



Hamilton
Public Works

7.2
Public Works Committee
January 13, 2014

**Public Works
Environmental Services Division**

Emerald Ash Borer Program

January 13, 2014

Providing services that bring our City to life!

Emerald Ash Borer

The Emerald Ash Borer (EAB) is an invasive insect native to Asia, that was first discovered in Canada in Windsor in 2002. Since that time, it has rapidly spread throughout southern and eastern Ontario and parts of Quebec.

EAB is a primary killer of all ash trees within the genus *Fraxinus*. It is the larval stage of the insect that causes the damage by feeding underneath the bark, effectively girdling the tree; preventing the translocation of water and nutrients.

- Community
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- Processes
- Finance



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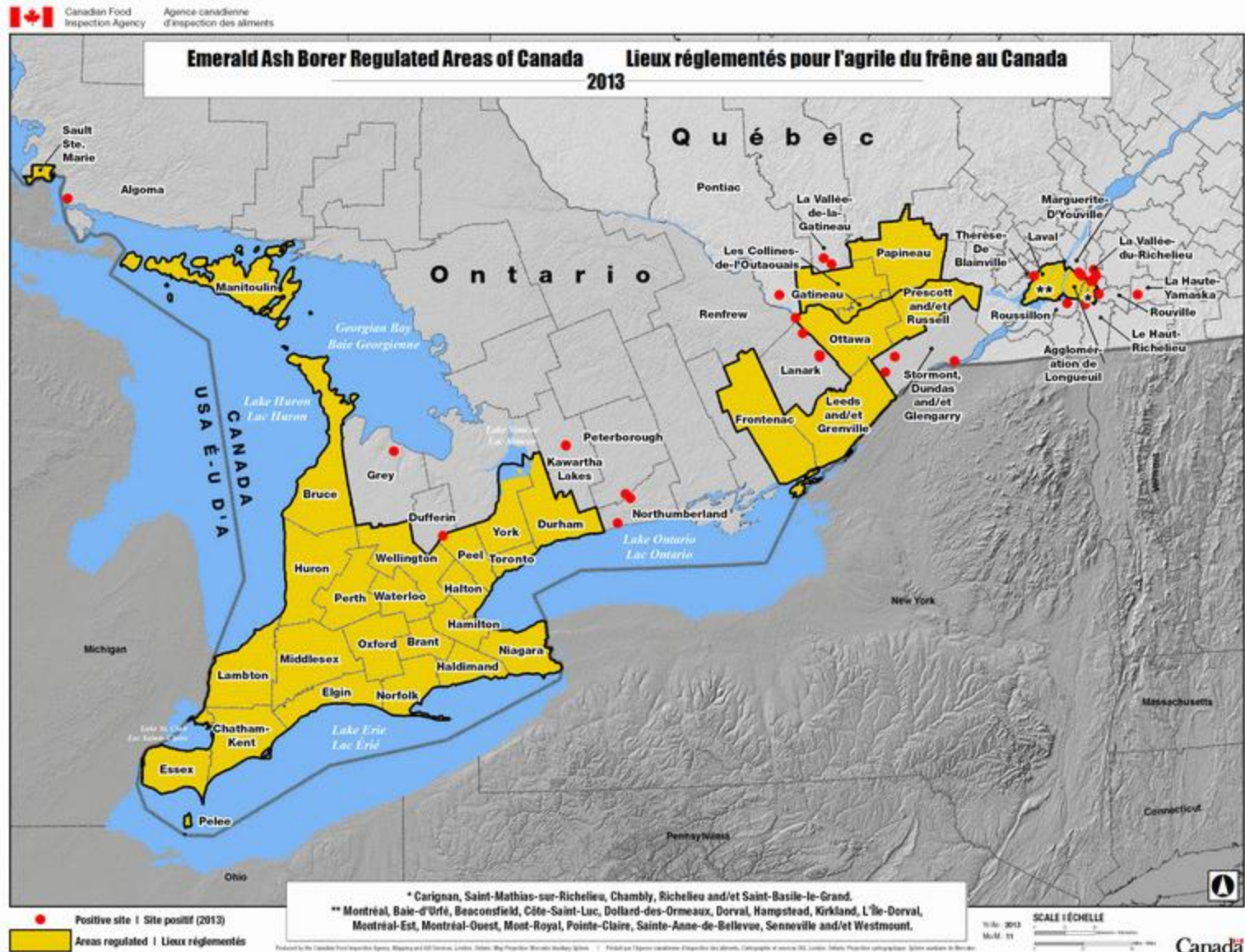


Emerald Ash Borer Regulated Areas

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Emerald Ash Borer in Hamilton

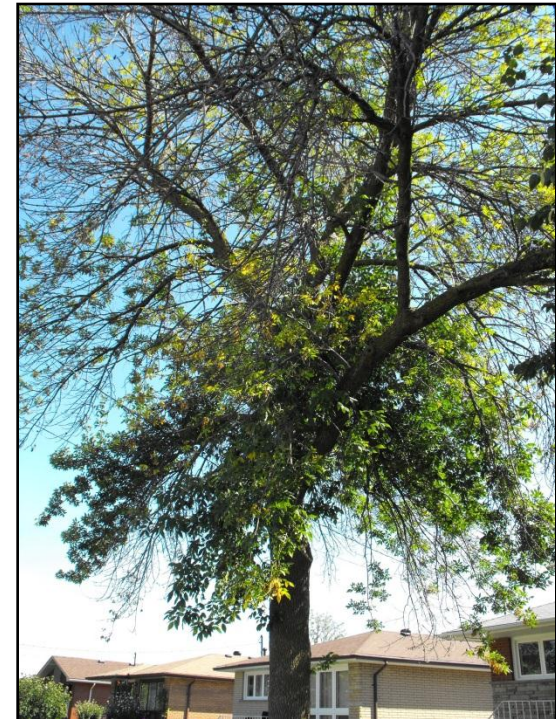
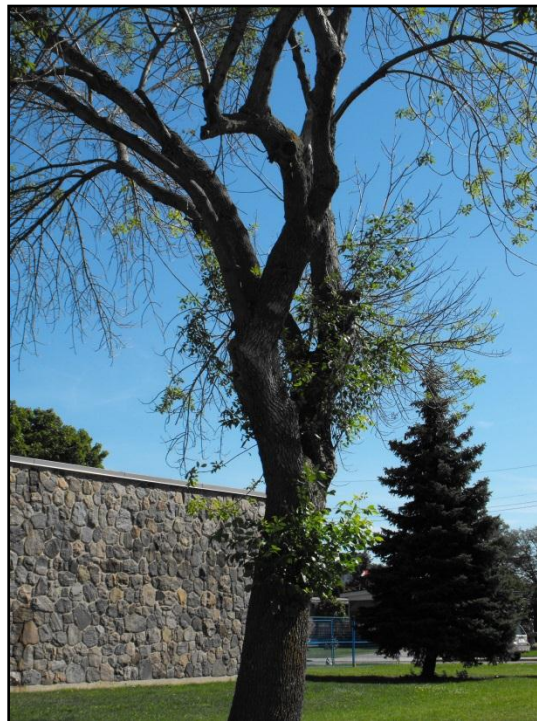
EAB was first discovered in Hamilton in February 2009 on the central mountain.

Infested ash trees have been found throughout the City with tree decline and mortality evident in every Ward.

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Emerald Ash Borer Action Plan

At the GIC meeting held on September 6th, 2012, the Forestry Section's EAB Action Plan report was presented.

Council approved a 10 year, \$26.2 M proactive management EAB program where one-tenth of the City's ash tree inventory will be removed and replanted with a non-ash tree species each year. Up to 800 trees (400 per year) are being treated with TreeAzin.

The Forestry Section is utilizing this opportunity to diversify the urban forest.



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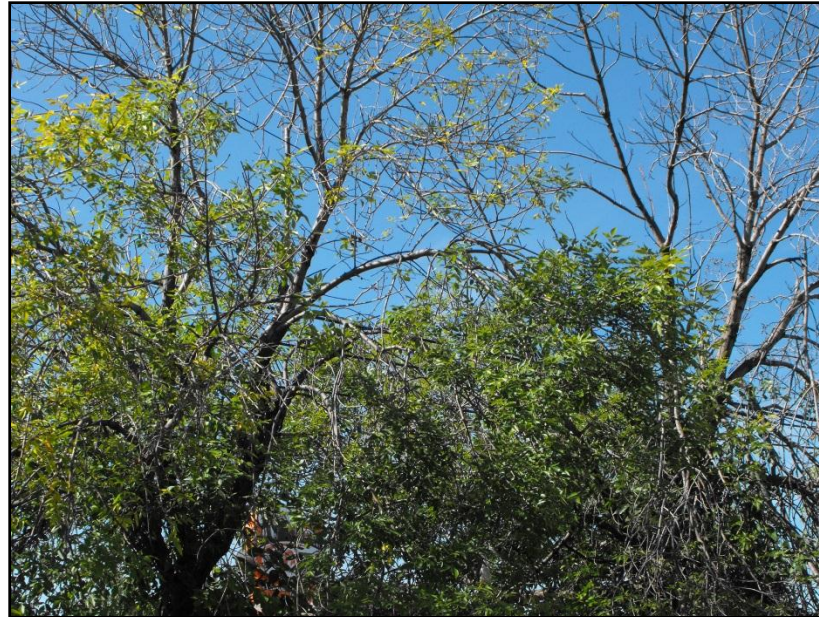


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Ash Tree Removal

Ash tree removal, stumping, replacement and injection are being performed through contractual services. Tree removal of infested and dying trees began in Ward 7 where EAB was first discovered; followed by Wards 6, 8, and 10. Removals will continue to take place in the wards with the highest infestation or where active infestations are detected.

City crews occasionally remove Ash trees where they may pose a potential property or health/safety hazard. Otherwise all removals are performed by the Contractor.



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Ash Tree Removal 2013

As of December 6, 2013 the work completed under the EAB Program is as follows:

- 1297 trees removed
- 777 stumps removed
- 456 replacement trees planted

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Replacement Tree Planting

The Tree Planting Section is supplying the replacement trees and planting is being performed through contractual services.

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Trees removed under the EAB Program are replaced on a 1:1 basis.

A representative visits the location and works with the property owner to discuss species options and provide a recommendation for the most suitable tree species for the lot.

Over fifty different varieties of trees are available, helping to diversify the urban forest.



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Treatment Criteria

The following criteria have been developed to assist in identifying suitable ash trees for treatment with TreeAzin. Up to 800 trees (400 per year) are being treated in the program.

1. Size
 - Trees shall be a minimum of 25 cm in diameter
2. Tree Health
 - Trees should be free from structural defects and have less than 30% dieback
 - Infestations of other pests should be at a minimum
3. Location
 - Municipally owned ash trees are eligible for treatment; private trees are the responsibility of the property owner
4. Tree Permanence
 - Future development and reconstruction plans are taken into consideration



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2013 Treatment

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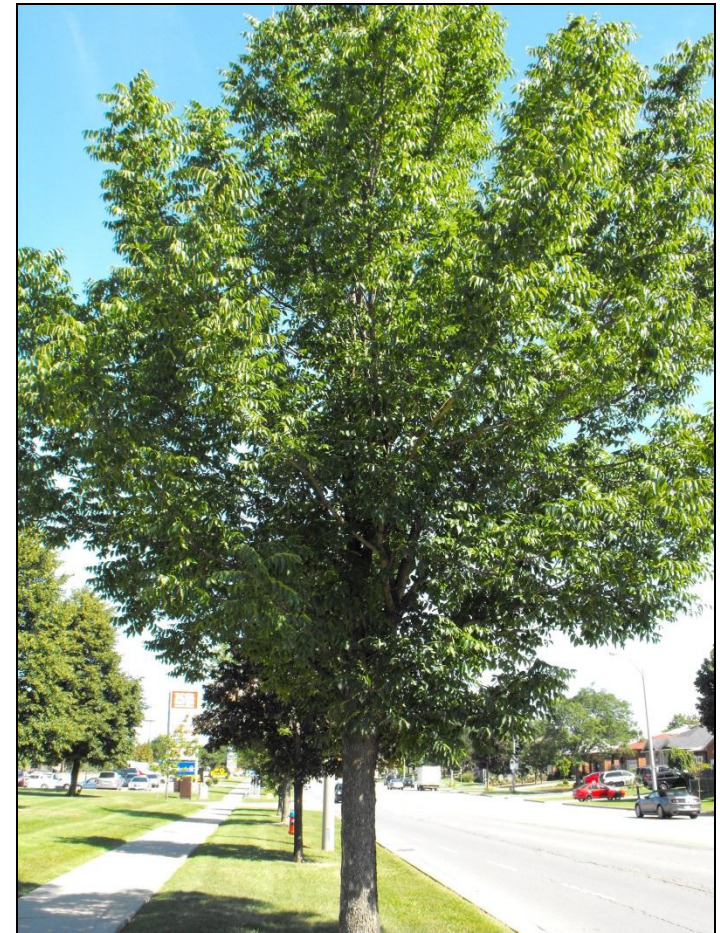


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Tree injections were performed from mid-June until the end of August.

216 trees were treated in 2013 with treatments taking place primarily in Wards 1, 2, 7, 8, 10, and 13. We will be treating the balance of 800 trees in 2014.

Forestry staff will be identifying trees in the remaining wards in early 2014.



Biological Controls

This year, the Canadian Food Inspection Agency (CFIA) approved two species of wasps from China as the first biological control agents for use in the attempt to control the spread of EAB.

Only one species has been released at this time in southwestern Ontario by Natural Resources Canada – Canadian Forest Service.

Adult wasps lay their eggs on the larvae of EAB and upon hatching, they feed on the larvae, effectively killing it.

The wasps will not eliminate populations of EAB entirely, but it is hoped that they will reduce the population to a point where it is manageable in the Canadian environment. The project is under research and the wasps are not currently available to municipalities.



Tetrastichus planipennis

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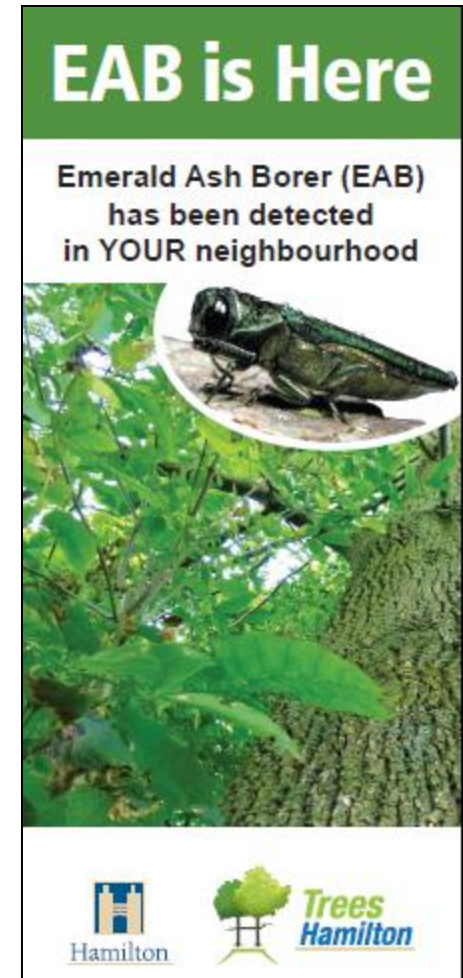


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Communications

Public communication on the EAB Program has included the following:

- FAQ's on the <http://www.hamilton.ca> website, including information on ash tree and EAB identification, signs and symptoms of infestation, and reporting procedures
- Cable 14 information video
- Postcard mailers which are sent to each residence prior to tree removal occurring within the ward
- Information booklet “EAB – What you Need to Know”



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Next Steps - 2014

The next steps in the EAB Program include the following:

- Completion of identified tree removal in Ward 6, followed by Wards 9 and 5. Additional removals will take place in all Wards where trees are in decline
- Staff will continue to identify trees that are suitable candidates for the 2014 injection program
- Future communications include having an EAB ad run in the City-wide community calendar and continued distribution of information booklets and postcard mailers



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Questions?

For further information please contact

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December 21, 2013 - Ice Storm

On December 21st, 2013 an ice storm hit the City of Hamilton that caused extensive tree damage primarily above the escarpment

- Staff immediately responded to the tree damage and continue to address the most urgent situations
- Hierarchy of response:
 - Protection of health/safety and property
 - Road access
 - Driveway access
 - Sidewalk access
 - General clean-up
 - Tree health
- Crews from Forestry, Horticulture, Roads and Waste have all been working on the clean-up

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December 22, 2013 - Ice Storm (cont'd)

As of January 10th, 2014:

- 3,675 distinct tree damage calls have been received
- 1,750 tree damage work orders have been resolved
- 1,400 oversize branch related work orders created
 - These are branches too big for waste packers and require chainsaws
- 20 crews are working 5 days a week with brush crews working Saturdays with assistance from parks and waste collection
- Staff are concentrating in the areas that were hardest hit although work is on-going in all Wards that received ice storm damage

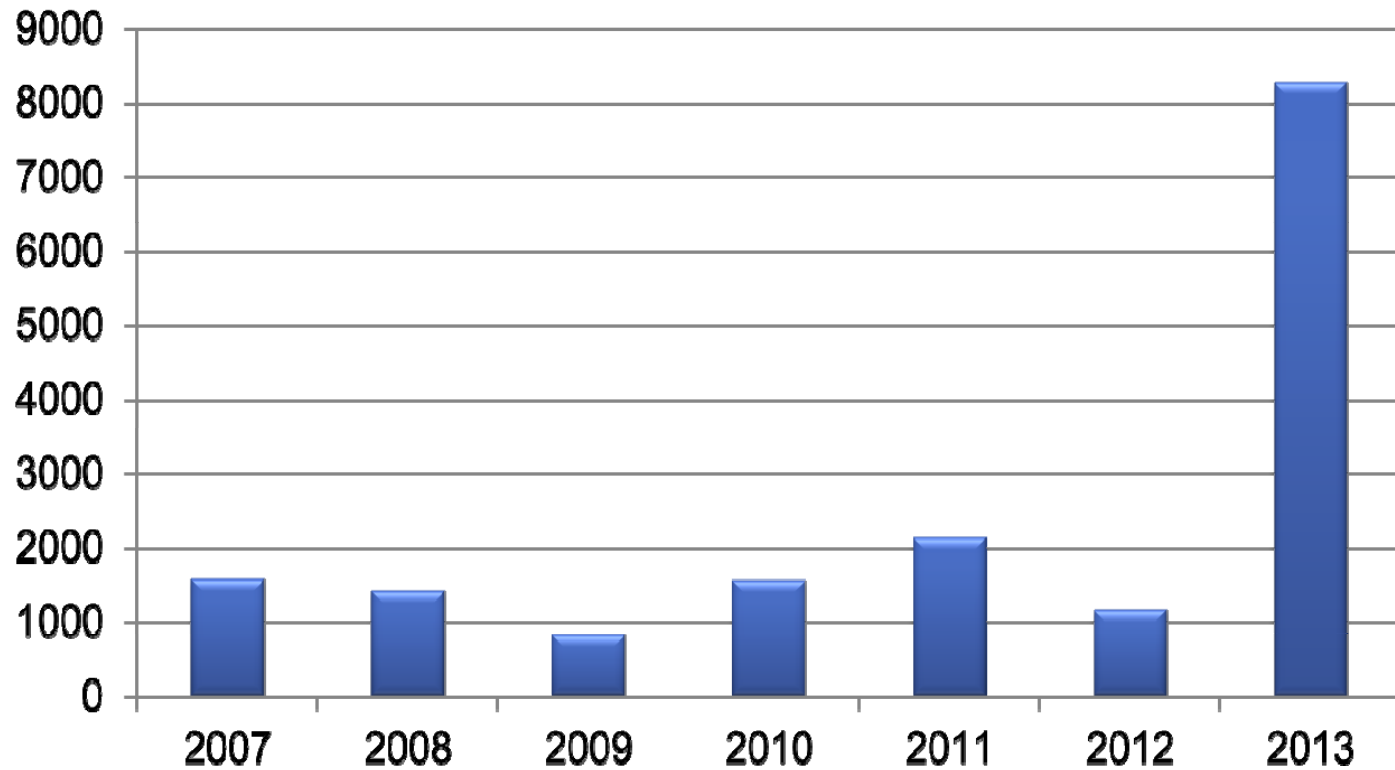
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Forestry Tree Damage by Year

Tree Damage Calls



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