VILLAGE OF CHANNAHON
EMERALD ASH BORER PLAN

April 2013

I. Background

Emerald Ash Borer (EAB), Agrilus planipennis Fairmaire, is an invasive beetle native to Asia that was first discovered in southeastern Michigan near Detroit in the summer of 2002. The adult beetles nibble on ash foliage but cause little damage. The larvae (the immature stage) feed on the inner bark of Ash Trees, disrupting the tree's ability to transport water and nutrients. The EAB probably arrived in the United States on solid wood packing material carried in cargo ships or airplanes originating in its native Asia. The EAB has also been reported as established in Ohio (2003), Indiana (2004), Maryland (2006), Illinois (2006), Pennsylvania (2007), West Virginia (2007), Wisconsin (2008), Missouri (2008), Virginia (2008), Minnesota (2009), and New York (2009). Since its discovery, EAB has:

- Killed tens of thousands of Ash Trees in southeastern Michigan alone, with tens of millions more lost in the other states mentioned above.
- Caused regulatory agencies and the USDA to enforce quarantines and fines to prevent potentially infested ash trees, logs or hardwood firewood from moving out of areas where EAB has been reported.
- Cost municipalities, property owners, nursery operators and forest products industries tens of millions of dollars.

On October 3, 2011 the Illinois Department of Agriculture (IDOA) confirmed the presence of EAB in Channahon.

Through a grant from the Metropolitan Mayor's Caucus, the Village hired Arbortek Services, Inc. in partnership with Reuttiger-Tonelli & Associates to conduct a survey and create an inventory of all Village public street trees. This included all parkway trees, trees on Village property, and trees along major thoroughfares such as U.S. Route 6 (*not included are trees on private property or owned by other taxing jurisdictions such as the Channahon Park District or school districts*). The survey found there are 7,709 public street trees in the Village of which 2,195 are Ash Trees. Ash Trees represent 28.5% of all Village Trees; the largest group of one species.

The arborist also rated the condition of each Ash Tree. The health of Ash Trees varies across four health categories (Good, Fair, Poor, Very Poor), but for the most part, as of September, 2012, the bulk of Ash Trees were in fair to good condition.

Ash Trees:	2,195
Good:	1,934 (88.1%)
Fair:	234 (9.7%)
Poor:	43 (2.0%)
Very Poor:	5 (0.2%)

II. Impact

If all Village public Ash Trees were removed, stumped and replaced it is estimated it would cost the Village in excess of $1 million. While the Village does not have an inventory of private Ash Trees, the Village Tree Board believes the number of private and other public property Ash Trees is significantly higher than the Village inventory of 2,195. If all Ash Trees throughout the Village become infested, a likely case, removal of these trees will have a significant impact on the community. The environmental impact may include increased storm water run-off, increase in local temperatures, loss of shade, loss of wildlife habitat and in general a lower quality of life.

The Village of Channahon takes great pride in its community forest as shown by 15 years recognition as a Tree City USA designee by the National Arbor Day Foundation. Channahon is surrounded by open spaces, natural prairies, forest preserves, state parks, ample hiking/biking trails, etc. It is also the location where the DuPage, Des Plaines and Kankakee Rivers merge to form the Illinois River.

III. Management Recommendations – Public Trees

The management plan will focus on maintaining a healthy urban forest. Due to the rapid spread of EAB, early detection as well as early action will be vital to a successful program. The goal will be to act as quickly as time and budget allows. The first step in combating EAB has been completed with the 2012 Tree Survey and inventory of all public Ash Trees. Each Ash Tree has been identified, rated and located via Global Positioning System (GPS). This will allow each Ash Tree to be graphically displayed on any number of criteria.

A. EAB Removal Program – The two main factors that will determine the pace of the removal process will be the Village budget and those trees that pose the greatest risk to public safety. Removal will be conducted systematically by the Village Public Works staff. Those trees in the poor and very poor health categories will be targeted first for removal if it is determined that they pose risk to the public safety. The 2012 Tree Survey identified 48 trees within these two categories. Each year thereafter as trees fall into the poor and very poor health category, they will be targeted for removal. If the budget and time allows, trees in the fair category may be removed as well.

The Village will encourage all property owners within the Village including utility companies and other taxing bodies; to remove EAB infested Ash Trees.

The Village will also, with advice of the Village Tree Board, begin a public information campaign to regularly inform the residents of the EAB problem and encourage them to begin treatment to save their trees or request that they voluntarily remove and replace their Ash Trees.

B. Replacement – Given the large number of public Ash Trees, replacing all of them at once, or even over a few budget cycles, is not an option. The Village Tree Board is recommending a two tier approach: 1) Initiate an Ash Tree Replacement Program, and 2) Develop a program to partner with homeowners to split the cost of Ash Tree removal and replacement.

1) Ash Tree Replacement Program - Beginning in FY 2014-15, the Village will increase the amount of funds in the budget for additional equipment for removal, care and replacement of parkway trees. Due to the large number of Ash Trees that will need to be removed, replacement of all trees by the Village may take nearly 20 years to accomplish. Thus, priority will be placed on parkways were the most Ash Trees are located and are rated poor or very poor condition.

2) Homeowner Partnership Program - To expedite the replacement of parkway Ash Trees, the Village will initiate a program to partner with homeowners. For those homeowners who desire to have their parkway Ash Tree removed and replaced regardless of its condition, the Village will agree to remove the tree if the homeowner pays for a replacement tree.

The Village will first send all homeowners who have Ash Trees in their parkway a letter notifying them of the presence of EAB. The letter will explain that they have an Ash Tree(s) and clarifying that maintenance of parkway trees falls to the Village. The letter will explain that due to the large number of Ash Trees in the Village parkways, replacement of all of them would put a great strain on the Village budget. An offer will be made to partner with homeowners who wish to replace their parkway Ash Tree(s) immediately. The expense of removal and reinstallation would be with the Village and the cost of the replacement tree(s) will fall to the homeowner.

To avoid future situations where one species of tree is the predominant tree in any area, the Village amended its Landscape Ordinance in the early 2000's regulating the planting of parkway trees. Homeowners will be given a list of the preferred parkway trees and the tree inventory that identifies the species and quantity of street trees in their neighborhood.

A request will also be made to homeowners reminding them to first contact the Village if they decide to remove any trees located in the Parkway or if they decided to begin treatment. Parkway trees are a Village asset and permission must first be granted before any trees are removed and/or replaced. This will also assist the Village in updating the tree inventory with the new tree or that treatment has begun.

C. Village Tree Treatment – Since EAB was first discovered the research on chemical treatments is more promising than in the past, but there is still no guarantee of success. It is not fiscally possible to save every Ash Tree on Village property. If there are majestic, high quality Ash Trees that the Village and/or residents wish to save, treatment may be considered. The Village will continue to follow the research to stay informed of the latest advancements.

IV. Management Recommendations – Private Trees

Focusing only on the removal of those Ash Trees which the Village has responsibility for will not help to prevent the further spread of EAB. The Village Landscape Ordinance requires the removal of all public nuisances such as diseased trees. If a property owner believes a private tree may be infested with EAB, they should contact the Village Tree Board or a certified arborist to inspect the tree. If the tree is confirmed to exhibit signs of EAB, the property owner should take all necessary steps to remove the tree or begin treatment.

Residents who are concerned that trees on neighboring private property may pose a public safety risk may request an inspection by the Village Tree Board. If it's determined those trees are a public safety risk, the Village may require the property owner to remove the tree. If the tree is not removed, the Village may proceed to remove the tree in accordance with Village Code.

V. Public Education

The Village of Channahon will continue to educate its residents on the EAB infestation. It will be important to provide the most current information to help residents make educated decisions regarding their private property trees. We will continue to use the following methods of communication:

- Keep current information on the Village website.
- Information letters to residents specifically affected.
- Provide brochures at Village Buildings and Library
- Periodic newspaper releases.

VI. EAB SIGNS AND SYMPTOMS

SYMPTOMS

Crown Dieback: Dieback of the upper and outer crown begins to occur after multiple years of EAB larval feeding. Trees begin to show dead branches throughout the canopy, beginning at the top. Larval feeding disrupts nutrient and water flow to the upper canopy, thus resulting in leaf loss. Foliage in the top of the tree may be thin and discolored.

Epicormic Sprouting: Stressed trees will attempt to grow new branches and leaves where they still can. Trees may sucker excessively both at the base of the tree and on the trunk, often just below where the larvae are feeding.

Bark Splits: Vertical splits in the bark are caused due to callus tissue that develops around larval galleries. Larval galleries can often be seen beneath bark splits.

SIGNS

D- Shaped emergence holes: As adults emerge from under the bark they create an emergence hole – 1/8 inch in diameter and D-shaped.

S-Shaped larval galleries: As larvae feed under the bark they wind back and forth, thus creating galleries that are packed with frass and sawdust and follow a serpentine pattern.

Larvae: Larvae are cream-colored, slightly flattened, and have pincher-like appendages at the end of their abdomen. Mature larvae reach 1 ½ inches in length and all larvae are found feeding beneath the bark.

Adults: Adult beetles are metallic green in color and are 3/8 -1/2 inch in length and 1/16 inch in width. Adult's are flat on the back and rounded on their underside.

Woodpecker Damage: Damage occurs from woodpeckers drilling through the bark of trees to forage for larvae located under the bark. White patches of bark are observed on trunks and branches and feeding is typically evident higher in the tree where the emerald ash borer prefers to initially infest.

Decline: Refers to progressive loss of vigor and health, not to any specific disease or disorder. Trees decline for many reasons, sometimes as the result or a single disease or damaging environmental factor but often as the result of several environmental and biotic factors acting in concert or in sequence. Decline results from the action of stressing factors over periods of years.