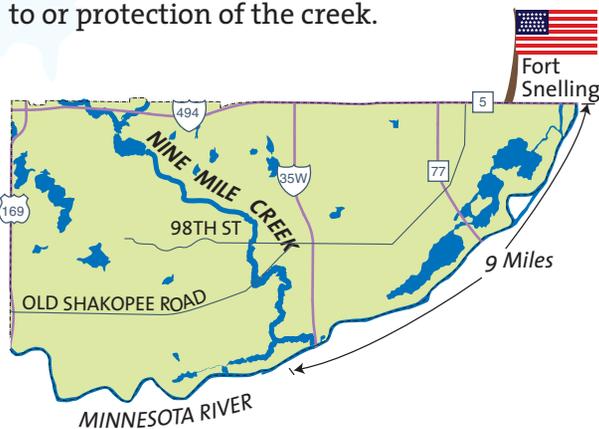


FACTS ABOUT NINE MILE CREEK

Nine Mile Creek was a navigation landmark for early settlers in the area. When settlers traveled west along Old Shakopee Road, the creek crossing was nine miles from Fort Snelling.

Although Bloomington has many water bodies, perhaps the most significant is Nine Mile Creek. It is the only one that travels directly through the heart of the city. Just south of the confluence of the south fork and the mainstem, Nine Mile Creek enters near Normandale Lake. The creek flows southeast through Bloomington where it meets the Minnesota River.

Considering the creek's length, it is not surprising that 293 Bloomington properties are located along it. This also means there are 293 potential locations for either disturbances to or protection of the creek.



CREEK IMPROVEMENT INFORMATION AND ASSISTANCE:

NINE MILE CREEK WATERSHED DISTRICT

PH: 952-835-2078

<http://www.ninemilecreek.org>

HENNEPIN CONSERVATION DISTRICT

PH: 612-348-9938

<http://www.hcd.hennepin.mn.us>

MN DEPARTMENT OF NATURAL RESOURCES

Native plant information

<http://www.dnr.state.mn.us/gardens/nativeplants/index.html>

"RESTORE YOUR SHORE" CD-ROM

This multimedia program guides users through the process of protecting a natural shoreline or restoring a degraded shore with a buffer. The program includes information from landowners that have completed shoreland projects, solutions to particular shoreland problems, worksheets and forms to help with design and a plant database that can help you pick plants suited to your area.

- Purchase the CD for \$29.95 from <http://www.minnesotasbookstore.com> or by calling 651-297-3000.
- Borrow the CD from the Engineering Division, 1700 West 98th Street, phone: 952- 563-4867.

UNIVERSITY OF MINNESOTA – WATER RESOURCES CENTER

The *Minnesota Shoreland Management Resource Guide* is an online resource that provides information about sustainable shoreland practices. <http://www.shorelandmanagement.org>

This publication was produced by
the City of Bloomington Engineering Division.
For more information, call 952-563-4870.



**A GUIDE FOR PROTECTING
STREAMBANKS**

NINE MILE CREEK

STREAM PROCESS DISTURBANCES

A stream with its continuous flow of water is dynamic. The size and shape of its banks are constantly altered naturally, but the greatest long-term effects on stream ecology stem from how we use the land. A stream can be impacted by an adjacent landowner's management practices, which can lead to streambank erosion and reduced water quality.



Streambank erosion occurs when the soil is disturbed and carried away by the water flow. Soil can be disturbed by:

- **Dumping leaves and grass clippings along the shore.**
- **Increased runoff from surrounding land use activities.**
- **Mowing lawns to the water's edge.**
- **Removal of native vegetation.**

Eroding soil, and nutrients such as phosphorus contained within the soil, are significant causes of reduced water quality.

PROTECT YOUR "TOES"

The foundation of a streambank is its 'toe' or base. As water undermines the toe, the bank collapses. Native vegetation and riprap pictured below is one bioengineering technique used to protect the toe of the streambank.

Bioengineering techniques use plant materials to stabilize streambanks and



range from simple to very complex. Installations must be placed properly to be effective and most

techniques require permits from the DNR and Nine Mile Creek Watershed District. To find out more about bioengineering or to take on a restoration project, contact the City's Engineering Division at 952-563-4870 or the Nile Mile Creek Watershed District 952-835-2078.



Photo courtesy of AMSWCD

BUFFER ZONE, BEST MANAGEMENT PRACTICES

A buffer zone is an area of native vegetation between the water's edge and developed land. Native vegetation has deep root systems that help stabilize a streambank. Manicured turf grass has a shallow root system that offers minimal protection. Protect your waterfront property by preserving the native vegetation within 25 feet of the bank. Plant deep-rooted native shrubs, trees and perennials instead of mowing.

Buffer zones make healthier streams by:

- **Binding the soil and filtering pollutants.**
- **Slowing runoff and allowing it to absorb into the ground.**
- **Creating a natural barrier to nuisance wildlife.**
- **Providing shade to keep streams cooler for aquatic habitat.**