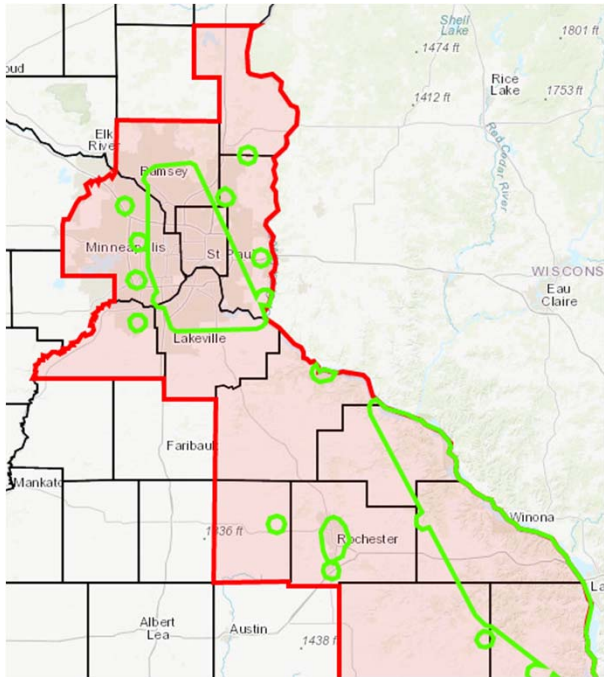


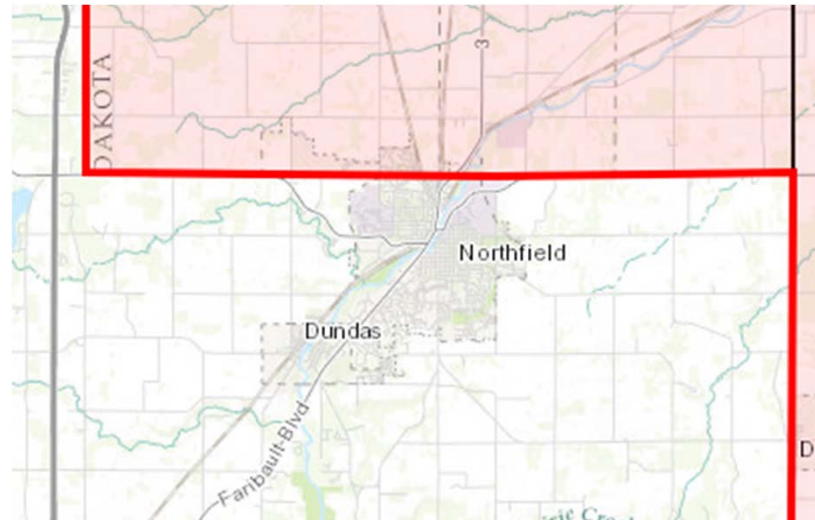
Emerald Ash Borer Management Plan



EAB Background

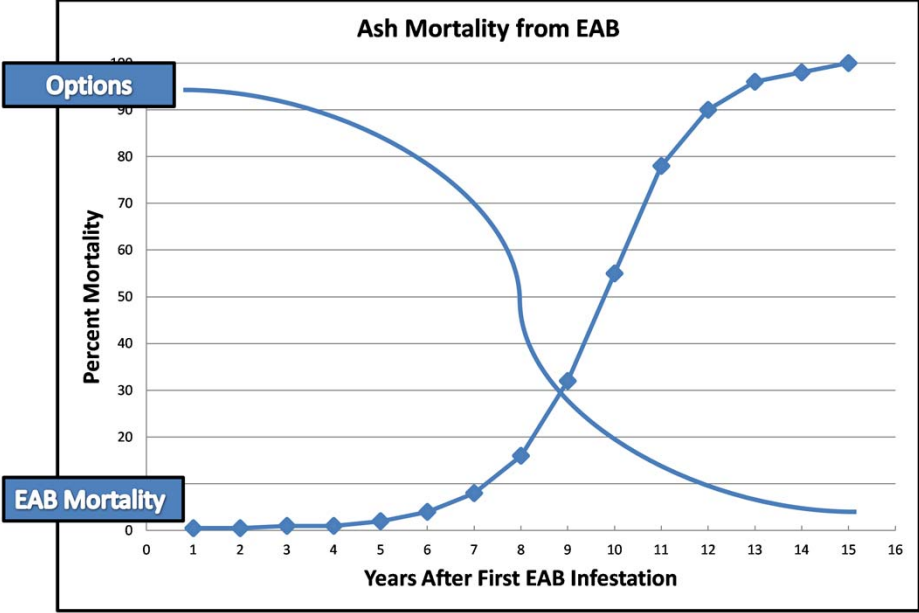


- Originally found in St. Paul 2009
- Found in Prior Lake 2015 (Scott)
- Found in Apple Valley 2016 (Dakota)



EAB Background

An Inverse Relationship





TOLEDO STREET BEFORE AND AFTER EMERALD ASH BORER

BEFORE: JUNE 2006

PHOTO COURTESY OF DAN HERMS, OSU

AFTER: AUGUST 2009



Important Factors to Consider

- ▶ - Environmental Impact/Sustainable Urban Forest
- ▶ - Value of Removed Trees
- ▶ - Cost (long-term and short-term)



Methods for Managing EAB Infestation

- ▶ Preemptive Removal and Replacement
- ▶ Reactive Removal and Replacement
- ▶ Treatment



Five Options to Control EAB

1) Remove all Ash trees and don't replace:	\$833,163
2) Remove all Ash trees and replace:	\$1,501,663
3) Remove 50%, Replace 50%, Treat 50%:	\$1,226,258
4) Treat 16" and above, Remove and Replace Remaining:	\$1,608,406
5) Treat all Trees:	\$1,223,295



50-50-50 Approach

- ▶ Remove and Replace 50%
- ▶ Treat the Remaining 50%
- ▶ Reevaluate in 10 Years

Condition of Tree	DBH Range	Total Number of Trees	Number of Trees Removed and Replaced	Number of Trees Treated
<13" DBH	<13"	842	842	0
Very Poor	8-23"	2	2	0
Poor	18-42"	5	5	0
Fair	13-36"	25	25	0
Good	<19"	89	89	0
	>19"	177	0	177
Very Good	13-38"	652	0	652
Excellent	13-35"	117	0	117
Total		1909	963	946

Budget

YEAR	REMOVAL COST	REPLACEMENT COST	TREATMENT COST	YEARLY COST
1	\$33,195	\$33,740	\$58,098	\$125,033
2	\$33,195	\$33,740	\$58,055	\$124,990
3	\$33,195	\$33,740	\$60,245	\$127,180
4	\$33,195	\$33,740	\$60,161	\$127,096
5	\$33,195	\$33,740	\$62,391	\$129,326
6	\$33,195	\$33,740	\$62,267	\$129,202
7	\$33,195	\$33,740	\$64,538	\$131,473
8	\$33,195	\$33,740	\$64,373	\$131,308
9		\$33,740	\$66,684	\$100,424
10		\$33,740	\$66,479	\$100,219

Annual Cost Comparison

Years 1-10	Base Case	50-50-50 Plan
Costs		
Removal Costs	\$833,163	\$265,563
New Tree Costs	\$668,500	\$337,400
Treatment Costs		\$623,295
Total Costs	\$1,501,663	\$1,226,258
Cost Savings		\$275,405
Cummulative Tree Value	\$1,715,546	\$3,379,952

Recommendation 50-50-50 Approach

- ▶ Remove and Replace 50%
- ▶ Treat the Remaining 50%
- ▶ Reevaluate in 10 Years
- ▶ Remove 50%, Replace 50%, Treat 50%: \$1,226,258 over 10 Years
- ▶ Annually \$125,000 - \$135,000 for 10 - years

Questions

