

## COUNTY DITCH NO. 16 DITCH VIEWERS REPORT

On January 8, 2008 the Ditch Authority (Otter Tail County Board of Commissioners) appointed Richard Bergquest, Eldor Kugler & Howard Goese as Ditch Viewers for the purpose of re-determining the benefits and damages of County Ditch No. 16, located in Sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 22, 23, 24, 25, 26, 27, 34, 35, and 36 of Clitherall Township, Sections 5, 6, 7, 8, 18, 19, 20, 29, 30, 31, and 32 of Nidaros Township, Sections 5, 6, 7, and 8 of Leaf Mountain Township and Section 1 of Eagle Lake Township. ✓

We are certified by the Minnesota Association of Ditch Viewers and have been involved in that Association for several years.

Our report is based upon information we received from aerial maps, soil maps from the GIS and FSA Offices, topographical maps, as well as several personal observations from field visits to the area. We have visited with several of the property owners in the watershed area and have also received sufficient information from the FSA Office and various County Offices such as the Assessors Office, Highway Department, Auditors Office, GIS Department, County Attorney's Office and the Land & Resource Management Office.

We determined by onsite field visits, the drainage system in its present condition is not working as built. We feel that the ditch system from Section 31 of Nidaros Township to Clitherall Lake is approximately 40% effective and from Clitherall Lake to West Battle Lake the ditch system is about 60% effective.

We began the determination of benefits by classifying each parcel of agricultural land based on land use, provided by the State of Minnesota in 1992 and soil saturation mean value from SSURGO (Certified Soil Data Survey of Otter Tail County). The aforementioned data was used by the GIS Department to build a computer program for our information.

- A – Land = Land that has been muck soil, which may be standing water, unable to farm without the ditch. **Maximum Benefit.**
- B – Land = Soil types that are slow to drain, can be farmed most years. **Medium Benefit.**
- C – Land = Soil types that are slow to drain, can be farmed every year. **Minimum Benefit.**
- D – Land = Soil types that are well drained, always farmed, does contribute silt and runoff to the system.

In our opinion, there are 160 acres in the City of Clitherall that are in the Watershed. The benefits to the City of Clitherall are based on land values and accelerated runoff.

We found that the ditch system has a small amount of agricultural land that benefits from the ditch system. The four lakes in the Watershed receive the most benefit from the ditch system.

As Ditch viewers appointed by the Ditch Authority, it is our opinion that this is a fair and equitable determination of benefits for County Ditch #16 Watershed area.

Richard Bergquist  
Richard Bergquist

9-9-08  
Date

Eldor Kugler  
Eldor Kugler

9-9-08  
Date

Howard Goese  
Howard Goese

9-9-08  
Date

# VALUE CHART FOR COUNTY DITCH NO. 16

## LAND PER ACRE

A	\$170.00
B	\$139.00
C	\$95.00
D	\$20.00
Trees	\$6.00
Pasture	\$12.00
Urban	\$30.00
Building Site	\$30.00
Other	\$30.00
City of Clitherall	\$30,400.00

## ACRES THAT THE TOWNSHIP, STATE AND COUNTY HAVE TO PAY WITHIN THE DITCH SYSTEM THAT BENEFIT FROM COUNTY DITCH NO. 16

Clitherall Township	84.95 Acres
Nidaros Township	24.10 Acres
State	42.20 Acres
County Highway	27.80 Acres

INCREASE IN AGRICULTURAL PRODUCTION					
(Under Best Management Practices)					
PRODUCTION INCOME					
Crop	Yield Per Acre	Value Per Bushel	Income	Percent	Adj. Value of Production
Corn	90	4.00	360.00	35	126.00
Wheat	40	5.00	200.00	10	20.00
Beans	30	10.00	300.00	25	75.00
Oats	70	3.00	210.00	5	10.50
Hay	3 Ton	150.00	450.00	25	112.50
					344.00

COST					
Crop	Seed And Fertilizer	Equip and Labor	Misc.	Percent	Adj. Value of Production
Corn	180.00	100.00	30.00	35	108.50
Wheat	75.00	50.00	20.00	10	14.50
Beans	100.00	50.00	10.00	25	40.00
Oats	50.00	50.00	10.00	5	45.00
Hay	70.00	150.00	---		5.50
					223.50

BENEFIT VALUE				
	A-Acres	B-Acres	C-Acres	D-Acres
Percent of Normal Crop	80	92.00	100.00	100.00
Dollars of Crop Production	283.20	316.48	344.00	344.00
Minus Production cost	223.50	223.50	223.50	223.50
Gross Net (potential Profit/acre)	59.70	92.98	120.50	120.50
Minus Previous Net (Before Ditch)	0	46.49	90.38	120.50
Increase Production Value	59.70	46.49	30.12	0
Estimated Cost To Get Water From Land To Ditch	500.00	350.00	200.00	0
Annual Cost Per Year For 25 Year Life	20.00	14.00	8.00	0
Annual Benefit	39.70	32.49	22.12	0
Capitalized For 25 Yrs @ 6 Percent	170.39	139.44	94.94	20.00
Rounded Off	170.00	139.00	95.00	20.00