

**Brown / Redwood Counties JD-12
Redetermination of Benefits
Viewers Report
October 26, 2021**

Valuation prior to drainage

Beginning land use, property value, and economic productivity have been determined with the consideration that the benefited properties within the watershed originally did not have an adequate outlet for artificial drainage.

- “A” – Standing water or cattails, wetland classification with economic productivity for agriculture purposes of \$0 per acre, and a market value of \$1,000 to \$2,000
- “B” – Seasonally flooded/pasture ground. Pasture classification with economic productivity of \$90 per acre based on grazing days and/or hay values, and a market value of \$2,500 to \$3,500.
- “C” – Wet subsoil – Generally farmable land with moderate crop potential, with annual economic productivity of \$481 per acre based upon average annual yield of 80% of optimum with \$326 production costs, and a market value of \$4,000 to \$5,000.
- “D” – Upland areas not needing artificial drainage and intermixed with wetter soils, with annual economic productivity of \$529 per acre based upon an average annual yield of 88% of optimum with \$326 production costs, and a market value of \$5,000 to \$6,000.

Valuation with NRCS recommended drainage

Potential land use, property value, and an increase in economic productivity, after public and private drainage have been installed as NRCS design standards as recommended in the Minnesota Drainage Guide, using current crop rotation, income, and expense:

- “A” – Drained slough area, medium classification land with economic productivity of \$493 per acre based upon average production of 82% of optimum with \$326 per acre production costs, and a market value of \$5,000 to \$6,000.
- “B” – Well drained ground, high land classification with economic productivity of \$529 per acre based upon average annual production of 88% of optimum with \$326 production costs, and a market value of \$5,500 to \$6,500.
- “C” – Well drained ground, highest land classification with economic productivity of \$553 per acre based upon average annual production of 92% of optimum with \$326 production costs, and a market value of \$6,000 to \$7,500.
- “D” – Well drained ground, high land classification with improved farm ability, with economic productivity of \$571 per acre based upon average production of 95% of optimum with \$326 production costs, and a market value of \$5,500 to \$6,500.

Utilizing these productive values, potential benefit values were determined for the system based upon a 25 year effective life with proper maintenance, private tile improvement cost were depreciated over the same 25 year period, and an allowance of 0.5% return on the system investment. A three year average Township yield was used for the benefit value calculations along with a three year average sale price for the corn and beans.

Increased productivity

<u>Crop</u>	<u>Yield</u>	<u>Value</u>	<u>Income</u>	<u>%</u>	<u>Adjusted</u>
Corn	183.6	\$3.82	\$701	50%	\$351
Beans	53.2	\$9.41	\$500	50%	<u>\$250</u>
					\$601

Production costs

Corn	\$426 X 50% = \$213
Beans	\$226 X 50% = \$113
	\$326

Potential Benefit value

	<u>"A"</u>	<u>"B"</u>	<u>"C"</u>	<u>"D"</u>
	82% of \$601	88% of \$601	92% of \$601	95% of \$601
	\$493	\$529	\$553	\$571
Minus cost of production	<u>\$326</u>	<u>\$326</u>	<u>\$326</u>	<u>\$326</u>
Net income	\$167	\$203	\$227	\$245
Previous income	<u>\$0</u>	<u>\$90</u>	<u>\$155</u>	<u>\$203</u>
Increased income	\$167	\$113	\$72	\$42
Private tile costs	<u>\$56</u>	<u>\$31</u>	<u>\$27</u>	<u>\$18</u>
Annual increase	\$111	\$82	\$45	\$24
Capitalized for 25 years @ 1/2 %	\$2,594	\$1,915	\$1,057	\$564
% of potential Benefit	65%	70%	75%	80%
Reduced benefit Value	\$1,686	\$1,341	\$793	\$451

The potential benefit values have been reduced to reflect a less than optimum yield.

Summary

Brown / Redwood Counties JD-12 consists of 3,959.06 acres of farmland, roads, and building sites with benefits of \$3,087,408

- a. 3,505.97 acres of farmland, building sites and roads in Brown County, North Star and Burnstown Townships with benefits of \$2,830,528 (91.6797% of the total)
- b. 453.09 acres of farmland, building sites and roads in Redwood County, Sundown and Brookville Townships with benefits of \$256,880 (8.3203% of the total)

Benefit values were adjusted based on multiple factors. Location to the open ditch, location to the County tile, drainage coefficient, soil type.

Average land benefits, (reduced) over a 25 year period are **\$1,068** per acre

- a. A soil \$1,686
- b. B soil \$1,341
- c. C soil \$793
- d. D soil \$451

Building site benefits

- a. (Average of B + C + D soils) X 1.5 = **\$1,293**

Ponds, woodland, and non-benefited acres

- a. **\$0**

Road benefits

- a. Gravel roads, County or Township
(Average land benefit) X 1.0 = **\$1,068**
- b. Paved roads, State, County or Township
(Average land benefit) X 1.5 = **\$1,602**

Tile benefits

- a. A tile benefit was given for most County tile at a rate of **\$0.50 per linear foot**. This value was given because of the ease of access for private tile, and also for the drainage the County tile may provide. 69,325 feet of County tile in Brown County **\$33,188 of tile benefits**. 165 feet of County tile in Redwood County **\$83 of tile benefits**.

Grass strip right of way easement acres

The Viewers and Engineer recommend establishment of a permanent one rod grass strip on each side of the total length of the open ditch, as per Minnesota Ditch Law, 103-E.021. This State law requires establishment of this 16.5 foot grass strip, beginning at the top of the berm, and extending outward. This strip must be planted in perennial vegetation of grass or legumes. The landowner is responsible for the control of noxious weeds. No fences or grazing of livestock is allowed within the one rod grass strip. The Viewers and Engineer recommend that no trees be allowed within this right-of-way.

Grass strip right of way easement damages on cropland acres

The average Brown and Redwood County value per CER in 2020 is \$94.50 based on an analysis of sales data. The average CER for North Star, Burnstown, Sundown, and Brookville Townships is 71.2. (71.2 X \$94.50 = \$6,728) \$6,728 is the value for cropland acres.

\$6,728 X 21.73 acres = \$146,199

Grass strip right of way easement damages on trees, building sites or non-benefited

The average Brown and Redwood County value per CER in 2020 is \$94.50 based on an analysis of sales data. The average CER for North Star, Burnstown, Sundown, and Brookville Townships is 71.2. (71.2 X \$94.50 = \$6,728 X 10% = \$673) \$673 is the value for trees, building sites or non-benefited acres.

\$673 X 0.50 acres = \$337

Construction right of way easement acres

The Viewers and Engineer recommend that a permanent easement be acquired 100 feet on each side of centerline of the open ditch. This easement gives the ditch authority the right to drive on or spread ditch spoils in the area. The area will most likely never be disturbed. If it is necessary to be on these acres during the growing season, the damaged crops will be paid at the county crop damage rate. The Brown County Drainage Authority has implemented the easement on other public drainage systems that have been redetermined. The Redwood County Drainage Authority has not implemented the construction easement on other public drainage systems that have been redetermined. Only Brown County benefited acres will pay for the acquisition of the construction easement in Brown County. (No construction easement was acquired thru building sites)

Construction right of way easement damage

The average Brown and Redwood County value per CER in 2020 is \$94.50 based on an analysis of sales data. The average CER for North Star, Burnstown, Sundown, and Brookville Townships is 71.2. ($71.2 \times \$94.50 = \$6,728 \times 5\% = \$336$) \$336 is the value for the construction easement acres. Paid only by Brown County benefitted acres.

\$336 X 64.32 acres = \$21,612

Total easement damages

The grass strip right of way easement assessment shared by Brown County and Redwood County is \$146,536. The construction easement assessment of \$21,612 is paid for by the Brown County benefitted acres. The total of grass strip and construction easement costs is \$168,147.

Crop damages

Crop damages will be paid per acre on standing crops damaged by construction or repair on the County open ditch or County tile, as determined by the Brown or Redwood County Ditch Inspector.

Tiled in acres

Margaret J. Moe ETAL (parcel 120.004.003.11.040) petitioned 30.0 acres into the JD-12 watershed in 2017. These acres have been assigned benefits and are included in this re-determination of benefits.

Timothy A Vogel (parcel 120.005.002.03.030) has informed the viewers that he has 10.0 acres tiled into the JD-12 watershed. These acres have been assigned benefits and are included in this re-determination of benefits.

Timothy A Vogel (parcel 120.005.002.04.040) has informed the viewers that he has 34.0 acres tiled into the JD-12 watershed. These acres have been assigned benefits and are included in this re-determination of benefits.

Timothy A Vogel (parcel 120.005.003.14.075) has informed the viewers that he has 12.0 acres tiled into the JD-12 watershed. These acres have been assigned benefits and are included in this re-determination of benefits.

Timothy A Vogel (parcel 120.005.004.16.080) has informed the viewers that he has about 47.0 acres tiled into the JD-12 watershed. These acres have been assigned benefits and are included in this re-determination of benefits.

Benefits and damages statement

This report covers the redetermination for a previously constructed drainage system. The basis for determining benefits and damages is therefore, based upon a comparison of the conditions that would have existed prior to the County open ditch and County tile systems construction, with those that do exist with the drainage system in a reasonable state of repair. Supporting documentation for the analysis and conclusions of the report are contained in our files and are available for inspection. The figures stated herein are based on a full and fair comparison of all pertinent facts and information that we were aware of at the time of this redetermination process. The following aids were used in this viewing process.

- Brown and Redwood County online GIS parcel information site
- USDA web soil survey
- Google Earth aerial satellite photos
- Yield averages taken from USDA national agriculture statistics service
- Production costs taken from University of Minnesota FinBin
- Average commodity sale prices taken from University Finbin
- Sales data from the Brown County and Redwood County Assessor offices and websites
- Visual inspection of each 40 acre parcel or less.

- Consultation with Brown and Redwood County Auditor / Treasurer Office, the Brown County ditch inspector, and the Redwood County Environmental Office and Drainage Staff

The Viewers determined that the lands affected by the drainage system are generally similar and that the following comments refer to all such tracts.

1. Existing land use, property value and economic productivity:

Land is presently used for building sites, roads, and for agricultural purposes. The property value is consistent with most agricultural land sales within Brown County and Redwood County. Agricultural lands are primarily used for the production of corn and soybeans. The land has good economic productivity when properly drained.

2. Potential land use, property value and economic productivity from the drainage system:

The drainage system has been in existence for many years and provides drainage for agricultural purposes. The property value is consistent with most agricultural land sales within Brown and Redwood County. Land affected by the drainage system has the potential to produce above average yields.

3. The benefits or damages from the drainage system:

Benefits derived by lands affected by the drainage system are due to (A) Improved capacity to remove surface waters due to previous construction and maintenance of the County open ditch and County tile system, which results in an increase in the current market value of property; or (B) an increase in the potential for agricultural production as a result of the previous construction and continued maintenance of the drainage system; or (C) increased value of the property as a result of potential different land use.

4. There is no damage to any riparian rights.
5. There are no acres added to any tract or lot and there are no public waters, wetlands, and other areas not currently being cultivated, that are proposed to be drained in this proceeding.
6. There are no acres which before the drainage benefits could be realized would require a public waters work permit to work in public waters under 103G.245 to excavate or fill a navigable water body under United States Code, Title 33, Section 403, or a permit to discharge into waters of United States under United States Code, Title 33, Section 1344.
7. There are no acres being assessed for drainage of areas that would be considered conversion of a wetland under United States Code, Title 16, Section 3821, if the area was placed in agricultural production.

This report is respectfully submitted to the Drainage Authority of Brown / Redwood Counties JD-12 by:

Mark Behrends _____

Robert Hansen _____

Kendall Langseth _____

John Thompson _____

Submitted this 26th day of October 2021