed by individuals for any reason including personal use/firewood. This reduces the chances of that material being a vector for oak wilt.

### **Monitoring**

Monitoring of oak wilt in the Dufferin County Forest will focus on the Main Tract where almost half of the area (278 ha) is classified as red oak working group, which means that red oak is the dominant species. Red oak is present as a minor component in an additional 190 ha. An overall survey of oak areas, combined with more detailed targeted surveying of selected individual trees, will be conducted annually. In addition, staff will look for signs of oak wilt whenever working in the County Forest, particularly in the Main Tract.

Report suspected oak wilt to the Canadian Food Inspection Agency at:

[OakWiltReportingOntario-Fletrissementduchene@inspection.gc.ca](mailto:OakWiltReportingOntario-Fletrissementduchene@inspection.gc.ca).

### **Communications**

**Timing:** Late winter, lead up to April 1

**Key Message:** No cutting, pruning, or damaging of oak from April 1 – July 31. Report suspected oak wilt to the Canadian Food Inspection Agency at: [OakWiltReportingOntario-Fletrissementduchene@inspection.gc.ca](mailto:OakWiltReportingOntario-Fletrissementduchene@inspection.gc.ca)

### **Target Audiences:**

1. Local municipalities/local roads supervisors
2. Ontario Hydro (locally)
3. Road Construction Contractors (County contractors)
4. Landscaping & Arborist Contractors (County contractors and more generally)
5. Forest Harvesting Contractors (County contractors and more generally)
6. General Public/Landowners
7. Landowners Adjacent to Main Tract of the Dufferin County Forest
8. Friends of the Dufferin County Forest
9. Visitors to the Dufferin County Forest, especially the Main Tract

**Information Products/Avenues:**

1. Fact sheets and related materials produced by the Invasive Species Centre and the Canadian Food Inspection Agency
2. Press releases
3. County social media
4. County website (County Forest & News sections)
5. Signs and/or fact sheets at County Forest tracts
6. Presentations to interested/key local groups and organizations

# Oak Wilt

An Invasive Pathogen Threatening Oak Trees in Canada



P. Kurzeja, Forest Health Division, Michigan D. N. R.

What is it?	Trees at risk:	Where is it?
<p>Oak wilt is a vascular disease of oak trees, caused by the fungus <i>Bretziella fagacearum</i>. The fungus grows on the outer sapwood of oak trees, restricting the flow of water and nutrients through the tree.</p>	<p>All oak species are susceptible and at risk. The red oak group (red, black, pin) is the most susceptible, with mortality frequently occurring within one growing season. Oaks in the white oak group (white, bur) are also affected but are more resistant.</p>	<p>Oak wilt has spread throughout the Eastern United States. In 2023, oak wilt was confirmed for the first time in Canada in Niagara Falls, Ontario.</p>

## Signs and Symptoms:



Invasive Species Centre

- Leaves turn dull green, brown or yellow
- Discoloration of leaves progressing from the edge of the leaf to the middle
- Wilting and bronzing of foliage starting at top of the tree and moving downwards
- Premature leaf fall (including green leaves)
- White, grey or black fungal mats just under the bark that emit a fruity smell
- Vertical bark cracks in the trunk and large branches as a result of the fungal spore mats (also referred to as pressure pads) exerting outward pressure on the bark


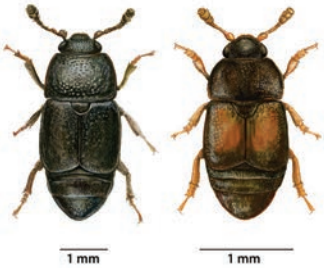

## Impacts:



D.W. French, University of Minnesota, Bugwood.org

- Impacts property values and neighbourhood aesthetics
- Increased costs with tree maintenance, removal and replacement
- Loss of a valued shade tree
- Negative impacts to the forestry industry and production of high value oak products
- Reduction in food source for forest animals provided by oak trees
- Loss of habitat for some species
- Reduction of ecological services (air and water filtering)
- Safety and liability issues

# How is oak wilt spread?

Roots	Insects	Humans
<p>The disease spreads from infected trees to uninfected trees of the same species through root-to-root contact.</p>  <p>James Solomon, USDA Forest Service, Bugwood.org</p>	<p>Insects such as sap-feeding nitidulid beetles can move spores from infected trees to healthy trees.</p>  <p>USDA Forest Service, Northeastern Area State and Private Forestry</p>	<p>Movement of wood products, (particularly those with bark), such as firewood can spread the pathogen over long distances as they can harbor fungal mats.</p>  <p>Joseph OBrien, USDA Forest Service, Bugwood.org</p>

## What can you do?

There is no cure for oak wilt infected trees. The best approach is to avoid or reduce infection in areas where disease occurs by:

- Identifying and removing diseased trees
  - Preventing or severing root connections between diseased and healthy trees
  - Minimizing wounds on healthy trees during the flight period of potential insect carriers
- **DO NOT** prune oak trees from **April to October**. If pruning must occur, or if a tree is injured, apply a thin layer of wound paint immediately.
  - **DO NOT** move firewood. Oak wilt is spread by the movement of infected wood.

### If you see signs and symptoms of oak wilt, report the sightings to:

- The Canadian Food Inspection Agency (CFIA)  
[OakWiltReportingOntario-Fletrissementduchene@inspection.gc.ca](mailto:OakWiltReportingOntario-Fletrissementduchene@inspection.gc.ca)
- EDDMapS  
[www.eddmaps.org](http://www.eddmaps.org)
- Invading Species Hotline  
1-800-563-7711

### For more information on oak wilt visit:

- Oak wilt species profile on the Invasive Species Centre website  
[www.invasivespeciescentre.ca/oakwilt](http://www.invasivespeciescentre.ca/oakwilt)



# Dufferin County Forest

The Main Tract is just one of the fourteen tracts that make up the 1,066 hectare (2,636 acre) Dufferin County Forest. It is the largest of the tracts, 607 hectares or 1,501 acres in size.

Major tree species in the County Forest include red pine, red oak, sugar maple, white ash, black cherry, white pine, white spruce, eastern white cedar, larch, white birch, and poplar. Together with other biota, these represent a variety of ecosystems, including conifer and hardwood plantations, upland tolerant hardwoods, upland oak forests, bottomlands, wetlands, and creeks.

The Forest is managed by the County of Dufferin on a sustainable, multi-use basis. The Forest serves many important functions in terms of erosion and water control, natural heritage protection, biodiversity, wildlife habitat, recreational opportunities, and support of the rural economy through timber production and employment opportunities.



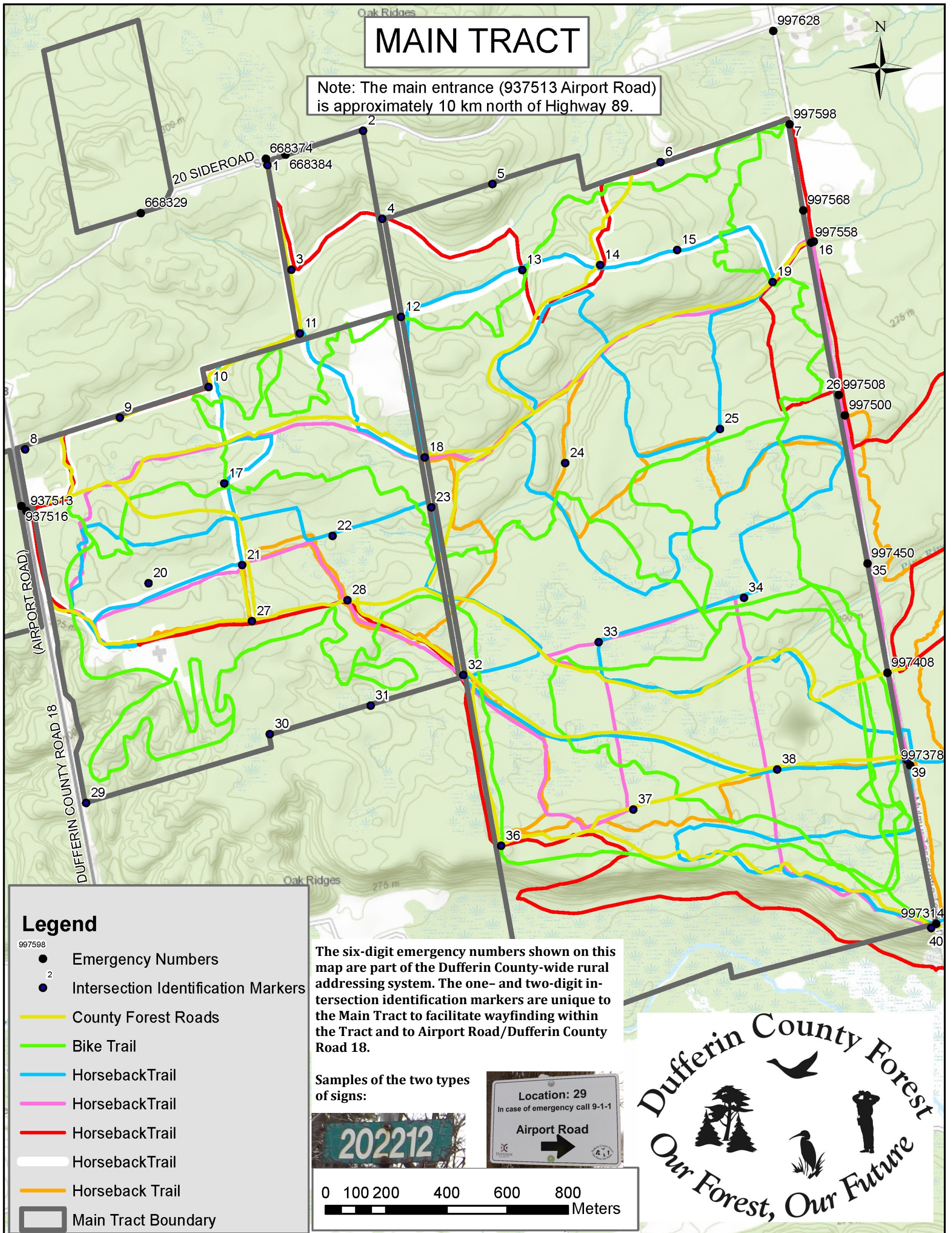
## Dufferin County Forest Main Tract Trail Map



### For more information:

County Forest Division  
 c/o Museum of Dufferin  
 936029 Airport Road Mulmur, ON L9V 0L3  
 519-941-1114 or 877-941-7787  
 forest@dufferincounty.ca  
 www.dufferincounty.ca





Natural hazards exist in the Forest; you are responsible for your safety. Please be aware of other users at all times. Obey all signs.

- ◆ No motorized vehicles except snowmobiles on designated O.F.S.C. trails
- ◆ No hunting
- ◆ No littering or dumping
- ◆ No campfires
- ◆ No camping

Recreational use of the County Forest is governed by a recreational use policy and County of Dufferin by-law 2017-39. Copies of the full by-law and recreational use policy are available at [www.dufferincounty.ca](http://www.dufferincounty.ca) or from the County Forest Division office (contact information on reverse).