

Mitigation and Planning Ash Reduction

David S. Bienemann
Municipal Arborist
City of Bowling Green, Ohio

The City of Bowling Green, Ohio

- City Population: 29,636
- Located in Northwest Ohio, 20 miles south of Toledo
- Seat of Wood County
- Home to Bowling Green State University
- Municipal-owned Electric system (generation includes 4 commercial wind turbines)
- City provides high quality services while maintaining a caring, small town climate

Objectives

- Developing Urban Forestry Program
- History of Emerald Ash Borer (EAB) Invasion
- Emerald Ash Borer Management Plan
- Future Challenges & Opportunities

Developing an Urban Forestry Plan

- Proactive Urban Forestry
- Mitigate Priority Trees
- Plan & Organize Routine Maintenance of Trees
- Plant the Right Tree in the Right Place especially under Utilities
- Long-term Planning on Infrastructure Upgrades

Mitigate Priority Trees



Plan & Organize Routine Maintenance

Query Site Listing by Area - Work History

Report Date: 1/19/2006
Report Time: 11:04 AM

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ACRT: GMW

Bowling Green, OH: Query Site Listing by Area - Work History For Qry: 0162, Routine_LG Maintenance

Location	Th	Area	T/C	Item	DBH	COND	MAINT	WIRES	CLEAR	HDSCP	Inventory Date	By	Site ID
Area: ADA AVE													
121 ADA AVE	S	318	2	MAPLE NORWAY -CR	12	FAIR	ROUTI	LOWMU	TRAFF	SIDEW	5/24/2006	MR	11080
126 ADA AVE	S	318	3	ARBOR/ITAE	11	FAIR	ROUTI	LOWMU			5/24/2006	MR	11084
138 ADA AVE	S	318	1	MAPLE NORWAY -	11	FAIR	ROUTI		TRAFF	SIDEW	5/24/2006	MR	11086
202 ADA AVE	S	318	1	MAPLE NORWAY	11	FAIR	ROUTI		TRAFF	SIDEW	5/24/2006	MR	11087
215 ADA AVE	S	318	1	MAPLE SILVER	6	GOOD	ROUTI	LOW	TRAFF	SIDEW	5/24/2006	MR	11089
Area: ADAMS ST													
125 ADAMS ST	S	026	1	HAWTHORN, OTHER	8	FAIR	ROUTI	LOW			9/2/2004	JK	315
315 ADAMS ST	S	026	1	ARBOR/ITAE	12	FAIR	ROUTI	LOW			9/3/2004	JK	412
	S	026	2	ARBOR/ITAE	12	POOR	ROUTI	LOW			9/3/2004	JK	413
				<u>Work Date</u>	<u>Work Type</u>	<u>Work Cat</u>	<u>Crew ID</u>	<u>Man Hrs</u>	<u>Cost</u>				
				7/22/2005	PRUNE	R	EL1	0.5	36.21				
Area: ALEXANDRIA BLVD													
ALEXANDRIA BV MDN	S	092	1	CRA BAPPLE	4	GOOD	ROUTI				9/17/2004	JK	2050
	S	092	3	CRA BAPPLE	4	GOOD	ROUTI				9/17/2004	JK	2052
Area: ARLINGTON CT													
16 ARLINGTON CT	S	034	3	MAPLE SUGAR	13	POOR	ROUTI	HIGH			9/3/2004	JK	456
14 ARLINGTON CT	S	034	1	MAPLE NORWAY	11	FAIR	ROUTI				9/3/2004	JK	504
16 ARLINGTON CT	S	034	1	MAPLE NORWAY	7	POOR	ROUTI				9/3/2004	JK	505
	S	034	2	MAPLE NORWAY	15	FAIR	ROUTI				9/3/2004	JK	506

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Plant the Right Tree in the Right Place

- City removed large tree planted under powers and replace with compatible utility trees such as Japanese Tree Lilac and Serviceberry Trees.



Long-term Planning on Infrastructure Upgrades



Developing an Urban Forestry Plan

- **Resources** – City Personnel, City Arborists & Foresters in Ohio and US, ODNR Urban Foresters.
- **Windshield Survey** – Tree Population based on linear miles in City. City of Bowling Green had approximately 100 miles, drove 20 miles (East Side – 10 miles & West Side 10 Miles). Estimated tree population 6600 trees based on 66 trees per mile in Windshield Survey.

Developing an Urban Forestry Plan

- Develop Tree Pruning & Removal Specification for Street & Park Trees.
- Develop Tree Pruning & Removal Specification for Utility Line Clearance for Municipal Facilities.
- Create Tree Planting Specifications for City Trees.
- Create a Master Tree Planting List

History of EAB Invasion

Core infestation:

- S.E. Michigan, June 2002.
- Windsor, Ontario, July 2002.



Ohio infestations:

- Lucas Co. - February 2003, March and May 2004.
- Defiance & Paulding Co. - August 2003.
- Wood Co. - September 2003 and June 2004.
- Franklin Co. - November 2003.
- Fulton Co. – May 2004.



Others:

- Maryland and Virginia - August 2003.
- Indiana – April 2004.

Emerald Ash Borer Invasion

- 2002 EAB Positively ID in Michigan
- 2003 EAB Positively ID in Ohio
- EAB invasion started in early 1990s.
- Goal to contain EAB in Michigan & Ohio to protect the ash trees in North America.
- Suspect illegal movement of firewood or nursery stock spread EAB into Indiana & Illinois.

Quarantines

Federal, Michigan, Ohio

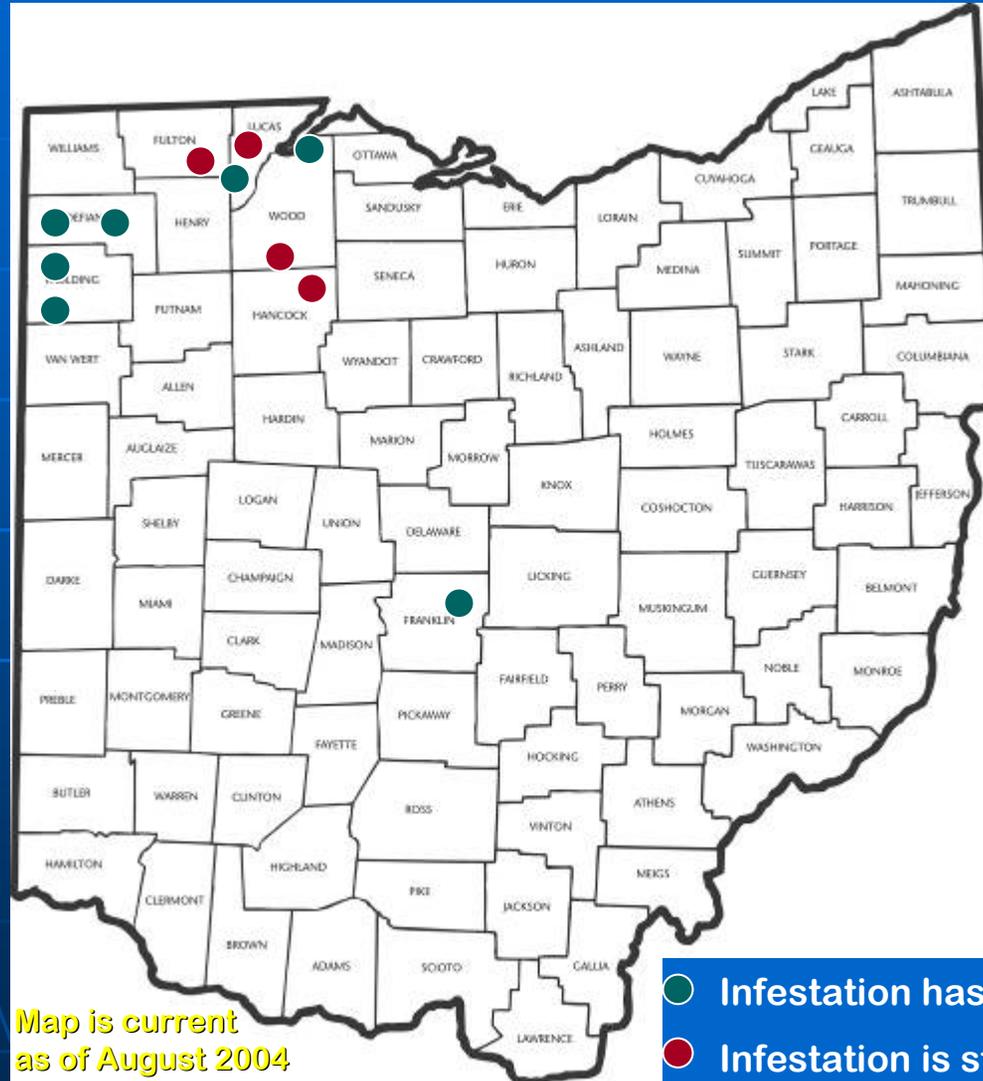


How Fast Can EAB Spread?

- This is still being researched.
- Michigan State University research indicates that new infestations disperse less than a half mile per year.
- Field analysis of Ohio infestations yields similar conclusions.
- Lab studies indicate emerald ash borer can fly several miles when forced repeatedly to fly to exhaustion.



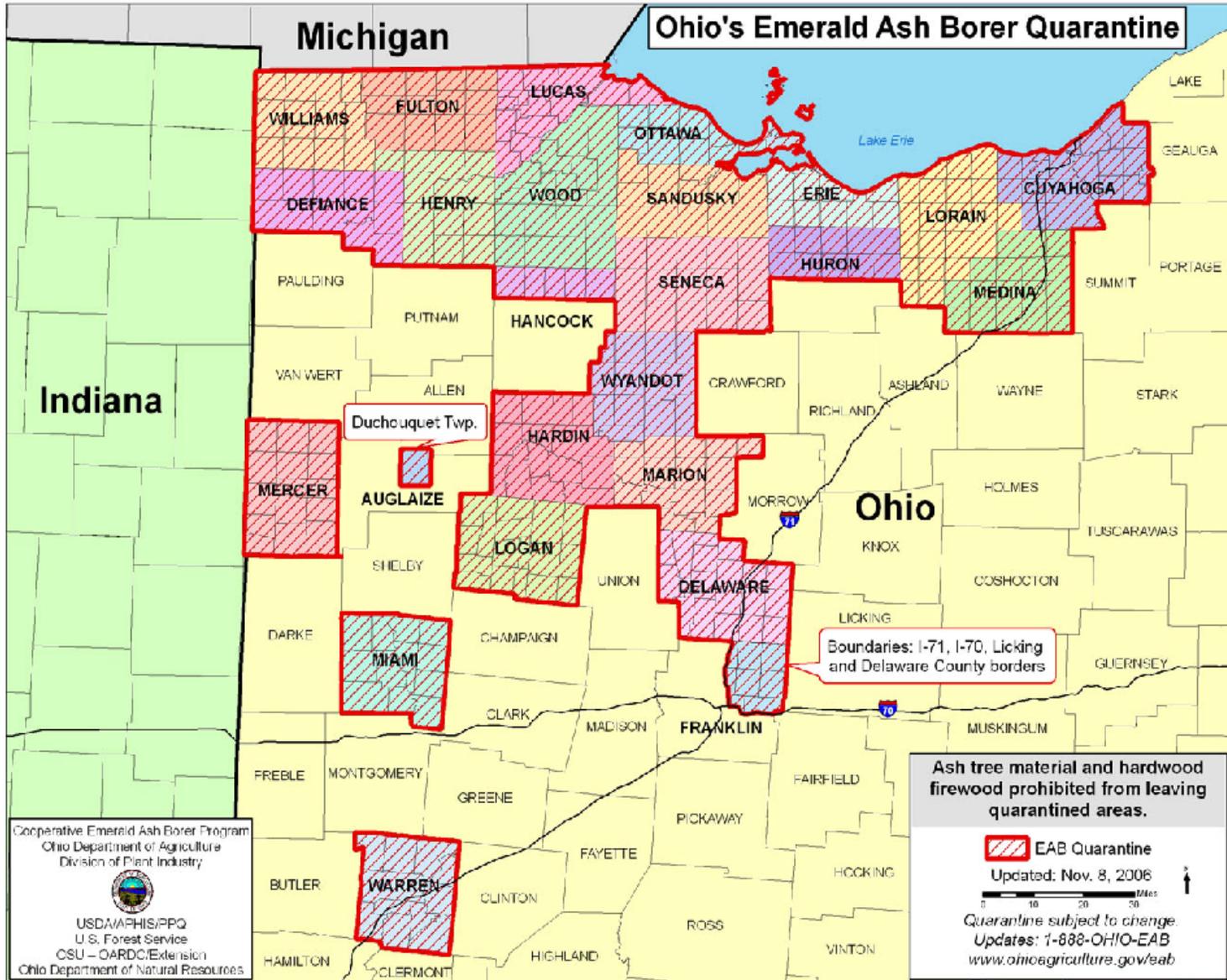
Known EAB Infestations in Ohio



Map is current
as of August 2004

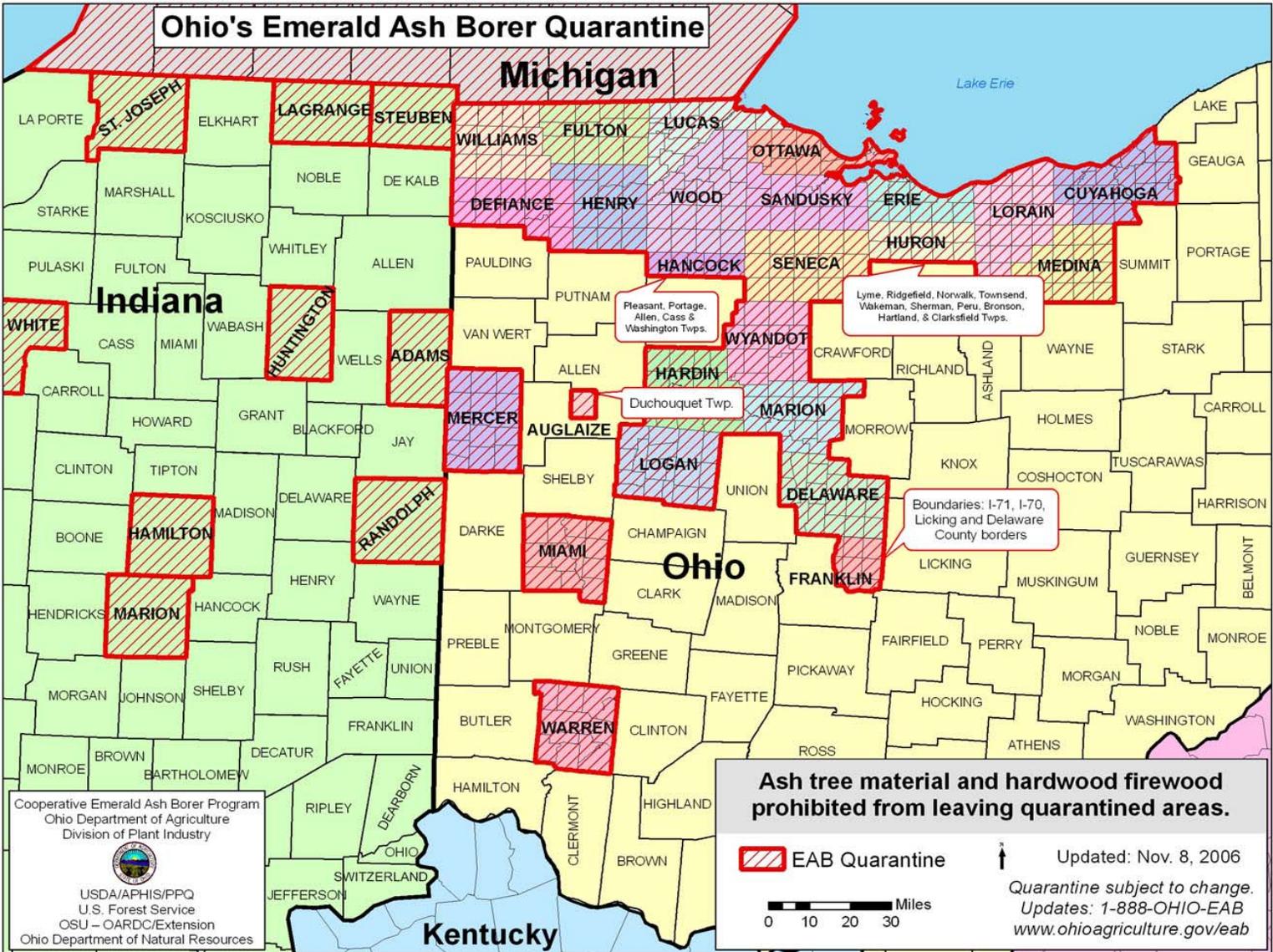
- Infestation has been eradicated
- Infestation is still being dealt with

Ohio's Emerald Ash Borer Quarantine



Ohio's Emerald Ash Borer Quarantine

Michigan



Economic and Ecological Impacts in Ohio

Natural Forests

3.8 billion white ash trees.

Forest Products Industry

2.1 billion board feet of standing ash timber, worth \$1 billion.

Nursery Industry

27,000 ash trees sold in 1998 worth \$2.3 million, wholesale value.

\$20 million standing nursery crop value, as of May 2002.

Urban Forests

Ash is one of the most common tree species in urban forests.

Emerald Ash Borer Invasion



Response to EAB: Lead Agencies

- **USDA-APHIS**
- **State Departments of Agriculture**
- **USDA Forest Service**
- **State Departments of Natural Resources**
- **Universities and Extension Organizations**
- **USDA-ARS**



EAB Management Plan

- City Ordinance
- Street Inventory
- Set Up Meetings with Lead Agencies
- Develop EAB Plan
- Time & Funding



EAB Management Plan

- Presentation to City Administration and City Council
- Public Seminars
- EAB Management Plan on City Website
- Solicited funding for replacement trees



Emerald Ash Borer Plan

- Remove all ash trees over an eight year period based on City resources.
- Prioritize the ash tree removals based on poor form, dead or diseased, planting problems, damage from installation of infrastructure, and utility line clearance.
- Include ODA Regulatory Stipulations in tree pruning and removal specifications for ash trees.
- Train City personnel in on EAB identification, life cycle, identify signs EAB infestation, and inspection process during tree removals.

EAB Management Plan

- Letters Announcing the Ash Reduction Plan
- Met with concerned residents.
- Consultation on private Ash Trees.
- Ash Removal began in January 2005.



EAB Management Plan

- Removed 114 ash trees in 2005
- Dead or Disease, Poor Form, Infrastructure Damage.
- Replace 144 trees with grant from ODNR Division of Forestry
- Removed 51 ash trees in 2006 including 19 ash in Downtown BG.



Ash Tree Removal & Replacement



Replacement Program

- 10-20-30 - Rule of Tree Diversity
- Native Species
- 25% of the Arborist Division Budget for Ash Reduction and Replacement.



Public Education



Private Landowners

- City of Bowling Green offers 30 tree replacements our Adopt-A-Tree Program
- List of Tree Service Suppliers with Certified Arborist
- Wood Utilization Suppliers with Compliance Agreements from State Dept. of Ag.



Future Challenges

- Removal of all public ash trees in the City of Bowling Green.
- Maintaining stable funding levels.
- New Invasive Pests
- Support of City Administration & Residents



New Ash Tree Pest Identified on 10-7-04



Imported from Egypt



Felinus declinus

Cat Scratch Fever



Future Opportunities

- Diversify the Urban Forest
- Educate the Public and School Children on Urban Forestry
- Long-term Planning for Capital Infrastructure Projects.
- Coordinate across all Internal City Departments – Common Ground



Tree Quiz

- Utility Tree
- Dead Tree
- Banded Tree
- Tagged Tree



Tree Quiz

- **Utility Pole**
- Dead Tree
- Banded Tree
- Tagged Tree



Questions?

- David S. Bienemann
- City of Bowling Green
- 304 N. Church Street
- Bowling Green, Ohio 43402
- Office: 419-353-5101
- Fax: 419-352-7746
- Email: arborist@bgohio.org
- Website: www.bgohio.org
- Departments/Division Select Arborist