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.
Plants that Need to be Controlled

You may have plants on your property that need to be controlled for regulatory or ecological reasons. Some plant species are considered noxious weeds, and controlling them is required under state law. Other plant species are considered invasive and need to be controlled for the ecological health of your property.

Noxious weeds

Minnesota statute identifies certain plants as noxious weeds because they are injurious to public health, the environment, public roads, crops, livestock or other property. The Minnesota Noxious Weed Law (MN Statutes Chapter 18 Section 18.75 to 18.88) requires the control of plants considered to be noxious weeds.

The most current list of noxious weeds, as well as photos and information on identifying them, is available from the Minnesota Department of Agriculture at www.mda.state.mn.us, search: noxious weeds. Counties may add plants to the prohibited list depending on local conditions and needs.
Invasive plants

Plants considered invasive are non-native species that cause economic or ecological damage. Without natural predators, invasive plants can spread rapidly in an ecosystem and out-compete native species. Invasive plants in Minnesota disrupt ecosystems and negatively impact recreational activities.

For a list, photos, description and suggested control methods for invasive species in Minnesota, visit the Minnesota Department of Natural Resources at www.dnr.state.mn.us/invasives/index.html.

Report infestations of noxious weeds

Landowners can help in the control of noxious weeds by reporting infestations to the local weed inspector, who can be contacted through your city hall.
Control and manage noxious weeds and invasive plants

Noxious weeds and invasive plants can spread quickly in an ecosystem and are often difficult to eradicate. Once they are established, it can take several years to get them under control.

Controlling noxious weeds and invasive species is easiest and most effective when plant infestations are small. By regularly monitoring your land, you can identify and control new infestations before they spread.

Identifying noxious weeds or invasive plants and understanding the plant life cycle will determine the best control method. Cultural, mechanical, biological or chemical methods can be used to control undesirable plants. Developing an integrated management program that combines several methods is the most effective way to control noxious weeds or invasive plants.

**Cultural methods** encourage the growth of desirable species, which in turn suppresses the growth of undesirable ones.
- Monitor areas for noxious weeds and invasive species, and deal with small infestations before they expand.
- Encourage the healthy growth of desirable vegetation, which will minimize the ability of undesirable plants to become established.
- Plant desirable species that are suited to the soils and climate of the area.

**Mechanical methods** include methods such as mowing, disking, tilling or pulling to control invasive plants and noxious weeds.
- Mowing can prevent some noxious weeds and invasive plants from spreading and allow desirable species to compete with the undesirable plants for food, water and light.
- Mow noxious weeds or invasive plants before they reproduce to prevent seeds from spreading.
- Mow annual and bi-annual plants before flowering to prevent seed production.
- Mow perennial plants frequently to reduce energy reserves, which will reduce plant populations over time.
- Depending on the life cycle of the weed, tilling the soil may disrupt the roots of undesirable plants. However, this method can expose the area to seeds of new weed species, so consider the area of control carefully. This method, where feasible, can be followed with reseeding or replanting of desirable vegetation.

**Biological methods** use live organisms, such as insects or livestock, to help control invasive species and noxious weeds. The goal of biological controls is to reduce the numbers of undesirable plants to an acceptable level instead of eradication.
- Insects are currently available for the biological control of Leafy Spurge, Spotted Knapweed and Purple Loosestrife.
- Letting your livestock graze undesirable plants can be an effective way to control the plant populations.
Chemical methods can be used to kill or control undesirable plants.

- Herbicides are chemicals that kill or control plants. When using herbicides, choose products that are specific to the plant species that needs to be controlled.
- To ensure that herbicide application is safe and effective, always read and follow label instructions. Use herbicides at the lowest effective label rates.

For more information

- Hennepin County Environmental Services
  www.hennepin.us/naturalresources
  612-348-3777
  You can contact Hennepin County with questions concerning the identification and control of invasive plants and noxious weeds.

- Minnesota Department of Agriculture –
  Information on noxious weeds
  www.mda.state.mn.us
  651-201-6000

- Minnesota Department of Natural Resources –
  Information on invasive plants
  www.dnr.state.mn.us/invasives/index.html
  651-296-6157

- U.S. EPA – Integrated Pest Management
  www.epa.gov/agriculture/tipm.html

- Invasive Plants of the Upper Midwest
  Czarapata, Elizabeth J.
  University of Wisconsin Press

- Minnesota Invasive Non-Native Terrestrial Plants
  Minnesota Department of Natural Resources

Garlic mustard (Alliaria petiolata) is a prohibited noxious weed that spreads into high-quality woodland areas and floodplain forests where it outcompetes native species and alters the habitat for insects and wildlife.

Wild parsnip (Pastinaca sativa) is an invasive species that spreads into disturbed habitats or along edges of prairies. Contact with the sap of this plant can cause a skin rash or blistering when exposed to sunlight.
Resources

- Hennepin County Environmental Services
  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
  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
  651-201-6000

- Minnesota Department of Natural Resources (DNR)
  www.dnr.state.mn.us
  651-296-6157

- USDA – Natural Resources Conservation Service (NRCS)
  www.mn.nrcs.usda.gov
  763-241-1150, ext. 3

- Minnesota’s bookstore
  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
  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

- Beyond the suburbs – A landowner’s guide to conservation management

- Guide to Rural Living
  www.extension.umn.edu/ruralliving

- Living on Acreages
  Carroll, Natalie and Don Jones.

- Small Scale/Small Field Conservation
  NRCS, Washington, D.C.
  landcare.sc.egov.usda.gov