



Emerald Ash Borer Management Plan (Approved 9/19/22)

PURPOSE

By implementing the provisions of this management plan, the City is attempting to mitigate the disruption to its urban forest caused by the infestation of the Emerald Ash Borer (EAB). Taking a proactive approach to the potential infestation enables the City to address both public and private impacts in an efficient and effective manner.

The city will attempt to distribute costs associated with EAB over a manageable time period and lessen the economic and social impact that an extensive loss of ash trees would have on the quality of life in our community.

In establishing this management plan, the City considered the following factors:

- EAB, a non-native insect was first discovered in SE Michigan in 2002. Since that time, it has been discovered in 35 states and several locations in Canada.
- Given the rapid spread of this insect upon its arrival to North America, an active approach will allow the City to minimize the impact and better manage the and costs and nuisance of EAB.
- EAB was first discovered in Minnesota in St. Paul in 2009.
- Scott County was quarantined for EAB in 2015.
- Rice County was quarantined for EAB in 2020.
- Le Sueur County was quarantined for EAB in 2022.
- EAB was identified in New Prague at Northside and Memorial Park in December of 2021.
- 36 of MN 97 counties are now under EAB quarantine.
- Removal of diseased or declining ash trees will help prevent the more rapid spread and impact of EAB in the community.
- Managed use of optional chemical treatments which have demonstrated efficacy in controlling EAB could be utilized to save ecologically benefitting, aesthetically pleasing, and property value enhancing ash trees.
- Reforesting the City with native tree species will increase the diversity and sustainability of the forest.

EMERALD ASH BORER BACKGROUND: THE PROBLEM

Emerald ash borer, (*Agrilus planipennis*), is a small member of the beetle family. It is a non-native (introduced) pest that has killed tens of millions of native and landscape ash trees in eastern North America since it was discovered. The native range for EAB is SE Russia, northern China, Japan and Korea. The exotic beetle found its way to the United States, presumably on solid wood packing material shipped from Asia.

The adult beetle is a bright metallic green color, with an elongated, slender body measuring ½ inch long and 1/16th of an inch in diameter. EAB undergoes a multi-phase life cycle that generally encompasses a one-to-three-year period. Adults are generally active from mid-June to mid-August. Females lay eggs in the bark of ash trees that take from 7 to 12 days to hatch. Upon hatching the larvae burrow into the nutrient conducting tissue of the (phloem) where they feed for several weeks. The white to cream colored larvae is flattened with 10 bell shaped segments and a pair of brown pincers on the last segment. The larvae feeding results in a very characteristic S-shaped patterning under the bark called galleries. Large numbers of larvae feeding in the vascular tissue (tissue that conducts water up from the roots and nutrients down from the leaves) disrupt or stop flow of these vital nutrients resulting in wilting, yellowing, and ultimately the death of the tree. The larvae cease feeding in autumn and over-winter in a pre-pupae stage in the tree. Pupation (transformation from larva to adult beetle) occurs in late April or May with the beetle exiting the trees through characteristic D-shaped holes measuring approximately 1/8th inch.

Without any natural predators or controls in North America, the insect has spread to 35 states and 5 Canadian provinces. At time of writing, EAB has been identified in 36 of 87 Minnesota counties. Millions of ash trees have been killed with some cities reporting complete loss of all ash trees within 5 years of EAB becoming established. There has been no stopping the devastation to the urban forest, though millions of dollars have been spent on prevention methods. In other communities where the insect is now establishing itself, a combination of preemptive removal of low-quality ash trees and a mix of chemical treatments has slowed the death of the ash trees allowing communities to manage the problem more efficiently and effectively. The most current research shows that early sanitation efforts have helped slow the spread of EAB in Minnesota. The quick spread of the insect in North America is not due in any large part to the insect. They are relatively weak flyers, only capable of moving about a ½ mile per generation. Human assisted movement infested wood has greatly extended the rate of spread.

Ash tree debris (branches) should be brought to the New Prague Yard Waste Site for proper sanitation. Stumps will not be accepted, and residents are encouraged to grind the stumps out or have a licensed tree contractor apply herbicides to the stump to prevent sprouting. Ash tree debris may remain on the site from which the tree was removed in the form of mulch or firewood. Ash tree debris cannot be moved out of the currently quarantined county (Scott County only at this time as it relates to New Prague). The less ash wood that is moved the better the community will be as a whole.

Signs and Symptoms of EAB include:

- Bark splits or cracks on trunk or branches.
- “D” shaped exit holes where beetles emerge.
- Serpentine “S” shaped larval galleries underneath the bark.
- The presence of EAB or larvae.
- General thinning of canopy and increasing dieback of the ash tree.
- Increased woodpecker activity (feeding on larvae).
- Epicormic Shoots - Sprouting of new growth shoots from the trunk and base of the tree.
- Bark splitting (vertical slits)

APPLICIABILITY

This plan applies throughout the City and includes all public and private property. The City will follow similar policies that have been used in dealing with the Dutch Elm and Oak Wilt diseases, with variations in removal requirements and timing. City Code Section 92.01 titled “Tree Diseases and Infestations” was amended in 2012 establishing that trees with EAB are considered a public nuisance.

EDUCATION AND COMMUNITY OUTREACH

Resident education and ongoing outreach communications are key components of managing the impact of the EAB, especially as more information becomes available. Continued coordinated public information dissemination to residents and the media will be administered through the City’s website, newsletters, and social media. Public meetings will be conducted as necessary. The city will maintain a list of resources for homeowners from relevant agencies.

As EAB activities occur in isolated neighborhoods, direct communication will be made by the city to advise residents on the current situation of their boulevard or privately owned trees and activity in their neighborhood. Homeowners may treat their private trees, provided they use a licensed treatment contractor who adheres to the City’s standards to protect surface and ground water.

CURRENT EAB SITUATION

EAB was confirmed in New Prague at Northside Park and Memorial Park in December by the Minnesota Department of Agriculture. City staff are actively evaluating ash trees for any sign of beetle activity in other areas of the City beyond Northside Park to determine further infestation. It is estimated that more than 15% percent of the New Prague urban forest is compiled of ash trees based on a 2010 Minnesota Department of Natural Resources survey.

MITIGATION POLICIES

Although it is impossible to stop the spread of invasive species like the EAB, the City's EAB Management Plan is created to lessen the impact of the EAB on the City's landscape. The City's mitigation of EAB will be similar to its policies regarding Dutch Elm and Oak Wilt diseases, which attempt to control and prevent the spread of these diseases and limit potential for property damage and bodily injury.

In an effort to mitigate EAB, the city will take the following actions:

1. The City will complete a tree inventory and inspection to help in the EAB assessment process. Simple Trees software will be used to conduct the inventory. The inventory will provide these benefits:

- Provide the city with thorough inventory of all public tree species
- Identify public ash trees
- Help plan for budget impacts for removal and replacement of trees
- Locate priority areas for tree management plans and potential treatments
- Estimate volume of wood potentially requiring disposal

2. Removal of EAB infested trees: The City's nuisance ordinance requires the removal of both public and private ash trees infested by the EAB to prevent the spread of the disease. This ordinance allows the City to enter private property for inspection, require the removal of diseased trees, and abate the nuisance upon non-compliance of property owners. It is recommended that ash tree removal occur during EAB dormant period October through April.

3. Removal of declining ash trees: The City will begin by completing a tree inventory on public lands which is funded through a 2022 Protect Community Forests Grant from the DNR. Removal of declining ash trees will be prioritized by high city use areas first; schools, parks etc. This will be the decision of the city. Removal of ash trees may occur as the budget allows.

4. Chemical treatment option: There are currently three methods of tree treatments being offered in the marketplace; drenching the soil with chemicals, injecting the chemical into the tree, and applying a bark spray. The city will not allow the use of soil drench or bark spray insecticides applied by the homeowner due to potential to pollute water and negatively impact wildlife. The city may allow chemical treatments in situations where deemed most effective and treatments must be handled by properly licensed contractors.

The City maintains guidelines for treatment of ash trees to help control the onset of EAB and considers trunk injections a management tool to utilize on significant trees within parks and along higher profile right of ways, higher volume roads, and Municipal State Aid collector streets. Due to the high cost of reoccurring treatments and the long-term effects of chemical treatments on ash trees, water resources, and the environment, the City will identify high value trees for potential treatment.

The city will permit residents to use chemical treatments on private ash trees, given the following:

- a. Private contractors are to use **only** the approved trunk injection method.
- b. The treatment application must be done by a tree contractor that is bonded, insured, and state licensed (Tree Care Registry and valid pesticide applicator licensed) to apply commercial tree chemicals.
- c. Records of all treatments will be provided to and maintained by the city.

5. Wood utilization: The City will make every effort to make use of ash tree debris as possible. Suitable ash tree logs could be milled and dried making the wood safe for other uses such as boardwalks, street signs, or other infrastructure. Properly mulched wood could be used on playgrounds, on trails to help prevent erosion or simply for plant mulch material on city property. Creative solutions to this issue will be ongoing and will be high on the priority list.

6. Waste lot and branches: Ash tree debris (branches) should be brought to the New Prague Yard Waste Site for proper sanitation. Stumps will not be accepted, and residents are encouraged to grind the stumps out or have a licensed tree contractor apply herbicides to the stump to prevent sprouting. Ash tree debris may remain on the site from which the tree was removed in the form of mulch or firewood. Ash tree debris cannot be moved out of the state EAB quarantine. The less ash wood that is moved the better the community will be as a whole.

7. Monitoring and tracking: The City will track the spread of EAB in New Prague with the Simple Tree software. The city will also monitor trees that have been treated as reported by private contractors. The city will use the tree inventory to identify replacement and reforestation areas of the city. All removal, replanting, and treatments will continue to be entered into the Simply Trees data base to ensure the most up to date inventory of the cities tree composition.

8. The City will provide Education and Resources on the city web page, newsletter and social media.

9. Reforestation: The city will make every effort to encourage reforestation of private properties, the City will promote the SWCD annual tree sale program that allows residents to purchase trees at wholesale prices. The program will offer a variety of tree species that are appropriate for this region, and the city will promote diversity in all public and private plantings. The city will replant species at no more than 10% of one species of trees to ensure diversity of the urban forest.

BUDGET

\$5,000 is budgeted annually for ash tree removal and replacement as part of the Parks Department Budget. City Staff will continue to seek grant opportunities to combat EAB. The City was awarded a \$60,800 2022 Protect Community Forests Grant from the DNR for EAB related activities including tree removal, tree replacement, tree planning/maintenance equipment and completing a tree inventory on public lands.

SUMMARY

EAB will have a significant impact on New Prague's landscape. The City's plan is designed to inform the public of new infestations, treatment options, removal requirements, and to provide a comprehensive approach to addressing the EAB infestation. This management plan is dynamic and subject to revision(s) as new information about EAB becomes available or as new treatment options are identified. Furthermore, this plan is also subject to revision should state and/or federal polities necessitate plan updates.