



## **Update on the Strategy for the Management of Emerald Ash Borer**

Parks and Environment Committee, February 2012



# Emerald Ash Borer Management Strategy

- Monitoring (Survey)
- Education (Communication)
- Pesticide Treatment
- Removal of Infested Trees, and
- Tree Canopy Replacement

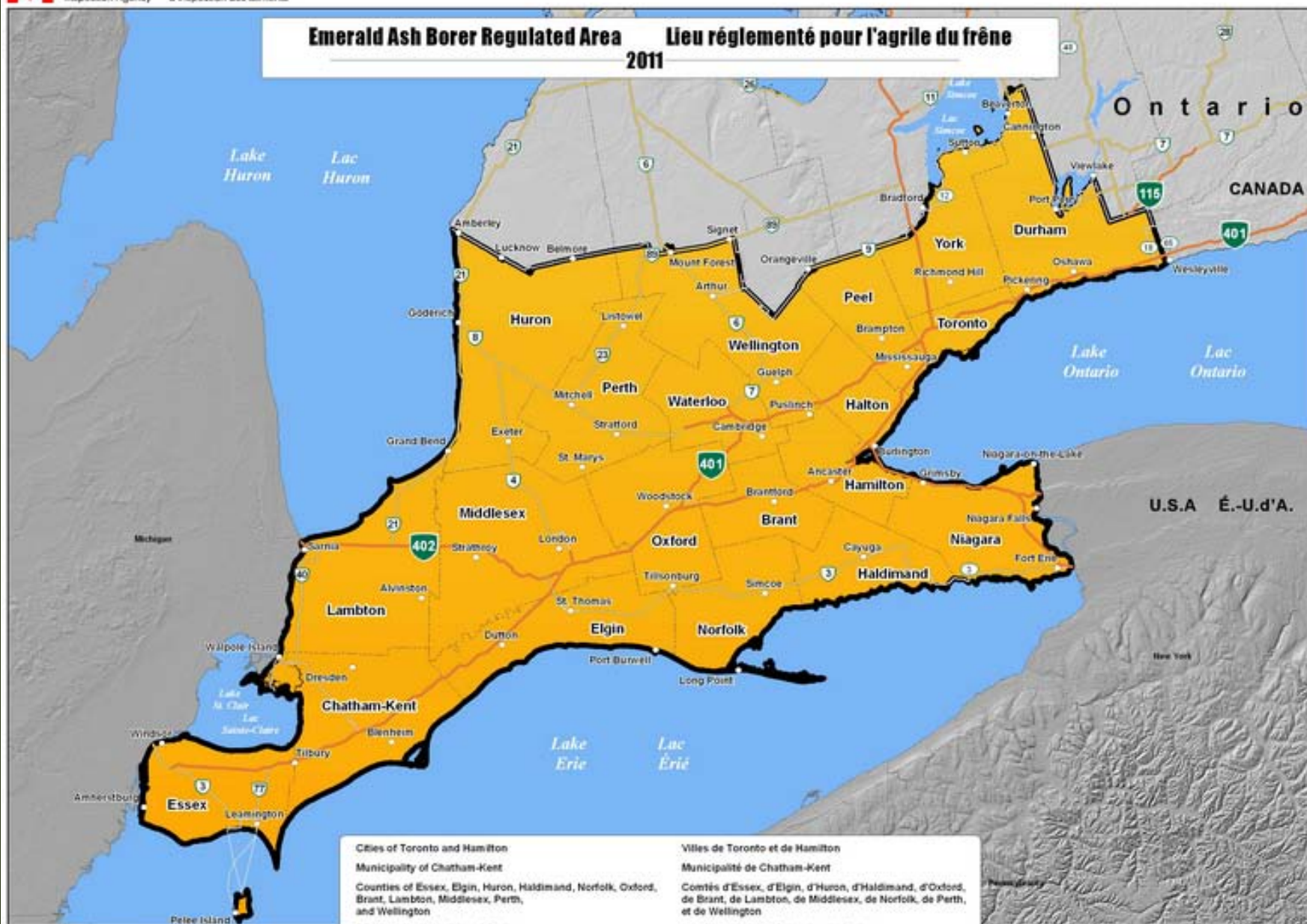




# **Emerald Ash Borer Regulated Area**

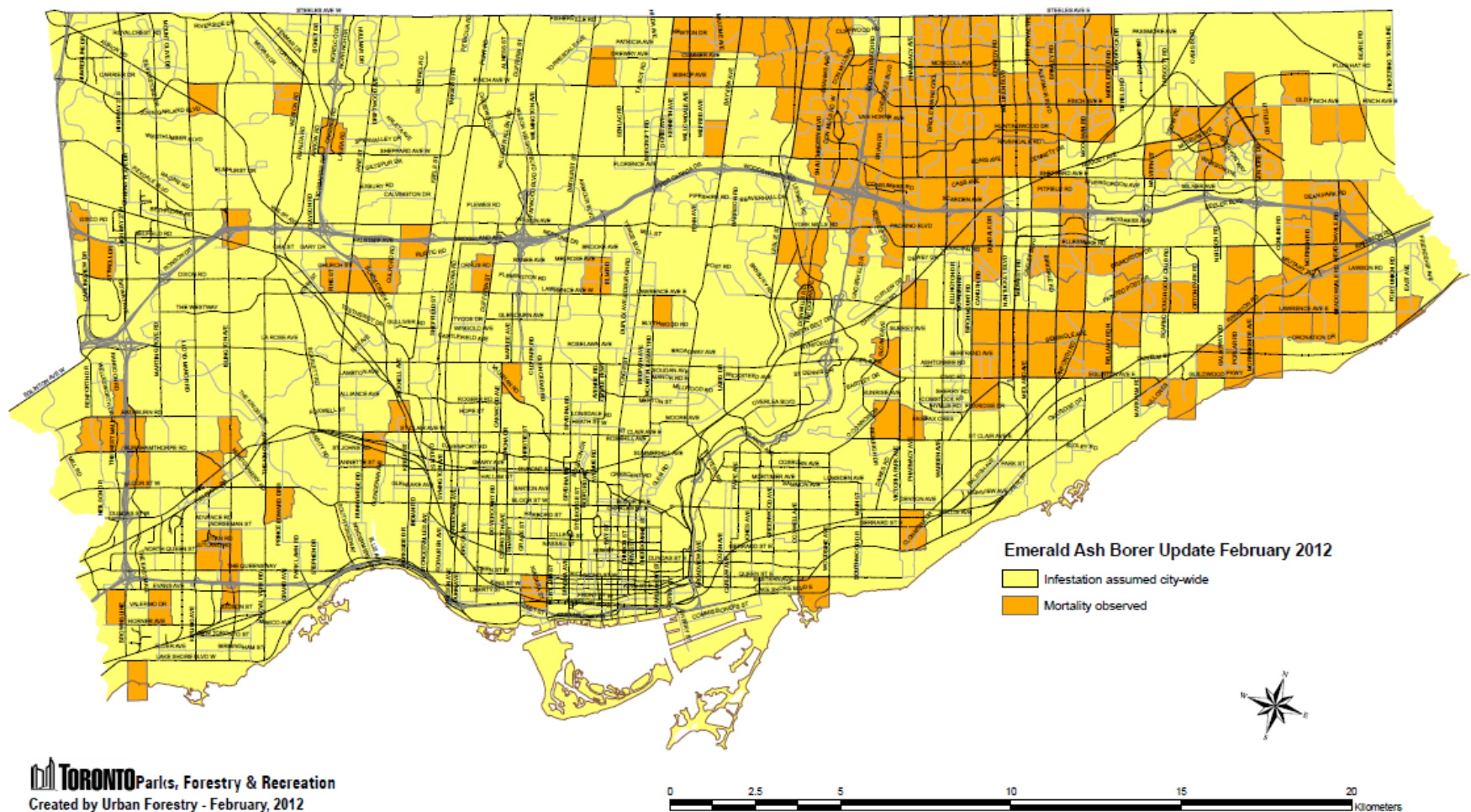
2011

# **Lieu réglementé pour l'agrile du frêne**

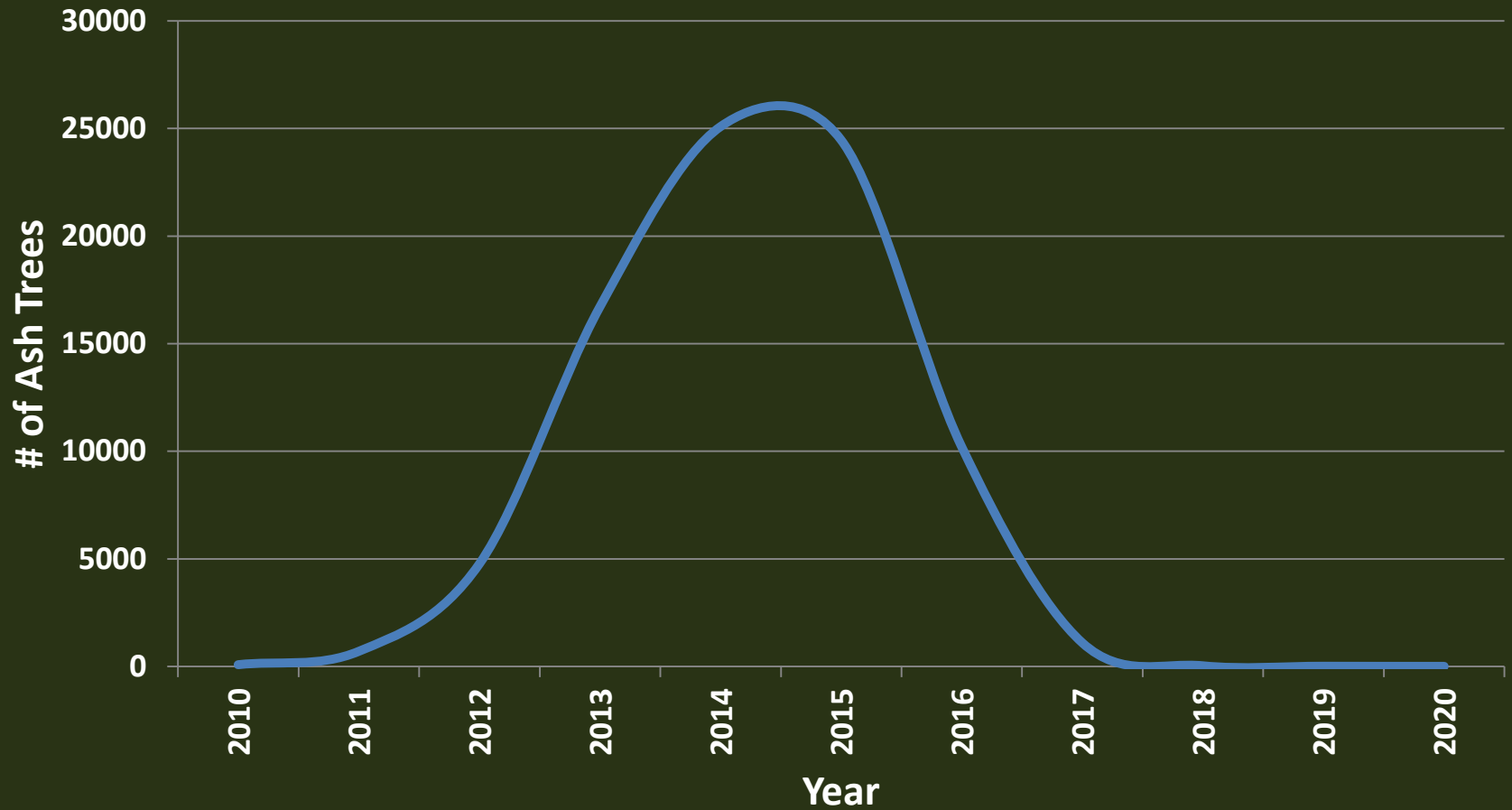




# City of Toronto Emerald Ash Borer Infestation - February 2012



# Projected Ash Tree Mortality (Street and Park Trees)



# Financial Plan in 2012

EAB Management Plan - 2012 Implementation	Cost Estimate
Removal of city-owned ash trees	\$ 3,426,864
Wood Waste Disposal	\$ 27,991
Pesticide Treatment Program	\$ 370,000
Budget for temporary staff requirements	\$ 521,276
Replacement of ash trees	\$ 706,000
<b>Total Financial Impact</b>	<b>\$ 5,052,131</b>

*\*Given the uncertainty of the rate of spread and death of trees, the financials listed are cost estimates*

# Communications Outreach

- ✓ Website updates
- ✓ Local news stories
- ✓ Public meetings
- ✓ Poster displays
- ✓ Radio/television news

## Guildwood News & Views

Fall 2010

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News & Views is available in colour on our website

Please check the GVCA website [www.gvca.ca](http://www.gvca.ca) for information updates between newsletters.

### Emerald Ash Borer (EAB) in Toronto

The 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, South St. Mary and parts of Quebec. EAB is also established in certain north-east and midwest 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 \$50,000 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 neighbourhoods.

#### 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 Azadirachtin, 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 areas as soon as 2011.

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## InsideToronto.com

### Agincourt residents warned of tree devastation due to ash borer

MIKE ADLER

September 16, 2011

The emerald ash borer is probably under the bark of every ash tree in Agincourt, chewing away.

But most residents with an ash at the foot of their driveway may not realize what is happening until the tree is dying, and a card hangs on their door announcing it will be cut down and taken away.



Agincourt residents warned of tree devastation due to ash borer. The emerald ash borer is spreading through areas of Scarborough, North York and Etobicoke, causing huge damage to ash trees. Photo/G. Wood

Then there are the ash on homeowners' properties, trees that are their responsibility and like 860,000 across Toronto, probably all marked for death during the next five summers.

"People aren't necessarily understanding that this is coming," Beth McEwen, one of the city's urban forestry managers said at a community meeting on the fast-spreading green beetle Wednesday, Sept. 14, night.

Looking at a crowd with fewer than 10 residents at L'Amoreaux Community Recreation Centre, McEwen said it's been hard to get people interested in the tiny ash borer until it affects them personally.

She asked the audience to tell their neighbours about the pest.

It won't be long, however, before devastation caused by the beetle, which eats only ash, strips away tree cover in local subdivisions. Some Scarborough roads are lined with ash, McEwen said, because developers planned that way.

Purple dots on a map at the back of the room represented pending tree removals: if it hasn't happened already, Agincourt streets such as Chestergrove, Groomsport and Longford crescents, and Glen Springs and Fort Dearborn drives will soon look much emptier.

Rows of red dots, standing in for ash trees that still look healthy, suggest other local streets will share this experience in a few years.

Toronto is now surrounded by trees harbouring the insect, which this summer was found in traps near the city's downtown core for the first time.

In Scarborough-Agincourt Councillor Norm Kelly's ward, close to where the infestation was spotted near Sheppard Avenue and Hwy. 404 in 2007, the city has removed 650 street

The  
Emerald Ash Borer  
will destroy  
an estimated  
860,000 ash trees  
in Toronto by  
2017.

Will your Ash tree be  
one of them?

Find out more at:  
[toronto.ca/eab](http://toronto.ca/eab)



# Information Brochure

Where can I find an arborist?

An information brochure is being created about EAB to inform property owners of available resources for management.

Why are some trees more expensive to maintain, treat or remove?

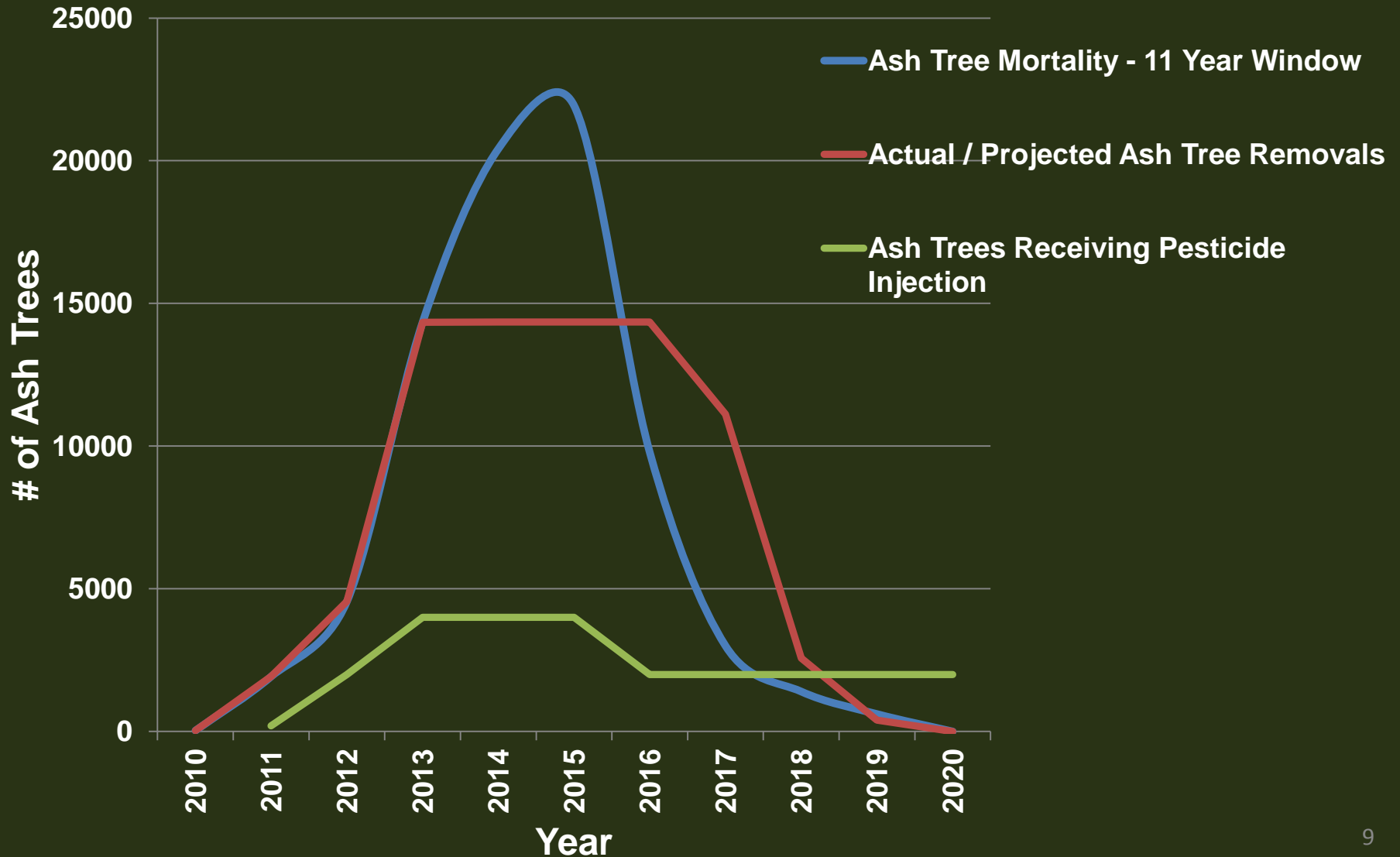


How do I know if someone is qualified to work on my trees?

Why should I plant a replacement tree?



# Ash Tree Removal and Injection Plan (Street and Park Trees)



# Pesticide Treatment

- Cost of treatment varies with tree size: average cost in 2011 was \$185/tree
- Treatment must be repeated every 2 years
- Treated trees must be healthy to recover from infestation



# Rationale for Pesticide Injection Plan

- Need to manage public risk
- Existing ash trees provide *environmental* benefits that will take years to replace with newly planted trees
- Preservation of prominent, landmark trees
- Limits on staff, contracted and financial resources restrict the total number of trees that can be injected per year
- Strategic timing of treatment - Inject trees when threat is imminent, not before
- Expect injection to be necessary for the life of the tree (cannot stop after 6-8 years and expect the beetle to be gone)
- Defer the cost of tree removal for years



# Tree Removal



## Notice of Tree Removal and Replacement Planting

Address: .....

### Dear Resident:

Urban Forestry has determined that the ash trees in your neighbourhood are infested with the Emerald Ash Borer (EAB) insect. The declining City-owned ash tree(s) located on the City property adjacent to your home/property has been scheduled for removal. Plans for removal and replacement (space permitting) are outlined below.

### TREE REMOVAL

Position No. (s): .....

☐ Winter 20 ..... ☐ Spring/Summer 20 ..... ☐ Fall 20 .....

### TREE REPLACEMENT PLANTING

☐ Fall 20 ..... ☐ Spring 20 .....

Recommended Species: .....

Alternate Species (if above species not available): .....

### Recommended planting locations

Position No.: .....

metres: ☐ north ☐ south ☐ east ☐ west

from the: ☐ curb ☐ walkway ☐ driveway

☐ laneway ☐ building

and

metres: ☐ north ☐ south ☐ east ☐ west

from the: ☐ curb ☐ walkway ☐ driveway

☐ laneway ☐ building

Position No.: .....

metres: ☐ north ☐ south ☐ east ☐ west

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and

metres: ☐ north ☐ south ☐ east ☐ west

from the: ☐ curb ☐ walkway ☐ driveway

☐ laneway ☐ building

Inspected by: ..... Date: .....

### QUESTIONS 12

For more information on Emerald Ash Borer  
and tree removal and replacement visit  
[toronto.ca/trees](http://toronto.ca/trees) or call 311.



# Tree Planting Plan

## Priorities

- Residential street tree replacement
- Arterial road and commercial street tree replacement
- Park tree replacement



# Summary of EAB Management: 2011-2017

	2011	2012	2013	2014	2015	2016	2017	Total
Street tree mortality	1773	3332	8000	9400	7300	2195	0	32000
Park tree mortality	155	1225	6343	11018	14632	7581	2046	43000
Trees injected with pesticide	203	2000	4000	4000	4000	2000	2000	8000*
Tree mortality after pesticide injection	1928	4557	14343	20418	21932	9776	2046	75000
Trees affected by a 12 month backlog			0	6068	13650	9076	0	28794
Tree removal in parks and on streets	1928	4557	14343	14350	14350	14350	11122	75000
Trees to be tub ground	1889	4251	12757	17664	18274	7881	1535	64251
Street tree planting	285	2824	3234	6700	6700	6700	5557	32000
Cost (\$ millions)	1.57	5.05	13.58	14.46	14.46	14.03	11.01	74.16

*\*total of 8000 trees will be injected – some trees will be injected up to 3 times over the course of infestation in Toronto*