

Emerald Ash Borer Management Plan

City of West St. Paul



January 2015

Purpose:

The City will take a proactive approach to mitigate the spread of Emerald Ash Borer and spread the physical and fiscal costs associated with the outbreak of Emerald Ash Borer over an extended timeframe, up to 10 years. The loss of ash trees in West St. Paul will have a devastating effect on home values, quality of life and the environment. Our goal is to buffer that impact by implementing current best management activities.

Introduction:

The Emerald Ash Borer (EAB) is a non-native insect that was introduced to North America from Asia. It was discovered in the Detroit, Michigan / Windsor, Ontario area in 2002 and probably arrived in wood packing materials on cargo ships or airplanes. Despite eradication and suppression efforts, EAB has killed over 20 million Ash trees in Michigan, Ohio, Indiana, Illinois, Maryland and Ontario. EAB is a beetle that is smaller than a dime. The adult does very little damage. However, this is not the case with the larvae (immature stage) that feed on the inner bark of Ash trees. This feeding disrupts the tree's ability to transport water and nutrients. Larval feeding takes place over a period of years and eventually kills the infested tree. All species of Ash are susceptible. Because EAB is hard to detect, it can be present for years before an infestation is confirmed. There are currently no known control measures for EAB. This means that it has the potential of killing all of Ash trees throughout the United States and Canada. EAB was first discovered in Minnesota on May 13, 2009 (est. infestation of 2005) in the city of Saint Paul and has since spread throughout Ramsey and Hennepin Counties. It was just discovered in Dakota County (in Eagan's Lebanon Hills Regional Park) on December 23, 2014. West St. Paul has over 1300 public boulevard Ash trees (40% of all boulevard trees) and many more which compose the urban tree canopy within the park system and other public property. There is also a large amount of Ash trees found on private property. It is possible that despite state and federal quarantines of infested regions, EAB may already be established in West St. Paul.

Economic Impact:

Removing and replanting Ash trees will be a tremendous physical and financial challenge for the City and private property owners. Utilizing a simple formula for removals, stumping and replanting a cost estimate can be determined. For example, consider an average removal cost of \$200, (disposal, stump removal, and restoration) and an average replanting cost of \$200. At these rates, the economic impact of losing just the 1300 boulevard trees would be about \$520,000.

Tree Management:

The City of West St. Paul must prepare and manage for the arrival of EAB on three fronts:

- Boulevard trees within the right-of-way
- Public property (i.e. parks, City Hall, golf course, etc.)
- Private property trees

Boulevard Trees:

1. The City has begun a policy of excluding any new Ash trees on public right-of-way (ROW) – with the recommendation that citizens and businesses discontinue the use of Ash in new plantings.

2. The City will remove any boulevard Ash tree, at citizen request, that is in a state of decline.
3. The City will permit residents to chemically treat an ash tree in the public ROW under the conditions of hiring a licensed tree service that is bonded and insured, and that is a State of Minnesota Licensed Commercial Pesticide Applicator using state approved trunk injection pesticides only. By using trunk injections hopefully this reduces pesticide exposure to others and the environment overall. (Note: Chemical treatment would not preclude future removal of said Ash tree if deemed necessary.)
4. The City will begin to remove up to 10% of Ash trees each year beginning with poor and fair quality trees, hiring a contractor for larger trees. The removal shall include the complete removal of the tree, stump and ground restoration. All costs will be borne by the City of West St. Paul.
5. Trees removed from the boulevard will be replaced if requested by a resident on a first come first served basis as funds allow. New tree plantings will be done with species diversity in mind.

Public Property Trees:

1. The City will not plant any new Ash trees on public property.
2. The City shall begin to remove any poor quality trees or trees in fair condition with major defects.
3. The City will continue to cooperate with the Minnesota Department of Agriculture and Minnesota Department of Natural Resources to establish EAB detection trees as needed on City property.
4. Ash trees in wooded areas will be left alone – unless by a bike path or structure and may cause harm if it falls. If it is an early EAB infestation we will be removing infested trees as needed to slow the spread to the community.
5. In mowed areas Ash trees will be replaced.

Private Property Trees:

1. There are thousands of Ash trees, large and small, on private property in West St. Paul. No reliable inventory exists, and Ash densities vary by neighborhood.
2. Property owners are urged to monitor for the EAB.
3. City of West St. Paul Ordinance, Section 910 Shade Tree Disease Control, will be updated to reflect the Emerald Ash Borer threat. The same parameters concerning Dutch elm disease and Oak wilt are appropriate measures to slow the spread of EAB.
4. It would be prudent for residents to establish a relationship with an ISA Certified Arborist now in the event that Ash tree evaluation or removal is desired. When residents call the City with questions they will be encouraged to consult with an ISA Certified Arborist that is insured and bonded. City staff will not inspect trees on private property.
5. The City also encourages residents to replace trees lost with species appropriate for the site, or to plant new trees in advance of EAB infestation and Ash removal as a way of lessening the large economic and environmental impact of the EAB.
6. The City will not treat or dispose of any trees found on private property.

Ordinances and Policies:

The City's updated Ordinances and policies must outline what actions the City can take to

manage diseased trees. Ordinance revisions will be recommended to the City Council as appropriate to address the infestation of EAB.

Development Plan Approval Process:

Future approvals of development/redevelopment should include a condition stating that no Ash trees shall be allowed as a condition of approval.

Inventory:

A complete boulevard tree survey was conducted in 2014 by S & S Tree Specialists. The inventory included location, species, size and condition of each tree. Of the 3,363 trees inventoried 1,333 or 40% were found to be Ash trees. City staff will finish an inventory of trees on the remaining public land in the City (i.e. golf course, City Hall, mowed area of parks, etc.) in 2015. This data will help determine which trees and which areas of the City will be targeted for structured removal.

Structured Removal:

The City will adopt a proactive “Structured Removal Plan” of Ash trees, including those in decline, and areas of the City with large pockets of Ash trees in anticipation of the larger loss of the entire Ash population. The intent is to hopefully slow the spread of EAB by reducing host trees, thus, spreading out management costs over several years by avoiding a “spike” in diseased and dangerous trees.

Disposal:

The prompt removal of EAB infested trees is the first priority in the City’s management plan. The probable loss of thousands of Ash trees creates several challenges for the City in regards to public trees as well as residents and commercial tree services dealing with private property trees. With the discovery of EAB in Eagan, Dakota County is under a state imposed quarantine and all Ash wood will need to be disposed of following state guidelines.

The most critical period for movement of confirmed EAB Ash trees is the months of May - July. This is the period where adult beetles emerge from trees, begin feeding on foliage, move to even more trees, and lay their eggs. During this period, it is best to leave these trees standing and not chance the possible spread of EAB by transporting beetle infested wood to other areas. After this period, from about August 1st to April 30th each year, EAB trees can be removed and transported so long as they are promptly chipped to the required dimensions, less than 1”x1”x1” in any one dimension, effectively killing any EAB larvae.

The City will explore emergency marshalling yard(s)—suitable for on-site tub grinding--within areas of EAB confirmed trees that need to be removed in response to an emergency, such as clean-up of a wind storm during the months when beetles are active. These yard(s) would be used to process all wood in the area, including public, and private from property owners and commercial tree services.

Pesticide Use:

The City should consider pesticide use for EAB on public trees is to reduce beetle populations in known infested areas, rather than for the purpose of preserving Ash trees for the long-term. The City would select trees for treatment that meet certain criteria, depending on the goal of the particular treatment. In most cases, the trees selected would be of better quality condition and candidates that would be kept

in the landscape for the long term, if so decided. For a chosen tree's survivability, treatments must be repeated at regular intervals (every 2-3 years) for the life time of the tree, creating an ongoing, ever-increasing expense to the City, both in number of trees treated and the cumulative amount of pesticide needed per tree.

One advantage of the treatment program is that in treating select Ash trees, the City will continue to derive the many environmental and social benefits of large canopy shade trees while reforestation efforts take hold. Although concerns exist over use of pesticides, arguably, an equal environmental impact exists for the potential benefits lost that are provided by large canopy shade trees.

If a treatment program is chosen, staff recommends use of the insecticide, TREE-äge®/active ingredient emamectin benzoate, administered through trunk injection (versus soil drenches or other methods). Injecting the chemical directly into the tree is meant to reduce exposure of pesticide to other non-targets. Further, the chemical emamectin benzoate is not a neonicotinoid-based chemical which has come under increased scrutiny for the possible decline in bees. All treated trees would have an aluminum tag attached to them with the most recent year of treatment, e.g., "EAB 2015".

Reforestation:

Replanting as ash trees are removed is arguably the most important part of the EAB Management Plan. Reforestation with a diversity of young trees is the primary objective in retaining our urban forest and reducing the chance of future wide-spread, devastating tree loss events caused by biological factors. We should strive for a tree diversity of no more than 10-12% of any given species on public land and ROW. While it is impossible to avoid the onset of pests and diseases, avoiding monocultures through diversity and mixed planting schemes can help reduce the impact. The tree inventory will be a valuable tool in reforestation efforts.

The goal of the EAB Management Plan should be to replant a new tree for every Ash tree lost. However, if EAB spreads rapidly and funding does not keep pace, the concern is replanting could fall far behind the number of trees removed. All the more important that both residents and officials understand the many benefits that trees provide and the financial as well as environmental impact that will occur if we do not maintain adequate reforestation as part of the program.

Outreach:

The Environmental Committee has been active in engaging residents and educating them on EAB at the annual Arbor Day Celebration as well as through newsletter articles. In addition to utilizing TV & newspaper media coverage, there are other means whereby the City can disseminate information about EAB. The most accessible are those that the City has direct control over. These include: The City newsletter, our web site, direct mail and cable TV.