

# The Restorative Power of Trees

All of Minnetonka's trees, on both public and private land, form a community forest that enhances the city's beauty and character. They also increase our collective resilience - the capacity to prepare for, recover from and thrive in the face of challenges, such as Minnesota's changing climate.

We are already seeing evidence of climate change in trends that include:

- More frequent and intense storms that increase flooding, erosion and water pollution
- Warming winters with less snow and ice cover
- Longer summers with more hot days
- Periods of drought and heat that impact natural habitats, agriculture and water resources

But here's the good news: **Trees are part of the solution. So are people.** The choices we make today can reduce the rate of climate change and the severity of its impacts.

**"Forests are the lungs of our land, purifying the air and giving fresh strength to our people."**

*-Franklin Delano Roosevelt, 1935*





# Nature's Multitaskers

Trees increase property values, provide food and materials, and offer health benefits to stressed-out humans. Really! Just spending time around trees reduces anxiety and blood pressure and boosts immunity. Yep, it's been proven.

The other benefits of our forests are less obvious, but essential to the resilience of natural systems and human communities:

A tree's leafy crown blocks wind and provides shade, reducing energy costs.

Trees use carbon dioxide, reducing the amount of this heat-trapping gas in the atmosphere.

Leaves release oxygen, improving air quality.

Mature trees capture and retain a significant amount of rain and snow on their leaves and bark.

Roots create tiny air spaces in the soil, allowing more water to soak into the ground, thereby reducing runoff pollution and flooding.

Erosion is slower where roots hold the soil in place.

Fallen tree leaves are decomposed by insects, bacteria and fungi, returning vital nutrients to the soil.

## Homebodies

- Hundreds of butterfly and moth species lay their eggs on trees. The growing caterpillars feed on leaves and are themselves a vital food source for birds.
- Honeybees collect the sap from cottonwood trees and use it to line their hives. The sap has antimicrobial properties that kill harmful bacteria and fungi. Bees are amazing and smart like that.
- Oak, boxelder, maple and basswood trees often form cavities after losing a branch. These spaces provide shelter for wildlife, from chickadees and owls to flying squirrels and bats.







## Saving Our Forest From Emerald Ash Borer

Majestic ash trees are a familiar sight along Minnetonka’s urban boulevards. Street trees reduce noise and increase privacy. They also offset the impacts of climate change by providing cooling shade and absorbing harmful carbon dioxide produced by vehicles and industries.

Emerald ash borer (EAB) threatens to change the landscape completely. EAB is a nonnative beetle that kills ash species. Dead ash trees are extremely brittle and pose a risk to property and roads.

Here are six steps you can take to reduce the effects of EAB:

**INVENTORY** trees on your property.

Hire a certified arborist to **INJECT** healthy, large ash trees. (Soil drench is not advised.)

Gradually **REMOVE** unhealthy or small ash trees. (Contact city staff at 952-988-8422 before removing trees near wetlands, lakes or creeks).

**REPLANT** diverse tree species.

**PREVENT** the spread of EAB by pruning or removing ash trees **only in winter** - when EAB beetles are dormant - properly disposing of ash debris, and **not moving** ash wood outside the metro region.

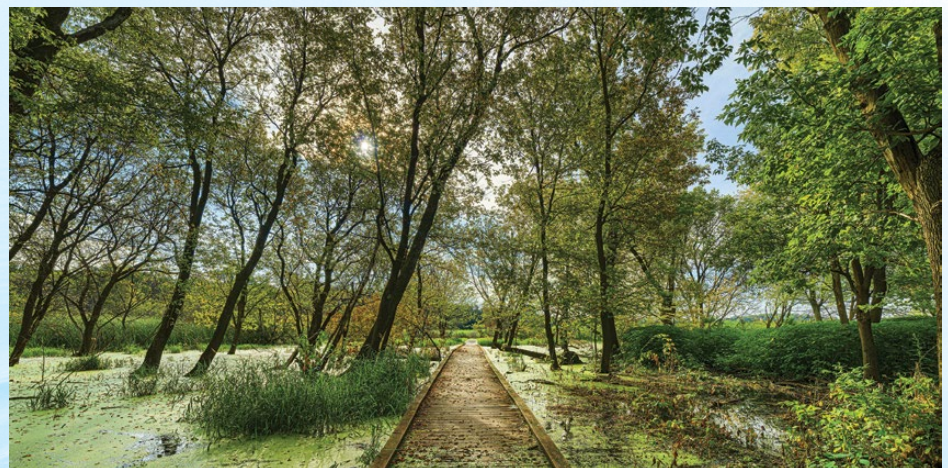
Contact city staff at 952-988-8441 to **REPORT** ash trees showing signs of EAB.

Visit [minnetonkamn.gov/eab](http://minnetonkamn.gov/eab) for more information.

## Leaning On Trees to Protect Our Water

A dense urban tree canopy ensures that more water goes into the soil. This reduces the need to irrigate and recharges the deep groundwater supplies we depend on for drinking water. An added bonus: when less stormwater and snowmelt flows over the landscape, fewer harmful pollutants are deposited in surface waters.

To preserve these benefits on your property, plant and preserve diverse species like these along lakeshores, streambanks and wetlands.



### Good for areas with frequent or sustained flooding

- Silver maple
- Eastern cottonwood
- Black willow
- Green ash (if injected to prevent EAB)

### Suitable where flooding is less frequent but soils are often wet

- Hackberry
- Bur oak
- Swamp white oak
- American elm (DED-resistant varieties)
- River birch
- Boxelder





# Working Together Toward Community Resilience

The trees can't do it alone!  
Fortunately, there are many ways we can partner up with them to increase climate change resilience in Minnetonka.

## Preserve and create habitat

- Volunteer with the city's habitat restoration program. Email Restoration Specialist Janet Van Sloun at [jvansloun@minnetonkamn.gov](mailto:jvansloun@minnetonkamn.gov).
- Help assess the health of Minnetonka's wetlands and identify nearby tree species. Email Christine Petersen at [cpetersen@minnetonkamn.gov](mailto:cpetersen@minnetonkamn.gov).
- Contact Natural Resources Specialist Aaron Schwartz at [aschwartz@minnetonkamn.gov](mailto:aschwartz@minnetonkamn.gov) before removing trees near wetlands, lakes or creeks.

## Reduce waste

- Drop off organic waste at the city's Public Works recycling facility, or arrange organics collection through Randy's Environmental Services (763-972-3335) or Ark Disposal (763-989-5226).

## Adopt a Drain

By becoming an Adopt-a-Drain volunteer, you'll keep neighborhood storm drains clear of debris. And our streams, lakes and wetlands will thank you. Visit [adopt-a-drain.org](http://adopt-a-drain.org).

## Learn more

- Sign up for the monthly natural resources e-newsletter at [minnetonkamn.gov/natural-resources](http://minnetonkamn.gov/natural-resources).
- Register for natural resources events and workshops at [minnetonkamn.gov/NRsignup](http://minnetonkamn.gov/NRsignup).
- April 22 marks the 50th Earth Day! Visit [earthday.org](http://earthday.org) and get inspired.

