



# LIVING LANDSCAPES

**Next time you're outside, take a few minutes to stroll around your property.**

Imagine all the ways you use your yard throughout the year. Perhaps you use it for family time, dining, gardening or maybe just a place to relax in the shade.

Beyond all these cultural uses, your property can become a haven for wildlife and pollinators - a living landscape that makes our environment healthier and more resilient. The benefits are amazing!

- Native wildflowers and plants provide a variety of colors, scents, shapes and textures throughout the year.
- Lush plant cover can reduce noise, absorb air pollutants, help stormwater soak into the soil and buffer some of summer's heat.
- Spend less time and money spent on mowing, water fertilizers and pesticides, with fewer environmental impacts.
- Healthier soil and less erosion.
- Greater resilience to climate impacts, such as extreme heat, drought or flooding.
- Habitat that attracts and supports a wonderful variety of native pollinators and wildlife.

# IT BEGINS WITH DIVERSITY

*Diversity* refers to the variety of living things in a landscape. Plant diversity is driven by conditions in the physical environment - especially light, temperature, air, water and soil. Groups of plants that enjoy similar conditions form *plant communities*. Those communities provide habitat for a bounty of other living things from soil microbes, fungi and beneficial insects to songbirds and other wildlife.



Plant communities are especially influenced by *slope*, the steepness of land, and *aspect*, the compass direction a slope faces. For example, a steep slope sheds more water than it absorbs, creating drier local soil conditions. Similarly, because south and west aspects get more sunlight, they also tend to be drier.

To help your plants thrive, choose species suitable for the conditions in each part of your yard.

## WHY DO WE NEED TO RESTORE HABITAT?

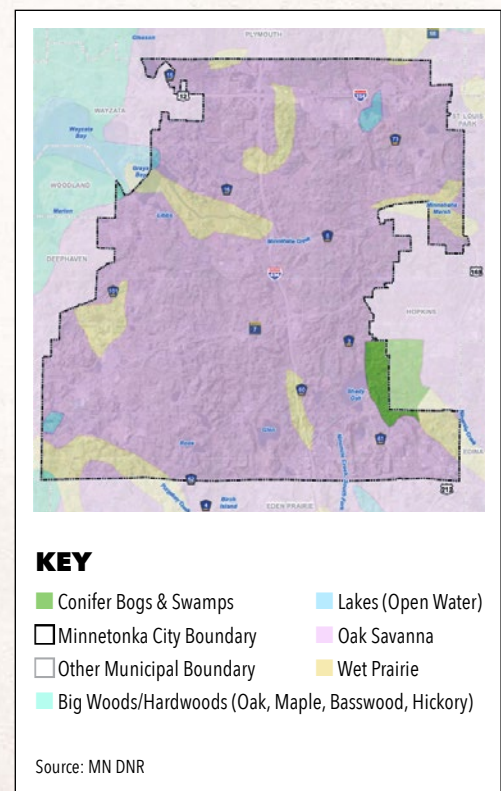
*Restoration* is the process of reclaiming habitat and bringing back its natural functions to support diverse plant communities and the animals that depend on them. As natural habitats are restored, native plants, pollinators and wildlife begin to return and thrive.



Before European settlement, the area we call Minnetonka looked very different than it does today. Maple and basswood forests grew along its western edge, but oak savanna - prairie with scattered trees and shrubs - was the most common plant community here. Oak savanna produces deep soils that hold water and are rich with nutrients.

Over the past few centuries, natural landscapes have been plowed, logged or filled to support human uses. Of the original plant

communities, only tiny fragments remain. In turn, native plants and animals species have declined or disappeared. At the same time, non-native invasive species like buckthorn (shown on left) have been introduced, which has continued to degrade landscapes.



## RESTORATION PROFILE

# CULLEN NATURE PRESERVE

One of Minnetonka's newest open spaces is Cullen Nature Preserve. This 30-acre parcel encompasses rolling upland terrain, multiple hills, wetlands and wooded areas. Instead of accepting bids from developers, long-time owner Ann Cullen Smith offered to sell the property to the city after her death - but only if it would be held under permanent conservation easement to ensure the land remained forever in its natural state.

On the Cullen property and throughout our region, more than 80 years of fire suppression allowed trees to grow in place of savanna. In these woodlands, the understory is choked with buckthorn and other invasive plants, while extensive deer browsing has caused the decline of most wildflowers.

Since obtaining the land in 2015, city staff and Friends of Cullen Nature Preserve have obtained grants\* and donations to fund restoration. Work began on the site in February 2022 and will continue in stages through 2023. The preserve is closed to the public until restoration is complete.

Among other benefits, restoration will remove competing plants around large, old trees on Cullen Nature Preserve's south and west facing slopes and hills. That will make room for oak savanna - the same habitat that once spread across Minnetonka. While we can't turn back the clock to pre-settlement times, restoration can anticipate which plant communities will be most functional and resilient to climate change.

For updates on restoration at Cullen Nature Preserve, visit [minnetonkamn.gov/Cullen](http://minnetonkamn.gov/Cullen).



Overgrown habitat



Restored Oak Savanna

Courtesy of City of Burnsville

Minnetonka's Restoration Specialist Janet Van Sloun with one of Cullen Nature Preserve's majestic heritage trees.

\*Grant funding partners:



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# WORKING TOGETHER TO CREATE LIVING LANDSCAPES

The City of Minnetonka has about 300 acres of public land in restoration. This kind of large-scale habitat restoration is a long-term process that often involves many partners and experts. But some restoration strategies are similar to those you might employ at home.

- Mark native species you want to protect. Clear invasive plants to reduce competition for light, space, water and nutrients.
- Cut buckthorn and other invasive shrubs, starting with seed-producing female plants. Carefully treat stumps with herbicide to prevent regrowth. This work is best done between November and March.
- In May and June, focus on pulling garlic mustard before it goes to seed. Bag the plants and put them in the trash.
- Take a look at your lawn. Are there unused areas or patches that never grow well? Make a plan to replace those sections of turf with diverse native wildflowers and grasses along with trees and shrubs that are native or climate resilient.



You don't have to do it all at once! Set several goals - depending on your available budget, time and energy - and stage them over the next few years.

## MORE TIPS FOR SUCCESS

### Keep learning

Attend one of the City of Minnetonka's buckthorn and garlic mustard workshops, or watch restoration training videos on the city's YouTube channel.

You can learn on the job by volunteering with Natural Resources staff in Minnetonka's parks and open spaces. Find event listings at [minnetonkamn.gov/NREvents](http://minnetonkamn.gov/NREvents).

### Add native plants

Watch upcoming newsletters for information about the city's native plant sale.

### Plant and protect trees

Contact Natural Resources staff at 952-988-8408 before beginning a construction or remodel project, and before removing trees near wetlands, lakes or creeks. If you plan to add trees on your property, check out the city's online tree sale. It takes place every February.

### Share the effort

Are your neighbors also thinking about restoration? Discuss common goals and work together along shared property lines. You'll wind up with larger patches and corridors of habitat that benefit the whole community!



### Stay connected

Subscribe to the monthly Natural Resources e-newsletter for articles and updates on upcoming events, workshops, technical assistance, funding and other resources ([minnetonkamn.gov/natural-resources](http://minnetonkamn.gov/natural-resources)).