

2009 Annual Report

Mower County

Drainage Systems

**CD #5 - Open Ditch
with Grass Buffers**



**CD #6 - Open Ditch
Showing High Water Line**



CD #8 - Ditch Bank Repair



**CD #26 (Murphy's Creek) -
Tree Removal**



COUNTY DRAINAGE SYSTEM NO. 1

- LOCATION:** Clayton Township, Sections 12, 13, 14 & 23 (tile lines)
Bennington Township, Sections 7, 8, 9 14, 15 & 16 (open ditch)
- DESCRIPTION:** The drainage area is 18.0 square miles with 5.3 miles of open ditch. The watershed acres total 11,815.
- BRIEF HISTORY:** This drainage system was constructed in 1920. A redetermination of benefits was completed in the year 2000 and since then a major cleanout was completed in 2006. The total net benefits for the system equals to \$6,725,560.00 and the total damages (1 rod grass strip) equals to \$31,760.00.
- PAST/FUTURE REPAIRS:** The one rod grass strip is now established along side the open ditch. This past year's repairs included beaver dam removal and trapping, county tile repair, spraying of the open ditch and ditch bank repair. The ditch bank repair was a request of MPCA so that they could sign off on the erosion control complaint process that was initiated from the major cleanout. The damages for the 1-rod grass strip were also paid to the landowners this past year. Total expenditures for repairs on this system for 2009 amounted to \$12,709.31. Interest on the loan to this system amounted to \$3,874.33 and the damages for the grass strip totaled \$31,760.00
- For next year, 2010, we are estimating \$10,000.00 for tile repair and there will also be interest on the loan to be paid.

COUNTY DRAINAGE SYSTEM NO. 4

LOCATION: Austin Township, Sections 8, 9, 16, 21, 28 & 29

DESCRIPTION: The drainage area is 2.5 square miles with no open ditch. This system is strictly all tile. The watershed acres total 1,505.

BRIEF HISTORY: This drainage system was installed in 1918 and has served its purpose well over the years. Some of the tile is now in poor condition and is not large enough to handle the drainage. A redetermination of benefits was done in 2005 with the public hearing held in February 2006. As a part of this redetermination, there was a partial abandonment which encompasses properties within the city limits. The total net benefits for this system is \$458,946.00 with no damages being assessed.

PAST/FUTURE REPAIRS

The repair to the main tile was completed in 2009. Freeborn Construction had the lowest bid on this job. This work consisted of replacing a 1390 foot section of the main tile and relocating it to gain cover. The total cost of this project which includes the engineering and crop damage was \$64,262.56. There was one other minor tile repair job done this past year for a cost of \$140.00.

JOINT COUNTY DITCH NO. 5

- LOCATION:** Lansing Township, Sections 7, 8, 9, 15, 16, 17 (open ditch)
Lansing Township, Sections 5, 6, 7 & 8 (tile lines)
Freeborn County, Moscow Township, Sections 11,12, & 13
and Newry Township, Section 1 (tile lines)
- DESCRIPTION:** The drainage area is 10.3 square miles with 2.6 miles of open ditch and 25.2 miles of tile lines. The watershed acres total 6,615 and there is 11.05 acres of grass strip on both sides of the open ditch.
- BRIEF HISTORY:** J.D. #5 was originated in 1922 and has remained in fairly good condition with regular maintenance. A redetermination was completed in 1999. The net benefits amount to \$1,308,642.00 and the one rod grass strip damages equals to \$15,675.00.
- PAST/FUTURE REPAIRS:**
The open ditch has been cleaned out in 1956, the mid 1980's, 2000 and again this past year. There has been numerous tile repairs over the years and there was approximately 1200 feet of a main tile that we moved into a hillside to get adequate cover on it. In 2008 there was some minor work done as normal maintenance and the entire open ditch was sprayed. Freeborn Construction was awarded the cleanout work this past year and it was done for a total cost of \$20,708.16. Other work done on this system totaled \$3,752.00 which includes tile repair and work done by Rinke Noonan Law Firm for recording purposes.
- There are no major repairs or projects foreseen for 2010. We will try to finish the recording process.

COUNTY DRAINAGE SYSTEM NO. 6

- LOCATION:** Adams Township, Section 25, Lodi Township, Sections 30 & 31 (open ditch)
Adams Township, Sections 24 & 25, Lodi Township, Sections 19 & 30 (tile lines)
- DESCRIPTION:** County Ditch #6 consists of 2.1 miles of open ditch and 8.6 miles of tile lines. The watershed equals to 2,240 acres which relates to 3.5 square miles. The outlet for the open ditch is the Wapsipinicon River.
- BRIEF HISTORY:** C.D. #6 was built in 1922. There was a major cleanout done in 1993 and a redetermination of benefits was completed in 1999 at which time the one rod grass strip was established. With minimal maintenance each year the open ditch is in very good condition.
- PAST/FUTURE REPAIRS:**
There was a major cleanout of the open ditch done in 1993 and there has been several tile repairs. Due to severe flooding in the late 1990's, there were areas of the banks on the open ditch that were repaired, some using side-in-let pipes. There are sections of tile that will need to be replaced or repaired in the near future because of deterioration. In 2009, the drainage inspector held a landowner's meeting to discuss the necessity of replacing some of these tiles. The open ditch was again sprayed this past year. The total repair expense for the J.D. #6 system for 2009 was \$966.41.
- We are estimating that there will be approximately \$10,000.00 spent in 2010 on replacing certain sections of county tile.

COUNTY DRAINAGE SYSTEM NO. 7

LOCATION: Dexter Township, Sections 10, 13, 14 and 15 (all tile lines – no open ditch).

DESCRIPTION: This system is a closed tile system with no open ditch. The outlet is a cement 26 inch main outletting into a creek. The watershed covers 1100.8 acres which includes the south part of the town of Dexter. There are 12,008 feet (2.3 miles) of main tile and 24,202 feet (4.6 miles) of branch tile.

BRIEF HISTORY: C. D. NO. 7 was constructed in 1920 and as of today is in fair condition. It was constructed as a closed tile system.

PAST/FUTURE REPAIRS:

There has been several iron grate inlets replaced with stand up pipes. There has been two tile repair jobs in the past few years. We don't anticipate any major work to be done on this system soon

COUNTY DRAINAGE SYSTEM NO. 8

- LOCATION:** Clayton Township, Sections 8, 9, 16 and 17 (open ditch –no tile lines)
- DESCRIPTION:** The drainage area is approximately 6.4 square miles with 4200 acres of watershed. This system is an open ditch system with no county tile involved. There are 3.2 miles of open ditch.
- BRIEF HISTORY:** C.D. #8 was constructed in 1958 as an open ditch system. It flows to the north and outlets into the Deer Creek system. The system is in relatively good condition, but is more prone to flood damage than other systems.
- PAST/FUTURE REPAIRS:**
Past repairs consisted of removal of beaver dam and repair of the open ditch banks due to flood damage. We have installed flood water control pipes in strategic locations to lessen bank damage. In 2009, there was a beaver dam to remove, some minor ditch bank damage and two side inlet pipes to replace. The total cost of these repairs was \$6,420.05.
- In 2010, we have on the budget to do a cleaning of the open ditch which will cost approximately \$30,000.00.

COUNTY DRAINAGE SYSTEM NO. 17

LOCATION: Austin Township, Sections 30 & 31, Mower County and Oakland Township, Sections 25 & 36, Freeborn County.

DESCRIPTION: This system is administered through Freeborn County – very little information is available. There is no open ditch, just all tile. Freeborn County did a redetermination in 2008.

COUNTY DRAINAGE SYSTEM NO. 26

LOCATION: Lansing Township, Sections 19, 20, 21 and 28, Mower County (open ditch and minimal tile lines). Moscow Township, Section 24 Freeborn County (tile lines only)

DESCRIPTION: C.D. #26 has 4265 acres of watershed with 4.7 miles of open ditch. There are 6.0 square miles of drainage in Mower County and 0.6 square miles in Freeborn County. This system is also known as Murphy's Creek. The outlet of the open ditch is a natural creek which eventually ends at the Cedar River. There is one main tile that is 1800 feet long outletting at the upper end of the open ditch.

BRIEF HISTORY: The system was established on July 29, 1949 and construction completed in 1951. The main tile consists of 14 inch and 12 inch tile. There were numerous other tile branches and laterals included in the original design but not constructed due to the high cost of construction. A redetermination was completed in 2003 and the benefited amount is now \$983,317.00. The damages for the one rod grass strip have been paid.

PAST/FUTURE REPAIRS:

In 1953 a repair petition was filed and the open ditch was cleaned and two structures repaired. There was also a major cleanout done in the mid 1980's and a repair to the main tile in 1999 due to heavy flooding that year. The cleanout of the open ditch was started in 2007 and finished in January of 2008. In June, 2008, there were heavy rains that caused extensive damage to a few areas of the open ditch. FEMA paid for 90% of the repair bill which amounted to \$12,152.00. In 2009, the open ditch was sprayed for trees and brush for a cost of \$6,174.75.

In 2010, we will be removing some bigger trees that can't be handled with the spray. This will cost approximately \$3,500.00.

COUNTY DRAINAGE SYSTEM NO. 77

LOCATION: Lyle Township, Sections 7, 8 and 17.

DESCRIPTION: Also referred to as the McGee group. There are 1.5 miles of open ditch with 10,884 feet (2.1 miles) of main tile and 25,360 feet (4.8 miles) of branches/laterals. The tile ranges from size 6 inch to 24 inch. There were also 12 breather pipes installed on the tile system. The outlet for the open ditch is a natural creek which leads to the Cedar River. The drainage area covers 3.8 square miles which relates to 2226 acres.

BRIEF HISTORY: C.D. #77 was constructed in 1975. In 1996 the open ditch was cleaned for a total cost of \$8,223.55. The ditch is 5,788 feet in length.

PAST/FUTURE REPAIRS:

A major cleanout of the open ditch was done in 1996. There has been minor tile repairs over the years. A maintenance program of spraying for trees/shrubs helps keep this system in very good condition. There were no repairs done in 2009.

In 2010 the open ditch will be sprayed.

COUNTY DRAINAGE SYSTEM NO. 79

LOCATION: Lyle Township, Sections 23, 24, 25 and 26.

DESCRIPTION: Also referred to as the Truckenmiller/Johnson Group, C.D. No. 79 has 4.8 square miles of drainage. There are 3072 acres in the watershed and the outlet is a natural creek which leads to the Cedar River. The open ditch covers 1.7 miles and there are 12 main tile lines. The tile lines range from a 6 inch to 24 inch and there is approximately 9.3 miles of tile.

BRIEF HISTORY: This system was constructed in 1978 for a total cost of \$214,606.00. The open channel cost \$54,782.00 and the tile cost \$159,824.00. There were 7 flood water inlet pipes installed in the bank of the ditch and 17 breather pipes put on tile lines in different places.

PAST/FUTURE REPAIRS:

C.D. #79 is in excellent condition. There has been repairs in the recent past due to above average storm events. These repairs included tile repair, replacing flood water inlets and a cleanout of part of the open ditch. There is a maintenance plan in place which includes spraying for trees/shrubs. In 2009, the open ditch was cleaned for a cost of \$14,400.30 and the length of the cleanout was 10,435 feet. We also had to replace two pipes that were rusting out and remove some beaver dams and trees at the outlet of the open ditch.

There are no expected repairs for 2010.