



**Emerald Ash
Borer (EAB)
Management
Plan**



April 25, 2017

Township of Selwyn

Emerald Ash Borer (EAB) Management Plan

Background:

The Emerald Ash Borer (EAB) is a non-native, invasive insect that was first confirmed to be in the Windsor area of Canada by the Canadian Food & Inspection Agency (CFIA) in August of 2002.

Since that time there has been a continual, annual spread of the EAB across Ontario moving toward North Bay, Ottawa and Quebec. The spread of the insect is partially due to its annual migration but largely due to the movement of ash for manufacturing and personal use. For this reason, the CFIA placed a complete ban on the movement of ash except within the quarantined zone (**Attachment 1**) for any purpose at all. The quarantined zone has expanded over the past decade and was last updated in 2014 and is included in this document.

The Effects of EAB on our Township:

The loss of ash trees on public and private lands will have a significant impact on the Township's urban tree canopy that requires a proactive approach to mitigate the issue. The Township has hundreds of ash trees whose average life span is between 60 and 75 years along township streets and in active parks. It is unknown exactly how many ash trees are in the community's open spaces. Trees are beneficial to the environment because they create oxygen, improve air quality, conserve water, prevent soil erosion, provide food and shelter for wildlife and provide shade benefiting climate control. Trees also increase property values and contribute to the quality of life in neighbourhoods.

EAB attacks and kills healthy ash trees with devastating effects. Once EAB is detected almost all untreated ash trees in that area can be expected to die within 10 to 15 years. With the presence of EAB in Ontario since 2002, the Township of Selwyn can use the knowledge, experience and lessons learned by other municipalities, the province and federal government to actively manage EAB.

Based on EAB infestations in other Ontario municipalities, it is understood that EAB populations increase exponentially 5 to 10 years after EAB has been detected. Tree mortality rate is very slow in the first 3 years, increasing significantly in years 5 to 8 and gradually leveling off as the ash population is reduced.

The Scope of EAB Management Plan

Ash trees are an integral part of Selwyn's urban forest on both public and private lands. The publicly owned urban forest occurs along streets and in parks and open spaces. Privately owned trees are located on residential properties, institutional and commercial properties and in privately held woodlots.

Maintenance of trees on private property is the responsibility of the property owner.

This plan applies to ash trees that are located on Township of Selwyn publicly owned lands (e.g.) parks, open spaces, boulevards. Due to the eventual arrival of EAB in the Township of Selwyn, these ash trees will need to be removed and replaced or treated with injections of TreeAzin to eliminate the EAB infestation. The plan describes these options along with addressing the need for public education and an EAB communication plan.

Removal and safe disposal of all affected trees that have become a hazard by trained Township staff and/or professional tree specialists is essential to maintain public health and safety. Once cut down, all ash must remain within the quarantined zone (**Attachment 1**) and can be disposed of by burning, chipping or mulching.

There are many desirable options to replace the ash trees with native shade trees. A complete list of recommended species can be found in **Attachment 2**. Replacement of trees is important to the maintenance of healthy, natural shade structures, for the health of the environment, the community, local residents and the various plant and animal species. Replacement of significant ash trees with a different species is best prior to removal in order to allow the replacement tree to mature and flourish under the canopy of the ash tree scheduled for potential removal.

Removal and replacement is the only 100% proven option to address EAB, at this time. At present less than 50% of treated ash trees have survived in communities first affected by EAB.

Goals of the EAB Management Plan:

1. To ensure the health and safety of residents and visitors to the Township;
2. Mitigate the loss of significant ash trees;
3. Provide for the removal of affected ash trees; and
4. Provide public education and awareness.

Section One – Identification of Ash Trees

1.0 Identifying Ash Trees

The Township has provided a link on its website to explain what residents should look for to identify ash trees on their property.

On Township of Selwyn property, staff worked with Fleming College and their School of Environment and Natural Resource Sciences and local arborists to identify ash trees on Township of Selwyn publicly owned lands and to create the inventory of significant ash trees.

The criteria to determine the significance of an ash tree is based on location, size and health. Location considers proximity to other forests (especially those with untreated ash trees), position of tree within a park, trail or other green space,

usefulness to recreational activities and access to the ash tree within the Township of Selwyn publicly owned land. Size is the measurement of the diameter of an ash tree. Health is determined by investigating if there is any evidence of EAB presence, assessing any faults, splits or weaknesses to the main structure of the ash tree and/or other signs of damage caused by nature or non-natural causes.

An ash tree is considered significant if it is;

- Prominent, focal point of a park space and provides significant usefulness to recreational activities;
- Is sufficient in size – greater than 25 cms. in diameter; and
- Shows no signs of EAB infestation or other ailment.

Sixty-one (61) significant ash trees were identified.

In Lakefield, forty-two (42) significant ash trees were identified a number of years ago by Township staff, the Lakefield Trail Committee and local arborist Logan Tree Experts. At that time it was established that these trees were considered to be excellent candidates for TreeAzin treatment and the program began in 2013. Details of the Lakefield treatment program are outlined in Section 2.0 of this plan.

Nineteen additional (19) significant ash trees have been identified. Thirteen of these are in Bridgenorth, nine (9) in Paul J English Lions Park and four (4) in the Heritage Park. The remaining six (6) are at the Robert E Young Complex in Ennismore.

Staff will continue to monitor the health ash trees which have been identified as significant and any ash trees on newly developed Township of Selwyn park or trail space.

1.1 Assessing Health of Ash Trees

Once an ash tree has been affected by EAB there will be;

- Evidence of crown death or thinning;
- New sprout growth at base of tree; and/or
- Decay of the bark as well as EAB entrance and exit holes in the bark.

Every year, staff will reassess the health of the ash tree population on Township of Selwyn publicly owned lands to determine the scope of work being required for the following season. The completed inventory will continue to be updated annually for the significant ash trees in the Township.

Section Two – Mitigate the Loss of Significant Ash Trees

2.0 Treatment of Significant Ash Trees

Significant ash trees which are considered good candidates for treatment were identified based on proximity to untreated ash trees on neighbouring property, age of tree, usefulness to recreational activities. The TreeAzin treatments must begin before there is any evidence of EAB presence. The injection treatments would start in the spring/summer of 2017 and continue every second year for 10 years.

Treatment on the forty-two (42) significant ash trees in Lakefield began in 2013 and will continue until 2021 due to the efforts and support of the Lakefield Trail Committee (LTC). The approximate bi-annual budget of \$10,000 for treatments is funded entirely by the LTC. Many of these significant ash trees are located along the Lakefield trail system and include the dedicated trees and shade trees for benches the committee has received substantial financial support for from local residents. To date the treated trees remain healthy.

Ten (10) of the remaining nineteen (19) identified ash trees that are located in Bridgenorth and Ennismore are excellent candidates for treatment:

- six (6) in the Paul J. English Lions Park,
- four (4) in the Heritage Park.

Treatment will begin in 2017 and the approximate bi-annual cost for TreeAzin injections for these ten (10) trees is between \$2000 and \$2250 for a total cost of \$10,000 - \$11,250 of the program over the 10-year period.

2.1 Replacement of Significant Ash Trees

The nine (9) remaining significant ash trees which have been identified will be replaced in the next two seasons and removed when it becomes necessary due to the condition of the tree:

- six (6) in the Robert E. Young Recreation Complex,
- three (3) in the Paul J. English Lions Park.

Township staff will select a replacement tree from the recommended list in **Attachment 2**. Trees will be replaced as close as safely possible to the significant ash tree depending on underground services, nearby healthy trees and other existing environmental conditions.

The cost of each replacement tree is anticipated to be approximately \$450 for a total cost of \$4,050.

Section Three – Removal of Affected Ash Trees

3.1 Removal of Affected Ash Trees

There are many ash trees on Township property that are not considered significant under this policy. All ash trees will be removed when they are no

longer healthy and when they become a hazard to the public. This includes all ash trees that are located on Township of Selwyn publicly owned lands (e.g.) parks, open spaces, boulevards that have been identified as significant and those that have not.

When an unhealthy EAB affected ash tree has been identified Township staff will determine when the tree needs to be removed and if the tree can be removed by Township staff. The tree will need to be cut down and prepared for burning by cutting into 24” lengths or would be chipped/mulched on site.

Any ash tree that cannot safely be removed by Township staff will be red tagged for removal and listed in the inventory for preparation of an RFQ for tree removal.

A replacement tree, selected from the recommended list in **Attachment 2**, will be planted for each ash tree that requires removal.

For general removal and replacement expenses, starting in 2018 an additional \$3000 annually should be added to Department 40 to cover the costs of removing and replacing ash trees as required. Outside funding sources may be available especially for the replacement portion of this operation similar to the programs already planned for 2017 such as the collaboration with the local guides and ORCA through the TD Tree Planting.

Section Four – Provide Public Education and Awareness

4.0 Website

Include all of the EAB information on the Township website which will include links to the power point presentation (Attachment 3), the printable brochure, the CFIA quarantined area and the list of recommended replacement trees.

4.1 Social Media

Broadcast through social media all of the EAB information including links on how to access the Township’s EAB Management Plan.

4.2 Brochures

Print the tri-fold brochures and distribute them through municipal buildings within the Township.

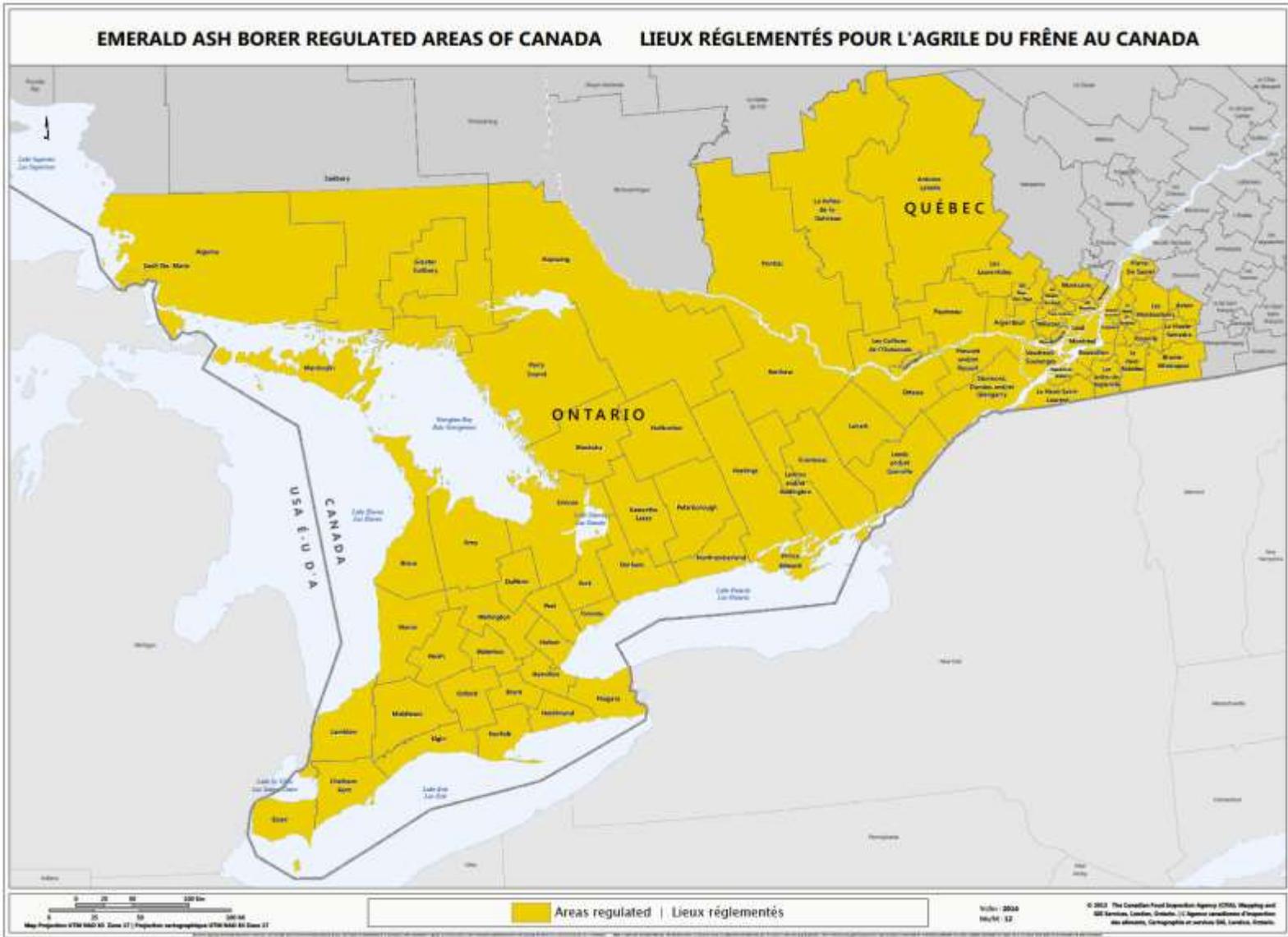
Section Five - Attachments

5.0 Attachment 1 – CFIA Map of Canada’s EAB Quarantined Area 2014

5.1 Attachment 2 – List of recommended replacement species

5.2 Attachment 3 – Power Point presentation for website

Attachment 1 CFIA Quarantined Zone for Ontario and Quebec



Attachment 2 Recommended Replacement Trees

These trees are native to southwestern Ontario and grow naturally in the Selwyn area. They are adapted to the local climate, and are hardier and easier to maintain than non-native species. Some have quite specific soil and moisture requirements and may not do well in all sites, so check their requirements before you buy them

Scientific Name	Common Name
MAPLES	
<i>Acer pensylvanicum</i>	STRIPED MAPLE
<i>Acer rubrum</i>	RED MAPLE
<i>Acer saccharinum</i>	SILVER MAPLE
<i>Acer saccharum</i>	SUGAR MAPLE
<i>Acer saccharum</i> f. <i>nigra</i>	BLACK MAPLE
<i>Acer spicatum</i>	MOUNTAIN MAPLE
BIRCHES	
<i>Betula alleghaniensis</i>	YELLOW BIRCH
<i>Betula papyrifera</i>	WHITE BIRCH
HICKORIES	
<i>Carya cordiformis</i>	BITTERNUT HICKORY
<i>Carya glabra</i> (C. <i>ovalis</i>)*	PIGNUT HICKORY
<i>Carya laciniosa</i> *	SHELLBARK HICKORY
<i>Carya ovata</i>	SHAGBARK HICKORY
OAKS	
<i>Quercus alba</i>	WHITE OAK
<i>Quercus bicolor</i>	SWAMP WHITE OAK
<i>Quercus macrocarpa</i>	BUR OAK
<i>Quercus muehlenbergii</i>	CHINQUAPIN OAK
<i>Quercus rubra</i>	RED OAK
<i>Quercus shumardii</i> *	SHUMARD OAK
<i>Quercus velutina</i>	BLACK OAK
ELMS	
<i>Ulmus americana</i>	AMERICAN ELM
<i>Ulmus rubra</i>	SLIPPERY ELM

Attachment 3 Power Point Presentation