

## **Emerald Ash Borer (EAB) Management Plan**

### ***Mission Statement***

*Promote and maintain a safe, healthy urban forest that enhances the visual and environmental quality of Wahpeton through tree planting, quality maintenance and citizen education.*

### ***Introduction***

*Emerald Ash Borer is an invasive insect that attacks and kills all species of ash trees. Larvae tunnel under the bark to feed. The tunnels cut off the flow of water and nutrients for the tree to survive. Tree will die after four to five years of decline. EAB is presently located in 33 states and we are surrounded by infestations in the Twin Cities, Winnipeg and Sioux Falls. A proactive approach **will** lessen its disastrous effects.*

### **Prior to EAB Arrival**

*Inventory of existing tree resources needs to be updated. Presently, 36% of Wahpeton's trees are ash. No ash trees should be included with any future public planting. Hazardous ash trees, including those in poor health and undesirable locations, will be removed, when possible.*

### **Response Plan**

If we positively identify EAB in Wahpeton, our response plan will guide us through four general steps:

- Determine extent of infestation.
- Quarantine affected area.
- Follow a pre-determined plan of action.
- Dispose inflicted trees.

### **Resource Plan**

- Human resources and contractors (negotiate contracts prior).
- Disposal sites and methods for treatment of wood debris.
- Useful partnerships and contacts (USDA APHIS, ND Department of Agriculture, ND Forest Service, ND Urban & Community Forestry Association, utility companies, etc.).

### **Monitoring Plan**

- USDA efforts with purple prism traps.
- Examine samples from proactive removal process.
- First responder contacts include USDA APHIS, ND Department of Agriculture and ND Forest Service.

### **Education Plan**

- Public workshops should be held to educate citizens about EAB and / or other forestry topics.
- Public will be educated about EAB identification and treatment options to

increase trained observers.

*Early detection is critical for developing a timeline for the trees receiving treatment.*

- Professionals.
  - Tree Care Professionals (EAB identification, safe tree removal practices & insecticide application). Nursery Professionals (stop selling and planting ash, promote diversification and chemical application recommendations).
- Policy Makers (informed decision makers make better decisions and consider budget priorities).
- Ordinances (enforce existing ordinances and consider any necessary revisions).
- *The City of Wahpeton will use its website and social media to get relevant information out to the public. Newspaper notices will be published and other marketing like utilities fact sheets may be used.*

### **Survey to determine extent of infestation**

ND Forest Service and APHIS will conduct an intensive survey to determine the extent of the infestation. Survey crews will be sent to the area surrounding the positive find to visually identify the number and distribution of ash trees.

### ***Tree Inspections***

*Ash trees will be inspected. Deficient trees will be marked for removal. To ensure consistency and uniformity, all Wahpeton ash inspections will be documented on a rating schedule developed by the University of Purdue. The condition details consider the tree's structural integrity and health.*

- *4 I Excellent. Perfect specimen with excellent form and vigor. Well-balanced tree. Trunk is sound and solid. No apparent pest problems. Exceptional life expectancy.*
- *3 I Good. Imperfect canopy density. Lacking natural symmetry. Few pest problems that can be controlled. Normal branch and stem development. Typical life expectancy.*
- *2 I Fair. Crown decline up to 30% of canopy. Poor symmetry. Leaf color somewhat chlorotic. Some stunted and stressed growing conditions. Signs of pest problems contributing to lesser condition. Some decay found in main stem and branches. Lower average life expectancy.*
- *2 I Poor. Lacking full crown. More than 50% decline and dieback, especially larger branches. Little evidence of growth on smaller stems. Leaf size and color indicate overall stress. Severe insect or disease infestation. Extensive decay or hollow. Life expectancy is low.*

### **Develop plan of action, based on results and resources**

The results of the delimitation survey will provide information for local, state and federal officials to develop a plan of action to minimize the spread of the EAB from the site of the initial infestation and to ensure eradication of the pest. A list of resources **will** be made available. A public meeting will be scheduled to educate citizens about city ordinances and protocol.

## **Identify the Source of the EAB**

We will also work to determine the original source of the EAB infestation. This will help identify whether additional actions need to be taken to locate as-yet unknown infestations or prevent further introductions of the pest. For example, was the EAB brought in on firewood, infested nursery stock or shipping containers? This is known as trace back/trace forward and with both state and federal authorities. Other infested articles would be quarantined and prevented from moving either within the state or to other states or countries.

## **Treatment**

*Current information concludes that ash trees can be effectively protected from Emerald Ash Borer by chemical injections. Trees that provide high benefits to residents will be considered.*

## **Removal Process**

If nothing is done, expect 100% mortality. Eradication may work, depending on infestation. Reduce number of ash trees city-wide. Develop specifications to ensure work is done properly.

## **Tree Disposal/Utilization**

Eradication of EAB involves the destruction of significant numbers of ash trees. Therefore, one of the largest challenges in EAB eradication projects is the disposal or utilization of ash material. Because quarantine regulations restrict the movement of ash material out of quarantined areas (with some exceptions), wood utilization becomes even more difficult. These restrictions may limit the ability to use this material as commercial landscape mulch, wood pulp chips and solid wood products (lumber, railroad ties) or as a biomass fuel. The City Council shall outline the city's plans for wood waste treatment, including:

- Tub grinder chips no larger than 1 inch in any dimension. Tree debarker for use as lumber or firewood.

- Kiln treatment for utilization as lumber. Incineration treatment.

## **Current Ordinance**

*Current ordinances require Wahpeton residents to plant, maintain and remove any boulevard trees adjacent to their property. Any costs associated with removing EAB infected trees on boulevards are the responsibilities of these homeowners.*

## **Quarantine the affected area**

APHIS has the authority to issue a quarantine to restrict the movement of EAB and infested host material such as trees, logs, firewood, mulch or nursery stock. A quarantined area may be an individual property, a township, a county or an entire state. Affected businesses are notified and press releases are issued to notify the public once quarantine conditions are met and the quarantine has been enacted. Host material may be removed from a quarantined area if inspected and certified as free of EAB. *No firewood should ever be transported for use elsewhere.*

### **Reforestation**

Develop cost-effective ways to plant more trees. Utilize bare-root materials. A diversified replanting plan will be developed for public areas with ash populations that will need reforestation. Planting right-size trees in the right places will be enforced.

### **Funding**

State and federal sources **will** be sought. Find other outside sources of funding, including grants and donations. Consider local funding options.

### **Summary**

*The Emerald Ash Borer would change the landscape of Wahpeton's urban forest and Red River riparian area permanently. One-third of the city's canopy cover would be lost, along with the many benefits of trees, including property value, wildlife homes, energy savings, rainwater collection, street preservation, shade, natural beauty and soil erosion.*