



## Grant All-Detail Report Projects and Practices 2019

**Grant Title** - Middle Sand Creek Corridor Restoration

**Grant ID** - C19-2516

**Organization** - Coon Creek WD

Original Awarded Amount	<b>\$382,772.00</b>	Grant Execution Date	<b>3/20/2019</b>
Required Match Amount	\$95,693.00	Original Grant End Date	12/31/2021
Required Match %	25%	Grant Day To Day Contact	Justine Dauphinais
Current Awarded Amount	\$382,772.00	Current End Date	12/31/2021

### Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$382,772.00	\$382,772.00	\$0.00
Total Match Amount	\$0.00	\$218,970.15	\$-218,970.15
Total Other Funds	\$291,000.00	\$312,230.00	\$-21,230.00
<b>Total</b>	<b>\$673,772.00</b>	<b>\$913,972.15</b>	<b>\$-240,200.15</b>

\*Grant balance remaining is the difference between the Awarded Amount and the Spent Amount. Other values compare budgeted and spent amounts.

### Budget Details

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Administration & Reporting	Administration /Coordination	Current State Grant	Middle Sand Creek Corridor Restoration	\$31,028.00	\$36,603.86	12/31/2020	N
Administration & Reporting	Administration /Coordination	Local Fund	CCWD Unbudgeted Match	\$0.00	\$10,886.71	12/6/2021	Y

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Construction	Streambank or Shoreline Protection	Current State Grant	Middle Sand Creek Corridor Restoration	\$274,072.00	\$249,938.52	2/18/2021	N
Construction	Streambank or Shoreline Protection	Local Fund	CCWD Unbudgeted Match	\$0.00	\$147,892.05	7/15/2021	Y
Construction	Streambank or Shoreline Protection	Other Funds		\$291,000.00	\$312,230.00	2/18/2021	N
Public Involvement, Education, & Outreach	Education/Information	Current State Grant	Middle Sand Creek Corridor Restoration	\$20,162.00	\$20,162.00	12/2/2021	N
Public Involvement, Education, & Outreach	Education/Information	Local Fund	CCWD unbudgeted cash match	\$0.00	\$7,408.57	12/2/2021	Y
Technical & Engineering Assistance	Technical/Engineering Assistance	Current State Grant	Middle Sand Creek Corridor Restoration	\$57,510.00	\$76,067.62	12/31/2019	N
Technical & Engineering Assistance	Technical/Engineering Assistance	Local Fund	CCWD unbudgeted cash match	\$0.00	\$52,782.82	6/25/2021	Y

### Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
101M - Staff Time	1		1 COUNT	5 COUNT
101M - Staff Time	1		1 COUNT	4 COUNT
104M - Workshop/Clinics	1		1 COUNT	1 COUNT
584 - Stream Channel Stabilization	1		1850 LINEAR FEET	1850 LINEAR FEET
612 - Tree/Shrub Establishment	1		42 COUNT	42 COUNT
410 - Grade Stabilization Structure	1		9 COUNT	9 COUNT
104M - Workshop/Clinics	1		1 COUNT	6 COUNT
390 - Riparian Herbaceous Cover	1		5 AC	5 AC

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
314 - Brush Management	1		5 AC	5 AC

### Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
Construction	PHOSPHORUS (EST. REDUCTION)	120 LBS/YR	Sand Creek/Coon Creek	BWSR CALC (STREAM & DITCH STABILIZATION)	.85 lbs per ton TSS for sandy soils
Construction	SEDIMENT (TSS)	141 TONS/YR	Sand Creek/Coon Creek	Literature Value	NRCS Direct Volume Method

### Final Indicators Summary

Indicator Name	Total Value	Unit
SEDIMENT (TSS)	141.00	TONS/YR
PHOSPHORUS (EST. REDUCTION)	120.00	LBS/YR

## Grant Activity

Grant Activity - Administration & Reporting			
Description	Project coordination meetings with partners, project management (bid process, contracts, oversight), financial tracking, eLink reporting.		
	This activity will be carried out by CCWD staff. The CCWD maintains a full-time staff and District Engineer with expertise in multiple-use resource management, hydrology, aquatic biology, outreach/education, and environmental regulations. CCWD staff has extensive experience working on stream restoration projects.		
	Specifically, Justine Dauphinais, Water Quality Coordinator (B. A. Environmental Studies, M. Sc. Fisheries & Aquatic Biology), is responsible for day-to-day project management and grant reporting with administrative oversight by Tim Kelly, District Administrator. Jon Janke, Operations and Maintenance Coordinator (B. S. Natural Resource Management), is responsible for construction management in conjunction with the District Engineer, Ed Matthiesen (See Technical/Engineering Assistance Activity).		
	Key milestones: -JPA executed with landowner (City of Coon Rapids) by Mar 31, 2019 -acquisition of DNR Waters and USACE permits -selection of contractor by Oct 31, 2020 -reporting in eLink by Feb 1st each year		
Category	ADMINISTRATION/COORDINATION		
Start Date	22-Mar-19	End Date	06-Dec-21
Has Rates and Hours?	Yes		
Actual Results	A JPA with the landowner (City of Coon Rapids) was executed in spring 2019. DNR waters and USACE permits were granted in fall/winter 2019 after completing the EAW process. The project was publicly bid and awarded to Sunram Construction on 1/13/20. Despite the short delay in awarding a contractor, construction commenced on schedule, with phase 1 occurring Jan-March 2020 and phase 2 starting in Dec 2020 with final completion in June 2021. CCWD staff provided daily construction oversight and overall project management. All required grant reporting has been submitted on schedule with the final report submitted in December 2021.		

## Grant Activity - Construction

<b>Description</b>	<p>This activity includes construction site preparation &amp; maintenance, mobilization of equipment, installation of grade stabilization structures and bank stabilization/protection BMPs, excavation and regrading of the channel and floodplain, tree-thinning, buckthorn clearing, seeding and planting, site restoration, demobilization of equipment, and post-construction vegetation maintenance to ensure successful establishment.</p> <p>All work will be completed in accordance with approved design standards by 1 or more qualified contractors selected using a competitive bidding process.</p> <p>Construction is planned for winter 2019-2020, but may start as late as fall 2020 if acquisition of a USACE permit delays project implementation. Substantial completion will occur no later than June 30, 2021.</p>		
<b>Category</b>	STREAMBANK OR SHORELINE PROTECTION		
<b>Start Date</b>	1-Jan-20	<b>End Date</b>	21-Jun-21
<b>Has Rates and Hours?</b>	No		

**Actual Results**

Phase 1 construction to stabilize banks and construct off-line meanders began on 1/27/2020 and was completed up by late March 2020. The site sat inactive during summer of 2020 to promote vegetation growth along the newly established meanders. Phase 2 construction to finish excavation of the floodplain and bring the new meandered channel online commenced in Dec 2020 and was substantially complete in Feb 2021 with final completion signed off by the project engineer on June 21st, 2021.

With assistance from the MN DNR as project consultant, the original project design was expanded to maximize implementation of natural channel design principles (re-meandering, toe wood, and floodplain excavation) vs bank stabilization. This change was facilitated by phasing construction into 2 active periods over the 2-year construction window, with time for vegetation establishment between to stabilize vulnerable disturbed areas.

In addition to achieving planned reductions in TSS and TP via bank stabilization (141 tons & 120 lb/ yr respectively) , the expanded project lengthened the channel by 625 ft, reconnected floodplain along 2300 ft, and reduced velocity and bank shear stress. In-stream habitat was also improved via 2640 LF of banks stabilized via bioengineering (toe wood, root wads, re-grading/plantings) and installation of 3 J-hooks, 9 boulder vanes, and 6 engineered riffles. Riparian habitat was improved via 5 ac of buckthorn control and planting of native seed, 3850 live dogwood stakes, 1500 native plant bands, 2200 perennial pollinator plugs, and 42 trees (6 native species).

Activity Action - Bank stabilization practices			
Practice	584 - Stream Channel Stabilization	Count of Activities	1
Description	Stabilized all remaining active eroding banks during phase 2 construction which was completed by March 21		
Proposed Size / Units	1,850.00 LINEAR FEET	Lifespan	25 Years
Actual Size/Units	1,850.00 LINEAR FEET	Installed Date	31-Mar-21
Mapped Activities	No	Technical Assistance Provider	Private Consultant

**Final Indicator for Bank stabilization practices**

Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	120
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	BWSR CALC (STREAM & DITCH STABILIZATION)
Waterbody	Sand Creek		

**Final Indicator for Bank stabilization practices**

Indicator Name	SEDIMENT (TSS)	Value	141
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	Literature Value
Waterbody	Sand Creek		

Activity Action - Native Tree Establishment			
Practice	612 - Tree/Shrub Establishment	Count of Activities	1
Description	42 trees planted along project reach (6 native species)		
Proposed Size / Units	42.00 COUNT	Lifespan	25 Years
Actual Size/Units	42.00 COUNT	Installed Date	31-May-21
Mapped Activities	No	Technical Assistance Provider	Private Consultant

Activity Action - Buckthorn clearing			
Practice	314 - Brush Management	Count of Activities	1
Description	buckthorn control; entire riparian area restored with native plantings		
Proposed Size / Units	5.00 AC	Lifespan	25 Years
Actual Size/Units	5.00 AC	Installed Date	15-Jan-20
Mapped Activities	No	Technical Assistance Provider	Private Consultant

Activity Action - Riparian vegetation enhancement			
Practice	390 - Riparian Herbaceous Cover	Count of Activities	1
Description	planting disturbed area with native seed, 3850 dogwood live stakes, 1500 native plant bands, and 2200 perennial pollinator plugs		
Proposed Size / Units	5.00 AC	Lifespan	25 Years
Actual Size/Units	5.00 AC	Installed Date	31-May-21
Mapped Activities	No	Technical Assistance Provider	Private Consultant

Activity Action - Boulder Cross Vane			
Practice	410 - Grade Stabilization Structure	Count of Activities	1
Description	Installation of 6 boulder vanes to stabilization grade of newly meandered channel and to develop riffle-pool-run sequencing		
Proposed Size / Units	9.00 COUNT	Lifespan	30 Years
Actual Size/Units	9.00 COUNT	Installed Date	28-Feb-21
Mapped Activities	No	Technical Assistance Provider	Private Consultant



## Grant Activity - Public Involvement, Education, & Outreach

<b>Description</b>	<p>Efforts will be made to engage the public throughout the entire project. Local stakeholders will be invited to participate in a public open house to discuss local stream impairments and introduce and promote the stream restoration project and gather feedback. Project updates will be published in the City of Coon Rapids' newsletter and on the CCWD's website. Additionally, interpretive signage will be designed and installed along the project reach. The CCWD will also host one or more interactive "Watershed Walks" along the trail at the project site to showcase the project and teach attendees about local impairments, monitoring, and BMPs.</p> <p>This activity will be carried out by CCWD staff. Specifically, Dawn Doering, Information &amp; Education Coordinator, will oversee all public engagement efforts with assistance from Britta Dornfeld, Outreach Assistant. Fabrication and installation of the interpretive signage will be carried out by a qualified contractor (up to \$7500).</p> <p>Key milestones:</p> <ul style="list-style-type: none"> <li>-project webpage created by Sept 30, 2019</li> <li>-public open house hosted by June 30, 2020</li> <li>-newsletter article published by June 30, 2020</li> <li>-interpretive signage installed by Dec 31, 2021</li> <li>-Watershed walk event hosted by Dec 31, 2021</li> </ul>		
<b>Category</b>	EDUCATION/INFORMATION		
<b>Start Date</b>	24-Sep-19	<b>End Date</b>	02-Dec-21
<b>Has Rates and Hours?</b>	Yes		

**Actual Results**

A dedicated project web page was created and continues to be updated regularly: [www.cooncreekwd.org/middlesandcreekresto](http://www.cooncreekwd.org/middlesandcreekresto). This webpage has garnered over 2500 views. A public open house was hosted on 9/24/19 and was attended by 29 individuals. An article introducing the project was published in the winter 2020 edition of the Coon Rapids Connection quarterly newsletter and follow-up articles were published in winter, spring, and summer of 2021. A project brochure was developed and a message center sign was installed onsite to provide information to adjacent residents and trail users; 2362 brochures were distributed. On 9/25/20 a "watershed walk" outreach event was held where UMN biology students learned about pollution, stream restoration, habitat evaluation, and biomonitoring protocols. Four additional 'Watershed Walks' for the general public and agency partners were held in September 2021. Customized outreach materials including a 3D-printed stream shape model and native fish models were developed and featured at Watershed Walks and other local outreach events. Permanent interpretive signage was developed in partnership with Anoka Ramsey Community College students and installed onsite in April 2021. Lastly, the results of the project were presented at the UMN Water Resources Conference on 10/20/21.

Activity Action - Public open house workshop			
Practice	104M - Workshop/Clinics	Count of Activities	1
Description	Host public open house to promote project and gather feedback. Before construction begins, the CCWD and City of Coon Rapids will host a public open house to inform residents about the project and allow for questions, comments, and discussion.		
Proposed Size / Units	1.00 COUNT	Lifespan	Unknown
Actual Size/Units	1.00 COUNT	Installed Date	24-Sep-19
Mapped Activities	No	Technical Assistance Provider	

Activity Action - Interpretive signage			
Practice	101M - Staff Time	Count of Activities	1
Description	CCWD staff developed a project overview sign and worked with Anoka Ramsey Community College students to develop content for an interpretive sign about stream shape. City of Coon Rapids Public Works staff fabricated and installed the 2 interpretive signs along the project reach as in-kind match. Customized educational models including a 3D printed stream shape display and native fish replicas were also created and utilized for outreach activities.		
Proposed Size / Units	1.00 COUNT	Lifespan	25 Years
Actual Size/Units	4.00 COUNT	Installed Date	23-Apr-21
Mapped Activities	No	Technical Assistance Provider	Other

Activity Action - Public outreach event			
Practice	104M - Workshop/Clinics	Count of Activities	1
Description	<p>CCWD staff will host at least one public outreach activity to showcase the finished project &amp; interpretive signage. Interested stakeholders including residents, senior groups, youth groups, and local agencies will be invited to participate in a 'watershed walk' tour which will showcase the project site and educate participants on the new water quality and stream habitat BMPs.</p> <p>5 watershed walks were held in fall 2020 and 2021; audiences included UMN students, the general public, and agency partners. The project was also presented at the UMN Water Resources Conference to engage local practitioners.</p>		
Proposed Size / Units	1.00 COUNT	Lifespan	Unknown
Actual Size/Units	6.00 COUNT	Installed Date	20-Oct-21
Mapped Activities	No	Technical Assistance Provider	Other

Activity Action - Publish regular project updates			
Practice	101M - Staff Time	Count of Activities	1
Description	CCWD created a dedicated project webpage and published regular updates. 4 articles about the project were also published City of Coon Rapids Quarterly Connections Newsletter.		
Proposed Size / Units	1.00 COUNT	Lifespan	Unknown
Actual Size/Units	5.00 COUNT	Installed Date	30-Jun-21
Mapped Activities	No	Technical Assistance Provider	Other

Grant Activity - Technical & Engineering Assistance			
Description	<p>The District Engineer, Wenck, will provide technical and engineering assistance throughout the Project. The Engineer will develop and complete final project design plans (including any survey work), assist with securing necessary permits (USACE, DNR Waters, NPDES), implement the bidding process, and provide construction oversight (supervision and inspections).</p> <p>Ed Matthiesen, P. E., a licensed professional, will be the lead Engineer, will adhere to recognized design standards for all constructed practices (USDA-NRCS FOTG) and provide project sign-off upon completion (no later than June 30, 2021).</p>		
Category	TECHNICAL/ENGINEERING ASSISTANCE		
Start Date	22-Mar-19	End Date	30-Jun-21
Has Rates and Hours?	No		
Actual Results	<p>Wenck (Now Stantec) completed final design plans and implemented the public bidding process. Regular construction oversight occurred during Phase 1 of construction from Jan-Mar 2020 and during Phase 2 of construction from Dec 2020-June 2021. The engineer signed off on project completion on 6-21-21 (see attached form)</p> <p>Expenditures for this Activity are significantly over budget due to expansion/change in design of the project and construction occurring in two separate phases to allow for site revegetation in-between. Working with the MN DNR, CCWD opted to expand natural channel design elements such as re-meandering, floodplain excavation, and toe wood installation vs stabilizing most banks in place. CCWD covered overages for this Activity using local cash match.</p>		

## Grant Attachments

Document Name	Document Type	Description
2019 CCWD staff time excel	Grant	Middle Sand Creek Corridor Restoration
2019 Competitive Grant	Grant Agreement	2019 Competitive Grant - Coon Creek WD
2019 Competitive Grant EXECUTED	Grant Agreement	2019 Competitive Grant - Coon Creek WD
2019 ccwd staff time admin_reporting	Progress	Progress Dated - 01/29/2020
2019 ccwd staff time public inv edu outr	Progress	Progress Dated - 01/29/2020
2020 Financial Report_unsigned	Progress	Progress Dated - 01/21/2021
2020 Master Expenditure Tracking Spreadsheet	Progress	Progress Dated - 01/21/2021
2021 grant eligible documentation	Grant	Middle Sand Creek Corridor Restoration
2021 match expenditures documentation	Grant	Middle Sand Creek Corridor Restoration
2021 staff time details	Grant	Middle Sand Creek Corridor Restoration
30% Design Plans	Grant	Middle Sand Creek Corridor Restoration
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 04/12/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/21/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 06/23/2020
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/29/2020
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 04/12/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/24/2022
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 12/16/2021
Application	Workflow Generated	Workflow Generated - Application - 08/29/2018
Cash Match Documentation 2020	Progress	Progress Dated - 01/21/2021
Executed JPA with Landowner	Grant	Middle Sand Creek Corridor Restoration
FY19_MSCCR_CCWD_GrantApplImage	Grant	Middle Sand Creek Corridor Restoration
Final Financial Report	Progress	Progress Dated - 12/16/2021
Financial report_2020_Signed	Grant	Middle Sand Creek Corridor Restoration
GIS shapefiles	Grant	Middle Sand Creek Corridor Restoration
Grant Eligible Documentation_2019	Progress	Progress Dated - 01/29/2020
Grant Eligible Documentation_2020	Progress	Progress Dated - 01/21/2021
Master Expense Tracking Spredsheets 12/10/21	Grant	Middle Sand Creek Corridor Restoration

Document Name	Document Type	Description
Notice of Completion	Grant	Middle Sand Creek Corridor Restoration
O&M Plan	Grant	Middle Sand Creek Corridor Restoration
Staff Time_2020	Progress	Progress Dated - 01/21/2021
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 12/19/2018
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 02/08/2022