

## EMERALD ASH BORER INFORMATION SHEET

The Host Plants of the Emerald Ash Borer (EAB): *Fraxinus*, including White, Green, Blue, and Black Ash (**not Mountain Ash**) of all size and condition.

Identification and Life Cycle of the EAB: *Adults:* slender, elongate winged beetles 7.5-13.5 mm long (1/2 inch long by 1/16<sup>th</sup> inch wide). Emerald Green wing covers. *Larvae:* reach 10-14 mm long, are cream colored and flattened. Appears to have a one-to-two year life cycle in this area. Adults emerge in mid to late May, peak in June and July, but continue through August. Females lay 65-90 eggs. Eggs are deposited on bark surfaces or in bark crevices. Eggs hatch in 7-10 days.



Larvae chew through the bark into the cambial region and aggressively feed there until pupation, which may begin in late April or early May. Adults emerge through D-shaped exit holes 3-4 mm (1/8") in diameter. Adults can fly and will do some feeding on foliage. The cycle then starts all over again.

EAB infestation: Can be difficult to detect until canopy dieback is noticed. Evidence of infestation may include:

- D-shaped adult exit holes
- Vertical splits of 5-10 cm in length above the gallery caused by callus tissue produced in response to larval feeding
- Dead branches in canopy/plant death: caused by girdling from larval feeding
- Many trees lose 30-50% of the canopy in one year and trees are often killed after 2-3 years of infestation
- Foliage could be present but thin and/or yellow in appearance
- Increased and substantial woodpecker damage
- Frequently, epicormic shoots arise at the margin of live and dead tissues
- Once the upper portion of the tree dies, dense root sprouting may occur

Potential Impact on Local Ash Trees: Devastating and costly whether treating or removing and replacing. May be greater than the impact of Dutch Elm Disease on American Elms or Chestnut Blight on Chestnut trees.

Which Trees are Candidates for Treatments?:

Stage One: Excellent to good condition. No obvious signs of EAB infestation or damage. Tree may or may not be currently infested. This tree should respond well to treatment.

Stage Two: Good to fair condition. Tree show definite initial symptoms of EAB injury, less than 10 to 20% branch dieback. This tree may respond to treatment..

Stage Three: Fair to poor condition. Intermediate decline can indicate more activity by the EAB than what is really evident with 20-35% branch dieback. The tree may become highly disfigured for a while and may not be worth the effort. Where high visibility warrants high quality plants the best decision may be to remove and replace the tree.

Stage Four: Very poor to dead condition. 35-100% branch dieback too advanced to be salvaged. Removal is recommended.

Other considerations when deciding if and how to treat:

- Are you prepared to commit to the required annual treatments?
- Is it a tree that, due to location, should be removed now or may need to be removed at some point in the future?
- What is the value of the Ash to the aesthetics of the landscape?
- Is it a small tree that could be replaced now using funds that would have been used for treatment?
- Would the site benefit from having some or all of the Ash trees removed?
- Is the tree healthy at this time?

*Two examples of an ash tree with canopy dieback.*

