

2000 Year in Review

By Kevin Kuehner January 4, 2001



BROWN NICOLLET COTTONWOOD
WATER QUALITY BOARD

This past year the BNC Water Quality Board has concentrated on four main water quality projects. A vast majority of the workload focused on the Little Cottonwood and Seven Mile Creek projects.

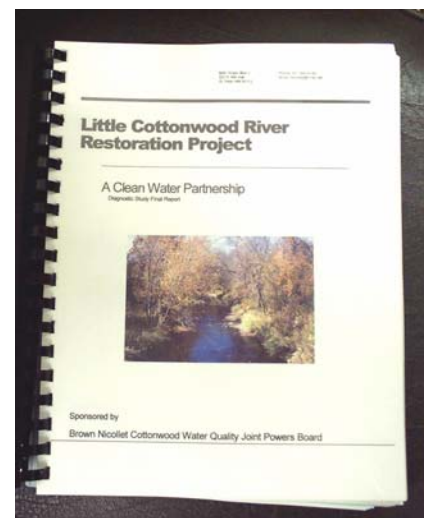
1. Little Cottonwood River Phase I CWP
2. Seven Mile Creek Resource Investigation-Middle MN Project
3. St. Peter Wellhead Protection/Nitrogen Management Demos
4. Lake Hanska Project

Little Cottonwood River Restoration Project

The LCR project was funded through a Clean Water Partnership in 1997 to document water quality in the watershed and ways to improve it. The project was funded through 1999. However, due to setbacks from the March 1998 tornado the Little Cottonwood River Project Phase I diagnostic study was put on hold for one year. To finish the objectives listed in the work plan the project was extended through 2000.

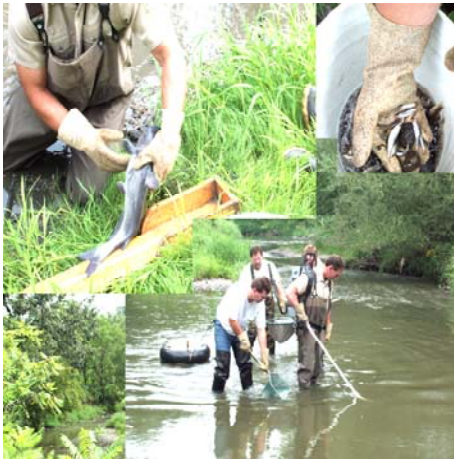
Monitoring on four sites of the River continued throughout the growing season. (April-September). In addition to chemical monitoring, a biological survey was conducted. A fisheries sur-

vey with MDNR-Waterville station was conducted in August to characterize the fish species and macro-invert structure. With a vast majority of the work plan completed by late summer, focus was then switched to the final report write-up. A vast majority of the time was devoted to managing, analyzing, graphing, displaying and interpreting the significant amount of data collected over the four-year period. This information was included in the 200-page CWP final report. At the same time technical meetings were held between Brown County and Cottonwood County SWCD/NRCS staff to help interpret



The 200 page Little Cottonwood Report summarizes three years worth of water quality monitoring, and provides an implementation plan to help improve water quality.

Little Cottonwood River Restoration Project Continued....



Fish survey with MDNR in August on Little Cottonwood River

the water quality data, and develop a work plan for best management practice implementation. With this information an application for phase II funding (implementation) was submitted.

As I am writing this I am pleased to announce phase II funding was recently granted to the BNC Water Board and efforts to improve the water quality of the watershed could start as early as March of 2001. The implementation phase will last three years with a grant award of \$297,600 and \$150,000 for septic system improvements. A newsletter is planned to summarize the fishery and water quality studies as well as inform residents of the newly acquired water quality improvement grant.

Seven Mile Creek Assessment



Seven Mile County Park Watershed Kiosk

As part of a Resource Investigation grant for the Middle MN River Major Watershed, Seven Mile Creek Watershed (sub-shed) was chosen for a two-year water quality study. The first year of the study took place this past year. Work started early in the year locating and surveying three water quality monitoring stations within the watershed. Specialized flow and rain gauge recording equipment was installed at each of the locations. Throughout the growing season grab samples were taken at each of the three sites. A total of 15 samples were taken at low, medium, and high flows. The samples were tested for bacteria, nitrates, phosphorus, transparency, pH, dissolved oxygen, conductivity, and total suspended solids. To increase the precision of the water quality study, monitoring will continue throughout 2001. A computer program called FLUX will be used to obtain loading estimates

for the watershed. Analysis of the data for 2000 is wrapping up and a report similar to the Little Cottonwood study describing the watershed assessment will be made available.

Educational outreach efforts were also made within the Seven Mile Creek watershed this past year. A newsletter describing the project and associated activities was sent out early in the year, and in late October an educational kiosk was built. The two-sided kiosk constructed by Blake Honetshlagger, St. Peter High School student, was used both as an eagle scout and senior class project. The kiosk is located at the far western end of the park and will showcase information on the park, Seven Mile Creek water quality, watershed, and what landowners are doing to protect it.

High school senior lends helping hand to area park



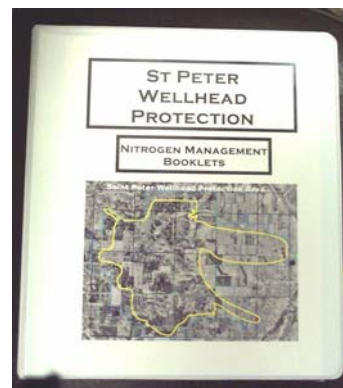
Blake Honetshlagger, a senior at St. Peter High School, helped build and install the educational kiosk at Seven Mile County Park. The kiosk is located at the far western end of the park and will showcase information on the park, Seven Mile Creek water quality, watershed, and what landowners are doing to protect it.

Friends & Neighbors
A new kiosk at Seven Mile County Park will provide information on the park, water quality, and watershed. The kiosk was built by Blake Honetshlagger, a senior at St. Peter High School, as part of his Eagle Scout project. The kiosk is located at the far western end of the park and will showcase information on the park, Seven Mile Creek water quality, watershed, and what landowners are doing to protect it.

St Peter Wellhead Protection Nitrogen Management Booklets

Early in the year the BNC water board received section 319 funding to continue wellhead protection efforts for the city of St Peter. One of the major components of the work plan is to develop nutrient management handbooks for each producer within the protection area. A template of the booklet was recently created and copies of it will be distributed in 2001. The booklets will showcase maps of the wellhead area, soil interpretations, best management practices, variable rate technology and results from water quality and agronomic research in the wellhead area. All of the Nitrogen Management booklets will be tailored specifically to the producers' land.

The innovative booklet will be yet another tool producers can use to help protect the groundwater resources and at the same time help increase the efficiency of their farming business.



Wellhead Protection Booklet for Producers

Watershed Educational Video

The implementation phase of the BWSR challenge grant officially ended in 1999, however finishing touches continued into the spring. Filming of the Lake Hanska Watershed Video by KEYC continued in February and script/video editing by Kevin Kuehner and Paul Davis continued into March. The 15 minute long video helped explain how a watershed works, water quality problems for Lake Hanska and ways to improve the water quality through a variety of best management practices. Over 150 copies of the video were distributed free of charge to local farmers, conservation groups/agencies, and schools. The video has received excellent reviews.



The 15 minute "Lake Hanska Watershed Project" video showcases efforts to protect water quality through a watershed approach.

Highlights and Conferences

- January office move from Gault St. to S. MN Ave.
- Lake Hanska Project completed
- Little Cottonwood Phase I CWP completed
- Groundwater Vulnerability 319 Demonstration Funded for BNC area
- Township Testing—Nitrate and Bacteria Groundwater Tests in all townships of project watersheds
- Continued monitoring of Wellner Hagman Watershed
- Hosted student intern from Gustavus Adolphus during January J-term-Katie Holmes.
- Hosted student intern during summer. Scott Janni.
- MN River Basin Planning Team formed
- Brown County CREP team formed

Conferences

- GIS fall workshop in St. Cloud
- MN River Joint Powers Board annual Conference in Shakopee
- National Environmental Health Association conference in Rochester

Year in Review Water Resource Presentations and Related Educational Events 2000

	<u>Attendance</u>	<u>Month</u>
Children's Water Festival-Mankato	100+	March
Water sampling field day with Springfield High School students	60+	May
Wastewater Treatment Processes Environmental Fair-Windom	80+	September
St Peter Wellhead Protection efforts to Gustavus students with Public Works Department	30+	September

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April-June

Showcased "Watershed Awareness" display at Township Testing Field Days