

Regional Summary of Potential Impacts of Emerald Ash Borer



Dallas-Fort Worth Metroplex

Over seven million people live in the Dallas-Fort Worth-Arlington Metropolitan Statistical Area (DFW Metroplex). This 9,286 square mile area comprises thirteen counties and over two-hundred cities and towns, seventy of which are above 10,000 in population and fourteen above 100,000.

- Ash trees make up 5.5% of the Metroplex urban forest (derived from rapid assessments and city inventories)—an estimated **8.8 million trees** that provide \$158 million annually in ecosystem services. Estimated removal costs for community ash trees in the region could exceed \$2.2 billion (\$250/tree) if communities and residents only practice reactive management.
- Debris processing costs of all community ash trees alone could total \$52 million.
- The cost to replace all existing community ash trees is estimated at \$2.6 billion (\$300/tree).
- Treatment in lieu of removal and replacement is a viable option. If all community ash trees are treated, the cost to treat ash trees will be an estimated \$440 million annually. Treatment costs per tree average \$100 every 2 years and must be continued in perpetuity. This would exceed \$8.8 billion in 20 years.

Likely Management Scenario

- It is probable that up to 25% of dead or dying ash trees will be either located in natural riparian areas or small enough diameter to not warrant removal.
- If 25% of trees are ignored due to size or location and 25% of trees are proactively treated once EAB is nearby (at a cost of \$110 million annually), total removal costs would be closer to \$1.1 billion.
- Not all trees removed will be replaced. Assuming a modest 50% replacement rate of non-treated trees, replanting costs would be approximately \$661 million.
- This likely scenario results in a **\$5.7 billion** cost to the region.

Table 2: Potential statewide costs of Emerald Ash Borer infestation in Texas communities (in millions of dollars)

Applied Management	Maximum	Likely Scenario	
	20-Year Cost If applied to all ash	Percent of total ash trees	20-Year Cost If applied to percent
Treatment	\$8,818	25%	\$2,204
Removals	\$2,204	50%	\$1,102
Debris Processing	\$52	50%	\$26
Replacement	\$2,645	25%	\$661
Lost Ecosystem Services	\$3,174	75% trees lost, 25% replaced	\$1,785
Total*	\$8,818 or \$6,490	Total	\$5,780

*Treatment only, or remove & replace with ecosystem services beginning again 10 years after replacement

The percentage of ash in communities varies widely; some cities have as much as twenty percent of the community trees as ash species. Typically, thirty percent of community land area is owned by the municipality although the range can be as low as ten percent in some smaller communities to as high as sixty percent in others. Of the \$5.7 billion likely cost to the Metroplex, at least \$1.7 billion of that will be borne by municipalities.

EAB damage to trees tends to be slow initially with escalating mortality several years after initial infestation. This means that damage and mitigation needs may occur seemingly all at once. Proactive planning by communities, including identifying debris staging areas and outreach to residents, will help keep costs from escalating beyond what is likely.

Data Sources

Forest Ecosystem Values application, www.texasforestinfo.com
Urban Forest Inventory & Analysis, www.mycitystrees.com