

CITY OF LEWISTON, MINNESOTA
EMERALD ASH BORER MANAGEMENT PLAN
MAY 2015

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BACKGROUND

The emerald ash borer (EAB) is a green beetle native to Eastern Russia and much of Asia. Outside of its native region, it is an invasive species and is highly destructive to ash trees. EAB was first noted in Michigan in 2002 and has since spread through the upper Midwest. It is believed to have been introduced to North America through shipping crates/pallets from Asian sources. Currently (2015) the EAB infestations have been found in Michigan, Ohio, Wisconsin, Minnesota, Ontario Canada, plus perhaps another ten to fifteen states. Evidence suggests the EAB can spread between ten and twenty miles per year. This spread is enhanced by transport of firewood and other wood products that contain ash bark, which allows EAB to spread to new areas to create satellite populations outside of the main infestation and quickly increase its range.

The EAB is almost totally destructive of native ash trees. After the initial infestation, all ash trees in the area are expected to die within ten years without control measures. The ash species affected in southeastern Minnesota include green ash, black ash, white ash, and blue ash. EAB seems to infect ash trees in the order listed here; i.e., green and black first, then white, and finally blue ash.

Winona County is under a quarantine order issued by the United States Department of Agriculture (USDA). The City of Lewiston is, therefore, also within an EAB infested area and subject to regulations of the USDA. EAB will inevitably spread throughout the City and cause the loss of all ash trees.

The City of Lewiston needs to determine a course of action to address the EAB threat to its ash tree population. This EAB Management Plan is written to outline Lewiston's objectives and the methods to be used in dealing with the impact of EAB on our ash trees. It is also to be used as a guide for City administration and residents to follow with a high degree of confidence and order. The City will need to create an EAB management budget to meet the costs of tree removal and/or treatment as well as public education. This plan will address both public and private needs in an efficient and effective manner, including replacement of removed trees with diversification of species and utilization of ash wood that is removed. This plan, therefore, will lessen the social and economic impact from the impending EAB infestation.

AFFECTED PROPERTY

This EAB Management Plan applies throughout the City of Lewiston on all public property where ash trees are currently growing and on private property where ash trees may negatively impact adjoining public and private property.

ADMINISTRATION AND ENFORCEMENT

The Lewiston City Council, through the Public Works Department and the Beautification Committee, is responsible for implementing this EAB Management Plan and ensuring that its provisions are carried out.

DEFINITIONS

ASH TREES: Ash trees include Green Ash, Black Ash, White Ash, and Blue Ash species. Any of these four species may also be known by other common names. This Plan specifically references the botanically assigned genus *Fraxinus* and does not identify ash trees by common names.

ASH TREE REDUCTION: The systematic removal of ash trees to reduce the overall habitat for EAB in an effort to slow the spread and reduce the potential for sudden and significant costs due to the arrival of EAB.

COMPLIANCE AGREEMENT: Official Minnesota Department of Agriculture (MnDA) and USDA Animal and Plant Health Inspection Service (APHIS) approval for moving regulated items within and/or outside of a quarantine zone.

DIAMETER AT BREAST HEIGHT (DBH): The diameter in inches of a trunk cross section measured at 4-1/2 feet above the ground.

GIRDLING: The removal of bark and the outer one-half inch around the entire circumference of the tree.

QUARANTINE ZONE: MnDA-designated area restricting the movement of regulated items.

REGULATED ITEMS: All hardwood materials including ash branches and firewood.

ASH TREE INVENTORY - PUBLIC PROPERTY

The City of Lewiston will conduct (or have performed) an inventory of all ash trees growing on its rights-of-way, in parks, on other municipal property, and on private property where such trees may negatively impact adjoining public and private property.

The City of Lewiston will collect for each ash tree its location, size, and condition. An estimated budget and time frame for removal and/or treatment will be generated from the inventory data.

ASH TREE REMOVAL - PUBLIC PROPERTY

The City of Lewiston will create and maintain an ash tree inventory spreadsheet or database to prioritize and record the removal, treatment, and status of each tree. The City will systematically remove 10 percent of ash trees inventoried on public property each year until all ash trees are removed or until remaining ash trees are treated. Tree removal priority will have hazardous trees removed first followed by those trees that are no longer assets to the community (dead, dying, diseased, or poorly located). Utilities will be encouraged to remove any ash trees within their easements as part of their normal line clearance activities.

An estimated annual budget for removal of all ash trees is \$10,000. This is based on the assumption of one hundred (100) ash trees on public property with ten trees removed per year and a cost of \$1,000 per tree for removal, stump grinding, replacement tree, and disposal of ash wood. Actual inventory numbers and contractor bids will determine final annual cost estimates.

It is possible that the EAB infestation will occur faster than the ten year management plan projects. In that case, the infested trees should be removed as expeditiously as possible to eliminate hazards that dead and dying trees pose to the public.

EMERALD ASH BORER CONTROL

Tree removal due to EAB can be delayed through the proper use of insecticides. The City of Lewiston will not budget for the long term treatment of ash trees on public property. Treatment involves the application or injection of insecticide and must be performed on a regular basis. The insecticide is absorbed by the tree. When EAB larvae burrow into the phloem and begin to consume the tree's tissue, the larvae ingest insecticide and die. Although such treatment has proven to be effective, the expense of treatment in the long term is greater than the expense of removal and replacement with other suitable species.

DISPOSAL AND/OR UTILIZATION OF ASH WOOD

The City of Lewiston is subject to the MnDA quarantine on all hardwood species now in place in Winona County. Therefore, disposal and utilization of ash wood must comply with the MnDA's regulations for handling regulated materials.

To that end, the City should develop a plan of compliance for disposal and utilization of regulated materials as outlined in a document created by the University of Minnesota. This document can be found at <http://www.emeraldashborer.info/documents/wooduse/UtilizationOptionsForUrbanTrees.pdf> and can be used as a reference when developing this plan.

Ash materials or any hardwood cannot be transported out of Winona County unless the transporter has a MnDA Compliance Agreement to allow such movement.

Ash wood can be milled into flooring or prepared for use in cabinetry, paneling, furniture, etc. Residents who wish to have their ash trees milled at their cost must also comply with MnDA regulations regarding transport of ash and any hardwood out of Winona County for such processing.

TREE REPLACEMENT PROGRAM

As the budget permits, all removed public ash trees will be considered for replacement with non-host species that are appropriate for the planting site. Trees will be planted following the MnDOT Tree Planting Specifications, will be in the 1-1/4" to 3" caliper range, and will be obtained from firms who are members of the Minnesota Nursery and Landscape Association. All new tree plantings will conform to the "30-20-10" rule for tree species diversity which states that no more than 30% of all trees within a community should be from one family, no more than 20% from one genus, and no more than 10% from one species. The terms "family", "genus", and "species" relate to plant classification.

Suggested species for replacement include but are not limited to the following:

Lindens

Amur Corktree (males only)

Maples (seedless and/or hard varieties preferred)

Elms (Dutch Elm Disease resistant only)

Kentucky Coffeetree (males only)

River Birch (single stem, not clumps)

Honeylocust

Ginkgo

Hackberry

Oaks

Suggested species for planting below energized wires include but not limited to:

Japanese Tree Lilac

Crabapple

Serviceberry

Amur Maackia

ASH TREES ON PRIVATE PROPERTY

As infested ash trees are discovered on private property, removal will be necessary at the expense of the property owner. If infested, dead, or dying trees are not removed, the City of Lewiston may choose to remove the tree for proper disposal and recover the costs through assessment.

Recognizing the financial impact that ash tree removal may have on residents, affected residents may elect to have the cost for removal of infested trees assessed to their property taxes. In such instances, the City of Lewiston will pay a contractor for their service and the resident will reimburse the City through property tax payments. Residents are required to obtain a written agreement with the City before the tree removal begins.

Residents may choose to employ treatment of ash trees on private property with insecticides at their own expense. The City of Lewiston will not manage nor regulate such treatments; however, residents should make treatment decisions based on information available from MnDA and/or USDA.

The City of Lewiston will create and maintain an EAB informational protocol, both on the City's website and in the City Office. Information regarding acceptable nursery firms will also be available. At the present time (May 2015), the City is able to obtain trees at no cost from Cedar Valley Tree Farm. Residents should inquire at City Office regarding this free tree program.

REFERENCES

Minnesota Department of Agriculture and the University of Minnesota: 2010 Minnesota Emerald Ash Borer Community Preparedness Manual.

Minnesota Department of Agriculture: <http://www.mda.state.mn.us/en/plants/insects.aspx>

Wikipedia: http://en.wikipedia.org/wiki/Emerald_ash_borer

Mankato MN: City of Mankato EAB Management Plan March 2013