

# Minnesota DNR Community Tree Survey



Typical Minnesota street covered in a canopy of ash trees. Photo: Steve Nicholson.

**Detailed information for Minnesota  
communities to make informed decisions  
about their community forests.**



# Why does a tree survey matter?

- Documents your community's green capital assets
- Allows your community to better compete for grants and government funds
- Promotes sustainable community practices
- Aids in achieving accurate FEMA reimbursement after a natural disaster
- Depicts susceptibility to catastrophic events (natural, human, or invasive pest).

## Emerald Ash Borer (EAB) a Reality:

Minnesota has more than 998 million ash trees in forests, communities, and agricultural areas throughout the state, and emerald ash borer management will cost cities millions of dollars in ash removal and replanting costs. These costs will also affect homeowners and landowners. However, individuals and cities can begin planning and taking steps now to reduce the impacts and costs of EAB.

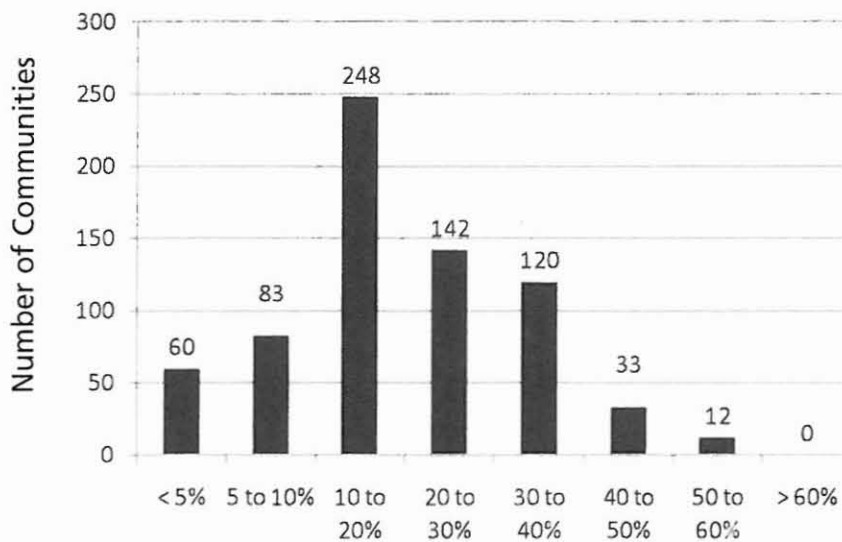
## Conducting the Survey:

In 2010 crews conducted field surveys of trees in 700 Minnesota communities to determine tree genera, range in sizes, and the general health of trees in residential neighborhoods and business corridors. The crews were on foot, walking pre-selected streets in each community, counting both public and private trees if they were within 60 feet of the roadway. The results of these surveys show how vulnerable many communities are to EAB

due to the lack of tree species diversity. Nearly every community in Minnesota had an overabundance of maple and ash.

Ash population varies by community, ranging from 0.2 percent to 59.6 percent. On average, 20.3 percent of all trees within a particular community in Minnesota are ash. Of the 700 communities surveyed, 165 (23.6 percent) are highly susceptible to EAB infestation. The resulting ash mortality could decrease the community tree population by a third. Similar to Dutch elm disease, EAB poses a serious threat to urban forest health.

## Percent of Ash Trees Within a Particular Community



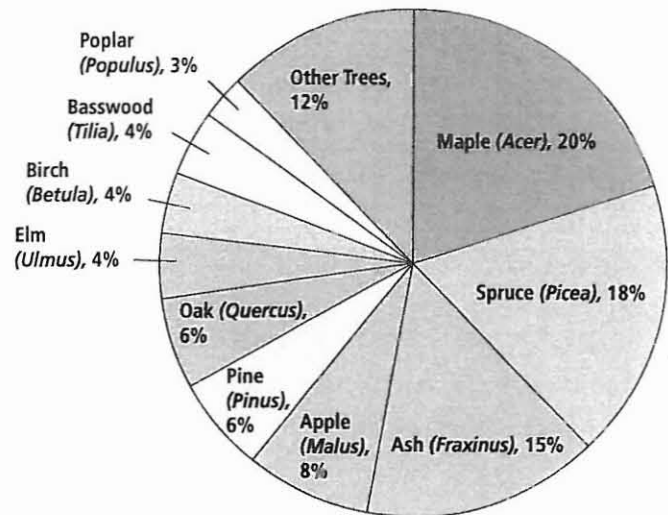
## The need for diversity:

Communities increase their tree maintenance costs by planting only a few types of trees.

Communities close to or within EAB-infested areas should start to consider proactively removing poorly formed, stressed, and poorly placed ash trees, such as those growing under utility lines. This will spread out the costs of removing ash trees and replanting new trees over a few decades instead of a few years.

A diverse community forest is far less susceptible to devastation by a pest or disease that affects a single type of tree. Selecting a wide variety of trees native to specific areas of Minnesota and providing proper care helps ensure that replacement trees will be strong and healthy—while reducing vulnerability to forest pest invaders in the future.

## Top Tree Genera in Minnesota Communities



### A diverse community forest has:

- 10 percent or less of a single species (red maple, sugar maple)
- 20 percent or less of a single genus (maple, oak, ash)
- 30 percent or less of a single family (maple and box elder are in the same family).

## Trees = Money

When properly cared for, trees provide benefits worth three times the investment in planting and care.

1 Healthy Tree  
(20 years after planting)



= \$31/yr



### According to U.S. Forest Service estimates, Minneapolis' 200,000 street trees

- Save \$6.8 million annually in energy costs
- Save \$9.1 million in storm water treatment
- Add \$7.1 million to aesthetic and property values.

Trees are community assets, beautifying our landscape and providing food and shelter for wildlife. Trees provide shade, act as wind breaks, and reduce storm water runoff. In addition, mature trees remove and store carbon dioxide and other pollutants, improving air quality and mitigating global climate change.

## How to use this information...

- Share data with the community tree board, forester or tree maintenance crews
- Begin preparing for the arrival of EAB
- Minimize planting of overused trees in your community and increase planting of underused trees
- Consider conducting a more complete survey or inventory of your public trees.

**Your trees provide many benefits to your community, but require long-term commitment to maintenance to achieve their maximum potential.**

### Resources:

**Minnesota Department of Natural Resources Division of Forestry**  
[mndnr.gov/forestry/urban](http://mndnr.gov/forestry/urban)

**University of Minnesota, Forest Resources Extension**  
[www.myminnesotawoods.umn.edu](http://www.myminnesotawoods.umn.edu)

**Minnesota Shade Tree Advisory Committee (MnSTAC)**  
[www.mnstac.org](http://www.mnstac.org)

**USDA Forest Service: Northeastern Area, State and Private Forestry**  
[na.fs.fed.us/fhp/eab](http://na.fs.fed.us/fhp/eab)



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Department of Natural Resources  
500 Lafayette Road  
St. Paul, MN 55155-4040  
651-296-6157 (Metro Area)  
1-888-MINNDNR (646-6367) (MN Toll Free)

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