

HENNEPIN COUNTY

MINNESOTA

DATE: April 10, 2023

TO: Elm Creek Watershed Management Commission (ECWMC)

FROM: Kevin Ellis, and Kris Guentzel; Hennepin County Department of Environment and Energy

RE: Conservation Project Tracking – April 2023

Memo Purpose and Overview

To provide a summary, to commissioners and staff, of project progress, cost, and benefit for projects anticipated to be installed in 2023. Text below is broken down by watershed, with all projects in either the Rush Creek Headwaters or Diamond Creek subwatersheds. Table 1 outlines project installation costs encumbered and yet available. The projects in Table 2 are all those the county is actively developing which, based on landowner willingness and project development progress, we can reasonably anticipate will be implemented in 2023. As staff continue to engage landowners and develop projects, more are anticipated to be added to Table 2, or may be removed should they become infeasible.

Project work is currently focused on the priority subwatersheds of the Rush Creek Headwaters and Diamond Creek, which each have completed subwatershed assessments and state and local funding to support project installations.

Staff anticipate this information being included in future staff reports but are providing as a standalone memo to get feedback from the commission on format and need.

Funding Options and Current Status

County staff are planning to use a few different funding sources to reimburse landowners for installation costs, including:

- 1) Watershed-based implementation funds (WBIF): \$175,000 has been allocated for conservation practice installation in the Rush Creek and Diamond Creek subwatersheds.
- 2) Commission Capital Improvement Program (CIP) funds, not to exceed 25% of installation costs:
 - a. 2020-01 (\$50,000 for Livestock Exclusions, Buffers, Stabilizations in Corcoran and Rogers);
 - b. 2020-02 (\$50,000 for Agricultural BMPs, Cost-Share in Corcoran and Rogers), and 2022-03; and
 - c. Partnership Cost Share, to implement BMPs in partnership with private residents, up to \$50,000 annually with commission approval.
- 3) Hennepin County funds, typically 10% of installation costs



- 4) Landowner funds, typically 10% of installation costs
- 5) Other grant or partner funds, such as from the Natural Resource Conservation Service (NRCS) or another state or federal partner. The county is actively engaging NRCS on each project to determine their ability to assist in project design and installation financially and/or technically.

Table 1 outlines the total available from each of these funds, the amount currently encumbered to projects as listed in Table 2, and the amount available for projects not yet listed in Table 2. All costs are current as of early April 2023. Some costs for CIP 2020-01 and 2020-02 were incurred to complete installation Rush Creek Clean Water Fund grant projects.

Table 1: Status of funds Hennepin County staff are utilizing for conservation practice installation in the Elm Creek Watershed.

Fund Type	Fund Total	Amount Invoiced	Amount Encumbered	Amount Still Available
Watershed-based implementation funds (WBIF)	\$175,000	\$0	\$79,765	\$95,235
CIP (2020-01, 2020-02)	\$100,000	\$31,693.08	\$45,375	\$22,931.92
Partnership cost share	\$50,000	\$0	\$0	\$50,000

Rush Creek Headwaters Projects

Cain Fencing

Description: This project installed exclusionary fence for livestock along a creek that ultimately discharges into Rush Creek. The project was PID: 1711923210003

Status: Project was completed in 2022 and has been fully invoiced. \$14,180.50 has been reimbursed on this project with the landowner contributing \$1,418.05 (10%). ECWMC contribution to this project is \$4,983.75 (15% project costs). Remainder of the project was reimbursed by Hennepin County (\$1,418.05 10%) and the Headwaters Rush Creek Clean Water Fund Grant (\$7,799.28 55%).

Stotts Phase 1A

Description: This project installed 5 grassed waterways to address gully erosion on row-cropped fields west of Jubert Lake. PID: 3011923440003.

Status: This project is substantially completed. All five waterways have been installed and properly graded with drain tile replaced. Project will be seeded in Spring 2023 to close out implementation. \$89,928 has been reimbursed on this project with the landowner contributing \$9,992 (10%). ECWMC contribution to the project is \$30,000 (25% project costs). \$23,164.20 has been invoiced thus far.

Stotts WASCOB and Waterway

Description: This project installed a grass waterway and WASCOB to address gully erosion in a steep row-cropped field west of Jubert Lake. PID: 3011923440003.

Status: This project has been fully completed and reimbursed. The final reimbursement for the project was \$29,434.32 with the county and the landowner contributing \$3,270.48 each. ECWMC's share of the

project was \$8,176.20 (25%), with the remaining \$17,987.64 covered by the Headwaters Rush Creek Clean Water Fund grant.

Bottema Restorations

Description: This project will restore up to 11 wetlands and install 42 acres of prairie on an agricultural field directly adjacent to Rush Creek. PID: 0311923310003.

Status: The county has entered into an agreement with the landowner and began prairie seeding in Fall 2022. The county is working with the city and technical evaluation panel to get permit approval. Designs are finalized as well. Installation is anticipated in late spring or summer 2023. Projects funds in Table 2 are encumbered but have not yet been paid.

Mattila Phase 1 (Livestock Waterers and Barn Gutters)

Description: This project was a part of the Rush Creek CWF grant projects. The goal of this project was to make upgrades that could be used for rotational grazing and reduce flooding and erosion from a small cattle feedlot uphill of a water way that flows directly into Rush Creek which runs through the property. PID: 0811923220009

Status: Waterers and barn gutters were installed in Fall 2022. Total project reimbursement was \$29,902.50, of which \$4,983.75 (15%) has been invoiced to ECWMC. The remainder was paid through the Rush Creek Clean Water Fund grant.

Mattila Phase 2 (Manure Bunker)

Description: Through this project the partners will install a manure bunker that will be used to store manure scrapped from a small cattle feedlot adjacent to Rush Creek. PID: 0811923220009

Status: Manure bunker design was completed in 2022 but construction was delayed until Spring 2023 due to inclement weather and site conditions. Total project cost is quoted to be \$36,900.

Vehrenkamp WASC OB

Description: This project adds a water and sediment control basin (WASC OB) to a property experiencing flooding and erosion from adjacent row crop fields and horse pastures in the Rush Creek Subwatershed. This project will also add a crossing for the landowner to utilize to access the Eastern half of the property during wet conditions. PID 0911923330006

Status: A conceptual design of the project was completed using survey data collected in Summer 2022. The project is currently receiving landowner feedback which will be utilized in the final design and to estimate cost-benefit.

Stotts Phase 1B

Description: This project will add two grassed waterways, one water and sediment control basin (WASC OB) and will restore one wetland on currently farmed row crop fields west of Jubert Lake. PID: 3011923440003.

Status: Currently in the design phase for the WASC OB and wetland. Contracting and installation is slated for 2023. A cost estimate has not been completed for this project.

Diamond Creek Projects

Diamond Hill Pasture/Feedlot Upgrades

Description: This project is to assist with implementation of NRCS Environmental Quality Incentives Program (EQIP) funded pasture upgrades including new fencing, waterers, shelters, and a gutter system on the barns facing the dry lots. These practices will support a managed, rotational grazing system that will enhance pastures. PID: 1612022220004

Status: Project is in the early design phase. Landowners have not signed an EQIP contract and are currently deciding on whether they will participate in the project. Hennepin County had been in discussion with the landowner to install barn gutters and water diversion around the dry lot areas to reduce nutrient and pathogen loading in the adjacent creek. However, no quote has been obtained at this time.

HENNEPIN COUNTY

MINNESOTA

Table 2: Projects completed and in design which are anticipated to utilize Elm Creek Watershed Management Commission (ECWMC) funds. Amounts in 'Funding Sources' columns include costs invoiced and encumbered. Funding sources may be from a federal agency (Natural Resources Conservation Service, or NRCS), state agency (Watershed-based implementation fund (WBIF) or another grant), or local entity (ECWMC Capital Improvement Program (CIP), Hennepin County, or from the landowner).

Receiving Water(s)	Project Name	Best Mngt. Practice(s) (BMP)	Status	BMP Benefits		Cost		Cost effectiveness *		Funding Sources					
				TP (lbs/yr)	TSS (tons/yr)	Project Dev / Design	Install	\$/lb-TP/yr	\$/ton-TSS/yr	NRCS	Grant **	WBIF	CIP	Henn. Co.	Land-owner
Rush Creek	Cain Fencing	Pasture Mngt.	Installed and Complete (2022)	6.63	-	\$6,419.86	\$14,180.50	\$213.88	-	-	\$7,799.28	-	\$3,545.13	\$1,418.05	\$1,418.05
	Mattila Phase 1	Barn Gutters and Waterers	Installed and Complete (2022)	17.29	-	\$4,279.91	\$33,225.00	\$192.16	-	-	\$18,273.75	-	\$4,983.75	\$3,322.50	\$3,322.50
	Mattila Phase 2	Manure Bunker	Install Spring 2023	4.8	-	\$6,419.86	\$36,900	-	\$768.75	-	-	\$2,295	\$9,225	\$3,690	\$3,690
	Stotts Phase 1A	Grassed Waterways	Substantially Installed	79.44	39.72	\$8,559.82	\$120,000	\$151.05	\$302.11	-	\$54,956	-	\$14,988	\$9,992	\$9,992
	Stotts WASC OB & Waterway	WASC OB & Grassed Waterway	Installed and Complete (2021)	7.5	7.5	\$4,279.91	\$32,704.80	\$436.06	\$436.06	-	\$17,987.64	-	\$8,176.20	\$3,270.48	\$3,720.48
	Vehrenkamp WASC OB	WASC OB	Prelim. design complete	TBD ±	TBD	\$8,559.82	\$20,600	TBD	TBD	-	-	\$9,270	\$5,150	\$2,060	\$2,060
	Bottema Restorations	Wetland and Prairie Restoration	Securing permits	14.2	-	-	\$124,000	\$932.86	-	-	-	\$68,200	\$31,000	\$6,200	\$18,600
	Stotts Phase 1B	Grassed Waterways, Wetland Restoration	In design	TBD ±	TBD	\$4,279.91	TBD	TBD	TBD	-	-	TBD	TBD	TBD	TBD
Diamond Creek, Diamond Lake	Diamond Hills Pasture / Feedlot Upgrades	Fencing, Waterers, Barn Drainage	Landowner design feedback	54	1.4	-	TBD	TBD	TBD	TBD		TBD	TBD	TBD	TBD
								Total Encumbered:				\$79,765	\$77,068.08	\$23,953.03	\$42,803.03
								ECWMC Funding:				\$175,000	\$100,000	-	-
								Remaining:				\$95,235	\$22,931.92	-	-

* Cost effectiveness is annualized over the practice life cycle, which considers the cost (install + maintenance) and benefit over the lifetime of the practice, typically 10-20 years.

** Stotts Phase 1A was completed in 2022 using the Rush Creek Headwaters Clean Water Fund Projects and Practices grant.

± TBD = To Be Determined. Projects in early design phases may not have installation costs or water quality benefits estimated yet.

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