



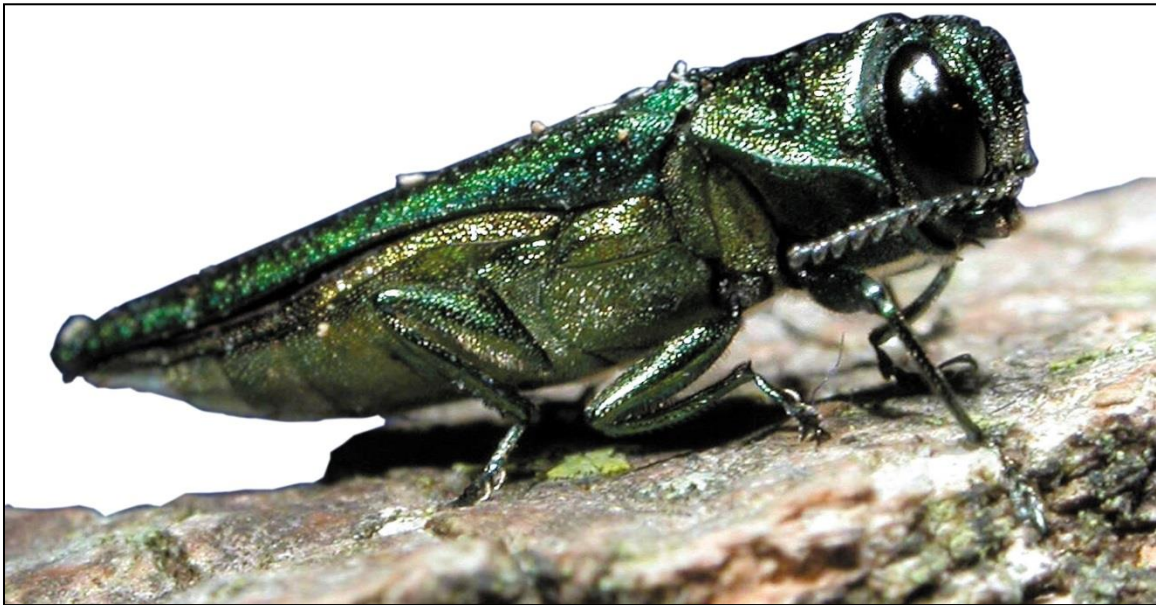
STRATEGY TO FIGHT THE EMERALD ASH BORER

September 2015

INTRODUCTION

THE EMERALD ASH BORER

Originating in Asia, the emerald ash borer is considered an invasive species. This small green insect attacks all species of Quebec ash tree, penetrating the bark and creating S-shaped burrows. In their 2004 article, *Pest Alert: Emerald Ash Borer*, McCullough and Katovich estimate that ash trees infested by emerald ash borers are destroyed in five to seven years on average.



CURRENT SITUATION

Ash trees grow throughout Quebec and can be found in high concentrations in cities on the Island of Montreal. High numbers of this indigenous tree were planted over the past several decades, due to its capacity to thrive in urban environments, its adaptability to soil, its resistance to disease and de-icing salt, and the ease with which it is maintained (Farrar, 2012).

The emerald ash borer first appeared in North America in 2002 in Detroit, and was first observed in Quebec in 2008 in Carignan. By 2011, it had spread to the Island of Montreal, and its presence in Pointe-Claire was first observed in 2013.

Since its entry into Canada, more than twenty municipalities have detected the emerald ash borer on their territory. The Canadian Food Inspection Agency (CFIA) is tracking the path of the insect and is attempting to limit its spread into uninfested areas. The CFIA has delineated regulated areas, limiting the transport of all types of ash wood (logs, branches, roots, trunks, planks, trees, firewood, and all other forms of wood). The map of regulated areas can be found in Schedule 1.

On September 18, 2014, the Montreal Metropolitan Community (MMC) adopted a 10-year strategy (2014-2024) to avoid "the destruction of several hundred trees... (and) to conduct research to identify biological countermeasures that could be deployed in fighting the emerald ash borer." In 2014, the MMC also requested all municipalities on the Island of Montreal to create an action plan and reforestation strategy to combat this invasive species.

POINTE-CLAIRE AND THE EMERALD ASH BORER

- The emerald ash borer was discovered in the City of Pointe-Claire on July 15, 2013, in a pheromone trap in Valois Park.
- The municipality has been setting traps since 2012.
- The municipality has been screening for insects by debarking trees since 2012.
- The first two infested trees were identified on May 23, 2014, in the private front yard at 91 Hymus Boulevard. One of the trees was dead and exit holes were found on its trunk. With the property owner's permission, the City debarked the tree trunks and discovered burrows. In one of the burrows, larvae under the trunk were nearing the completion of their growth cycle. Both trees were cut down and shredded on site.
- Following that first infestation, on July 20, 2015, one other potential infestation site was discovered. The location of the first two infestation sites were therefore:
 1. 91 Hymus Boulevard
 2. 312 Saint-Louis Avenue
- Since 2015, 31 trees in Pointe-Claire have been identified as being infested: 30 in the industrial sector and one in the residential sector.
- The municipality maintains an inventory of publicly-owned ash trees.
- An inventory of privately-owned ash trees is under way.

THE EMERALD ASH BORER: ISSUES AND SOLUTIONS

Trees provide a multitude of environmental benefits by:

- improving urban air quality;
- supporting biological diversity;
- limiting soil erosion;
- improving water quality;
- diminishing heat island effects;

¹ From: cmm.qc.ca/champs-intervention/environnement/dossiers-en-environnement/agrile-du-frene [translation].

- mitigating temperature extremes and limiting wind effects;
- boosting quality of life by providing social benefits and improving landscapes; and
- contributing to better health.

By attacking our trees, the emerald ash borer threatens this ecological balance. The insect has numerous environmental impacts and produces negative economic and social effects. Municipalities must pay to fell infested trees each year and incur costs associated with the reduced availability of wood, lower property values, and damage to the City's aesthetic qualities.

Currently, there is no permanent solution to the emerald ash borer problem. To date, the most widely-used approach involves *slowing down* the death of ash trees. The Montreal Metropolitan Community (MMC) advises that, while it may not be possible to stop the emerald ash borer, "*mitigation strategies can at least slow down the infestation's spread.*"² This slowing-down of the insect's progression can be achieved through a combination of efforts, such as:

1. Treating eligible ash trees every two years with TreeAzin, an insecticide approved by Health Canada;
2. Undertaking major reforestation initiatives, ideally prior to tree felling, to avoid the loss of ecological and other benefits provided by trees;
3. Felling infested ash trees to avoid the spread of the insect;
4. Felling ash trees suspected of infestation, to avoid the spread of the insect; and
5. Using trap trees (intentionally-injured ash trees) to attract emerald ash borer populations to a specific area and draw them away from other locations.

This method of slowing down the insect's progression is known as *SLAM – Slow Down Ash Mortality*. It was first implemented in Michigan after the emerald ash borer was discovered in that state. Since then, a number of municipalities have begun using this method. The City of Montreal and the Montreal Metropolitan Community (MMC) also follow this approach.

² From: cmm.qc.ca/champs-intervention/environnement/dossiers-en-environnement/agrile-du-frene [translation].

OBJECTIVES

The City of Pointe-Claire's emerald ash borer strategy has five objectives.

SLOWING DOWN THE DEATH OF ASH TREES IN THE CITY

The City of Pointe-Claire's first objective is to slow down the progression of the insect rather than to prevent the death of ash trees. This management strategy seeks to decelerate the local infestation process by buying time and taking a proactive approach, rather than waiting to react to large-scale tree loss.

The time saved will allow us to:

- reduce the cost of managing hard-to-fell trees;
- lessen the impact of ash tree loss on the City;
- preserve ash trees to better plan for their replacement or preservation;
- develop new control techniques;
- educate residents so they can make better decisions about their ash tree(s); and
- slow down the loss of biodiversity in natural environments and extend the environmental benefits of the ash tree canopy for as long as possible.

REDUCING COSTS ASSOCIATED WITH RAPID AND LARGE-SCALE LOSS OF ASH TREES

If and when the emerald ash borer infestation becomes severe in Pointe-Claire, there is a good chance that the problem will have escalated throughout the Island of Montreal. At that point, a large number of trees will need to be felled, and the dearth of qualified professionals will raise the costs of tree felling. For this reason, it is more economical to fell trees over a longer period of time.

ENSURING THE SAFETY OF RESIDENTS

In addition to engendering economic losses, dead trees can pose safety hazards. Declining ash trees often lose their branches, and this poses a major risk to safety and threatens the integrity of hydro and telecommunication lines. By treating healthy trees to prevent their loss or by felling declining trees, we can ensure the safety of residents.

MAINTAINING THE TREE CANOPY IN THE CITY OF POINTE-CLAIRE

The canopy is defined as the upper layer of a tree. It serves a number of ecological purposes by providing shade and absorbing dust and air pollution. In 2013, the City of Montreal released the results of a 2011 study on the extent of the canopy in each city and borough on the Island. The study showed the canopy index for the Montreal urban agglomeration to be 20.3%, which means that 20.3% of the area is shaded by trees. The Agglomeration hopes to increase this number to 25% and is urging its cities and boroughs to set the same target. According to the study, the City of Pointe-Claire's canopy index is 23.5%.

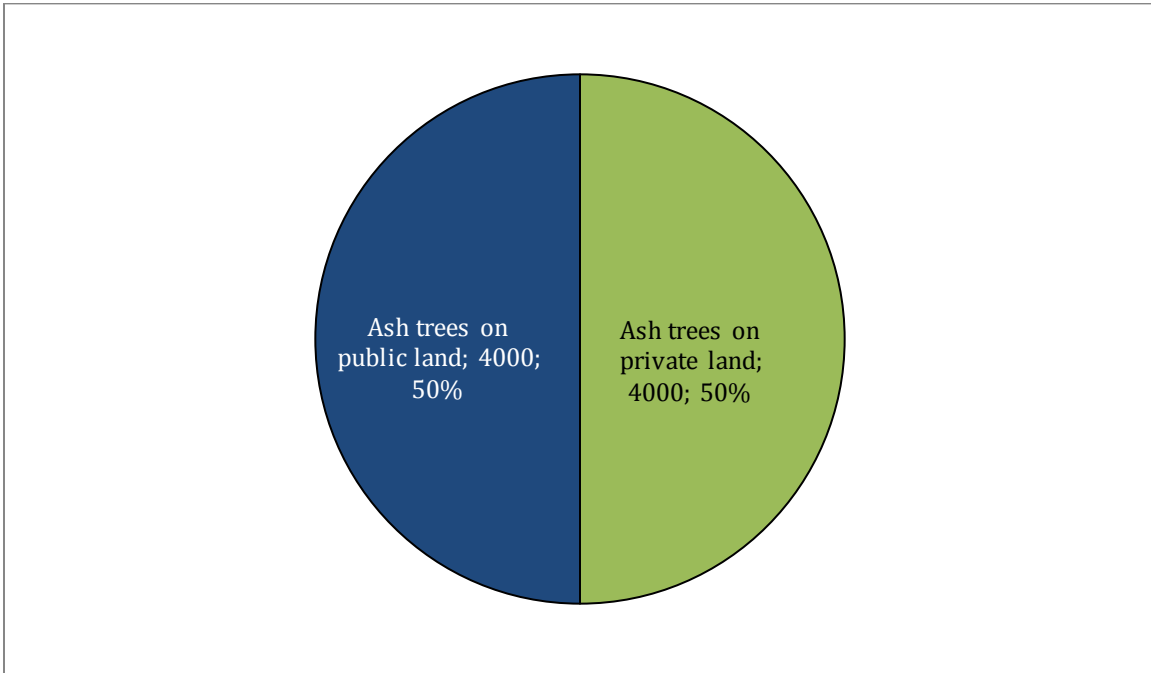
PROTECTING BIODIVERSITY IN THE CITY

Biodiversity is defined as the natural or human-influenced diversity of living organisms. Preserving biodiversity is crucial to sustainable development, which is a cornerstone of human society. Human beings depend on natural processes such as pollination, oxygen production, and the transformation of waste materials. Municipalities have a direct hand in preserving biodiversity and protecting the natural environment through responsible land management and development. Municipalities work closely with the communities they represent. Through its emerald ash borer strategy, the City is aiming to protect the tree canopy and preserve its biodiversity, including the insects and animals that depend on it.

ASH TREE INVENTORY

The City of Pointe-Claire has approximately 8,000 ash trees within its limits: 4,000 on public land and 4,000 on private lots.

FIGURE 1
COMPLETE INVENTORY OF ASH TREES IN THE CITY OF POINTE-CLAIRE



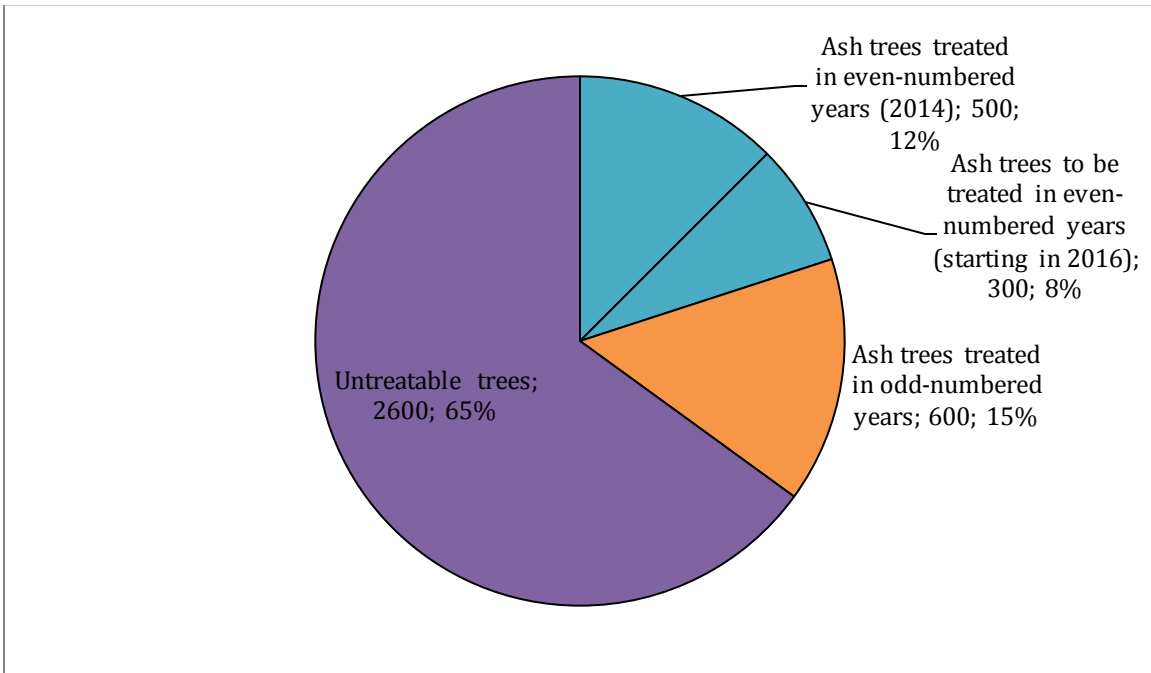
INVENTORY OF ASH TREES ON PUBLIC LAND

The City of Pointe-Claire has approximately 4,000 ash trees on public land, divided into three categories:

1. Ash trees treated during even-numbered years;
2. Ash trees treated during odd-numbered years;
3. Untreatable trees.

As shown in Figure 2 below, 500 trees were treated in the first even year (2014). However, the City plans to add an additional 300 in 2016, for a total of 800 ash trees treated during even-numbered years. The City therefore intends to treat 35% of ash trees located on public land.

FIGURE 2
INVENTORY OF ASH TREES ON PUBLIC LAND IN THE CITY OF POINTE-CLAIRE

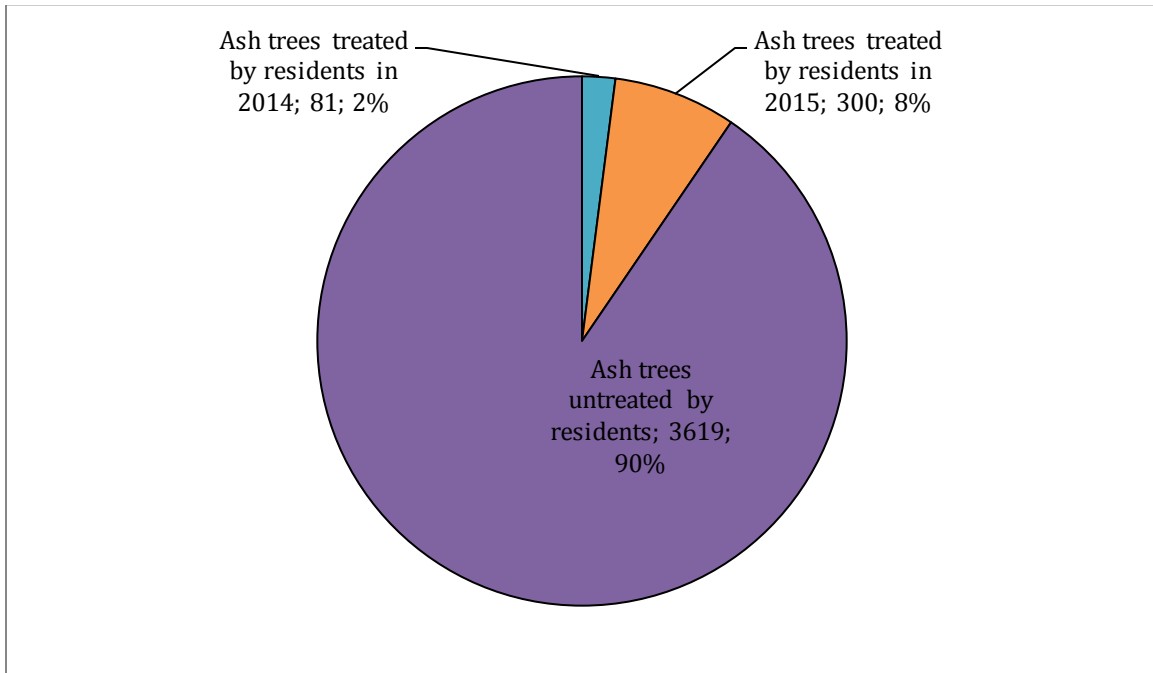


INVENTORY OF ASH TREES ON PRIVATE LAND

The City of Pointe-Claire is performing an inventory of ash trees on private land within its limits. This inventory should be completed in the winter of 2015. The most recent estimate is that there are 4,000 ash trees on private land in Pointe-Claire, divided into three categories:

1. Ash trees treated by residents in 2014;
2. Ash trees treated by residents in 2015;
3. Ash trees that have not been treated by residents.

FIGURE 3
INVENTORY OF ASH TREES ON PRIVATE LAND IN THE CITY OF POINTE-CLAIRE



Because the official numbers are not yet available, the 300 ash trees identified as having been treated by residents in 2015 are only an estimate.

POINTE-CLAIRE'S STRATEGY

GIVEN THAT 80 million ash trees have been destroyed since the first appearance of the emerald ash borer in North America in 2002;

GIVEN THAT the emerald ash borer was first observed on the Island of Montreal in 2011;

GIVEN THAT many infestation sites were discovered at several different locations in the City of Pointe Claire in 2014 and 2015;

GIVEN THAT the emerald ash borer is difficult to detect during the initial stages of infestation, due to the fact the insect first attacks upper branches and because infestations usually remain undetectable to the naked eye until they are quite advanced;

GIVEN THAT during an infestation, the spread of insects can be confined to trees within a radius of 100 metres or extend to trees within a one kilometre radius;

GIVEN THAT the infested trees discovered in Pointe-Claire in 2014 and 2015 displayed damage consistent with infestation lasting a year or more, which means adult insects had likely spread elsewhere;

GIVE THAT other jurisdictions affected by the emerald ash borer have elected to build their strategy on the assumption that their entire territory is infested;

GIVEN THAT trees infested with the emerald ash borer usually die within five to seven years, based on experience;

GIVEN THAT only a small proportion of ash trees (less than 10%) can survive an infestation;

GIVEN THAT the large-scale and rapid loss of ash trees would result in:

- A major impact on quality of life for residents;
- Damage to our neighbourhood's aesthetic qualities;
- A loss of tree canopy and a resulting increase in heat island effects;
- A reduction in air quality;
- A reduction in rainwater retention;

This document outlines the City of Pointe-Claire's strategy to manage its emerald ash borer infestation. It is based on the fact the insect is present throughout the City. The proposals listed in this strategy therefore aim to help manage the existing infestation and are not designed to prevent an infestation.

These measures are based on the fact that most ash trees, if left untreated, will die within five to ten years of infestation.

Pointe-Claire's strategy includes the following measures:

1. Screening for the presence of insects;
2. Running a campaign to raise awareness and provide information;
3. Adopting a municipal by-law governing ash trees in the private domain;
4. Implementing a strategy to treat and fell ash trees on public land;
5. Implementing a strategy to treat and fell ash trees on private land;
6. Managing ash tree residues;
7. Replacing felled trees;
8. Processing and repurposing ash wood, and
9. Conducting research and development on fighting the emerald ash borer.

This strategy is outlined in the following pages. Note that this strategy may change over time and as new discoveries are made about the emerald ash borer.

SCREENING FOR THE PRESENCE OF INSECTS

Since 2012, the City of Pointe-Claire has been using pheromone traps to screen for the presence of the emerald ash borer.

TABLE 1
SCREENING FOR INSECTS USING TRAPS

YEAR	NUMBER OF TRAPS INSTALLED	NUMBER OF POSITIVE TRAPS (PRESENCE OF EMERALD ASH BORER)
2012	26	0
2013	21	1
2014	15	4
2015*	25	20

* 2015 results are from August 3, 2015.

The results of the latest pheromone trap screening initiative show that the emerald ash borer is now present throughout the City of Pointe-Claire.

In addition to pheromone traps, since 2013 the City has been using a bark stripping process to screen for the insects. With this technique, the upper layer of ash bark is removed on two separate branches to detect the presence of burrows or larvae.

TABLE 2
SCREENING FOR INSECTS USING BARK STRIPPING

YEAR	NUMBER OF ASH TREES SUBJECT TO BARK STRIPPING	NUMBER OF POSITIVE SCREENINGS (PRESENCE OF EMERALD ASH BORER OR INSECT BURROWS)
2013	150	0
2014	157	0
2015*	200	0

* 2015 results are from August 3, 2015.

CAMPAIGN TO RAISE AWARENESS AND PROVIDE INFORMATION

Information on infestations and other news about the emerald ash borer in Pointe-Claire have been distributed to residents via five main avenues of communication:

1. Website

A page dedicated to the emerald ash borer was added to the City of Pointe-Claire's website in 2014, and can be found in the site's Environment section. It includes information on the insect as well as links to documents. The website is regularly updated to reflect the level of infestation in the City.

In addition, banners on the site's homepage provide the latest news on the emerald ash borer situation. City press releases on the topic (six since 2014) are also posted on the website.

2. Pointe-Claire newsletter

Published three times a year, the City of Point-Claire newsletter occasionally includes a special section on the emerald ash borer to keep residents up to date on the infestation, actions to take, and City guidelines.

3. Printed information for residents

Since the emerald ash borer first appeared, the City has distributed five printed documents to residents throughout Pointe-Claire (three pamphlets, a flyer, and a door hanger). These documents, which were delivered to each resident's door, have drawn attention to the problem and have helped residents find the help they need. They will be re-issued as the situation requires.

Coroplast signs have also been affixed to treated ash trees, and since 2014, these signs have been placed on ash trees equipped with pheromone traps, to keep residents informed on the City's interventions.

4. Electronic billboard, municipal building TV screens (Aquatic Centre, Arena) and *Twitter* account

Pointe-Claire regularly broadcasts information on the emerald ash borer (including the tools available to residents for fighting the insect) on the City's electronic billboard, TV screens in municipal buildings, and via our *Twitter* account. We will continue to use these outlets to provide information on the infestation to residents.

5. Information sessions

The first information session on the emerald ash borer took place on June 11, 2014. Residents were brought up to speed on the infestation, and were informed about the City's endeavours to screen for the presence of the insect in Pointe-Claire.

The City will hold another information session in the fall of 2015 to present its strategy for fighting the emerald ash borer. This session will outline the City's by-law to help fight the emerald ash borer and explain the various grants and tree-planting programs available for residents. Residents will be informed of the emerald ash borer's short-term impact on the City's landscape and the importance of quick action on the part of property owners. The date of this information session is yet to be determined.

The City of Pointe-Claire will hold other information sessions in the future should the need arise.

MUNICIPAL BY-LAW GOVERNING THE PRIVATE SECTOR

The City of Pointe-Claire passed a by-law to fight the spread of the emerald ash borer in the City (By-Law PC-2817), which came into force on October 15, 2014. This by-law governs ash tree felling and pruning and ash tree residue management. The by-law provides for sanctions and penalties to be levied against anyone who contravenes it.

A notice of motion was tabled at City Council's August meeting to amend the by-law. This amendment will require owners of wood lots to produce a management plan for ash trees on their property.

A copy of By-Law PC-2817 can be found in Schedule 2.

STRATEGY TO TREAT AND FELL ASH TREES ON PUBLIC LAND

As of August 3, 2015, the City of Pointe-Claire has approximately 4,000 ash trees on its public land, divided into three categories:

TABLE 3
INVENTORY OF ASH TREES ON PUBLIC LAND IN THE CITY OF POINTE-CLAIRE

CATEGORIES	NUMBER OF ASH TREES
ASH TREES TREATED DURING EVEN-NUMBERED YEARS	800* (20%)
ASH TREES TREATED DURING ODD-NUMBERED YEARS	600* (15%)
UNTREATABLE TREES	2,600* (65%)

* As of August 3, 2015, 500 ash trees have been treated during even years. The goal is to add 300 more in 2016.

The City's emerald ash borer strategy focuses on tree treatment and felling, and is solely concerned with ash trees in parks and along city streets. Ash trees in urban forest areas and in the Terra-Cotta Natural Park will be dealt with later.

Treating trees with TreeAzin merely buys time while newly planted replacement trees grow and researchers work on a more permanent solution. The City of Pointe-Claire plans to continue treating trees until 2022, unless new developments require us to revise the strategy. In 2022, a new study on the City's emerald ash borer strategy will be conducted to take into account new discoveries and realities.

The strategy to fell ash trees on public land, which targets untreatable trees, will be carried out over eight years. This will help lessen inconvenience to residents and spread out costs associated with the procedure.

The plan for felling ash trees on public land is as follows:

TABLE 4
PLAN FOR FELLING ASH TREES ON PUBLIC LAND

YEAR	NUMBER OF ASH TREES ON PUBLIC LAND FELLED PER YEAR
2015	325 trees
2016	325 trees
2017	325 trees
2018	325 trees
2019	325 trees
2020	325 trees
2021	325 trees
2022	325 trees

The strategy for managing the urban forest and the Terra Cotta Natural Park differs from the strategy applicable to ash trees on public streets and in city parks. To minimize disruption and preserve the park's biodiversity, declining trees will be felled each year but the ash wood will be left on site. Planting initiatives will also be undertaken (see the section on tree replacement) to stop invasive species such as buckthorn from gaining a foothold.

STRATEGY TO TREAT AND FELL ASH TREES ON PRIVATE LAND

The City of Pointe-Claire estimates that, as of August 3, 2015, there are approximately 4,000 ash trees on residential and industrial properties. Because Pointe-Claire is working on the assumption that the entire city is infested, unless they are treated, these trees will be removed over the next few years. This may have a dramatic impact on the quality of life for Pointe-Claire residents. Although not every resident has an ash tree on his or her property, the loss of these trees will affect all city dwellers.

The article *The Relationship Between Trees and Human Health: The Evidence from the Spread of the Emerald Ash Borer* describes the impact on human health of the emerald ash borer and the loss of tree canopy. The study was based on results obtained in 15 US states. The researchers concluded that: "There was an increase in mortality related to cardiovascular and lower-respiratory-tract illness in counties infested with the emerald ash borer."³ Therefore, even though not all properties contain ash trees, the City is acting to protect the public health of all Pointe-Claire residents and workers.

The strategy to help residents is made up of three components:

1. Special rates and grants for treating ash trees with insecticides;
2. Grants for felling ash trees;
3. Distribution of trees to all Pointe-Claire residents who request them.

The following section outlines the first two components of the residents' aid strategy, including the special rate and grant program for treating ash trees with insecticides and the grant for felling ash trees. The tree planting strategy can be found in the section outlining the replacement of felled trees.

The City of Pointe-Claire is offering financial aid to residents who wish to fell their ash trees or treat them with one or more products approved in Canada. This grant program will extend over five years, from 2015 to 2019.

The insecticide grant program applies to all sizes of ash tree, although the City recommends treating ash trees with a diameter of 20 cm or greater. The tree-felling grant program applies only to ash trees with a diameter of 25 cm or greater, as measured 1.10 meters from the ground. Only residents are eligible for the felling and treatment grant programs. Companies and industrial stakeholders cannot apply. The special insecticide treatment rate applies to everyone, however.

TABLE 5
GRANT PROGRAM FOR OWNERS OF ASH TREES

TYPE OF GRANT	GRANT FOR TREES 25 CM OR LARGER	MAXIMUM GRANT
Grant for treating ash trees with insecticides	Special rate + 50% of treatment costs	\$1,500 per address every two years
Grant for felling ash trees	50% of felling costs	\$200 per tree 25 cm in diameter or larger

³ Donovan et al., *The Relationship Between Trees and Human Health: The Evidence from the Spread of the Emerald Ash Borer*, Am J Prev Med 2013;44(2):139-145.

MANAGING ASH TREE RESIDUES

Managing ash tree residues is key to slowing down the emerald ash borer. As the *Conseil québécois des espèces exotiques envahissantes* indicates, the proper management of ash wood goes a long way towards slowing down the insect's spread.

A. MANAGING ASH TREE RESIDUES IN THE PUBLIC SECTOR

The City of Pointe-Claire, in collaboration with the Montreal Metropolitan Community, has adopted effective methods to manage ash tree residues, as suggested by the Canadian Food Inspection Agency (CFIA).

All branches less than 20 cm in diameter (a circumference of 62.8 cm) are shredded on site using a wood shredder approved by the CFIA. The resulting wood chips are 2.5 cubic cm in size.

The following methods apply to branches and tree trunk sections 20 cm in diameter and larger (circumference of 62.8 cm):

1. From October 2 through March 14, the wood will be transported to a City-authorized treatment site within fifteen (15) days of felling or pruning.
2. From March 15 through October 1, the wood will be stored in the Public Works yard or other designated location, through October 1. Over the next 15 days it will be transported to an authorized treatment site.

B. MANAGING ASH TREE RESIDUES IN THE PRIVATE SECTOR

See By-Law PC-2817 in Schedule 2.

REPLACING FELLED TREES

Trees are a key part of the urban landscape, and the City of Pointe-Claire considers the replacement of felled ash trees to be a priority. The City follows two basic principles regarding tree replacement:

1. Planting the right tree in the right place
Each species is different and has its own growing requirements. Therefore, when a replacement is confirmed, various criteria will help determine the ideal tree to be planted.
2. The diversity principle
One of the reasons the emerald ash borer poses such a serious threat to Pointe-Claire is the lack of tree diversity in the city. This is evident in the monoculture on certain streets and in the high proportion of trees of the same species planted throughout the area. To avoid future environmental catastrophes of this magnitude, the City is committed to following the diversity principle.

A. REPLACING FELLED ASH TREES ON PUBLIC LAND

The City of Pointe-Claire will replace all felled ash trees on public streets and in public parks (an estimated 2,600 ash trees over the next seven years). Wherever possible, the tree will be replaced in the same location as the original ash tree. Should this prove impossible, a nearby location will be selected to preserve the canopy index.

In addition to replacing each felled tree, the City of Pointe-Claire will continue to increase its canopy index. To this end, the City intends to plant more trees than it fells each year (approximately 80 more).

In planting trees on public land (other than the urban forest), the City will follow a five-year plan, extending from 2016 to 2020. Trees located in the City's urban forest and in the Terra Cotta Natural Park will be planted following a plan extending over seven years, from 2016 to 2022.

**TABLE 6
REPLACING ASH TREES ON PUBLIC LAND**

YEAR	NUMBER OF TREES PLANTED IN PARKS AND ON STREETS TO REPLACE ASH TREES ON PUBLIC LAND	NUMBER OF TREES PLANTED IN THE TERRA COTTA NATURAL PARK AND OTHER URBAN FOREST AREAS	TOTAL NUMBER OF TREES PLANTED PER YEAR
2016	600	200	800
2017	600	200	800
2018	600	200	800
2019	600	200	800
2020	600	200	800
2021	-	200	200
2022	-	200	200

B. REPLACING FELLED ASH TREES ON PRIVATE LAND

The City of Pointe-Claire requires all residents who fell a tree on their property to plant a new one. This requirement is included in Chapter 9 of the City by-law covering environmental provisions of the zoning by-law. The section can be found in Schedule 3.

To ensure that the canopy index is maintained at current levels over the next few years, the City of Pointe-Claire has reinstated its tree distribution program for residents. All private property owners in Pointe-Claire are eligible for this private sector tree planting program, including residents who do not own ash trees. On each distribution date, ten different species of trees will be offered to property owners. This approach will increase biodiversity in the City. Tree distribution will take place each spring. The exact distribution dates and the distribution process will be communicated to residents via the City's website, electronic billboard, and written communications.

TABLE 7
REPLACING ASH TREES ON PRIVATE LAND

YEAR	NUMBER OF TREES DISTRIBUTED TO RESIDENTS PER YEAR
2016	575 trees
2017	575 trees
2018	575 trees
2019	575 trees
2020	575 trees
2021	575 trees
2022	575 trees

PROCESSING AND REPURPOSING ASH WOOD

Major quantities of ash wood will become available over the next few years. The City of Pointe-Claire believes it is important to use this opportunity and to explore how this wood can be processed and repurposed. Local needs will be given priority to limit transportation and boost wood processing profits.

Currently, there is no turnkey solution for processing ash wood. However, the City of Pointe-Claire intends to implement innovative measures for handling ash tree residues. In 2014, the City of Pointe-Claire initiated a pilot project for sawn ash timber. A total of 150 boards (approximately 1,000 fbm) of varied length and thickness were sawn and then dried in the Public Works' road salt shelter. This lumber will be used to build street furniture and in a variety of repair and renovation projects. The project costs very little, because the market value of the wood is almost identical to the sawmill costs. In addition, this wood will be given new life, providing benefits to the City and its residents.

The nature of future repurposing projects will vary and will depend on several key factors, such as the volume of collected wood, the areas affected by the by-law, and the costs associated with a given project.

The City of Pointe-Claire is committed to conducting its own research on ash wood repurposing. In addition, it will work with the Montreal Metropolitan Community (MCC) and the Montreal Urban Agglomeration to:

1. Produce a precise assessment of the overall situation (volume and flow of wood).
2. Identify possible opportunities (products and buyers).
3. Implement an effective system (information, transport).
4. Educate stakeholders on projects and inform them of opportunities to get involved.

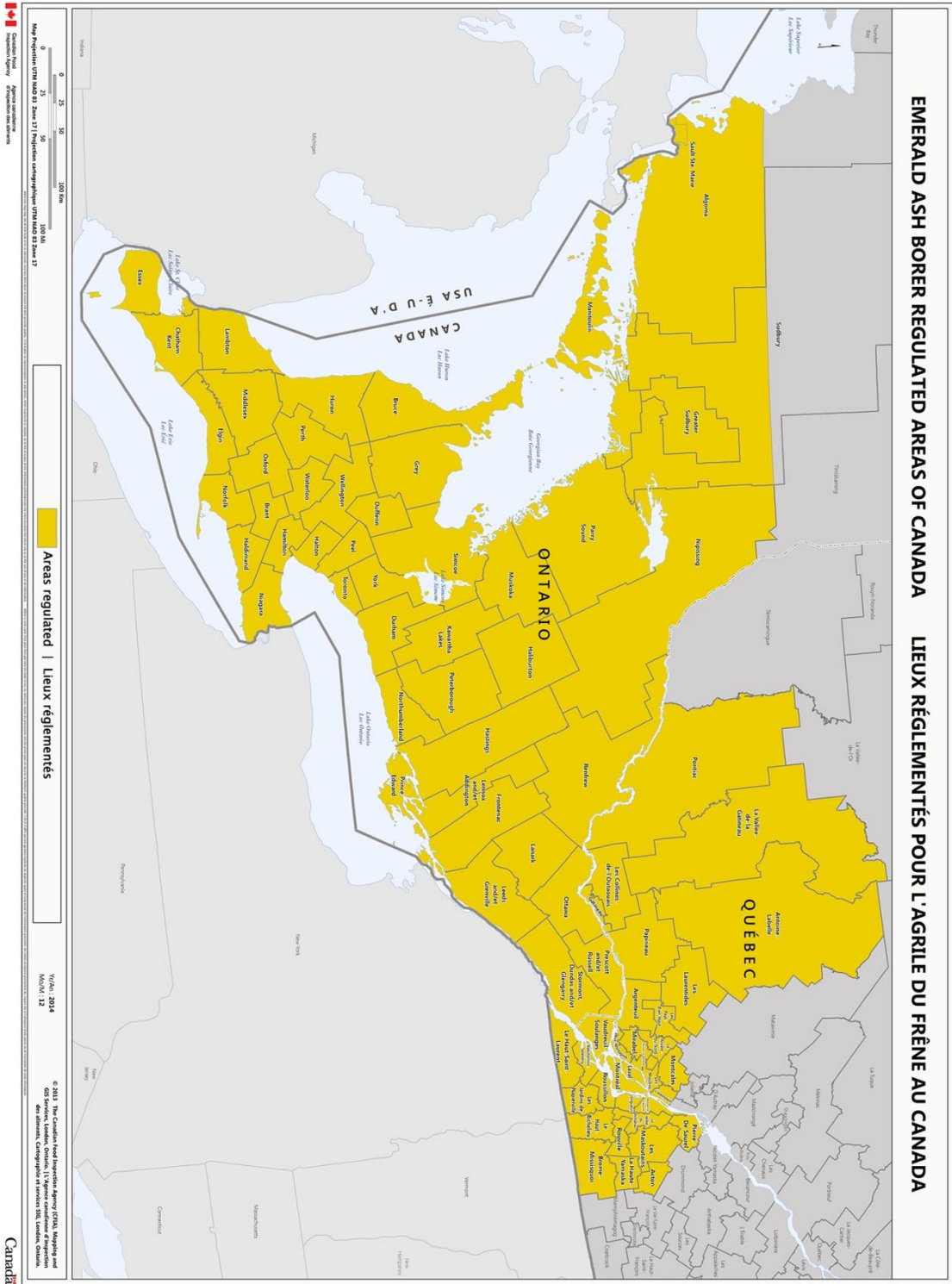
FIGHTING THE EMERALD ASH BORER: RESEARCH AND DEVELOPMENT

The City of Pointe-Claire is taking a proactive approach to research and development focused on fighting the emerald ash borer. In 2012 and 2013, the City participated in an experimental protocol on insect screening using pheromone traps, led by Dr. Krysta Ryall of the Canadian Forest Service (CFS).

The City will continue to be proactive in research and development. It is currently in discussion with a number of institutions and is conducting research to find innovative solutions.

SCHEDULE 1

MAP OF REGULATED AREAS FOR THE EMERALD ASH BORER IN CANADA



SCHEDULE 2

BY-LAW PC-2817

PROVINCE OF QUEBEC
CITY OF POINTE-CLAIRE

BY-LAW NUMBER PC-2817

BY-LAW REGARDING THE FIGHT
AGAINST THE SPREAD OF THE
EMERALD ASH BORER ON THE
TERRITORY OF THE CITY OF POINTE-
CLAIRE

In force on October 15, 2014

AT THE REGULAR MEETING OF THE COUNCIL OF THE CITY OF POINTE-CLAIRE,
HELD AT CITY HALL, 451 SAINT-JEAN BOULEVARD, POINTE-CLAIRE, QUEBEC,
ON OCTOBER 7, 2014, AT 7:30 P.M.

PRESENT: Councillors K. Thorstad-Cullen, C. Homan, J. Beaumont,
P. Bissonnette, C. Cousineau, J.-P. Grenier, A. Iermieri and
D. Smith chaired by His Worship Mayor Morris Trudeau forming a
quorum of council.

AMONGST OTHER BUSINESS TRANSACTED AT SAID
MEETING WAS THE FOLLOWING:

BY-LAW NUMBER: PC-2817

RESOLUTION NUMBER: 2014-449

PROPOSED BY COUNCILLOR THORSTAD-CULLEN

SECONDED BY COUNCILLOR IERMIERI

AND RESOLVED:

Considering articles 4, 19 and 85 of the Municipal Powers Act (CQLR, chapter C-47.1);

Considering articles 369 and 411 of the Cities and Towns Act (CQLR, chapter C-19).

MUNICIPAL COUNCIL DECREES AS FOLLOWS:

CHAPTER I

INTRODUCTORY PROVISION

1. This by-law's objective is to fight the spread of the emerald ash borer on the territory of the City of Pointe-Claire by establishing measures to prevent its dispersal to non-infested areas. These measures involve the felling, pruning, and treatment of ash trees as well as ash wood management.
2. In this by-law, the following mean:
 1. "approved method": any ash wood transformation technique scientifically recognised as destroying the emerald ash borer or pieces of wood in which it hides. Ex.: torrefaction, methyl bromide fumigation, removal and shredding of infested pieces of wood, etc.;
 2. "ash residue": pieces of ash wood such as branches or logs. Wood chips resulting from shredding, and which do not exceed 2.5 cm in length on at least two (2) of their sides, are not considered as ash residue;
 3. "designated authority": the director of the Engineering and Buildings Department.

CHAPTER II

PLANTING

3. It is forbidden to plant an ash tree.

CHAPTER III

FELLING AND PRUNING

SECTION I

ASH TREE FELLING

4. No one may fell an ash tree without having first obtained an ash tree felling permit. A permit is not required when the trunk of the ash tree to be felled has a diameter not exceeding ten centimetres (10 cm) at a height of 1.3 m.
5. An ash tree felling permit is issued free of charge by the Planning Department upon receipt of a request form.

6. The owner of a dead ash tree or an ash tree of which 30% of its branches are dead must fell the tree before December 31 of the year in which the tree was found to be in this condition.
7. The owner is not required to request a felling permit or to proceed with the felling of their ash tree if they can provide recognised evidence certifying that the ash tree received treatment against the emerald ash borer during the current or previous calendar year.

Are considered recognised evidence as per this article the invoices of a company that treated ash trees using a pesticide certified in Canada pursuant to the Pest Control Products Act (L.C. 2002, Chapter 28) and that has the authorisations and certificates required under the Regulation Respecting Permits and Certificates for the Sale and Use of Pesticides (CQLR, chapter P-9.2, r.2) to carry out such work.

8. Notwithstanding the issuance of a permit in conformity with article 7, it is forbidden to fell an ash tree or allow one to be felled from March 15 to September 30 inclusive, unless:
 1. the ash tree is hazardous to public security;
 2. the ash tree could seriously damage property;
 3. the ash tree hinders the completion of a construction project authorised under the applicable planning by-law, unless such work concerns an advertising sign.

SECTION II

ASH TREE PRUNING

9. It is forbidden to prune an ash tree or allow one to be pruned from March 15 to September 30 inclusive, unless:
 1. the ash tree is hazardous to public security;
 2. the ash tree could seriously damage property;
 3. the ash tree hinders the completion of a construction project authorised under the applicable planning by-law, unless such work concerns an advertising sign.

CHAPTER IV

ASH TREE RESIDUE MANAGEMENT

10. Anyone who fells or prunes an ash tree must dispose of its residue in the following manner:
 1. branches or logs whose diameter does not exceed twenty centimetres (20 cm) must be shredded immediately and on-the-spot into chips not exceeding 2.5 cm on at least two (2) of their sides;
 2. branches or trunk parts whose diameter exceeds twenty centimetres (20 cm) must:
 - a) From October 1 to March 14 inclusively
 - i. be brought to a treatment site authorised for that purpose by the designated authority (dump site of the City of Pointe-Claire, located in the Public Works yard at 50 Terra-Cotta Avenue) within fifteen (15) days following the felling or pruning, or;
 - ii. be brought directly to a company specialising in wood transformation or be transformed on-site using an approved method within fifteen (15) days following the felling or pruning;
 - b) From March 15 to September 30 inclusively
 - i. be transformed on-site using an approved method or kept until September 30 inclusively before being brought to locations authorised under paragraphs 2. a) i. and 2 a);
 - ii. the invoice of the company having done the ash wood transformation work using an approved method must be preserved and produced at the request of the designated authority.
11. From October 1 to March 14 inclusively, it is forbidden to store, for a period exceeding fifteen (15) days, ash wood residue which was not transformed using an approved method.
12. It is forbidden, from March 15 to September 30 inclusively, to transport ash tree residue which was not transformed using an approved method.

CHAPTER V

FINAL PROVISION – POWERS OF INSPECTION

13. Any public official or City employee responsible for enforcing this by-law may enter private property to inspect an ash tree or ash wood located on said property, in order to verify any and all information and to ascertain that this by-law is complied with.

CHAPTER VI

OFFENCE AND PENALTY

14. Anyone who interferes with the inspection process described in article 13 of this by-law infringes it.
15. Anyone who infringes this by-law commits an offence and is liable:
 1. for a natural person, to a fine ranging from \$500 to \$1,000;
 2. for a moral person, to a fine ranging from \$1,000 to \$2,000.
16. The present by-law will come into force according to the law.

Morris Trudeau, Mayor

Jean-Denis Jacob, City Clerk

SCHEDULE 3

ZONING BY-LAW, CHAPTER 9, SECTION 9.6.2

9.6.2 Planting Obligation to plant

Whenever a tree is felled whose trunk diameter is 10 cm (4 inches) or more, measured 1 metre (3.3 feet) from ground level, this tree must be replaced by a new tree within the year that follows the issuance of the certificate of authorization to fell a tree, or at the end of the construction work, unless the Director judges and rules in writing that no new plantation can be made because of a lack of space. The planting must be done in accordance with the provisions of the present section.