



Parks & Forestry Operations Center
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EAB Frequently Asked Questions

What is Emerald Ash Borer (EAB)?

Emerald Ash Borer, *Agrilus planipennis*, is an invasive insect native to Asia that preys on all true ash in the genus *Fraxinus* and fringe tree in the genus *Chionanthus*. This insect has no known predators in North America and ash trees have no known natural defenses, allowing it to kill trees non-selectively.

What Does EAB Look Like?

The adult insects are metallic green, winged beetles measuring 1/2" long and 1/8 " wide. Approximately the length of a penny. The adult beetles are found during flight season, May-August on or near Ash trees. The larvae is an opaque, white grub with bell shaped, or fluted, body segments. The larvae are found beneath the bark.

How Does EAB Kill a Tree?

Adult female beetles lay their eggs on the bark of ash trees. These eggs hatch and the larvae, the destructive stage of this pest, burrow beneath the bark and feed on the living tissue (Phloem) of the tree. The phloem is responsible for the transportation of water and nutrients throughout the tree. The larvae cut-off these channels and the tree ultimately starves to death.

When Was EAB Discovered in the United States?

EAB was discovered in Detroit, Michigan in 2002 and as of November 2016, EAB has become established in 29 states, compared to 15 states in 2010.

How Does EAB Spread?

EAB adult borers can fly up to 6 miles to mate and lay their eggs on the bark of ash trees, increasing the spread of EAB naturally. Humans increase the rate of EAB infestation through the transportation of ash wood materials such as firewood, nursery stock, lumber, or imported materials. Avoid pruning, removing or transporting ash material during the adult flight season unless absolutely necessary.

Why is EAB a Threat to Minnesota?

Minnesota has an estimated 1 billion ash trees, more than any other state in the U.S. The insect was first discovered in Minnesota in 2009, in St. Paul. By 2010, it was reported in Minneapolis and Houston County. The insect has since spread throughout the state as far north as Duluth and is prevalent throughout southeast MN. It was detected in Rochester in August of 2014.

What are the Signs & Symptoms of EAB?

S-shaped tunnels (galleries) made by the larvae and small 1/8" D-shaped exit holes made by the emerging insects are the two most distinct signs of EAB. Other signs to look for include increased woodpecker activity and vertical bark cracking exposing the galleries. The tree will also exhibit canopy dieback and general health decline over time. By the time EAB is detected, it has likely been in the tree for two to three years.

Is There Treatment Available for EAB?

Yes, the City of Rochester recommends treatment by injection of Tree Age (emamectin benzoate). This application method provides the maximum protection for pollinators. Insecticide treatment utilizing Tree Age is a long term commitment and must be administered every 2 years to be successful. Applications must be administered by a Certified Pesticide Applicator between the months of June and September. Consider insecticide treatment of private property ash trees if the tree is in good health (less than 30% canopy dieback), has good structure, and is in a suitable location. The tree must be tagged with 1.25" aluminum tag by the company performing the treatment with the year of treatment stamped on it.

What are the Proper Wood Disposal Methods for EAB Infested Wood?

Proper treatment includes the removal of bark and .5" of the heartwood of all ash wood, or chipping to less than 1" in 2 dimensions, or transporting all ash wood or brush material to an approved wood waste facility. It is illegal to store infested ash wood within city limits. If infested wood remains on site with bark intact, or is not chipped small enough, the larvae will survive and emerge the following flight season and start new infestations. The Brush sites listed below are approved by the Minnesota Department of Agriculture for ash wood disposal.

Olmsted	Hathaway Tree Service 2555 50th Avenue, Rochester	507-282-4777	Commercial or Residential
Olmsted	JW's Stump Dump 3535 Simpson Road SE, Rochester	612-396-2305	Commercial or Residential
Olmsted	Logan's Tree Service & Recycling 4026 70th Avenue NW, Byron	507-288-8287	Commercial or Residential
Olmsted	ProCut Firewood 2660 Broadway Avenue North, Rochester	507-280-7780	Commercial or Residential <i>Accepting wood 5 inches or larger; no brush</i>

How Is EAB Managed in Rochester?

Rochester has 5,800 public owned ash trees, which are located in maintained areas of public property. This equates to 14.8% of the total tree population in these areas. This does not include ash trees in non-maintained natural areas. The City of Rochester’s 20-year Emerald Ash Borer Management Plan, adopted by City Council in 2016, calls for the treatment of 2300 of these trees based on tree condition, 1100 of these being treated for staged removal¹. The remaining 3500 public ash trees will be allowed to succumb to EAB over time and will be removed as they become infested. Trees on private property that are showing symptoms of EAB will be inspected by city staff. The trees must be managed according to city policy and within a specified timeframe.

¹ Ash trees selected for staged removal will be treated in years 1-10 of the management plan to prevent death of the tree until the city has resources to remove them. This will be assessed after year 10 to decide if treatment of these trees should continue or if treatment will stop and the trees be removed as they succumb.

What is Rochester’s EAB Policy?

Non Flight Season (October 1-April 30) when a private property ash tree looks suspicious for EAB, it will be inspected and marked with a green “X” if an insect gallery or exit hole is confirmed. An “X” indicates that the tree must be removed. A notice will be sent to the property owner the day the tree is marked and the tree must be removed within 20 days from the date that is printed on that notice.

Flight Season (May 1- September 30) When a private property ash tree looks suspicious for EAB, it will be inspected and marked with an “X”. An “X” indicates that the tree must be removed within 20 days following September 30 (end of the flight season). It is a **Best Management Practice** not to move ash wood during the flight season.

What is the Permitting Process for Marked Private Property Trees?

A private tree work permit is included with all notices sent by the City to residents who own ash trees that have been positively diagnosed as infested with EAB. This permit helps track the work and must indicate the name of company hired and date scheduled to complete the work, whether it is for removal or for treatment. It is okay for the contractor to fill out and return this permit if that is easier for your client. Please keep in mind permits are time sensitive.

What Will Replace the Ash Trees?

Tree diversity is the single most effective management defense against native and invasive diseases and insects, like EAB. The City of Rochester's 20-year Emerald Ash Borer Management Plan calls for the replacement of all public ash trees that are removed at the cities expense. A permit is required to plant trees in the boulevard or ROW if residents would like to help with these reforestation efforts. Please contact the City of Rochester Forestry Division for more information.

Does Rochester have an EAB Ordinance?

The City of Rochester Ordinance 47: Tree Management: Nuisance, Disease, & Insect Control realizes the importance and necessity of private property responsibility in controlling the spread of insect and diseases like EAB in our community. Visit the City of Rochester Ordinance page at <http://www.rochestermn.gov/departments/city-attorney/city-ordinances> for more information.

Other Helpful Links

The Minnesota Department of Agriculture Emerald Ash Borer website for more information on this pest and how to determine if your tree has EAB.

<http://www.mda.state.mn.us/plants/pestmanagement/eab.aspx>

The MN DNR Firewood Restrictions Information page to learn more about EAB quarantines and firewood restrictions. <http://www.dnr.state.mn.us/firewood/index.html>