

# City of Bellevue

## Emerald Ash Borer Response Plan

### Introduction

With the imminent migration of the Emerald Ash Borer (herein referenced as 'EAB ') to the City of Bellevue and surrounding communities, it is essential that a proactive plan of action be put in place ahead of its arrival. As the borer has proven to be fatal to an entire genus (*Fraxinus spp*) of ash trees, an unavoidable and significant obligation will be incurred by the City, our citizens and property owners.

EAB is an invasive species that was detected in the United States in 2002 in the state of Michigan and has expanded widely since then. Extensive documentation and research has been developed and precedence of impact on municipalities is available for assessment in Bellevue's preparedness to address the infestation. The State of Nebraska has established a response plan which outlines general information and recommendations that can serve as a continual resource to the City of Bellevue. It is provided as Appendix A of this document. Many of the itemized topics within this document draw upon this state plan.

The success of developing and implementing an EAB response plan will require interdepartmental collaboration and support of both Council and Administration. It will call for delegates from the city to participate with municipal, county and state agencies to exchange strategies and remain attuned to infestation updates. Continual education and disclosure to the public will be essential to advance the plan. A holistic approach will best aid successes with 'lessons learned' to be applied to Bellevue's response throughout the process.

As a means to disseminate the volume of information available in formulating a response plan, this document narrows content with specificity to the City of Bellevue. Issues categorized as Primary Topics and Secondary Topics as follows:

### Primary Topics:

- Fiscal Liability and Fund Sourcing*
- Tree Assessment Prior to EAB Arrival*
- Transport, Stockpiling, and Processing*
- Public Safety and Education*

### Secondary Topics:

- Neighboring Coordination*
- Code Enforcement and Quarantine Perimeter*

- Re-Forestation Programs*

## **PRIMARY RESPONSE PLAN TOPICS**

### **Primary Topic 1: Fiscal Liability and Fund Sourcing**

The most recent tree inventory of city property, parks, and cemetery identified 171 individual ash trees. (Inventory does not include forested areas and all city trees outside of city parks and cemetery).

While the tree inventory focuses upon the city areas most directly in proximity to the public, it is important to recognize the urban forests within Bellevue and the expected loss of ash trees. As the dead trees left standing within the forests remain unattended, they will become a fall hazard in a short duration of time - a condition that currently exists with the natural demise of individual forest trees. It is recommended that pre-existing and pending ash tree death within the urban forests be addressed in the further development of the Community Forest Management Plan.

For reference, the current land masses which constitute Bellevue's urban forests are as follows:

- Jewel Park - 63 acres
- American Heroes Park - 150 acres
- Swanson Park - 50 acres
- Daniell Property - 110 acres

The city may assist the public in identifying ash trees in the right-of-way by city streets or evident proximity for risk to public safety. These trees and their removal are the responsibility of the adjacent property owner.

Dead ash trees on private property that are a threat to public safety, utilities, roads, and public property will be handled according to Bellevue City Code Sec. 29.5-26(b) which states: "The city shall have the right to cause the removal of any dead or diseased trees on private property within the city when such trees constitute a risk to life and property, or harbor insects or disease which constitute a potential threat to other trees within the city. The City will notify in writing the owners of such trees. Removal shall be done by said owners at their own expense within 30 days after the date of service of notice. In the event of failure of owners to comply with such provisions, the city shall have the authority to remove such trees with the cost of such removal to be recovered by proper action in the name of the city or to be assessed against said lot, lots or parcels of land as a special tax thereon and to be

levied and collected as are other taxes of the city.”

It is recommended that state agencies and available documentation of EAB be consulted to determine the duration of the infestation process in order to develop annual fiscal allocation.

Additional fiscally based plans that are recommended to be put in place include:

- Assess current City fiscal budgeting to identify areas where dollars may be reallocated
- Determine availability of grant funding assistance
- Determine any suitable private/public partnerships that may be established which will allow third party entities to remove or obtain downed trees for use in firewood, mulching, lumber milling or other practices
- Determine any suitable volunteer or general public acquisition of downed wood which will likely continue to have EAB activity. Their ability to do so is to be in compliance with Ordinance 3827, stating the parameters for volunteer activities towards trees on city property. All infected trees on city property should be felled by city or qualified third parties in respect to ensuring public safety.
- Funding will be set by the Council.

### **Primary Topic 2: Tree Assessment Prior to EAB Arrival**

Proper assessment of the condition of ash trees on public lands will allow identification of fair to poor ash trees, which may be preemptively removed. This allows the costs of ash tree removal to be spread over more years.

- All tree assessment on public lands (and suggested for private property) should be conducted by qualified individuals with arborist certification or other relevant horticultural, botanical and entomologist expertise. City staff, qualified third party individuals or call for volunteer assistance (under the permissions stated in City Ordinance 3827) may be utilized.
- Review state and national agency reporting and research to understand up-to-date biology of EAB to best avoid false identifications
- Employ consistent criteria for use in tree assessment. Possible methods for establishing criteria may include:
  - ❖ Use of the International Society of Arboriculture (ISA) Tree Risk Assessment process

- ❖ Reference the current Bellevue Community Threat Assessment Protocol (CT AP) in conjunction with the Nebraska Forest Service
- ❖ Formation of an ash tree assessment matrix: Matrix identifying location (park - city facility - right of way), caliper of tree and tree condition based on a scale from healthy to poor.
- Follow State of Nebraska Response Plan as well as the Nebraska 'chain of custody' flow chart (provided as Appendix B to this document) for process to follow upon a positive identification.

### **Primary Topic 3: Transport, Stockpiling, and Processing of Ash Debris**

The impact of EAB will generate a significant volume of tree debris far exceeding the typical levels of community forest management. The Nebraska Department of Agriculture will necessarily impose a quarantine on all ash wood in Bellevue and surrounding areas. The protocols in isolating, processing and transporting infected wood will require an extraordinary level of attention and proper methodology.

The following are recommendations:

- Refer to the State of Nebraska Response Plan, state or national agencies, and other documented resources to determine the parameters of transport and processing infected wood.
- Identify a location(s) within Bellevue lands to receive and process downed material. Ash wood may be freely moved and used within a quarantine area. However, there is a limit to how much wood can be used for mulch and firewood in any given area. So it may be necessary to define a location for disposal area for wood. The EAB quarantine area will likely include a multi-county area where a disposal site could be located. However, the City of Bellevue may consider its own site for disposal as transportation costs of large volumes of wood out of Bellevue may outweigh the cost of a local management site.
- If EAB is found prior to development of a processing site outside of Bellevue, determine whether public use of disposal at city stockpile location(s) will be allowed and whether a fee would be assessed for funding assistance. According to the estimation of the Nebraska Forest Service, private ash trees could potentially make up 2 to 5 times, or more, the number of city ash tree.
- Determine the allowance of private business (who meet federal and state guideline for managing infected material) to operate processing of tree material (mulch, mill or heat treat) on city property. Determine whether

a fee will be assessed for use if third party is able to appropriately process and then utilize material for profit (firewood, mulch, milled lumber, etc.)

- Determine establishment of private third party lands to be used for stockpiling and processing, if necessary
- Investigate the possible economic benefits of having a private company establish a mill in Bellevue for the purpose of processing EAB infected downed trees

#### **Primary Topic 4: Public Safety through Education**

Public safety is clearly paramount in the implementation of the response plan and prompt removals of infected trees that have degraded to a level of hazard. Refer to the Nebraska EAB Response Plan for recommendations of public education and notification as well as the following considerations:

- On Bellevue's website, establish easy navigation to dedicated EAB education, processes and status. Establish a clear single point of contact within the city to respond to public inquiries and direct to appropriate responding department from that single point of contact.
- Provide public information at pertinent intervals throughout the EAB process. Include public access television coverage of events, as possible. Provide initial information prior to arrival of EAB and continue throughout the timeline at determined milestones of impact or enactment of new policies.
- Include on the web the ability to solicit recommendations from the public. This will bring awareness to the challenges of managing both the infestation as well as the finite fiscal and personnel resources available. Encourage constructive solutions over complaints.
- Encourage educational programs at local school science classes, ecology based clubs, or scouting organizations to further spread the message via the youth of the community as a means to reach homes. The Nebraska Forest Service and Douglas/Sarpy County Extension may provide assistance with educational programs.
- Bellevue must define for the public where the city's jurisdiction for trees ends and the responsibility of the landowner begins.

#### **SECONDARY RESPONSE PLAN TOPICS**

With primary topics implemented then incorporate secondary topics for a comprehensive approach.

## **Secondary Topic 1: Neighboring Coordination**

EAB is an infestation that does not adhere to jurisdictional boundaries. Establishing communication and coordination with adjoining municipalities and agencies will be proactively responsible. Recommendations include:

- Coordination, at a minimum, with all the cities in Sarpy County, along with Omaha and Plattsmouth. County coordination with Sarpy, Douglas, and Cass Counties. Agency coordination with the Nebraska Forestry Service, Fontenelle Forest and the Papio-Missouri River NRD
- Clearly define the parameters of transporting downed tree material and preserving the quarantine zone
- Encourage a consistency of processes between neighboring municipalities in consideration of public understanding, third party tree care and removal companies providing services between and across jurisdictions
- Designate city representatives from all involved departments to participate in coordination to retain consistency within Bellevue's actions
- Reserve the ability to modify the Bellevue EAB response plan to reflect and adopt pertinent components of other municipality or agency responses

## **Secondary Topic 2: Code Enforcement and Quarantine Perimeter**

Similar to post storm events, the impacts of EAB brings a probability of increased numbers of tree care and removal services arriving within the city. These tree services will be needed to address the enormous volume of trees to be removed. Additional review and administration by Code Enforcement to monitor compliant practices may be required.

- Adhere to the qualifications of certified tree care and removal operators to be compliant to work within Bellevue's jurisdiction.
- Although the city cannot endorse any private company, it is necessary to protect the citizens from unscrupulous operators. Therefore, the city should promulgate a listing of all tree services properly licensed to work in Bellevue.
- Provide advisement to the public through the EAB website content and conduct education sessions to include what questions to ask plus criteria to require of a soliciting operation. This is integral to the other aspects of EAB public education.
- Give consideration to requiring a tagging/documentation process by all public and private entities removing and transporting infected tree material.

Document origination of removed tree and transport destination as a means to preserve the quarantine perimeter. While this process may not be 100 effective, it is not dissimilar to other construction and hauling industry documentation requirements. Include coordination with neighboring municipalities and agencies to compare and adopt a consistent practice.

- Give consideration to implementing a fee and fine process to infractions to improper transport out of the quarantine perimeter or Bellevue registered tree care and removal providers. However nominal or effective, any collection of fees or fines may contribute to EAB response funding. Neighboring coordination to establish a consistency is recommended for this topic.

### **Secondary Topic 3: Re-Forestation Programs**

With the probable loss of the entire ash tree (*Fraxinus spp.*) population, a void in the Bellevue community forest canopy will be created on both public and private lands.

Tree restoration is of vital importance:

- One acre of forest absorbs six tons of carbon dioxide and puts out four tons of oxygen. (USDA)
- Trees properly placed around buildings can reduce air conditioning needs by 30 percent and can save 20-50 percent in energy used for heating. (US Forest Service)
- The planting of trees means improved water quality, resulting in less runoff and erosion. This allows more recharging of the ground water supply. Wooded areas help prevent the transport of sediment and chemicals into streams. (USDA Forest Service)
- Landscaping, especially with trees, can increase property values as much as 20 percent. (Management Information Services, ICMA)
- The planting of trees means improved water quality, resulting in less runoff and erosion. This allows more recharging of the ground water supply. Wooded areas help prevent the transport of sediment and chemicals into streams. (USDA Forest Service)
- The air pollutants of ozone, chlorine, fluorine, sulphur dioxide and PAN (peroxyacetylnitrate, a photochemical component of smog) are all absorbed by trees. (US Forest Service)

Replanting of trees should be planned and begun in advance of the arrival of EAB then continue as ash trees die and are removed. The Nebraska Statewide Arboretum and Nebraska Forest Service have lists of recommended tree species for Nebraska that should be used as a guideline for reforestation.

It is acknowledged that the fiscal obligation to respond to EAB may result in limited resources for initial incorporation of newly planted trees. That is why we recommend:

- Identify grant opportunities to receive funding on planting and care for new trees.
- Focus on diversity of species when furthering community forest re-vegetation.
- Utilize the Bellevue Tree Board for grant and outside funding sources to accomplish new tree plantings.
- Work with Green Bellevue, neighborhood associations, school, scouting, and other volunteer or private corporation organizations to fund, plant, and care for new trees within the parameters of Ordinance 3827.
- Identify funding grants for tree give-aways or low cost trees to residents for restoring the canopy on private lands.

These preceding recommendations are provided to the City of Bellevue by the Bellevue Tree Board as considerations in proactively implementing a response to plan for the arrival of Emerald Ash Borer. It is recognized that there will be variables requiring flexibility in addressing the infestation. This plan is submitted as a best initial assessment. It should be received as a 'living document' to have flexibility to navigate the EAB response process through the life of the infestation through the community.

Respectfully submitted,  
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Appendix A: Nebraska Emerald Ash Borer Response Plan



# Appendix A

## Nebraska Emerald Ash Borer Response Plan

First approved: March 21, 2008

Updated: May 15, 2015

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# Nebraska Emerald Ash Borer Response Plan

First approved: March 21, 2008

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## EXECUTIVE SUMMARY

- Emerald ash borer (EAB) infests and kills all types of ash trees (*Fraxinus* spp.) regardless of their health, condition, size or age.
- EAB was first detected in 2002 in a suburb of Detroit, Michigan.
- As of March 2015, EAB has been found in 25 states and two Canadian provinces: 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 Ontario and Quebec, Canada.
- EAB has killed over 50 million ash trees.
- EAB is a very likely threat to Nebraska's 44 million ash trees.
- The estimated potential impact of EAB just on urban forests in the U.S. is an economic loss of \$20 - 60 billion (2014 dollars).
- The estimated impact of EAB on the approximately one million ash trees in communities in Nebraska is \$961 million (2014 dollars).
- The estimated impact on the City of Lincoln as it responds to EAB in just 12,000 publicly owned street trees is \$23,177,963 over 13 years (2014 dollars).
- The Nebraska Emerald Ash Borer Working Group, representing many state, federal, and local agencies, and professional organizations, was created in 2006 to develop this Nebraska Emerald Ash Borer Response Plan, which serves to coordinate efforts to inform professionals and the public about EAB and will coordinate containment and management efforts when EAB arrives in the state.
- The Nebraska Department of Agriculture conducts EAB firewood inspections.
- The Nebraska Department of Agriculture in cooperation with USDA-APHIS-PPQ performs annual trapping and visual EAB surveys at high risk introduction sites as part of the National EAB Survey.
- The Nebraska Department of Agriculture in cooperation with USDA-APHIS-PPQ performs inspections of ash trees when requested by concerned homeowners, businesses, or other stakeholders.
- The Nebraska Forest Service conducts annual visual EAB surveys in areas at high risk for EAB introduction, inspects ash trees in which EAB infestations are suspected, and conducts EAB training for professionals.
- The Nebraska Forest Service, Nebraska Statewide Arboretum, and USDA Natural Resources Conservation Service in Nebraska have adopted policies recommending no ash planting.
- The Nebraska Department of Agriculture and USDA-APHIS-PPQ will take the lead, in cooperation with the Nebraska Forest Service, in planning and implementing actions taken after EAB enters the state.
- Actions taken to contain and manage EAB may include quarantines, removal of ash trees, and treatments of ash trees with approved insecticides.
- Municipalities and landowners of EAB infested areas will be allowed to act under their own local authorities when local ordinances are consistent with quarantine requirements.

## PURPOSE AND NEED

The emerald ash borer (EAB) (*Agrilus planipennis* Fairmaire) is a significant threat to the urban and rural forests of Nebraska. First identified in 2002 in southeast Michigan, this exotic beetle has destroyed millions of ash trees and is now known to be present in Arkansas, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin and Ontario and Quebec, Canada (Appendix A). State and federal quarantines are in place and involve significant survey, containment, and eradication operations in affected areas.

The difficulty of detecting EAB infestations early in their development has led many times to the movement of EAB into new areas on infested ash firewood and other ash materials. New EAB locations continue to be discovered, and the insect is expected to spread eventually throughout North America wherever ash is present. EAB has not yet been found in Nebraska, and we can avoid or reduce the severe financial impact it will have on our citizens if we keep the insect out for as long as possible.

The USDA Forest Service has produced a Pest Alert bulletin on the emerald ash borer that gives details on its biology, distribution, hosts, and symptoms. It is available on the Internet at [http://www.na.fs.fed.us/spfo/pubs/pest\\_al/eab/eab.pdf](http://www.na.fs.fed.us/spfo/pubs/pest_al/eab/eab.pdf). Additional information about the insect and its control can be found at <http://www.emeraldashborer.info>, and in Nebraska at <http://www.nda.nebraska.gov/plant/entomology/eab/index.html> and <http://nfs.unl.edu/emerald-ash-borer>.

The Nebraska Forest Service (NFS) estimates that 27% of trees in cities in Nebraska are green ash (*Fraxinus pennsylvanica*), white ash (*F. americana*), and/or black ash (*F. nigra*). In some communities, ash comprises over 40% of the trees. In rural forested areas, approximately 9% of trees overall are ash.

The Nebraska Department of Agriculture (NDA) has been proactive in preventing EAB introduction into Nebraska since 2003. Visual surveys of ash nursery stock during nursery stock inspections have been and will continue to be conducted by NDA Entomology Inspectors, and inspections of firewood dealers have been and will continue to be conducted to determine the sources of the firewood and to ensure that it is in compliance with all state and federal quarantines. Since 2006, NDA, NFS and USDA-APHIS-PPQ have conducted trapping and visual surveys in ash areas at sites considered to be the highest risk for an EAB introduction in the state. Outreach and educational materials on EAB have been prepared and are distributed widely to the nursery industry, arboriculture industry, cooperating agencies, related trade organizations and the general public.

The Nebraska Emerald Ash Borer Working Group (Appendix B) was formed in 2006 to develop this response plan to reduce the likelihood of an EAB introduction into Nebraska and to find, contain, delimit, and minimize the impact of EAB if it is introduced into the state. Much of this plan was modeled after regional EAB programs and plans from other states. In particular, this plan closely follows the EAB response plan produced by Illinois, a state currently dealing with

EAB infestations and that was previously successful in controlling another serious exotic tree pest, the Asian longhorned beetle. This plan is intended to be an evolving one and will change as new information becomes available.

## SPECIFIC PLAN DETAILS

**1. GENERAL READINESS** – to reduce risk, minimize impact, and respond more effectively to a possible infestation of the emerald ash borer (EAB), *Agilus planipennis*, and to work collaboratively towards overall health and sustainability of the forests, both urban and rural, throughout Nebraska.

**A. Establish a network of agencies and organizations** that may be affected by EAB into the Nebraska Emerald Ash Borer Working Group. The group is responsible for drafting the response plan and will advise, advocate and lead in the implementation of the plan.

Nebraska EAB Working Group:

- USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ)
- Nebraska Department of Agriculture (NDA)
- Nebraska Forest Service (NFS)
- Nebraska Game and Parks Commission (NGPC)
- University of Nebraska-Lincoln (UNL), Department of Entomology
- University of Nebraska-Lincoln, Department of Agronomy and Horticulture
- Nebraska Statewide Arboretum (NSA)
- Nebraska Arborists Association (NAA)
- Nebraska Nursery and Landscape Association (NNLA)
- Lincoln Parks and Recreation, Forestry Department
- City of Omaha Parks, Recreation, and Public Property Department
- Natural Resources Conservation Service (NRCS)
- USDA Forest Service
- Arbor Day Foundation

Working Group special teams:

1. Administrative Team – agencies that have, by law, been assigned the responsibility of managing an exotic infestation and have been granted the legal authority to act by the federal, state, or local government; or that have oversight and general supervision in the State of Nebraska for education, management and protection of forest resources. These agencies are responsible for leading the implementation of the response plan and have major roles in the administration and coordination of policies, programs, and staff:
  - NDA
  - USDA APHIS PPQ
  - NFS
  - Affected local governments at sites of infestation (Prior to an EAB infestation, representatives from the City of Lincoln and City of Omaha will serve as advisors on this team.)

2. Core Communication Team – agencies responsible for providing accurate information and updates to the media in the event of an EAB discovery and the eventual management and recovery efforts in Nebraska:
  - NDA
  - NFS
  - USDA APHIS PPQ
  - Affected local governments or agencies at sites of infestation
  
3. Firewood Team – agencies responsible for analyzing the firewood market and finding ways to reduce the risk of EAB importation
  - NDA
  - USDA APHIS PPQ
  - NFS
  - NGPC
  - NAA
  - NNLA
  
4. Surveying Team – agencies responsible for coordinating the surveying and monitoring of ash populations to determine the presence of the emerald ash borer
  - NDA
  - USDA APHIS PPQ
  - NFS
  - NGPC
  - NAA
  - Eventually expand to emergency personnel who have received training
  
5. Public Education Team – agencies responsible for educating the general public about ash health and EAB
  - NDA
  - USDA APHIS PPQ
  - NFS
  - NGPC
  - UNL Dept. of Entomology
  - UNL Dept. of Agronomy and Horticulture
  - NSA
  - NAA
  - NNLA
  - NRCS
  
6. Wood Utilization Team – agencies responsible for analyzing and facilitating the development of wood product and energy markets for trees removed due to EAB
  - NFS
  - NDA
  - City of Lincoln Parks and Recreation, Forestry Department
  - City of Omaha Parks, Recreation, and Public Property Department
  - NAA

**B. Administrative Readiness** – to assure that resources and policies are in place in regulatory agencies that allow the actions described in this plan to occur quickly and unencumbered

1. Preparation of EAB Response Plan [Administrative Team and Working Group]
  - a) Administrative Team distributes draft response plan to working group
  - b) Working Group discusses plan with constituencies and provides input to final plan
  - c) Working Group fosters cooperation among agencies for implementation of the plan
2. Identify resources and needs [Administrative Team]
  - a) Identify needs in staffing and technical resources in Administrative Team agencies
    - i) Monitoring nursery operations
    - ii) Tracking firewood movement
    - iii) Surveying
    - iv) Risk assessment (inventories)
    - v) Education
    - vi) Wood market identification and development
  - b) Identify sources and securing funding for response activities
3. Take proactive steps to speed administrative processes [Administrative Team]
  - a) Analyze NDA procedures to identify streamlining opportunities
  - b) Analyze APHIS procedures to identify streamlining opportunities
  - c) Communicate EAB status to Nebraska Emergency Management Agency (NEMA)
  - d) Encourage communities to examine local administrative processes for streamlining opportunities
  - e) Develop Community EAB Management Plan Guidelines and encourage communities to develop plans
4. Educate the media and assure accuracy of information [Core Communications Team]
  - a) Issue a press release on the final plan
  - b) Coordinate Public Information Officers from Administrative Team
  - c) Identify key sources of current information
5. Explore wood waste utilization opportunities to reclaim ash wood residues to their highest possible use should a volume of material suddenly become available [Wood Utilization Team]

**C. Technical Readiness** – to assure that policy decisions, actions, and educational initiatives are guided by the best and most current science

1. Review and distribute up-to-date scientific information related to EAB biology and control to Working Group members, who may share the information with their constituencies [Administrative Team and Working Group]
2. Coordinate with the national EAB plan when one is available [Administrative Team]
3. Operate under any required USDA technical guidelines [Administrative Team]

4. Use scientifically sound guidelines and technology when monitoring for and managing EAB infestations [Administrative Team]

**II. REDUCE RISK OF INFESTATION** – to assure that all means of EAB introduction are known and blocked, whenever possible

**A. Assess Risk** – to determine the size and scope of the ash resource and the severity of a potential EAB infestation

1. Analyze potential sources of EAB importation (i.e., ash logs, firewood and nursery stock from Michigan and other affected areas) [Administrative Team]
2. Assess the scope of the resource at risk (number of ash trees) [Administrative Team]
3. Analyze ash populations to determine high risk areas [Administrative Team]
4. Track the spread of EAB [Administrative Team]

**B. Reduce Risk**

1. Identify target groups/organizations for outreach [Working Group] [Appendix C]
2. Raise public awareness about the risk from firewood importation [Firewood Team]
  - a) Install educational posters at state and private campgrounds, and state and county fairs
  - b) Install educational billboards along highways in areas at high risk for firewood importation
  - c) Include information about how to report suspected quarantine violations in posters, billboards and other materials
  - d) Promote locally produced firewood from reputable firewood dealers and campgrounds
3. Analyze the firewood market and find ways to reduce the risk of importation [Firewood Team]
4. Survey or inspect firewood dealers [Administrative Team]
5. Initiate trace-back process for firewood transport [Administrative Team]
6. Educate industries about the risk of ash importation [Firewood Team]
  - a) Educate wood products manufacturers about current quarantines and threats related to the importation of wood materials
  - b) Educate contractors and municipalities about the importance of knowing the source of ash trees and assure they are NDA inspected
  - c) Educate garden centers, firewood dealers, and businesses that regularly use firewood, such as in fireplaces and for barbequing, about the risk



- d) Reach out to trucking associations to help track movement of ash
- 7. Inform the Nebraska State Patrol and other appropriate law enforcement agencies about existing ash quarantines and the possibility that ash firewood or other materials could be brought into or carried across Nebraska [Core Communication Team]
- 8. Continue full and thorough analysis of ash nursery stock movement and effective inspection of current ash stock [Administrative Team]
- 9. Assure planting selections contribute to a diverse and sustainable urban forest [Working Group]
  - a) Educate municipalities and the green industry about the advantages of diversity in plantings
  - b) Encourage the use of tree inventories to analyze diversity and guide planting decisions
- 10. Encourage communities to do preemptive removals of declining and problematic ash to spread removal costs over additional years [Working Group]
- 11. Seek legislative support to reduce risk and secure funding for prevention, control and recovery [Working Group, but not including USDA, any state agencies or University of Nebraska units]
  - a) Assure Nebraska's prevention and control efforts are well funded
  - b) Advocate for funding for response activities and proactive ash replacement plantings
  - c) Advise federal legislators of the hardship of state required match of federal funds
  - d) Identify potential funding mechanisms

**III. DETECT INFESTATIONS PROMPTLY** – to minimize the spread and improve odds of containing an infestation

**A. Survey urban and rural ash populations** - to quickly find EAB infestations

- 1. Survey and monitor ash populations, particularly in high risk areas, to determine the presence of EAB [Survey Team]
- 2. Enable municipal, commercial green industry, and natural resources professionals to participate in monitoring and reporting in a systematic way [Survey Team]
- 3. Communicate survey results to stakeholders and the media [Core Communication Team and Working Group]

**B. Educate professionals and the public** with current and accurate information in a targeted manner to aid in the rapid identification of symptoms of an infestation

1. Provide training and outreach based on current information to arborists, nurserymen and other green industry workers to assess ash health and accurately identify EAB [Public Education Team]
2. Educate the general public about ash health and EAB [Public Education Team]
  - a) Develop simple educational materials for the general public
  - b) Pursue opportunities for speaking, educating, and exhibiting educational displays that include EAB identification
3. Recruit and enable volunteer scouting [Public Education Team]
  - a) Promote awareness through the media with regular press releases and public appeals for help in scouting
  - b) Prepare kits to support volunteer scouting by both individuals and groups

**C. Coordinate state and national information** to address professional and public inquiries from Nebraska and foster cooperation and communication

1. Have working group members with websites link to USFS, APHIS and Michigan State EAB websites [Working Group]
2. Coordinate with <http://www.emeraldashborer.info/> to add information about Nebraska and the Great Plains Tree and Forest Invasives Initiative [Core Communication Team]

**D. Guide inquiries and possible sightings** through the following process for the most effective use of resources and quickest response [Public Education Team]

1. Develop a pre-screening checklist to follow when attempting to determine if EAB or an EAB-infested tree has been found, (e.g. assure the suspect tree is an ash, rule out similar but common insects). Indicate in the checklist how people with possible EAB samples could send digital photographs to help in the pre-screening process. [Appendix D]
2. Provide the EAB pre-screening checklist to UNL Extension, municipal forestry programs and other professionals to help pre-screen inquiries.
3. If pre-screening of a tree or insect specimen rules out other pests and EAB is suspected, contact an agency below or see step #4.

Nebraska Department of Agriculture, (402) 471-2351  
or  
USDA APHIS PPQ, (402) 434-2345

Officers from these agencies will collaborate to inspect the suspected ash tree and identify the specimen. NDA and APHIS may ask NFS to inspect the evidence if NDA and APHIS cannot do it quickly.

4. If only an insect specimen is available, the specimen may instead be delivered or sent to:

Plant & Pest Diagnostic Center  
448 Plant Science, East Campus  
University of Nebraska-Lincoln  
Lincoln, NE 68583-0722

5. If the collected specimen is initially confirmed by NDA, USDA APHIS PPQ, NFS or UNL to be emerald ash borer, the specimen will be sent by USDA APHIS PPQ to Dr. James Zablotny, USDA, APHIS, PPQ, to make the final identification:

Dr. James Zablotny  
USDA, APHIS, PPQ  
11200 Metro Airport Center Drive, Suite 140  
Romulus, MI 48174  
Phone: 734-942-9005  
E-mail: [james.e.zablotny@aphis.usda.gov](mailto:james.e.zablotny@aphis.usda.gov)

6. Working Group members are notified that a suspect emerald ash borer is in the system for identification. However, at this point, **NO** information is for public dissemination.

7. The result, either positive or negative for EAB, is received from Dr. Zablotny and Working Group members are notified.

**IV. CONTAIN AND MANAGE EAB INFESTATIONS** – the Administrative Team with the affected local governments and landowners will implement coordinated efforts to contain the infestation under the leadership of NDA and APHIS

**A. APHIS and NDA will take the lead**, in cooperation with NFS, in planning and implementing actions.

1. Begin collaborative response with affected county and city governments and landowners
  - a) Schedule an emergency meeting with government representatives and landowners of affected areas
  - b) Discuss and determine a preliminary plan of action
  - c) Release verified and accurate information to the press (Main Public Information Officer will be designated in the Incident Command System that will initially be put in place)
2. NDA and USDA-APHIS-PPQ conduct a thorough delimiting survey, including destructively sampling symptomless trees, to determine the extent of the infestation.
3. NDA places into effect an Emerald Ash Borer State Interior Quarantine regulating all potential host material (ash wood, ash wood products, and all hardwood firewood) within the quarantined area as determined by the delimiting survey. This would include the “declaration of all plants and parts thereof infested with the emerald ash borer as a

nuisance in the State of Nebraska” as well as the establishment of a formal quarantine of the infested areas.

4. NDA and APHIS determine the original source of the EAB infestation, if possible, to help locate other possible infestations and prevent future ones
5. Reference APHIS State Plant Health Director’s Emergency Plant Health Management Plan based on incident command.
6. Regulatory or control activities may be initiated as follows:
  - a) Administer provisional quarantines
  - b) NDA may require removal of all ash trees as appropriate for early and isolated infestations
  - c) For all infestations except those that fall under “b)” above, the Administrative Team will meet promptly with designated representatives of affected municipalities or landowners to discuss options for managing the infestation.
  - d) Municipalities and landowners shall be allowed to act under their own local authorities when local ordinances are applicable and consistent with NDA quarantine requirements

**B. Communicate information and updates**

1. Provide accurate information and updates to the media [Core Communications Team]
2. Provide accurate information to affected residents [Public Education Team]
  - a) Have an informational door-hanger ready for customizing and distributing to affected area immediately after infestation is found
  - b) Host local resident meetings or visit affected residents to share information as soon as possible after finding an infestation
3. Communicate with public and industry professionals to foster cooperation to maximize effective response [Public Education Team]

**C. Dispose of wood debris** by establishing processing facilities/marshalling yards in the quarantine zones to efficiently handle ash debris and reclaim useable products as much as possible [Administrative Team and Wood Utilization Team]

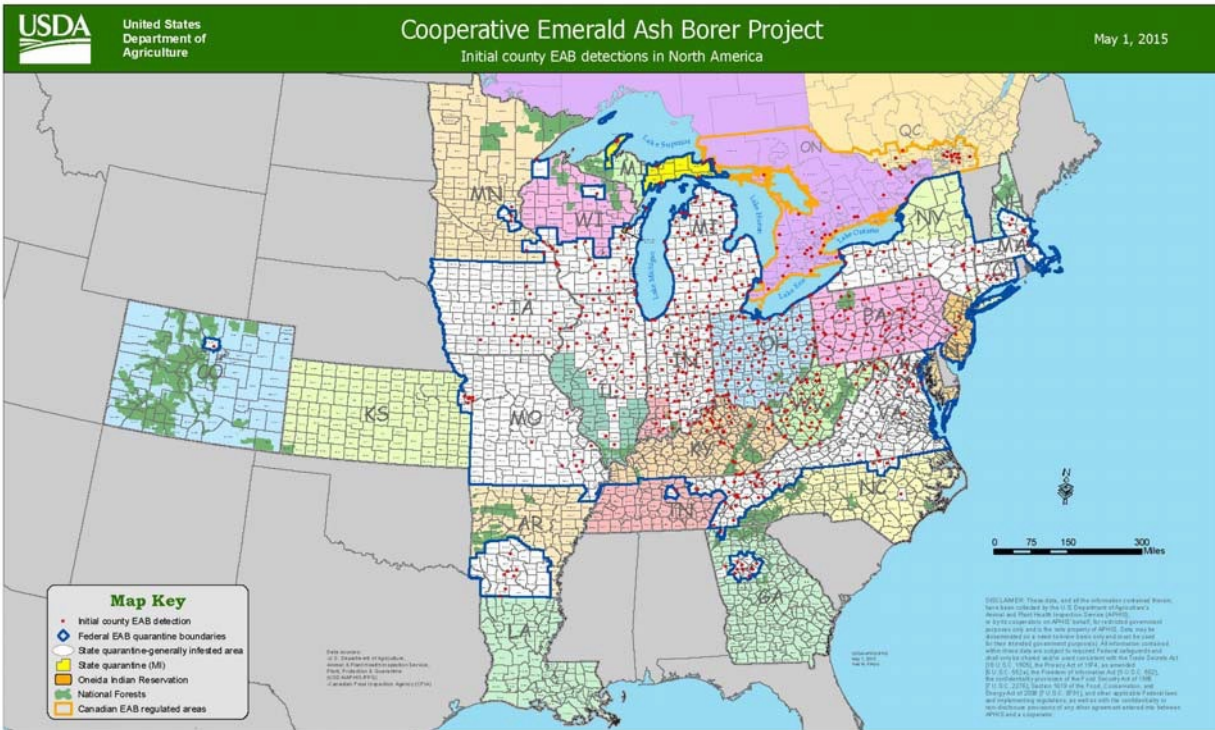
**D. Develop and implement a community forest replanting program** authorized under applicable federal, state and local authorities using available resources [Working Group]

1. Identify key state-wide cooperators for the development and implementation of reforestation programs and community projects
2. Coordinate all activities where possible with existing and on-going programs including:
  - a) ReTree Nebraska Initiative
  - b) Cost-share programs including:

- Community Enhancement Program (CEP administered by NFS)
  - Trees for Nebraska Towns (TNT administered by NSA)
- c) Establish legislative support to re-establish and expand funding for the Nebraska Tree Recovery Act [Working Group, but not including USDA, any state agencies or University of Nebraska units]
- d) Seek legislative support to reduce risk and secure funding for prevention, control and recovery efforts [Working Group, but not including USDA, any state agencies or University of Nebraska units]

## Appendix A

### Current Verified Emerald Ash Borer Locations as of May 1, 2015



Link for the most current map, updated monthly:

[http://www.emeraldashborer.info/files/MultiState\\_EABpos.pdf](http://www.emeraldashborer.info/files/MultiState_EABpos.pdf)

## Appendix B

### Nebraska EAB Working Group Member List

USDA, Animal and Plant Health Inspection Service, Plant Protection and Quarantine:

State Plant Health Director, TBA

Abby Stilwell, Plant Health Safeguarding Specialist, [Abby.R.Stilwell@aphis.usda.gov](mailto:Abby.R.Stilwell@aphis.usda.gov)

Nebraska Department of Agriculture:

Julie Van Meter, State Entomologist/Program Manager, [julie.vanmeter@nebraska.gov](mailto:julie.vanmeter@nebraska.gov)

State Survey Coordinator, TBA

Nebraska Forest Service:

Eric Berg, Community Forestry Program Leader, [eberg2@unl.edu](mailto:eberg2@unl.edu)

Graham Herbst, Community Forest Specialist, [g Herbst2@unl.edu](mailto:g Herbst2@unl.edu)

Mark Harrell, Forest Health Program Leader, [mharrell2@unl.edu](mailto:mharrell2@unl.edu)

Laurie Stepanek, Forest Health Specialist, [lstepanek2@unl.edu](mailto:lstepanek2@unl.edu)

Jennifer Morris, Forest Health Specialist, [jmorris12@unl.edu](mailto:jmorris12@unl.edu)

Jessica Kelling, ReTree Nebraska, [jkelling2@unl.edu](mailto:jkelling2@unl.edu)

University of Nebraska, Entomology Department:

James Kalisch, Extension Technologist, [jkalisch1@unl.edu](mailto:jkalisch1@unl.edu)

Tom Weissling, Distance Education Director, [tweissling2@unl.edu](mailto:tweissling2@unl.edu)

University of Nebraska, Department of Agronomy and Horticulture:

Kim Todd, Asst. Professor, [ktodd2@unl.edu](mailto:ktodd2@unl.edu)

Nebraska Nursery and Landscape Association:

Todd Faller, [fallerlandscape@alltel.net](mailto:fallerlandscape@alltel.net)

Andrew Campbell,

[ajc@campbellsnursery.com](mailto:ajc@campbellsnursery.com)

Nebraska Statewide Arboretum:

Justin Evertson, Assistant Director, [jevertson1@unl.edu](mailto:jevertson1@unl.edu)

Nebraska Arborists Association:

Stacy Hughes, Arborist, [Stacy@hughestree.com](mailto:Stacy@hughestree.com)

Wyatt DeWeese, NAA President, [wyatt@hughestree.com](mailto:wyatt@hughestree.com)

Steve Enfield, Arborists, [savetrees@att.net](mailto:savetrees@att.net)

USDA, Forest Service:

Entomologist, TBA

Natural Resources Conservation Service:

Ritch Nelson, Nebraska State Biologist, [Ritch.Nelson@ne.usda.gov](mailto:Ritch.Nelson@ne.usda.gov)

Nebraska Game and Parks Commission:

Mike Groenewold, Horticulturist, [mike.groenewold@ngpc.ne.gov](mailto:mike.groenewold@ngpc.ne.gov)

Lincoln Parks and Recreation, Forestry Department

Bob Weyhrich, Operations Forester, [rweyhrich@lincoln.ne.gov](mailto:rweyhrich@lincoln.ne.gov)

Mark Canney, Park Planner, [mcanney@lincoln.ne.gov](mailto:mcanney@lincoln.ne.gov)

City of Omaha Parks, Recreation, and Public Property Department:

John Wynn, City Forester, [john.wynn@cityofomaha.org](mailto:john.wynn@cityofomaha.org)

Omaha Public Power District

Mike Norris, Utility Forester, [mnorris@oppd.com](mailto:mnorris@oppd.com)

Arbor Day Foundation:

TBA



## Appendix C

### Outreach Groups and Opportunities

#### INDUSTRY

##### GROUPS

##### SPECIFIC OPPORTUNITY/SUBGROUP

#### **Nursery Industry**

Nebraska Nursery & Landscape Association  
NNLA newsletter  
Nebraska Great Plains Tree Conference  
Summer Field Day  
Nebraska Statewide Arboretum  
Arboretum Publications  
Spring Affair & other plant sales  
Bob Henrickson's radio show  
Curator trainings  
WESTERN Nursery & Landscape Association  
WESTERN e-newsletter  
WESTERN Annual meeting  
Landscape Architects  
University/Extension Educators  
University classes  
NebLine & other newsletters  
Master Gardeners  
John Fech's radio show  
National Arbor Day Foundation  
National Arbor Day Foundation Newsletter  
Plant List/Plant sales packets

#### **Arboriculture/Forestry**

Nebraska Forest Service  
Tree Care Workshop  
ReTree meetings  
NFS TimberTalk  
Shady Lane  
Nebraska Arborists Association  
NAA Newsletter  
Summer Field Day  
USDA Forest Service  
Natural Resources Conservation Service  
National Arbor Day Foundation  
International Society of Arboriculture, Midwest Chapter

#### **Government Agencies/Property Managers**

Nebraska Game & Parks Commission  
Corp of Engineers

Bureau of Reclamation  
Bureau of Land Management  
Bureau of Indian Affairs  
US Fish and Wildlife Service  
Mayors/City Councils  
    Council meetings Proclamation/EAB  
    Awareness Week  
League of Nebraska Municipalities  
Tree Boards/Municipalities  
    Board meetings  
Nebraska Energy Office  
Utility Companies (OPPD, NPPD, LES, Norris Public Power)  
    Public meetings  
    Bill inserts  
    Tree trimming door hangers  
Nebraska Association of Resources Districts  
Nebraska Department of Economic Development  
Nebraska Emergency Management Agency  
Nebraska Department of Environmental Quality  
Nebraska Board of Educational Lands and Funds  
USDA Forest Service

**Parks/Recreation/Nature Groups**

Nebraska Game & Parks Commission  
    Nebraskaland magazine  
    Naturalist talks  
    Radio & television shows  
    Campground message boards  
    Park bulletin boards  
    Park/hunting license information  
    Campground reservations  
    Campground stewards  
    Visitor centers  
Private Campgrounds  
    Message boards  
    Reservation systems  
    Camp Away  
Public Campgrounds  
    Message boards  
    Reservation systems  
National Park Service  
    Camping reservation systems  
Nebraska Recreation & Parks Association  
    Newsletter  
Corps of Engineers  
Friends of Parks Groups  
    Newsletter  
    Club meetings  
    Friends of Wilderness Park  
Audubon Society, Nature/Bird watching groups, Sierra Club, Nature Conservancy

- Newsletters
- Club meetings
- Nebraska Department of Travel & Tourism
- Nebraska Association of Resources Districts
- Municipal Parks & Recreation Departments
- Miscellaneous outreach opportunities
  - Nebraska Life magazine
  - City of Lincoln Citizen Information Center
  - Targeted outreach for firewood users (e.g. food vendors)

**Nature Centers/Science Education**

- Children's Museums
- Fontenelle Nature Association
  - Naturalist talks
- Chet Ager Nature Center
  - Naturalist talks
- Arbor Day Farm
- Science Teachers
- UNL Extension Educators
- UNL Nebraska Cooperative Unit Invasives Species Project
- Clubs (Scouts, FFA, 4-H, Campfire kids, science groups)
  - Meetings
- Envirathon
- R C & D's
- Zoos
  - UNL Entomology Open House

**Agriculture**

- Nebraska Department of Agriculture
  - EAB Display
  - State Fair
  - Governor's Ag Conference
  - Husker Harvest Days Farm
  - Radio Network
- Nebraska State Fair
- Nebraska Beekeepers
- USDA, APHIS
  - Local USDA offices
- Other, unspecified
  - Camp Creek Threshers
  - Ag Commodity newsletters

**Pest Control**

- Nebraska Pest Control Association
- Nebraska Mosquito and Vector Control Association

## Appendix D

### Emerald Ash Borer Specimen: Chain of Custody and Communications

*Always maintain confidentiality until diagnosis has been officially confirmed.*

