Redwood County Ditch Authority

Re: Redwood County Ditch No. 55
Redetermination of Benefits

October 26, 2022

In accordance with the Minnesota Statute 103E.351, we herewith submit the following viewers' report:

Benefits and Damages Statement

This report covers the redetermination of benefits for a previously constructed drainage system. The method for determining benefits and damages is based upon a comparison of the conditions that would have existed prior to the ditch system's construction with those that do exist with the drainage system in a reasonable state of repair.

County Ditch No. 55 was petitioned for in 1921. The original viewers' report $20.047.00 net benefits and the cost of $19,646.06. There were 257 acres benefited. In 2006, a pond on CREP land was requested. It drains parts of Section 14, 15, 22, 23, 26, and 27 of Underwood Township (T112N-R39W). The flow is northerly. It has a branch that outlets into JD 37 in Section 22 and the main empties into JD 37 in Section 33. JD No. 37 becomes the Redwood River in Section 29 north of Seaforth.

The field observations for the watershed and land classifications were done in March of 2022. We made an on-site inspection of each 40 acre or smaller parcel. There are 646 acres benefited within this watershed.

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 consideration of all pertinent facts and information that we were aware of at the time of this appraisal. The following aids were used during the viewing process.

- Soil survey manual and maps of Redwood County
- FSA aerial photos
- Topographical and LiDAR maps
- Yield averages and production costs taken from the Farm Business Management Reports
- Visual inspection of each 40 acre parcel
- Original maps and profiles
- Sales data from the Redwood County Assessor's Office

Land classification benefit values are based upon an increase in the potential for agricultural production as a result of constructing the drainage project and reconciled with sales value increases. Existing individual land management practices were not considered. All present land use was evaluated under estimated best land management practice. Consideration was given to areas which were determined to be in a native/non-converted condition, government lands, and permanent set-aside acres (RIM, CREP)

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 a market value for agricultural purposes of $0.00 per acre, economic productivity of $0.00.

"B" Seasonally flooded/pasture ground. Pasture classification with a market value of $2400 to $2800 per acre, economic productivity of $90 based on grazing days and/or hay values.

"C" Wet subsoil- Marginal crop land, low to medium crop land classification with a market value of $6400 to $6800 per acre, annual economic productivity of $664.00 based upon average annual yield of 80% of optimum with $378.00 production costs.

D" Upland areas not needing artificial drainage, but irregular in shape and intermixed with wetter soils. Medium to high cropland classification with a market value of $8000 to $8400 per acre, annual economic productivity of $796.80 based upon average annual yield of 96% of optimum with $378.00 production costs.

Valuation with NRCS Recommended Drainage

Potential land use, property value, and economic productivity, after public and private drainage have been installed as per 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 a market value of $7000 to $7400 per acre, economic productivity of $747.00 based upon average production of 90% of optimum with $378.00 production costs.

"B" Well drained ground, high land classification with a market value of $8200 to $8600 per acre, economic productivity of $788.50 based upon average annual production 95% of optimum with $378.00 production costs.

"C" Well drained ground, highest land classification with an estimated market value of $9300 to $9700 per acre, economic productivity of $821.70 based upon average annual production of 99% of optimum with $378.00 production costs.

"D" Well drained ground, high land classification with improved farmability and market value of $8800 to $9200 per acre, economic productivity of $830.00 based upon average production of 100% of optimum with $378.00 production costs.

A "D-" classification was assigned to the building site acres.

Utilizing these productive values, potential benefits values were determined for the system based upon a 25 year effective life with proper maintenance, private improvement cost depreciated over the same 25 year period, and an allowance of 3% return on the system investment.

Increase Productivity Evaluation

CROP	YIELD	VALUE	INCOME	%	ADJUSTED
Corn	200	$5.00	$1000.00	50%	$500.00
Beans	55	$12.00	$660.00	50%	$330.00
					$830.00

Costs

Corn	$527.36 X 50% =	$263.68
Beans	$228.66 X 50% =	$114.33
	$378.01 rounded to	**$378.00**

BENEFITS

	"A"	"B"	"C"	"D"
	90% of $830.00 = $747.00	95% of $830.00 = $788.50	99% of $830.00 = $821.70	100% of $830.00 = $830.00
Minus cost Of production	$378.00	$378.00	$378.00	$378.00
Net Income	$369.00	$410.50	$443.70	$452.00
Previous income	$ 0.00	$ 90.00	$286.00	$418.80
Increase	$369.00	$320.50	$157.70	$ 33.20
Private costs	$60.00	$ 60.00	$ 38.00	$ 0.00
Annual increase	$309.00	$260.50	$119.70	$ 33.20
Capitalized for 25 yrs. @ 3%	$5380.65	$4536.11	$2084.35	$ 578.11
Rounded to	$5380.00	$4536.00	$2084.00	$ 578.00

The drainage system as originally constructed does not meet the NRCS recommended drainage capacities for agricultural drainage. Considering the impacts of the restrictive capacity, an efficiency rate has been applied. This rate reflects the viewers' determination of that portion of the potential benefit currently being provided the County Ditch System. Proximity adjustments were made to allow for construction of the public or private laterals required to improve the drainage capacity to meet the NRCS recommendation.

The viewers' report of acres benefited show the amount of each type of soil classification ('A'; 'B'; 'C'; 'D'; 'D-') and the value for each type based on potential increased agricultural production. The proximity factor was applied to arrive at the net benefits.

Road benefits were determined with consideration of the reduced construction and maintenance costs that were realized after construction of the drainage system.

Tile benefits were given to reflect the additional value added as the ditch system tile provides one of the normal lines of tiles for subsurface drainage.

This report is respectfully submitted to the Redwood County Ditch Authority by:

Steve Johnson

Jim Weidemann

Todd Hammer