

City of Zimmerman

Emerald Ash Borer Management Plan



February 2024

Emerald Ash Borer Introduction

Emerald ash borer (EAB), *Agrilus planipennis*, is an invasive wood-boring beetle first detected in the U.S. near Detroit, Michigan in 2002. Since that time, EAB has killed millions of ash trees. All ash trees native to Minnesota are considered highly susceptible to EAB. Minnesota has about one billion ash trees in our forests, and ash accounts for about 15 percent of trees in the average community (Minnesota Department of Natural Resources, 2010).

A single generation of EAB is completed in one to two years. Eggs are laid during the summer on trunks and branches of ash trees. Larvae hatch from the eggs and tunnel beneath the bark. Larvae make distinct “S”-shaped (serpentine) galleries and feed on the phloem of the tree. Larvae may spend the winter inside pupal chambers in the outer sapwood, bark, or in feeding galleries, and some larvae will feed for another summer before completing development. Adults emerge from ash trees through a distinct “D”-shaped exit hole from May through September.

Upon emergence, adults will feed on ash leaves in the canopy before mating and laying eggs. Trees are killed by continual larval feeding, and tree mortality accelerates as EAB populations increase in density. Although the beetle can spread to nearby areas through flight, the primary means of long-distance EAB spread to new areas is through the transport of firewood or other woody material from ash trees.

Resident Education

Resident education and communication are key components of managing the impact of the EAB, especially as more information becomes available. Public information is available to residents through the City’s website, newsletters, and available on the City Facebook page. Residents can also find information about EAB management on the website for the Minnesota Department of Agriculture: <https://www.mda.state.mn.us/emerald-ash-borer-management-guidelines>

Homeowners may treat their private trees, provided they use a licensed treatment contractor who adheres to protecting surface and ground water. Trunk injection treatment is the best method to insure that groundwater and wildlife are best protected. Avoid bark sprays, and ground saturation.

Emerald Ash Borer Detection

Signs/symptoms of EAB that can help detect an infestation include:

- Increased woodpecker activity/damage
- Bark splitting (vertical slits)
- D-shaped exit holes created by adult insects as they emerge from the tree.
- Epicormic branching/shoots near base of tree.
- Canopy dieback.
- Serpentine (s-shaped) larval galleries that are packed with frass.



Making early detection even more difficult is that initial attacks on an ash tree tend to be in the upper canopy. For this reason, increased woodpecker activity is becoming a more reliable early indicator of a possible infestation. The city does have a tree inventory of existing boulevard and/or park trees. The city will use this to inventory to get a better understanding of where we may see the largest impacted areas and work to remove the infected trees from these areas.

Zimmerman Public Works will only be doing removals on city owned property, and on trees within the city boulevards. Public Works staff will be available to meet with City of Zimmerman residents to help identify possible infested trees on private property. To schedule a private tree inspection please call City Hall at (763)856-4666, or email kkoehler@cityofzimmerman.com.

Mitigation

• Boulevard Trees:

1. The City will avoid the inclusion of planting any ash species (*Fraxinus* spp.) on public property and boulevards.
2. The City will discourage the inclusion of planting any ash species (*Fraxinus* spp.) as a part of any proposed development, whether commercial, residential or industrial.
3. Existing ash trees in poor condition or in fair condition with major defects will be targeted for removal.
4. EAB infested ash trees will be removed and disposed of properly.
5. Ash trees that are removed will be replaced with another species, budget permitting. Replanting will be done with a keen focus on species diversity and matching the right tree with the right location.
6. Plantings will be conducted in the spring and/or fall based on staff availability and budget.
7. Chemical treatment will not be implemented for ash trees on public property because while it may be less costly than removal and replanting in the short-term, it can be much more expensive in the long-term due to the need to re-treat annually or biannually with the currently available products. Additionally, considering the general age (young) and size (relatively small) of Zimmerman's boulevard trees, removal and replacement likely would be more cost effective presently.

• Park Trees:

1. Ash trees in poor condition or fair condition with major defects in maintained portions of parks will be identified and targeted for removal.
2. Ash trees in wooded areas will not be addressed unless near a trail or structure where harm and/or damage could result from a failure. However, if an ash tree in a wooded area is found to be infested and it is in the early stages of infestation, said tree(s) may be removed to slow the spread to other areas.

4. Ash trees removed from maintained areas of parks will be replaced budget permitting, again with a focus on species diversity and matching the right tree with the right location.

5. Should ash trees be removed from wooded areas; natural regeneration will be relied upon for reforestation.

● **Trees on Private Property:**

1. Through educational efforts, property owners will be encouraged to diligently monitor their ash trees for any signs of EAB. They can either contact the City's Public Works Department or the MDA Arrest the Pest hotline for more information or for a site inspection.

2. For property owners that are contemplating treatment options for individual ash trees, the City encourages them to use a licensed arborist/ pesticide applicator. The preferred method is trunk injection, this treatment has the least impact on groundwater and local wildlife.

3. The City will also continue to encourage property owners to replace lost trees with species appropriate for the site or even in advance of potential infestation and ash removal. As with public lands, the City encourages property owners to diversify the species on their property to buffer against future insect/disease outbreaks.

4. Public Works staff will be available to meet with City of Zimmerman residents to help identify possible infested trees on private property. To schedule a private tree inspection please call City Hall at (763)856-4666, or email kkoehler@cityofzimmerman.com.

● **Disposal:**

1. Residents are encouraged to dispose of ash trees properly.

2. Sherburne County is under a quarantine, and residents are encouraged to use the City's Leaf and Brush Site to dispose of contaminated ash trees. Please follow the rules posted at the site, copies of these rules are also available at Zimmerman City Hall. Failure to follow the rules of the Leaf and Brush site could result in/ but not limited to the site access card being shutoff.

3. If hiring a private contractor to remove ash trees, the contractor can use the city Leaf and Brush site, ONLY if the contractor is Sherburne County based, and the contractor uses the customer's site card, to gain access.

4. Contractors from outside of Sherburne County will not be granted access to Zimmerman's Leaf and Brush site. If contractors from outside Sherburne County are caught using the site, they will be required to remove any materials left at the site, and the card they used to gain access will be denied future access to the site.

Summary:

Emerald Ash Borer poses a serious threat to Zimmerman's community forest. The city will implement this EAB Management Plan to the extent feasible and as budgets permit. Funding sources the City will pursue (but not limited to) to help with the Emerald Ash Borer mitigation process are the city's general fund, grants that are available through the Department of Natural Resources, Minnesota Department of Agriculture, and Sherburne County Soil and Water Conservation District.

The steps outlined above are based on current knowledge of EAB. This management plan is subject to revision(s) as new information about EAB becomes available and/or as new treatment options are identified. Furthermore, this plan is also subject to revision should state and/or federal policies necessitate plan updates. Revisions to the EAB Management Plan would be subject to City Council approval.