TABLE OF CONTENTS

4 IMPLEMENTATION PROGRAM

This section presents the Implementation Program (Program) for the Plan. The District's Program addresses water resources and programmatic issues discussed in Section 2 and applies the goals, policies, and strategies addressed in Section 3. The District's Program consists of administrative and managerial efforts, coordination, studies, programs, capital improvement projects (CIPs), and funding mechanisms to successfully execute the Plan. Each element is described below. The Program schedule and budget are presented in Table 4-1. This Program was updated in 2022 after several studies and CIPs were completed, and the amended Program comprises the years 2023 through 2027~~Since this Plan was not completed in time for the 2017 budgeting cycle, this Program begins in 2018 and ends in 2027~~. The Program's estimated impacts on residents and local government are presented in the next section. The District will review the implementation program every two years, at minimum.

4.1 ADMINISTRATIVE AND MANAGERIAL

Administrative and managerial efforts will be carried out by the District's administrator. The administrator, and consultants will perform the District's day-to-day operations and implement other elements of the Program, as discussed below. Administrative services also include legal, audit, and bookkeeping services, office space, office equipment, office rental, information management systems (e.g., computers, copiers, website, etc.), training, and general engineering services. The District's general levy finances these efforts.

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Table 4-1: Lower Minnesota River Watershed District - Implementation Program Budget for 20~~23~~18 - 2027

ACTION	Year				
	2023	2024	2025	2026	2027
EXPENDITURE					
Administrative and Managerial					
General Administrative Services, Conferences, Coordination with LGUs, Stakeholders and other Project Partners, LGU Program Reviews, 9-Foot Channel, and Advisory Committees (Technical and Citizen)	$250,000	$250,000	$250,000	$250,000	$250,000
Administrative/Managerial Budget Total	$250,000	$250,000	$250,000	$250,000	$250,000
Studies and Programs					
Cost Share Incentive and Water Quality Restoration Program	$20,000	$20,000	$20,000	$20,000	$20,000
Dredge Management	$240,000	$240,000	$240,000	$126,000	$240,000
Eagle Creek Bank Restoration at Town & Country RV Park Feasibility Study		$30,000			
Education and Outreach Program	$75,000~~30,000~~	$75,000~~30,000~~	$75,000~~30,000~~	$75,000~~40,000~~	$75,000~~40,000~~
Fen Private Land Acquisition Study		$50,000	$25,000		
Fen Stewardship and Management Program	$75,000~~25,000~~	$75,000~~25,000~~	$75,000~~25,000~~	$75,000~~25,000~~	$75,000~~25,000~~
Gully Inventory and Assessment Program	$90,500	$150,000	$150,000	$150,000	$150,000
Trout Streams Geomorphic Assessments ~~(Trout Streams)~~		~~$50,000~~100,000	~~$50,000~~		$100,000
Monitoring Program and Detailed Data Assessments	$75,000	$75,000	$75,000	~~$100,000~~75,000	~~$100,000~~75,000
Project and Permit Reviews	$50,000	$50,000	$50,000	$50,000	$50,000
~~Paleo-limnology Study (Floodplain Lakes)~~		~~$50,000~~			
Implementation of the Sustainable Lake Management Plans ~~(Trout Lakes)~~		$50,000	$50,000		$50,000
~~Vegetation Management Plan~~				~~$65,000~~	
Seminary Fen Ravines Site C-2 ~~and C-3~~ Feasibility ~~-Studyies~~	$20,000	$40,000			
Spring Creek Site 3 Design Feasibility Study	$50,000				
Watershed Management Plan				$50,000	$100,000
Water Resources Restoration Fund	$~~125,000~~100,000	$100,000	$100,000	$~~160,000~~100,000	$~~150,000~~100,000
Studies and Programs Budget Total	$795,500~~$275,000~~	$1,055,000~~$400,000~~	$860,000~~$350,000~~	$721,000~~$410,000~~	$1,035,000~~$385,000~~
Capital Improvements					
~~Assumption Creek Hydrology Restoration Project~~					
~~Carver Creek Restoration Project~~					
~~Minnesota River Corridor Management Project~~					
~~Groundwater Screening Tool Model~~					
~~District Boundary Modification Project~~					
~~Downtown Shakopee Targeted BMP Feasibility Study~~					
~~Dredge Site Restoration Project~~					
~~Eagle Creek (East Branch) Project~~					
~~East Creek Bank Stabilization Project~~					
~~East Creek Water Quality Treatment Project~~					
~~Minnesota River Assessment of Ecological and Economic Impacts of Sedimentation~~		~~$25,000~~	~~$30,000~~	~~$45,000~~	~~$50,000~~
~~Minnesota River Assessment of Water Storage Benefits and Opportunities.~~		~~$30,000~~	~~$25,000~~	~~$45,000~~	~~$50,000~~
~~Minnesota River Floodplain Model Feasibility Study~~					
~~Minnesota River Sediment Reduction Strategy~~					
Minnesota River Study Area 3 – Bluff Stabilization Project	~~$250,000~~	$100,000	$100,000		
~~Realignment of the Prior Lake Spring Lake Outlet Channel~~					
~~Riley Creek Project – Downstream of Flying Cloud Drive~~					
~~Schroeder's Acres Park/Savage Fen Stormwater Management Project~~					
~~Seminary Fen Restoration Site A~~					

ACTION	Year				
	2023	2024	2025	2026	2027
Seminary Fen Restoration Site B		$50,000	$25,000		
Seminary Fen Ravines Site C-2 and C-3 Design and Construction			$55,000	$50,000	$65,000
~~Spring Creek Project~~					
~~West Chaska Creek Project~~					
Dredge Site Culvert Replacement				$51,500	
Eagle Creek Bank Restoration at Town & Country RV Park Project			$69,800	$90,200	
Eagle Creek Brown Trout Habitat Improvements Project					$70,000
Minnesota River Floodplain Modeling	$75,000				
Shakopee Riverbank Stabilization Project		$50,000	$50,000		
Spring Creek Sites 1 and 2 Design and Construction Stabilization Project	47,100	$100,000	$100,000	$70,000	
Spring Creek Vegetation Management Project	$40,000				
Stormwater BMP at Parking Lot near Lewis Street West and Second Avenue West Project	$50,000	$50,000			
Vernon Avenue Upgrade at the Dredge Site				$62,500	
Capital Improvements Budget Total	~~$165,000~~212,100~~$250,000~~	$350,000~~$125,000~~	$399,800~~$175,000~~	$324,200~~$140,000~~	$135,000~~$165,000~~
TOTAL EXPENDITURES	$1,257,600~~10,500~~~~$775,000~~	$1,655,000~~$775,000~~	$1,509,800~~$775,000~~	$1,295,200~~$800,000~~	$1,420,000~~$800,000~~
General Levy	$250,000	$250,000	$250,000	$250,000	$250,000
Planning and Implementation Levy	$525,000	$~~525,000~~625,000	$~~525,000~~650,000	$~~550,000~~675,000	$~~550,000~~700,000
Metropolitan Council Grant	$5,500	$5,500	$5,500	$5,500	$5,500
Dredge Material Management Grant	$240,000	$240,000	$240,000	$240,000	$240,000
~~WBF - Pilot Funding (Scott)~~					
~~WBF - Pilot Funding (Carver)~~					
~~WBF - Pilot Funding (Dakota)~~					
~~WBF - Pilot Funding (Hennepin)~~					
~~Special Channel Maintenance Funding~~					
Grants	$100,000	$100,000	$100,000	$100,000	$100,000
Closed or Unrealized Projects	$137,100	$434,500	$264,300	$24,700	$124,500
TOTAL REVENUE	$1,257,600~~210,500~~~~$775,000~~	$1,655,000~~$775,000~~	$1,509,800~~$775,000~~	$1,295,200~~$800,000~~	$1,420,000~~$800,000~~

4.2 COORDINATION WITH LOCAL, STATE, AND FEDERAL GOVERNMENTS AND NON-GOVERNMENT ORGANIZATIONS

This sub-section implements the District's role as a facilitator. It involves staff coordination with local, state, and federal government and ~~non-government~~non-government organizations, participation in issues discussed during the State of Minnesota Legislative session, and collaboration with the COE to secure federal funds for the Minnesota River 9-~~F~~foot ~~C~~channel.

Table 4-2: Coordination Strategies with District Partners

Strategy	Coordination Partner(s)	Schedule
Strategy 1.1.1, 1.2.1, 2.3.1, 2.3.4	LGUs, BWSR, MPCA, Metropolitan Council, SWCDs and neighboring WDs and WMOs	Quarterly at a minimum
Strategy 1.3.3, 2.2.1, 6.1.1-2	LGUs	Annually
Strategy 2.2.3, 2.2.4	LGUs and SWCDs	Annually
Strategy 2.3.1-3, 3.2.1, 4.2.1-3	LGUs, BWSR, MPCA, Metropolitan Council, SWCDs, and neighboring WDs and WMOs	Annually
Strategy 3.3.1	DOH	Annually
Strategy 5.1.2 - 3	LGUs and BWSR	Annually
Strategy 7.1.1	MPCA, LGUs	Annually
Strategy 7.4.1	LGUs, SWCDs and shoreland property owners	Annually
Strategies 8.2.1, 8.2.2, 8.3.1	COE, LGUs	On-going
Strategies 9.1.1-4 and 9.2.1-3	LGUs, TAC, CAC, and SWCDs	On-going, Quarterly

4.3 STUDIES AND PROGRAMS

Studies and programs for the 2023-2027 Implementation Program include the following:

- Cost ~~S~~share Incentive and Water Quality Restoration Program (All strategies)
- Dredge Management (Strategies 1.1.1, 8.1.2, 8.2.2, and 8.3.1)
- ~~Periodic Assessments and Program Reviews (Strategy 1.3.1)~~
- ~~Detailed Data Assessments (Strategy 2.3.2)~~
- Eagle Creek Bank Restoration at Town & Country RV Park Feasibility Study (Strategies 4.2.1 and 7.4.1)
- Education and Outreach Program (Strategies 1.2.1, 4.2.3, 8.1.1, 9.1.1-4 and 9.2.1-3)
- Fen Private Land Acquisition Study (Strategy 4.3.1)
- Fen Stewardship Program (Strategies 1.1.1 and 2.3.3)
- Gully Inventory and Assessment Program (Strategy 7.3.1)
- Implementation of the Sustainable Lake Management Plans (Strategies 3.2.1-2 and 3.3.1)
- Monitoring Program and Detailed Data Assessments (Strategies 2.3.1-2 and 3.3.1)

- Project and Permit Reviews (Strategies 1.1.1, 1.3.1., 3.2.2, 4.2.2, and 5.1.3)
- Seminary Fen Restoration Site C-2 Study (Strategies 4.1.1 and 7.4.1)
- Spring Creek Site 3 Design Feasibility Study (Strategy 7.4.1)
- Trout Streams Geomorphic Assessments (Strategies 4.2.1)
- Watershed Management Plan (All Strategies)
- Water Resources Restoration Fund (Strategies 1.1.1, 3.2.1-2, and 3.3.1)
- ~~Vegetation Management Standard/Plan (Strategy 7.2.1)~~
- ~~Dredge Material Beneficial Use Plan (Strategy 8.2.2)~~
- ~~9-Foot Channel Strategic Funding Plan (Strategy 8.3.1)~~

~~These studies and programs were introduced and described in Section 3.~~ Budgets for each study and program, with expenses beyond staff time, are shown in Table 4-1. These preliminary budgets are reviewed and approved annually. Revenue for the operation and management of the District is primarily through the District's planning and implementation levy.

4.3.1 Cost-Share Incentive and Water Quality Restoration Program

The District values and supports efforts made by residents to help achieve ~~the~~its goals ~~of the District~~. Through the Cost Share Incentive and Water Quality Restoration Program, the District hopes to engage citizens in community actions that protect local lakes, rivers, streams, wetlands, and fens. Eligible ~~A~~applicants must meet eligibility criteria and apply to and be approved by the Board of Managers. The cost share and incentives will be reviewed annually. Program effectiveness will be measured in two ways: 1) by comparing water quality trends before and after projects are implemented, and 2) by how many projects are funded through the program.

4.3.2 Dredge Management

The District will continue its role as the local sponsor responsible for providing placement sites for the Army Corps of Engineers. The purpose is to place dredge material from the Minnesota River and maintain a 9-foot-deep river channel. This program includes the identification of locations to temporarily store dredge material from the river, private dredge spoil disposal and transfer, and other beneficial uses of the dredge material.

4.3.3 Eagle Creek Bank Restoration at Town & Country RV Park Feasibility Study

Signs of hillslope failure have been observed near the campground on Main Branch of Eagle Creek which is an added environmental stressor on the stream. The District will assess the eroding banks at the campground and determine the urgency for stabilization on Eagle Creek.

4.3.4 Education and Outreach Program

The District's education and outreach program consists of maintaining a Citizen Advisory Committee, various social media accounts, and outreach to schools, partners, and non-governmental organizations. ~~As part of the District's public education and outreach program support is provided~~

~~for the Citizen Advisory Committee that includes preparing monthly meeting agendas and minutes, securing educational presentations, reaching out to increase membership, and developing handouts. The District's social media accounts are managed and quarterly content calendars developed. Interpretive signage has been created for sites in the District with plans for additional signs at project and high resources value sites. Outreach to schools, partners, and non-governmental organizations focusing on educational support and outreach is conducted annually.~~ Editing and updating the District's website is an on-going function.

4.3.5 Fen Private Land Acquisition Study

To preserve and protect fens in the District in perpetuity, the District will map and assess the values of adjacent private properties to each fen and work with corresponding municipalities, -to consider opportunities to purchase private fen land for conservation. If land acquisition is not feasible, the District will consider opportunities to develop agreements with private property owners to ensure management of each fen is consistent and comprehensive.

4.3.6 Fen Stewardship and Management Program

The District, in partnership with the DNR and Metropolitan Council, will develop a fen stewardship program for the District's fens. The effort will review historical data, assess current conditions, and develop a road map for restoration, preservation, and protection of the District's fens. Management plans or sustainability reports will be developed for all fens (starting with Seminary Fen and Savage Fen) to effectively manage and protect these groundwater-dependent resources.

4.3.7 Gully Inventory and Assessment Program

The District performs routine gully inventories to provide information to municipalities within the watershed district on the current conditions of gullies and pipe outfalls; it also identifies new locations that may be contributing sediment into the Minnesota River. Once each gully inventory is complete, the District will coordinate collaboration sessions with city partners and other potential stakeholders to review findings, discuss high-priority sites, and strategize ways to stabilize gullies, repair outfalls, and prevent sediment from entering the Minnesota River.

4.3.8 Implementation of the Sustainable Lake Management Plans

In 2019, the District developed Sustainable Lake Management Plans (SLMPs)~~) were developed~~ for trout lakes ~~in the District in 2019~~within its boundary. Going forward, the ~~The~~ District ~~will~~plans to implement the recommended management strategies from the SLMPs, such as routine vegetation surveys and temperature profiling.

4.3.9 Monitoring Program and Detailed Data Assessments

The District will continue to perform water quantity and quality monitoring of resources within the boundaries of the District. The District's Monitoring Plan will be updated to include the geochemistry recommendations from the Fens Sustainability Gaps Analysis

report and the monitoring parameter recommendations from the Quarry Lake Sustainable Lake Management Plan report.

Over the past few years, the District has collected a large quantity of water quality data. The Plan includes a preliminary assessment of lake water quality data. However, the last comprehensive data evaluation was completed in 2000. Periodic data evaluations are necessary to convert data into information that decision makers can use. Data collected for each water resource will be evaluated on a 3-year or 5-year cycle. As part of Strategy 1.3.1, all water resources within the watershed will be evaluated. An outcome of Strategy 1.3.1 will be groupings of water resources into High, Medium, and Low categories for detailed data assessments and timetables formulated for each category.

4.3.10 Project and Permit Reviews

Through this permitting process, the District works with property owners and local governments to manage and ~~permit~~regulate activities related to soil erosion and sediment control, floodplain and drainage alteration, stormwater management, and development on steep slopes within the boundaries of the District. Project and permit reviews will be performed to determine compliance with the District's rules and to protect the public's health and welfare, as well as the natural resources of the District.

4.3.11 Seminary Fen Restoration Site C-2 Study

Seminary Fen Ravine Site C-2 is actively discharging sediment into the Seminary Fen Wetland Complex. This project will conduct a ravine study to estimate the sediment contribution to the Seminary Fen from the C-2 site and provide approaches and cost estimates for correcting the erosion problems.

4.3.12 Spring Creek Site 3 Design Feasibility Study

Site 3 at Spring Creek is prioritized as a top at-risk site for erosion; however, a stabilization design has not been developed. The District will work with the landowner and the Carver Soil and Water Conservation District to conduct a feasibility study to determine the best approach to stabilize the area.

4.3.13 Trout Streams Geomorphic Assessments

The trout streams geomorphic assessments will consider changes in trout stream alignment, ~~confluence point(s), or geometry~~baseflow, geometry, and selected stream reaches ~~upstream and downstream of confluence point(s)~~. Stream width-to-depth ratios, stream bed slope, meander pattern, and other bed features shall be modeled according to a stable reference reach. Reference reaches are nearby, hydrologically, and geomorphically ~~-~~stable stream segments. A reference reach could be upstream or downstream, or in a nearby watershed. ~~Assessment of the current and future~~

~~discharge and sediment regimes shall be based on watershed conditions that are above stream or as close as possible to the stream.~~This assessment is generally considered twice during the Plan cycle.

4.3.14 Watershed Management Plan

The District's Watershed Management Plan describes how the District will address water resources management over a period of 10 years. The District's current plan will expire in 2027 and will require updates to plan the next 10 years of water resources management within the watershed district's boundaries.

~~**Paleo-limnology Study**~~

~~The District is home to several floodplain lakes. These lakes are inundated with water and sediment from the Minnesota River. Through this project, the District will analyze sediment cores in two (2) lakes to understand their quality and rate deposition over time.~~

~~**Fen Stewardship Program**~~

~~The District, in partnership with the DNR and Metropolitan Council, will develop a fen stewardship program for the District's fens. The effort will review historical data, assess current conditions, and develop a road map for restoration, preservation, and protection of the District's fens.~~

4.3.15 Water Resources Restoration Fund

This broad-based fund implements Goals 2 and 3, which are to protect, improve, and restore surface water and groundwater quality within the District. This program will fund projects sponsored by LGUs that reduce urban nonpoint source pollution, improve, and protect groundwater quality, and promote surveys and studies of wetlands~~2~~ (fen) health and management. Program effectiveness will be measured in two ways: 1) by comparing water quality trends before and after projects are implemented, and 2) by how many projects are funded through the program.

4.4 CAPITAL IMPROVEMENT PROJECTS

Water management organizations that have adopted a watershed management plan, in accordance with M.S. 103B.231, may certify for payment by the counties all or any part of the cost of capital improvement projects (CIPs) contained in the capital improvement program of the Plan. A copy of the Plan shall be forwarded to the county boards.

The District is required to hold a public hearing on the proposed CIP. The public hearing details must be published in a legal newspaper once a week for two successive weeks in counties that have affected waters and lands. The last publication shall occur not more than 30 days, or less than ~~ten (~~10~~)~~ days before the hearing. The notice shall state the hearing's time and place, the general nature of the proposed improvement, the estimated cost, and the cost improvement's payment method, including the cost allocated to each county. At least ~~ten (~~10~~)~~ days before the hearing, the District shall send notices by mail to the counties, to each home rule charter, or to each statutory city or town located wholly or partly within the District's territory. The District recognizes that failure to mail a notice (or failure to provide a notice without ~~have~~ defects ~~in the notice~~) shall not invalidate the proceedings. After the proceedings and assessment statements have been filed with the auditor, each affected county shall pay its apportioned share of the project's total cost based on the engineer's reports or m~~M~~anagers' order.

Table 4-3 contains descriptions and planning level cost estimates for the CIP identified for the period between the Plan amendment completed in 2022 ~~adoption of this Plan~~ and the biennial Plan review.

Table 4-3: Lower Minnesota River Watershed District – Capital Improvement Projects

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
Capital Improvement Projects				
Minnesota River Study Area 3 – Bluff Stabilization Project	To address riverbank erosion, we will analyze the design and construction of the Minnesota River at Study Area 3 project in Eden Prairie. A study was completed in October 2008 for the City of Eden Prairie in cooperation with the district. Our project will expand the 2008 study by collecting and analyzing additional data that will extend to the final design, permitting, and construction.	City of Eden Prairie	~~$350,000~~200,000	2022 - 2025
Minnesota River Floodplain Modeling	The Lower Minnesota River Floodplain Model Feasibility Study determined that the hydrologic and hydraulic modeling commonly used to regulate development in the floodplain and evaluate Rule C permits are out of date. The hydrologic statistical analysis, based on the USGS streamgage at Jordan, has not been updated in 20 years, missed four of the top ten recorded floods on the Minnesota River and must be re-evaluated to determine the flood flows within the LMRWD reach. Following the hydrologic update, the hydraulic model of the Lower Minnesota River should be comprehensively updated to incorporate recent developments in the floodplain, the revised flow data, and better data were available to evaluate the flood risk within the Lower Minnesota River floodplain. The initial capital investment of updating the hydrology and hydraulic model will be followed by annual updates to maintain the hydraulic model and incorporate the most recent data from municipalities and LMRWD permits.	Army Corps of Engineers	$75,000	2023
Spring Creek Vegetation Management Project	The creek will be prone to further erosion without the added protection of adequate vegetation. Vegetation management (e.g., removal of invasives, native plantings, etc.), particularly in the floodplain and channel banks, will be explored with the property owners.	Carver SWCD	$40,000	2023
Stormwater BMP at Parking Lot near Lewis Street West and Second Avenue West Project	This stormwater best management practice project will be coordinated with the parking lot rehabilitation near Lewis Street West and Second Avenue West near Pablo's restaurant in Shakopee. The project focuses on providing water quality treatment to untreated stormwater runoff that is routed directly to the Minnesota River.	City of Shakopee	$750,000 (District's Contribution: $50,000)	2023 - 2024
Seminary Fen Restoration Site B	A partially drained 17-acre wetland from Falls Curve Road to Old Highway 12, which ~~that~~ is predominantly growing reed canary grass, will be restored. The restoration involves disabling the drainage system and restoring vegetation.	City of Chaska and MNDNR	$75,000	2024 - 2025
Shakopee Riverbank Stabilization Project	This project will include stabilizing sections of the Minnesota River riverbank that are eroding along the City of Shakopee's parallel trunk sanitary sewer line that flows to L-16 and other storm sewer outlets.	City of Shakopee	$5,280,000 (District's contribution: $100,000)	2024 – 2025
Spring Creek Site 1 and 2 Stabilization Project	After the vegetation management project is complete, Site 1 and Site 2 along Spring Creek will be stabilized using the Carver SWCD's designs (increased riprap size and standard gradation recommended).	Carver SWCD	$270,000	2024 - 2026
Eagle Creek Bank Restoration at Town & Country RV Park Project	The District will develop a design and stabilize the hillslope failure near the campground on Main Branch of Eagle Creek to reduce sedimentation to the creek.	MNDNR, City of Savage	$160,000	2025 - 2026

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
Seminary Fen Ravines Site C-2 and C-3 Design and Construction	The final design and construction will be done for the Ravine Sites C-2 and C-3, which are discharging sediment into the Seminary Fen Wetland Complex.	City of Chaska and DNR	$170,000	2025 - 2027
Dredge Site Culvert Replacement	A culvert near the site entrance needs to be removed and replaced. The District will work with the Army Corps of Engineers to perform the culvert replacement.	Army Corps of Engineers	$51,500	2026
Vernon Avenue Upgrade at the Dredge Site	Approximately two-thirds of a mile of Vernon Avenue (from Hwy 13 to the site entrance) requires upgrading to allow for increased truck traffic. The District will coordinate with the Army Corps of Engineers to upgrade Vernon Avenue.	Army Corps of Engineers	$62,500	2026
Eagle Creek Brown Trout Habitat Improvements Project	Background research indicates the East Branch historically has been able to support a more reliable brown trout population despite having some of the worst habitat conditions in the watershed. The District will complete habitat improvements in the East Branch to support brown trout populations.	MNDNR, USFWS	$70,000	2027
~~Assumption Creek Hydrology Restoration Project~~	~~Assumption Creek is a trout stream, so it is important to maintain the temperature of groundwater discharge. According to the City of Chaska, portions of the creek dry out periodically. It is unknown exactly what has reduced the hydrology of the creek. It may have been the U.S. Army Corps of Engineers' historic creek rerouting for the brick factory, road construction, or other development effects. The project described here will evaluate the opportunities available to resupply the groundwater hydrology to the creek.~~	~~City of Chaska and DNR~~	~~$30,000~~	~~2019~~
~~Carver Creek Restoration Project~~	~~This will include stabilizing the outer bends with toe protection, grading banks to a more stable slope, and stabilizing the gully.~~	~~City of Carver, Carver WMO, Carver County SWCD and USFWS~~	~~$95,000~~	~~2019 - 2020~~
~~Minnesota River Corridor Management Project~~	~~Using the Minnesota River as a focal point, this project will examine issues facing the river's complex natural system, a shared resource and a place where varied interests and other systems converge. We seek to (1) create greater understanding of the Lower Minnesota River Corridor and its landscape, (2) demonstrate a desired future for the river and how change in the surrounding landscape can help attain this future, (3) suggest a structure or framework by which the vision can be implemented, and (4) identify shared community and public values that form the basis of the project. (This design is modeled after the Vermillion River Corridor Plan.)~~	~~All District LGUs~~	~~$100,000~~	~~2020 - 2021~~
~~Groundwater Screening Tool Model~~	~~The District will develop a district-specific groundwater model that can be used as a preliminary screening tool for the evaluation of groundwater appropriation requests related to four fens within the district (Black Dog, Fort Snelling, Nicols, and Quarry Island). The goal of the model is to define the approximate extent of the recharge zones for the fens and provide a method for evaluating whether the proposed groundwater withdrawals may cause significant decline in head at one or more of the referenced fens.~~	~~DNR~~	~~$150,000~~	~~2018 - 2020~~

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
~~District Boundary Modification Project~~	~~District staff will work with BWSR and the neighboring watershed districts and water management organizations to review and possibly modify the district's jurisdictional boundary.~~	~~BWSR, Carver County WMO, and Riley – Purgatory Bluff Creek WD~~	~~$10,000~~	~~2018~~
~~Downtown Shakopee Targeted BMP Feasibility Study~~	~~A feasibility study will be done in downtown Shakopee to identify opportunities for implementing the targeted best management practices.~~	~~City of Shakopee~~	~~$50,000~~	~~2022~~
~~Dredge Site Restoration Project~~	~~This project consists of implementing the site restoration project identified in the February 15, 2017, *Estimate of Probable Cost, Cargill East River (MN–14.2 RMP) Dredge Material Site* technical memorandum prepared by Burns & McDonnell, Young Environmental Consulting Group, LLC, and Berrini & Associates, LLC, for the Cargill East River (MN – 14.2 RMP) Dredge Material Site located on the Minnesota River in Savage, Minnesota.~~	~~BWSR~~	~~$480,000~~	~~2018 - 2019~~
~~Eagle Creek (East Branch) Project~~	~~This project will restore approximately 2,400 feet of stream and repair erosion under the 128th Street Bridge. The goals of the project are to reduce erosion and improve fish habitat. Due to beaver dams, the stream cuts into three valley walls, contributing to significant deposits of sediment.~~	~~DNR, MN Trout Unlimited and City of Savage.~~	~~$20,000~~	~~2018 – 2019~~
~~East Creek Bank Stabilization Project~~	~~Identified in the East Chaska Creek Restoration feasibility study, the scour hole downstream of Crosstown Boulevard Bridge will be repaired, bank armoring installed, toe protection and grade control structures added behind Cuzzy's Brickhouse Restaurant, and bank armoring and toe protection installed on the right bank of East Oak Street.~~	~~City of Chaska, MPCA and BWSR~~	~~$50,000~~	~~2019~~
~~East Creek Water Quality Treatment Project~~	~~This feasibility study reports that the ideal site to construct a treatment wetland was south of the creek in two vacant lots along Chaska Boulevard. Most lots there are paved right up to the edge of the creek bank. The flow could be diverted from the creek channel into a stormwater treatment system to provide for sediment removal, flood storage, and bacteria treatment.~~	~~City of Chaska and MPCA~~	~~$75,000~~	~~2019 – 2020~~
~~Minnesota River Assessment of Ecological and Economic Impacts of Sedimentation~~	~~This project will examine sedimentation in the Lower Minnesota River Watershed including monitoring, modeling, and analyzing sediment sources, sinks, and pathways in the watershed; summarizing how sources, sinks, and pathways may have changed; and estimating the economic and ecological effects of sedimentation. The project team will look at how sedimentation (1) changes the stage-discharge relationships that may cause flooding, (2) generates costs to maintain a commercial navigation channel on the Minnesota River, and (3) affects the watershed with its ecological conditions. Through these analyses, a new baseline can be established, and an understanding created of how changes in land use will alter the watershed baseline and create a new condition.~~	~~BWSR and Army Corps of Engineers~~	~~$150,000~~	~~2024 – 2027~~

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
~~Minnesota River Assessment of Water Storage Benefits and Opportunities.~~	~~Using the Agricultural Conservation Planning Framework (ACPF) and the Prioritize, Target, and Measure Application (PTMApp), we will determine if a flow reduction would benefit from the placement of storage measures in key locations throughout the basin. This analysis will help us understand if the threshold for meaningful change can be realized to recommend specific levels of storage in the basin. The analysis is needed to accomplish the desired outcomes: (1) hydro-correct DEMs for the lower watershed where storage impacts are desired, (2) run ACPF on priority sub-basins to determine where storage opportunities exist, (3) develop a detailed hydrologic model if one does not exist, (4) run existing and storage scenarios to determine if the amount of the discharges could be lowered for hypothetical rainfall events ranging from 10-year to 100-year events, and (5) summarize the saturation of storage and the maximum change anticipated in the specific agro-ecoregion.~~	~~MPCA and BWSR~~	~~$150,000~~	~~2025 – 2027~~
~~Minnesota River Floodplain Model Feasibility Study~~	~~We will review the existing Minnesota River floodplain model to determine if updates are required.~~	~~DNR, Army Corps of Engineers, and all LGUs within the District~~	~~$30,000~~	~~2019~~
~~Minnesota River Sediment Reduction Strategy~~	~~This project team will collaborate with the MPCA in developing strategies for evaluating and mitigating sediment loads going into the Minnesota River.~~	~~MPCA and BWSR~~	~~$40,000~~	~~2018 - 2019~~
~~Realignment of the Prior Lake Spring Lake Outlet Channel~~	~~This project will place additional capacity and control structures in the channel to handle increased runoff that is draining into the channel because of developments.~~	~~City of Shakopee~~	~~$100,000~~	~~2021 – 2022~~
~~Riley Creek Project – Downstream of Flying Cloud Drive~~	~~The project will provide an energy dissipation below the County Road 61/ Flying Cloud Drive bridge and redirect flows away from outside the creek meanders.~~	~~Hennepin County~~	~~$75,000~~	~~2018 - 2019~~
~~Schroeder's Acres Park/Savage Fen Stormwater Management Project~~	~~This project will evaluate options for incorporating storm water wetland and irrigation reuse systems on the site and address phosphorous, temperature, metals, E. coli and runoff volume in Eagle Creek.~~	~~City of Savage and DNR~~	~~$220,000~~	~~2019 - 2020~~
~~Seminary Fen Restoration Site A~~	~~At the intersection of Engler and Audubon in Chaska, Minnesota, 3.61 acres of wetland will be purchased and restored. This site is dominated by reed canary grass and offers the greatest threat to the rare plants of the Seminary Fen Wetland Community. The site is next to a 6-acre wetland that was restored by the City of Chaska in partnership with the DNR.~~	~~City of Chaska and DNR~~	~~$75,000~~	~~2021~~
~~Seminary Fen Ravines Site C-2 and C-3 Studies~~	~~Seminary Fen Ravine Sites C-2 and C-3 are actively discharging sediment into the Seminary Fen Wetland Complex. This project will conduct a ravine study to estimate sediment contribution to the Seminary Fen from sites C-2 and C-3 and provide approaches and cost estimates for correcting the erosion problems.~~	~~City of Chaska and DNR~~	~~$60,000~~	~~2024 - 2025~~
Potential Projects - Unfunded				
~~SSTS Direct Discharge Incentives~~	~~In 2007, the county board established a cost-share program to accelerate the elimination of direct discharge SSTS. The approved TMDLs for Carver and Bevens Creeks identified that some of the fecal coliform entering those water bodies was from direct discharge and (failing) septic systems. The~~	~~Carver County, CCWMO~~	~~$150,000~~	

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
	~~program offers direct incentives and low-interest loans to landowners to fix these systems, which are mainly concentrated in rural and agricultural areas in the county. The program is responsible for the entire county, except the City of Chanhassen, which has its own program.~~			
~~Trout Stream #4 Restoration~~	~~The DNR and MN Trout Unlimited are considering rehabilitating a trout stream near the Cedar Bridge area. These efforts are to keep the stream listed as a trout stream by the DNR. The City of Burnsville may need to make storm sewer and drainage improvements in the existing system to help the stream become a viable trout habitat.~~	~~DNR, MN Trout Unlimited, City of Burnsville~~	~~$10,000~~	~~2018~~
~~Bluff Area Risk Analysis~~	~~This analysis of the bluffs within the city will identify areas where the risk of failure is high or where failure would lead to a public safety risk or create a significant expense in a short time. This study will aid in the planning of related improvements in future capital improvement plans and future maintenance operations to proactively prevent slope failure.~~	~~City of Burnsville~~	~~$50,000~~	~~2018~~
~~CH 51 & CH 53 Culvert Replacement~~	~~Culverts will be replaced to address continuing erosion stabilization problems along the right-of-way. These culverts are larger in size and cannot be replaced by county maintenance forces. CH 51: between CH 1 and gravel portion. CH 53: ~ 1/2 mile south of TH 169~~	~~Scott County~~	~~$668,000~~	~~2018~~
~~Resiliency Assessment of Major Drainage Systems and Improvements~~	~~This assessment includes a review of the City of Burnsville's major drainage systems to identify areas where failure of major drainage systems would necessitate expensive repairs in a short time and/or cause significant damage to private buildings. These high-risk areas will be identified to aid staff in planning future improvements.~~	~~City of Burnsville~~	~~$390,000~~	~~2018 - 19~~
~~Transportation Capital Improvement Plan~~	~~This plan includes storm sewer system repair in Dakota County and the cities within it. Transportation infrastructure should be more environmentally sensitive.~~	~~Dakota County, Applicable LGUs~~	~~$2,500,000~~	~~2018-2022~~
~~Parks and Greenways Capital Improvement Plan~~	~~This plan advances natural resource protection and restoration of the park and greenway system. In addition to managing 2,280 acres of land that have been restored or are undergoing restoration, the 2018–2022 CIP will restore an additional 956 acres. No specific projects are named, but $1.023 million dollars is set aside annually for "Natural Resources Management: Base Program Funding."~~	~~Dakota County~~	~~$1,023,000~~	~~2018-2022~~
~~Land Conservation Capital Improvement Plan~~	~~This program works with willing landowners and partners to permanently protect and manage shoreland along rivers, streams, and undeveloped lakeshore, high-quality natural areas; wetlands; and associated agricultural land throughout Dakota County. Easements are a main component of this plan, mainly on agricultural lands, but on other private lands as well. Monitoring of the easements will also take place to ensure compliance with legal and stewardship plans and NRMP (natural resources management systems plan) requirements.~~	~~Dakota County, State of MN, Environmental Legacy Fund~~	~~$11,335,000~~	~~2018-2022~~
~~Keller Lake to Minnesota River Hydrologic and Hydraulic Analysis and Report~~	~~This analysis of the chain of water bodies that starts at Keller Lake and ends at the Minnesota River will identify adjustments that could be made to optimize water levels in the system. Changing rainfall frequencies and amounts are the reasons for this reevaluation.~~	~~City of Burnsville~~	~~$75,000~~	~~2019~~
~~Blakeley Bluffs Ravine Stabilization, Phase 1~~	~~Phase 1 calls for assessment of ravine erosion on three county parcels within the future Blakeley Bluffs Park Reserve. Active erosion is occurring in several ravines. It appears the current rate of erosion is causing sedimentation and pollution of the dry creek bed leading to the Minnesota~~	~~Scott County, Clean Water~~	~~$100,000~~	~~2019-2020~~

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
	~~River. Further erosion has the potential to cut further into the bluff top areas, potentially encroaching on areas designated for future park use. Further understanding of the issue is needed to determine an appropriate response. Stabilization measures are likely needed to slow down the erosion currently taking place.~~			
~~Ravine Restoration~~	~~This analysis of ravines will target those most in need of maintenance and then fund their repair to prevent loss of soils, retaining property values and reducing off-site deposit of these soils.~~	~~City of Burnsville~~	~~$1,000,000~~	~~2019-2021~~
~~Wetland Mitigation Bank~~	~~Wetland credits are needed for projects that are not eligible for the BWSR Local Road Wetland Replacement Program. The program does not provide mitigation for impacts due to trails or capacity-only construction projects. These types of improvements require the purchase of wetland banking credits on the open market or on-site mitigation. This project will work with several sites and potential property owners where wetland restoration is feasible and cost-effective to develop a wetland restoration project. If easements on suitable sites can be secured, construction could occur in the same year, and some credits could be released for use by the county as soon as as-built plans are prepared and certified.~~	~~Scott County, State of MN~~	~~$795,000~~	~~2019-2023~~
~~Salisbury Hill (CR 51) Ravines~~	~~This is a high-priority project for the WMO. It's willing to lead, finance, or provide incentives for this project. Unstable ravines are contributing large amounts of sediment to the Minnesota River and affecting county road maintenance. This project was included as a CIP in the previous plan but has been delayed because of changing priorities from the 2014 disaster and the need to wait for decisions about the future of roads in the area. The schedule is currently unknown because we are waiting for decisions about roads in the area.~~	~~Scott County WMO~~	~~$750,000-$1,500,000~~	~~2019-2026~~
~~Blaha Ravine/Chestnut Ravine~~	~~These ravine stabilization projects have been discussed with the City of Belle Plaine in the past; they have now included it as an official request in the letter of issues submitted to the Scott WMO at the start of the plan update process. The Scott WMO acknowledges that this will have some pollutant-loading reduction to the Minnesota River, but the reduction is small compared to the whole basin; thus, it is listed as a Tier 2 project. The City of Belle Plaine will lead the project.~~	~~Scott County, Belle Plaine, Scott WMO~~	~~$102,000~~	~~2019-2026~~
~~Minnesota River Quadrant (MQR) Stormwater and Floodplain Study and Report~~	~~This analysis of the MRQ's overall stormwater management system needs will accommodate future development. The report will guide the review of future developments in the MRQ to optimize the location of future stormwater management facilities.~~	~~City of Burnsville~~	~~$50,000~~	~~2022~~
Courthouse Lake Native Restoration	Multiple projects are underway around Courthouse Lake to restore both the shoreline and turfed areas to a native setting.	Carver SWCD, CCWMO	$75,000	2023 - 2027
Big Woods and Hazeltine Lake Goldfish Management Program	A feasibility study is currently underway to produce a management plan for goldfish control on Big Woods and Hazeltine Lakes. Depending on the outcomes of the study, long term management will follow the outline provided in this study.	MNDNR, CCWMO	$100,000	2023 - 2027
Chaska Creek Bank Stabilization	Streambank erosion is present along Chaska Creek between Hwy 212 and Creek Road in Chaska contributing TSS and TP to Chaska Creek, especially	City of Chaska, CCWMO	$332,000	2023 - 2027

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
	during period of high flow. Potential project areas will be identified and implemented in coordination with City of Chaska's Creek Rd redevelopment projects.			
Stormwater Pollutant Reduction in Untreated and Undertreated Urban Areas - East Chaska Creek Chain of Lakes	The District and Carver WMO will work with City of Chaska to identify areas where additional stormwater treat will provide additional nutrient removal within the East Chaska Creek Chain of Lakes Watershed. Priority will be given to project that provide TP reductions to help meet TMDL goals for impaired waters of Hazeltine, Jonathon, and McKnight Lakes.	City of Chaska, CCWMO	$100,000	2023 - 2027
East Chaska Creek Chain of Lakes Ravine Stabilizations	Ravines draining to the Chain of Lakes are contributing both sediment and phosphorus to the lake. These projects will stabilize slopes and manage stormwater discharge to reduce the amount of sediment reaching adjacent lakes.	City of Chaska, CCWMO	$150,000	2023 - 2027
SW Chaska Ravine Stabilizations	Ravines ultimately draining to the Minnesota River are contributing both sediment and phosphorus to the river. These projects will stabilize slopes and manage stormwater discharge to reduce the amount of sediment discharging downstream.	City of Chaska, CCWMO	$200,000	2023 - 2027
SW Chaska Wetland Preservation and Enhancements	Future development of this area of Chaska may provide opportunities for wetland preservation or enhancements. Priority for project locations will be based upon the Wetland Restoration Assessment of the 2020 Water Plan.	City of Chaska, CCWMO	$100,000	2023 - 2027
Big Woods Lake Gully Restoration	One ravine has been identified as a potential project site to restore. Restoration will reduce the amount of sediment and phosphorus that will reach Big Woods Lake.	City of Chaska, CCWMO	$150,000	2023 - 2027
Lower Minnesota River Sediment Analysis	Previous analysis of how sedimentation has changed in the floodplain of the Lower Minnesota River has involved using pollen assemblages to date horizons. However, further analysis is required to confirm that the interpreted horizons are correct. The District will use dating of the stored core material to date the sediment to provide a more accurate understanding of sedimentation in the floodplain.	Freshwater Society, U of M	$12,500	2024
Minnesota River Assessment of Ecological and Economic Impacts of Sedimentation	This project will examine sedimentation in the Lower Minnesota River Watershed by monitoring, modeling, and analyzing sediment sources, sinks, and pathways in the watershed; summarizing how sources, sinks, and pathways may have changed; and estimating the economic and ecological effects of sedimentation. The project team will look at how sedimentation (1) changes the stage-discharge relationships that may cause flooding, (2) generates costs to maintain a commercial navigation channel on the Minnesota River, and (3) affects the ecological conditions of the watershed. Through these analyses, a new baseline could be established, and an understanding created of how changes in land use alter the watershed baseline and create a new condition. In addition, the District will pursue upstream flow management that is consistent with recommendations of the NCED group using the Management Option Simulation Tool (MOSM) in the Le Sueur watershed and similar approaches in other watersheds to mitigate this issue.	Army Corps of Engineers	$162,500	2024 - 2027
Minnesota River Assessment of Water Storage Benefits and Opportunities	Using the Agricultural Conservation Planning Framework (ACPF) and the Prioritize, Target, and Measure Application (PTM app), we will determine whether a flow reduction would benefit from the placement of storage measures in key locations throughout the basin. This analysis will help us	Army Corps of Engineers	$150,000	2024 - 2027

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
	understand if the threshold for meaningful change can be realized to recommend specific levels of storage in the basin. The analysis is needed to accomplish the desired outcomes: (1) hydrocorrect DEMs for the lower watershed where storage impacts are desired, (2) run ACPF on priority sub-basins to determine where storage opportunities exist, (3) develop a detailed hydrologic model if one does not exist, (4) run existing and storage scenarios to determine whether the amount of the discharges could be lowered for hypothetical rainfall events ranging from 10-year to 100-year events, and (5) summarize the saturation of storage and the maximum change anticipated in the specific agro-ecoregion.			
East Chaska Creek Chain of Lakes SWA Implementation	The District will collaborate with the City of Chaska to implement strategies identified in the East Chaska Creek Chain of Lakes Subwatershed Analysis Feasibility Study. Projects would reduce impervious surfaces and add stormwater treatment for currently untreated areas and improve the quality of stormwater runoff reaching the East Chaska Creek Chain of Lakes. Projects will be completed as time and funding allow.	City of Chaska, Carver County Watershed Management Organization (CCWMO)	$200,000	2024 - 2027
Schroeder's Acre Park Water Reuse	This project consists of providing irrigation to three baseball diamonds and soccer fields with water supplied by the stormwater pond in the park.	City of Savage	$370,000	2024 - 2027
Schroeder's Acres Park Alum Treatment	The City of Savage proposes to conduct an alum treatment at Schroeder's Acres. This would prevent 12 to 24 pounds of total phosphorus (TP) from entering Eagle Creek each year.	City of Savage	$35,600	2024 - 2027
BF Nelson Pond Alum Treatment	The City of Savage proposes to conduct an alum treatment at the BF Nelson Pond. This would prevent 22 to 44 pounds of TP from entering Eagle Creek each year. Each dose is expected to cost $39,900. Doses need to be applied every five years. Alum treatment here has a total cost of $199,500 over 25 years.	City of Savage	$39,900	2024 - 2027
Wyoming Avenue Stormwater Structure	The Wyoming Avenue Stormwater Structure includes the installation of a water quality treatment structure in an untreated industrial land use that discharges directly to Eagle Creek at TH 101.	City of Savage	$668,600	2024 - 2027
TH 13 Stormwater Structure	This proposed project consists of installing an underground stormwater treatment structure in the right-of-way south of Trunk Highway 13. The structure would work in conjunction with the previously mentioned structure along Wyoming Avenue South to provide treatment to over 13 acres of industrial runoff currently flowing directly into Eagle Creek.	City of Savage	$240,100	2024 - 2027
Zinran Avenue Stormwater Structure	This proposed project would consist of installing an underground stormwater treatment structure along Zinran Ave. The structure would provide treatment to over 18 acres of commercial runoff currently not being treated by the City of Savage.	City of Savage	$168,800	2024 - 2027
Eagle Creek Parkway Bank Stabilization	This proposed project would stabilize banks underneath the Eagle Creek Parkway bridge crossing the East Branch of Eagle Creek. The creek is currently estimated to be eroding an average of 2 inches per year, which could deposit approximately 8,600 lbs. of sediment into the creek annually.	City of Savage	$106,00	2024 - 2027
Covington Pond Filtration Bench	This proposed project consists of an intensive pond restoration plan for the basins on the City-owned parcel at Ensign Ave and 125th St W. A filtration bench would be placed between the existing ponds to provide additional treatment to a large portion of residential and upstream drainage areas.	City of Savage	$315,200	2024 - 2027
Preserve Trail Stormwater Structure	This proposed project would install an underground stormwater treatment structure on the western portion of a parcel owned by the Savage Economic	City of Savage	$558,300	2024 - 2027

Project Name	Project Descriptions	Project Partner	Estimated Cost	Estimated Timeline
	Development Authority. The structure would provide treatment to over 17 acres of residential runoff prior to it entering the large storm basin in the business park.			
Carver Creek Gully Stabilization	The District will collaborate with the Carver WMO to stabilize a large gully on Carver Creek in Dahlgren Township (Section 26).	Carver SWCD, NRCS, CCWMO	$40,000	2025
Dahlgren Road Stormwater Retrofit	The District will collaborate with the Carver WMO to address stormwater issues along Dahlgren Road west of County Road 11. Stormwater from the road surface currently drains untreated to Timber Creek, a tributary of Carver Creek.	Dahlgren Township, City of Carver, CCWMO	$40,000	2025
Grace Lake Ravine Stabilizations	Ravines on the northwest side of Lake Grace are contributing both sediment and phosphorus to the lake. These projects will stabilize and reduce the amount of sediment reaching Lake Grace.	City of Chaska, CCWMO	$300,000	2025 - 2027
East Chaska Creek Chain of Lakes Reclamation - Phase 2	The District will collaborate with the Carver WMO to implement methods to control carp populations and improve water quality in the East Creek Chain of Lakes as identified in the Drawdown Feasibility Study. This phase would focus on Big Woods, McKnight, Jonathan and Grace Lakes.	City of Chaska, CCWMO	$225,000	2027

225

4.5 FUNDING MECHANISMS

Laws regarding project funding are different between metropolitan WDs and WMOs, and out-state watershed districts. M.S. Chapter 103D applies to all watershed districts, while Chapter 103B applies only to the Minneapolis/St. Paul metropolitan area watershed districts and WMOs. ~~Since~~ Because the District is both a watershed district and in the metropolitan area, both sets of statutes apply. This section provides a summary of the funding sources available to the District, followed by a discussion of the District's proposed funding method(s).

4.5.1 Funding Statutes Available to Watershed District

4.5.1.1 Special Assessments

M.S. 103D.601 allows a project to be instituted by resolution by a majority of the watershed district managers. The project must be financed by grants totaling at least 50 percent of the estimated cost, and the engineer's estimate of costs to parties (including assessments against benefited properties but excluding state, federal, or other grants) must~~is~~ not be more than $750,000. Initiated projects using this procedure must be paid for by special assessments against benefitting properties. Benefitted properties are defined in M.S. 103D.725.

M.S. 103D.701 requires that to initiate projects, watershed districts must first have a BWSR-approved watershed management plan. Projects that are to be paid for by assessment of benefited property must be initiated by a petition, by unanimous resolution of the managers, or by some other method prescribed in statute.

M.S. 103D.705 provides for cities or residents to petition a watershed district for a project that generally conforms to the watershed management plan. The petitioners must guarantee the funds used to pay for the project's preliminary feasibility studies.

4.5.1.2 Ad Valorem Taxes

M.S. 103D.905 allows watershed district managers to use a portion of their administrative fund for project construction and maintenance beneficial to the watershed district. The upper limit of this fund is $250,000 per year for the District. This also authorizes watershed district managers to levy a tax over the entire watershed district (an ad ~~-~~valorem tax) to pay the cost attributable to the basic water management features of projects initiated by petition of a municipality or ~~/~~political subdivision, or at least 50 resident owners whose property lies within the watershed. The levy may not exceed 0.00798 percent of the taxable market value for a period not to exceed 15 consecutive years.

Procedure for Projects to be Funded Using M.S. 103D.905, Subd. 3 (Basic Water Management Features Projects)

Formal minor plan amendments are not required for projects funded using the additional levy allowed under M.S. 103D.905, Subd. 3. Therefore, the District will follow an informal proposed

project information process to inform the LGUs about these proposed projects. The District will distribute the proposed project information to the affected LGUs for review and comment, but not to the state review agencies or the Metropolitan Council. The BWSR will not take formal action, ~~since~~ because it is not a formal amendment.

M.S. 103B.231 requires watershed districts within the Twin Cities metropolitan area to prepare a water management plan. The statute requires that a capital improvement project be part of the Plan. For those improvements included in the plan M.S. 103B.231, Subd.10 and M.S. 103D.605, allow watershed districts to implement projects without a petition. According to these statutes, watershed districts may levy ad valorem taxes to pay for capital improvements (including maintenance of improvements) either over the entire watershed district (M.S. 103B.241), or over all property within a portion or subwatershed of the watershed district (M.S. 103B.251). M.S. 103B.241, like M.S. 103D.729, also allows watershed districts to accumulate funds to finance improvements as an alternative to issuing bonds. For the District to use either funding mechanism, the District must adequately describe the projects, studies, and project maintenance in the Plan. The Plan must also specify that the source of funding will be in accordance with these statutes. Currently there is no levy limit.

The advantage of using M.S. 103B.231 (Subd. 10) and 103B.241 is that a hearing is not required for each project. If the capital improvement project is specified in the Plan, the watershed district need only conduct an annual hearing on the entire capital improvement program, in accordance with M.S. 103B.241. Under M.S. 103B.241, projects are paid for by an ad valorem tax over the entire watershed district.

M.S. 103B.251, on the other hand, allows the watershed district to set up a special taxing district or subwatershed over which funds are raised by an ad valorem tax. M.S. 103B.251 requires that (a) a copy of the Plan be filed with the county, (b) a special improvement hearing be held for the capital improvement projects, and (c) the county raises the funds by selling bonds paid for by an ad valorem tax over the subwatershed/special tax district.

4.5.1.2.1 Procedure for Projects to be Funded Using M.S. 103B.241 or M.S. 103B.251

Formal minor plan amendments will be required for projects funded under M.S. 103B.241 or M.S. 103B.251 that are not described in sufficient detail in the Plan. The District will follow the formal minor plan amendment process of MN Rules 8410.0140 for these types of projects. The formal process requires that the District distribute the plan amendment to the affected local units of government, the Metropolitan Council, and the state review agencies (including BWSR) for review and comment. The counties will have 90 days from receipt of the minor plan amendment to either approve or disapprove the amendment, and to hold any public hearings regarding the amendment. Unless the District agrees to an extension, if a county fails to complete its review within the prescribed period, the amendment will be deemed approved by that county. The proposed amendment will be deemed as a minor amendment if either BWSR

agrees that the amendment is a minor amendment, or BWSR fails to act within 45 days of receipt of the minor plan amendment.

4.5.1.2.2 Procedure Following Approval of Proposed Project Information or Minor Amendment

Following approval of the proposed project information or minor amendment, and prior to advertising for project bids, the District will hold at least one additional public hearing to review the final design of the proposed project. At this point, the District shall have completed the final design plans and specifications necessary for the contract bidding process and construction. Although this last stage of public hearings is not required by statute, the public and other interested parties will have an additional opportunity to review and comment on the details of the proposed project.

4.5.1.3 Utilities~~y~~ and~~/~~ Fees

Like stormwater utilities for cities, M.S. 103D.729 allows watershed districts to establish a water management district, or a subwatershed within the District, for collecting revenues and paying project costs initiated under M.S. 103B.231, M.S. 103D.601, 605, 611, or 730. For the District to use this funding mechanism, it must be included in its Plan, or the Plan must be amended to include this funding mechanism in accordance with 103D.411 or 103D.231 and in compliance with subdivisions 3 and 4.

4.5.2 Emergency Projects

M.S. 103D.615 allows watershed district managers to declare an emergency and order work to be done without a contract. The cost of work can be paid for either by special assessment against benefitted properties or an ad valorem tax levy, if the cost is not more than 25 percent of the most recent administrative ad valorem levy.

M.S. 103B.252 allows watershed districts to declare an emergency and order work to be done without a contract. M.S. 103B.252 is like M.S. 103D.615, except it does not contain levy limits. In addition to the abovementioned funding sources, the District could receive funding from various state, federal, and private sources, such as grant and loan programs. This affords the District the opportunity to use grants and loans for projects instead of county-issued bonds.

4.5.3 Proposed Funding Mechanisms

The District has financed its past administrative, program, and project costs through its annual administrative fund ad valorem tax levies under the authority of the Watershed Act (M.S. 103D.905). The District's administrative fund levy limit is $250,000. The District's administrative fund is used only for initiatives that benefit the water resources of the District; it is not used for projects that benefit commercial navigation. Many of the District's efforts and funding have been put toward activities that address water quality, runoff management, or flood control problems and issues. In the past, the District has maintained a capital reserve fund consisting of any unused portions of previous administrative levies.

Both the Watershed Act, referenced above, and the Metropolitan Surface Water Management Act (M.S. 103B.201 *et seq.*) provide additional revenue generating authority to the District. For projects creating a unique benefit to individual properties, the District may adopt and levy benefits assessments against project-benefitted properties. For projects and programs of District-wide benefit, that are included in the District's CIP, the District may impose an additional ad valorem tax levy to generate the revenue necessary to implement programs and projects on its CIP. For special water or resource management projects, the District may establish a wWater mManagement dDistrict within which it may impose a water management charge to pay for basic water management activities made necessary by land uses with in the Water Management District.

Other than the administrative fund, all revenue generating authorities of the District require strict compliance with administrative proceeding requirements found in the Watershed Act and Metropolitan Surface Water Management Act.

4.5.4 Petitioned Projects

The District will place a priority on petitioned projects that are identified as implementation projects in future resource plans. The advantages of a petition process are: 1) the statute sets forth a definite process for the petition and subsequent actions; 2) the mManagers are required to decide whether to order the project ~~or not~~; and 3) if additional funding is needed, the statute allows for ad valorem funding of these petitioned projects. The disadvantage of the petition process is that it may require more lead time to approve a project than the current District process. M.S.103D.905, subd.3 allows the District to levy an additional ad valorem tax over the entire District to pay for the basic water management features of projects that~~, which~~ have been initiated by a petition of a municipality within the watershed. The ~~M~~managers anticipate funding projects using this authority, except projects that benefit navigation. If no city petitions the District for a project which the District believes is a priority, the District may consider initiating the project under the provisions of Chapter 103.