

Faribault County, Minnesota

County Ditch #73

Staff Repair Report

March 2023

FARIBAULT COUNTY
Drainage Dept

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CD73 Repair Report

BACKGROUND

County Ditch #73 (CD73) was established in 1948 as an open ditch with two short tile branches. The outlet for the open ditch is the Maple River in Section 10, on property currently owned by the United States Fish & Wildlife Service (USFWS). The open ditch was constructed with a 5' bottom width and 1:1 side slopes and a very flat grade of 0.02%. Two ditch crossings exist on the system, one belonging to Lura Township for 235th St. and one field crossing owned by the system. The open ditch was inspected in 2020 and prompted a follow-up survey in 2022 due to potential sediment issues.

There has been one petitioned repair according to the legal record. A petition by numerous landowners was submitted in 1963 and an engineer was appointed to complete a survey and report. The open ditch profile showed several feet of sediment accumulation and a field crossing about 1' above grade. The engineer noted that the flat grade of the ditch will require reoccurring cleanouts to maintain the ditch in proper operating conditions. The engineer further stated that, "it would not be feasible to consider an improvement to the ditch to increase the grade," due to the limited relief between the outlet at the Maple River and the Main Tile at the beginning of the open ditch.

DATA COLLECTION

Drainage Department staff completed a survey of the open ditch in 2022. The location of tile outlets and side inlets as well as the invert elevations of the two ditch crossings were recorded. Legal grade was determined by fitting the grade line to the invert elevations of the two crossings.

PROPOSED REPAIR DETAILS

From the open ditch profile, sediment has accumulated in the open ditch. To restore the open ditch to its original grade or make any measurable positive effect on drainage, cleaning would need to begin at the outlet to the Maple River. This poses numerous challenges due to the marshy, wet conditions of the open ditch through the USFWS property. Additional tree removal would also need to be undertaken to access the open ditch channel.

TIMELINE

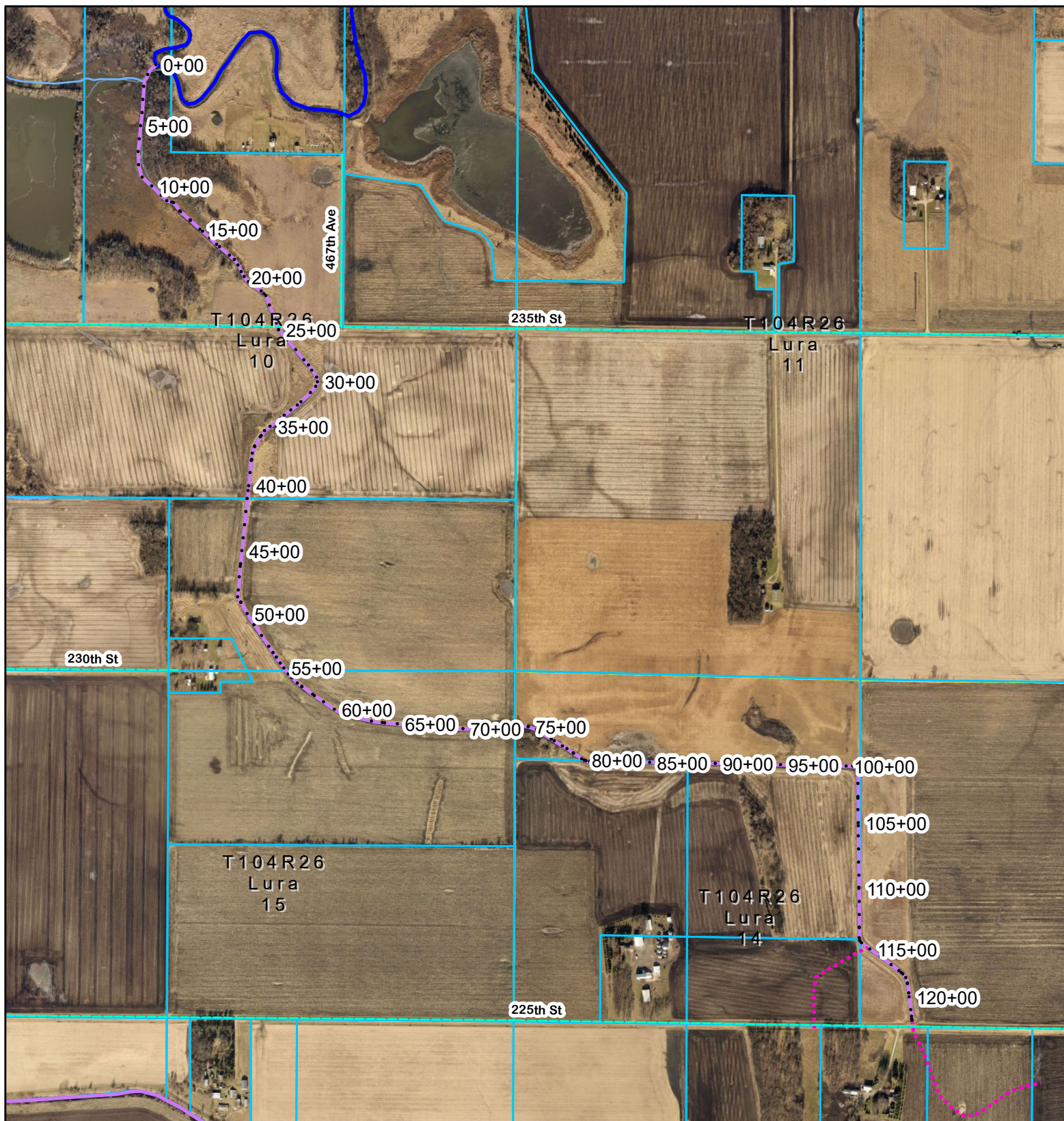
Cleaning of the open ditch through the USFWS property would require very dry conditions.

COST ESTIMATE

Item	Unit	Quant	County Est Unit Price	County Est Amount
Mobilization	LS	1	\$ 2,000.00	\$ 2,000.00
Open Ditch Cleaning - USFWS Property	LF	2500	\$ 4.00	\$ 10,000.00
Open Ditch Cleaning	LF	5500	\$ 2.50	\$ 13,750.00
Tree and Brush Removal	LS	1	\$ 8,000.00	\$ 8,000.00
Contingency 10%				\$ 3,375.00
				\$ 37,125.00

APPENDICES

Appendix A: CD73 Overview Map
Appendix B: Open Ditch Profile



Appendix A CD73 Overview Map



**Faribault County
Drainage Department**

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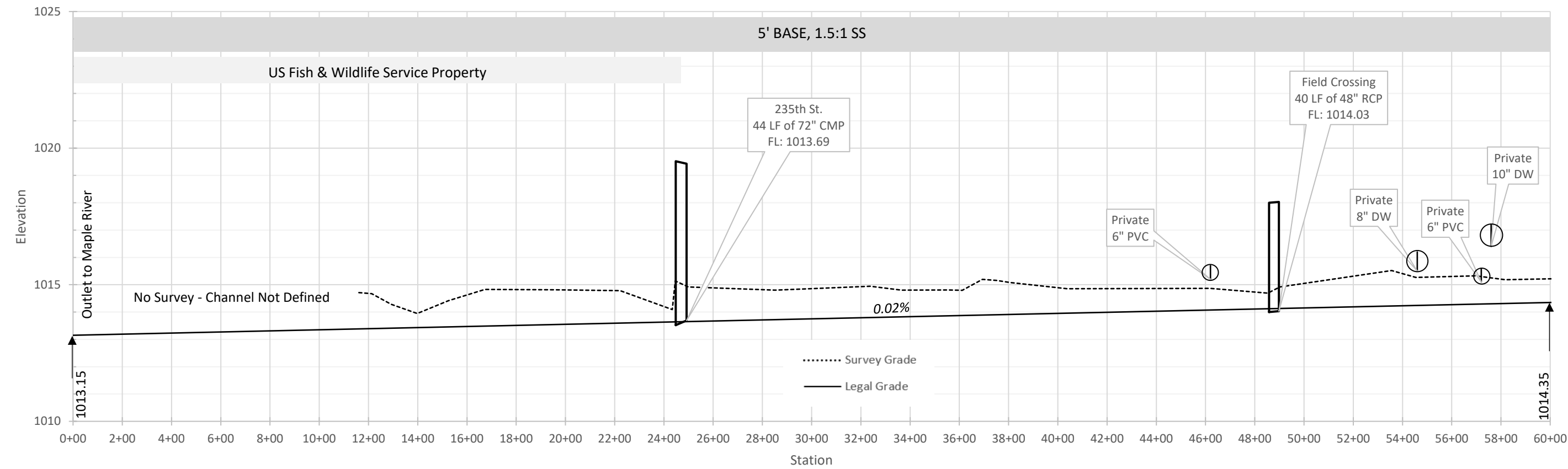
- Public Open Ditch
- - - - - Public Tile

1 inch = 1,000 feet



Disclaimer: Faribault County and Faribault County SWCD do not warrant or guarantee accuracy of the GIS data. The data is meant for reference purposes only and should not be used for official decisions. The data contained in the maps were compiled from the best available records that could be found and may contain errors or omissions.

CD73 Open Ditch



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