Emerald Ash Borer Update

March 2015

Emerald Ash Borer

1. What is the Emerald Ash Borer (EAB)?
2. Where is EAB found?
3. Update on the City of Ottawa's response to EAB
4. Ash trees on private property
5. Questions

What is the Emerald Ash Borer?

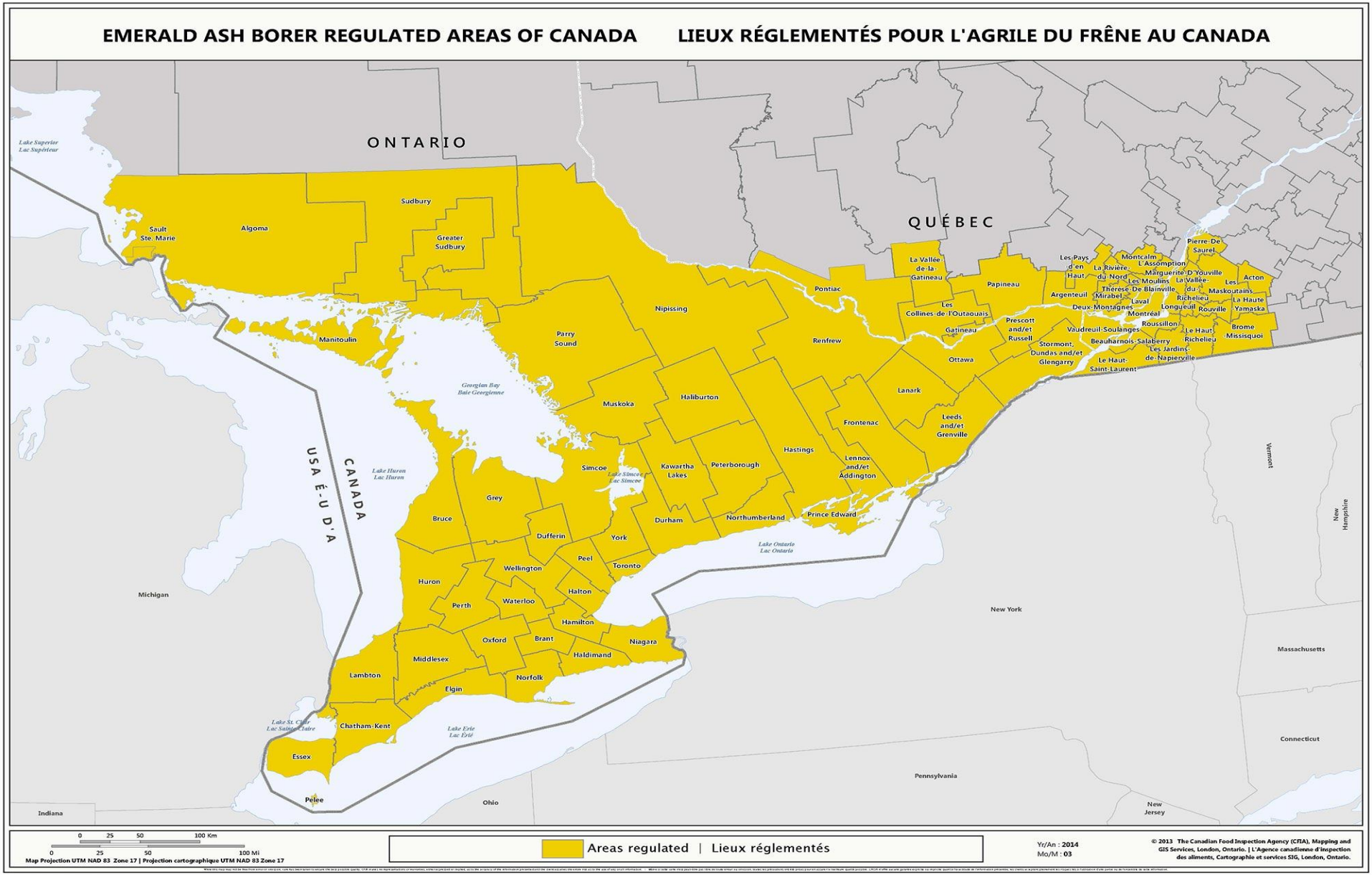
- Invasive wood-boring beetle native to Asia
- Attacks and destroys all species of ash trees
- Does not attack other tree species
- No natural predators to control EAB in Canada

Ash trees infested with EAB

EAB Background

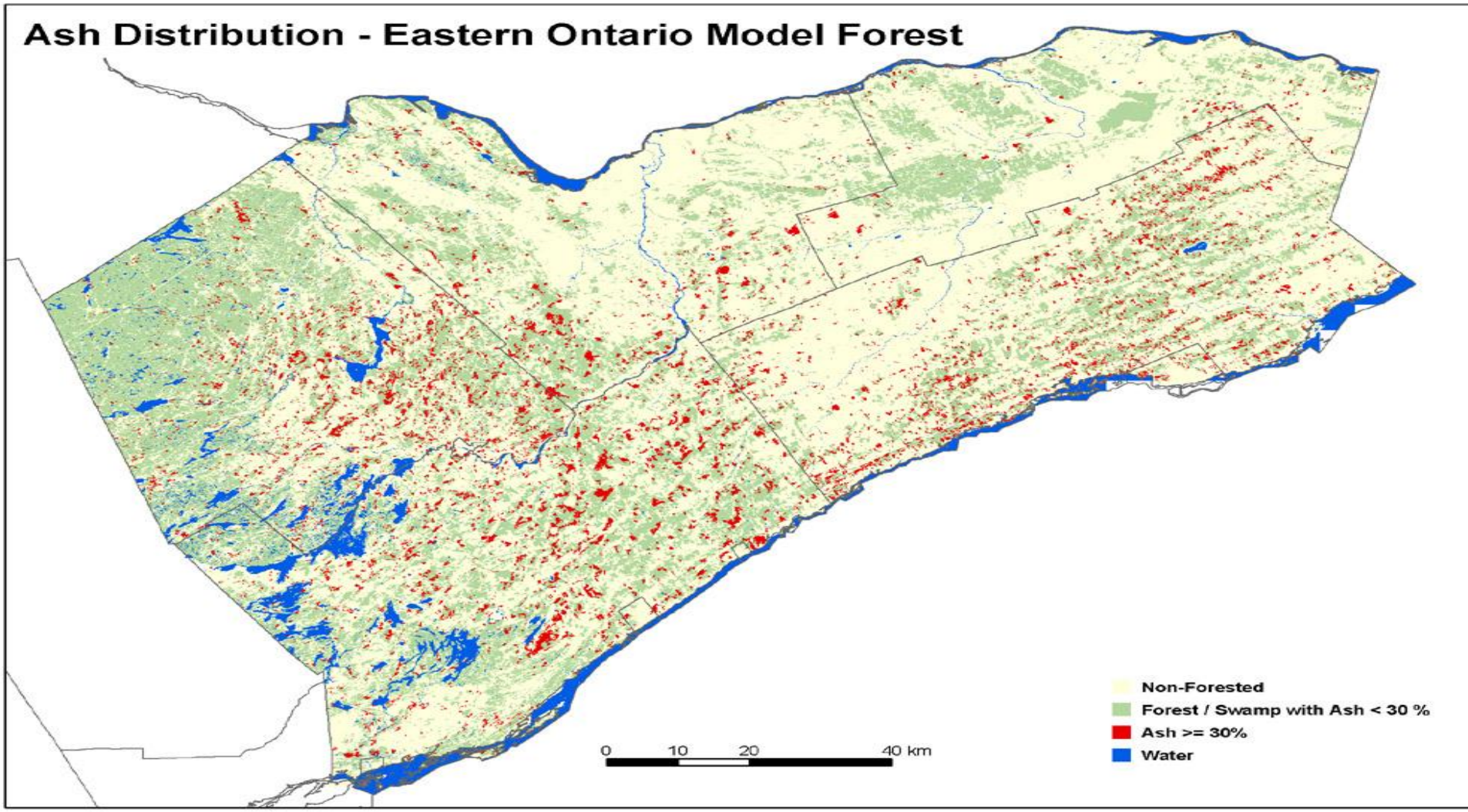
- Originally identified in Michigan in 2002
- Confirmed in Ottawa in 2008
- Spends most of its lifecycle under the bark of trees and it can be moved with firewood or other tree materials
- Able to fly, but spread of EAB has been primarily along major highways and transport routes
- Humans are the main vector of dispersal

2014 Wood Movement Boundary Map



Potential Impact on Local Forest Cover

- Ash trees make up 20 - 25% of Ottawa's urban and rural forests and eastern Ontario's forests



Regional Approach

- **Regional Forest Health Network**
  - **City of Ottawa, City of Gatineau, National Capital Commission, Conservation Authorities, Arboretum**
  - **Ontario Ministry of Natural Resources**
  - **Canadian Food Inspection Agency**
  - **Canadian Forest Service**
  - **Eastern Ontario Model Forest**
  - **Mohawk Council of Akwesasne**
  - **L'Agence de mise valeur des forets privée outouaises**

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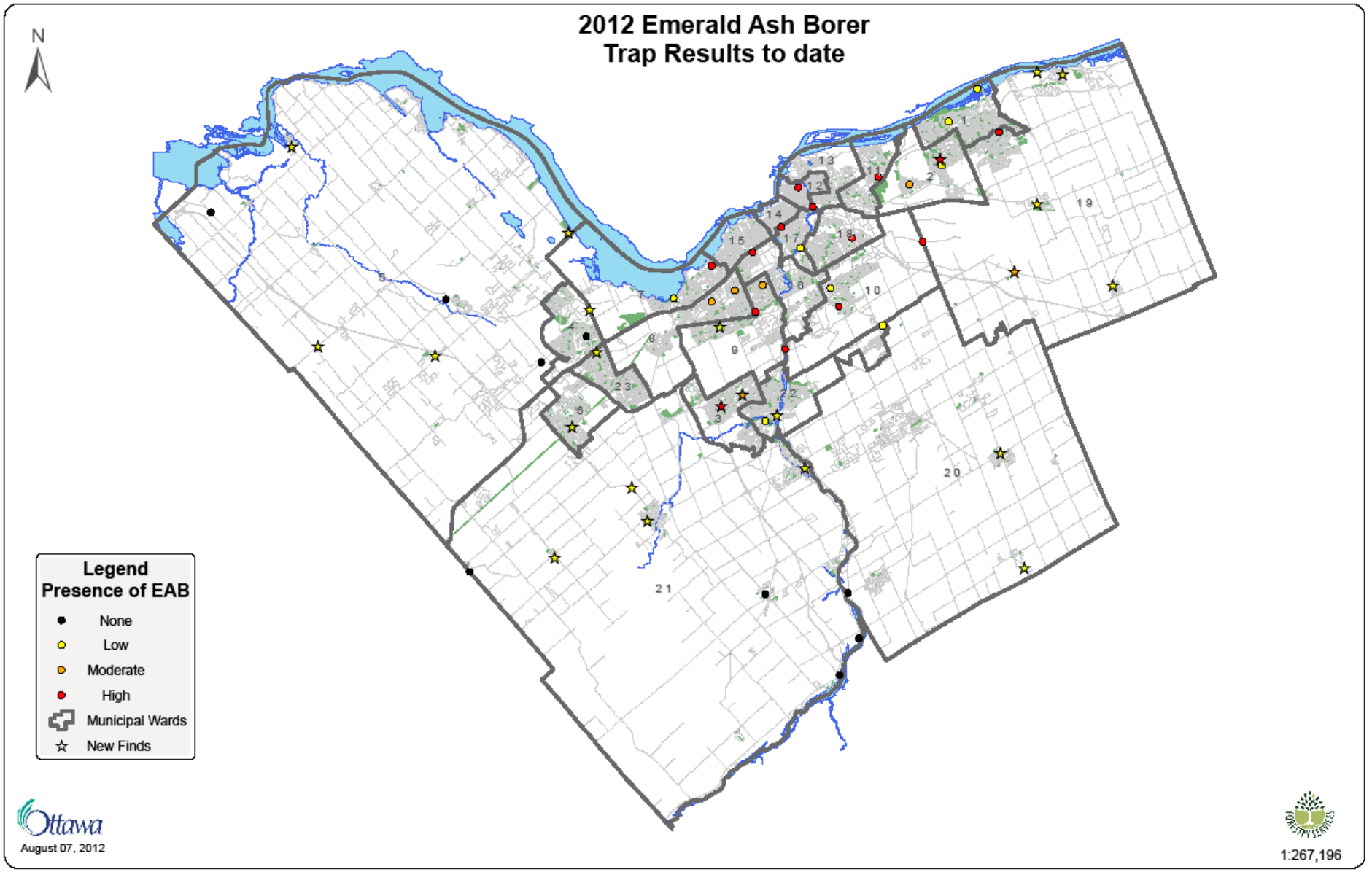
City of Ottawa EAB Monitoring



City of Ottawa EAB Strategy

Five Steps to Manage the Impact:

1. Proactive and Replacement Tree Planting
2. Selective Tree Injections
3. Tree Removal
4. Wood Movement and Disposal
5. Public Awareness and Outreach

Proactive Tree Planting

- Plant trees on City property in areas of high ash density in advance of removal
- Replacement trees planted following ash tree removal

Selective Tree Injections

- Annual/Biennial injection required
- TreeAzin
  - Biological-based insecticide made from neem trees
  - Delivered through a special tree injection system
- Potential for use to preserve large specimens or significant trees

Ash tree removal

- 120 trees (2009)
- 900 trees (2010)
- 2000 trees (2011)
- 2600 trees (2012)
- 3200 trees (2013)
- 4000 + (2014)

Queensway Park – During

Queensway Park – After

Wood Movement and Disposal

- Controlled wood handling and processing
  - Trail Road Waste Facility
  - Private sawmill

Public Awareness / Outreach

- Workshops
- Educational Materials
- Community Outreach
- Stakeholder awareness / promotion of management strategy
- Ottawa.ca/eab

Ash (genus *Fraxinus*)

Figure 1: Ash are typically large growing trees reaching up to 30m tall at maturity

Ash Trees

Ash trees, genus *Fraxinus*, are common street, park, and forest trees (Figure 1). There are three species of ash native to the Ottawa area: white ash (*Fraxinus americana*) and green or red ash (Fraxinus pennsylvanica), and black ash (Fraxinus nigra).

Branches and Leaves

Branches and leaves grow in an opposite pattern. Where one leaf or branch emerges, another grows directly opposite. When making an identification, consider that branches and buds may die therefore, not every branch and leaf will be opposite another.

Leaves are typically 5-15cm long and compound with 5-11 leaflets (Figure 2). Leaflets have either smooth or toothed margins (edges).

Figure 2: Green ash leaf

Seeds

Ash seeds hang in clusters of single, oar-shaped seeds and are often shrivelled *(Figure 3)*. Clusters typically stay on the tree until late fall or early winter.

Trunk and Bark

Young trees have smooth, light grey bark. Older trees have furrowed bark with a diamond shaped ridge pattern (Figure 4).

Figure 4: Young ash bark (left) ;mature ash bark (right)

Similar species

Several common landscape trees may be easily confused with ash. Manitoba maple (*Acer negundo*) is the only other tree species with compound leaves and an opposite branch and leaf arrangement. Manitoba maple has distinctly lobed leaflets. Black walnut (*Juglans nigra*), Butternut (*Juglans cineria)* and Hickory (genus *Carya*) also have similar leaves to ash however, these have an alternate leaf arrangement.

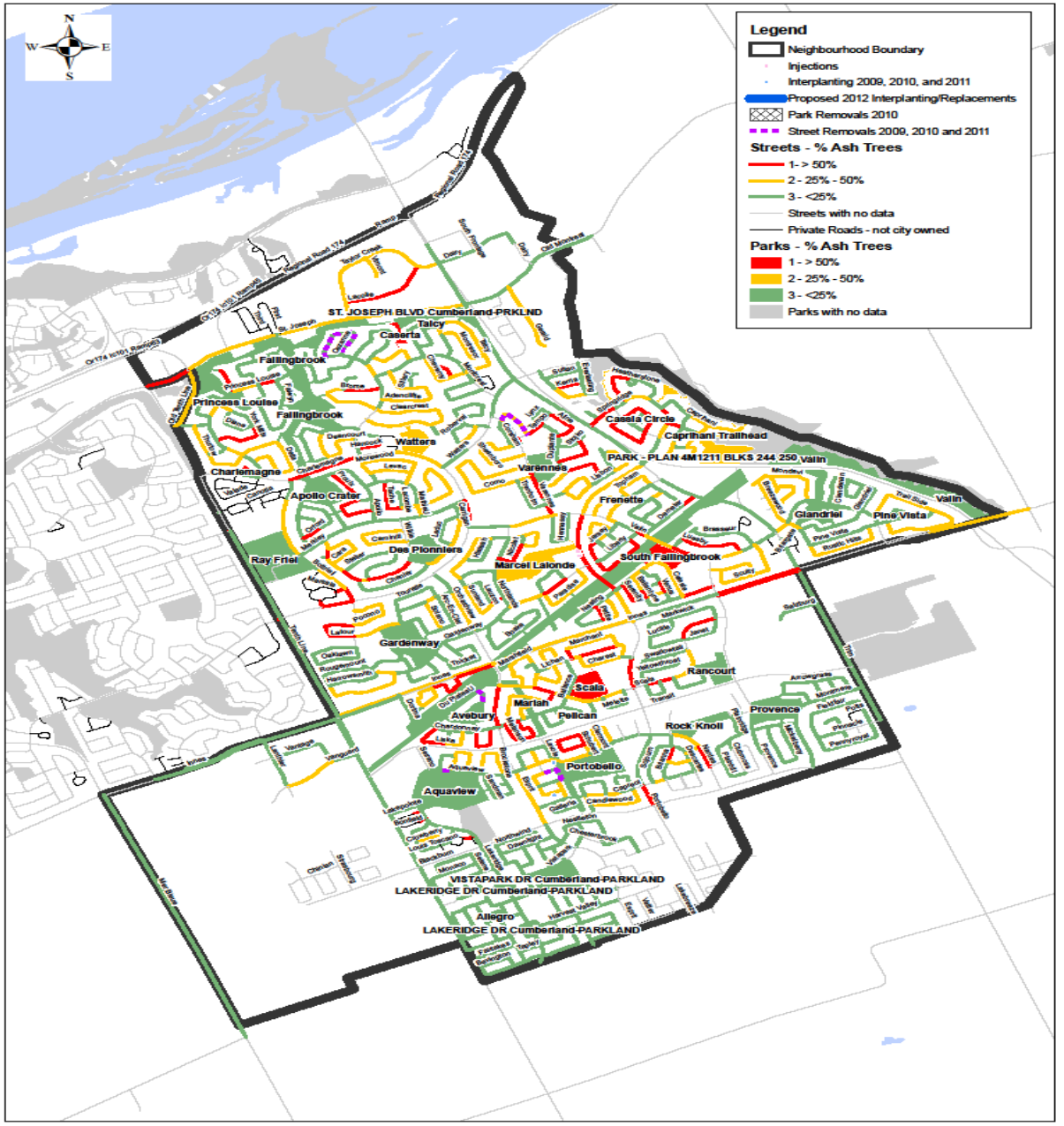
For more information on tree identification, refer to *Trees in Canada* by J.L. Farrar, published by Fitzhenry and Whiteside Ltd.

Figure 3: Hanging clusters of ash seeds

For more information:

City services 3-1-1
TTY 613-580-2401
ottawa.ca/forestry

Neighbourhood Management Plan (EXAMPLE)



WARD 1
Orleans Avalon - Notting Gate - Fallingbrook - Gardenway South - City Streets and Parks
2012 EAB Management Plan

Ash trees on Private Property

Residents should:

- Identify/inventory ash trees on their property
- Understand how EAB works
- Consider pesticide treatment (if appropriate)
- Consider new tree planting
- Plan for ash tree removal (where necessary)
- Consult professionals for advice
- Visit ottawa.ca for more information