

Dakota Collaborative Implementation Plan - Project List

Major Watershed	Entity	Name of Activity (List in order of Priority)	Description of Activity	Plan Reference(s)	Targeted Water Resource(s)	Timeframe For Implementation	Grant Funds Requested	Local Match Amount (Minimum 10%)	Total Project Cost	Preferred Fiscal Agent (Grantee)	Preferred Grant Reporting (Admin)	Measurable Outcomes	Comments
Cannon R (54)	North Cannon WMO	Structural Erosion Control Practices	Projects will be implemented through Dakota SWCD Incentives Payment Practices Program. Projects will be marketed to landowners and ranked according to their cost to benefit ratio. Funds will be prioritized for projects in areas where a Subwatershed Analysis(SWA) is complete.	North Cannon River Watershed Management Organization - Watershed Management Plan (November 2013) <i>Surface Water Quality Goal 5.1, Strategy 5</i>	Cannon River	2018 - 2020	\$46,000	\$4,600	\$50,600	North Cannon WMO	North Cannon WMO	Estimated sediment reduction of 150-500 tons per year based on projects identified and prioritized in completed Subwatershed analyses. Final pollutant reductions calculated per project implemented.	
Cannon R (54)	North Cannon WMO	Non-Structural Erosion Control Practices	Funds will be implemented and prioritized through the SWCD non-structural practices program application process, which focuses on cover crops. Ranking includes priority based on location (i.e. groundwater susceptibility) and project details (i.e. other pollutant concerns addressed)	North Cannon River Watershed Management Organization - Watershed Management Plan (November 2013) <i>Surface Water Quality Goal 5.1, Strategy 6</i>	Cannon River	2018 - 2021	\$40,000	\$4,000	\$44,000	North Cannon WMO	North Cannon WMO	Funding available for approximately 320 acres. Estimated reduction in soil loss by 48 tons per year. Final pollutant reductions calculated per project implemented.	
Cannon R (54)	North Cannon WMO	Subwatershed Analysis	Complete a subwatershed analysis. Activities include preliminary desktop mapping, landowner outreach, field reconnaissance, pollutant calculations, priority practice ranking and a final report.	North Cannon River Watershed Management Organization - Watershed Management Plan (November 2013) <i>Surface Water Quality Goal 5.1, Strategy 4</i>	North Chub Creek	2018 - 2021	\$35,000	\$3,500	\$38,500	North Cannon WMO	North Cannon WMO	Final report that provides a prioritized list of projects with measurable pollutant reductions.	
Cannon R (54)	North Cannon WMO	Drainage Water Management Outreach	Provide education and outreach on suitable drainage water management(DWM) practices in the NCRWMO area. Activities may include but are not limited to partnering with other agencies or non-profits, hosting field days, installing demonstration sites and creating outreach materials.	North Cannon River Watershed Management Organization - Watershed Management Plan (November 2013) <i>Surface Water Quality Goal 5.2, Strategy 4</i>	Watershed wide with priority on the subwatershed of Chub Creek.	2018-2021	\$15,520	\$1,552	\$17,072	North Cannon WMO	North Cannon WMO	Number of landowners and operators reached and number of DWM projects initiated as a result of outreach.	
Minn R - East Lower (56)	Black Dog WMO	Apple Valley KL-10 (Redwood Pond)	Expand existing pond and modify outlet to provide additional water quality treatment	Item #25 in Table 5-1 (Implementation plan): implement recommended watershed projects to reduce runoff-borne phosphorus loads, as identified in the TMDL	Keller Lake	2020	\$114,890	\$165,110	\$280,000	Black Dog WMO	Black Dog WMO	Reduce total phosphorus loading to Keller Lake by 10.8 lbs/year	The project cost estimate does not include maintenance activities/sediment removal from the existing pond. Maintenance was completed on the pond in 2004/5; we do not anticipate needing to remove additional sediment from the existing portions of the pond. The pond outlet would be modified to provide extended detention and increase the residence time for smaller storm events. Redwood Pond was constructed before the City kept records and prior to implementation of wetland regulations, but a review of historic aerial photos shows the area of expansion currently is upland and has historically been upland. The current pond configuration has been in place since at least 1964, according to the aerial photos.
Minn R - East Lower (56)	Eagan IGH WMO	LeMay Lake TMDL Improvement Project	Iron enhanced filtration system at City Pond DP-3 to reduce external TP to LeMay Lake.	Eagan Neighborhood Lakes TMDL and Management Plans Report (Wenck 2015), E-IGHWMO Watershed Management Plan (June 2016) Goal B.1 and Section 5.1.4 Capital Improvement Projects-Lake TMDLs Load Reduction Projects	LeMay Lake (DNR#19-005500)	Apr.-Oct. 2019	\$31,040	\$558,960	\$590,000	Eagan IGH WMO	Eagan IGH WMO	Modeled reduction: 28.0 lbs external TP/yr. (est.)	
Minn R - East Lower (56)	Eagan IGH WMO	Holland Lake Channel Stabilization	Repair an approximately 75ft length, 5ft wide and 4ft deep gully that drains to Holland Lake.	Lebanon Hills Regional Park Subwatershed Assessment Report (Wenck 2017) and E-IGHWMO Watershed Management Plan (June 2016) Goal B.1	Holland Lake (DNR#19-006500)	Aug.-Oct. 2019	\$31,040	\$4,120	\$35,160	Eagan IGH WMO	Eagan IGH WMO	Modeled reduction: 1.0 lbs external TP/yr (est.)	Other external projects identified in Subwatershed Assessment (2017) to be prioritized based on stormwater monitoring in 2018 could potentially be constructed as early as 2020. Assurance for the project is provided through the project development process and the operation and maintenance agreement.
Minn R - East Lower (56)	Eagan IGH WMO	Carlson Lake TMDL Improvement Project	Underground filtration system in Carlson Lake Park to reduce external TP to Carlson Lake.	Eagan Neighborhood Lakes TMDL and Management Plans Report (Wenck 2015), E-IGHWMO Watershed Management Plan (June 2016) Goal B.1 and Section 5.1.4 Capital Improvement Projects-Lake TMDLs Load Reduction Projects	Carlson Lake (DNR#19-006600)	Apr.-Oct. 2019	\$31,040	\$968,960	\$1,000,000	Eagan IGH WMO	Eagan IGH WMO	Modeled reduction: 6.0 lbs external TP/yr. (est.)	E-IGHWMO Board decided to submit this project in place of the Carlson Lake Alum Treatment (which was in the preliminary project list) as the board wanted to minimize any delays associated with the alum feasibility study.
Minn R - East Lower (56)	Eagan IGH WMO	Schulze Lake Alum Treatment	Alum application to reduce internal TP in Schulze Lake.	Lebanon Hills Regional Park Subwatershed Assessment Report (Wenck 2017) and E-IGHWMO Watershed Management Plan (June 2016) Goal B.1	Schulze Lake (DNR#19-007500)	Aug.-Oct. 2019	\$31,040	\$28,960	\$60,000	Eagan IGH WMO	Eagan IGH WMO	Modeled reduction: 10.9 lbs internal TP/yr (est.)	Feasibility study information will be gathered from existing reports.
Minn R - East Lower (56)	Lower MN WD	Dakota County Fen Study/Management Plan	The purpose of the groundwater and fen evaluation is to develop a comprehensive groundwater model from existing data sets to evaluate long-term trends that can be used to assess groundwater impacts of development activity and as a tool for planning development in the District. End goal is to develop (along with the DNR) a management plan for all fens in the LMRWD. This project would assist the adoption of High Value Resource Areas in the LMRWD Watershed Management Plan Amendment and subsequent rule adoption and permitting program.	LMRWD Plan Section 1.6.4-Fens; Section 2.4.6 - Issue 6-Groundwater; Strategy 2.2.1-Watershed Management Standards-Water Appropriation Standard: Section 3.4, Goal 3-Groundwater Management to Protect and Promote Groundwater Quality and Quantity; Section 4.3.5-Monitoring;	Dakota County Fens - Fort Snelling, Nichols, Quarry Island & Black Dog	2018/2019	\$65,450	\$54,550	\$120,000	Lower MN WD	Lower MN WD	The measurable outcome would be a model that could be used to determine impacts of proposed groundwater appropriation within fens subwatershed	Since 2007, District has monitored fen wells in cooperation with Dakota County SWCD. Monitoring has indicated declining water levels in at least one fen, Quarry Island Fen. This project was the LMRWD first looked at in 2015. When the District conducted a Groundwater and Fen Evaluation. Since receipt of the final report dated December 2015, the District has engaged the MN DNR to develop a strategy to define the approximate horizontal extent of the recharge zones for each of the four fens and provide a method of identifying proposed groundwater withdrawals that could induce a one foot or greater decline in the hydrologic head at one or more of the four fens.

Miss R - Twin Cities (14)	Dakota SWCD	Stormwater BMPs	Retrofit stormwater Best Management Practices (BMPs) on public land to assist partnering Local Government Units (LGUs) to achieve water quality goals identified in their local stormwater plans, TMDLs and WRAPS reports.	LMRWMO Plan Table 6.2 Item #15 and #22 (Implementation Pan). Assist cities in pursuing grants and addressing South Metro Mississippi River TMDL	Watershed Wide	2019-2021	\$50,000	\$5,000	\$55,000	Dakota SWCD	Dakota SWCD	Reduce TSS loading by 5 tons/year and volume by 3.0 ac-ft/year	Activity is within Dakota SWCD Comprehensive Plan under Objective 1, Strategy A (b) (g) and Objective 1 Strategy C (a) (b). This project will be combined with Stormwater BMPs - Miss. River - Upper Lake Pepin during the workplan development.
Miss R - Twin Cities (14)	Lower Miss WMO	Develop stormwater management and water resources education programs which includes a storm drain stenciling program, pesticide, herbicide and fertilizer education program for public and private entities, and impaired waters/TMDL education program.	Create a stenciling program to engage community organizations and increase awareness of their impact on water resources. Develop multi-lingual educational material regarding pesticides, herbicides, and fertilizer application for dispersal by member cities. Develop public educational materials regarding impaired waters and the TMDL programs developed to address the impairments. Mississippi River, Lake Augusta, etc.	Implementation Table 6-2, Item 12.a, 12.b, 12.d, 12.e, 15, 18	Mississippi River and other area water bodies.	2018-2020	\$33,430	\$3,400	\$36,830	Lower Miss WMO	Lower Miss WMO	Number groups/people participating in program, number of educational materials generated and distributed by Member Cities.	This is a combination of three programs initially proposed in draft collaborative plan and combined at BWSR staff's suggestion.
Miss R - Twin Cities (14)	Lower Miss WMO	Lake Augusta Shoreline Protection and Lift Station	Feasibility study for shoreland/streambank protection, construction of two outlet control structures, and construction of a lake outlet.	Implementation Table 6-1, item 12	Lake Augusta	2018-2020	\$50,000	\$30,000	\$80,000	Lower Miss WMO	Lower Miss WMO	Creation of one report or two reports to recommend projects which will provide improvements to lake water quality and determine feasibility of project implementation and potential pollutant reductions.	Funding is only for a feasibility study. Erosion issues at the two outlets on the east side of the lake have been recently identified. This feasibility study will look at those outlets and identify opportunities for water quality improvement BMPs to be implemented prior to the water discharging into Lake Augusta. Additionally, there is gully/streambank erosion near these outlets along with the shoreline erosion around the entirety of Lake Augusta. The study will look at appropriate shoreline and streambank stabilization methods for those areas. We have seen elevated water levels over the last few years at Lake Augusta. Based on on-site investigations of the condition of the shoreline, it appears that the elevated water levels are contributing to erosion and deposition of sediment and nutrients on the entirety of the shoreline. This feasibility study will look into those issues more deeply and investigate the water quality benefit of a controlled outlet to maintain a more consistent water level at the lake, thereby reducing shoreline erosion and deposition of sediment and nutrients into the lake. The shoreline and lake outlet studies were combined at the suggestion of BWSR staff during collaborative plan development.
Miss R - Twin Cities (14)	Lower Miss WMO	Interstate Valley Creek Streambank Stabilization	Feasibility study for Streambank protection, weir replacement and volume reduction in watershed	Implementation Table 6-1, Item 3. Implementation Table 6-3, Item 5	Interstate Valley Creek, Mississippi River	2018-2020	\$50,000	\$25,000	\$75,000	Lower Miss WMO	Lower Miss WMO	Creation of report to determine feasibility of project implementation and potential pollutant reductions.	Funding is only for a feasibility study. There are significant streambank erosion issues throughout Interstate Valley Creek. This study will look at the entire contributing watershed to both identify opportunities to provide stormwater volume reduction BMPs as well as identify and prioritize future streambank protection projects. There is a historic weir located near Marie Avenue which was installed by the DNR around the 1970s and will need to be included in the investigation for its impact on stream flows and bank erosion.
Miss R - Upper Lake Pepin (62)	Dakota SWCD	Stormwater BMPs	Retrofit stormwater Best Management Practices (BMPs) on public land to assist partnering Local Government Units (LGUs) to achieve water quality goals identified in their local stormwater plans, TMDLs and WRAPS reports.	VRWIPO Plan Figure 7.10.1 under Land and Water Treatment, Goal A and D; Research and Planning Goal A; 7.15 Incentive Programs	Watershed Wide	2019-2021	\$10,000	\$1,000	\$11,000	Dakota SWCD	Dakota SWCD	Reduce total phosphorus loading by 0.7 lbs/year and volume by 0.7 ac-ft/year	Activity is within Dakota SWCD Comprehensive Plan under Objective 1, Strategy A (b) (g) and Objective 1 Strategy C (a) (b). This project will be combined with Stormwater BMPs - Miss. River - Twin Cities during the workplan development.
Miss R - Upper Lake Pepin (62)	Dakota SWCD	Irrigation/Ag Weather Network	Establish an Ag. Weather Network that distributes evapotranspiration information necessary for Irrigation Water Management (IWM). - IWM manages water at the crop root zone, which leads to fewer nitrate leaching events during the growing season. Provide operator training on the use of evapotranspiration information	VRWIPO Plan Figure 7.10.1 under Public Communication and Outreach, Goal B	Watershed Wide with focus on high nitrate areas	2019-2021	\$15,000	\$1,500	\$16,500	Dakota SWCD	Dakota SWCD	Establishment of one monitoring station with data distribution. Number of IWM operators utilizing ag weather network.	Activity is within Dakota SWCD Comprehensive Plan under Objective 2, Strategy B (a) (b) (c) (d).

Miss R - Upper Lake Pepin (62)	Dakota SWCD	South Branch Subwatershed Analysis	Complete a subwatershed analysis within South Branch drainage area of Vermillion River. Activities include preliminary desktop mapping, landowner outreach, field reconnaissance, pollutant calculations, priority practice ranking and a final report.	VRWJPO Plan Figure 7.10.1 under Land and Water Treatment, Goal A	South Branch - Vermillion River Watershed	2019-2021	\$25,000	\$10,000	\$35,000	Dakota SWCD	Dakota SWCD	A final report with prioritization of projects based on estimated cost benefit ratio.	Activity is within Dakota SWCD Comprehensive Plan under Objective 1, Strategy A (c)
Miss R - Upper Lake Pepin (62)	Vermillion JPO	Erickson Park Stormwater Improvements	EVR-P27 in Erickson Park is serving as a flood relief basin in the City's stormwater system. Stormwater was first directed to this area in the late 1970's and largely soaks in when the basin activates in high water events. As an improved basin was not constructed at the time that stormwater was first directed to the area, the existing area currently does not meet its full potential for stormwater treatment and volume reduction. The project will retrofit and improve the existing flood retention basin and will modify stormwater infrastructure, including the outlet, to promote stormwater treatment and infiltration. The City will also incorporate native plants into the final stabilization. The project is anticipated to be able to retain 100% of the runoff from an average year.	6.2, Goal A, 2. Prepare a Capital Improvement Program (CIP) annually that focuses resources on highest-priority sub-watershed problems. 6.2, Goal A, subgoal 1: Restore impaired waters and protect those currently not impaired. Implementation Plan 7.4 - North Creek Subwatershed Management Plan; project fits with goals for SW storage and/or retrofits in the Pilot Knob area that restore Long and Farquar Lake.	Farquar Lake (19-002300)	2019 or 2020	100,000	160,000	260,000	Vermillion JPO	Vermillion JPO	5-6.1 lbs TP reduction at Farquar Lake, reduced stormwater volume	This project will help to address the phosphorus impairment within Farquar Lake by reducing the nutrient load. This activity ties with the VRWJPO's Plan goals and North Creek subwatershed management plan referenced, the Lake's TMDL, and the TMDL implementation plan. The project is identified as the "Priority Infiltration Basin" in the Long/Farquar TMDL Implementation Plan update, page 27 https://www.pca.state.mn.us/sites/default/files/wq-iw9-06c.pdf . Based on the 2001 NWI, a wetland is identified in the SE corner of the exiting basin. However, this stormwater pond was created prior to the NWI being created, so it's likely incidental to the creation of the basin. Lastly, the 2011 NWI does not show this as wetland. In case some wetland is truly on site, we plan to shape the infiltration basin to avoid any wetlands. A range of pollutant reduction has been provided to account for the possibility that the footprint may need to shrink.
Miss R - Upper Lake Pepin (62)	Vermillion JPO	Records Trail/Morris Jones grade control structure(s)	Install grade control structure(s) to eliminate erosion along Records Trail.	6.3 Goal G, 4.b. Target locations where implementing BMPs would effectively reduce sediment loading. 6.2, Goal A, subgoal 2: reduce non-point source pollution, erosion, and sedimentation Implementation Plan 7.9 - Mississippi River Direct Subwatershed Management Plan; project fits with grade stabilization and agricultural BMP line items in plan table.	Etter Creek	2020	\$ 40,000	\$ 10,000	\$ 50,000	Vermillion JPO	Vermillion JPO	Based on the BWSR Estimator tool, the project would reduce soil loss by 160 tons/year, maybe more. Phosphorus is predicted to be between 70-80 lbs/year, but seems high compared to other practices we've implemented. Based on our experience with other pollutant reduction calculations and similar BMP projects, a phosphorus reduction range of 25-50 lbs/year is more reasonable.	This project is being done to address the extremely high amount of sediment load originating in the Etter Creek subwatershed. This project addresses the plan reference by installing grade control structure(s) to address erosion directly adjacent to the Township's road, where the head cut continues to migrate upstream. The project is identified as an Ag BMP in the VRWJPO's implementation plan for the Mississippi River Direct subwatershed, which will reduce the sediment load to the South Metro Mississippi River and Lower Vermillion River. Etter Creek sediment reduction strategies are identified on page 38 in the TMDL implementation plan for the South Metro Mississippi River and Lower Vermillion River https://www.pca.state.mn.us/sites/default/files/wq-iw9-05c.pdf
Miss R - Upper Lake Pepin (62)	Vermillion JPO	Farmington Westview Acres/Downtown Plaza Stormwater Improvement Project	Stormwater improvement project to reduce TSS, phosphorus, and stormwater volume as a result of a stormwater improvement feasibility study	6.2, Goal A, 20.a. Prioritize projects that provide multiple benefits, multiple pollutant reductions, system-wide improvement, or synergy with other projects. 6.2, Goal A, subgoal 1: Restore impaired waters and protect those currently not impaired. 7.7 - Middle Main Stem Subwatershed; "infrastructure" identified in plan to be applied to potential stormwater retrofits in Farmington.	Vermillion River	2019	\$ 44,250	\$ 55,000	\$ 99,250	Vermillion JPO	Vermillion JPO	This will be determined when a project is designed. However, in running a couple MIDS calculator scenarios to treat the first 0.5" and 1" of runoff volume from the drainage area for Westview Acres, a pollutant reduction estimate of 1.4-1.7 tons of TSS and 10-14 lbs of phosphorus reduction could be expected.	This will be determined upon design of the project found in the feasibility study that will be conducted in summer 2018. The project will address the sediment stressor in the Vermillion River. Sediment was identified as the primary stressor in the Vermillion River during the stressor identification process of the TMDL as shown on pages 3-24 through 3-34 (https://www.pca.state.mn.us/sites/default/files/wq-ws5-07040001.pdf). A project at this location is also identified in the Vermillion WRAPS for sediment reduction in the Middle Mainstem Subwatershed (https://www.pca.state.mn.us/sites/default/files/wq-ws4-14a.pdf , page 64), and ties to the VRWJPO's plan reference and implementation plan for the Middle Main Stem subwatershed.

Miss R - Upper Lake Pepin (62)	Vermillion JPO	21st Street Ravine Outlet Modification	An existing depression at the downstream end of a ravine will be retrofitted to provide additional storage and water quality treatment. Retrofit activities include some limited excavation and grading, and a new/modified outlet structure to enhance water quality treatment. The existing ravine upstream of this project was stabilized in 2009 and a large basin was installed at the top of the ravine to limit erosion and reduce peak flows.	6.3 Goal G, 4.b. Target locations where implementing BMPs would effectively reduce sediment loading. 6.3 Goal G, subgoal 2: Use current research, long-range trend data, policies, and partnerships to protect habitat for native and sensitive aquatic species 7.9 - Mississippi River Direct Subwatershed Management Plan; Hastings provided this retrofit opportunity, and it fits with the "urban BMP retrofit opportunities" item in the subwatershed management plan.	Vermillion River	2020	\$ 73,800	\$ 90,200	\$ 164,000	Vermillion JPO	Vermillion JPO	Infiltration Volume: 6,500 - 19,600 CF Net Reduction for Average Water Year TSS Reduction leaving Ravine: 6,500 - 19,700 lbs TP Reduction Leaving Ravine: 14 - 43 lbs	This project will address sediment reduction strategies as identified in the South Metro Mississippi River and Lower Vermillion River TMDL Implementation Plan (https://www.pca.state.mn.us/sites/default/files/wq-iw9-05c.pdf). This strategy is also consistent with the goals and implementation plan for the Mississippi Direct Subwatershed in the VRWJPO Watershed Plan and incorporated as a restoration strategy within the Vermillion River WRAPS. Net reductions for average water year are estimated using the City of Hastings's P8 model. For model documentation see Section 4.4 of the City's Watershed Management Plan (2009). Total Project Cost and pollutant removals are estimated based on conceptual design. The lower end of the range assumes that less storage volume will be able to be provided based on site constraints identified during future design phases. Assumed that the soil is type B and suitable for infiltration. Infiltration volume provided as well as annual average TP, TSS, and infiltration volume will vary depending on the infiltration capacity of the underlying soils. The drainage area to the BMP is based on the City's regional P8 model. The tributary area and loading to the BMP may change during future design phases. Measurements of pollutant loading at the site are not available to validate simulated loading to BMP. No field investigations including soil borings, wetland delineation, utility location, etc... have been completed.
Miss R - Upper Lake Pepin (62)	Vermillion JPO	Vermillion Falls Park Bioretention Cells	Construct two bioretention cells in Vermillion Falls Park to provide for water quality treatment and reduced volume of stormwater reaching the Vermillion River.	6.2, Goal C, 3.a. Promote and cost-share bio-infiltration BMPs for new development, redevelopment, and stormwater retrofits. 6.2 Goal C, Subgoal 2: Protect high capacity groundwater recharge areas and promote infiltration, where appropriate. 7.9 - Mississippi River Direct Subwatershed Management Plan; Hastings provided this retrofit opportunity, and it fits with the "urban BMP retrofit opportunities" item in the subwatershed management plan.	Vermillion River	2020	\$ 14,950	\$ 59,050	\$ 74,000	Vermillion JPO	Vermillion JPO	Infiltration Volume: 5,300 - 16,000 CF Net Reduction for Average Water Year TSS Reduction leaving pond: 840 - 2,500 lbs TP Reduction Leaving Pond: 3 - 11 lbs	This strategy is consistent with the goals and implementation plan for the Mississippi Direct Subwatershed in the VRWJPO Watershed Plan and incorporated as a protection strategy within the Vermillion River WRAPS. Net reductions for average water year are estimated using the City of Hastings's P8 model. For model documentation see Section 4.4 of the City's Watershed Management Plan (2009). Total Project Cost and pollutant removal are estimated based on conceptual design. Infiltration Volume is estimated as the volume stored below the outlet of the basins. The lower end of the range assumes that less storage volume will be able to be provided based on site constraints identified during future design phases. Assumed that the soil is type B and suitable for infiltration. Infiltration volume provided as well as annual average TP, TSS, and infiltration volume will vary depending on the infiltration capacity of the underlying soils. The drainage area to the BMP is based on the City's regional P8 model. The tributary area and loading to the BMP may change during future design phases. Measurements of pollutant loading at the site are not available to validate simulated loading to BMP. Pollutant removals assume retention volume of approximately 0.5 acre-foot can be provided at the site. Site constraints identified during future phases of design may restrict the size and pollutant removals achieved by the BMP. No field investigations including soil borings, wetland delineation, utility location, etc... have been completed.
Miss R - Upper Lake Pepin (62)	Vermillion JPO	Aronson Park Stormwater Reuse System	The proposed project is a collaborative effort between the Vermillion River Watershed JPO, Dakota County Transportation, the City of Lakeville, and an adjacent Land Developer. With the improvements to County Road 50 and Aronson Park scheduled for 2019, the opportunity arose to improve water quality above design requirements, as well as reduce groundwater demand through installation of a stormwater reuse system. Water quality improvements will be achieved through the transformation of two existing stormwater basins into a single, larger wet sedimentation basin coupled with a wet well and pump house. The basin will provide irrigation to 5.30 acres of soccer field and 6.59 acres of ballfield at Aronson Park. The proposed project will provide water quality benefit to downstream South Creek, which will see reductions in stormwater volume and phosphorus. Excess stormwater volume has been found to be a cause of bed load sedimentation and bank erosion in the watershed, which is the primary stressors to aquatic life in South Creek.	6.2, Goal C, 4b. Promote and cost-share BMPs that use stormwater for irrigating urban landscapes. 6.2, Goal C, Subgoal 3: Promote re-use of stormwater and treated wastewater, where appropriate 7.3 - South Creek Subwatershed Management Plan; project fits with "BMP retrofits Lakeville" and "infrastructure" items within the subwatershed management plan	South Creek	2019	\$ 70,550	\$ 304,450	\$ 375,000	Vermillion JPO	Vermillion JPO	Annualized reductions in volume and pollutants: Reduced stormwater volume: 2.4-3.8 million gallons Total phosphorus: 6-7.8 lbs Dissolved phosphorus: 2.8-4.3 lbs	This project is consistent with the goals and implementation plan for the South Creek subwatershed in the VRWJPO Watershed Plan. The project is also consistent with sediment, phosphorus, and volume reduction restoration and protection strategies for South Creek as identified in the Vermillion River WRAPS. Pollution reduction estimates are based on calculations from the MIDS calculator. Reductions in volume were calculated based on design drawings of the existing basins and calculations of volume to retrofit the existing basins to a larger, single basin and incorporating those values into the MIDS calculator.
Totals:							\$1,018,000	\$2,548,912	\$3,566,912				

Black Dog WMO
Dakota SWCD
Eagan IGH WMO
Lower Miss WMO
Lower MN WD
North Cannon WMO
Vermillion JPO

Cannon R (54)
Miss R - Twin Cities (14)
Miss R - Upper Lake Pepin (62)
Minn R - East Lower (56)

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Other
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