



# Hennepin County Landowner Guide

for  
Conserving  
Natural  
Resources

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This guide is intended to help landowners care for their land and the natural resources on their property. The guide recommends practices that can be implemented to protect and enhance natural systems. Each section also suggests resources and publications that offer additional, more specific information for each subject area.

This guide provides information regarding natural areas such as prairies, wetlands, water resources and woodlands. Information about the control of noxious weeds and invasive plants, management of pastures and livestock, maintenance of private wells and septic systems, care of wildlife habitat, and management of household wastes is also included. By promoting environmental stewardship, we hope to preserve and enhance the environment in Hennepin County for current and future generations.

This resource was produced by Hennepin County Environmental Services in partnership with the University of Minnesota Extension Service of Hennepin County.



**Hennepin County**  
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# Getting Started – Assess Your Land

## Assess your current conditions

The first step in deciding how you are going to manage your property is to assess the current condition of your land. The following are some things you should consider when assessing your land.

## Soil

Determine the kind of soil you have on your property. A soil survey and additional information on soils is available through the Natural Resources Conservation Service (NRCS) at [soils.usda.gov](https://soils.usda.gov).

Look for any areas of exposed soil where erosion might be an issue. Exposed soil can be eroded by wind or water. Wind erosion can remove the top layer of soil and decrease land productivity, and sediment carried by water erosion can negatively impact water quality.

## Drainage

Assess how water drains on your land. Look for areas that are especially wet or dry. Are there areas that are prone to the formation of mud? Does water drain over areas of manure or bare soil? Identifying especially wet or dry areas can help you determine which plant species are best suited for specific areas and help you decide on the best strategies for protecting water quality.

## Natural areas

Are there any natural areas, such as forests and woodlands, prairies and wetlands, or open areas on your property? Natural areas can provide habitat for wildlife, recreational opportunities for landowners and help protect water quality. Hennepin County has prepared a Natural Resources Inventory (*See For more information, pg. 5*) and a Wetland Inventory (*See Identify wetlands on your property pg. 28*) to help you identify natural areas on your property.



Consider the condition of natural areas on your property:

**Forests and woodlands** – What is the dominant tree species? Are the trees young or old? Are there invasive plants or noxious weeds? (*See Plants that Need to be Controlled, pg. 18*)

**Open areas** – What is the dominant vegetation – grassland, pasture, crops, brush or shrubs? Are there any invasive plants or noxious weeds?

**Wetlands** – What type of wetlands do you have – do the wetlands contain water year-round or are they seasonally flooded? (*See Preserving Wetlands, pg. 27*)

## Water resources

Are there any lakes, streams or ponds on your property? What is the quality of your water resources? Are there any invasive aquatic species? What is the condition of your shorelines? Maintaining healthy shorelines, preventing the spread of invasive aquatic species, reducing runoff and using the proper amounts of pesticides, herbicides and fertilizers can help protect water quality. (*See Protecting Water Resources, pg.22*)

## Buildings

Where are the buildings located on your property? Are there any buildings you would like to remove? Are you going to construct any additional buildings?

## Decide how you would like to use your land

After you have assessed the current condition of your land, decide how you would like to use your land.

### Recreation

Are you going to use your property for recreation such as boating, fishing, hiking, hunting or bird watching? Preserving natural areas and protecting water quality can enhance the recreational opportunities on your property.

### Pastures

Are you going to keep any animals, such as horses, cows, sheep or goats, on your property? Proper pasture layout and management is important for protecting the health of your animals and your land. The University of Minnesota Extension offers assistance to landowners in pasture layout and management. (See *Managing pastures and livestock*, pg. 34)

### Wildlife

Do you want to attract wildlife to your property? There are a variety of steps you can take to attract wildlife to your property, including preserving natural areas, providing nesting habitats and making food and water available. (See *Providing Habitat for Wildlife*, pg. 30)

### Shelter

Would you like more protection from harsh winds? Establishing a windbreak can shelter your property from harsh winds and reduce energy use. (See *Save energy by installing a windbreak*, pg. 16)

### Privacy

Would you like more privacy? Establishing plants or trees and preserving natural areas can increase privacy.



### Landscaping

Are there areas on your property where you want to add landscaping features? The *Quick Reference Guide to Earth-Friendly Home Landscaping*, available at [www.hennepin.us/sustainablelandscaping](http://www.hennepin.us/sustainablelandscaping), has information on a wide variety of landscaping projects, such as planting rain gardens, maintaining shade trees and using native plants.

## Develop a plan

Decide what management activities and projects you would like to accomplish on your land. Consider your time and budget limitations. Set a schedule with short-term (the next year or two) and long-term goals.

*Working from the ground up—*

## Improving soil

Soil is an ever-changing and complex matrix of sand, silt and clay particles along with water, organic materials and living organisms. Soil acts as the foundation for your land. The type and condition of your soils will determine the type and amount of vegetation and animals that your land can sustain.

## Have your soils tested

Knowing the condition of soil on your property is important for determining how to maintain the health of your soils. The University of Minnesota Soils Testing Laboratory can provide valuable information on the current condition of your soil, such as nutrient levels, soil structure and pH, and make recommendations for improvement.

The type and condition of your soils will determine the type and amount of vegetation and animals that your land can sustain.

## Prevent erosion

The top layer of soil often has more organic material than deeper soil. The top layer of soil is also the first to erode. If the topsoil erodes, the land will become less productive. You can prevent erosion by establishing vegetation on bare soil, maintaining a buffer of vegetation on your shorelines and properly managing pastures.

## Add organic matter

Organic matter is an important component of soil health. It increases the soil's capacity to absorb and release nutrients. It improves moisture-holding capacity of sandy soils and the drainage capability of heavy clay soils. It also improves the structure of soil by providing a good environment for root growth and by encouraging the growth of microorganisms that are beneficial to plant health. You can increase organic matter by planting perennial plants, adding compost to your soil and appropriately applying manure. The amount of organic matter needed depends on the condition of your soil. (*See Soil, pg. 1*)



# Creating a base map

Creating a map of your property can be useful in deciding how you are going to manage your land. A base map can help you determine what features you currently have on your property and help you plan what you would like to do with your land.

Information on creating a map and finding aerial photos is available from Hennepin County Environmental Services, the University of Minnesota Extension at [www.myminnesotawoods.umn.edu](http://www.myminnesotawoods.umn.edu), search: maps, or the Minnesota DNR at [www.dnr.state.mn.us](http://www.dnr.state.mn.us), search: landview.

## For more information

- Hennepin County  
Environmental Services –  
[www.hennepin.us/environment](http://www.hennepin.us/environment)  
612-348-3777
- Natural Resources Conservation Service  
(NRCS) – soil survey  
[www.soils.usda.gov](http://www.soils.usda.gov)
- Minnesota Department of Natural  
Resources – landview maps  
[www.dnr.state.mn.us/maps/landview.html](http://www.dnr.state.mn.us/maps/landview.html)
- University of Minnesota Extension –  
creating maps  
[www.myminnesotawoods.umn.edu/  
minnesota/minn\\_maps.html](http://www.myminnesotawoods.umn.edu/minnesota/minn_maps.html)
- University of Minnesota  
Soils Testing Lab  
[soiltest.cfans.umn.edu](http://soiltest.cfans.umn.edu)  
612-625-3101



# Resources

## Resources

- Hennepin County Environmental Services  
[www.hennepin.us/naturalresources](http://www.hennepin.us/naturalresources)  
612-348-3777  
Hennepin County provides a variety of information and technical assistance for managing your land.
- University of Minnesota Extension – Hennepin County  
[www.extension.umn.edu/county/hennepin](http://www.extension.umn.edu/county/hennepin)  
612-596-2110  
The University of Minnesota Extension provides outreach for the University of Minnesota and delivers educational programs and technical assistance on a variety of land management topics.
- Minnesota Department of Agriculture  
[www.mda.state.mn.us](http://www.mda.state.mn.us)  
651-201-6000
- Minnesota Department of Natural Resources (DNR)  
[www.dnr.state.mn.us](http://www.dnr.state.mn.us)  
651-296-6157
- USDA – Natural Resources Conservation Service (NRCS)  
[www.mn.nrcs.usda.gov](http://www.mn.nrcs.usda.gov)  
763-241-1150, ext. 3
- Minnesota's bookstore  
[www.minnesotasbookstore.com](http://www.minnesotasbookstore.com)  
Minnesota's bookstore sells a variety of publications from Minnesota state agencies including many of the publications listed in this guide.
- Midwest Plan Services  
[www.mwps.org](http://www.mwps.org)  
Midwest Plan Services, based out of Iowa State University, sells a variety of low-cost agricultural publications.

## Books & publications

- *A Quick Reference Guide for Earth Friendly Home Landscaping*  
Hennepin County Environmental Services.  
[www.hennepin.us/sustainablelandscaping](http://www.hennepin.us/sustainablelandscaping)
- *Beyond the suburbs – A landowner's guide to conservation management*  
Preece, Kathleen. Minnesota Department of Natural Resources, St. Paul, Minnesota. 2001.
- *Guide to Rural Living*  
University of Minnesota Extension, St. Paul, Minnesota. 2001.  
[www.extension.umn.//ruralliving](http://www.extension.umn.//ruralliving)
- *Living on Acreages*  
Carroll, Natalie and Don Jones.  
Midwest Plan Services, Ames, Iowa. 2006.
- *Small Scale/Small Field Conservation*  
NRCS, Washington, D.C.  
[landcare.sc.egov.usda.gov](http://landcare.sc.egov.usda.gov)





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