



Emerald Ash Borer Strategy Presented to Community and Neighbourhoods Committee Tuesday, September 27, 2011



Presented by:
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Manager of Urban Forestry
Planning Division



Recommendations

- That, on the recommendation of the Executive Director - Planning, Environmental & Engineering Services, with the advice of the City Planner and the Manager of Urban Forestry:
 - (i) the recommended Emerald Borer Management Strategy **BE ADOPTED.**
 - (ii) the implementation strategy and associated funding as shown in the following table **BE ENDORSED IN PRINCIPLE AND FORWARDED** to the Services Review Committee and Council for the 2012 budget process.
 - (iii) Civic Administration **BE DIRECTED** to explore potential sources of financing for this initiative and assess the impact on this source of financing should Council advance with 1:1 vs. 2:1 planting ratio; this information is to be presented to Services Review Committee.



Table 1. Recommended EAB Management Strategy Program and Costs (in thousands of dollars)

YEAR	Treatment	Removal (Streets and Manicured Mark Areas)	Removal (Wooded Park Areas)	Inventory and Survey (Wooded Park Areas)	Risk Inspections (Wooded Park Areas)	Restoration and Rehabilitation (Wooded Park Areas)	Plant 2:1 (Streets and Manicured Park Areas)	Coordination (Administration, Education)	TOTAL
2012		184	145	50			715	100	1194
2013	109	187	145	50		30	751	100	1372
2014		191	145		20	30	828	100	1314
2015	115	195	145		20	30	828	100	1433
2016		199	145		20	30	869		1263
2017	122	203	145			30	912		1412
2018		207	145			30	1007		1389
2019	130	211	145			30	1005		1521
2020		215	145			30	1056		1446
2021	137	219	145			30	1108		1639
2022									0
2023	146								146
2024									0
2025	155								155
TOTAL S	914	2011	1450	100	60	270	9079	400	14284



Why EAB Is An Issue

Within the Urban Growth Boundary

- 440,000 ash trees
- 10% of all trees are ash
- most common large shade tree species
- 10,000 identified in boulevards and manicured parks

Outside Urban Growth Boundary

- 240,000 in woodlands outside UGB
- 2nd most common tree species
- Accounts for 9.5% of all the trees





Why EAB Is An Issue

- Ash accounts for approximately 10,000 or 6% of the total trees in the identified in the City's inventory on boulevards and manicured portions of parks
- London has 2,670 hectares of parks of which approximately 700 hectares are woodlands or wooded.
- Some of these woodlands, such as those within the Thames Valley Corridor, often contain up to 30% ash trees.



CityMap: About This Tree

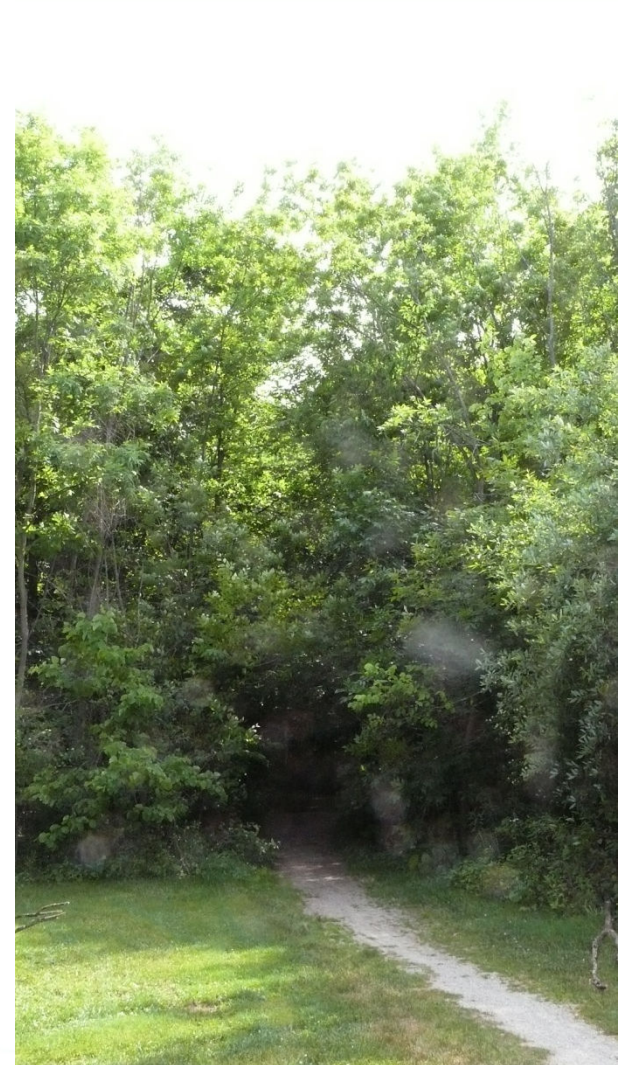
Common name:	Ash, White
Latin name:	Fraxinus americana
Condition:	Fair
Status:	Active
Trunk diameter (cm):	51
Year observed:	2002
Remarks:	
Inventory#:	50491





Why EAB Is An Issue

- There are approximately 122 km of managed trails within these parks.
- More than half of the woodlands and wooded areas contain managed trails.
- There are approximately 291 km of perimeter that often border subdivisions and commercial establishments.





Why EAB Is An Issue

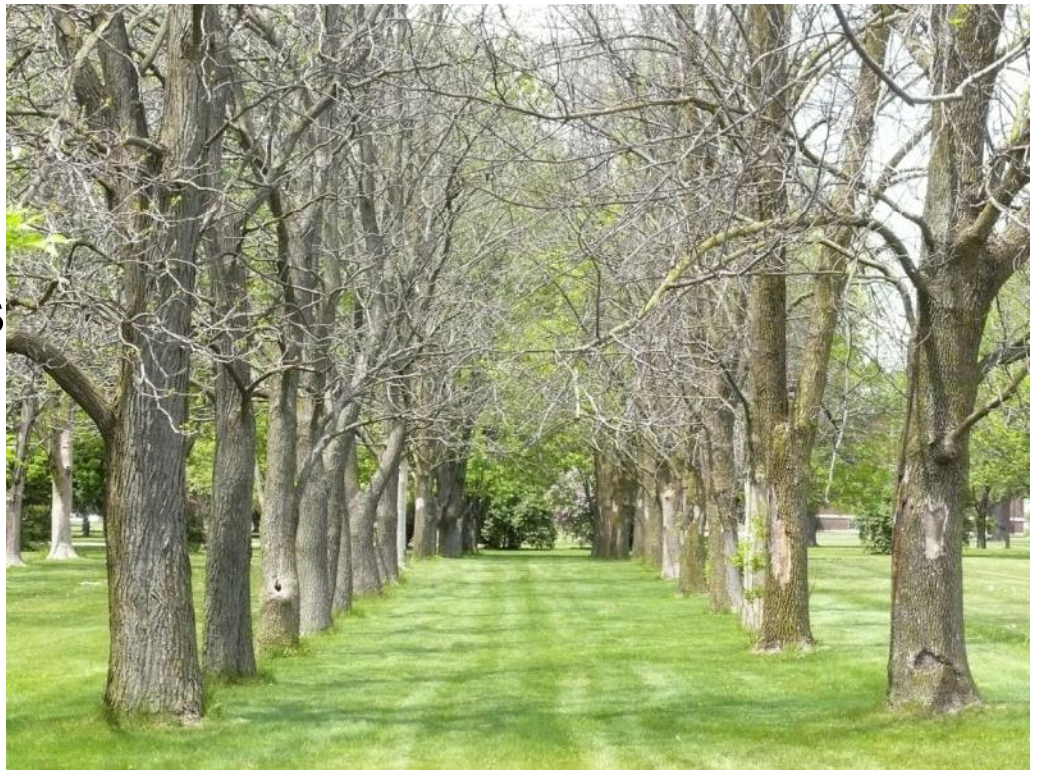
EAB is estimated to:

- Kill most of our ash trees within the next 7-10 years
- Reduce our urban leaf cover from 24.7 % to about 22.9%
- Reduce our existing leaf cover by 7.2%
- Reduce the structural value of our urban forest by \$130 million
- Significantly impact species biodiversity in wooded areas.
- Cause significant property standards issues.



Status of the Infestation

- First found in October 2006
- First found sporadically
- It was widespread at that time but we did not know it
- Reliable detection methods were not available then



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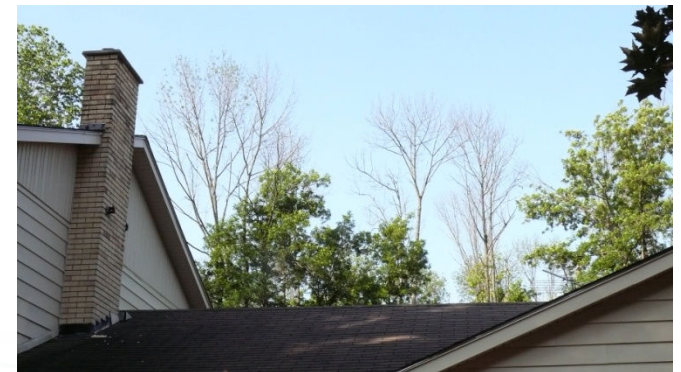
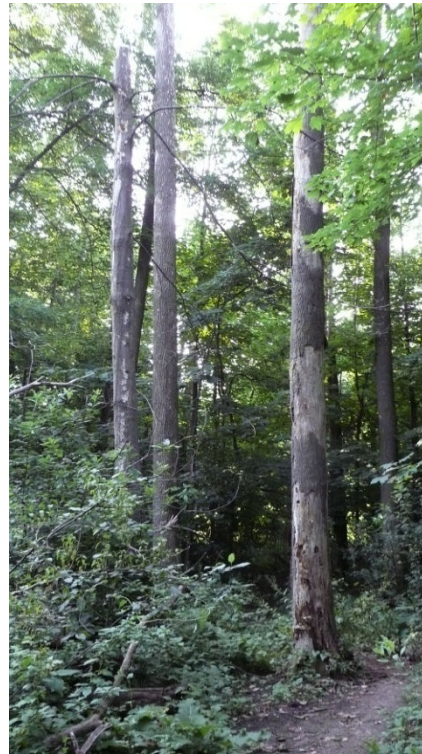
Status of the infestation

- Some areas of the city are impacted more than others
- This is due to the level of infestation and the large proportion of ash trees in the boulevards and parks
- North and East are very advanced with respect to infestation levels & mortality
- Other areas show less damage now but are none-the-less infested and will show more impacts over time



Status of the Infestation

- Some parks and woodlands, such as Helen Mott Shaw Park, are severely infested





The Need For A Revised Strategy

- Our EAB strategy has evolved since it was first identified and as the infestation has increased in size and damage.
- We have continually incorporated the most recent information and best management practices as they became available.
- The current management direction is based on previous levels of known infestation and damage in 2009, and is reactive. Ash trees are removed if they are seriously infested and pose a safety hazard or if they are dead.
- The insect infestation has expanded from “spot fires” to the level where current management approach and funding is insufficient to manage the long issue.

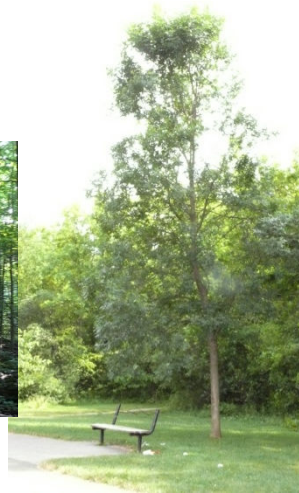
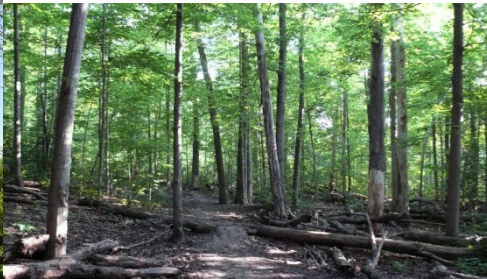


The Need For A Revised Strategy

- Ash removals are currently funded out of existing operational funding for the planned tree maintenance program and from a reallocation of funds from existing woodland management capital accounts.
- Replanting of ash trees is funded out a special EAB planting capital fund that expires in 2013.
- Tree injections are currently funded from savings in existing capital accounts and projects.



The Need For A Revised Strategy





The Recommended Strategy

- The recommended strategy acknowledges that EAB is a serious and immediate threat to a significant portion to our urban forest both on public and private property.
- It recognizes the need for continued and additional immediate, decisive and aggressive measures to protect and manage our boulevard, park, backyard and woodland tree assets.
- These measures include:
 - the continuation of the current tree injection program to protect high value specimens,
 - proactive removal of some live trees to allow for more orderly, efficient and cost effective removal and replanting programs,
 - rapid re-establishment of the leaf cover lost to EAB-induced mortality,
 - active management in woodlands, and wooded areas within parks
 - support program to coordinate activities, improve communication and education and explore utilization options and research opportunities.



The Recommended Strategy

The recommended strategy promotes a balanced, integrated approach to managing the EAB over long term that addresses:

- Identification of management issues,
- Risk management,
- Detection,
- Removals,
- Utilization,
- Restoration,
- Replanting and reforestation,
- Communication, education and outreach,
- Research, and,
- Funding.

It is based on the most current scientific and operational information available.



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Protecting your trees from the Emerald Ash Borer (EAB)

June 2011

What you need to know

- EAB affects only ash (Fraxinus)
- Both healthy and weakened trees are attacked
- EAB attacks trees of all sizes from 1 cm and larger
- Infected trees die quickly and become hazardous
 - Insects do not discriminate between trees on City property and private property – they attack all trees
 - You are responsible for trees on your private property
 - Do not plant ash trees

How to find out if EAB is in your tree (click on link)

The four holes on the left are healthy with full canopies; the tree on the right is potentially infested and has lost a significant portion of its crown

If EAB is present in your tree (click on link)

For more information:

Protecting ash trees on private property

We are in a critical stage of this infestation right now. It is crucial to remove all ash trees on your property as soon as possible. Your tree for the Emerald Ash Borer and other pests from all regions. However, treatment is most successful if done from June to August.

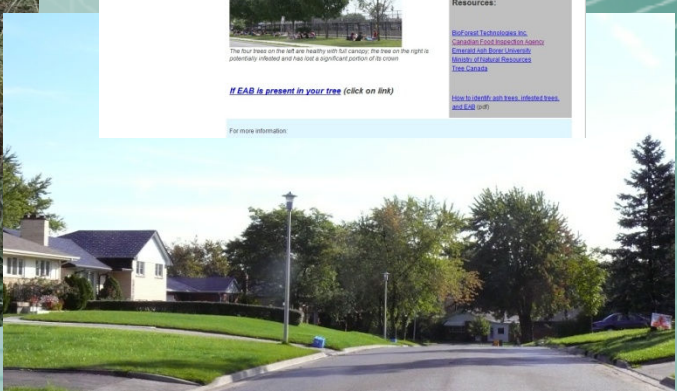
What you can do:

- Determine if you have an ash tree on your property.
- Measure the size of your tree. Measure the trunk diameter at chest height. If the tree is >25cm, it may be a candidate for treatment.
- Determine if the tree is healthy. Look to see that there are leaves in at least 75% of the crown. Call a certified arborist to determine if it is a candidate for treatment.

Resources:

BioForest Technologies Inc.
Canadian Food Inspection Agency
Canadian Ash Borer Alliance
Ministry of Natural Resources
Tree Canada

How to identify ash trees, infested trees, and EAB (pdf)



Importance of Replacing the Leaf Cover

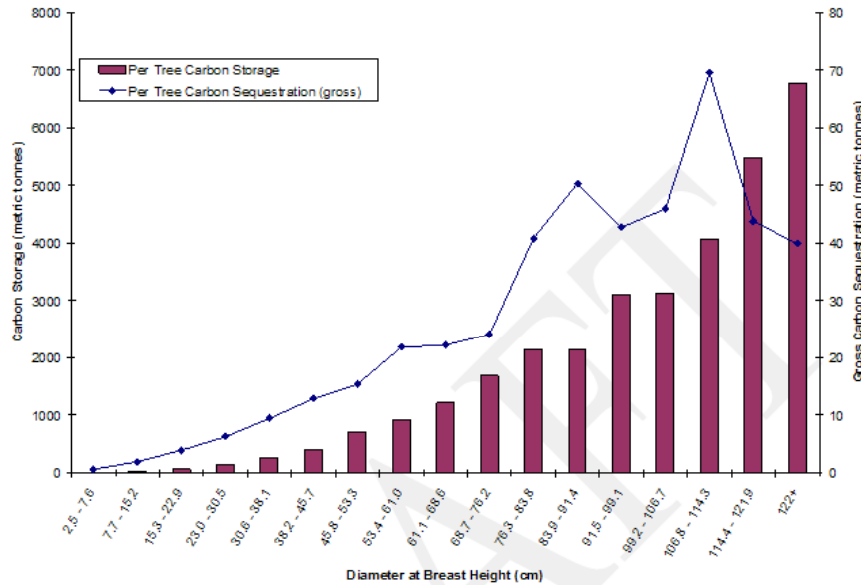


Figure 14. Carbon sequestration (gross) and carbon storage per tree by tree diameter

Table 14. Average amount of pollution removed per ear related to tree diameter

Diameter (cm)	Pollution removed (kg)
2.5-7.6	0.0
7.7-15.2	0.1
15.3-22.9	0.1
23-30.5	0.3
30.6-38.1	0.3
38.2-45.7	0.5
45.8-53.3	0.5
53.4-61	0.7
61.1-68.6	0.8
68.7-76.2	1.0
76.2+	1.1

The effects of the loss of a large tree are felt for many years. It will take many years to recover the current benefits we enjoy from our ash trees.

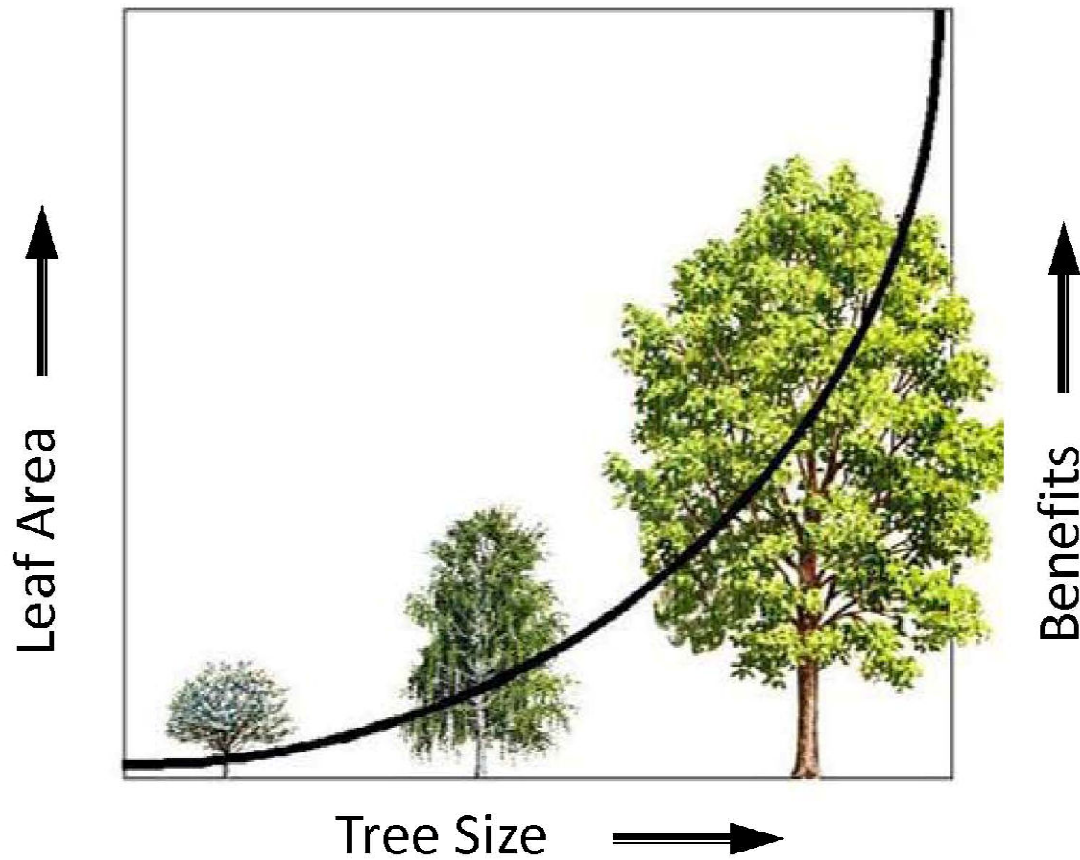
It takes @ 35+ years before trees are large enough to provide significant environmental benefits.

We will be losing many large trees and replacing them with small trees.

Replacing one large tree with a small tree is not an equal trade of benefits.

The environmental benefits are realized exponentially with the size, and number of trees and leaf area.

Maximizing Leaf Area



W.A. Kenney

Questions?

