



VILLAGE OF MUNDELEIN



EMERALD ASH BORER MANAGEMENT PLAN

ADOPTED MARCH 25, 2013

Table of Contents

INTRODUCTION AND PURPOSE.....	1
PLAN ADMINISTRATION	1
MANAGEMENT PLAN.....	1
Training, Inspection, and Inventory Updates	1
Confirmation and Removal—Village Owned Trees.....	2
Confirmation and Removal—Privately Owned Trees.....	2
Reforestation	3
Wood Utilization.....	3
REGULATORY COMPLIANCE.....	3
MANAGEMENT PLAN UPDATES	4
APPENDIX A—IDA Confirmation Memo.....	5
APPENDIX B—Contractor Certification.....	6
APPENDIX C—IDA EAB Compliance Agreement.....	7

VILLAGE OF MUNDELEIN **EMERALD ASH BORER MANAGEMENT PLAN**

INTRODUCTION AND PURPOSE

In December 2011, the Illinois Department of Agriculture (IDA) confirmed the presence of the Emerald Ash Borer (EAB) within the Village of Mundelein (see Appendix A). This invasive insect is highly destructive, specifically to ash trees. The adult form is dark green metallic in color and measures about one-half inch in length. The adult beetles lay their eggs on the trunk and branches of the tree, where the eggs hatch and the larva bore into the tree.

During this larval stage, the insect attacks the vascular system (cambium) of the tree, destroying the tree's ability to transport water and nutrients. Ultimately, the infestation of an ash tree kills the tree, typically within 7-9 years of infestation.

Based on the Tree Inventory prepared by the Engineering Division, the Village maintains 1,936 ash trees within the parkway. This accounts for approximately one-third of the entire urban canopy within the Village. In order to protect and improve the Village's urban forest, a management plan must be established. By implementing this plan, the Village will take a approach and attempt to minimize the economic impact that EAB presents.

Attempting to address the entire inventory of more than 1,900 ash trees at one time is not economically viable for the Village as the cost to complete such an endeavor is estimated to be \$1,400,000 (2013 dollars). Therefore, a proactive, fiscally responsible approach to this problem will be implemented. This approach will reduce the associated liabilities and safety hazards that are presented to the community and the environment.

PLAN ADMINISTRATION

The Public Works and Engineering Department shall coordinate and oversee the management plan. The Director of Public Works and Engineering shall be responsible for executing each of the steps detailed in the plan by allocating resources toward its implementation.

MANAGEMENT PLAN

Training, Inspection, and Inventory Updates

The first step in the process of establishing this plan is to educate those that will be involved in the implementation. Therefore, all Street, Engineering, and Administrative staff shall be trained on the identification of the signs that an ash tree is infested with EAB.

Once properly trained, staff shall conduct inspections of trees as part of a proactive program as well as when contacted by the community. The Village shall be segregated into eight work zones. Each year, one zone shall be inspected for symptoms of EAB. If there is confirmation within the zone, staff will survey all ash trees within a one mile radius to determine the spread of the infestation. Staff will schedule the infested tree/trees for removal as resources allow.

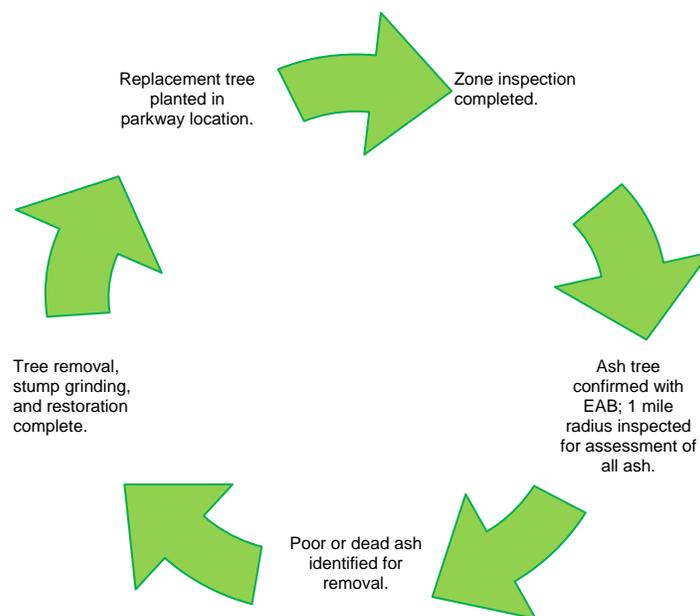
Upon completion of the annual zone inspections, employees shall be tasked with maintaining the current inventory of the urban forest by updating the Tree Inventory completed in 2006. This requires notification

of the GIS staff to update maps to reflect the scheduled removal and the proposed replacement of the ash trees.

Confirmation and Removal—Village Owned Trees

As stated in the previous section, confirmation of EAB infestation will trigger a condition assessment of all ash trees within a one mile radius. While the likelihood that all ash trees are infested, only those trees that considered in poor or dead condition shall be scheduled for removal at this time. The assessment shall rate the condition of all ash trees in the radius, prioritizing the removal schedule. Tree removal will be prioritized based on potential hazard, with those in the poorest condition removed first.

In addition to the zone removals, the Village shall remove hazardous ash trees on an as-needed basis. Staff shall perform inspections when contacted by other Departments or members of the community with a potential infestation. When an inspection confirms an infestation, the same procedure shall be followed as detailed in the zone inspection process. The flow chart below demonstrates the Village process.



EAB Removal/Reforestation Flow Chart

The Village shall use a combination of in-house and contracted labor resources in the removal process. Trees larger than 20 inches in diameter or greater than 40 feet in height are typically removed through contracted resources, while all others are handled by Public Works and Engineering staff. The Village routinely enters into a three-year contract with a vendor for tree removal. The current contract expires in May 2015.

Once removed, stump grinding and parkway restoration will be completed. The tree removal contract specifies that stump grinding and soil placement shall be complete within 30 days of removal. Upon the soil placement, Village staff will seed/blanket the restoration area. Affected residents are notified of the work through door hangers or letters and are asked to maintain the newly restored parkway area by watering until the grass is established.

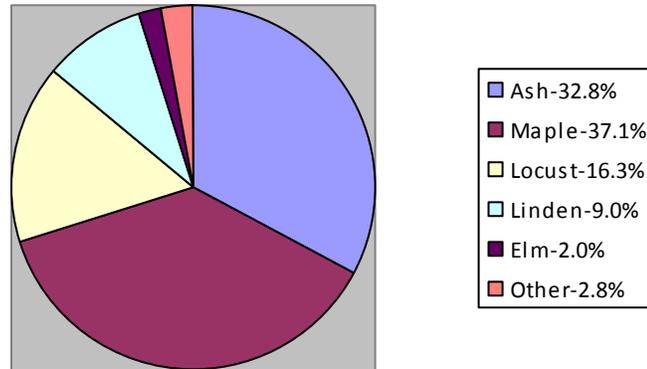
Confirmation and Removal—Privately Owned Trees

The Village of Mundelein does not remove trees on private property. However, if a privately owned tree is determined to be a hazard or nuisance, the Village of Mundelein Building Department will be notified to take the steps necessary for corrective actions through Ordinance consideration.

Reforestation

The goal of this management plan is to replace all felled ash trees within 18 months. The previous year's removals shall be reviewed and proper quantities, locations and species will be determined for replacement. Through the Village's membership in the Suburban Tree Consortium, staff will procure the necessary amount of trees each budget year, including the delivery, planting, and mulching of the trees purchased. All trees purchased shall be planted either during the Spring or Fall season, as per species, and shall be no greater than 2.5 inches in diameter.

Along with the goal of providing a 1:1 replacement ratio within 18 months, the Village also seeks to diversify its urban forest. Currently, one-third of the urban canopy is ash, as shown in the chart below.



Since 70% of the Village's urban forest is currently comprised of only two different genus, it is imperative that reforestation include a diverse selection of trees. The Village will follow the present industry standard of selection. The "30-20-10 Rule" recommends that trees be planted in a variety that allows for less than 30% from any family, 20% from a genus, and 10% from any species. This standard shall diversify the urban canopy, reducing the potential impact related to disease or infestation. It will also provide enhanced ecological benefits by introducing diversification of the insects, birds, and small animals into the ecosystem.

While trees will be replaced at a 1:1 ratio, the location of the parkway removal may not be the same as the replacement location. There are many factors that contribute to the determination of location such as proximity to existing trees and utilities and residual root networks. The Village shall be responsible for selecting the proper location and species of all replacement trees. An inventory database within the Village GIS shall be maintained and updated as tree replacement occurs.

Wood Utilization

The Village is committed to complying with all IDA requirements regarding the removal of debris related to EAB and the quarantine zones associated with such relocation of tree debris. The Village's current contractor, Sawvell Tree Service, Inc., is certified by the IDA to accept ash tree debris (see Appendix B). To that end, the Village has partnered with them whereby Sawvell will accept the ash debris and grind it for commercial mulch use.

REGULATORY COMPLIANCE

The Village has an Emerald Ash Borer Compliance Agreement on file with the IDA as attached as Appendix C. Since the Village falls within a designated quarantine zone, all work conducted related to EAB is in compliance with the agreement. Therefore, staff ensures the following:

- ❖ Regulated articles shall not be moved out of established quarantine zone(s) at any time unless: a) the regulated articles have been chipped/processed to a size measuring less than 1.0 inch in two dimensions; b) the bark and outer ½ inch of sapwood of regulated articles has been completely removed; or c) the regulated articles, including firewood, have been treated to meet USDA-APHIS-PPQ standards for Kiln Sterilization (T404-b-4), Heat Treatment (T314-a), or Fumigation Treatment (T404-b-1-1);
- ❖ From May 1 to September 1, all regulated articles originating from within the EAB quarantine zone and leaving the Village shall only be transported within the EAB quarantine zone in an enclosed vehicle or a vehicle completely enclosed by a covering, such as canvas, plastic or tightly woven cloth, adequate to prevent the passage of the Emerald Ash Borer to the environment;
- ❖ Any and all persons or entities transferring possession of regulated articles within the EAB quarantine zone to another person or entity shall inform the person or entity taking possession of the regulated article, either verbally or in writing, that the said regulated articles are subject to State and Federal quarantine regulations;
- ❖ Employees are informed about the EAB quarantine regulations, including EAB quarantine zone boundaries, how to identify the EAB and its signs, and require a copy of this compliance agreement to be carried by employees working in the State of Illinois;
- ❖ The Illinois Department of Agriculture shall be informed of any suspected EAB infestation(s).

MANAGEMENT PLAN UPDATES

The Village of Mundelein Emerald Ash Borer Management Plan shall be reviewed internally by the Public Works and Engineering Department on an annual basis. Recommended modifications to the plan will be brought before the Public Works Committee for a recommendation to the Village Board.

APPENDIX A—IDA Confirmation Memo



• Pat Quinn, Governor • James Larkin, Director

Bureau of Environmental Programs – DeKalb Field Office 2280 Bethany Rd., DeKalb, IL 60115
815/787-5476 (Voice/TDD) Fax: 815/787-5488 Pesticide Misuse Hotline: 800/641-3934 (Voice/TDD)

MEMORANDUM

TO: Joseph V. DeVito, Deputy Director, Village of Mundelein
FROM: Dragan Markovic, Illinois Department of Agriculture
DATE: December 13, 2011
SUBJECT: Emerald Ash Borer (EAB) Confirmed in Your Community

This memo serves as official notice that on December 13, 2011 the presence of EAB was confirmed by the Illinois Department of Agriculture (IDA) and documented within your community. Emerald Ash Borer was verified during our statewide EAB trap survey or through outreach activities performed by IDA EAB staff. We will soon list your community by name on our list of confirmed communities. The IDA will also recognize your community with one red star on our statewide EAB map using the location coordinates and the date of the field confirmation. We can work with you to help explain and outreach this news to staff or citizens.

The extent and the severity of any EAB infestation are very difficult to quantify. A confirmed presence of EAB anywhere in town indicates a larger, more widespread EAB population is likely nearby. Due to our experience of observed patterns of local and regional spread, and the biology of this insect, the entire ash population within your community is at risk or is likely already infested with EAB. Newly affected trees may show few, if any symptoms and may appear healthy and green for up to a few years. Officials and residents should plan accordingly by assuming their ash trees are now infested.

All or parts of 23 northeast Illinois counties are quarantined by the Illinois Department of Agriculture at this time. Please go to the following link to find the most recent amended IDA EAB Quarantine: <http://www.agr.state.il.us/eab/index.php>

The Illinois EAB program is counting on municipal compliance of all regulations within the Illinois EAB Quarantine and the prudent management or destruction of EAB infested ash wood. Please become familiar with the quarantine map and the Illinois EAB Compliance Agreement which lists existing rules and regulations concerning ash and the EAB in Illinois. That agreement was revised with new regulations effective November 23, 2009. The compliance agreement lists the enforceable EAB rules of the state and our department regardless of the signing an EAB Compliance Agreement and can be found on our website at <http://www.illinoiseab.com>.

Aggressively destroying declining ash trees, or in some cases aggressive insecticidal treatments, may slow the rate of tree mortality locally and remains the best practice. Treatment with systemic insecticides on individual trees which are not yet severely infested is an option for individual landowners and village managers to consider on a tree-by-tree basis to try to protect a single tree. Such treatment has a risk of failure if trees are already infested and is not guaranteed to be ultimately successful on any specific tree. Educating residents to the fact that this pest is confirmed in your area, that all ash trees are at risk and will become infested, and that quarantine rules exist is all very important.

For general EAB questions please call the IDA DeKalb office at 815-787-5476. For community outreach, educational help, and informational packets please contact: IDA EAB Outreach and Education Coordinator Juliann Heminghous at 217- 785 -5575 or juliann.heminghous@illinois.gov.

APPENDIX B—Contractor Certification

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE
Bureau of Governmental Programs



EMERALD ASH BORER
Compliance Inspection Form

Sawwell Tree Service Inc.
(Company Name)
19738 Martha Dr.
(Address)
Mundelein IL 60060
(City, State, Zip Code)
847 566-9312
(Business Telephone Number)
Ray Sawwell Sr.
(Business Person)
NE 4227818
(9 to 5 P.S. date contract)

03/02/02 31 12-08
(Expiration Date) 013
047-08
(Contract Agreement ID Number)
Lake County
(County)
847 566-9312 0527
(FAX Telephone Number)
SawwellTree@comcast.net
(Business E-mail address)
847 514-8800
(Mobile Telephone Number)
W: 086 04237
(Auto GPS date contract)

Does the business handle Emerald Ash Borer (EAB) regulated materials? Yes No Not Applicable

How and where are EAB-regulated materials processed? Not Applicable

Limbs are shipped on job site logs are processed in our yard through our horizontal choker in 24 hrs

Does the processed material meet EAB regulatory requirements? Yes No Not Applicable

Is the business set up to handle or process large volumes of regulated EAB material? Yes No Not Applicable

What is the main focus of the business?
 Landscaping Landscape Maintenance Nurseries Logging
 Golf Course Municipal Parks Park District Forest Preserve
 Firewood Other (please list)

Does the business use EAB-regulated material for wood utilization purposes? Yes No Not Applicable

Does the business process and sell firewood? If yes, where, when, and to who? Yes No Not Applicable

Is the business aware of the four approved methods of firewood treatment for regulated articles (heat treatment, fumigation, boronizing, or fumigation)? Yes No Not Applicable

In what counties does the business work with EAB-regulated material (please list)? Not Applicable

DeWitt, Cook, Lake

[Signature]
(Company Representative)

[Signature]
(State Representative of Agriculture Department)

APPENDIX C—IDA EAB Compliance Agreement

Illinois Department of Agriculture STATE OF ILLINOIS EMERALD ASH BORER COMPLIANCE AGREEMENT

Company or Name: Village of Mundelein Contact Name: Mr./Ms. Adam Boeche
 Mailing Address: Street 440 E. Crystal Street City/Town Mundelein State IL Zip code 60060
 Telephone: 847-949-3370 Fax: 847-949-9208 E-mail: aboechg@mundelein.org
 County Lake
 Disposal or Processing Yard Location (if different than mailing address above): Street Same
 City/Town _____ Zip code _____ County _____

Applicable to State of Illinois Interior State Quarantines for the Emerald Ash Borer (*Agrilus planipennis*)
 Pursuant to the Insect Pest and Plant Disease Act (505 Illinois Compiled Statutes 901 et seq.)

I acknowledge State and Federal regulations governing the Emerald Ash Borer (EAB), quarantine zone boundaries, and "regulated articles". When working within and near EAB quarantine zone(s), I agree to supply records that may be required for inspection. I agree to comply with the procedures listed below in this agreement and with any other procedures required by the Director of the Illinois Department of Agriculture, as follows:

1. Regulated articles shall not be moved out of established quarantine zone(s) at any time unless: a) the regulated articles have been chipped/processed to a size measuring less than 1.0 inch in two dimensions; b) the bark and outer 1/4 inch of sapwood of regulated articles has been completely removed; or c) the regulated articles, including firewood, have been treated to meet USDA-APHIS-PPQ standards for Kill Sterilization (T404-b-4), Heat Treatment (T314-a), or Fumigation Treatment (T404-b-1-1);
2. From May 1 to September 1, all regulated articles originating from within the EAB quarantine zone and leaving any municipality or township of their origin shall only be transported within the EAB quarantine zone in an enclosed vehicle or a vehicle completely enclosed by a covering, such as canvas, plastic or tightly woven cloth, adequate to prevent the passage of the Emerald Ash Borer to the environment;
3. Any and all persons or entities transferring possession of regulated articles within the EAB quarantine zone to another person or entity shall inform the person or entity taking possession of the regulated article, either verbally or in writing, that the said regulated articles are subject to State and Federal quarantine regulations;
4. Employers shall inform their employees about the EAB quarantine regulations, including EAB quarantine zone boundaries, instruct employees how to identify the EAB and its signs, and require a copy of this compliance agreement to be carried by employees working in the State of Illinois; and
5. The Illinois Department of Agriculture shall be informed of any suspected EAB infestation(s).

"Regulated Articles" are hereby defined as the following:

- 1) The Emerald Ash Borer (*Agrilus planipennis* Fairmaire) in any living stage of development;
- 2) Ash trees (*Fraxinus* spp.) of any size;
- 3) Ash limbs and branches;
- 4) Any cut non-woody, hardwood firewood;
- 5) Bark from ash trees and wood chips larger than one inch in two dimensions from ash trees;
- 6) Ash logs and lumber with either the bark or the outer one-half-inch of sapwood or both, attached;
- 7) Any item made from or containing the wood of the ash tree which is capable of spreading the emerald ash borer;
- 8) Any other article, product, or means of conveyance when it is determined by the Director of Agriculture that it presents the risk of spread of the Emerald Ash Borer in any stage of development.

Affixing of the signature herein will validate this agreement which shall remain in effect until canceled. The agreement may be revised as necessary, or revised for non-compliance by the Illinois Department of Agriculture.

Signature/Title [Signature] DIRECTOR OF PUBLIC WORKS & ENG. Date Signed 12/12/11

State Agency Official Signature [Signature] Compliance Agreement No: 097-212

Illinois Department of Agriculture
 2280 Bethany Road, Suite B
 DeKalb, Illinois 60113
 Phone: 815-787-5476
 Fax: 815-787-5488



Illinois Department of Agriculture
 P.O. Box 19281
 Springfield, Illinois 62794-9281
 Phone: 217-785-2427
 Fax 217-524-4882

One original signed agreement to be maintained at the Illinois Dept. of Agriculture and a second original signed agreement to be maintained at the company office. For up-to-date information on EAB please go to: www.illinoiseab.com or www.state.il.us/EAB [11/23/2009, EABComplianceAgreementV1.doc]