

# Seven Mile Sentinel

## Seven Mile Creek Watershed Newsletter

### Seven Mile Creek Watershed Project

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## Start of the Seven Mile Creek Watershed Project

### Seven-Mile Creek Focused Study Area Resource Investigation Project

As part of the Minnesota River Assessment Project (MRAP) study in the early 90s, goals were set in effort to reduce the amount of sediments and nutrients entering the MN River from tributary streams. Recommendations include:

- ⇒ a 40 percent reduction in total suspended solids (sediment),
- ⇒ maintenance of nitrate nitrogen at less than 10 parts per million,
- ⇒ development of a phosphorus standard for the basin,
- ⇒ the implementation of sediment-reduction and cropland soil loss, and the removal of bacteria and other pathogens (such as that from failing septs) which make the river unsafe for human contact.

Continuing with the goal of protecting water quality for the MN River and county, the Brown Nicollet Cottonwood Water Board applied for a special project grant which focused on the Middle Minnesota River Watershed. The grant was funded in the spring of 1999.

The *Middle Minnesota Basin Project* proposes studying the characterization of pollutant contributions of

selected streams to the Minnesota river system.

From 1999-2000 the water resource study area will concentrate within the **Seven-Mile Creek Watershed** between St. Peter and North Mankato in Nicollet County. A study to determine *hydrology characteristics and water quality parameters* will be the major focus in the watershed for year 2000. This project will also evaluate remediation strategy options, begin citizen awareness, and develop a citizen monitoring program in addition to many other educational activities.

Seven Mile Creek is not the only watershed where water resource investigations are occurring. Continued monitoring has also taken place at the following Middle Minnesota Watershed locations by other agencies. A few are listed below:

- Birch Coulee Creek in Renville Co
- City of Fairfax inputs from storm and sanitary sewers to Ft. Ridgley Creek
- Hiniker Creek in Southern Nicollet Co.
- Little Cottonwood River Restoration Project
- Minneopa Creek Watershed Project

This marks the first newsletter of the project. Be on the lookout for more newsletters like this one in the future regarding the 7-Mile Creek Project, associated activities, and how you

## What's upstream?

*This section of the Seven Mile Creek Newsletter will be devoted to news and views about significant happenings in the watershed. All of the four situations described in this edition can be thought of more as "ongoing issues" rather than as "current events".*

### Northern Plains Dairy

Plans for the proposed dairy operation are undergoing review under the NPDES (National Pollution Discharge Elimination System) permitting process at the Minnesota Pollution Control Agency. No action will be taken by either the Nicollet County

Planning Commission or the County Board until the permit issue is resolved. When asked about a possible timetable for the process, Tina Rosenstein (County Environmental Services Director) said that her crystal ball was in the shop.

### County Ditch # 46 Litigation

Several environmental organizations and a few landowners have challenged a decision by the Nicollet County Board to allow improvements to County Ditch 58, one of Seven Mile Creek's major tributaries. The issue is currently under review

## Watershed Awareness

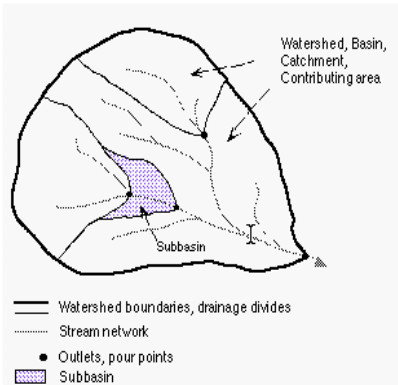


Fig. 1

*“A watershed is the total land area from which water drains into a single stream or lake.”*

You live in the Middle Minnesota River Major Watershed and the Seven Mile Creek Minor Watershed.

**So**

**What ?????**

The Minnesota River is one of the most polluted and threatened rivers in the state of Minnesota and in the country. Sediment (soil), nutrients (i.e. phosphorus, and nitrogen), and bacteria are easily transported into the waterways which eventually reach the MN River. The sources of the pollution come from both rural and urban sources.

In the early 1990s former Governor Arne Carlson launched an ambitious cleanup program for the Minnesota River to make it swimmable and fishable by the 2000 decade.

To effectively cleanup the Minnesota

River the area of land that contributes to the river and contains many of the streams which feed the river needed to be identified. This land area is known as a watershed, or basin (fig 1).

A watershed is the land that water flows across on its way to a stream, river, or lake. They are used to understand and manage our natural resources.

The MN River Basin is approximately 10.8 million acres in size intersecting 37 counties. Wow!! That is a very large area to manage a cleanup effort.

An area that large would be very difficult to assess where large amounts of pollution are entering the river. As well, it would be difficult to implement practices on the land, which would reduce the potential for pollution and increase the water

quality (Best Management Practices).

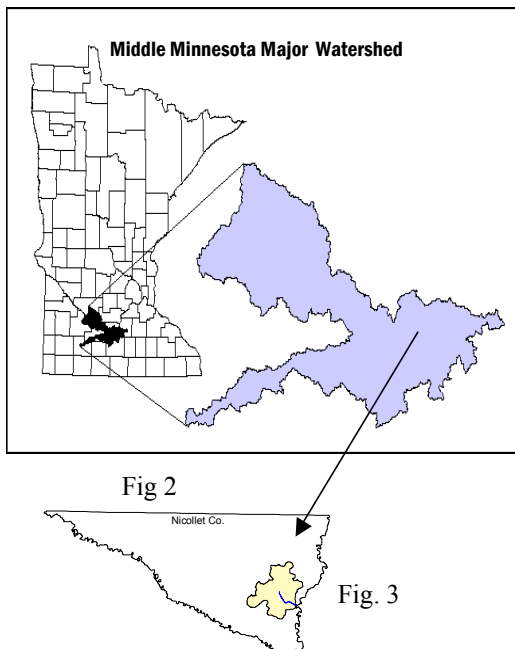
To reduce the area into a more manageable one, the basin is broken down into major river basins. There are 12 major watersheds *within* the MN River Basin. The Middle Minnesota Watershed is one of the 12 (fig. 2). The Middle MN Basin is approximately 862,409 acres in size. This is much smaller than the entire

### Minor Watersheds....

basin.

To increase the manageability of the watershed the major watersheds within the MN River Basin can be further subdivided into minor watersheds or sub basins.

These are watersheds for particular streams within the major water-



**Seven Mile Creek Minor Watershed is located within the Middle Minnesota Major Watershed**

shed. For example, the Little Cottonwood River, Seven Mile Creek, and Minneopa Creek each have their own watershed.

Rivers and streams are mirrors of what's going on in the surrounding landscape; reflecting the way humans use the land. *We all live in a watershed.* Everything we do on the land affects the soil, water, air, plants, and animals, both locally and globally. With a sense of Watershed/Ecosystem



awareness, people working together can help keep our watersheds healthy, enhance and protect Seven Mile Creek and at the same time increase the water quality of the Minnesota River and anything downstream.



Major Watersheds of Minnesota

## Citizen Monitoring.....How you can get involved in 7-Mile

Adopted from Laurie Sovell, MPCA, Streams and Lakes Unit

Minnesota Streams are important for recreation and aesthetic enjoyment, transportation, and as a source of clean water for use by plants and animals, including humans! For these reasons, it is important to protect and improve the quality of our state's streams. The Citizen stream Monitoring Program (CSMP) combines the technical expertise of the Minnesota Pollution Control Agency (MPCA) with the help and knowledge of interested citizens to develop a more comprehensive and effective statewide network of monitoring our states 92,000 miles

of streams.

### Goals of the CSMP

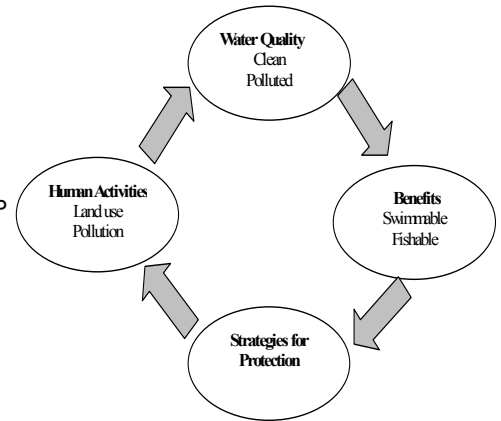
- \* Help determine condition of MN streams by expanding network of water quality monitoring.
- \* Provide opportunity for anyone interested to participate in a basic monitoring and interpretation program.
- \* Facilitate awareness and understanding of water quality issues, and promote shared responsibility of MN water resources.

The 7-mile Creek Watershed project is looking for dedicated citizens to help monitor. About once a week ,or when suitable during the summer, volunteers will visit an established spot on 7-mile creek and perform simple yet valuable water quality tests.

To learn more about CSMP and how you can directly get involved in monitoring the health of your back-yard creek contact:

Kevin Kuehner  
1-800-931-4140

An informational meeting will held sometime this spring at the county park.



Attaining as much information on a stream as possible, like that from citizens, will help managers achieve a sustainable strategy for protection.

### Continued from page 1

in District Court, according to County Attorney Mike Riley; it is uncertain when this issue will be resolved.

### Red Top Farms Demonstration Site

A long-term research/demonstration site to show the effects of farm practices on tile water quality was established in 1993 in Oshawa Section 23. An explanation of the site set-up and recent results will be detailed in future newsletters. Since the field tiles drain to

County Ditch # 13, continued research at this site is also an important component for Seven Mile Creek.

As part of a project to improve groundwater protection for the aquifers supplying the City of St Peter, ten farmers in Traverse and Oshawa townships are establishing nitrogen rate research fields modeled on the Red Top project for the year 2000.

### WHAT'S DOWNSTREAM?

*This part of the newsletter will cover news from Seven Mile Creek Park and the Minnesota River.*

### Seven Mile Creek Park

Thanks to generous donations of both time and materials, there's a new parking lot on the east side of the park. And the new underpass provides access to new, paved trails along a portion of the creek. The trails were financed through a grant from the Department of Natural

Resources and have made much of this newly paved area of the park accessible to handicapped citizens, strollers, etc.

The underpass is also being used heavily by horse/rider traffic. It was financed through federal funds (80%) through gas taxes, and by the county (20%), and constructed by the Minnesota Department of Transportation.

There's also a new bridge to the ball diamond. Park manager John Gatzke is now coordinating

### Post-tornado Recovery

The Seven Mile Creek Watershed was the most devastated rural area in Nicollet County after the March, 1998 tornadoes, with over 75 homes and farms damaged or destroyed. Most of the buildings have now been repaired or replaced, but the shelterbelts still show the scars of Mother Nature's brutality.

donations for new playground equipment.

### Minnesota River

The river is at one of its lowest points in recorded history. The situation, termed "base flow", has hydrogeologists believing that most of the water in the channel here is coming from groundwater. This is a rare situation in an area so close to a river's mouth (about 75% of the Minnesota's total watershed is upstream), and it shows how dry the 22 counties to our north and west have been since July.

*"As part of the Middle Minnesota Basin project, from 1999 through 2000, Seven Mile Creek and the surrounding 23,550 acre watershed will be the focus of a resource investigation project. Hydrology and water chemistry assessments, in addition to public outreach projects, will be the main focus of this one-year project."*

Seven Mile Creek Project  
322 S. MN Ave.  
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LEARN MORE ABOUT THE WATERSHED  
YOU LIVE IN ON THE WEB!  
[HTTP://MRBDC.MANKATO.MSUS.EDU](http://MRBDC.MANKATO.MSUS.EDU)

#### Desired goals of the project

- Greater awareness of how land and water are affected
- Lower chemical transport, with reduction in nitrogen, phosphorus, and herbicides
- Less soil displacement with decreased sheet and bank erosion
- Less loading of pollutants to the MN River
- Increase sense of pride and ownership of water resources
- Less transport of bacteria to swimmable waters
- More stable stream channels, with lower energy
- Increase storage (wetlands) in the watershed
- Fish populations of greater abundance and diversity
- Wildlife habitat of greater diversity and abundance
- Landscape vegetation of greater diversity and abundance with more native species
- Greater awareness of links between upstream and downstream activities

The Middle Minnesota Basin Project is administrated by the  
Brown Nicollet Cottonwood Water Board and co-sponsored by:  
Brown Nicollet Environmental Health  
Extension Service, Environmental Offices, Soil and Water Conservation  
District (SWCD)  
Department of Natural Resources (DNR)  
Board of Soil and Water Resources (BWSR)  
Natural Resources Conservation Service (NRCS)  
Minnesota Pollution Control Agency (MPCA)  
Minnesota Department of Agriculture (MDA)

#### Watershed Facts

- \* Approx. 1,347 square miles or 862,060 acres.
- 7-Mile Creek Watershed comprises 2.7 % of this area
- \* Comprises 9% of MN River Basin
- \* Subdivided into 104 minor watersheds
- \* MM basin contains:
  - Five wildlife management areas
  - Two state parks
  - Two city/county parks/campgrounds
  - Six historical sites
- \* 20 Municipalities—Mankato being the largest—estimated pop. 1998-50,000
- \* 80% of available acres is agricultural

