

Emerald Ash Borer and your Community



*Beetle not drawn to scale

Why is Emerald Ash Borer a threat?

- EAB is **100%** fatal to ash trees
- 717 million forest ash trees are at risk in Wisconsin
- 30% of all urban street trees in Wisconsin are ash
- Killed at least 20 million ash trees in Michigan
- Also found in Ohio, Indiana, Illinois, Maryland, and Ontario Canada



Emerald Ash Borer History

- **Early 1990's - reports of ash decline in southeastern Michigan**
- **EAB positively identified in summer 2002**
- **Estimates of 15-20 million ash trees dead or dying**
- **EAB probably present 5-10 years prior to 2002**
- **Likely imported in Solid Wood Packing material**



What kind of trees does EAB attack?

In N. America, EAB attacks all types of ash trees, including:



Green ash



White ash



Black ash

and all other horticultural varieties of ash.

How is EAB Moved?

- **Natural spread (adult beetles can fly)**
- **Human assisted spread**
 - **Firewood**
 - **Nursery stock**
 - **Pallets**
 - **Logs**
 - **Any parts of an ash with bark attached**



Nursery stock

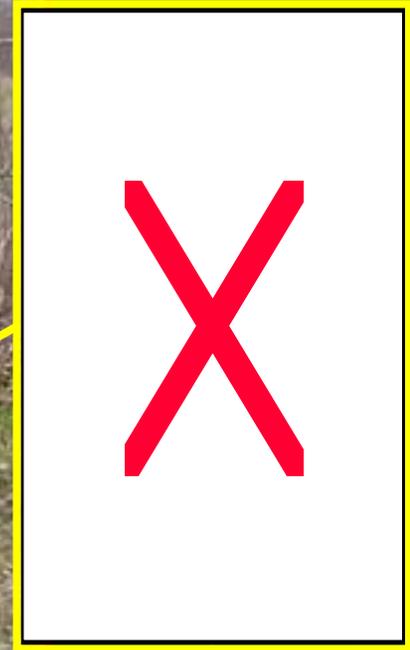
Firewood



Photo by Linda Williams, WI DNR

Photo by Linda Williams, WI DNR

How does EAB kill trees?



- Larvae tunnel under bark disrupting water flow

Current Control & Management Options

- **Detection**
- **Eradication**
- **Marshalling yards**
 - for wood disposal
 - wood is chipped
- **Species diversity**
 - 10% in any one species
- **Chemical treatments**
 - None are 100% effective

Marshalling yard



How would we find EAB?

- **Detection trees**
- **Municipal pruning programs**
- **Municipal disease/insect scouting programs**
- **Public education programs**
- **Phone calls from concerned citizens**
 - **The Lily Lake, IL, infestation was first noticed and reported by a concerned citizen**

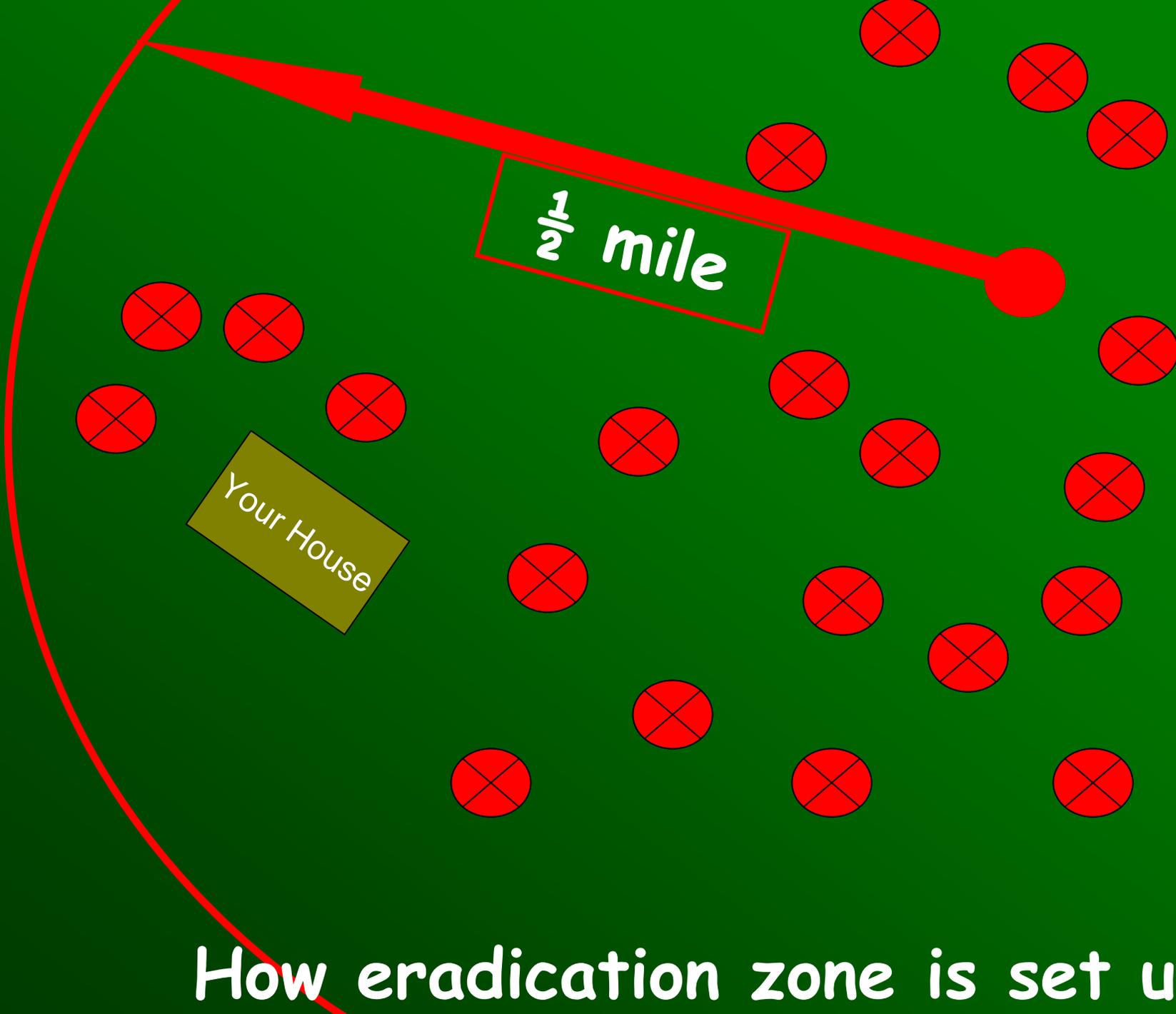


Eradication



Photo by Howard Russell

- After detection, the infestation will be delimited and every ash tree greater than 1” in diameter (both public and private trees) in a 1/2 mile radius of any infested tree will be removed under the federal program



How eradication zone is set up

Eradication



Photo by Howard Russell

- **After detection, the infestation will be delimited and every ash tree greater than 1” in diameter (both public and private trees) in a ½ mile radius of any infested tree will be removed under the federal program**
- **If federal eradication programs fail, or when federal dollars run out, EAB management will become the responsibility of the local municipality.**

Community Ordinances

- **Ordinances should address:**
 - **Timely removal of dead/dying trees**
 - **Infested trees**
 - **Wood disposal**
 - **Policy for private ash trees**
- **Your ordinance does not have to be EAB specific and can address destructive insects in general.**



Value of Wisconsin's Urban Ash

- Average standing tree value of 12" DBH ash street tree in good condition = \$1,470*
- Urban trees provide benefits that far exceed the costs of planting and care over the lifetime of the tree
- Annual net benefit of trees[#]:
 - Large tree - \$37/yr
 - Medium tree - \$16/yr
 - Small tree - \$9/yr
- Each medium tree removes 1,000 lbs CO₂ per year, 4.3 pounds of pollutants per year, 5,380 gallons of rainwater per year, and saves homeowners up to 20% on annual utilities

*Certified Tree and Landscape Appraiser Value

#Data from USDA FS Center for Urban Forest Research

Costs

- **Average replacement costs per 12” tree***:
 - Removal = \$340
 - Replanting = \$400
 - Total per tree = \$740



Photo by Linda Williams, WI DNR

- **Multiply by the number of ash trees in your community to get total cost to your community for tree removal & replacement**

*average cost based on figure from several tree care companies from around the state.

Use Your Time Wisely

(tips from a Michigan community)

- **Now is the time to prepare**
- **We do not need to reinvent the wheel, communicate with other communities that have EAB**
- **Use DNR EAB Toolkit to help prepare**
- **Create a community readiness plan**
- **Change planting practices to improve diversity**

Use Your Time Wisely

(tips from a Michigan community)

- **Stay current**
 - Program is constantly evolving
 - New finds and available funding can change quickly
 - Know the quarantine boundaries and requirements
- **When EAB is found in or near your community maintain communication between municipal departments**
- **Revisit your plan, adjust as needed**



Photo by Dave Cappaert, MSU

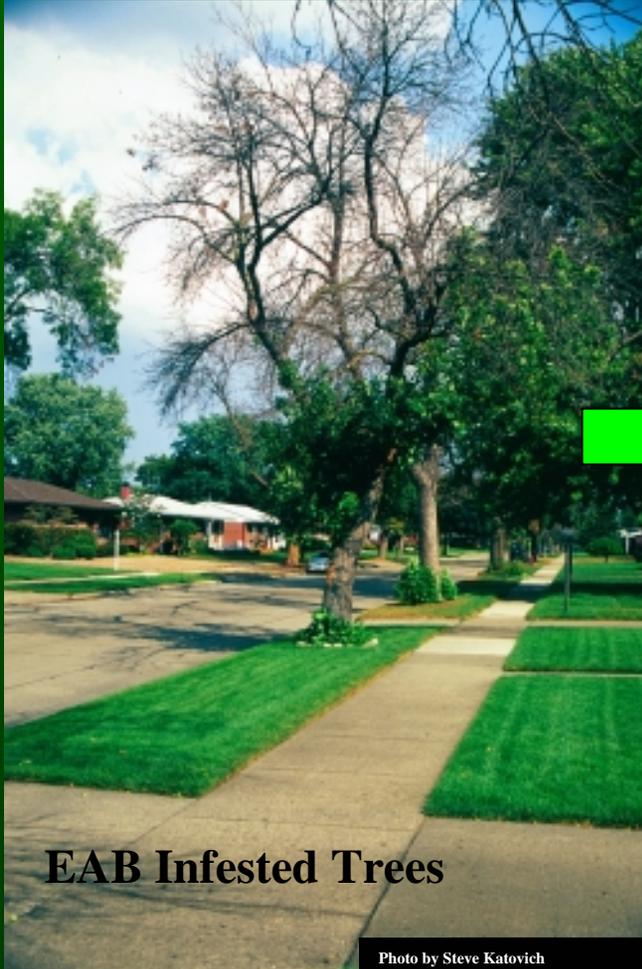
Are we prepared for EAB?

- Readiness plan
- Ordinances
- Funding
- Public education



Photo by Dave Cappaert, MSU

What still needs to be done?



Will this be your community?