Emerald Ash Borer
Managing the impact on the City of Toronto’s Urban Forest
Emerald Ash Borer is an introduced, invasive, wood borer insect that kills ash trees

- Native to north-east Asia
- First detected in 2002 in Detroit, Michigan and Windsor, Ontario
Overview Map of Emerald Ash Borer Research Locations in the City of Toronto
Survey methods

- visual
- trapping
- branch sampling
Emerald Ash Borer (EAB) in Toronto

Emerald Ash Borer (EAB) is an introduced wood-boring beetle native to northeastern Asia that poses a significant threat to all ash species in North America. EAB was discovered in North America in Detroit, Michigan, in 2002 and in Windsor, Ontario, in 2003. Since its discovery in southwestern Ontario, EAB has spread quickly—likely through the movement of ash firewood and nursery products. EAB was confirmed in Toronto in Fall 2007 and has subsequently been found in surrounding municipalities: Ottawa, Sault St. Marie, and parts of Quebec. EAB is also established in certain north-east and mid-west states in the USA.

All species of ash (Fraxinus spp.) are susceptible to EAB and, once established, EAB has proven impossible to control. Eradication of EAB is not possible and all efforts at eradication made previously by the Federal Government have been abandoned. No other tree species are known to be susceptible to this pest.

It is expected that EAB will spread throughout Toronto over the next decade and significant losses to tree canopy will result. Approximately eight per cent of Toronto’s trees are ash, representing about 850,000 trees that are vulnerable to EAB.

EAB in the Guildwood Area

EAB was recently confirmed adjacent to the intersection of Kingston Road and Galloway Road in some private trees. To date, this is the closest confirmed infestation to Guildwood parks. It is expected that EAB will be confirmed within the Guildwood Village area as soon as 2011.

Dying, EAB infested ash tree. August 2008

Many parts of Guildwood Village have almost 100% ash tree canopy on the road allowance, in parks and on private property. The loss of ash trees will be particularly devastating to these neighborhoods.

Can trees be treated against EAB?

High-value ash trees may be protected through the use of an insecticide injection.

Through Emergency Use registration from the Pest Management Regulatory Agency (PMRA) of Health Canada, TreeAzin is the only insecticide registered in Canada that has been shown to be effective in providing control of EAB in ash trees. For 2011, it is expected that TreeAzin will have either full registration or receive Emergency Use registration again.

TreeAzin is a systemic, bio-insecticide containing Araumin, an extract from the Neem tree. A liquid formulation has been developed for stem injection by the Canadian Forest Service in collaboration with BioForest Technologies Inc. which
Ash tree mortality
Predicted Ash Mortality of City of Toronto Street Trees

- 2007: 800 trees
- 2010: 3,000 trees
- 2014: 16,500 trees
- 2016: 29,000 trees

Percentage of Trees vs. Year
Cumulative Ash Mortality by Year

- 11-YEAR SUM
- 12-YEAR SUM
- 10-YEAR SUM

Years: 2011 to 2020

Numbers: 0 to 1000000

Graph shows the cumulative number of ash mortality cases over years.
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EAB Management Plan

- detection survey
- inventory
- planned removal of trees
- pesticide treatment
- planting
- community engagement
- collaboration with other organizations