



CITY OF FREMONT - EMERALD ASH BORER PLAN

Background:

The Emerald Ash Borer (EAB) is a native of Asia and is believed to have arrived in the United States on solid wood packing material. The introduction of the EAB to North America has resulted in the loss of millions of ash trees, in landscapes, nurseries, woodlots and forests.



The EAB was first found infesting ash trees in the Detroit, Michigan area in the summer of 2002. Since then, the EAB has been found in Ohio in 2003; northern Indiana in 2004; northern Illinois and Maryland in 2006; western Pennsylvania and West Virginia in 2007; Missouri and Virginia in the summer of 2008; Minnesota, New York, Kentucky in the spring of 2009; Iowa in the spring of 2010; Tennessee in the summer of 2010; Connecticut, Kansas, and Massachusetts in the summer of 2012; New Hampshire in the spring of 2013; North Carolina and Georgia in the summer of 2013; Colorado in the fall of 2013; New Jersey in the spring of 2014; Arkansas in the summer of 2014; Louisiana in the winter of 2015; Texas in the spring of 2016; Nebraska and Delaware in the summer of 2016; and Oklahoma and Alabama in Fall 2016. Since its discovery, EAB has:

- Killed hundreds of millions of ash trees in North America.
- 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 occurs.
- Cost municipalities, property owners, nursery operators and forest products industries hundreds of millions of dollars.

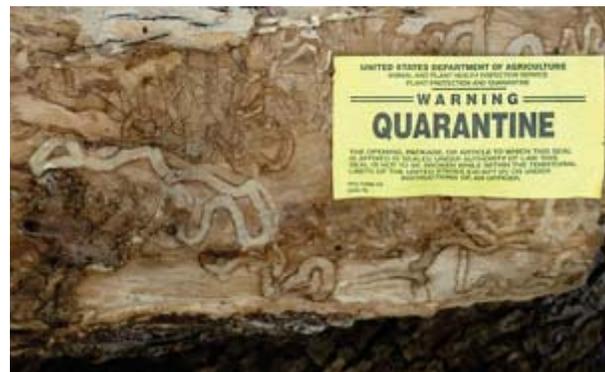
The Nebraska Department of Agriculture (NDA) has confirmed that the EAB was discovered during a site inspection in Omaha's Pulaski Park on June 6, 2016. The EAB has also been confirmed in Greenwood and Cass Counties. It will inevitably make its way into other parts of Nebraska within the next few years. All ash species are potential hosts.

Adults are approximately 1/2" long and 1/8" wide and have a metallic green color. Larvae are cream-colored, flattened and grow approximately one inch in length. Typically, the EAB requires a one-year life cycle. Adult beetles emerge in the spring and can be found from mid-May to early August. The adult EAB exits the tree through a distinctive, D-shaped exit hole, about 1/8" in size. After mating, females lay their eggs on the bark surface and in bark cracks. Larvae hatch in the summer and tunnel into the ash tree, feeding on the phloem and outer sapwood. The larvae create very distinct, S-shaped serpentine galleries under the bark, which disrupts the movement of water and nutrients through the tree.



How Is the Emerald Ash Borer Spread?

The EAB can be spread through the movement of infested ash nursery stock, ash firewood and other ash material. To prevent artificial movement of infested articles, the Federal Government enacted an EAB quarantine, restricting interstate movement of ash nursery stock, ash limbs and branches, as log or untreated ash lumber with bark attached, un-composted ash bark chips larger than 1" in diameter and all species of hardwood firewood.



How Can the Public Help Prevent the Spread of the Emerald Ash Borer?

- Don't move firewood.
- Purchase only certified nursery stock from licensed and inspected nursery firms.
- Report suspect quarantine violations.

Treatment Consideration

Now that the EAB is here, it will be with us forever. The EAB does not kill the tree immediately. It takes a few years of continued infestation before the tree begins to

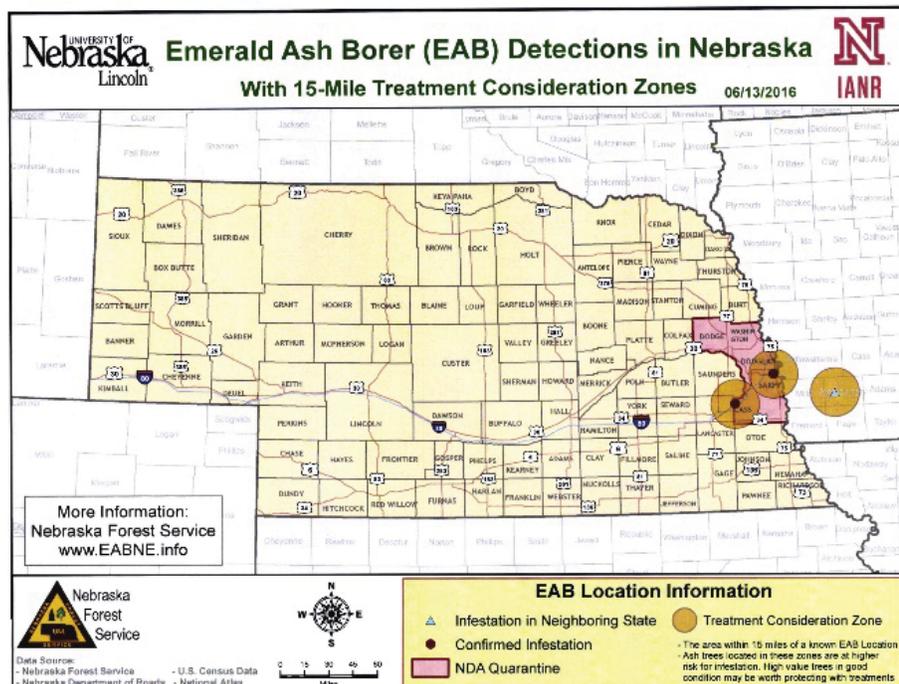
decline. Insecticide treatments against EAB are available, but will cause cumulative damage to trees. Treatments are not a one-time occurrence. Treatments are expensive and are required for the lifespan of the tree. There are drawbacks of treatments. Treatments will cause damage to the tree at the injection sites. Most are applied by drilling a hole into the trunk, which opens up the trunk to insect pests and decay fungi. The drilling may also break through internal barriers within the trunk that have been made to wall off internal decay. This decay may then spread from the inside out through the tree. Pesticides may also pose a risk to humans, pets and wildlife.

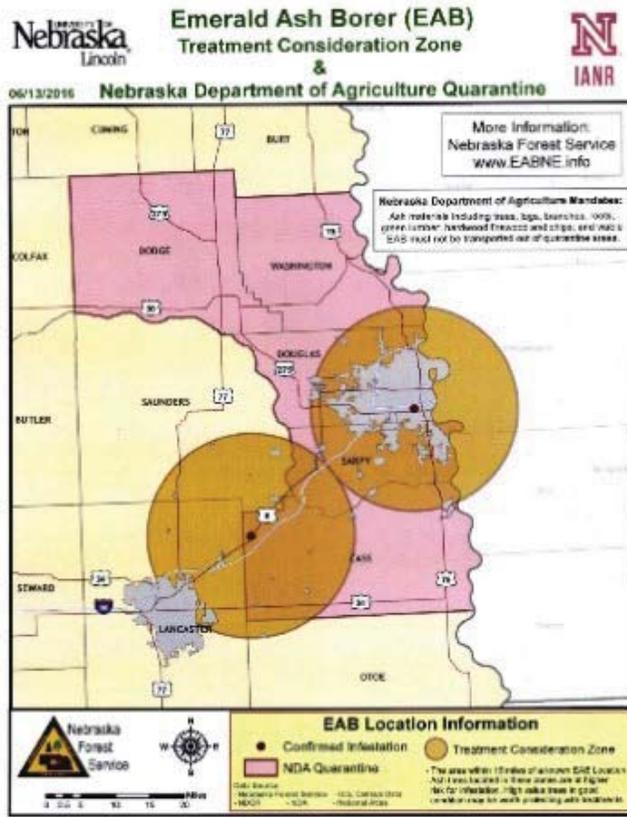
There are many benefits of trees: shade, beauty, improved air quality and stormwater regulation. A well-placed tree may be extremely valuable and some trees may have great historical or sentimental value. But considering the cost, potential damage and varying effectiveness of treatments, it is wise to be very selective when deciding which ash trees to save, if any.

Animal and Plant Health Inspection Service Quarantine

On July 8, 2016, the Animal and Plant Health Inspection Service (APHIS), a department of the United States Department of Agriculture, issued a Federal Order (DA-2016-46) to quarantine Cass, Dodge, Douglas, Sarpy, and Washington Counties. The quarantine established a regulated area to prevent the spread of EAB to other states and outlines specific conditions for the interstate movement of EAB-regulated wood in Nebraska, including firewood of all hardwood species, nurse stock, green lumber, waste, compost, and chips of ash species.

What Areas of Nebraska are Quarantined





Why Are All Hardwood Chips/Mulch/Bark/and Firewood Regulated

Once a log has been cut and split, it is extremely difficult for the average person to identify ash wood from other hardwood species. Because of the difficulty in differentiating between wood species and the high risk associated with moving EAB infested firewood and chips/mulch/bark, all hardwood firewood and chips/mulch/bark are regulated.

City of Fremont - Emerald Ash Borer Plan

- A. Public Ash Tree Inventory:
 1. The City of Fremont will complete an inventory and map of all public ash trees in the summer of 2018. A preliminary inventory includes 600 trees in City rights-of-way (ROW) between the City street and sidewalk, 100 trees in City parks, and nearly 200 trees in City ROW under electrical lines. The inventory data will be used to manage Fremont’s public trees, including: identifying areas for removal, areas for replanting, species diversification, and education.
 2. Prepare a map of each park, City right-of-way, and City building with ash trees showing a 10-year schedule of:
 - a. Existing ash trees to be removed by year,

- b. Trees scheduled for replacement by year, and
 - c. Type of tree to be planted, by year.
- 3. The City ash tree inventory and map will be maintained, updated, and reviewed annually.
- 4. Over the next 10-years, the City will budget for ash tree removal and replacement. The 2017-18 and 2018-19 Parks & Rec budgets include \$6,000 for tree removal and replacement in each budget year. The Department of Utility will budget monies to remove ash trees during the normal tree trimming cycle.
- 5. Ash trees in City ROW will removed free of charge. If citizen wants just deadwood removed, they will have to pay to have a licensed tree trimmer do the work.

B. Ash Trees on Private Property:

- 1. The City will make available a disposal site for ash trees removed by from private property in Fremont. A disposal fee will be developed to offset the City's cost of operating the disposal site and grinder/chipper.
- 2. Remove and Replace Program: The City is developing a Trees for Fremont replacement program. Through budgeting and grants, the City would like to purchase up to (3) varieties of trees from nursery stock so citizens can purchase replacement trees at a reasonable cost.

C. Education:

- 1. Keeping the community informed of the management of EAB is key. To this end, the City will host workshops to help homeowners identify ash trees and emerald ash borer sighting, posting regular information on the City website, articles and news releases, and using social media to educate and inform.
- 2. The City will make the information available to the public regarding response to EAB by the Parks and Recreation Department as well as maps of the City where EAB has been found, neighborhoods that are participating in the City Remove and Replace Program.

D. Ash Wood Utilization:

- 1. Chips: The City will grind/chip ash tree debris to use for compost at the Wastewater Treatment Plant and attempt to sell chips to private suppliers of landscaping mulch.
- 2. Wood: The City will seek private partners to mill logs for lumber.