



**Minnesota Pollution
Control Agency**

520 Lafayette Road North
St. Paul, MN 55155-4194

**Section 319 Grant Project
Final Progress and Financial Report**

Doc Type: Reporting/Final Report

The Minnesota Pollution Control Agency (MPCA) provides grants to organizations to help fulfill the agency's mission. Each grant project is required to complete a final progress and financial report. Information from this grant report will be used to illustrate progress toward meeting the MPCA's goals and missions and will be shared with interested parties, targeted audiences, and legislators.

More information about preparing a final progress and financial report for a Section 319 grant project can be found in the [U.S. Environmental Protection Agency \(EPA\) Polluted Runoff: Nonpoint Source Pollution](#) website. This website describes the purpose of the Section 319 program and final project reports, the information that should be included in the report, examples of especially effective elements from 319 reports, and ways to expand the final project report to be used for outreach and education, building partnerships, and many other uses.

Instructions: This 319 grant project final progress and financial report must be submitted **no later than 30 days prior to the end of the grant contract**. It must include results, in the form of data and information, that best demonstrate achievement of project goals and objectives.

Please follow the attached report format, referring back to the work plan and budget and any subsequent amendments to your grant agreement, contract, or work order. When completed, send an electronic copy of the completed report to your MPCA project manager for review.

Grant project summary

Project title: Sand and Coon Creeks Nine Key Elements (NKE) Plan Phase 1

Organization (Grantee): Coon Creek Watershed District (CCWD)

Project start date: 6/13/2022 Project end date: 6/30/2025 (end) Report submittal date: 7/31/2025

Grantee contact name: Tim Kelly (cc:Justine Dauphinais) Title: District Administrator

Address: 13632 Van Buren St NE

City: Ham Lake State: MN Zip: 55304

Phone number: 763-755-0975 Fax: NA Email: tkelly@cooncreekwd.org

Basin (Red, Minnesota, St. Croix, etc.)
/Watershed & 8 digit HUC:: Mississippi River-Twin Cities; HUC 07010206 County: Anoka

Project type: 319 Implementation

Grant funding

Final grant amount: \$320,705.50 Final total project costs: \$938,385.47

Matching funds: Final cash: \$571,143.59 Final in-kind: \$46,536.38 Final Loan: \$0

MPCA project manager: Brittany Faust, Mark T. Hanson, Kate MacDonald

Executive summary

Problem

Coon Creek and its primary tributary, Sand Creek, are impaired for aquatic life and recreation with 303(d) listings for macroinvertebrates, fish, and excess *E. coli* between 2006-2024. The primary stressors impacting aquatic life were determined to be excess sediment, excess phosphorus, altered hydrology, and poor habitat including loss of connectivity. As part of the 2016 Coon Creek Watershed Total Maximum Daily Load (TMDL) study, pollutant load reduction targets were established for both creeks for total suspended solids (TSS), total phosphorus (TP), and *E. coli*. The primary sources of excess sediment and particle-bound phosphorus were determined to be streambank erosion and urban stormwater runoff. The 2016 CCWD Watershed Restoration and Protection Strategies (WRAPS) Report identified several in-channel and watershed best management practices to both meet pollutant loading allocations and address non-pollutant stressors. More specifically, to address unregulated, non-point sources of TSS and TP attributable to streambank erosion, the CCWD NKE Document identified a need for 20,750 linear feet of streambank stabilizations to reduce TSS loading in Coon and Sand Creeks by 920 tons per year. To address non-pollutant stressors to aquatic life, it is also necessary to address poor in-stream habitat and loss of connectivity through stream restoration work.

The CCWD NKE Document first called for completion of a study analyzing all stream crossings to identify the top-ranking barriers to aquatic organism passage (AOP) in the Sand and Lower Coon Creek sub-watersheds to inform implementation of at least three improvement projects. In 2023, CCWD contracted Stantec to complete such a comprehensive assessment evaluating factors impacting AOP at all road, rail, and trail stream crossings along mainstem Coon and Sand Creeks including structure and water elevations, slope, velocity, substrate, culvert length, and cross-sectional area; all crossings were classified as “No Barrier”, “Insignificant Barrier”, “Minor barrier”, “Moderate Barrier”, or “Significant Barrier”. Stream crossings were prioritized for future enhancement projects based on their severity ranking, position along the stream, and the distance upstream to the next crossing ranked moderate or worse. Twelve barriers were ranked as moderate or worse (Figure 1) with the limiting parameters for all top-ranking crossings being either the extent of the outlet drop (perched culverts) or level of constriction (undersized cross-sectional area compared to stable channel geometry). Culverts that are perched and/or undersized are often also associated with increased channel scour and bank erosion and associated TSS and TP loading.

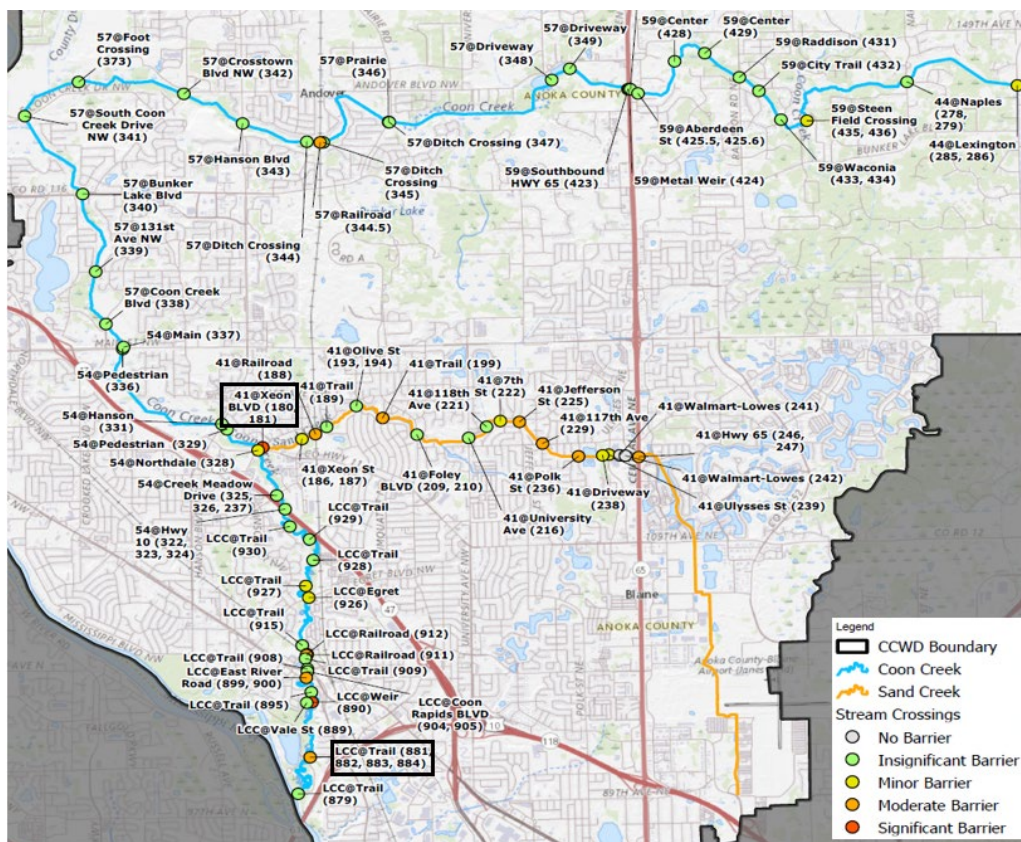


Figure 1. Map of stream crossings along Coon and Sand Creeks in Anoka County, MN indicating the degree of severity of barriers to aquatic organism passage. Labels indicate the name of the crossing and identification number of structures. Boxed labels reflect priority crossings nearest to the stream outlets that were the subject of this grant work plan.

Waterbody improved

To mitigate aquatic organism passage (AOP) barriers and reduce stream channel TSS and TP loading, CCWD pursued stream crossing enhancement projects at two of the top-ranking priority crossings identified in the comprehensive AOP study as part of this grant work plan. A new concrete span bridge was installed in place of existing undersized culverts at the trail crossing near the outlet of Lower Coon Creek within the Coon Rapids Dam Regional Park. Stream bank erosion in the vicinity of this crossing totaling 650 linear feet was stabilized via re-grading and installation of vegetated rock riprap, reducing TSS and TP loading to Coon Creek (and the Mississippi River just downstream) by 40.5 tons and 34.4 lbs. per year, respectively. Aquatic organism passage was restored to 0.84 miles of Lower Coon Creek, improving connectivity with the Mississippi River. Biomonitoring assessments led by the MPCA are scheduled for 2030 and will be conducted at the Vale Street biomonitoring site just upstream of the project reach.

Additionally, design work was also completed for the top-ranking barrier near the mouth of Sand Creek at Xeon Boulevard. State grant funding and local match was secured to implement this enhancement project in 2025-2026. A rock arch step pool will be installed to alleviate perched conditions, and the undersized culvert will be replaced with an appropriately sized box culvert.

Project highlights

- A major barrier to Aquatic Organism Passage (AOP) was alleviated by replacement of undersized culverts with a span bridge, restoring connectivity to 0.84 miles of stream.
- A second AOP enhancement project design was developed to address the top-ranking barrier in Sand Creek.
- Active stream bank erosion and channel scour was stabilized via vegetated rock riprap, re-grading, and installation of cross vanes, reducing TSS and TP loading by 40.5 tons and 34.4 lbs per year, respectively. Habitat was also improved through the installation of backwater pools, woody features, and riparian plantings.
- This design and restoration work was completed between 2023 and 2025 and has set the stage for continuing work upstream, consistent with CCWD's comprehensive watershed management plan and progress towards meeting TMDL reducing targets.
 - This work led to securing \$445,000 in state Clean Water Fund grant funding to expand bank stabilization and stream habitat restoration work further upstream within the Coon Rapids Dam Regional Park. The Lower Coon Creek Corridor Restoration Project is currently underway with completion anticipated by the end of 2025.
 - This work also led to securing \$146,366 in state Clean Water Fund grant funding for replacement of the Xeon Boulevard culvert at the confluence of Sand Creek that was designed as part of this work plan. This project should be completed by the end of 2026.
 - Building on the success of this work, CCWD plans to continue addressing top-ranking AOP barriers and stabilizing active erosion in Coon and Sand Creeks as part of the Nine Key Elements Phase II 319 grant work plan which is currently under review by EPA for initiation as early as 2026.

Goals, Objectives, and Tasks

The proposed project set out to address the primary stressors contributing to aquatic life impairments in Sand and Coon Creeks by restoring connectivity to a minimum of 0.5 miles of stream and reducing TSS and TP loading by at least 12.75 tons per year and 10.5 pounds per year, respectively. These estimates were based on addressing AOP concerns and active erosion at one of the proposed top-ranking barriers to AOP with the most conservative measurable outcomes. All work plan tasks were completed as planned (no change orders or amendments) with actual project results exceeding expectations by restoring connectivity to 0.84 miles of stream and reducing TSS and TP loading by 40.5 tons and 34.4 lbs. per year, respectively.

The planned activities for each task are outlined below including a report on achievements:

Objective 1: Implement AOP and streambank best management practices (BMPs)

Task A: Site refinement and design

- Coordinate with owners of priority crossings to align proposed work with planned municipal reconstruction projects where feasible.
- Select one or more sites to address from the 10 priority sites identified in the CCWD 2021 AOP study.
- Develop engineering design plans for selected crossing(s).

Results: Meetings were held between CCWD, Anoka County (AC) Parks, and City of Coon Rapids to discuss the top-ranking barriers to AOP and any planned work in these areas. It was noted that Anoka County Parks had some trail reconstruction and expansion work planned in the Coon Rapids Dam Regional Park at the site of the top-ranking AOP barrier along Coon Creek in 2024 and that AC Parks staff were willing to consider an alternative trail crossing design that improved AOP. AC Parks staff applied to CCWD for technical assistance and cost share funds in designing and constructing an updated trail crossing. The Districts engineering firm, Stantec, completed an analysis evaluating different crossing alternatives and finalized design plans for the resulting pre-cast concrete span bridge option (see attachments). With funding support from this grant, AC Parks incorporated this upgraded design into their trail reconstruction construction contract. City of Coon Rapids staff indicated they were also willing to consider an AOP enhancement project at their Xeon Blvd crossing near the confluence of

Sand Creek, the top-ranking barrier for Sand Creek. The City indicated that timing of road reconstruction was uncertain, but likely to occur within the next 5 years. CCWD decided to proceed with developing engineering design plans for this crossing upgrade to be ready for implementation as part of the future road reconstruction project. In late 2024, the City indicated that the road reconstruction work would be scheduled for 2026. The Xeon Blvd Crossing Enhancement design plans developed under this grant work plan (see attachments) were used to secure \$146,366 in state grant funds to support construction of this project in 2026.

Task B: Enhance AOP and stabilize active erosion

- Mitigate AOP issues using appropriate strategy for the site such as replacement of undersized culvert(s) with structures with adequate capacity and dimensions, installation of flood bench culvert(s), installation of grade stabilization structures/creation of step pools, etc.
- Stabilize all active streambank erosion and scour within the vicinity (at least 20x mean stream width upstream and downstream) of selected crossing(s) using vegetated riprap or robust bioengineering practices. Incorporate structures such as cross vanes and J-hooks to redirect flow and enhance in-stream habitat as feasible.
- Construction oversight to be provided by CCWD staff and/or District Engineer (Stantec consultant) during active construction period.

Results: The four undersized culverts at the Lower Coon Creek Trail crossing were replaced with a pre-cast concrete span bridge that was appropriately sized to not cause a constriction/velocity barrier during high flows. Rock cross vanes were installed upstream and downstream of the crossing to alleviate perched conditions and channel incision. All active streambank erosion within 600 ft. (20x mean stream width of 30') upstream and downstream of the crossing was stabilized via regrading and vegetated rock riprap. This included two banks totaling 250 LF and reducing TSS loading by 24.9 tons and TP loading by 21.2 lbs. per year. An additional 400' bank 1500 ft downstream was also stabilized, reducing an additional 15 tons TSS and 12.75 lbs. for a total of 40.5 tons TSS and 34.4 lbs. TP per year. Habitat enhancement features including excavated backwater pools, woody bank protection and log sills, and native riparian plantings were also installed just upstream of the crossing. Daily construction oversight was provided by CCWD and/or Stantec staff.

Objective 2: Project and Grant Management

Task A: Administration and Reporting

- Hold planning and progress meetings among project partners.
- Bidding and contract management.
- Track task implementation in accordance with work plan.
- Financial tracking and payment of bills.
- Complete e-LINK reporting requirements.
- Compile, organize, and submit quarterly invoices.
- Prepare and submit semi-annual reports and final financial and progress report.

Results: Regular project and grant management continued throughout the duration of the 319-grant project workplan. CCWD held regular coordination meetings among partners and submitted all required quarterly invoices, semi-annual progress reports, and a final report to MPCA on time. CCWD staff also hosted a final on-site project tour attended by MPCA project management staff. Pollutant reductions and BMPs were reported in the BWSR e-LINK system under grant ID P21-0008. Bidding and construction oversight including acquisition of all necessary permits (ACOE RGP, WCA No-loss, 401, NPDES, MN DNR Public Waters, NHIS, archeology survey, etc) was provided by Stantec under the direction of CCWD staff. One challenge faced was the level of regulatory oversight required to complete this stream restoration work including long non-overlapping construction exclusion windows to avoid endangered Blanding's turtle hibernation and native fish spawning periods. The non-excluded June-Sept construction period is not ideal for this type of work in a flashy urban stream given high, unpredictable water levels from summer storms.

Project Results

The proposed project successfully addressed the primary stressors contributing to aquatic life impairments in Coon Creek by restoring connectivity to 0.84 miles of previously disconnected stream channel and reducing TSS and TP loading by 40.5 tons and 34.4 lbs. per year, respectively. Additionally, design work completed under this grant work plan for the Xeon Boulevard crossing (see attachment) set the stage for the next aquatic organism enhancement project to be completed in 2026 near the confluence of Sand Creek. State grant funding with local match has been secured for construction of this project.

Coon Creek and Sand Creek have not yet been delisted because biomonitoring assessments led by the MPCA in these reaches are not scheduled until 2030 and additional watershed and in-channel restoration work is needed. There is a large stream corridor habitat restoration and bank stabilization currently underway in Lower Coon Creek, with plans to continue upstream. There is also a pending 319 grant work plan for a second phase of aquatic organism passage enhancement work in Coon and Sand Creeks to alleviate the next highest priority barriers.

In addition to the pollutant reductions, this project resulted in other long-term benefits such as public engagement and partnership building. Although not included in the work plan scope, outreach included hosting a public information meeting at the Coon Rapids Dam Visitor Center attended by 18 local residents, posting on-site signage with over 156 project brochures taken, hosting a dedicated project webpage for the stream corridor restoration portion of this work, and publication of a press release. There are also plans to host a pollinator plug volunteer planting event at the project site to supplement the native seeding in the riparian area in fall of 2025 in partnership with the Anoka Conservation District. Arguably the most impactful intangible result of this project was the development of a new partnership between Anoka County Parks and the Coon Creek Watershed District which will result in additional water quality benefits into the future. This work has already resulted in securing \$591,366 in additional state grant funds and \$30,000 in pledged local funds to expand and continue this work upstream.

Implementation of this work plan also resulted in some important lessons learned. CCWD and Stantec struggled to meet the stringent regulatory hurdles required to implement this type of complex stream restoration project (i.e., ACOE RGP for stream stabilization and habitat enhancement, WCA No-loss, 401 non-degradation certification, NPDES construction stormwater, MN DNR Public Waters, NHIS, archeology survey). Working through these issues highlighted the need to schedule pre-application meetings with all regulatory entities early and to check in often. Unfortunately, the time, cost, and difficulty of working through these regulatory processes is a major disincentive to undertaking comprehensive stream restoration projects.

Work products produced as part of this work plan include the following (see attachments in zipped folder):

- Design memo and plans for Lower Coon Creek Trail Crossing enhancement
- Design plans for Lower Coon Creek Corridor Restoration (bank stabilization + habitat enhancement)
- Design memo and plans for Sand Creek Xeon Blvd Crossing Enhancement
- Press Release Announcing project
- Website Content: www.cooncreekwd.org/lcccr
- PowerPoint presentation for public open house
- Project Progress Photographs
- BMP implementation report in e-LINK

Project Partnerships

Implementation of this grant work plan was led by Coon Creek Watershed District staff, but could not have been accomplished without partnering with Anoka County Parks. As the landowner and trail operator, Anoka County Parks served a critical role in facilitating construction and public communication. Anoka County Parks led the portion of construction related to replacement of their trail culverts with a bridge with technical assistance on design from CCWD and its engineer (Stantec) along with stabilization of one of the eroding stream banks threatening their trail system. CCWD led construction of the remaining stream bank stabilization and stream habitat restoration elements. This was the first time CCWD and Anoka County Parks pursued a joint project and it was a resounding success. Anoka County Parks staff were well suited to facilitate construction contracting and serve as a fiscal agent and CCWD and Stantec were well suited to provide technical expertise and daily construction oversight. This project served as a successful pilot to support future joint water quality improvement projects on County-owned land. This project has already led to Anoka County Highway Department seeking technical assistance from CCWD to inform road crossing design improvements for aquatic organism passage upstream. CCWD, Anoka County Parks, and the Anoka Conservation District plan to build on the success of this project by hosting a related pollinator plug planting event at the project site and hosting a project tour of the water quality and habitat improvement elements.

Final Expenditures

See attached master tracking spreadsheet with tabs including details of cash match and in-kind contributions.

Project Name: Sand and Coon Creeks NKE Plan Phase 1
Organization Name: Coon Creek Watershed District

6/30/2025

							Cumulative Project Totals				
Objective	Cost category	Grant	In kind match	Cash match	Total match	Budget total	Grant Expended	In-kind Expended	Cash match Expended	Total match Expended	Total Expended
Objective 1: Implement AOP and Streambank BMPs											
Task A: Site refinement and design											
Planning/coordination	CCWD Staff*	\$ -	\$ 5,000.00	\$ -	\$ 5,000.00	\$ 5,000.00	\$ -	\$ 10,070.22	\$ -	\$ 10,070.22	\$ 10,070.22
Design plans and specs	District Engineer	\$ -	\$ -	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ -	\$ -	\$ 185,626.60	\$ 185,626.60	\$ 185,626.60
Task B: Enhance AOP and stabilize active erosion						\$ -					\$ -
Installation of BMPs	Contractor(s)	\$ 320,705.50	\$ -	\$ 111,304.50	\$ 111,304.50	\$ 432,010.00	\$ 320,705.50	\$ -	\$ 359,029.17	\$ 359,029.17	\$ 679,734.67
Construction oversight	CCWD Staff*	\$ -	\$ 7,500.00	\$ -	\$ 7,500.00	\$ 7,500.00	\$ -	\$ 10,375.09	\$ -	\$ 10,375.09	\$ 10,375.09
	District Engineer	\$ -		\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ -	\$ -	\$ 26,487.82	\$ 26,487.82	\$ 26,487.82
Objective 1 - Total		\$ 320,705.50	\$ 12,500.00	\$ 186,304.50	\$ 198,804.50	\$ 519,510.00	\$ 320,705.50	\$ 20,445.31	\$ 571,143.59	\$ 591,588.90	\$ 912,294.40
Objective 2: Project and Grant Management											
Task A: Administration and Reporting	CCWD Staff*	\$ -	\$ 15,000.00	\$ -	\$ 15,000.00	\$ 15,000.00	\$ -	\$ 26,091.08	\$ -	\$ 26,091.08	\$ 26,091.08
Objective 2 - Total		\$ -	\$ 15,000.00	\$ -	\$ 15,000.00	\$ 15,000.00	\$ -	\$ 26,091.08	\$ -	\$ 26,091.08	\$ 26,091.08
TOTALS		\$ 320,705.50	\$ 27,500.00	\$ 186,304.50	\$ 213,804.50	\$ 534,510.00	\$ 320,705.50	\$ 46,536.38	\$ 571,143.59	\$ 617,679.97	\$ 938,385.47

*CCWD staff rates not to exceed \$77 per hour

60%

5%

35%

40%

100%

34%

5%

61%

66%

100%