

# Emerald Ash Borer Management Plan

An Emerald Ash Borer Management Plan for the City of Madison, Wisconsin pending a revised State of Wisconsin Emerald Ash Borer Response plan.

## Emerald Ash Borer

The Emerald Ash Borer (EAB) is an exotic pest from Asia that is responsible for the death over 12 million ash trees in Michigan, Ohio, Indiana, Pennsylvania, West Virginia and Maryland and Illinois. And on August 4, 2008 EAB was found in Wisconsin near the Village of Newburg in Ozaukee County. (See Map 1) The State of Wisconsin Department of Agriculture, Trade and Consumer Protection Agency (DATCP) has been conducting EAB surveys as well as placing EAB traps in one-mile increments searching for this insect across the state. The City of Madison has participated in the trapping and surveying by removing over 50 city owned ash trees.

EAB feeds and develops in the cambial region (a.k.a. tree plumbing) of all native ash trees (*Fraxinus* spp.) during the summer and fall, and then overwinter in the outer bark. We know that EAB adults can fly at least a 1/2 mile radius from the tree where they emerge. Humans, however, started many infestations by moving infested ash tree nursery stock, logs and firewood into uninfested areas. Shipments of ash nursery trees and ash logs with bark are now regulated, but the transport of infested firewood remains a problem.

### *The Threat to Madison's Urban Forest*

The City of Madison's publicly owned urban forest is comprised of over 100,000 street trees and over 6,000 acres of park and golf course trees. Of these, approximately 30% of the street trees (30,000) are ash. A complete street tree inventory will be finished in 2009. And unknown at this time is how many ash trees are located on private property.

EAB management is coordinated at the federal level by the U.S. Department of Agriculture (USDA). Due to diminishing federal funds, Wisconsin's EAB management program has eliminated its eradication efforts, changing its strategy to slowing the spread and mitigating the effects of EAB infestation through monitoring and regulation. For Madison this has very important consequences:

- It is possible that EAB will be discovered in the Madison area within the next five years.
- The budget impact and loss of tree canopy make this the biggest threat to Madison forests since Dutch elm disease decimated our American Elm population.

## **Mission Statement**

It is the mission of this program to maintain and enhance the urban forest's maximum long-term benefits to the community. The goal is to minimize the impact of the Emerald Ash Borer and potential loss of ash trees on the health of our urban forest using the best scientific advice and lowest effective cost to the community.

## **Purpose**

By implementing the provisions in this management plan, the City is attempting to mitigate the disruption to its human population and its urban forest caused by the pending infestation of the Emerald Ash Borer (EAB). Taking a proactive approach to this invasion will enable the City to address public and private needs in an efficient and effective manner. The City will endeavor to distribute the costs associated with possible and massive tree death over a manageable time period, as well as lessen the social and economic impact that such an extensive loss will have on the quality of life in our community. The plan will provide for extensive public education and communication.

This Plan applies throughout the City on all public properties where ash trees are currently growing, as well as on private properties where such trees may negatively impact public rights-of-ways or other public properties. The response plan is a dynamic document and, as such, changes over time in response to new information about EAB biology and management.

## **Administration**

The City of Madison Forestry Section under Department of Public Works and in collaboration with other city agencies will be responsible for implementing this Plan and seeing that its provisions are carried out.

## ***Plan of Action***

An outbreak of EAB has local, state, national and international impact. Because of the threat to other states and Canada, when and if EAB is found in Wisconsin, there will be a joint response, using local, state and federal authorities and resources according to the 2006 Wisconsin Emerald Ash Borer Response Plan. Because response to EAB includes multiple agencies, authorities and responsibilities, the incident would be managed using the Incident Command System, with Unified Command established at the onset of the response. Unified Command is a team effort, allowing all agencies involved to establish a common set of incident objectives and strategies to which all can subscribe.

Unified Command is initiated as soon as two or more agencies having jurisdictional or functional responsibilities come together on an incident. The Unified Command is especially important on an incident where there may be conflicting priorities. The Unified Command Team, which includes each agency's Incident Commander (IC), meets before delimitation activities begin. In this meeting, the ICs will discuss and make mutual decisions

on strategies, objectives to accomplish the strategy, organizational structure, staff assignments, planning, logistics and financial procedures.

### **Ash Removal**

The City of Madison will continue to conduct a street tree inventory to be completed by the end of 2009. Once the street tree inventory is completed the forestry section will have more information to assess the impact of an EAB infestation in the community. Tree removal will be prioritized with hazardous trees being removed first followed by those that are no longer assets to the community (stressed, dead, dying, or diseased). Utility contractors will be encouraged to remove EAB infested ash within their easements as part of their normal line clearance activities.

### **Protective Pesticide Treatment**

According to Dr. Chris Williamson , Associate Professor, Department of Entomology at U. W. – Madison, the success of using pesticides to control EAB is **not** guaranteed. Pesticides are not 100 percent effective at preventing EAB survival, and therefore, cannot be considered as a viable eradication treatment at this time. In some trials, insecticide treatments were effective, but in other trials the same treatments failed miserably. Some studies conducted over consecutive years revealed that EAB infestations continued to increase despite ongoing treatment applications. Therefore, the most cost-effective option may be to remove and replace the ash tree.

Based on a city wide inventory of public ash trees and current municipal finances, the city will determine which, if any, ash trees will be chemically treated. Because research in this field is currently evolving, the city will monitor all treatments for their effectiveness and future use.

Pesticide treatments may be applied to a publicly owned tree(s) at the residents' discretion and expense, with prior municipal approval. Treated trees will be removed if the City of Madison determines the treatments have failed and EAB infests the tree.

### **Wood Utilization and Disposal**

The City of Madison will no longer allow public access to wood at all city sites to eliminate invasive insect species, fungi and pathogens. The City of Madison will grind all wood debris from city and private sources into 1-inch by 1-inch or smaller. The wood chips will be available at various city sites for free.

The City of Madison will make concerted efforts to find alternative ways to utilize wood waste. This may include partnering with other government agencies or non-profit organizations.

## **Canopy Replacement and Care**

As the budget permits, all removed public ash trees will be replaced with non-host species that will enhance the planting site, are appropriate for the planting site, and add to the diversity and general health of the urban forest. Trees will be planted in accordance to Department of Public Works specifications. Plantings will be budget based and prioritized by canopy cover goals as identified by the City Forester.

## **Postponed Work**

While financial, staffing, and equipment resources are focused on in the EAB Management Plan, some normal forestry section services will either be delayed or put on hold indefinitely. If EAB were found within the city limits, forestry's service will focus only on removing city owned trees that are: infested with EAB, dead, diseased (oak wilt or Dutch Elm), storm damaged and found to be risk to the public. Pruning requests of city trees will be limited to clearing traffic signals or signs.

## **Commercial Tree Contractors**

A licensing system, ensuring the proficiency of commercial tree companies performing arboricultural work within the City needs to be implemented. All commercial companies involved in tree pruning, removal, stump removal and wood disposal will require a license, proof of insurance and bonding for the protection of residents. A list of licensed firms will be maintained and updated on the City's EAB website and made available for mailing through the City Forester's office.

## **Communication**

### Internal Communication Procedure:

1. Educate and inform all municipal leaders and officials through presentations and written reports to Common Council, Parks Commission, Board of Estimates, and other committees not identified at this time. Develop EAB frequently asked questions (FAQ) document.
2. If EAB is has been found within the City of Madison, information should be provided on exact location of infestation and plans on how it will be addressed. A meeting will be held with the Public Works team, the Mayor, City Forester, Parks Operation Manager, Forestry Operations Supervisor, and the Parks Outreach Coordinator.
3. If EAB has not been found, information should be provided on how the community is addressing EAB through the development of the preparedness plan.
4. Identify person(s) who can answer EAB related questions and provide their contact information.

External Communication Procedure: These procedures would be utilized for disseminating information to the community's residents. The community's external communication protocol should work in tandem with the internal protocol.

1. Inform the community through local media outlets, direct or indirect mailings (i.e. tax/utility bills), newsletters, fliers, public meeting, neighborhood associations, and local garden clubs.
2. Public Service announcements should be created and be distributed to local media to educate the public about EAB.
3. If EAB is has been found, information should be provided on exact location of infestation and plans on how it will be addressed.
4. If EAB has not been found, information should be provided on how the community is addressing EAB through the development of the preparedness plan.

## **Definitions**

DATCP – the State of Wisconsin Department of Agriculture, Trade, Consumer and Protection agency. This agency is responsible for the State of Wisconsin’s emerald ash borer response plan. They have the authority to issue a quarantine to restrict the movement of EAB and infested host material.

EAB – the Emerald Ash Borer insect.

EAB readiness team – The group of people, both government employees and private volunteers, responsible for all aspects of preparing for Emerald Ash Borer within City of Madison.

EAB readiness plan – a document delineating local EAB readiness activities and processes; includes scope & purpose, authority, responsibility, policies & procedures, actions/tasks, available resources, forms & contracts, technical references & support information (such as surveying and reporting protocols), and similar content.

Marshalling yard – a fenced-in location within a quarantine area where infested or quarantine-area trees, brush and logs are collected and held for further handling.

Quarantine area – a defined geographic area from which host goods may not be transported; quarantines will be established by federal or state agencies to restrict ash wood movement out of infested areas to avoid emerald ash borer infestation of new areas; quarantines can be applied to an individual property, county, or entire state.

## Recommendations

The following are recommendations of the Emerald Ash Borer Response committee:

- Create a generic nuisance tree ordinance to address any disease or insect that may harm Madison's urban forest.
- Create a licensing program for commercial tree care companies who want to perform tree work within the city limits. The annual license should include adequate amounts of liability and property damage insurance.
- Complete the street tree inventory in 2009 with the current tree consultant and apply for a Department of Natural Resources urban forestry grant of \$25,000 to assist in paying for the inventory. Cost of street tree inventory \$160,000 should be part of Parks 2009 Capital budget request. A resolution for applying for and accepting a 2009 DNR urban forestry grant must be drafted and approved.
- Provide for public education in the forestry section's 2009 and 2010 operational budget for the production of public service announcements, advertisement, and outreach regarding EAB and the city's response plan.
- Provide for street and park tree replacements within the Parks Division Capital budget for the next two to five years.
- Increase forestry section's equipment by adding to the fleet for EAB response in the Parks Division Capital budget starting in 2010 thru 2016 on an as needed basis:

Forestry Capitol Budget items

(2) Additional 40-45 foot towers	\$100,000 ea.x2=	\$200,000.00
(1) Additional clam	\$160,000.00 x1=	\$160,000.00
(2) additional 4x4 small pick up truck	\$ 17,000.00 x2=	\$ 34,000.00
<b><u>TOTAL</u></b>		<b>\$394,000.00</b>

- Increase forestry section's staff in the Parks Division operational budget starting in 2010 thru 2016 on an as needed basis:

Forestry Operational Budget items

(3) Arborist I's	\$54,484.71 each x 3	\$163,454.13
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Reclassify Parks Maintenance Worker position to Arborist I

Parks Maintenance Worker \$52,975.10 to Arborist I \$54,484.71. additional: \$ 1,509.61

(3) Arborist II positions	\$57,680.57 each x 3	\$173,041.71
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(2) Forestry Specialists positions		\$ 124,369.02
Additional Work/Safety Supplies		\$ 10,000.00
Additional training budget		\$ 1,350.00

**TOTAL**      **\$473,724.47**

- Starting in the 2010 budget cycle increase Streets Division staff by 16 employees and purchase additional equipment on an as needed basis:

(2) Additional Stump Grubbing Crews: (Double the number of operators):

- (2) SMO III for Vaxcavator
- (2) SMO III for Stump Grubber
- (2) SMO III for Endloader to clean material out of hole
- (2) SMO I for Dump Truck to haul stump material
- (2) SMO I for Dump Truck with Spreader for Top Soil replacement

(2) Additional Chipper Crews:

- (2) SMO II for Chipper
- (2) SMO I for Chipper

Additional Brush Processor:

- (1) Operator Maintenance Worker to operate Petersen/Pacific
- (1) Operating Maintenance Worker to operate semi tractor/trailer for chip removal

**COSTS:**

6 SMO III's:	$\$49,140 + \$18,574 (37.8\% \text{ benefit rate}) = \$67,714 \times 6 =$	\$406,284
2 Operating Maintenance Workers:		
	$\$49,582 + \$18,742 (37.8\% \text{ benefit rate}) = \$68,324 \times 2 =$	\$136,648
2 SMO II's:	$\$59,290 + \$16,363 (37.8\% \text{ benefit rate}) = \$59,653 \times 2 =$	\$119,306
6 SMO I's:	$\$41,912 + \$15,842 (37.8\% \text{ benefit rate}) = \$57,754 \times 6 =$	\$346,524

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**TOTAL**      **\$1,008,762**