

Preparing for Emerald Ash Borer

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Emerald Ash Borer is officially here. This exotic invasive beetle that attacks all species of true ash trees (*Fraxinus* species) was finally confirmed in New Jersey in summer of 2014. It was found infesting trees in Bridgewater and Hillsborough Townships in Somerset County, and caught in traps in Ewing Township, Mercer County and Westampton Township, Burlington County. EAB has killed hundreds of millions of ash trees since arriving in the United States in 2002, costing billions of dollars in removals, replacement plantings, and chemical treatments. We expect that New Jersey's experience with Emerald Ash Borer will be no different from that of the other states that have seen this insect move through their tree resource. As such we can assume that, in the landscape, all untreated ash trees will die. It is estimated that 80% of the costs related to EAB will be borne by municipal government and homeowners (Aukema et. al., 2011). Are you ready?

Representatives from the NJ Department of Agriculture, NJ State Forestry Services, USDA Animal & Plant Health Inspection Service, and Rutgers University have formed a task force to help consolidate and disburse information and resources relevant to EAB. The unanimous recommendation of this task force is that municipalities need to have a plan for managing EAB. It is agreed that there is no one correct answer to fit every municipality – but every municipality needs to develop a plan. At the core of this plan, and if you only do one thing this year to prepare for EAB... inventory your ash trees!

Management options for EAB in street trees can be boiled down to a few basic approaches. You can remove your ash trees, either when they die or preemptively (the latter being less costly and safer, as dead ash trees dry out quickly becoming brittle and difficult to remove), remove ash and replace with appropriate, non-host species, or treat healthy ash with appropriate insecticides (these treatments must be maintained for 15-25 years). Most municipalities will adopt a plan based on some combination of these basic options. Regardless of the options employed, municipalities will need to know the exact locations of all ash trees (to know where to send removal or treatment crews), and the size of these trees - at least grouped by diameter class (for determining cost estimates for removal and/or treatment).

There are several tools already in place to assist municipalities in making management decisions. The task force has prepared a web site (emeraldashborer.nj.gov) where you can find a template for developing a municipal EAB plan, tips for ash tree identification, a description of the various chemical treatment options, and a list of saw mills in NJ and the surrounding states who can utilize ash logs. You can also find contact information for task force partners, and for reporting EAB sightings. New information is added as it becomes available, so we encourage you to check this website often.

Another tool that we think can be very useful to municipalities is the Emerald Ash Borer Cost Calculator, which was developed by Purdue University to help municipalities with long term planning for EAB management (<http://extension.entm.purdue.edu/treecomputer/index.php>). This cost calculator allows you to enter your ash tree inventory along with tree removal, planting, and treatment costs (get quotes

based on your inventory from local contractors), and compares the approximate short and long term costs associated with a variety of management options projected over a 25 year timeline. The calculator provides graphs and charts, along with descriptions of the various management options, to illustrate the costs in both dollars spent and diameter inches lost (or saved) for the different management strategies. This can be a powerful tool for shade tree commissions to use to convey the urgency and severity of this problem to local governments and decision makers.

Rutgers University used an existing street tree inventory to run basic management options through the Purdue EAB Cost Calculator for one New Jersey municipality. In this example, there are about 200 publicly maintained ash trees, making up less than 4% of the total public tree resource. Using tree removal and treatment costs generated by an anonymous poll provided by members of the NJ Arborists chapter of the International Society of Arboriculture, it was projected that even the least expensive management options totaled in about \$250,000.00 over the 25 year management period.

EAB is a complicated issue, and there is much more to consider. For now we leave you with one more thought in support of developing a comprehensive plan. It is likely that costs for both removals and treatments can be significantly reduced by contracting in bulk. Coordinating management efforts throughout your municipality, including your residents, and partnering with neighboring municipalities, has the potential to significantly influence the overall costs of EAB management. This all starts with a reliable inventory of your ash trees.

Please check out New Jersey's EAB website at emeraldashborer.nj.gov. You can find a link to the Purdue EAB Cost Calculator on the "for communities" page.