

Appendix A

Lists of Accomplishments and Project Costs

10 Year Plan Update

1 UMRWD LIST OF ACCOMPLISHMENTS

Since its inception in 1967, the Upper Minnesota River Watershed District has completed a number of water quality and quantity achievements. The following list outlines many of the Districts most successful accomplishments from the years 2000 to 2012.

Water Quantity

Reduction of Damages Caused by Floodwaters

- A. The District designed and constructed the Browns Valley Flood Diversion Project to reduce the severe flooding within the City of Browns Valley.
- B. The Designs for the Toelle Coulee Flood Control Project have been completed.
- C. Beardsley Dry Lake Flood Control Project was completed to reduce the flooding in the City of Beardsley.
- D. Highway 12 Flood Control Project was completed to reduce the flooding over highway 12 and local landowners' driveways.
- E. The District has operated the Big Stone Lake/Whetstone River Flood Control Structure for 28 years to pass all possible Whetstone River Flood flows downstream of Big Stone Lake.
- F. The District has made a request to the U.S Army COE for a reconnaissance Study of the restoration of the original Whetstone River Channel.
- G. The district has worked with FEMA, NRCS and DNR on the repairs of flood damages to several facilities owned and operated by the District.

Maintain the Drainage Systems of the District to Fulfill Their Intended Function

- A. Branch 3A to County Ditch #13 was completed.
- B. A two year study of water levels in County Ditch #2 was completed.
- C. The District administered there drainage permitting program which covers all private and public drainage systems.

Develop Programs and Projects, Which Sustain an Adequate Supply of High Quality Surface and Groundwater for Public and Private Use

- A. The District completed a ground water study of the Beardsley and Big Stone Lake area.
- B. Phase I of the Big Stone Lake Restoration Project was completed.
- C. The District worked with the Cities of Ortonville, Odessa and Browns Valley on their Well Head Protection Plans.
- D. The District installed dikes around the Browns Valley well heads to protect them from over land flooding and contamination of flood waters.
- E. The District completed a seven year rural well testing program for nitrates and bacteria.

Big Stone Lake Level Management

- A. The District has operated the Big Stone Lake/Whetstone River Flood Control Structure since 1984 to maintain consistent lake levels in Big Stone Lake.
- B. The District completed a major hydrologic study of the impacts from the Browns Valley Flood Mitigation Project on the lake levels of Big Stone Lake.
- C. The District has worked with the Cities of Clinton and Beardsley on the lowering of land locked basins within the cities by installing controlled outlets.
- D. The District has worked with Big Stone County, Swift County, MN DNR and local landowners on several landlocked basin issues to establish manageable lake levels.

Water Quality

General

- A. The District has been involved in several water quality monitoring programs which supply the district with information on water quality changes within each subwatershed.
- B. The District worked with the State of South Dakota, the East Dakota Water Development District and the Lac qui Parle/Yellow Bank Watershed District on a comprehensive water monitoring program which will be used for a TMDL for the Whetstone River.
- C. Staff attended Lake Association meetings to keep them informed on District Projects and answer questions they may have concerning the watershed.
- D. Water quality monitoring was performed on two lakes within the District.

Big Stone Lake Water Quality Goals

- A. The District has worked with landowners throughout the watershed on the implementation of Ag. BMP's to reduce the pollutant runoff to Big Stone Lake.

Erosion and Sedimentation

The District will initiate and support viable projects whose primary or secondary purpose is reducing erosion.

- A. Several shoreline stabilization projects were completed on Big Stone Lake.
- B. Five streambank stabilization projects were completed on the Minnesota River.
- C. Two streambank stabilization projects were completed on the Whetstone River.

The District will pursue erosion control and sedimentation management along all drainage systems whether private or public.

- A. The District through their permitting process has requested the installation of buffer strips on several private ditches where bank erosion was present.
- B. Promote programs along with the watershed's SWCD's and NRCS offices.

Recreational Resources

- A. The District annually removes debris from the Whetstone River.
- B. The District received a grant from the MN DNR to remove debris from the Minnesota River.
- C. Several wetlands have been restored to enhance wildlife habitat and recreational opportunities.
- D. The District worked with the DNR to install a handicapped fishing ramp on the Minnesota River along with several fishing platforms.
- E. District staff worked with the Ortonville EDA and Big Stone County on the installation of a new bike trail along the Minnesota River from the City of Ortonville to the Big Stone National Wildlife Refuge.

Intergovernmental Relationships

All initiatives of the District should utilize potential cooperative efforts with appropriate federal, state, county, and township agencies.

- A. District staff works daily with the Counties SWCD's, NRCS and DNR offices.
- B. The District worked with U.S. Army COE on the Big Stone Lake/Whetstone River Control Project and the Whetstone River Restoration Project.
- C. The District worked with the State of South Dakota, Grant and Roberts Counties on the Big Stone Lake Restoration Project and other water quality monitoring project.
- D. District staff is a technical member of the Local Government Round Table and works with the Board of Water and Soil Resources along with members from the SWCD's and Counties.
- E. The District provides general permitting on behalf of the MN DNR.
- F. The District works in cooperation with the US. Fish and Wildlife Service on wetland restorations.
- G. District staff works with the Big Stone National Wildlife Refuge on projects of mutual benefit.

The District shall adopt by reference the applicable and compatible provisions of County Comprehensive Local Water Plans.

- A. The District has adopted the compatible provisions of the County Comprehensive Local Water Plans from all of the counties within the District.

The District shall continue to provide representation on County Water Resource Advisory Committees which are active within its jurisdiction.

- A. District staff is an advisory member of the County Comprehensive Local Water Plan.

Public Information and Education

The District shall seek to inform and educate the citizens within its jurisdiction of all its ongoing activities and projects.

- A. Watershed information and educational material are distributed through the Districts

website and local papers. Presentations are also given at schools and conferences.

B. Several public hearings have been held for District Projects throughout the watershed.

The District seeks to inform and educate the citizens within its jurisdiction of the benefits of the conservation of water and soil in the preservation and enhancement of our natural resources.

A. District staff works closely with the Lake Association to present information on current projects and watershed issues.

B. The District worked with the Lake Association on a rain garden demonstration project.

C. The District worked with the Lac qui Parle/Yellow Bank Watershed District and East Dakota Water Development District on a friendship tour to education local landowners and citizens on the Whetstone River and Yellow Bank watersheds.

D. Eleven wetland tours were held for the fourth grade science class through the districts fourth grade wetland restoration program.

Implementation of Goals and Objectives

1. The District annually reviews their goals and objectives and prepares an annual plan of work.

2. UMRWD PROJECTS AND COSTS

The following list of Projects and costs were completed between 1999 and 2012. The projects costs include funds such as levies, special assessments, donations and grants from outside sources.

Overall Plan Ten Year Update: Overall Plan development for the Watershed District completed and approved in 2001.

Cost of Project - \$39,700

Beardsley Dry Lake Project: Flood Control Project for the City of Beardsley, MN. Project was completed in 2000 and transferred to the Watershed District.

Cost of Project - \$1,000,000

Big Stone Lake/Whetstone River Flood Control Project: Maintenance and operation of the Flood Control Works for flooding and lake level control.

Cost of Project - \$610,000

Flood Damage Repairs 2001: Repairs to the Big Stone Lake/Whetstone River Flood Control Works.

Cost of Project - \$110,000

Flood Damage Repairs 2010: Repairs to the Big Stone Lake/Whetstone River Flood Control Works and the Browns Valley Flood Mitigation Project.

Cost of Project - \$400,000

Flood Damage Repairs 2011: Repairs to the Big Stone Lake/Whetstone River Flood Control Works and Browns Valley Flood Mitigation Project.

Cost of Project - \$145,000

2010 Emergency Watershed Protection Streambank Stabilization Project: Two hundred fifty feet of severely eroded streambank on the Whetstone River was stabilized with rip-rap.

Cost of Project - \$135,000

Emergency Watershed Protection/Minnesota River Streambank Stabilization Project: Three hundred feet of severely eroded streambank on the Minnesota River was stabilized with rip-rap.

Cost of Project - \$120,000

Browns Valley Flood Mitigation Project: The project consists of a 200' wide diversion channel, two inlet structures and two 265' bridges.

Cost of the Project - \$5,374,000

Toelle Coulee Project: Flood control project for the north east side of Browns Valley. Project designs have been completed, EIS and all permits have been obtained for the project. Construction is pending future funding.

Cost of the Project - \$183,000

Kleindl Wetland Mitigation Bank: Restoration of a 59 acres wetland and 40 acres of upland habitat for flood project mitigation purposes.

Cost of the Project - \$433,180

Whetstone River Restoration Project: Project includes the restoration of approximately 3 miles of river channel that was abandoned in the 1930's.

Cost of the Project – Staff In-Kind

Highway 12 Flood Mitigation Project: The project included the installation of an 18" drainage tile to control the flooding on State Highway 12, 4 miles west of Ortonville, MN.

Cost of the Project - \$110,000

Branch 3A to County Ditch #13 Project: The Project included the installation of an 18" drainage tile that outlets to County Ditch #13.

Cost of the Project - \$48,000

County Ditch #2 Water Level Project: The District monitored the water levels in County Ditch #2 for a period of two years to document the effects of a newly installed weir structure.

Cost of the Project – Staff In-Kind

District Drainage Permit Program: The District reviewed and acted on 1,075 individual drainage permit requests and 65 DNR General Permits.

Cost of the Project - \$100,000

Beardsley Ground Water Study: Included the monitoring of wells within the city of Beardsley and wells located along the shoreline of Big Stone Lake.

Cost of the Project - \$20,000

Centennial Wetland Project: Included the restoration of 417 ac. previously drained wetland basin and the restoration of 167 ac. of adjoining upland. The project was a joint effort between the Watershed District, Ducks Unlimited, US Fish & Wildlife Service and the Natural Resource Conservation Service.

Cost of the Project - \$266,000

Rain Garden Demonstration Project: One rain garden was installed at the Big Stone County Ag. Service Center. This was a joint project with Citizens For Big Stone Lake.

Cost of the Project - \$4,000

SWAG Tributary Monitoring Project: During 2011 and 2012 the District monitored 8 tributaries and two lakes within the district.

Cost of the Project - \$30,160

Upper Minnesota River Water Quality Monitoring Project: The District worked with the State of South Dakota, the East Dakota Water Development District and the Lac qui Parle/Yellow Bank Watershed District on a two year comprehensive water quality monitoring program.

Cost of the Project - \$117,000

Rural Water Testing Project: The District maintained a rural well water testing program for every township in Big Stone County for 12 years.

Cost of the Project - \$36,000

Fourth Grade Wetland Restoration Project: The district implemented a fourth grade wetland restoration program from 1995 until 2009. During that period 63 previously drained basin were restored for a total of 850 acres of wetland.

Cost of the Project - \$36,000