VILLAGE OF MOUNT PROSPECT

EMERALD ASH BORER MANAGEMENT PLAN

Prepared by the Forestry/Grounds Division of the Mount Prospect Public Works Department
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I. INTRODUCTION

Emerald Ash Borer (EAB) is an extremely destructive tree-killing insect which has real potential to seriously impact the Village of Mount Prospect's environment and budget for years. It is not an overstatement to say that the Village may lose roughly one of every six of its trees to this pest. Though EAB was first found in Illinois in 2006, the Village has been actively preparing for its arrival since 2002, when EAB was identified for the first time in the United States in Michigan. (Attachment A is a list of Emerald Ash Borer related activities by Village staff to date).

The first draft of this management plan is being written in March 2009, with the realization that additional revisions will likely be needed as more is learned about EAB and its control. This document attempts to present a systematic, well-reasoned, fiscally responsible approach to the problem, based on Integrated Pest Management principles. (Integrated Pest Management includes a wide range of components including inspection, monitoring and prevention; pesticides may be used if needed but generally rely on the least toxic product that is effective).

The recommendations in this plan are quite comprehensive, in an attempt to be proactive and retain as many healthy trees as the budget allows. It should be noted that if the Village chooses to simply react to the problem as it develops, we will likely be faced with huge tree removal costs all at once. Additionally, we will need to face the accompanying safety issues brought on by a large number of dead trees lining Village streets.

Whenever a serious tree pest problem arises, some may ask whether it is worth all the time, trouble and expense to continue planting and maintaining trees. The Forestry/Grounds Division maintains that substantial loss of Mount Prospect's trees would seriously impact the quality of life in our community. Trees provide numerous benefits that are often overlooked by the casual observer. As explained further in Attachment B, many of the benefits provided by healthy trees can actually be quantified. According to the USDA Forest Service, properly maintained trees are actually worth <u>three times</u> the investment required to plant and care for them. Some benefits include not only their beauty, but also shade, reducing storm water runoff, oxygen production, absorption of pollutants, increased property values, attracting shoppers to commercial districts, increased mental well-being, contributing to a sense of community pride, and reducing crime rates. Many of these benefits are part of what makes Mount Prospect such a desirable place to live.

As a Tree City USA for many years, the Village of Mount Prospect has a long and proud history of caring for its public trees. Hopefully by implementing this Emerald Ash Borer Management Plan, the Village can make the best of a bad situation and eventually end up with a healthier, more sustainable urban forest.

II. THE EMERALD ASH BORER

A. The Insect

Emerald Ash Borer (EAB) is a small tree-killing insect from China. At last estimate, EAB had killed up to 25 million ash trees in the United States and Canada. Because of its small size and unobtrusive nature, it went unnoticed for 5-10 years. Since 2002, the insect has spread far beyond the initial infestation by flying, as well as the transportation of firewood and nursery stock. This insect poses a huge risk to an estimated 135,000,000 ash trees in communities and forests throughout Illinois and many millions more throughout the U.S!

The Emerald Ash Borer adult is a dark metallic green beetle only about ½" in length and 1/8" wide. Adults are generally only present from mid-May to late June, when they feed on the leaves of ash trees. However the flight season is generally considered to be from April 30 through September 1, to encompass the entire time adults may be present. Soon after they emerge, the adults mate and lay eggs on the trunk and branches of ash trees. After about a week the eggs hatch into larvae which then bore into the tree. It is this larval stage that does the major damage. Larvae are creamy white in color, can grow up to an inch long and are found under the bark of the trees. These larvae tunnel and feed, creating S-shaped galleries which damage the cambium (the live tissue just under the tree's bark). This tunneling cuts off the food and water supply to the tree, causing it to die. Later in the year, the larvae pupate and overwinter under the bark. New adults emerge the following May. Their emergence holes are very small (only 1/8") D-shaped holes and they can occur just about anywhere throughout the tree.

In the U.S., EAB has been known to attack all native ash trees, including White, Green and Blue ash. It does not attack Mountainash, which is not a true ash species, and likely not European ashes.

Infestation by EAB is usually very difficult to detect until the branches of the tree start to die. Usually the leaves on the upper third of a tree will start to thin, and the branches will begin to die back. This is frequently followed by a large number of shoots or branches arising below the dead portions of the trunk. Additional evidence of infestation includes the tiny D-shaped exit holes on the branches and the trunk. Distinct S-shaped larval feeding tunnels may also be apparent under the bark. Woodpecker injury is often apparent on branches of infested trees, especially in late winter.

B. History of EAB in the U.S.

It is thought that the beetle arrived in the U.S. from Asia in the early 90's, but it was not positively identified until 2002 in southeast Michigan. It is believed that the larvae hitched a ride across the borders traveling in wooden pallets. Once arriving in the United States the insect emerged as adult beetles and the cycle of devastation began. The EAB is an excellent flier and has the ability to fly relatively far distances in search of

food and egg laying sites in ash trees. However, adult beetles generally do not have to travel very far to find a suitable host. Additionally, pockets of EAB outbreaks have been linked to the movement of firewood and ash tree nursery stock out of infested areas, and the insect can now be found in ten states (see Attachment D).

EAB was first found in Illinois, in Kane County, in June 2006. This was followed closely by finds in several north-shore communities around Chicago. As of March 2009, it has been found at 55 different sites within Illinois, and state-quarantined areas have been expanded to include all or portions of twenty one counties (see Attachment E). Mount Prospect became enclosed by a quarantine in 2007. The latest quarantine expansion was due to seven positive finds, found by a Purple Trap survey conducted by the IDA during the flight season of 2008.

C. State/Federal Response

In Illinois, the Illinois Department of Agriculture (IDA) is the lead agency responsible for control of invasive pests. The federal agency USDA-APHIS assists with regulatory and control action at the request of the state. Thus far, IDA has acted to delimit (identify the outer edges of) the Illinois infestations, declared EAB a Public Nuisance in Illinois, and enacted a quarantine restricting the movement of ash trees and non-coniferous firewood. They have also created a comprehensive EAB website (www.illinoiseab.com) which is now frequently updated with useful information for communities and property owners. Originally the IDA removed a small number of known infested trees at state expense, at several of the original infestation sites. Since that time they have moved away from an eradication stance and are now trying to control the spread through quarantines. Cost of tree removals has fallen, in most cases, on property owners and municipalities.

In 2007 State legislation for an EAB Revolving Loan Fund was proposed; this became law in June 2008. This legislation would allow municipalities to borrow federal funds at a low interest rate to pay for certain EAB control measures. Eligible activities would include certain surveying activities, removing and replacing infested trees, and purchasing capital equipment to perform those tasks. However, funding has not yet been made available.

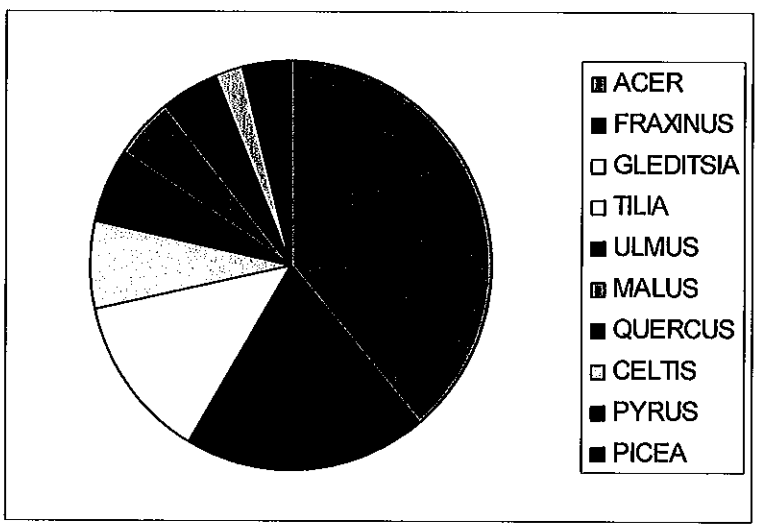
Federal agencies have been actively researching control measures, including biological controls, developing resistant species and testing various insecticides. Last year in Michigan after much study there was a trial release of tiny wasps that parasitize EAB; they will be closely tracked to see if they can establish populations in the U.S. Also in Michigan, the first native insect that seems able to effectively prey on EAB, at least under certain conditions, was discovered. Both state and federal agencies have become more open to the use of insecticides in recent years. Neither promotes insecticide use, but they acknowledge that individual property owners who can afford to may choose to treat healthy, high value ashes, with the hope that the trees can be kept alive until effective biological controls are discovered.

III. WHY EMERALD ASH BORER MATTERS TO MOUNT PROSPECT

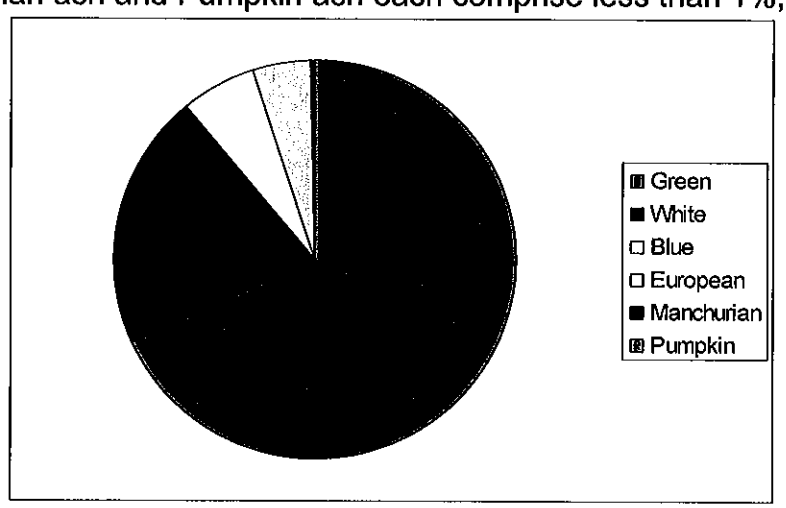
A. Mount Prospect's Ash Population

1. Public trees

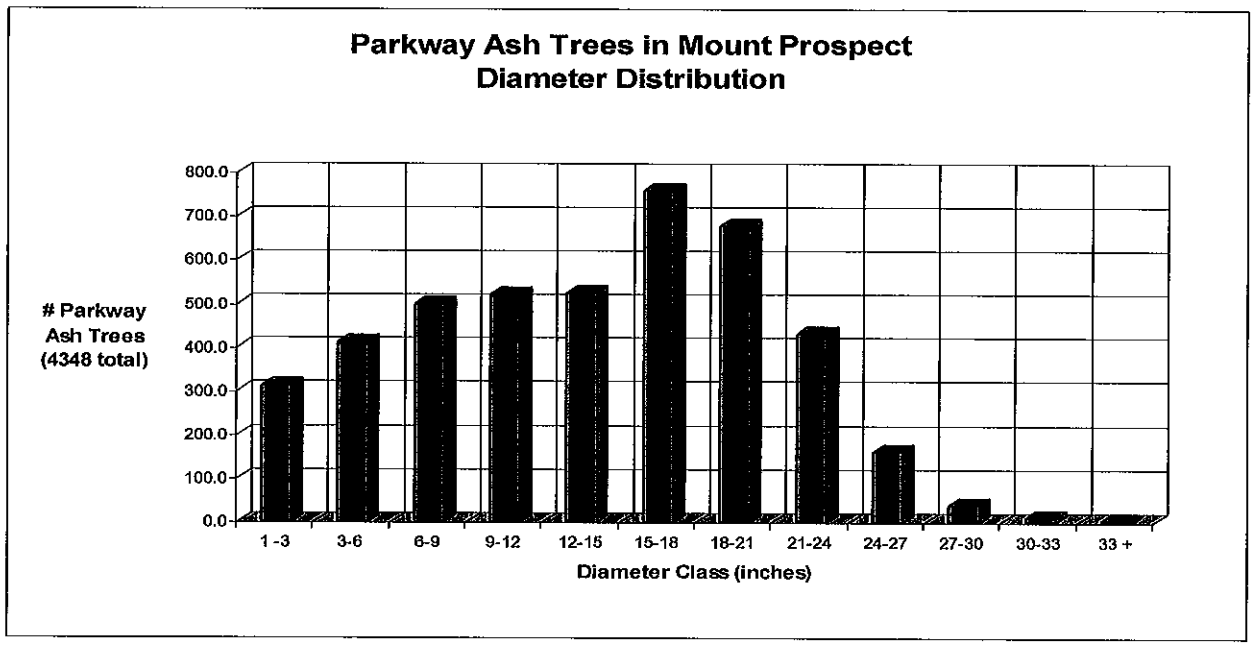
Mount Prospect has 24,917 parkway trees. This tree population is comprised of more than one hundred different species, with an approximate value of $71,600,000, based on a formula created by the International Society of Arboriculture. However, only a few genera make up the majority of Mount Prospect's trees. Fraxinus, or ash, is the second most common genus and is found Village-wide (see Attachment F). Ash species make up approximately 17% of the Village's public trees, as indicated by the 2006 graph below. Our parkway ash trees add approximately $12,250,000 to the value of our urban forest.



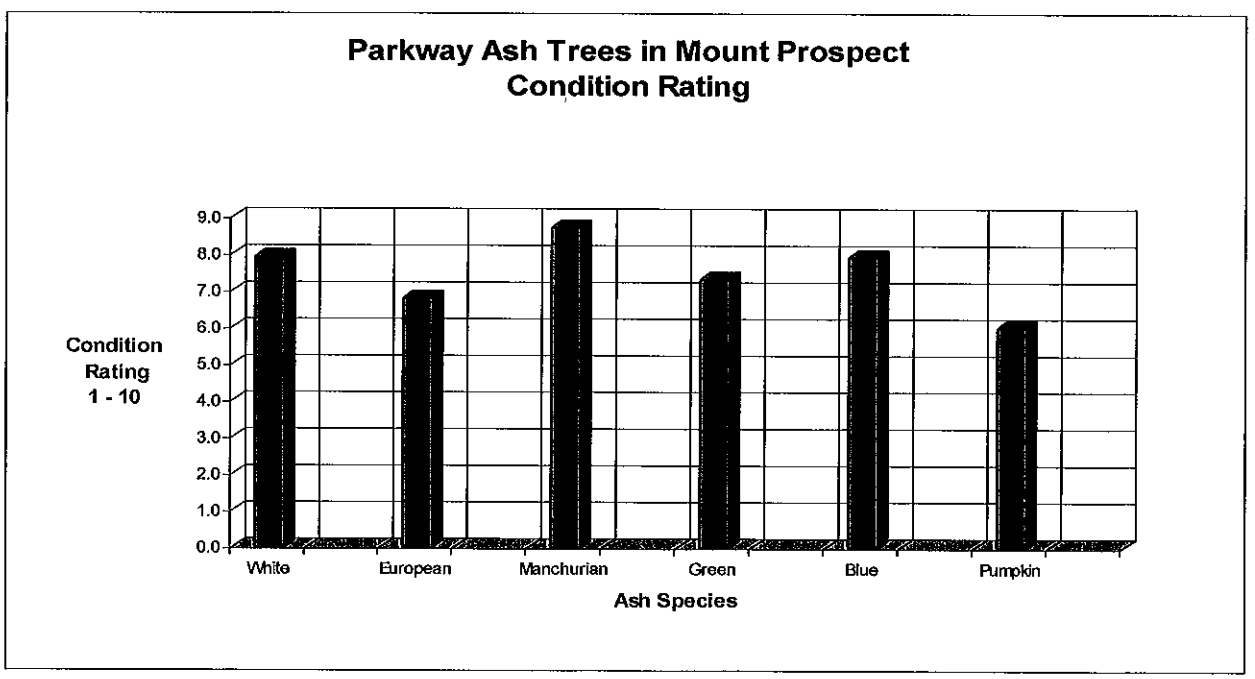
Mount Prospect's parkway ash tree population consists of six different species of ash trees. Green ash is by far the most prevalent, making up 68% of our ash population. This is followed by White ash at 21%, Blue ash at 6%, and European ash at 5%. Finally, Manchurian ash and Pumpkin ash each comprise less than 1%, as seen below.



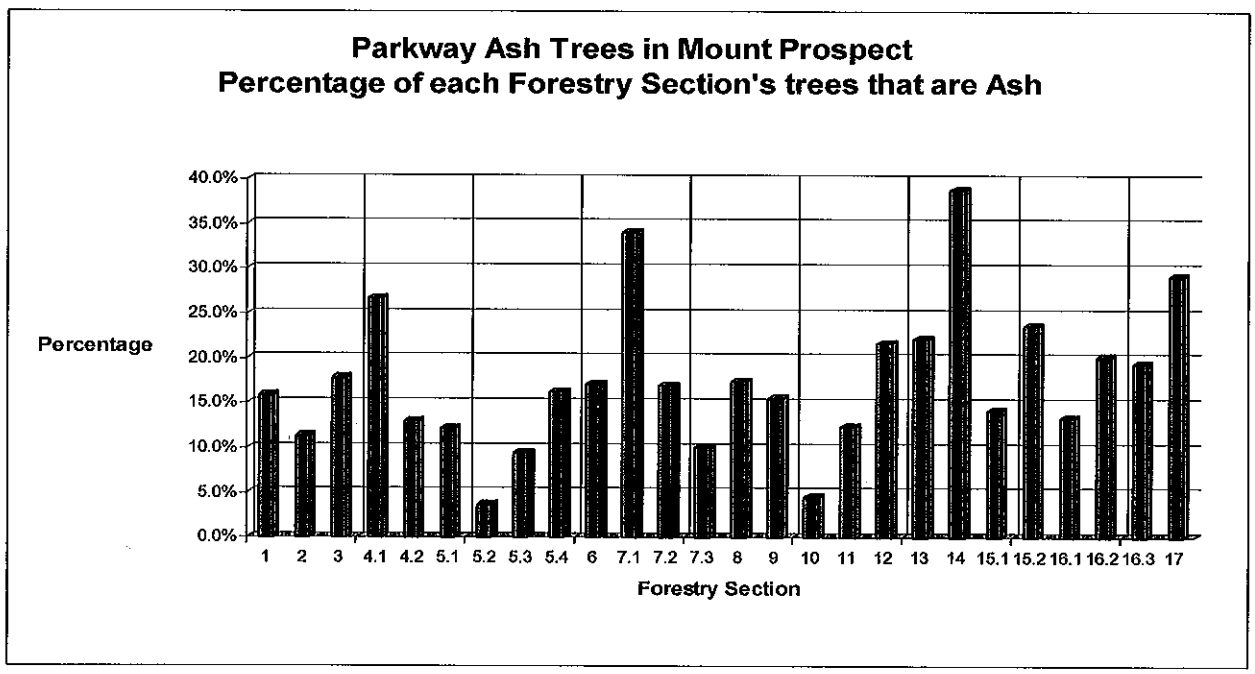
The parkway ash population in Mount Prospect can be described as relatively young. Although we have some mature ash trees within the Village, the vast majority is fairly young, with the majority of trees having a trunk diameter of less than 18". The graph below, from April 2007, shows the diameter size class distribution for our ash population at that time.



The overall parkway ash population is in good condition, with an average condition rating of 7.4 for all ash trees on a scale of 1 – 10, with 10 being the highest. The average condition rating of ash trees by species is indicated in the graph below.



Throughout the Village the percentage of ash trees in each neighborhood varies tremendously. Some Forestry Sections are relatively low in ash trees while others are very high. In some cases ash trees make up less than 5% of all parkway trees in the section, as in section 5.2. On the other hand, some neighborhoods have more than 20% ash, with Section 14 topping the chart at 35%. Note that in many cases these trees were planted by developers before the Village had Forestry staff, or before the area was even incorporated into the Village. The graph below shows all the Forestry Sections and the current ash percentages using data from March 2009. (See Attachments G and H for further details)



2. Private Trees

We do not have an inventory of private trees in Mount Prospect, making it very difficult to know the actual number of private ashes. With its ease of transplant, rapid growth and sometime brilliant fall color, ash has been a very popular tree to plant in yards. For above reasons, nurseries have grown numerous ashes, making them readily available and fairly inexpensive.

As a conservative estimate, in the past we have suggested that there are at least as many ashes on private property as we have in our parkways, or approximately 4100 trees. On the other hand, some area communities have estimated a ratio of two private ashes for every one parkway ash tree. Using this ratio would mean we have approximately 8200 private ash trees in Mount Prospect.

It would be helpful to know, or at least estimate, how many private ash trees are in Mount Prospect because all ash trees are susceptible to EAB. These trees will be breeding places for the beetle to multiply and spread, making it essential that private

trees are removed quickly as soon as infestations are known. Private ash trees have the potential to more than double the amount of wood that may be generated due to EAB.

In order to try to quantify the number of private ash trees, Forestry/Grounds is investigating the possibility of mapping private ash trees using technology called multi-spectral imaging. We have plans to meet with RFP Mapping, a company that offers such services. Through their aerial photography and imaging services we would be able identify and locate ash trees anywhere within the Village.

B. Potential Costs of Removal/Replacement

The arrival of EAB will potentially have a huge financial impact on the Village. Although it is highly unlikely that all ash trees would need to be removed at one time, reports from other communities would indicate that the number of removals per year will rise substantially once EAB becomes established. Additionally, replacement costs will rise as trees need to be replaced.

As we reported in 2007, it would cost the Village approximately $1,163,000.00 to remove all parkway ash trees and stumps, and $1,540,000.00 to replace all ashes with 2½" diameter trees. Even if this is spread out over a number of years, the costs will still have a serious financial impact on the Village.

Currently the Village's Capital Improvements plan includes $25,000.00 for ash reduction and $15,000.00 for ash replacement annually. In 2008 our average ash removal cost was $378.00 per tree, so 66 trees were removed with the budgeted amount.

As far as planting, we decided in 2008 to plant 1.5", not 2.5", ash replacement trees at no direct cost to property owners (allowing however, for upgrades to 2.5" with an owner contribution of $100.00). The 2008 cost for each 1.5" tree averaged $183.00; thus the annual replacement budget of $15,000 will purchase roughly 82 trees. If future costs remain similar, at this funding level it will take more than 60 years to remove and replace all our parkway ashes. We recommend that, if the budget allows, consideration be given to increased annual funding in these accounts.

C. Current Forestry/Grounds Staffing, Equipment and Responsibilities

The Village's Forestry/Grounds Division is one of several divisions within the Public Works Department. As such, all Division Employees may be called upon at any time to perform any type of emergency work such as water main breaks, snow removal, flooding etc. These work activities are in addition to the regularly assigned tasks related to Forestry /Grounds work. The division currently consists of thirteen full time employees, four of whom work more often on grounds maintenance than forestry. This relatively lean staff is routinely responsible for a great deal of work caring for the Village's trees and greenspaces, carrying on a comprehensive program which provides

many services to our citizens. (Attachments I and J give an overview of some of the many routine activities performed by Forestry/Grounds staff).

Ten of our full time employees are Certified Arborists, through the International Society of Arboriculture's Certification program. These arborists obtain CEU's each year, keeping their certifications current and staying up-to-date on arboricultural knowledge. The Forestry/Grounds Superintendent and Forestry Assistant also remain active in the Northeast Illinois Municipal Foresters group, the Illinois EAB Municipal and Wood Utilization teams, and the Illinois Arborist Association.

The Public Works Department has a wide range of equipment which is used by all divisions. Specialized forestry equipment used primarily by Forestry/Grounds includes three brush chippers, two aerial trucks, a grapple-type log loader, two stump grinders, and several flatbed trucks.

Although the Village's forestry program has traditionally been adequately funded in order to provide a wide range of services, the Village will need to consider an increase in personnel, equipment and/or contractual funds if EAB moves through our town as rapidly as expected.

At least one area town faced with Emerald Ash Borer enacted a special tax levy to generate the needed funds; perhaps this is something the Village Board will need to consider eventually.

In the meantime, staff will attempt to search for any funding that may be available. As an example, we recently learned that Davey Tree Company was invited to apply for federal stimulus funds for Forest Health Management projects. Within the course of one day we prepared an application for a $100,000 Ash Reduction Project; at the time of this writing the results were unknown.

Staff will also attempt to remain informed of any pending legislation that may result in EAB management funding for municipalities. It may be important to promptly contact local legislators and urge them to support such initiatives, as we have in the past.

IV. PROTOCOL FOR REPORTING POSSIBLE FINDS

We will continue to encourage residents to look for and report possible EAB infestations to the Forestry/Grounds Division. If actual insect specimens are found, residents will be asked to preserve them by freezing or placing in rubbing alcohol. All reported finds will be inspected by a Village arborist. After an inspection, if the Forestry/Grounds Division believes that EAB may have been detected, we will follow the protocol below:

A sample of the suspected insect, in any life cycle, will be collected and sent along with a completed submission form to the Illinois Department of Agriculture (IDA) at the address below:

Illinois Department of Agriculture
Bureau of Environmental Programs
2280 Bethany Road, Suite B
De Kalb, IL 60115
Attn: EAB Program

The Forestry/Grounds Superintendent will immediately update the Public Works Director and Village Manager of any such submittals. We recommend that the Village Manager immediately inform the Village Board.

It is important to note that Village staff should wait for confirmation from the Illinois Department of Agriculture (IDA) before any public announcement is made. All public announcements should come from the Village's Public Information Officer, likely in conjunction with an official statement from IDA. Forestry/Grounds staff will have an ample supply of information packets ready in advance of the announcement. Additionally, we recommend the announcement of the date(s) for one or more public information meetings to be held shortly thereafter.

V. MANAGEMENT OPTIONS

A. Mount Prospect's Efforts towards Early Detection

Well before EAB was confirmed in Illinois, the Forestry/Grounds Division had been aware of the possibility of EAB making its way into Illinois. We first updated the Board and the public on the presence of this pest in Michigan in 2004. Additionally, information on EAB was posted on the Village website at that time.

Shortly after EAB was confirmed in Illinois in 2006, the Village offered a $500.00 reward to anyone who found an EAB infested tree growing in Mount Prospect. This program was suspended 18 months later, after the IDA declared that, because of the small size and short time window when adult beetles are present, destructive sampling was the only effective way to search for the presence of the insect. They announced that visual observation of adult beetles was a highly unlikely way of detecting EAB. The award program did serve its purpose, however, by generating a great deal of public interest.

Also since 2006, Village staff has been actively searching for the presence of EAB in Mount Prospect. Village crews started doing ash inspections for all Service Requests regarding ash trees, filling out a form provided by the IDA. Crews began regularly peeling bark, and searching for larval galleries, on all ash trees being removed. We also worked with staff from the Morton Arboretum on a trap tree survey. During this project ash trees were girdled to simulate a stressed tree and then peeled a year or two later to look for the insect. In the summer of 2008 we placed fifteen Purple Traps (baited with Manuka oil and provided by USDA-APHIS) throughout the Village as a detection tool for the presence of EAB. Fortunately, as of the writing of this plan in March 2009, EAB has not yet been detected in Mount Prospect.

B. Handling Ash Debris Properly

In order to minimize the spread of EAB through infested material, in 2007 the IDA began asking any municipality or company who handles ash debris to sign a Compliance Agreement. This was introduced to the Mount Prospect Village Board in March 2007 and signed at that time. Essentially the Compliance Agreement requires that proper precautions are followed when handling or hauling ash debris. It requires that all such debris must be processed to a specified size during the flight season, so that it can no longer harbor the insect. Only then can it be transported out of an infested or quarantined area. The Compliance Agreement was updated by the IDA in December 2008, and additional revisions may be forthcoming. New requirements now state that when ash material that has not been processed is to be transported within a quarantined area, it must be transported in an enclosed vehicle or covered by a tarp. Additionally, the logs must then be properly processed at their final destination.

Our Village crews have been following the original Compliance Agreement since its inception. Currently all of our ash debris is processed on site or hauled to a local

contractor who processes the material. Furthermore, we have required that all contractors (even landscapers) have a signed Compliance Agreement before they can work on Forestry/Grounds contracts.

Originally the IDA recommended that ash removals, whether from infested trees or not, only be removed during the non-flight season. This was done to prevent the movement of adult beetles with infested non-processed material. Since then the IDA has changed their position, requesting that known infested trees be removed immediately regardless of the time of year.

C. **Insecticide Use**

1. The use of insecticides, at least for individual trees, is more promising than in the past.

   When we first started reporting on EAB, the use of insecticides as a preventative or corrective measure was barely considered. Some of the drawbacks were the lack of significant data showing that insecticides would work, and the prohibitive yearly costs of treating large ash populations. Additionally, state and federal agencies were strongly stating that even healthy ashes would likely be removed in infested areas, in an attempt to totally eradicate every single Emerald Ash Borer.

   Now, these same agencies are acknowledging that complete eradication is not going to be possible, so they are generally not opposed to selected insecticide treatments if the tree owner can afford continued treatment of the tree. Also, as more trials have been conducted and more data is available, some insecticides are showing fairly promising results. Additionally, since our first report, more products are becoming available to treat EAB and some products are being tested for biannual treatment.

2. Forestry/Grounds conducted a small insecticide trial on selected White, Blue and Manchurian Ash trees.

   In Fall 2007 and Fall 2008, 206 Ash trees (of the above listed species) at non-residential sites were treated with Imidacloprid.

   Costs were as follows:
   2007 $4221.25 (1535 diameter inches treated at $2.75/inch using soil drench)
   2008 $3278.00 (1639 diameter inches treated at $2.00/inch using soil injection)

3. Preventive treatment of just some of Mount Prospect's ash population could perhaps be considered if funds were available.

   As discussed with the Board last year, the use of insecticides to treat all parkway ash trees would be cost-prohibitive. (In 2006, we had estimated annual costs of at least $455,000 to treat all ash trees). However, we now feel we should ask the

Board to consider whether there may be some merit in treating just a select group of trees, in hopes of saving some of our more desirable ash trees.

In general, our White, Blue and Manchurian ash population is in better condition than our Green ash population. Green ashes generally have a less sturdy structure and higher incidences of hangers, requiring more maintenance than any other ash species. Green ash also happens to make up the majority of our ash population, in effect being heavily overpopulated. If a portion of our ash inventory was to be treated, we would recommend including only White, Blue and Manchurian ash. Furthermore, we would not recommend treating trees with trunk diameters of six inches or less. Smaller trees can be replaced more cheaply than the cost to treat them over a long period of time.

Because of the impact EAB has had, there has been much debate about treating trees with insecticides versus removing them. In order to help compare long term costs, a calculator tool was developed by Dr. Cliff Sadof from Purdue University. By inputting our current data into the Purdue Calculator, we can estimate the costs to treat ash trees over a period of twenty five years. The charts below show the annual cost and cumulative costs to treat all of our White, Blue and Manchurian ash trees whose diameter is over 6". The two charts on the following page show the estimated costs with and without a discount rate. (The charts assume that treatment would cost $3.00 per inch of trunk diameter).

Purdue Calculator - Treatment Costs

Costs figured with a 2% discount rate.

Year	Cost This Year	Total Cost
1	$29,497	$29,497
2	$29,923	$59,420
3	$30,334	$89,754
4	$30,729	$120,483
5	$31,109	$151,592
6	$31,476	$183,068
7	$31,831	$214,899
8	$32,173	$247,071
9	$32,503	$279,574
10	$32,822	$312,397
11	$33,131	$345,528
12	$33,430	$378,958
13	$33,720	$412,677
14	$34,000	$446,677
15	$34,272	$480,949
16	$34,535	$515,484
17	$34,791	$550,275
18	$35,039	$585,315
19	$35,280	$620,595
20	$35,514	$656,109
21	$35,742	$691,850
22	$35,963	$727,813
23	$36,178	$763,991
24	$36,387	$800,378
25	$36,591	$836,969

Costs figured with a 0% discount rate.

Year	Cost This Year	Total Cost
1	$30,087	$30,087
2	$31,120	$61,207
3	$32,154	$93,361
4	$33,187	$126,548
5	$34,220	$160,768
6	$35,254	$196,022
7	$36,287	$232,308
8	$37,320	$269,629
9	$38,353	$307,982
10	$39,387	$347,369
11	$40,420	$387,789
12	$41,453	$429,242
13	$42,487	$471,729
14	$43,520	$515,249
15	$44,553	$559,802
16	$45,587	$605,389
17	$46,620	$652,008
18	$47,653	$699,662
19	$48,686	$748,348
20	$49,720	$798,068
21	$50,753	$848,821
22	$51,786	$900,607
23	$52,820	$953,427
24	$53,853	$1,007,280
25	$54,886	$1,062,166

Tree Size Class Distribution

Size Span (inches)	Number of Trees
7 to 12	373
12 to 18	261
18 to 24	103
24 to 34	20
Total	757

4. <u>Regardless of whether it makes sense for the Village to treat public trees, Forestry/Grounds staff has been attempting to publicize the facts about insecticide treatments so property owners can make informed decisions.</u>

Some unscrupulous companies have made inflated claims, implying that their treatments are guaranteed to save ash trees. The fact of the matter is, no one can make such a guarantee. Still, if a property owner has a tree they consider highly valuable, and they are able to afford the annual treatments, certain insecticides now being sold are able to greatly reduce the risk of infestation when properly applied to healthy trees. Some of the products now available must be applied by licensed pesticide applicators, but there is a product made by Bayer that can be easily used by property owners on their own trees. University of Illinois Extension has published an excellent document which we are recommending to property owners who are deciding whether to treat their private ash trees (See Attachment L). We have

placed a link to this document on the Village of Mount Prospect website for easy access.

D. **Ash Removals**

LEVEL ONE (PRE EAB): Ash Reduction

Objective: Prior to such time as EAB is found in Mount Prospect, selectively remove parkway ash trees more or less in the order listed below, in order to gradually cull the least desirable trees, spread removal costs over a longer period of time, and begin growing a more diversified mix of replacement trees.

Phase I: Remove all ashes under/near power-lines
Phase II: Remove all ashes with a condition rating of 5 or less, or with a frequent history of broken limbs.
Phase III: Selectively remove Green Ash trees in Forestry Sections where Green Ash makes up more than 20% of all parkway trees. (Continue Green Ash removals in each Section until percentage is 15% or less.)
Phase IV: Same as Phase III, except reduce remaining Green Ash concentrations to 10% or less in each section.

Note: In Level One, in all cases, as long as the tree in question does not pose a safety hazard, we will refrain from removing the tree if the adjacent property owner objects.

Additionally, if the budget allows we will attempt to plant at least one new tree for every removed ash (though not necessarily at the same site). See "Reforestation" section for details.

LEVEL TWO (POST-EAB): Infested Ash Removal

Objective: After EAB is found, removal of infested parkway trees will become a priority. Initially, while levels are low, planned ash reduction will likely continue for awhile. However, based on other municipalities' experiences, it is likely that removal of a large number of infested trees will become necessary within a year or two of the first find. This will likely continue until most ashes have been removed. Removal of infested trees on private property will also be a concern. The Village will need to spend a substantial amount of time and staffing enforcing the removal on infested private trees.

Public Trees
As public trees become infested, removal lists will be sent to one or more tree removal contractors. However, the budget for this account may limit the number of trees that are able to be contractually removed. Also, Village crews will do additional removals to assure that all infested trees are removed promptly, however in-house removals may be limited due other work responsibilities. If the initial infestation is light, the debris generated from the removals will be the responsibility of our contractor to handle and process.

Once infestation levels reach a level where debris becomes difficult to handle, a marshalling yard will have to be set up. Currently the Public Works facility does not have a location that is large enough to accommodate a marshalling yard to stockpile EAB debris. It has been estimated that a site at least two acres, and possibly up to eight acres in size, will be needed to serve as a marshalling yard. We have identified a number of area sites at Park District and commercial properties that may be able to serve as a marshalling yard. We have begun contacting the site managers to propose possible use by the Village. Once a site has been established, EAB debris will be stored until it can be properly processed to an unregulated material (currently chipped smaller than 1"x1" in two dimensions). In order to process such a large amount of material a tub grinder will have to be brought in to process the debris. If selected logs are able to be utilized as explained in the Wood Utilization section of this document, a portable mill could possibly be brought to the marshalling yard for processing.

Private Trees

In order to best manage EAB throughout the community, privately owned infested trees will have to be removed in a timely manner. In order to accomplish this we are proposing that Chapter Nine of the Village Code be amended so that EAB is treated in a similar fashion as Dutch Elm Disease (DED). This would require that property owners remove known infested ash trees from their property, and the Village, within a ten day period. Additionally any material and stumps that may be infested with EAB would need to be removed from the Village. Note that we propose to include a provision whereby removal of an infested ash may be delayed as long as the property owner presents proof of annual treatment of the tree with an insecticide approved for EAB control.

Forestry/Grounds currently enforces our existing ordinance requiring removal of dead and dying private elm trees, in order to reduce the spread of Dutch Elm Disease (DED) and Elm Yellows. It should be noted that this requires a great number of staff hours. In 2008 approximately eighty private DED notices were sent out and they ultimately took an estimated 550 staff hours to resolve. These hours include Village wide inspections, notifications sent by certified mail and follow up inspections after deadlines have passed. Occasionally property owners fail to cooperate and we need to forcibly remove the tree and bill the owner. Managing EAB on private property will likely take much more of our staff's time, due to the huge number of private ashes.

As we have done in the past for DED, we propose that the Village allows us to offer a "no interest loan" for property owners who claim a financial hardship. In the past, the Village has paid for these removals after the property owners have signed a promissory note agreeing to repay the Village a predetermined monthly amount over a period of a year. The idea of extending this program to private ashes was discussed recently with Finance Director David Erb. His opinion was that it would be beneficial to the Village, by helping expedite the removal of infested trees. However he did request that the program be reviewed annually as EAB becomes established, to make sure that it did not become too large of a financial burden for the Village.

VI. FIREWOOD MOVEMENT

Although EAB adults can fly, much of its rapid movement across the Midwest has been attributed to the movement of infested wood by human activity.

Both the IDA and USDA are trying to minimize the spread of EAB by regulating the movement of firewood, or any other ash material that may harbor the insect in any life cycle. Various quarantines restricting firewood movement have been enacted and expanded by both agencies in recent years. In 2009 the IDA enacted a new firewood importation rule requiring that all firewood dealers who import wood into Illinois must register with the IDA. Along with enacting new regulations, the IDA has had a public education campaign since the introduction of EAB in Illinois, encouraging people who use firewood to follow all applicable laws (see Attachment M).

Both the IDA and the Illinois Department of Natural Resources recommend that municipalities monitor the firewood dealers and outlet centers within their own community. Although this may be ideal, Forestry/Grounds staff does not believe this is feasible in most communities, including ours. We still believe this type of regulation is more appropriate by a state agency, though it does not currently appear that is likely.

In Mount Prospect, our firewood-related efforts up to this point have focused on public education, and will likely remain so in the future. All of our displays and information packets contain information about using only local firewood, or wood that is certified pest free by the USDA-APHIS shield. We have written numerous newsletters and press releases regarding EAB and the use of firewood without spreading the insect. We also plan to propose the showing of some humorous "Don't Move Firewood" public service announcements on MPTV 17.

VII. WOOD UTILIZATION

A. Village staff belongs to a Wood Utilization Committee.

Because of the number of trees that have been impacted in neighboring states and the number of trees that will be potentially impacted in Illinois by EAB, wood utilization has become an issue for many stake holders. In 2006 a committee was spun off from the Illinois EAB Municipal Team to form a Wood Utilization Team. The goal of this team is to explore the possibilities of wood utilization and make the public more aware of the useable timber within an urban forest (See Attachment N). The team has put on a number of demonstrations, exhibits and training sessions, to promote the use of urban timber. Members of the Forestry/Grounds Division have attended many of these, including the Forestry Assistant attending a two day Utilizer training session. This training focused on tree felling techniques and log selection to get the most useable lumber.

B. Properly processed ash wood has a number of possible uses.

Outside of baseball bats, ash lumber has not traditionally been used as a mainstream product. However, it does have many qualities of fine lumber. Ash lumber can be used for a number of products ranging from park benches to fine furniture. With the help of the Wood Utilization Team, local mills have started accepting urban trees in order to mill trees lost due to EAB. At these mills the outer ½" of sapwood is removed and processed to IDA compliance standards, making the wood safe from harboring any insects.

Forestry/Grounds staff recently contacted the shop teacher at Prospect High School and offered to supply their wood shop class with a number of bat blanks for their students to use as projects. The idea was met with enthusiasm. Hopefully this contact will create a wood outlet for the Village in the future. Currently, details are still being discussed to figure out how to get the cost of processed ash wood down to a competitive price, so it could be used by the class for other projects.

C. Village staff applied for a WERC Grant in January 2009.

In January 2009 the Forestry/Grounds Division applied for a wood utilization grant from the U.S. Forest Service. As part of the grant we proposed to do a demonstration wood utilization project using ash trees that are being removed as part of Phase I of our ash reduction program. We proposed to utilize removed ash trees for components in the Village's new Emergency Operations Center (EOC). A decorative seat wall, partitions for a glass wall, seating for the lobby and cabinetry have all been proposed to be made from ash reduction trees. We expect to learn in May 2009 if we will receive the grant.

Before applying for this grant, we contacted several area companies to ask if they could help. The trees we propose to use are being removed by ComEd as part of a removal/replacement program. Of the sixty one trees being removed, twenty have been marked for utilization. These trees will be specially cut in order to get the most useable lumber out of the tree. Once the trees are cut the logs will be sealed and stored until they can be taken to the mill. An area mill, Horigan Urban Forest Products, has agreed to partner with us on the grant, offering us a discount price to mill and kiln dry the lumber. Another local partner on the project, the Mount Prospect firm of Parenti and Raffaelli, has agreed to design and build the components for the EOC at a discounted rate.

As part of the grant we will have an educational component. This will consist of various articles plus signage in the EOC explaining the project. If possible, we plan to host meetings of groups such as the Northeast Illinois Municipal Foresters where we can share information about how the project was completed. Additionally, MPTV 17 is planning a short video presentation documenting the process.

VIII. REFORESTATION

A. Ideally, we would like to plant at least one parkway tree replacement for every ash removed.

Beginning with the 2008 Budget, the Village Board began appropriating $15,000.00 per year for Ash Reduction replacements.

At the same time, $25,000 per year was appropriated for Ash Reduction removals. If this program continues to be funded at this rate, approximately 66 trees will be removed and 82 1 ½" trees replaced each year based on 2008 prices.

B. When a parkway tree is removed for EAB reduction or EAB infestation, the Village will offer a free 1.5"diameter replacement where space allows; the Village will choose the species.

Property owners will be able to upgrade to a 2.5" diameter tree on the Cost-Share program by paying $100.00; in this program they can choose from a list of 8 or more available species.

C. Diversification of our parkway tree species is a long term goal.

The Forestry/Grounds Division, through its Reforestation program, has been actively working towards diversification of our parkway tree population since 1982. Unfortunately, as mentioned previously, a relatively small number of species still make up the majority of our parkway trees.

Species diversification is especially important when species-specific pest problems arrive (such as Dutch Elm Disease and Emerald Ash Borer). Without diversification, a community is much more vulnerable to catastrophic losses that impact budgets and community appearance.

Many Forestry experts recommend the following rule of thumb: No species should make up more than 10% of the population, and no genus should make up more than 20%. (In the case of Ashes, Ash (Fraxinus) is the genus, while White Ash (Fraxinus americana), Green Ash (Fraxinus pennsylvanica), Blue Ash (Fraxinus quadrangulata) etc, are all ash species). The Forestry/Grounds Division will continue to work towards this goal for our entire parkway tree population.

D. Widespread replanting on private property will also be encouraged.

The Forestry/Grounds Division will continue to distribute the following documents to property owners upon request:

a. Selecting and Planting Trees (by the Morton Arboretum)
b. Under the Canopy (by Forestry Development Council)
c. Plant the Right Tree in the Right Place (by ComEd)

Additionally, we will refer citizens when possible to the "Increasing Tree Diversity" document on the IDA website (www.IllinoisEAB.com)

E. It is possible there will be a shortage of nursery trees available in the future, if EAB hits the entire Chicago area hard at the same time, as happened in Michigan. At that time, we may need to consider travelling further to find nursery trees, or participating in contract growing programs.

IX. PUBLIC EDUCATION

It will be critical for Mount Prospect property owners to be well informed about Emerald Ash Borer. Their assistance and cooperation will be vital in helping detect the insect, and slow its spread once it arrives. If they are well-informed they are more likely to accept what is happening without panicking, and cooperate with the Village's requests. Staff proposes to continue using the following means of communication and expand upon them where possible:

a. Displays/Information Packets at Public Buildings
b. Postcard mailings to ash owners
c. MPTV 17 programs
d. News Releases
e. Village Newsletter articles
f. Radio programs
g. Open House displays and information distribution
h. Speeches to community groups
i. Village website (offering Village-specific information as well as links to other useful EAB websites.)

Finally, we propose to place this Management Plan on the Village website, and to offer it for viewing on the IDA's website as one of several examples of municipal EAB management plans.

TREE CITY USA

Attachment A

Village of Mount Prospect
Forestry/Grounds Division
Completed Emerald Ash Borer Activities as of March 2009

Prior to EAB being confirmed in Illinois:

- Advisory memo to Village Board in 2004.
- Participated with the Morton Arboretum on their trap tree survey, 2004-2006.
- News release in the local paper and on the village website.
- Filmed "Talk of the Town" for MPTV 17 (local cable TV) in 2004.
- Open House display for residents to obtain information.
- Informational meetings held with Forestry/Grounds crew, including viewing of "The Green Menace".
- Speech to our citizen advisory group (Garden Club of Mount Prospect) in March 2006.

Completed June 2006 to February 2007:

- On 6/13/06, informed Village Board of Trustees about presence of EAB in Illinois, distributed pamphlets, FAQ's and Illinois Readiness Plan.
- Prepared news releases and updated the village website on 6/15/06 and 7/01/06.
- Briefed supervisors, crews and office staff on how to handle inquiries.
- Encouraged citizens to contact Public Works Forestry Division to request inspection of suspicious public and private ashes, or suspicious insects. (As of 7/31/06, completed 85 Hansen Service requests about EAB, completing Ash inspection forms as requested by Illinois Department of Agriculture.)
- Informational displays with accompanying information packets set up at Public Works, Village Hall, Mt. Prospect Public Library, Repel, Marvin Weiss Center and Friendship Park Conservatory.
- Airing of "The Green Menace" on MPTV 17, with taped introduction and summary specific for Mount Prospect.
- Wrote "Open Letter" to Illinois municipal foresters, urging a united response and massive PR effort.
- Interviews with various local newspapers.
- Placed information packets and wallet cards to assist in EAB identification on all Forestry vehicles.
- Resumed trap tree cooperation with Morton Arboretum, girdled 3 trees.
- Added to photo library as actions taken (e.g. displays, handing out packets, girdling trees, ash-lined streets) for future presentations/displays.
- Discussed concerns with local firewood dealer (Frake's Michigan Firewood); sent information packet.
- Sent information packet to local Park Districts and Boy Scouts Council.
- Interview on radio station WIND
- Publicized $500.00 reward for first find of an infested EAB tree in Mount Prospect (to be paid by Arbor Team Plant Health Care).

Village of Mount Prospect
Forestry/Grounds Division
Completed Emerald Ash Borer Activities as of March 2009

- Submitted various public information materials to Illinois Arborist Association and IDNR newsletters.
- Wrote position statement for Northwest Municipal Conference for testimony at 7/21/06 IDA Hearing.
- Attended and spoke at Morton Arboretum's 7/6/06 meeting of municipal foresters and other EAB stakeholders, offered to share news releases and display documents.
- Testified at IDA hearing on 7/21/06 about need for aggressive action and funding at state and federal levels.
- Repeated above statement, slightly modified to acknowledge new funding, at Senator Dick Durbin's "EAB Summit Meeting" on 7/28/06.
- Contacted residents that have a parkway ash tree in front of their home by postcard; asked them to inspect trees and report problems.
- Set up display at Downtown Block Party on 7/22/06, had staff (including one wearing costume) present to answer questions and distribute information.

<u>Completed March 2007 to June 2008:</u>

- Village Board signed IDA Compliance Agreement (March 2007).
- Distributed updated news release/newsletter update (March 2007).
- Required all landscapers/tree care companies under contract with Public Works to sign IDA Compliance Agreements.
- Forestry/Grounds Superintendent helped organize/present EAB Session at APWA Chapter Conference (May 2007).
- Forestry/Grounds Superintendent attended research seminar at Michigan treatment site (August 2007).
- In recovery efforts after August 23, 2007 windstorm, assured that all debris was processed and hauled to meet terms of IDA Compliance Agreement.
- Continued working with Morton Arboretum on trap tree project (Fall 2007).
- Superintendent/Assistant continued participation in "EAB Municipal Team" meetings with state/federal/research/municipal partners.
- Continued inspecting public ashes exhibiting symptoms plus private ashes by request.
- Updated/restocked EAB displays at Public Buildings.
- Superintendent convinced Illinois Municipal League to host an EAB Session at their annual conference (October 2007).
- Treated 208 trees with Imidacloprid in trial project (October 2007).
- Discontinued $500.00 Reward offer for first find of EAB in Mt. Prospect (December 2007).
- Peeled bark from all ash trees removed winter 07-08 to look for larvae.
- Wood Utilization Training (March 2008) - felling techniques and picking useable logs.

Attachment A

Village of Mount Prospect
Forestry/Grounds Division
Completed Emerald Ash Borer Activities as of March 2009

Completed July 2008 to March 2009:

- Village Board Update – July 8, 2008.
- Continued peeling – all ash trees being removed were peeled and inspected for EAB.
- Continued Morton Arboretum trap tree project.
- Placed purple traps for EAB detection (Summer 2008).
- Treated 206 trees with Imidacloprid in trial project (October 2008).
- Helped staff Wood Utilization booth at IAA conference in November.
- All Certified Arborists attended EAB session at IAA conference in November.
- Article for Village's Winter newsletter re: EAB/firewood (November 2008).
- Attended Homewood seminar – on ash reduction strategy and wood use (milling demo).
- Submitted WERC grant application in January 2009 for a wood utilization project from ash reduction trees with local partners.
- MPTV 17 began filming ash reduction process to help meet WERC education component requirement.
- USFS stimulus grant application (administered through Davey) – applied for $100,000.00 for ash removals/replacements.
- Started Ash Reduction Project
    - Fall 2008 – hired contractor to start removing poor condition trees and trees under/near utility lines.
    - Winter 2008/2009 – Partnered with ComEd to do removal/replacement for ash trees under utility lines.

Cooperative Emerald Ash Borer Project

EAB locations in Illinois, Indiana, Maryland, Michigan, Missouri, Ohio, Pennsylvania, Virginia, Wisconsin, West Virginia and Canada

February 2, 2009

Lake Superior
Lake Huron
Lake Michigan
Lake Ontario
Lake Erie
Quebec
Ontario
Wisconsin
Michigan
Illinois
Indiana
Ohio
Pennsylvania
Maryland
West Virginia
Virginia
Missouri

Map Key

- EAB pos tiles
- Sits under evaluation (symptoms, found in firewood, or eradicated)
- Federal EAB quarantine boundaries
- State quarantine-generally infested area
- State quarantine
- State quarantine-other (MI)
- National Forests
- Canadian EAB regulated areas

N

0 37.5 75 150 Miles

0 62.5 125 250 Kilometers

Projection: North America Lambert Conformal Conic

Sources of available data:
-Maryland Department of Agriculture
-Michigan Department of Agriculture :
Detailed "2006-10-04_all_survey_data" & Current Outliers
-Michigan Department of Agriculture datafiles
-Michigan Tech University-School of Forest Resources & Environmental Sciences
-Illinois Department of Agriculture
-Indiana Department of Natural Resources
-Ohio Department of Agriculture survey files
-Ontario EAB source: Approximate EAB locations from CFIA map "EAB Survey Results as of May 17, 2005", CFIA map "EAB Positive Sites in Lambton County and Walpole Island" dated September 1, 2005, CFIA map "Emerald Ash Borer Survey Results as of October 19, 2005"
& CFIA press release
-Fairfax County, VA
-USDA/APHIS/PPQ/EAB data files

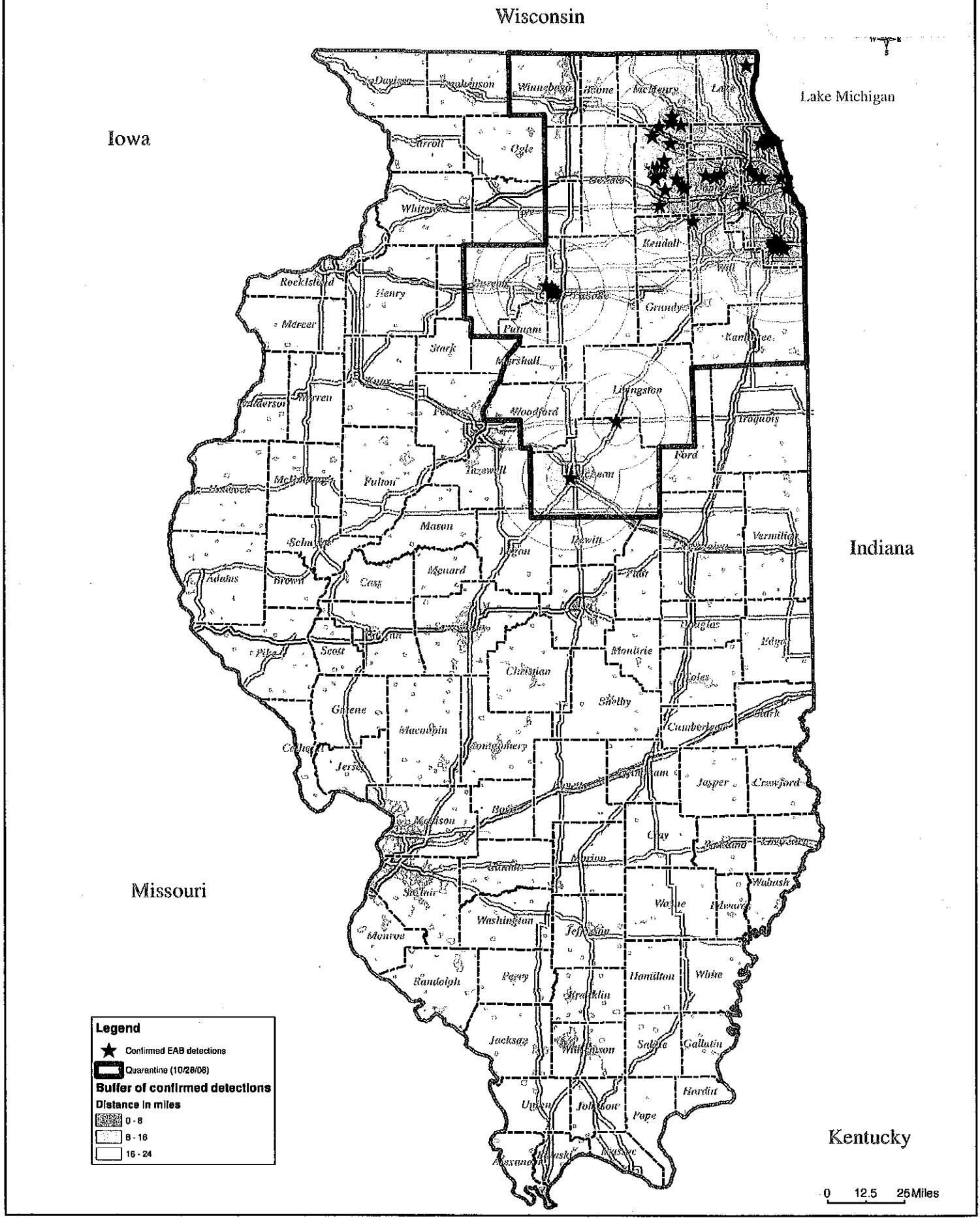
APHIS

U.S. Department of Agriculture
Animal & Plant Health Inspection Service
Plant Protection & Quarantine

USDA/APHIS/PPQ
February 2009
map by Scopp

Attachment D

Attachment E



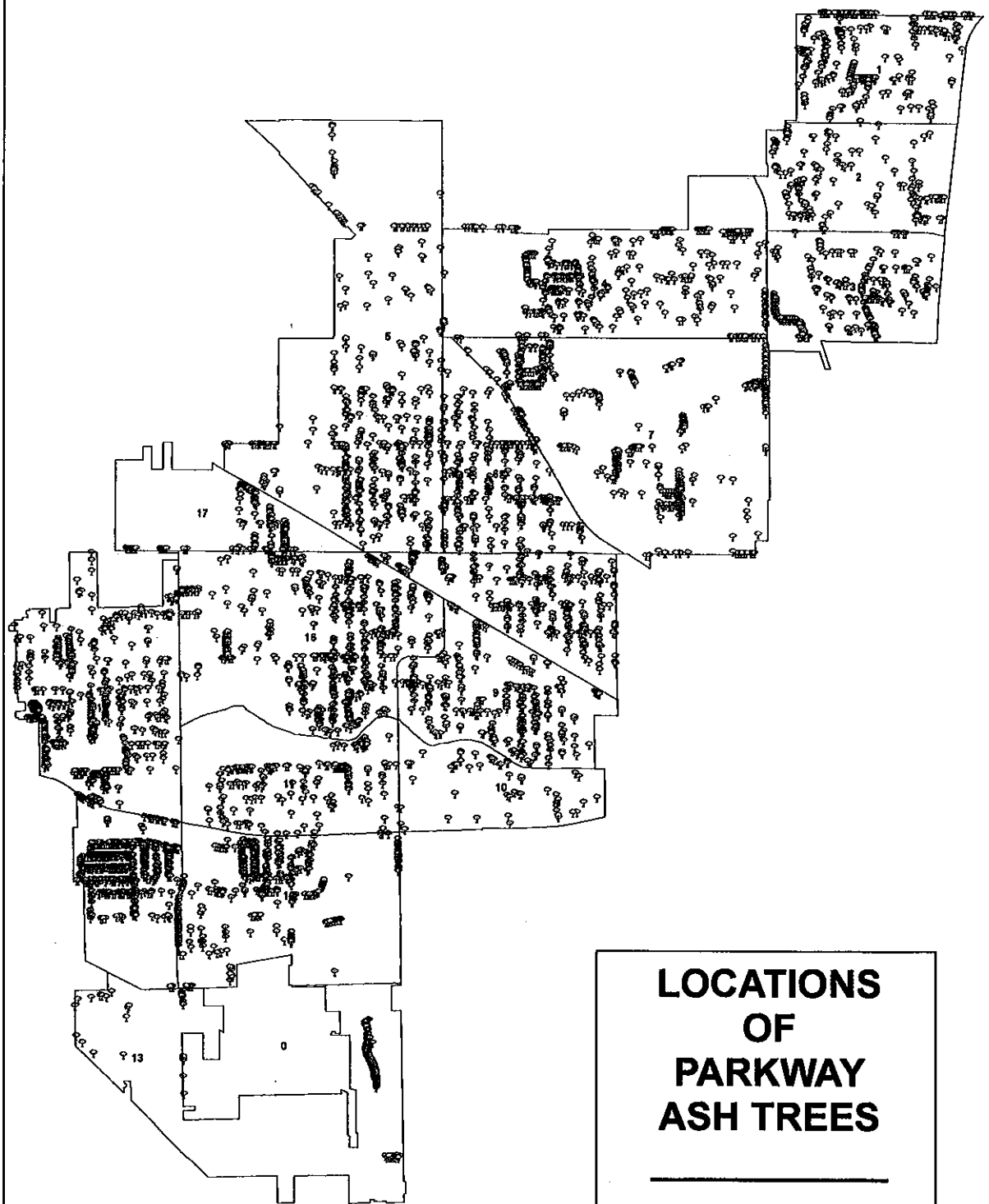
Illinois Department of Agriculture

Warren D. Goetsch, P.E., Chief
Bureau of Environmental Programs
Division of Natural Resources

Confirmed Emerald Ash Borer Detections in Illinois & State Interior Quarantine Boundary as of November 2008

Rod R. Blagojevich, Governor
Thomas E. Jennings, Director

Attachment F



LOCATIONS OF PARKWAY ASH TREES

FEBRUARY 2007

Attachment G
Parkway Ashes in Mount Prospect
Frequency Percentages
by Forestry Sections

March 3, 2009

AREA	SPECIES	# Trees	# Ash per area	% ash of total area population	Total # Trees/Area
1	White Ash	46		3.31%	
	European Ash	26		1.87%	
	Green Ash	106		7.62%	
	Blue Ash	42		3.02%	
			220	**15.82%**	**1391**
2	White Ash	44		3.76%	
	European Ash	1		0.09%	
	Green Ash	65		5.56%	
	Blue Ash	22		1.88%	
			132	**11.29%**	**1169**
3	White Ash	55		4.90%	
	European Ash	11		0.98%	
	Green Ash	129		11.50%	
	Blue Ash	5		0.45%	
			200	**17.83%**	**1122**
4.1	White Ash	20		4.05%	
	Green Ash	111		22.47%	
	Blue Ash	1		0.20%	
			132	**26.72%**	**494**
4.2	White Ash	47		3.48%	
	European Ash	7		0.52%	
	Green Ash	105		7.77%	
	Blue Ash	16		1.18%	
			175	**12.95%**	**1351**
5.1	White Ash	18		3.14%	
	Green Ash	52		9.08%	
			70	**12.22%**	**573**
5.2	White Ash	5		1.82%	
	Green Ash	5		1.82%	
			10	**3.65%**	**274**
5.3	White Ash	9		1.97%	
	Green Ash	32		6.99%	
	Blue Ash	2		0.44%	
			43	**9.39%**	**458**
5.4	White Ash	91		5.73%	
	European Ash	2		0.13%	
	Green Ash	139		8.75%	
	Blue Ash	26		1.64%	
			258	**16.25%**	**1588**
6	White Ash	55		3.85%	
	European Ash	5		0.35%	
	Green Ash	168		11.76%	
	Blue Ash	16		1.12%	

Attachment G
Parkway Ashes in Mount Prospect
Frequency Percentages
by Forestry Sections

March 3, 2009

AREA	SPECIES	# Trees	# Ash per area	% ash of total area population	Total # Trees/Area
			244	**17.09%**	**1428**
7.1	White Ash	17		6.97%	
	Green Ash	59		24.18%	
	Blue Ash	7		2.87%	
			83	**34.02%**	**244**
7.2	White Ash	26		4.57%	
	Green Ash	30		5.27%	
	Blue Ash	40		7.03%	
			96	**16.87%**	**569**
7.3	White Ash	35		2.60%	
	European Ash	29		2.15%	
	Green Ash	69		5.12%	
	Blue Ash	3		0.22%	
			136	**10.09%**	**1348**
8	White Ash	96		7.39%	
	European Ash	5		0.38%	
	Green Ash	125		9.62%	
			226	**17.40%**	**1299**
9	White Ash	44		2.97%	
	Green Ash	172		11.60%	
	Blue Ash	14		0.94%	
			230	**15.51%**	**1483**
10	White Ash	12		1.10%	
	European Ash	5		0.46%	
	Green Ash	22		2.01%	
	Blue Ash	10		0.91%	
			49	**4.47%**	**1095**
11	White Ash	22		1.69%	
	European Ash	4		0.31%	
	Green Ash	119		9.16%	
	Blue Ash	15		1.15%	
			160	**12.32%**	**1299**
12	White Ash	38		2.66%	
	European Ash	65		4.55%	
	Green Ash	197		13.78%	
	Blue Ash	10		0.70%	
			310	**21.68%**	**1430**
13	White Ash	5		1.02%	
	Green Ash	103		21.11%	
			108	**22.13%**	**488**
14	White Ash	7		0.90%	

Attachment G
Parkway Ashes in Mount Prospect
Frequency Percentages
by Forestry Sections

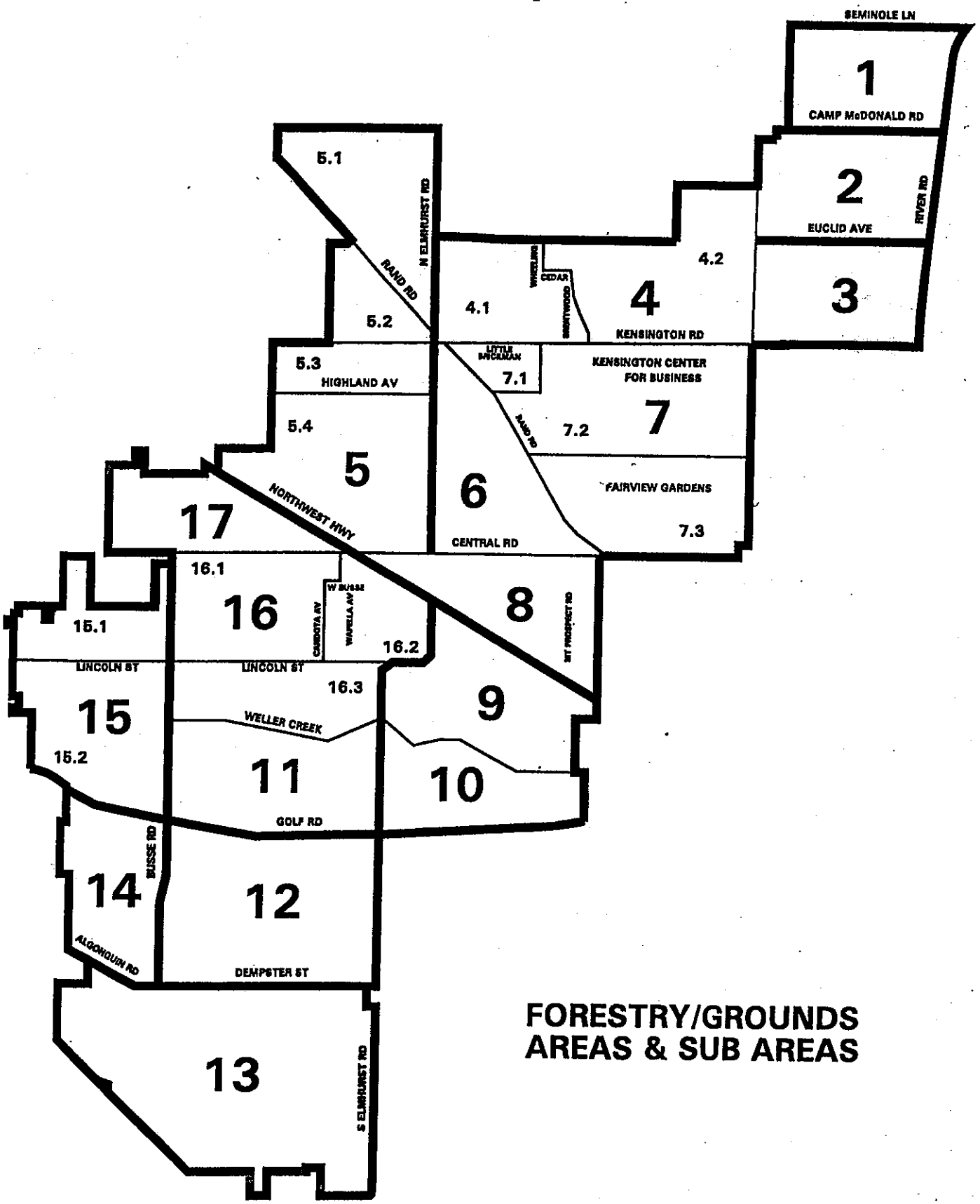
March 3, 2009

AREA	SPECIES	# Trees	# Ash per area	% ash of total area population	Total # Trees/Area
	European Ash	9		1.16%	
	Green Ash	283		36.42%	
	Blue Ash	2		0.26%	
			301	**38.74%**	**777**
15.1	White Ash	11		1.36%	
	Green Ash	102		12.64%	
	Pumpkin Ash	1		0.12%	
			114	**14.13%**	**807**
15.2	White Ash	32		2.43%	
	European Ash	9		0.68%	
	Green Ash	268		20.36%	
	Blue Ash	2		0.15%	
			311	**23.63%**	**1316**
16.1	White Ash	45		4.21%	
	European Ash	6		0.56%	
	Manchurian Ash	3		0.28%	
	Green Ash	85		7.96%	
	Blue Ash	3		0.28%	
			142	**13.30%**	**1068**
16.2	White Ash	33		4.98%	
	Green Ash	88		13.27%	
	Blue Ash	12		1.81%	
			133	**20.06%**	**663**
16.3	White Ash	19		2.21%	
	European Ash	14		1.63%	
	Manchurian Ash	3		0.35%	
	Green Ash	128		14.88%	
	Blue Ash	2		0.23%	
			166	**19.30%**	**860**
17	White Ash	28		8.67%	
	European Ash	3		0.93%	
	Green Ash	57		17.65%	
	Blue Ash	7		**2.17%**	
			95	**29.41%**	**323**

# Trees	4144	**4144**	**16.63%**	**24917**
		Ash Trees		**All trees**

Attachment H

Village of Mount Prospect



FORESTRY/GROUNDS AREAS & SUB AREAS

X:\FILES\ENGINEER\MAPS\TREE

REVISED 1/20 0

Attachment J
Village of Mount Prospect
Forestry/Grounds Division
Annual Work Plan - 2008*

PLANTING

Parkway tree planting	**TOTAL =**	**848**

TREE REMOVALS

Parkway tree removals (not DED or elm yellows)		404
Parkway Dutch elm disease and elm yellows removals		72
	TOTAL =	**476**

STUMP REMOVALS

Stumps removed -	**TOTAL =**	480

SERVICE REQUESTS

2982 service requests completed

TREE INVENTORY

Inventory information for one-fifth of our parkway tree population was updated in our Tree Manager program. We continued using GPS technology to obtain real-world coordinates of new plantings for accurate mapping and database processing needs. Additionally, we continued our multi-year GPS project to verify the accuracy of tree coordinates estimated earlier from aerial photos.

TREE RISK ASSESSMENT

A consultant was hired to inspect and evaluate for risk, 40 of our large diameter trees, and recommend mitigation measures.

PRUNING (BY VILLAGE CREWS, UNLESS SPECIFIED)

Custom trim (**Contractual**)	4671
Custom trim (fine pruning) -	246
Deadwood removal -	273
Raise (lift) or thin -	91
Clear other trees -	5
Clear signs -	73
Clear street, sidewalks or street light -	37
Clear buildings, driveways or yards -	38
Hazard pruning	13
Remove suckers -	41
Remove double leader, rubbing limbs or splits -	40
Raise for street sweeper	50
Remove weight or decay -	25
Structural Prune -	85
Prune Guaranteed trees -	203
TOTAL =	**5861**

*Totals

Illinois Department of Agriculture

EMERALD ASH BORER COMPLIANCE AGREEMENT

Nursery, Nursery Dealer, Landscape Waste, Tree & Shrub Maintenance, Tree Pruning & Removal, Firewood

Company Name: _____ **Contact Name: Mr./Ms.**_____

Mailing Address: Street _____ **City/Town** _____ **State** _____ **Zip code** _____

Telephone:_____ **Fax:**_____ **E-mail:**_____

County _____

Disposal or Processing Yard Location (if different than mailing address above): Street _____

City/Town_____ **Zipcode** _____ **County** _____

Applicable to State or Federal Cooperative Domestic Quarantines for the Emerald Ash Borer (*Agrilus planipennis*) pursuant to the Insect Pest and Plant Disease Act (505 Illinois Compiled Statutes 90/1 et seq.)

I acknowledge State and Federal regulations governing the Emerald Ash Borer (EAB) 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 in this agreement or with other procedures as required by the Director of the Illinois Department of Agriculture as follows:

1. Regulated articles shall not be moved out of 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; or b) the bark and outer½inch of sapwood has been removed;
2. From April 30 to September 1, regulated articles originating from EAB-infested areas shall only be transported within the quarantine zone(s) if: a) the regulated articles are transported in an enclosed vehicle or a vehicle completely enclosed by a covering, such as canvas, plastic or other tightly woven cloth, adequate to prevent the passage of the Emerald Ash Borer to the environment; and b) upon arrival at the final destination, the regulated articles are immediately processed to compliance standards;
3. All ash stumps will be ground to eight inches (8") below the soil surface and covered with soil;
4. Employers will inform their employees about the EAB quarantine zone(s) borders and about EAB quarantine regulations. Employers will also instruct employees how to identify the EAB and its signs;
5. The Illinois Department of Agriculture will be informed of any suspected EAB infestation;
6. A copy of this compliance agreement will be carried by employees working within EAB quarantine zone(s);
7. Per this agreement, ash products, ash nursery stock and/or live ash trees that originate from or are brought into a quarantine zone may not be removed from the zone, and may be subject to immediate processing to compliance standards, confiscation, and destruction; and
8. Movement of ALL deciduous (non-coniferous) firewood out of or through the quarantine zone(s) is prohibited, regardless of initial origin unless the firewood has been treated compliant with one of the following: a) USDA-APHIS-PPQ Kiln Sterilization Standard T404-b-4; b) USDA-APHIS_PPQ Fumigation Treatment Standard T404-b-1-1; USDA-APHIS-PPQ Heat Treatment Standard T314-a; or d) all bark and the outer½inch of sapwood has been completely removed.

*"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-coniferous 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 signatures below will validate this agreement which shall remain in effect until cancelled. This document may be revised as necessary or revoked for noncompliance by the Department.

Signature/Title _____ **Date Signed**_____

State Agency Official Signature _____ **Compliance Agreement No:** _____

Illinois Department of Agriculture
2280 Bethany Road, Suite B
DeKalb, Illinois 60115
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.

[12/12/2008, EABComplianceAgreement V.doc]

EMERALD ASH BORER INSECTICIDAL MANAGEMENT

UNIVERSITY OF ILLINOIS EXTENSION

Entomology Fact Sheet, NHE-163
Department of Natural Resources & Environmental Sciences

Efforts to manage the emerald ash borer on a large scale are primarily being conducted by federal and state agencies. There are many unanswered questions concerning the prevention or control of emerald ash borer, including the uncertainty of the effectiveness of any insecticidal control efforts on emerald ash borer.

Current large scale activities being conducted to slow the spread of emerald ash borer

- Nursery stock, lumber, wood product, and firewood quarantines
- Infestation surveys
- Tree removal
- Outreach education
- Research on the insect and its management options

Factors when considering whether to attempt insecticidal control

- The only certain method to control emerald ash borer is to remove the tree.
- Healthy trees growing in a location with proper soil, fertility, light, wind exposure, and other environmental factors will survive attack longer than those in poorer health.
- Weigh the value of the tree in the landscape against the cost of treatment.
- If many trees are being removed in an area, it will probably be less expensive to have it removed than at a later date.
- A tree in a regulated area is subject to removal by governmental agencies regardless of whether it has been treated or shows signs of borer infestation.
- Cost of the purchase and planting of replacement trees not susceptible to emerald ash borer should be considered.
- Only ash trees in the genus Fraxinus are susceptible. Mountain ash and all other trees are not susceptible to this borer.
- Be sure that a variety of trees is planted in the neighborhood. This ensures that the loss of one or a few kinds of tree in the future will not be as devastating.

Features of insecticidal control efforts

- Preventatively treat ash trees no more than 15 miles from known infestations.
- Control is more effective on smaller trees, those with a trunk diameter of less than ten inches.
- It is more difficult to keep a tree alive that is already infested with emerald ash borer, whether or not dieback is occurring.
- Research is ongoing to determine how long treated trees survive and produce normal growth.
- Follow insecticide label directions.

Professional insecticidal control options

- Imidacloprid (Merit, Xytect) applied onto or injected into the soil around the tree annually within two feet of the trunk.
  Do not apply into mulch or other dead organic matter
- Imidacloprid (Merit, IMA-jet, Imicide, Xytect, Pointer) injected into the tree annually.
- Emamectin benzoate (Tree-age) injected into the tree annually.
- Apply dinotefuran (Safari) in Pentrabark onto the trunk annually.
- Foliar and bark sprays of bifenthrin (Onyx), cyfluthrin (Tempo), permethrin (Astro), or carbaryl (Sevin) in both mid May and mid June will control visiting beetles.

Homeowner do-it-yourself insecticidal control option

- Apply Bayer Advanced Tree and Shrub Insect Control, containing imidacloprid, onto or injected into the soil around the tree annually.
- Soil treatments should be made within two feet of the trunk.
- Do not apply into mulch or other dead organic matter

Factors concerning treatment with imidacloprid

- Soil injections take 1 to 2 months to move throughout the tree.
- Trunk injections take about 2 weeks to move throughout the tree.
- Applications can be made at any time of the year, but are most effective in the spring.
- A higher level of control is achieved once the tree has been treated for at least 2 years.

Certified arborists provide expertise in properly treating emerald ash borer as well as expertly maintaining the health of ash and other trees and are listed at: http://www.illinoisarborist.org/.

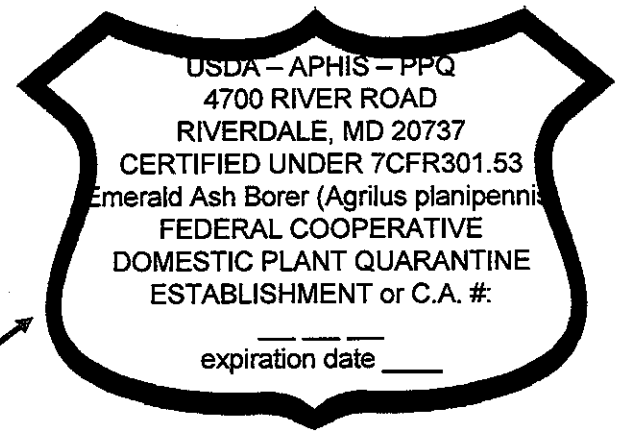
More information on emerald ash borer is available at: http://www.IllinoisEAB.com and http://www.emeraldashborer.info/ .

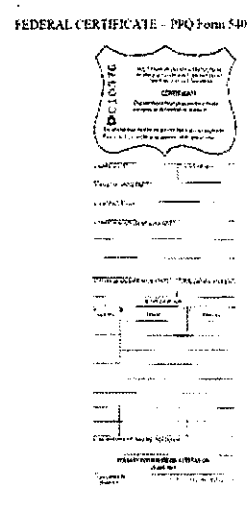
If you see emerald ash borer or its damage, contact your local University of Illinois Extension Office listed at: http://web.extension.uiuc.edu/state/ or the Illinois Department of Agriculture at (800)641-3934.

Phil Nixon, Extension Entomologist
University of Illinois Extension
April 2008

Firewood:Federal Regulations

- The EAB Federal Regulation governs interstate movement
- All hardwood species regulated
- No ash exclusion
- Treatment options
  - Removal of all bark and ½ inch of wood
  - Kiln Dried (Max. thickness of 3 inches)
  - Fumigated with MB
  - Heat Treated
- What to look for
  - USDA Shield or
  - PPQ Form 540
- All noncompliant material stays in IL
- Contact Information
  - Des Plaines: 847-298-3136
  - Swansea: 618-624-5028





Attachment M

Attachment N

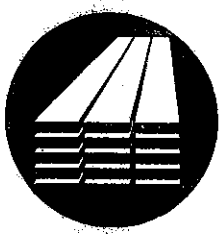
Create Beauty From Ash Trees Affected by the Emerald Ash Borer

Turning the 131 million Illinois ash trees that may be affected by the Emerald Ash Borer into wood products will require a concerted effort at every step of the process. Consumers can start the chain of demand by asking for products made from Emerald Ash Board.

Urban Ash
Ash trees are a very common landscape tree comprising about 20% of our urban forests.

Affected Tree
The Emerald Ash Borer does not damage the wood of the trees it kills.

Harvested Timber
Adapting standard removal techniques, urban foresters and land managers can harvest affected trees for timber.



Quality Lumber
Saw mills can safely and economically process the timber into lumber.

Wood Products
Manufacturers can make products from Emerald Ash Board, and stores can sell those products.

For more information on harvesting urban timber, email info@IllinoisUrbanWood.org

Illinois Emerald Ash Borer Wood Utilization Team

Sponsored by the U.S. Forest Service Wood Education and Resource Center.

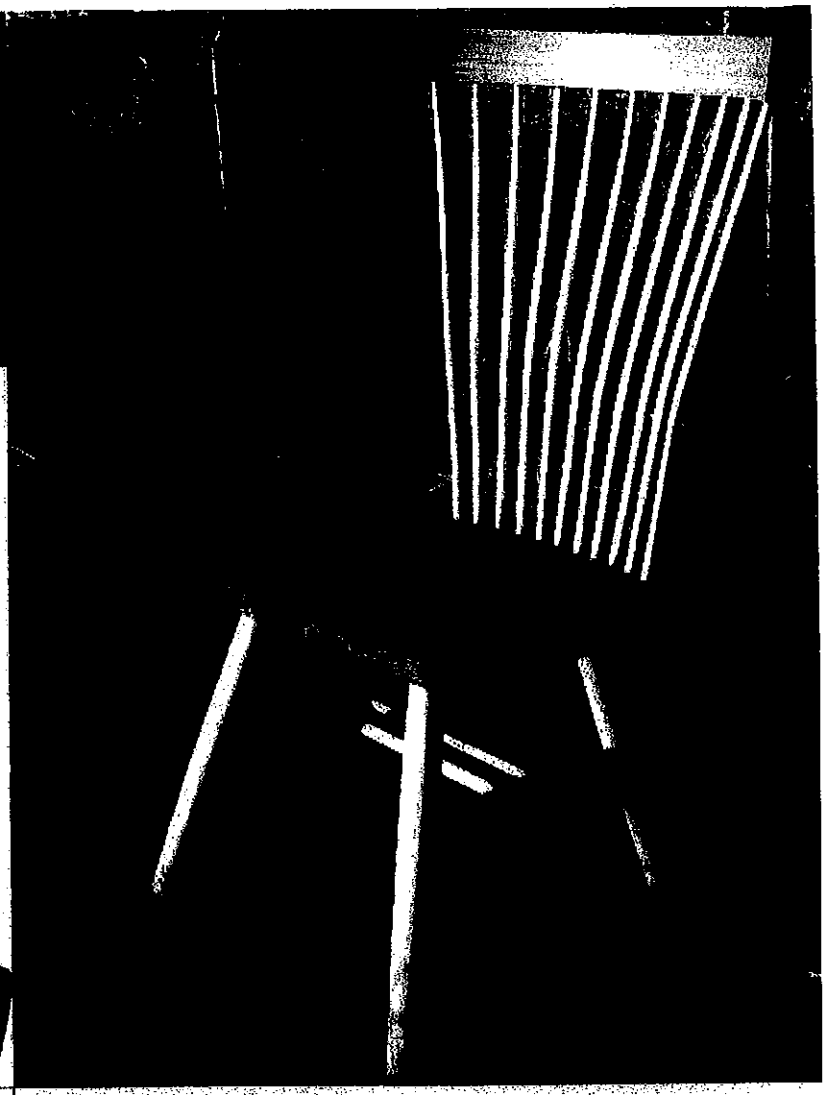
Sources: www.hardwoodinfo.com, www2.fpl.fs.fed.us

Ash floor courtesy of the National Wood Flooring Association;
Shaker table of ash, sycamore & poplar by Tim Baker;
ash & bamboo chair in field by Barret Roebuck;
ash chair by Dolly Spragins; ash bowl by Ted Wilkins:
Brochure design by rericha.com; copy by workinmotion.net

Emerald Ash Board

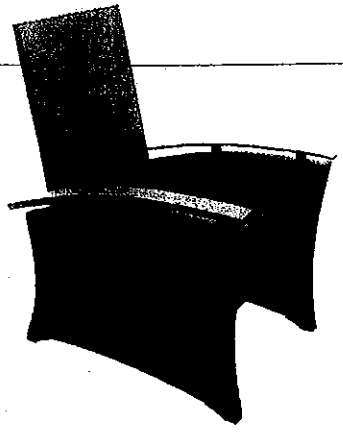
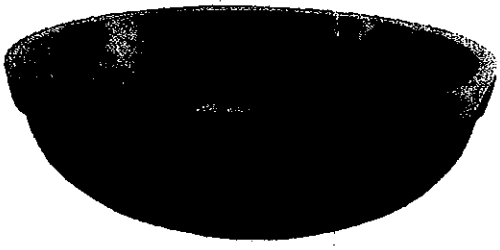
Emerald Ash Board

What will happen to the 131 million Illinois ash trees that may be affected by the Emerald Ash Borer? With your help, Illinois' affected trees could translate into thousands of feet of Emerald Ash Board and lots of furniture, flooring, and other fine wood products.



Affected Ash Trees Make Quality Lumber.
Since the Emerald Ash Borer feeds only on the inner bark of ash trees, the vast majority of wood from affected trees retains its excellent lumber qualities. Individual trees range in height from 80 to 120 feet with trunk diameters ranging from two to five feet.

Ash Wood Has Excellent Working Properties.
Ash machines well and is good in nailing, screwing, gluing, and steam bending. Ash dries fairly easily with minimal degrade, and there is little movement in performance. Ash has very good overall strength properties relative to its weight.

Ash Wood Is Attractive.
Generally straight-grained with a coarse uniform texture, ash wood can be stained to a very good finish. Since its grain and beauty resemble that of oak, ash is often misidentified as oak, especially in antiques. The sapwood is light brown to nearly white, while the heartwood is brown to grayish brown.

Ash Wood Has Many Uses.
While the uses for ash wood are unlimited, traditional uses include: furniture, flooring, doors, architectural millwork and molding, kitchen cabinets, and paneling; turnings, tool handles, and because ash has excellent shock resistance, sporting goods such as baseball bats, hockey sticks, billiard cues, skis, and oars. Ash is also used in food containers since it imparts little odor or taste.