



# Summary of the EAB Management Plan

## City of Burnsville

### THE EMERALD ASH BORER THREAT

Emerald Ash Borers (*Agrilus planipennis*) are invasive, exotic beetles that attack and kill ash trees (all trees within the genus *Fraxinus*). Native to Asia, the beetles were first discovered in Michigan in 2002 and, by 2009, the destructive insects had invaded the Twin Cities. While the shiny green beetles feed on ash tree leaves, the larvae (immature beetles) do the worst damage by far. As the larvae tunnel under the bark of ash trees, they feed on the inner bark (vascular tissue) which transports the tree's food and water supply. As the larvae grow in number, more inner bark is destroyed, eventually killing the tree within two to four years.

Ash trees comprise about 20% of the trees within the City of Burnsville, and an Emerald Ash Borer (EAB) infestation threatens all of these trees. Because of the EAB threat, the Burnsville City Council approved the Emerald Ash Borer Management Plan in 2010. Updated in 2013, the Plan's purpose is to prepare the City for an EAB infestation by protecting good quality ash trees in public areas while removing those of low quality. The Plan takes a proactive approach to dealing with EAB that distributes costs over time and lessens both ecological and social impacts.

### EAB MANAGEMENT PLAN STRATEGIES

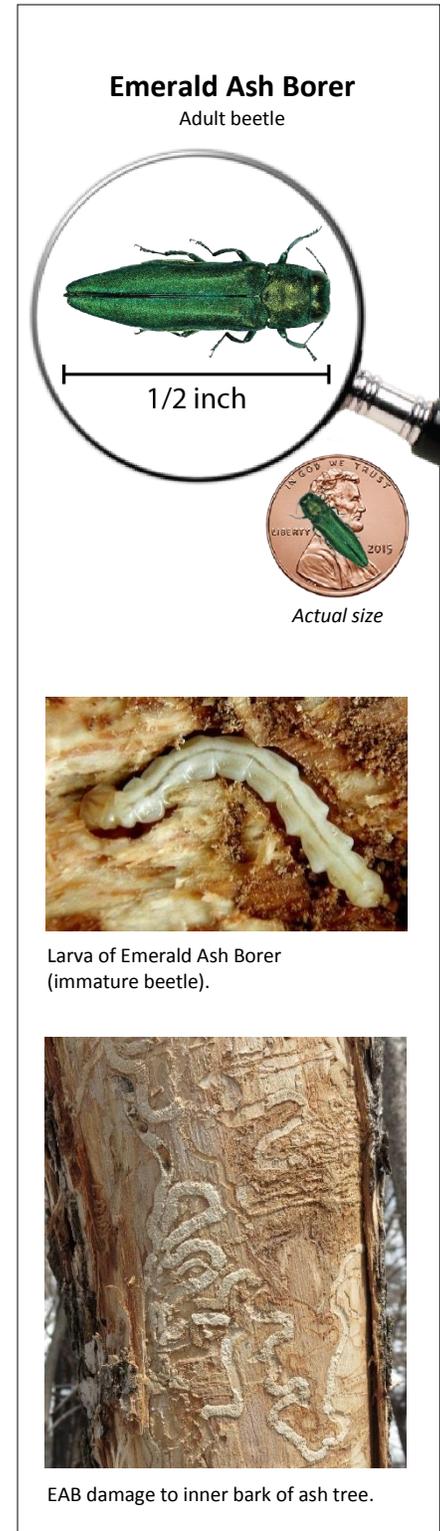
In 2013, it was estimated that 40,000 ash trees grew in Burnsville. About 22,000 of these are privately-own ash trees found in yards and on other private property. The other 18,000 ash trees in Burnsville are public ash trees, meaning trees located in parks, boulevards (street right-of-ways), and other city properties.

The City's EAB plan uses multiple approaches to deal with the EAB threat. Listed below, these strategies will occur in phases and will be ongoing:

- 1. Protect Legacy Ash Trees, defined as trees that meet these criteria:**
  - Located on city property.
  - Not located within natural, unmanicured woodlands.
  - Condition rating of "3" (fair) or "4" (good).
  - Diameter<sup>1</sup> of 10 inches or more outside Vital Areas<sup>2</sup>.
  - Diameter of 4 inches or more within Vital Areas.
- 2. Remove poor quality ash trees that meet these criteria:**
  - Located on city property (right-of-ways, parks, etc.).
  - Not located within a natural, unmanicured woodland.
  - Condition rating of "0" (dead), "1" (very poor), or "2" (poor).

<sup>1</sup> Standard tree diameter is measured 4.5 feet above the ground.

<sup>2</sup> Vital Areas: Civic Center area, Heart of the City, Burnsville Parkway (in part), and Birnamwood Golf Course.



**3. Plant trees to replace at least 50% of removed public ash trees:**

- Trees chosen as replacements will consist of several species to increase diversity of the City’s tree population.
- Replacements will occur after the majority of poor quality ash trees have been removed, with some replacements occurring sooner as budget allows.

**4. Assist residents with private trees:**

- Provide ash tree and EAB information through the City website, newsletter, news releases, social media, and other outlets.
- As part of the City’s contract for EAB treatment of public ash trees, offer residents a discounted price to treat their private ash trees.
- Offer replacement trees for sale through City’s annual tree sale.

**5. Collaborate to detect EAB and reduce its spread**

- Participate in the Minnesota Department of Agriculture’s EAB detection trap program.
- Utilize “First Detector” volunteers for EAB detection.

## CITY-OWNED ASH TREES

Of the nearly 18,000 public ash trees, the majority (approximately 14,000) are found in public (city-owned) woodlands. Within these unmanicured public areas, ash trees will not be treated to protect against EAB. If infested, these trees will be allowed to die and naturally decay in place, unless they pose a safety risk.

The other 4,000 public ash trees are located within boulevards and manicured city properties (mostly parks). City staff will assess the condition of these ash trees periodically. Poor quality ash trees will be removed with the worst trees being removed first. Good quality, mature ash trees will be protected from EAB using trunk-injected pesticides. The intention is not to treat these ash trees indefinitely, but to delay the loss of good quality mature trees, which provide significant social and environmental benefits.

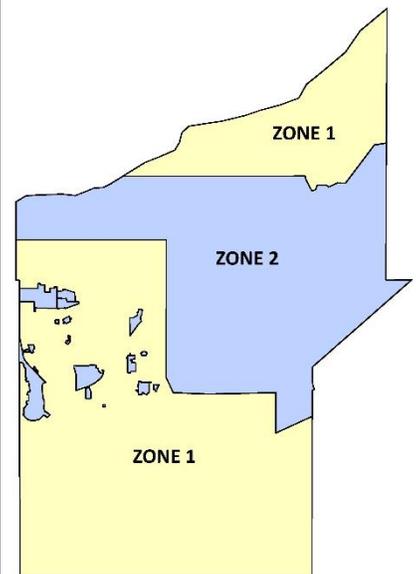
### Protection of Good Quality, Public Ash Trees

From 2012 through 2013, the City established a baseline evaluation of the citywide tree population through inventories and surveys. Within boulevards, active park areas, and other manicured city properties, each tree was identified by species, measured for diameter, and assigned a condition rating from “0” (dead) to “4” (good). Trees within public woodlands and on private property were not inventoried, though the numbers of these ash trees were estimated using sample plots.

Based upon public ash tree density and distribution, City staff established two treatment zones (*Figure 1*) to address the EAB threat. Treatment Zone 1 is divided and includes northern and southern portions of the City. Zone 2 encompasses central Burnsville and includes some city parks that lie within Zone 1. Treatment of ash trees within these zones will be primarily performed by contractors using non-neonicotinoid insecticides applied through trunk injection. The treatments will protect ash trees for two years and have minimal impact on the environment.



Green ash  
(*Fraxinus pennsylvanica*)



**Figure 1.** EAB treatment zones. Zone 1 has an upper and lower section; Zone 2 includes some city parks from the lower section of Zone 1.

Because EAB treatments protect trees for two years, Legacy Ash Trees will be treated on an alternating schedule. In 2014, the first round of treatments were applied in the northern portion of Zone 1. This area was selected because of its proximity to the closest known infestations at the time, which were St. Paul, Fort Snelling and Bloomington. EAB treatments continued in 2015 with a majority of Legacy Ash treated in Zone 2.

By the end of 2017, all Legacy Ash Trees will have received at least one round of treatment to protect against EAB. All Zone 1 Legacy Ash will receive treatments in 2016, and all Zone 2 Legacy Ash will receive treatments in 2017. *Table 1* shows the number of trees treated in the past two years, and the projected number of trees to be treated in 2016 and 2017. *Figure 2* shows the locations of ash trees treated in 2014 and 2015. The projected numbers for 2016 and 2017 are based on the most recent condition assessments of individual ash trees and are expected to change slightly as assessments are updated.

**Table 1.** Numbers of ash trees treatments by year.

Year	Zone	Number of Treated Trees
2014	1	476
2015	2	911
2016	1	1,270*
2017	2	1,249*

\*Projected number based on condition ratings of ash trees at time of publication.

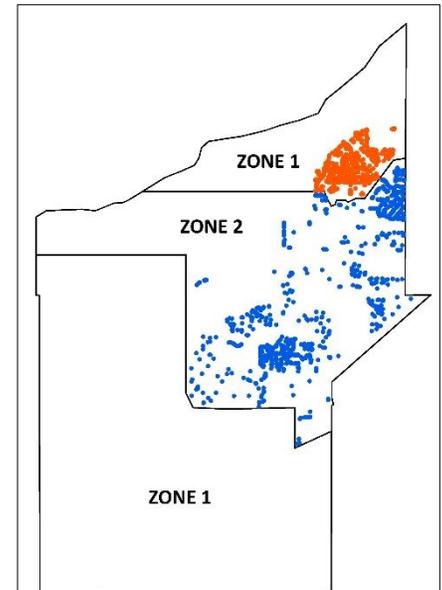
### Removal of Low Quality, Public Ash Trees

A limited number of public trees are routinely removed as needed because of street reconstruction projects, storm damage, and other situations. Ash trees included in these types of routine removals are not included in the removal totals for EAB management. Though like any public ash tree, these trees are examined for EAB symptoms as they are taken down.

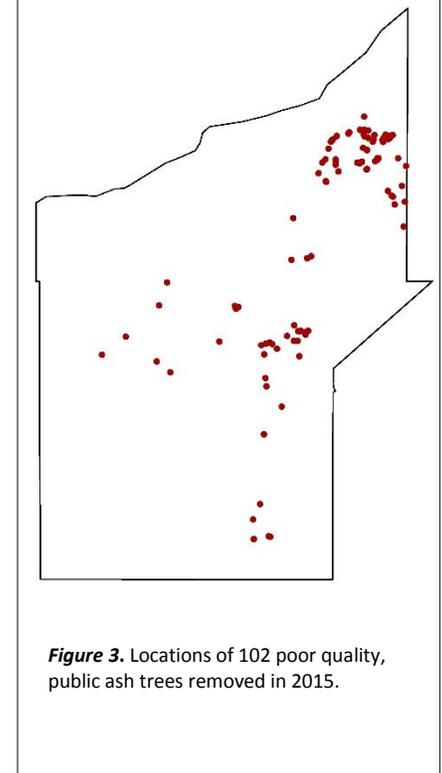
Public ash tree removals as part of the EAB management plan began in earnest in 2015. Ash trees with a condition rating of “1” (very poor) were prioritized for removals, and trees with a condition rating of “2” (poor) were removed as budget allowed. When choosing “2”-rated ash for removal, staff selected trees dispersed across the City to lessen the impact of tree loss on any one neighborhood.

The condition rating of a tree is based on multiple factors including canopy size and fullness, disease, insect problems, and injury. Trees rated as a “1” or “2” are the unhealthiest trees and provide the least value to Burnsville’s urban forest. See *Figure 3* for a distribution of ash trees removed in 2015.

In 2016, the EAB Management budget allows for the removal of 270 ash trees. Currently there are 82 public ash trees with a “1” rating and these will be prioritized for removal. Additional removals will be selected from the 429 public ash trees with a “2” rating.



**Figure 2.** Locations of public ash trees treated in Zone 1 (2014) and in Zone 2 (2015).



**Figure 3.** Locations of 102 poor quality, public ash trees removed in 2015.

## PRIVATELY-OWNED ASH TREES

The removal or treatment of private trees is at the discretion of the property owner. Residents may apply non-restricted use pesticides to their ash trees themselves or hire a City-licensed tree contractor with a pesticide license. Residents may also take advantage of discounted treatment prices offered through the City's contractor.

When a suspected EAB infestation occurs on private property, the City has the authority to inspect those trees. If an infestation is confirmed, the City may require the property owner to remove and properly dispose of tree materials, especially in cases where a tree is a nuisance or safety issue.

Ash trees in large, private woodland areas (one acre or more in size – neighbors may combine shared wooded areas to reach this size requirement) can be difficult and costly to protect. Property owners of these large woodlands will not be required to remove or treat EAB-infested trees, unless they pose a public safety concern or neighborhood nuisance.

## FOR FURTHER INFORMATION

To download the entire City of Burnsville Emerald Ash Borer Management Plan, visit [www.burnsville.org/EAB](http://www.burnsville.org/EAB).

For questions, contact the Burnsville City Forester at (952) 895-4508 or email [Dave.Grommesch@burnsvillemn.gov](mailto:Dave.Grommesch@burnsvillemn.gov).



Injection of pesticide into ash tree by trunk injection.



Emerald Ash Borer on ash leaf.



Sticky insect trap used to sample for EAB.

### *Image credits*

*Page 1:* EAB adult beetle, Univ. of Georgia; EAB larva, David Cappaert, Univ. of Michigan; EAB damage, City of Burnsville

*Page 2:* Green ash leaf, Tom DeGomez, Univ. of Arizona

*Page 4:* Injection into ash tree, Anna Reed, Star Tribune; EAB on ash leaf, Daniel Herms, Ohio State Univ.; EAB trap, City of Burnsville