

Town of Dunn Emerald Ash Borer Response & Management Plan

**As Approved By:
Town of Dunn Tree Board
11/24/2015**

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Goal:

The goal of this EAB Management and Readiness Plan (hereafter called the Plan) is to minimize the impact of the Emerald Ash Borer with regard to the health of our urban forest and potential loss of ash trees by using the best scientific advice and lowest cost to the community; to limit the physical and fiscal liability imposed by an infestation of EAB; to protect the community from hazardous trees and conditions; and to maintain the beauty and efficacy of the urban forest.

Purpose:

This Plan is intended to serve as the guidelines and prescriptions for preparing for and responding to EAB infestations in the Town of Dunn. It covers all ash trees in parks, and public open space and municipal properties in the Town of Dunn. It also addresses strategies for dealing with ash trees on private property and provides residents with information on preparedness and response for trees on their property. This Plan is a living document and, as such, changes over time in response to new information about EAB biology and management.

Background of the Emerald Ash Borer:

Emerald ash borer (EAB) (*Agrilus planipennis*) is native to East Asia and is a highly destructive insect that was originally detected in southeastern Michigan during the summer of 2002. Experts believe that the introduction was likely in the early 1990's, twelve years prior to its identification. It is presumed that the insect was introduced into southeastern Michigan unintentionally in solid wood packing materials used in international cargo shipments. EAB was first discovered in North America near Detroit, Michigan in 2002. By the time its presence was confirmed, infestations were well established. EAB is not a threat to human health but it does threaten our forest and urban tree populations. It is 100 percent fatal to our native ash trees of any size, any age, healthy or unhealthy. A tree that has been attacked by EAB will die within 2-4 years.

As of November 2015, EAB infestations were known in twenty-five states (Arkansas, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin), and two Canadian Provinces (Ontario and Quebec) causing the death tens of millions of ash trees, over 15 million in the Detroit area alone. Wisconsin forests contain more than 770 million ash trees, nearly 7 percent of the tree population. In urban areas, it is estimated that ash makes up, on average, 20 percent of trees.

The larva (the immature stage of EAB) spends its life inside ash trees, feeding on the inner bark where it cannot be detected without removing the outer bark. This feeding disrupts the trees' ability to transport water and nutrients, causing the tree to starve and eventually die. The emerald ash borer can expand its range up to several miles per year during the adult beetles' June to August flight period. Human activities, however, have led to the spread of the EAB over much greater distances. Shipments of nursery stock and firewood have been inadvertently responsible for the majority of new EAB introductions.

Natural predators and pathogens keep EAB population in check in its natural habitat; in addition, there is some indication of actual resistance in ash trees from EAB's native range. EAB has few predators in North America and ash trees have no natural resistance. North American Woodpeckers and other insectivores have been observed eating EAB larvae but this predation has not had a significant impact on EAB populations. Stingless parasitoid wasps are currently under evaluation by APHIS. These parasitoid wasps are known to attack EAB in its native range in China. Small scale trail releases were performed in 2007, 2008 and 2009. Larger research releases of the parasitoid wasps were conducted in 2010-2014. Release sites were monitored for establishment of natural enemies and evaluated for their potential to control and slow the dispersal of EAB to other states. This research is currently ongoing.

The cost of mitigation to affected communities has been considerable since removal and replacement or treatment is necessary. Nurseries, sawmills, and firewood producers have felt the insect's impact through quarantine restrictions established to slow the spread of EAB. Quarantine is a system of rules administered by the USDA Animal and Plant Health Inspection Service and the WI Department of Agriculture, Trade and Consumer Protection. The rules are intended to help prevent the spread of EAB. People moving wood products can inadvertently transport EAB to new areas. When an EAB find is confirmed, the county where the find is located will be quarantined. If the find is located near neighboring counties, those counties also will be quarantined.

Despite quarantines, eradication efforts, and containment efforts by federal, state and local government entities, EAB continues to broaden its range in North America both naturally and unknowingly by the movement of infested firewood and nursery stock. It is illegal to move or transport ash material, the emerald ash borer, and hardwood firewood from EAB quarantined areas to a non-quarantined area without a compliance agreement issued by WI Department of Agriculture, Trade and Consumer Protection. Regulated items include cut hardwood (non-coniferous) firewood, ash logs, ash mulch or bark fragments larger than one inch in diameter, or ash nursery stock (DATCP statute 21). DNR restricts firewood movement onto DNR managed properties in Wisconsin to prevent the spread of EAB to Wisconsin forests and recreational areas. However, firewood can be transported out of a quarantined area if it is from a firewood vendor certified by the WI Department of Agriculture, Trade and Consumer Protection. Hardwood firewood or ash material such as logs, mulch or nursery stock can be moved into or within the quarantined areas without penalty, but overall, firewood movement is a bad idea. Many invasive forest pests and diseases are inadvertently transported on firewood. Moving firewood can put the trees at your destination at risk.

As of August 18th, 2015, EAB has been found in 35 of the 72 counties in Wisconsin: The closest find was in the Town of Dunkirk, approximately 14 miles SW from the Town of Dunn. Although its arrival date in our area is uncertain, it is highly probable that EAB will impact ash trees and public service capacity in the Town of Dunn sometime in the near future. (Data for EAB finds available at:

<http://datcpservices.wisconsin.gov/eab>)

The Town's Tree Board and Parks Staff developed this plan which details the Town's authority to act, identifies assets at risk, examines available resources and makes key recommendations that will allow the Town to manage EAB proactively and strategically. Although an impending EAB infestation will cause community tree loss and burden the Town's ability to deliver exceptional public services, the Town can greatly reduce the risk and the negative impacts associated with EAB by following the guidelines and implementing action items endorsed in this plan.

Monitoring and Detection Methods

Survey Program Emerald ash borer visual survey and detection efforts in Wisconsin have been carried out cooperatively since 2004 by the Wisconsin Dept. of Agriculture, Trade & Consumer Protection (DATCP), the Wisconsin Dept. of Natural Resources (DNR), USDA APHIS, USDA Forest Service Research and the University of Wisconsin and UW Extension. The emerald ash borer is a serious insect pest that threatens the health of all ash tree species in Wisconsin. With an estimated 770 million forest ash trees at risk in Wisconsin, the state is committed to early detection and thoughtful management of this pest. To date, Wisconsin's survey efforts have included visual, detection tree and purple panel trap surveys. Surveys have been conducted in high risk areas across the state, including state, federal, municipal and private lands.

Purple Panel Trap

Detection traps are the newest tool to assist with EAB detection. The traps are currently purple, almost three feet tall and one foot wide, and covered with a sticky substance. The adult beetle will stick to the trap if it lands on it. More recent research might influence a change of color for the traps. Traps are placed in the tree canopy prior to the start of adult EAB emergence and are left hanging through the end of seasonal beetle flight.

Visual Survey Methods

Visual detection surveys for emerald ash borer are conducted from the ground. Surveyors determine if trees are infested by visually scanning them for emerald ash borer-like symptoms and signs. Symptoms

characteristic, but not definitive, of emerald ash borer include branch dieback, epicormic sprouting at the base or along the trunk, woodpecker feeding, and bark splits. Emerald ash borer signs include metallic green adult beetles, cream colored larvae under the bark, D-shaped emergence holes in the bark and S-shaped larval feeding tunnels under the bark.

Survey work has been conducted at state and private campgrounds in Wisconsin since 2004. Due to the high risk of EAB introduction associated with infested firewood, comprehensive surveillance of areas such as campgrounds, where firewood supplies are generally greater, is viewed as a critical measure.

Although the state has born the responsibility of visual survey throughout the state and has shared results with local officials, however, responsibility is likely to shift to municipal staff when and if federal budgets for survey efforts are reduced.

Municipal Authority to Control EAB and Designation of Responsibility

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.

State of Wisconsin Plan of Action

An outbreak of EAB has local, state, national and international impact. Because of the threat to other states and Canada, if EAB is found in the Town of Dunn there will be a joint response, using local, state and federal authorities and resources according to the 2008 Wisconsin Emerald Ash Borer Response Plan. State Agencies that will be involved are: Department of Agriculture, Trade and Consumer Protection (DATCP) and the Department of Natural Resources (DNR). Initially, the State of Wisconsin used the Incident Command System for communications and decision making. As of early 2010, the state has moved to a new process that involves small Interagency Response Teams.

Laws Regarding EAB

The emerald ash borer is regulated by the Wisconsin Department of Natural Resources (DNR) through Chapter NR 40, Wis. Adm. Code and by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) in Chapter ATCP 21 and 21.17, Wis. Ad. Rules. The Town of Dunn has the authority to control EAB through these regulations.

Wisconsin Rules Helping Prevent EAB Spread

DATCP revised the rule (DATCP 21), allowing our state to restrict the movement of certain items coming from areas infested with emerald ash borer (EAB quarantined areas). These items include firewood, logs, mulch or nursery stock. DNR revised the rule NR 45.04 (1) (g) restricting firewood movement onto DNR managed properties in Wisconsin to prevent the spread of EAB to Wisconsin forests and recreational areas. The current EAB Wisconsin regulations regarding wood waste management can be found here: [http://emeraldashborer.wi.gov/articleassets/Managing Infested Wood 1-15-09.pdf](http://emeraldashborer.wi.gov/articleassets/Managing%20Infested%20Wood%201-15-09.pdf)

It will be the responsibility of the Superintendent of Public Works and Parks and their designees to carry out the provisions of applicable ordinances and plans.

Assessment of Existing Resources

Public Tree Assessment

The Town's urban forest is a public asset that appreciates in value over time and provides numerous benefits to residents, visitors and businesses. Community trees help mitigate air pollution, conserve energy, reduce storm water run-off and increase homeowner property values. The impacts of EAB will affect all Town of Dunn residents, businesses and visitors. The Town is preparing to be in the position to respond strategically to reduce these effects and avoid managing a crisis situation.

The Town of Dunn's urban forest requires proper management to assure that it remains healthy and to control potentially higher long-term costs. The Town's urban forest will increase in value and reduce public safety risks only if it is managed properly. This proposed plan provides the Town with maximum economic, aesthetic and environmental benefits from its urban forest.

Inventory

This year the Town's right-of-way tree inventory has begun, this will take approximately 2 years to complete. A basic park inventory has been completed in 2012. There are currently 25 ash trees in the Town's parks. The urban forest, as a whole, also includes private trees. A voluntary, private tree inventory form is also available to residents on the Town's website.

Town Resources

The Public Works and Parks Department is staffed by two employees, who are currently receiving urban forestry training. One of which has completed the Wisconsin Department of Natural Resources Community Tree Management Institute program. The Highway Department is staff also by two employees. Although at this time none are certified arborists, all are trained in tree removal and operating the appropriate equipment. The current Tree Board is comprised of 5 volunteer residents, 2 of which are certified arborists.

The Town has 1 4 X 4 Tractor with grapple, 1 skidsteer with grapple, 3 tandem-axle patrol trucks, 1 single-axle patrol truck, 1 loader, and 1 excavator with thumb. There are currently enough chainsaws and hand tools to meet the needs of the Town's crews.

The crew size and equipment capability is not adequate to handle all EAB related tree work. Contracting additional crews of insured professional, ISA certified arborists will be necessary to remove trees that are too large, too tall, or too technical and outside the range of the Town owned equipment. As the need for contracting increases, so too will funding of these contracted services. The Town will apply for grant funding, where available, to cover the costs associated with EAB related tree work. Work will be limited by funds budgeted and available. Staff will prioritize work for cost efficiency.

EAB Management Strategies

These strategies are mainly proactive approaches to addressing the need to contain the infestation, remove ash trees, replant with other species and mitigate possible financial and environmental impacts.

Public Education

To educate Town residents on the importance of sound urban forestry practices and the value of ash resources. The information will include ash tree identification, EAB information and identification, methods of early detection, 'treat, remove/replant or leave' options, wood disposal and contact information for WI DNR and DATCAP. This information will be available at the Town Hall, in the Town newsletter and on the Town's website. The Town has been educating its park's staff on ash tree

identification and EAB early detection.

Municipal Trees – Treatment

Selected park and heritage ash trees will be chemically treated to reduce the impact of EAB. The Town has purchased an Arborjet Tree IV kit to inject these ash trees. Town owned trees can be ‘adopted’ by Town residents, who pledge to pay the cost of treatment. A tree work application must be filed and then reviewed by the Town’s Tree Board for approval prior to any treatment being performed on Town trees.

Municipal Trees – Removal

The need for removals will be at the discretion of the Town’s Tree Board and Parks Staff. Due to staff and equipment limitations, initial removals will be of ash trees that are identified as being in poor health and/or are hazardous. Once removed the debris will be handled routinely by transporting the debris to the Town’s Transfer Site for disposal. Trees that are in wooded areas will be left alone. These trees will die once EAB arrives, but will be left in the woods to fall and decompose unless they present a hazard, in which case they will be felled and left in the woods. Trees that are located in utility easements on Town owned land are trimmed by each respective utility company’s crews. The Town of Dunn Tree Board advises that, as a cost saving measure in the long run, all ash trees should be removed and not trimmed in the normal operations of line trimming. Debris generated in the Town of Dunn may be taken to the Town of Dunn Transfer Site for disposal.

Private Trees – Treatment

Protective pesticide treatments may be effective and may be applied at residents’ discretion and expense. The effectiveness of ‘over the counter’ pesticides for EAB is suspect, treatment should be performed by an insured, certified arborist.

Private Trees – Removal

There are hundreds if not thousands of ash trees, large and small, on private property in the Town of Dunn. No reliable inventory exists and ash density varies by neighborhood.

Property owners are urged to monitor the EAB’s movements. The decision to treat, remove, or preserve private trees rests with the property owner. Residents should consider many variables when evaluating options, including tree size, location and condition; access to the tree; potential targets should the tree fail; property value; shade, heating and cooling values; treatment techniques, efficacy, and costs; proximity of EAB infestation; and intangible values.

It would be prudent for residents to establish a relationship with an ISA Certified Arborist now in the event that ash evaluation, treatment, or removal is desired in the future. Contractors should be able to provide proof of liability insurance and worker’s compensation coverage. The Town also encourages residents to replace trees lost with species appropriate for the site.

Debris Handling and Utilization Yards

The debris from removals will be hauled to the Town's Transfer Site, located at 4030 CR-B, McFarland WI, unless the federal or state officials dictate otherwise. Emergency overflow sites could include other public lands within the town. The site will be available to the public as well as contractors who remove ash trees for Town residents.

Residents may keep ash wood for burning however it may not be moved, sold or transported outside of the area. Information on recognizing possible EAB infestations and regulations regarding EAB infested wood will be available at the Town Hall, Transfer Site and the Town's website.

FAQs

How big is EAB? – An adult EAB is a beetle approximately 3/8 to 1/2 inch long and approximately 1/16 of an inch wide. EAB larvae (immature stage of EAB) vary in length as they grow. Full grown larvae average approximately 1.5 inches in length.

What is the life cycle of this borer? – Recent research shows that the beetle can have a one or a two year life cycle. Adults begin emerging in mid to late May with peak emergence in late June. Females usually begin laying eggs about 2 weeks after emergence. Eggs hatch 1-2 weeks, and the tiny larvae bore through the bark and into the cambium – the area between the bark and wood where nutrient levels are high. The larvae feed under the bark for several weeks, usually from late July or early August through October. The larvae typically pass through four stages, eventually reaching a size of roughly 1 to 1.25 inches long. Most EAB larvae overwinter in a small chamber in the outer bark or in the out inch of wood. Pupation occurs in spring and the new generation of adults will emerge in May or early June, to begin the cycle again.

How does EAB spread? – We know EAB adults can fly at least 1/2 mile for the tree where they emerge. Many infestations, however, were started when people moved infested ash nursery trees, logs, or firewood into uninfested areas. Shipments of ash nursery trees and ash logs with bark are now regulated, and transporting firewood outside of quarantined areas is illegal, but transport of infested firewood still remains a problem. **PLEASE – do not move any ash firewood or logs outside the quarantined area.**

What happens to infested ash trees? – The canopy of infested trees begins to thin above the infested portions of the trunk and major branches because the borer destroys the water and nutrient conducting tissues under the bark. Heavily infested trees exhibit canopy die-back usually starting at the top of the tree. One-third to one-half of the branches may die in one year. Most of the canopy will be dead within 2 years of when symptoms are first observed. Sometimes ash trees push out sprouts from the trunk after the upper portions of the tree dies. Although difficult to see, the adult beetles leave a “D”-shaped exit hole in the bark, roughly 1/8 inch in diameter, when they emerge in June.

Does EAB attack other trees besides ash? – EAB strictly attacks ash trees (*fraxinus* species) of all sizes, whether healthy or unhealthy. Other trees with ash in their name such as *Mountain Ash* or *Prickly Ash* are not true ash trees and are not threatened by EAB.

Where can I send in an EAB sample for identification? – If you find what you think is an EAB beetle or larva, you can send you sample to:

**Emerald Ash Borer Program
WI DATCP
P.O. Box 8911
Madison, WI 53708-8911**

Place your sample in a small sturdy container so it will not get damaged through the mailing process. Please include your name, address, phone number, and where and when you found the beetle/larva. As soon as we identify your sample, we will contact you.

What happens if my tree is infested with EAB? – Depending on the extent of the infestation and the health of the tree, you may be able to chemically treat the tree to prevent additional damage. An arborist or other tree care professional can help you make that decision.

Am I responsible for taking my tree down if it is infested with EAB? – The state does not mandate removal of EAB infested ash trees, although the removal of EAB infested trees is recommended. EAB infestation causes tree mortality and dead trees may pose a safety risk to private and public property.

Removal of the trees and proper disposal may help slow the spread of EAB in the immediate area.

What should I do if I suspect a tree on somebody else's property is infested with EAB? - If possible, talk to your neighbor about your concerns and observations. Ask them to call the Wisconsin EAB Hotline at 1-800-462-2803 and report the tree as an inspection might be necessary.

What does it mean when an area is quarantined? - When an area is quarantined, it means that residents and affected businesses must not transport any hardwood firewood, ash nursery stock, ash logs or timber out of the quarantined area. This restriction helps prevent EAB's introduction to new areas and to minimize its spread.

How big of a problem is EAB? - EAB is now considered the most destructive forest pest ever seen in North America. The scope of this problem will reach the billions of dollars nationwide if not dealt with. State and federal agencies have made this problem a priority. Homeowners can also help by carefully monitoring their ash trees for signs and symptoms of EAB throughout the year.

What can I do to help? - Educate yourself on how to recognize signs and symptoms of EAB. Do not move firewood. Purchase or cut all firewood from the same general location where you plan to use it. When camping or at a cabin, do not take any leftover firewood home with you.

Sources of Online Information:

www.emeraldashborer.info

www.dnr.wi.gov/invasives

www.emeraldashborer.wi.gov

www.hungrypests.com/the-threat/emerald-ash-borer.php

Contacts:

Department of Agriculture, Trade and Consumer Protection (DATCAP)
P.O. Box 8911
Madison, WI 53708-8911

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POLICY FOR WORK BY OTHERS ON TREES OWNED BY TOWN OF DUNN

(Town of Dunn properties include – ROW (Right-Of-Way), Parks, Greenspaces, etc.)

Tree work application process

Submit **Town of Dunn Tree Work Application** (see attached). This application will include location, type of work, reason for work, and a plan of action including expected work dates and contractor to be hired. A qualified, insured tree service company must be used with a current certificate of liability on file with the Town of Dunn. When digging and/or planting Diggers Hotline must be notified. Applicant assumes all responsibility for any and all damages that may be incurred as a result of the work. (Removal, grinding, planting, pruning and treatment including pesticides and fertilizers etc.) The value of compensation of the subject tree(s) that are damaged shall be valued by the Town of Dunn Tree Board.

Tree removal must include stump grinding and tree replacement. Trees on Town property have an intrinsic value and as such the Town shall receive compensation for the loss of a tree, either by replanting of trees or a payment of a replacement fee for future planting. The value of compensation of the subject tree(s) for removal shall be valued by the Town of Dunn Tree Board.

Tree selection must be from the Town of Dunn's approved tree list and must be planted on Town property. Planting should be in close proximity to the removed tree(s), however if not practical, other locations in the Town may be chosen by the Tree Board and/or Town Staff which the Town will care for. The replacement trees will be considered Town owned. Newly planted trees must be cared for by the applicant for one year.

The Town of Dunn Tree Board will review the application and plan. The review process will take into consideration the species, condition, & location of the tree(s) in question to be removed, pruned or treated (including pesticides and fertilizers), and also the replanting plan. Area neighbors will also be notified and have a chance to express their opinion. If the application is approved, then the application will go on to the Town Board directly if the location is a Town right-of-way or to the Parks Commission and then on to the Town Board if the location is in a Town park or greenspace. The completed work will be inspected for compliance with plan.

Town of Dunn Tree Work Application

Name:

Address:

Phone:

E-mail:

Address where work will be performed (if different than above):

Type of work being done:

- Removal
- Pruning / Treatment - ISA Cert:
- Planting

Description of requested work: (please attach a detailed description and a site plan showing the work to be performed with lot lines)

Work will be performed by:

Name:

Address:

Phone:

(a copy of certificate of insurance must be provided to the Town of Dunn)

Applicant Signature: _____

Date:

