

LITTLE ROCK CREEK TMDL PROJECT

STAKEHOLDER NEWSLETTER

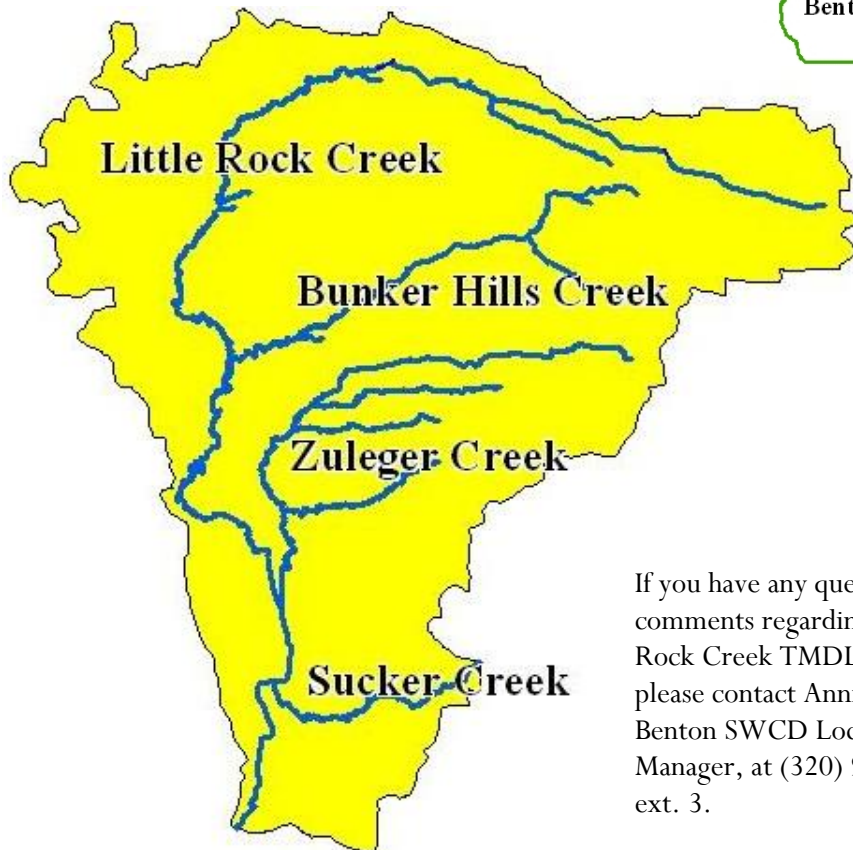
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INTRODUCTION

Benton Soil and Water Conservation District (SWCD) is conducting a Total Maximum Daily Load (TMDL) project on Little Rock Creek. Little Rock Creek is located within Morrison and Benton Counties (see map).

Little Rock Creek stakeholder public meetings will be held periodically to guide and inform the TMDL project. This newsletter provides an update to the Little Rock Creek TMDL project activities since the last public meeting in September 2007.



Map of the Little Rock Creek Watershed

If you have any questions or comments regarding the Little Rock Creek TMDL project, please contact Annie Felix, Benton SWCD Local Project Manager, at (320) 968-5300 ext. 3.

WHAT IS A STAKEHOLDER?

A stakeholder is a person (or group) who lives, works, or plays in a watershed and is responsible for making or implementing a management action, who will be affected by the action, or who can aid or prevent its implementation.

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WHAT'S WRONG WITH LITTLE ROCK CREEK?

Little Rock Creek is identified as a designated trout stream in MN Rule 6264.0050. Since 1907 portions of Little Rock Creek have had a self sustaining population of Brown Trout, but in the early 1990's DNR Fisheries surveys noted a decline of trout populations.

In 1996 the Minnesota Pollution Control Agency (MPCA) conducted biological monitoring surveys on 50 randomly selected sites in the Upper Mississippi River Basin to evaluate its overall ecological condition. Little Rock Creek was one of those sites selected. Biological monitoring tracks the health of biological systems by measuring and evaluating the condition of biological systems and the consequences of human activities within those systems utilizing fish, macro-invertebrates (bugs), or plant communities.

Fish and invertebrate samples were collected at the sites to look at the health of the ecological community. To assess biological condition of surface waters, the MPCA utilizes a multi-metric approach commonly called the Index of Biological Integrity (IBI). This index is a scientifically validated

tool using attributes of biological communities. A typical IBI will use 8-12 attributes (termed metrics) of a biological assemblage related to taxa richness, community composition, trophic structure, reproductive function, tolerance to human disturbance, abundance, and condition.

Little Rock Creek fish survey results scored a "poor" on the IBI, because it contained almost all pollutant tolerant species. Because trout species generally require cold water temperatures and ample dissolved oxygen for survival, trout species do not survive well in degraded streams. Little Rock Creek was listed as impaired under the Clean Water Act Section 303(d) in 2002. More information at: <http://www.pca.state.mn.us/water/biomonitoring/bio-streams-fish.html>.

Photo: Little Falls DNR Fisheries team electrofishing to collect samples



WHAT IS A TMDL?

The term TMDL, or *Total Maximum Daily Load*, describes both a process and a number. The process typically involves two to four years of technical study and intensive stakeholder and public input. The number is a calculation of the maximum amount of a pollutant the water body can receive and still meet water quality standards.

The term TMDL or Total Maximum Daily Load describes both a process and a number.

A TMDL results in a pollution reduction plan that identifies all the sources

of the pollutant in the watershed and allocates needed reductions among them. The plan also includes a margin of safety to account for uncertainties in the calculations and seasonal variability in water quality, reserve capacity for future growth, and adaptive management or long time frames in implementation.

The MPCA is ultimately responsible for completing and submitting TMDLs to the U.S. Environmental Protection Agency (EPA). However, stakeholders play a critical role in the development and implementation of TMDLs. In addition, scientific and technical experts provide valuable information and insight. In many cases, consultants assist with data collection, modeling and development of draft reports.

Following a formal public comment period, the MPCA submits the TMDL

report to the EPA for final approval.

The Clean Water Act, section 303, establishes the water quality standards and TMDL programs, see <http://www.epa.gov/owow/tmdl/intro.htm>

After a TMDL report is completed, a detailed implementation plan is developed to meet the TMDL's pollutant load allocation and achieve the needed reductions to restore water quality. Restoration activities typically include implementing "best management practices" to minimize polluted runoff or soil erosion in urban and agricultural settings. When a water body is restored to meet applicable water quality standards, it can be removed from the impaired waters list. In addition, monitoring will continue over the long term to ensure standards are maintained.

LITTLE ROCK CREEK TMDL PROJECT

The Little Rock Creek TMDL project began in 2006 and is scheduled to be completed by June 2009. The project was planned in three phases; we are currently in the 2nd Phase. The focus of this phase is to: 1) Recruit stakeholder participation in the process, and 2) Identify the “stessor(s)” within the watershed that are causing the fish population to be of “poor” quality. Technical and stakeholder committees will be facilitated through an EPA approved process to determine the cause or causes of the impairment.

Stakeholder meetings will be open to public and all are welcome to attend. The agricultural community is strongly encouraged to participate, because agriculture is the major land use in the watershed. The first public meeting was held September 19, 2007 and approximately 20 citizens attended. Future stakeholder meetings will be approximately

2 hours long and either take place in the evenings or on Saturdays. There will be a series of public meetings, and an official public comment period that will commence after the Benton SWCD has produced a first draft of the Stressor Identification Report (winter of 2008).



Photo: September 19, 2007 Stakeholder meeting

MONITORING ACTIVITIES

Benton SWCD

2006 & 2007: Collected water quality samples from Little Rock Creek, Bunker Hills Creek, Zulegar Creek, and Sucker Creek. Tested for 10 different substances, for example: nitrogen, phosphorus, fecal coliform, and pH. Also collected lake samples to test for phosphorus and chlorophyll concentrations.

MPCA

2006 & 2007: Collected stream flow data from all 5 creeks to create hydrographs. 2007: Conducted fish and invertebrate and habitat survey. Collected geochemical data.

DNR Fisheries

2006: Conducted fish survey in 5 stream locations.

MN Dept. of Agriculture

2006 & 2007: Surface water monitoring unit collected a sample from Little Rock Creek to test for 23 chemicals commonly found in pesticides.

Natural Resources Research Institute

2006: Collected invertebrate and habitat data.

MONITORING
DATA RESULTS
WILL BE
PRESENTED AT
THE NEXT
STAKEHOLDER
MEETING

YOU CAN BE A CITIZEN STREAM MONITOR

The Citizen Stream Monitoring Program (CSMP) combines the knowledge and commitment of interested citizens with the technical expertise and resources of the Minnesota Pollution Control Agency (MPCA).

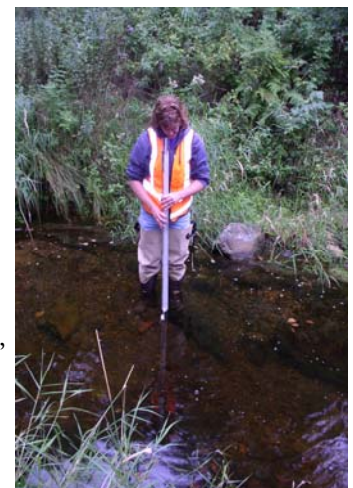
About once a week during the summer, volunteers visit an established spot on a nearby

stream and measure the following: Transparency, appearance, recreational suitability, precipitation (monitored daily), and stream stage.

Any person or group willing to devote a small amount of time and energy to conduct simple stream checks on a regular basis can become a

volunteer monitor.

Volunteers will receive a transparency tube, rain gauge, data sheets, instruction manual, and a training video. If you are interested in becoming a CSMP volunteer, call the Benton SWCD, we will provide the materials to you for free!



LITTLE ROCK CREEK
TMDL PROJECT
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TECHNICAL TEAM PARTNERS:

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MINNESOTA DNR FISHERIES & WATERS
NATURAL RESOURCES CONSERVATION SERVICE
US FISH AND WILDLIFE SERVICE
NATURAL RESOURCES RESEARCH INSTITUTE
MINNESOTA DEPARTMENT OF AGRICULTURE
MINNESOTA DEPARTMENT OF HEALTH
MORRISON COUNTY AND SWCD
US GEOLOGICAL SURVEY

Mailing Address Line 1

Mailing Address Line 2

Mailing Address Line 3

Mailing Address Line 4

Mailing Address Line 5

NEWS

Look for the Little Rock Creek TMDL Stakeholder meeting dates and agendas at:

Our website: www.soilandwater.org

Benton County News

Morrison County Record

Little Rock Lake Total Maximum Daily Load Project Update:

Work plan currently under development, project scheduled to begin early summer 2008. Stakeholder meeting tentatively scheduled for June 2008 to discuss the work plan and task schedule. Meeting information will be announced in local papers and on the Benton SWCD website.

Minnesota Pollution Control Agency sponsored web cast workshop "Harmful Algae Blooms"

Archived web cast available for public viewing at:

<http://www.pca.state.mn.us/water/toxicalgae-workshop.html>