

EMERALD ASH BORER MANAGEMENT PLAN

CITY OF STEVENS POINT

2013

INTRODUCTION

The emerald ash borer (EAB) is an invasive insect native to Asia that was introduced into the United States via wooden packing material. It was discovered in Detroit, MI in 2002. The insect has spread throughout the Midwest since its arrival and was first discovered in Wisconsin in 2008. As of February 2013 EAB has now been found in thirteen Wisconsin Counties. It has not yet been found in Portage County. In Asia, the insect has little impact due to the existence of natural insect predators, however; in the United States there are no natural predators to keep the insect in check and as a result has killed tens of millions of ash trees in the US and Canada.

Stevens Point's response to Emerald Ash Borer unofficially started when it was first identified in Michigan. Since EAB was discovered in Wisconsin, forestry staff began making firm decisions towards the response to EAB. Staff has reviewed our street tree inventory, conducted an ash inventory on all publicly owned properties, reviewed staffing levels and equipment requirements, reviewed chemical treatment of trees, examined in-house treatments vs. contractual, compared removals in-house to contractual, reviewed tree establishment programs, and wood utilization. The forestry department has tried to keep the Common Council via the Park Board, other city departments, and the public up to date regarding EAB.

Funding will be the determining factor when formulating a responsible action plan. Currently, we are focusing our funding on planting and preparing. We will not be able to save many, if any, ash trees without pesticide applications. We are continually examining annual in-house forestry operations so we can efficiently respond to this insect and adsorb as much as we can in-house. The City of Stevens Point has the potential to lose 14% of our street trees due to this insect, and funding will be the determining factor for the future of our urban forest. Ultimately effective management of this pest must be a dynamic process of continual analysis, assessment and adjustment of techniques and policy as needed.

PURPOSE

By implementing the provisions in this management plan, the City of Stevens Point is attempting to mitigate the disruption to its urban forest caused by the pending infestation of EAB. Taking a proactive approach will enable the City to address public and private needs in an efficient and effective manner. How

City Officials deal with this upcoming situation now, will have a major impact as to what Stevens Point will look like for our next generation. The City's approach to Dutch elm disease should parallel EAB. Because the City had taken and continues to take a proactive approach to Dutch elm disease than most municipalities, Stevens Point has a fairly large American elm population. Most communities are devoid of large American elms.

A proactive Emerald Ash Borer Management Plan will enable the City to:

- Update and revise appropriate public ordinances.
- Update public tree inventory, and estimate ash tree population on private property
- Locate possible holding yard(s) for large quantities of wood and develop procedures for dealing with infested material
- Determine the City's comprehensive ash tree policy
- Develop an ash tree reduction program
 - Establish ash tree treatment policy
 - Establish re-planting recommendations
- Review City personnel and equipment needs and/or availability regarding EAB
- Develop and strengthen community education and outreach
- Keep local officials updated

Update Ordinance

The City of Stevens Point Forestry Ordinance (Chapter 11) was adopted in 2000. The ordinance as a whole should be reviewed. Language regarding EAB should be examined. Currently EAB is covered in broad terms in section 11.06(a).

Ash Tree Population

Stevens Point's street tree population is 7264 trees. Of these 7264 trees, 974 are some species of ash. Currently ash makes up 14% of Stevens Point's street tree population. All street tree ash diameters were measured in 2013. There are another 335 ash trees in managed areas of parks, and city owned parking lots in the downtown area. Ash tree diameters were measured to produce accurate cost projections when budgeting for any potential future ash tree insecticide treatment, removal, and replanting.

An estimate of the number of ash trees on private land should be figured. This number is important because it would estimate the amount of wastewood that would be generated. This could affect City operations especially at the City run drop off site at the City Garage.

A cooperative project with the UWSP forestry department may be a way of generating a more accurate number of projecting the number of ash trees on private lands.

Ash comprise a large component of woods, and woodlots in Stevens Point, such as woods around Iverson Park and the City Garage. The number of ash is not known in these areas.

Wood Debris

Once EAB gets established in Stevens Point, the vast majority of the ash trees will be killed in a four year window. This could generate a large volume of wood debris. According to the Stevens Point Street Tree Management Plan (2010), put together by Davey Resource Group, they describe the city garage drop off site regarding EAB as "pretty small" and that other sites and opportunities should be explored in disposing of the waste wood. Getting a better idea of how many ash are on private property may aid in making the decision on the size of the drop off site the City needs. An internship with UWSP is being offered in Spring 2013 to estimate the ash on private lands. Additionally, the City Garage drop off site is located close to the Wisconsin River, and ash is a significant component of the wooded areas around the garage and along the banks of the Wisconsin River. Rivers can also expedite the spread of EAB since they provide natural corridors for the insect's flight. Drop off sites, in regards to EAB waste wood, are usually 2-8 acres in size and away from high-risk areas. A different drop off site may warrant consideration.

The City Forestry Dept. has had discussions with Zblewski Brother in regards of disposing of EAB infested wood from public trees. Revenue generating ideas should be explored. Wood disposal information (size and amounts) should be on the City EAB and Drop off website. Drop off site(s) and webpage info will require input from Public Works.

Ways to dispose of private infested ash wood should be further explored.

Determine Ash Tree Policy

A comprehensive policy describes how the City intends to manage ash trees in a variety of scenarios and directs the decision-making process.

Public Ash Trees

The updated ash inventory will be used to manage all species of ash. Removal of ash will be part of, or the entire component of EAB management. Prioritization of removals should be based upon risk abatement, nuisance, and budget. High risk ash trees will take priority and will be removed first. Miss sited ash (trees planted under utility lines) will be removed next, while the utilities have the resources. The City will try and replace the removed trees with site appropriate trees pending funds and personnel. The inventory shows 108 such trees planted under utility lines. Before a street tree is removed, the adjacent property owner is notified (unless the tree is hazardous). This has been the policy of the forestry department in the past, and we will try to continue to do so in regards to EAB. The forestry department will work on reducing the number of undesirable ash

trees prior to EAB arrival. This part of the plan will be the most dynamic. Ash trees at this time are only receiving clearance and deadwood pruning. Time is not being spent structurally pruning the majority of ash trees. This pruning practice would change if it is decided to indefinitely treat ash trees. Ash trees in construction sites are not being worked around. They are being removed and replaced unless an adjacent property owner objects.

Existing ash street trees today provide about \$60,900 in annual benefits (stormwater reduction, energy savings, property value increases, CO2 uptake, and improve air quality). Since the majority of Stevens Point's ash street trees are first beginning to maximize their benefits, the benefits are going to increase.

List projected tree and stump costs following measurements. \$218,000

Appraised Value - \$924,000
Annual Benefits - \$60,900
Tree Removal - \$164,000
Stump Removal - \$54,000

Proactive Removal: Removing ash trees that are not infested with EAB.

Pros:

- Opportunity to spread removal costs over a longer time frame
- Reduces problem of dealing with many dead and/or hazardous trees at one time.
- Opportunity to start replanting process immediately
- Greater flexibility in organizing work schedules
- Ability to utilize ash wood for products or use it as a local source of firewood

Cons:

- Immediate impacts to tree canopy and aesthetics
- Removing healthy ash may create negative feelings within the community
- Does not factor in research that may find an effective control for EAB

Reactive Removal: Removing ash trees which are either infested with EAB or dead

Pros:

- Delayed impacts to tree canopy and aesthetics

- No negative public perceptions
- Delayed budgetary impacts until EAB arrives
- Further EAB research may offer effective control, minimizing needs for removal

Cons:

- Budget impacts can be severe once EAB arrives
- Replanting funds may not be available due to extreme removal costs

Ash Trees on Private Lands

The forestry department will try and disseminate information regarding EAB to property owners in Stevens Point via the city website and other media. The forestry department has the authority to condemn dead and/or hazardous ash trees on private property. It is then up to the property owner to remove and dispose of the tree at their cost. Should residents will be allowed to store EAB infested wood on their property. Area woodlots will be infested, so why require other disposal requirements?

Treatment Options

There are two reasons to treat ash trees.

- 1.) Treating trees will prolong the ash tree removal process and spread out the cost in removal, replanting and reduce the immediate impact to the landscape.
- 2.) Treating ash trees will preserve them for and indefinite amount of time. As time passes new chemicals may be found to protect trees longer and for less money. As time passes new predators may limit or eliminate EAB. As the first initial large wave of EAB passes through, we may not have to treat trees as often.

At this time the forestry department is planning on treating approximately 125 ash trees. Trees scheduled for treatment, when EAB arrives or until it is found closer than 15 miles from Stevens Point, are ash trees in good condition along Main and Clark Street, Downtown ash trees, and ash trees in 1600 block of College Ave. At this time it is planned on treating these trees in house. If Stevens Point was to treat every existing ash street tree it would cost **\$31,500** annually. The **\$31,500** is the contracted out rate for all street trees with current knowledge, technology and current tree diameters. Ash trees in the parks and City parking lots are currently not being considered for treatment, but rather removal and replacement. Consideration should be made for treating ash trees in downtown parking lots too?

Private property owners whom have ash street trees adjacent to their homes could treat these trees with City forestry department approval. The forestry department would keep record of the treatments with the street tree inventory. Private property owners would get information regarding insecticide treatments for ash trees on private property via the City website. Treated trees will be retained unless the forestry department has determined that treatment has failed and condition warrants removal.

RE-PLANTING EFFORTS

Areas of Stevens Point hard hit by the windstorm of 2011, such as Forest Cemetery, show the impact trees have upon our landscape when many large trees are lost at one time. This is the impact EAB will have upon our entire community. Pre-emptive tree planting and the re-planting of removed trees should be a major component of Stevens Point's overall EAB plan. Once EAB arrives and gets established in Stevens Point, time and money to dedicate to tree planting and care may be difficult to allocate based upon other municipalities experiences, especially those communities which did not, or were not able to prepare.

Re-planting efforts should concentrate on species diversity along streets, parks, and throughout the community as a whole. Along streets the ultimate goal should be set not to plant more than 5% of any one species, 10% of any one genus and 20% of any one family. In the parks, trees not commonly used for street plantings will be the focus. On private property the forestry department will try to inform residents of the many different trees which do well in our climate. Information will be disseminated via the City website and with the help of potential partnerships in the Stevens Point surrounding community. Work with local retailers which sell trees will be important. Retailers will only sell what people buy, and an effort must be made to influence people to purchase something other than a 'red maple'. If a disease or insect wipes out maple the way Dutch elm disease wiped out elm, or EAB is wiping out ash, Stevens Point stands to lose nearly 30% of its street trees and even a greater percentage of trees on private property.

If all 974 ash street trees were replaced with one and a half inch balled and burlapped trees, it would cost **\$170,000**. The 335 ash trees in the City parks would cost and additional **\$90,000**.

CITY RESOURCES

The City of Stevens Point forestry department does not have the personnel, the equipment, or the budget to manage an EAB infestation. Trained personnel and additional equipment from the Parks Department and Streets Department along with additional budgeted monies will be needed to adequately manage EAB in order to safeguard our residents, minimize the disruption of other City

services, limit the impact upon Stevens Point's landscape/environment, and minimize the cost to the City budget.

The decision is going to have to be made whether the City will contract out all the work, part of the work, or none/little of the work.

In an average year, the forestry department relies on personnel and equipment from the parks and streets department, volunteers, and private contractors to try and accomplish forestry department's goals. Dead, diseased, and hazardous tree removals are what the City departments and private contractors primarily help with. Personnel help from the Parks and Streets department is not scheduled, it is random, and is occurring less and less each year. If the plan is to have other departments help with EAB management, it would require scheduled committed help. If not, the result could be dead high liability street trees lining our streets, and standing in our parks. It is recommended to plan ahead and budget additional dollars in the capital expenditures for a five year window while EAB is at its peak. The budgeted amount has many variables, and decisions need to be made to budget for EAB arrival. For now, an increase in the contracted work by the amount of \$10,000 annually for added removals, and grinding is recommended.

From past and current experiences, there are a couple of issues I think that need to be addressed. Some of them were obvious following the July 19th 2011 windstorm, but are relevant to EAB management.

- 1.) There is a need for more chainsaw safety training for employees. Many employees have taken the beginner safety course, but there is a need for more advanced training. There are two companies that provide beginner and advanced chainsaw training that the City has used in the past. A commitment to money and personnel for these classes would be required.
- 2.) Currently chainsaw maintenance and chain sharpening has been performed by the City Arborist. With the City having one experienced arborist, it does not make sense for this employee to be inside cleaning saws and sharpening chains when he is needed most. Other employee(s) should be trained in sharpening chains, and basic chainsaw maintenance. Contracting out sharpening would require additional funds, and is hit or miss in regards to getting chains back as needed.
- 3.) How many, if any, and which specific employees would be assigned to aid in ash tree removal. These employees may need some additional training/education.
- 4.) Clear communication, coordination, and chain of command would be needed for EAB management.
- 5.) An Industrial grapple attachment for the parks loader is needed to aid in ash tree removal. Trees could be removed in sections, picked up by the grapple,

dumped into a tri-axle dump truck, and hauled to the marshalling yard to be chipped. This has been placed in the capital purchase schedule.

6.) The City streets department has a tubgrinder. Keeping it and maintaining it is important. Waste wood could be ground by the machine until a contractor would come in and take it.

7.) Explore new/additional drop off sites and have them ready in case they are needed. Input from public works would be needed.

All of the above seven listed recommendations would also prove very beneficial in regards to the City's storm preparedness and overall day to day operations.

COMMUNITY EDUCATION AND OUTREACH

Proper communication and education will enable the City the ability to make proper decisions and mitigate potential negative reactions.

Once EAB is thought to be found, a sample will be sent to: Emerald Ash Borer Program, WI DATCP, P.O. Box 8911, Madison, WI 53708- 8911, or photos can be emailed to DATCPEmeraldAshBorer@wisconsin.gov, attention Melody Walker for confirmation. DATCP can be reached by phone at 1-800-462-2803. Upon confirmation by DATCP, local officials will be notified, and then the media. After confirmation of EAB in Portage County or the City of Stevens Point, the County will have quarantines placed on it in accordance to the State of Wisconsin response guidelines. USDA and DATCP will work with State officials, and affected communities and industries to minimize the impact of quarantines. State regulations would need to be followed on movement of wood products and all options for mitigating EAB impact would need to be reexamined.

The City of Stevens Point's webpage stevenspoint.com/forestry will provide links and answer potentially frequently asked questions for residents.

Information will be displayed on an educational kiosk located at the City garage drop-off site.

An EAB and firewood brochure will be developed and be made available to residents.

Press releases will be made to the local media. An initial find press release has already been written.

Educate residents and staff on monitoring for EAB.

Have all ash trees plotted on a GIS map.

Make residents aware of importance of diversity of trees/shrubs, and find a way for residents to want these trees/shrubs. This will require partnerships with organizations such as Audubon, Central Wisconsin Farmshed Project, Wisconsin Public Service, and Student Society of Arboriculture. A free tree give-away is a possibility.

CONCLUSION

A well-planned response can minimize the impact, reduce liability, spread out costs and lessen the overall cost of EAB. Because the impacts of EAB can be acutely high, many communities have chosen to soften the blow through gradual, prioritized, preemptive removal of some of their public ash trees. Many communities also want to retain some of their ash tree canopy for the important environmental, social and economic benefits it provides. Ongoing advances in EAB insecticide research make selective application of insecticide an increasingly viable and cost-effective option. After communicating with other city departments, elected officials and the public, a final draft of this document will act as the City of Stevens Point EAB Management Plan, BUT the plan will remain actively fluid and open to change as more is learned about EAB. The Park Board will serve as the means to communicate updates regarding EAB.

ASH STREET TREES

974 Ash Street Trees

Average size 10.5 inches DBH

Remove all (\$16.00 per DBH) - **\$164,000**

Stump Removal (1.5xDBH estimate @ 3.50 per inch) - **\$54,000**

Replant street trees (doesn't include add staff for watering) - **\$170,000**

\$388,000

Treatment for all annually - **\$31,500**

Appraised value – \$924,000

Annual Benefits - \$60,900

ASH PARK TREES

335 Ash Park Trees

Average size 14.2 inches DBH

Remove all (\$16.00 per DBH) - **\$76,000**

Stump Removal (1.5xDBH estimate @ 3.50 per inch) - **\$25,000**

Replant street trees (doesn't include add staff for watering) - **\$90,000**

\$191,000

Total - \$579,000