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 address in Section 3. The District's Program consists of administrative and managerial efforts, coordination, studies, programs, capital improvement projects (CIP), and funding mechanisms to successfully execute the Plan. Each element is described below. The Program schedule and budget are presented in Table 4-1. Since this Plan was not completed in time for the 2017 budgeting cycle, this Program begins in ~~2012~~ 2018 and ends in ~~2020~~ 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 two District employees: a full-time administrator and a part-time assistant administrator.~~ 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, bookkeeping services, office space, office equipment, office rent, 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 2018 -2027

ACTION	Strategy Addressed	Potential Funding Sources	Duration	Year 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
EXPENDITURE													
Administrative/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)	All	GL	Annual	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Administrative/Managerial Budget Total	All	-	-	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Studies and Programs													
Sustainable Lake Management Plans (Trout Lakes)				$50,000	$50,000					$50,000	$50,000		
Geomorphic Assessments (Trout Streams)				$50,000	$50,000					$50,000	$50,000		
Paleo-limnology Study (Floodplain Lakes)				$50,000									
Cost Share Incentive and Water Quality Restoration Program				$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
Monitoring Program				$65,000	$65,000	$65,000	$75,000	$75,000	$80,000	$80,000	$80,000	$80,000	$80,000
Education and Outreach Program				$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Fen Stewardship Program				$75,000	$75,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
Water Resources Restoration Fund						$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
Studies and Programs Budget Total				$340,000	$290,000	$235,000	$245,000	$245,000	$250,000	$350,000	$350,000	$250,000	$250,000
Capital Improvements													
Carver Creek Restoration Project					$93,500								
Corridor Management Project						$25,000	$75,000						
District Boundary Modification Project				$10,000									
Dredge Site Restoration Project				$240,000	$240,000								
Eagle Creek (East Branch) Project				$12,000									
East Creek Bank Stabilization Project					$50,000								
East Creek Treatment Wetland Project				$10,000	$10,000	$150,000							
Minnesota River Sediment Reduction Strategy				$25,000	$25,000								
Minnesota River Study Area 3 – Bluff Stabilization Project								$100,000	$250,000				

Riley Creek Project – Downstream of Flying Cloud Drive				$25,000	$25,000								
Riley Creek Sediment Reduction Project				$25,000	$50,000								
Spring Creek Project					$45,000								
Capital Improvements Budget	-	-	-	$347,000	$538,500	$175,000	$75,000	$100,000	$250,000	$0	$0	$0	$0
TOTAL EXPENDITURES	-	-	-	$937,000	$1,078,500	$660,000	$570,000	$595,000	$750,000	$600,000	$600,000	$500,000	$500,000
REVENUE													
General Levy	-	-	-	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Planning and Implementation Levy	-	-	-	$447,000	$588,500	$410,000	$320,000	$345,000	$500,000	$350,000	$350,000	$250,000	$250,000
Special Channel Maintenance Funding	-	-	-	-	-	-	-	-	-	-	-	-	
Grants	-	-	-	$240,000	$240,000			-	-	-	-	-	
TOTAL REVENUE	-	-	-	$937,000	$1,078,500	$660,000	$570,000	$595,000	$750,000	$600,000	$600,000	$500,000	$500,000

ACTION	Strategy Addressed	Potential Funding Sources	Duration	Year 2012	2013	2014	2015	2016	2017	2018	2019	2020
EXPENDITURES	-	-										
Administrative/Managerial*	-	-										
General Administrative Services	All	GL	Annual	$184,644	$189,260	Administrative Costs Consolidated						
Training and Conferences	All	GL	Annual	$1,025	$1,051							
Coordination	1.1.1,1.2.1,1.3.1-3, 2.3.1,2.3.4, 3.1.3,3.2.1, 3.3.2, 4.2.1-3, 4.3.1, 7.1.1, 7.4.1, 8.1.1, 8.2.2, 8.3.1, 9.1.1-4 and 9.2.1-3	GL	Annual	$2,050	$2,101							
LGU Program Review	1.2.1, 2.1.1, 2.2.1, ,2.2.23.2.1, 5.1.1, 5.1.2, 5.1.4, 6.1.1-6.1.3, 7.1.1, 7.1.2, 7.4.2	GL	Annual	$2,050	$2,101							
Advisory Committees (Technical and Citizen's)	1.3.2, 9.1.1, 9.1.2	GL	Annual	$2,050	$2,101							
Administrative/Managerial Budget Total	All	-	-	$191,819	$196,614	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Studies and Programs												
Education and Outreach Program	1.2.1, 2.2.2, 3.2.2,4.2.3, 8.1.1, 9.1.1-4, and 9.2.1-3	PI	Annual	$30,000	$30,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
Strategic Resource Evaluation and Management	1.3.1	PI	2 years	$100,000	$100,000	-	-	-	-	-	-	-
Governance Study*	1.3.2	PI	1 year	-	-	-	-	-	-	-	-	-
Periodic Assessments and Program Reviews	1.3.3, 1.3.4	PI	Annual	$40,000	$40,000	$40,000	-	$40,000	$40,000	$40,000	$40,000	$40,000
Dean Lake Feasibility/Diagnostic Study	2.2.5	PI	1 year	-	$50,000			-	-	-	-	-
Cost Share Incentive and Water Quality Restoration Program	2.2.3 and 2.2.4	PI	Annual	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
Monitoring Program	2.3.1, 2.3.2, 2.3.3, 3.3.1, and 4.2.1	PI	Annual	$95,000	$95,000	$50,000	$50,000	$95,000	$95,000	$95,000	$95,000	$95,000
Monitoring Data Analysis	2.3.1, 2.3.2, 2.3.3, 3.3.1, and 4.2.1					$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
USGS	2.3.1					$8,000	$18,000					
Plan Amendment	1.3.3, 1.3.4						$30,000				$15,000	
Technical Assistance	4.2.2	PI	Annual	$16,000	$16,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Wetlands and Fens Assessments	1.3.1, 4.2.1, 4.3.1, 7.2.1	-	-	-	-			$45,000	-	-	-	-
Conservation Easement Acquisition	4.3.1	PI	1 year	$15,000	$30,000			-	-	-	-	-

ACTION	Strategy Addressed	Potential Funding Sources	Duration	Year								
				2012	2013	2014	2015	2016	2017	2018	2019	2020
Vegetation Management Standard/Plan	7.2.1	PI	1 year	-		$15,000	$15,000	-	-	-	-	-
Dredge Material Management Plan	8.2.1	PI	1 year	$10,000	-	-	-	-	-	-	-	-
Dredge Material Beneficial Use Plan	8.2.2	PI	1 year	$25,000	-	-	-	-	-	-	-	-
9-Foot Channel Strategic Funding Plan	8.3.1	PI	1 year	-	$25,000	-	-	$15,000	-	-	-	-
9-Foot Channel	8.3.1	-	-	-	-	$15,000	Costs moved the administration					
Studies and Programs Budget Total				$351,000	$416,000	$183,000	$168,000	$250,000	$190,000	$190,000	$205,000	$190,000
Capital Improvements												
Contingency - Gully Erosion Projects	7.3.1 and 7.3.2	PI	Annual	$25,000	$25,000		$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
Mound Springs Gully Erosion Project	7.3.1 and 7.3.2	PI	2 years	-	$100,000		-	$45,000	$100,000	$75,000	-	-
Seminary Fen Restoration Project	2.2.4, 3.2.1, and 7.3.1	PI	1 year	$36,000	-	-	-	-	-	-	-	-
Ravine Stabilization at Seminary Fen	7.3.1 and 7.3.2	PI	2 years			$100,000	$100,000	-	-	-	-	-
Heritage Hills Park Gully Restoration Project	7.3.1 and 7.3.2	PI	1 Year	-	-	-		$45,000	$100,000	$75,000	-	-
Dean Lake Restoration Project	2.2.5 and 2.3.1	PI	2 Years	-	-	$100,000	$30,000	-		-	-	-
Minnesota River Study Area 3 Bluff Stabilization	4.4.1	PI	1 Years	-	-	-	-	$250,000	-	-	-	-
Long Meadow Outfall Project	7.3.1 and 7.3.2	-	-	-	-	$100,000	$100,000				-	-
Overlook Outfall (Bloomington)	7.3.1 and 7.3.2	-	-	-	-		$100,000				-	-
Seminary Fen Drain Tile	2.2.4, 3.2.1, and 7.3.1	-	-	-	-		$25,000				-	-
Brickyard Clayhole Lake - Gully Stabilization	2.2.4 and 7.3.1	-	-	-	-			$100,000			-	-
East Chaska Creek Restoration	2.2.4, 7.3.1, and 7.4.1	-	-	-	-			$100,000	$201,000		-	-
Bluff Creek Restoration	2.2.4 and 7.4.1	-	-	-	-			-	$50,000		-	-
Carver Creek Restoration	2.2.4, 7.3.1, and 7.4.1	-	-	-	-					$75,000	$18,500	-
Riley Creek Restoration	2.2.4 and 7.4.1	-	-	-	-					$75,000	$93,500	-
Water Management Plan	All										$75,000	$75,000
Capital Improvements Budget	-	-	-	$127,650	$546,250	$516,250	$395,000	$580,000	$491,000	$340,000	$227,000	$115,000
TOTAL EXPENDITURES	-	-	-	**$670,469**	**$1,158,864**	**$733,000**	**$813,000**	**1,080,000**	**$931,000**	**$780,000**	**$682,000**	**$555,000**
REVENUE												

~~ACTION~~	~~Strategy Addressed~~ -	~~Potential Funding Sources~~	~~Duration~~	~~Year~~ 2012	2013	2014	2015	2016	2017	2018	2019	2020
~~General Fund Balance from previous year~~	-	-	-	~~$512,650~~	~~$592,182~~	~~$516,661~~	~~$413,161~~	~~$255,161~~	~~$250,161~~	~~$254,161~~	~~$250,161~~	~~$250,000~~
~~General Levy~~	-	-	-	~~$250,000~~	~~$250,000~~	~~$250,000~~	~~$250,000~~	~~$250,000~~	~~$250,000~~	~~$250,000~~	~~$250,000~~	~~$250,000~~
~~Planning and Implementation Levy~~	-	-	-	~~$400,000~~	~~$700,000~~	~~$375,000~~	~~$400,000~~	~~$825,000~~	~~$685,000~~	~~$526,000~~	~~$431,839~~	~~$305,000~~
~~Special Channel Maintenance Funding~~	-	-	-	-	-	-	-	-	-	-	-	-
~~Grants~~	-	-	-	-	-	~~$4,500~~	~~$5,000~~	-	-	-	-	-
~~**TOTAL REVENUE**~~	-	-	-	~~**$650,000**~~	~~**$950,000**~~	~~**$629,500**~~	~~**$655,000**~~	~~**$1,075,000**~~	~~**$935,000**~~	~~**$776,000**~~	~~**$681,839**~~	~~**$555,000**~~
~~GENERAL FUND RESERVE~~	-	-	-	~~$492,181~~	~~$383,318~~	~~$413,161~~	~~$255,161~~	~~$250,161~~	~~$254,161~~	~~$250,161~~	~~$250,000~~	~~$250,000~~

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 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-foot 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 WMO	Quarterly at a minimum
~~Strategy 1.3.1-2~~	~~LGUs, BWSR, MPCA, Metropolitan Council, SWCDs, neighboring WDs and WMOs and TAC~~	~~2011 - 2014~~
~~Strategy 4.3.1, 7.2.1~~	~~LGUs, BWSR, MPCA, Metropolitan Council, SWCDs, neighboring WDs and WMOs, and TAC~~	~~2015 - 2017~~
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 WMO	Annually
Strategy 3.1.3	DOH	Annually
~~Strategy 3.3.2~~	~~Metropolitan Council Environmental Services~~	~~2016~~
Strategy 5.1.2 - 3	LGUs and BWSR	Annually
Strategy 7.1.1	MPCA	Annually
Strategy 7.4.1	LGUs, SWCDs and shoreland property owners	Annually
~~Strategy 8.1.1~~	~~DNR, and US Coast Guard and Auxiliaries~~	~~2016~~
Strategies 8.2.1, 8.2.2, 8.3.1	COE	On-going
Strategies 9.1.1-4 and 9.2.1-3	LGUs, TAC, CAC, and SWCDs	On-going, Quarterly

4.1.1 Local Water Plan Development and Implementation

~~LGUs are required to develop a local water plan (LWP) providing a coordinated system of managing the watershed on a regional or subwatershed basis consistent with this Plan. In accordance with MN Rules 8410.0160, each LWP must, at a minimum, meet the requirements for local plans in Minnesota Statutes, section 103B.235, except as provided by the watershed management organization plan under part 8410.0110, subpart 3.which allows for all or part of a plan to be adopted by reference by a LGU for all or part of its local plan.~~

4.1.2 District LWP Review

After consideration, but before adoption by the governing body, each LGU shall submit its LWP to the District for review for consistency with this Plan. The District shall approve or disapprove the local plan or parts of the plan. The District shall have 60 days to complete its review and shall, as part of its review, take into account the comments submitted to it by the Metropolitan Council. If the District fails to complete its review within the prescribed period, the LWP shall be deemed approved unless the LGU agrees to an extension.

4.1.3 Metropolitan Council Review

Concurrently with submission of an LWP to the District as provided in M.S. 103 Subdivision 3a, each LGU shall submit its LWP to the Metropolitan Council for review and comment. The Metropolitan Council shall have 45 days to review and comment on the LWP or parts of the LWP with respect to consistency with the council's comprehensive development guide for the metropolitan area. The Metropolitan Council's 45-day review period shall run concurrently with the District's 60-day review period. The Metropolitan Council shall submit its comments to the District and shall send a copy of its comments to the LGU. If the Metropolitan Council fails to do this within the 45-day period, the District shall complete its review as provided in M.S. 103 Subdivision 3a.

4.1.4 Administration and Enforcement of LWPs

LGUs are responsible for implementing and enforcing LWPs covering their jurisdictions. The District will have oversight responsibility to ensure implementation of LWPs. Oversight will include spot checks of municipal projects and program audits. If the LGU is found to be non-implementing, the District will work with the LGU to correct the issue. However, if problems persist, the District will develop rules and a permitting program to take on the land use authorities granted by M.S. 103B

~~and 103D to enforce the standards in this Plan. However, the District's preferred position is to avoid unnecessary duplication of permitting programs.~~

4.3 STUDIES AND PROGRAMS

Studies and programs include:

- Cost share Incentive and Water Quality Restoration Program (All strategies)
- Periodic Assessments and Program Reviews (Strategy 1.3.1)
- Detailed Data Assessments (Strategy 2.3.2)
- Monitoring Program (Strategies 2.3.1-2 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)
- Education and Outreach Program (Strategies 1.2.1, 4.2.3, 8.1.1, 9.1.1-4 and 9.2.1-3)

~~- Strategic Resource Evaluation and Management~~
  ~~- Strategy 1.3.1~~
~~- Governance Study~~
  ~~- Strategy 1.4.2~~
~~- Cost Share Incentive and Water Quality Restoration Program~~
  ~~- All Goals and Policies~~
~~- Dean Lake Feasibility/Diagnostic Study~~
  ~~- Strategy 2.2.5~~
~~- Monitoring Program~~
  ~~- Strategy 2.3.1-2 and 3.3.1~~
~~- Vegetation Management Standard/Plan~~
  ~~- Strategy 7.2.1~~
~~- Dredge Material Management Plan~~
  ~~- Strategy 8.2.1~~
~~- Dredge Material Beneficial Use Plan~~
  ~~Strategy 8.2.2~~
~~- 9-Foot Channel Strategic Funding Plan~~
  ~~- Strategy 8.3.1~~
~~- Education and Outreach Program~~
  ~~- Strategies 1.2.1, 4.2.3, 8.1.1, 9.1.1-4 and 9.2.1-3~~

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 Strategic Resources Evaluation

The strategic resource evaluation (SRE) implements Strategy 1.3.1 which was completed in 2014. The TAC assisted the District with identifying resources for additional investigation and protection, as well as evaluated the District's Monitoring and Data Collection efforts. See Appendix M for the SRE Report.

4.3.2 Governance Study

This study implements strategy 1.3.2 and consists of investigating expanding, contracting or maintaining the District's boundary. The governance study commenced within the first year after adoption of this Plan. The goals of the governance study were to:

- To create a water management structure that will provide long-term protection for surface and ground water resources within the District.
- To ensure local water management units within the District with the fiscal capacity and authority to govern efficiently and effectively.
- To coordinate surface water, ground water, land-use and natural resources management to provide for a more comprehensive approach to resource management.
- To adopt a proactive rather than a reactive approach to countywide water governance.

The study evaluated four water governance options based on extensive qualitative analysis of stakeholder interviews and a literature review. Based on the information gleaned, the District has decided to proceed as follows:

- Maintain its boundary
- Continue to exist and increase its role as an advocate for the Lower Minnesota River
- Start conversations with county board members, cities, and state legislators to further examine the feasibility of a port authority
- Proactively engage stakeholders

See Appendix N for the Governance Study.

4.3.3 Cost Share Incentive Program

This program implements Strategy 2.2.3 and consists of maintaining a fund to cost share and promote projects and studies that have a water quality, water quantity, channel maintenance, trout stream, fen or wetland restoration, or aquatic habitat benefit. A detailed description of this program can be found in Appendix I.

The cost share and incentives will be reviewed annually. Effectiveness will be measured in two ways: by comparing water quality trends before and after Projects that could potentially be funded under the Cost Share Incentive Program are listed below in Table 4-3. Within 6 months after this Plan is approved by BWSR, the District (with the assistance of the TAC) will develop criteria and the application process for the Cost Share Incentive Program. Effectiveness of this program will be measured in two ways: by comparing water quality trends before and after projects are implemented and 2) by how many projects are funded through the program.

Table 4-2: Lower Minnesota River Watershed District Cost Share Incentive Program Projects under Consideration

Project Name	Description	Project Partner	Estimated Cost	Estimated Timeline
Overlook Lake Curly Leaf Pondweed Control Project	This project, primarily sponsored by the City of Bloomington, includes drawdown of Overlook Lake or chemical treatment of the lake with an aquatic herbicide early in the aquatic growing season while water temperatures are still cool, and prior to native vegetation growth. Due to its unique life cycle, reducing the amount of curly leaf pondweed would reduce the internal loading of phosphorus and can improve water clarity and encourage native plant growth.	City of Bloomington	$3,000	2013
Bluff Creek Erosion Repair	This project, to be completed in cooperation with the City of Chanhassen, consists of correcting existing erosion problems and stabilizing the banks at problematic locations along Bluff Creek.	City of Chanhassen	$10,000	2016
Purgatory and Lower Riley Creek Erosion and Streambank Stability Feasibility Assessments	This project implements strategy 7.4.1 which is to promote and encourage shoreland protection. This is a cooperative project with the City of Eden Prairie to assess streambank stability at locations of concern on the Purgatory and Lower Riley Creeks.	City of Eden Prairie	$20,000	2016-2017
Old Highway 212 Business Corridor Storm Water Improvement Study	The Chaska Boulevard business corridor (old Hwy 212) was developed prior to stormwater treatment requirements. As a result this corridor currently has a number of discharges that are directed into East Creek and the Clay Hole with no treatment. This project involves a preliminary investigation of pollution load reductions and water quality improvement features to be implemented for this portion of Chaska. The goal is develop a plan for water quality retrofit improvement projects along the portion of Chaska Downtown along Chaska Boulevard.	City of Chaska	$20,000	2016-2017

Water Quality Restoration Program

This broad based program implements Goal 2 which is to protect, improve, and restore surface water and groundwater quality within the District. This program will also implement Strategy 2.2.4, the District's Strategic Resources Evaluation, which will be used as a basis to identify targeted areas to fund programs. Starting in 2011 funds are budgeted to help local entities work toward restoring declining and impaired waters within the District. A detailed description of this program can be found in Appendix I.

This program will fund activities that reduce urban nonpoint source pollution, improve and protect groundwater quality, and promote surveys and studies of wetlands (fen) health and management. Effectiveness of this program will be measured in two ways: by comparing water quality trends before and after projects are implemented and 2) by how many projects are funded through the program.

Monitoring Program

This implements Strategies 2.3.1, 2.3.2 and 2.3.3 which will continue the District's current monitoring, data collections and data assessment efforts as described earlier in this Plan. The outcome of the Strategic Resource Evaluation modifies the monitoring program as specified below and in the SRE (Appendix N).

Snelling Lake

Snelling Lake will be assessed for nutrient impairment during the summers of 2015 and 2016 (one sampling event per month, June-September period) using the standard measures of secchi depth, chlorophyll-*a*, and total phosphorus. Cooperation with Fort Snelling State Park staff and training them to conduct the lake monitoring is recommended. A canoe is available on-site for collecting samples at a mid-lake location. Chlorophyll-*a* and total phosphorus sample bottles will be acquired from a state-approved analytical laboratory. Field samples should be collected just below the lake surface using the provided bottles. A secchi disk reading should be recorded during each visit. Sample bottles must be kept at 39 degrees F (4 degrees C) until delivery to the analytical laboratory. The following pre-monitoring tasks will need to be completed before the start of monitoring activities:

1. Develop a project monitoring plan
2. Develop a quality assurance project plan (QAPP) in conjunction with MPCA requirements for determination of impairment
3. Train Fort Snelling State Park staff as lake monitors
4. The District will then review data from the field and analytical laboratory and develop draft and final reports based on 2015 and 2016 lake data. Upon completion of these tasks, Snelling Lake should change from a Category 1 to a Category 2 resource.

Wetlands and Fens

Data for most of the wetlands and fens within the District have not been updated with quality, value, and function assessments since the 1990s. An overall, consistent and focused assessment of all of the wetlands and fens is required to categorize the wetland and fen resources. The following is a plan for completing the assessment.

- Update the native plant community (NPC) study data for the large wetland complexes in the Minnesota River Valley This would involve reviewing the initial delineations accuracy. Where there are discrepancies, the delineations should be updated to reflect changes since the NPC study. In most cases, the NPC data did not gather or show plant community makeup, nor did it indicate the presence (dominance) of invasive species or provide a Floristic Quality Assessment (FQA).

  This initial step would provide the District with updated and consistent baseline data needed to perform a feasibility study of management strategies. Detailed field forms summarizing plant community types by NPC definitions should be used for each of the "natural" remnant communities (plant communities with little or no historical human disturbance) within the wetland complexes. This would not be required for land covers that would no longer be considered "natural" due to absolute dominance by non-native invasive species, farming, or development.

- Perform an FQA of each of the fens, identifying three sampling points (with a 25' radius) in each fen. An FQA is a vegetation-based ecological assessment approach that can be used for wetland quality monitoring and assessment. The FQA sampling locations should be provided to the District and the DNR in a GIS format in order to act as baseline data for future assessments. Performing this detailed plant analysis provides a picture of the relative quality and/or degradation within these rare plant communities. The DNR has performed qualitative assessments over the years, but does not appear to have established a way to monitor the fens in the District. To that extent, some of the fens (Black Dog North in particular) may be too degraded for restoration. An FQA is needed in order to provide a quality, consistent baseline for each of the fens and allows a comparison of quality and degradation of these communities across the valley.

  The best time to perform the FQA, is mid-June through July. Planning (i.e. identification of sampling points) should take place in advance (could happen with MLCCS work). Creating standardized methods for the FQA is an important step in ensuring that the work is applicable and replicable in the future. The value of the FQA for the fen assessments, but not wetlands is that the tool is very plant and detail intensive, requiring identification of all species to the species level. It is also a quantitative method that provides a strong baseline assessment.

- Perform Minnesota Routine Assessment Methodology (MnRAM) on all of the large wetland complexes. This should be done in conjunction with the MLCCS surveys, and as such should not add a significant additional effort to the process.
- Baseline water level measurements were collected from 2007 to 2010 in Gun Club Lake North (two wells), Gun Club Lake South (13 wells) and Nichols Meadow (14 wells) fens. These locations should be monitored (or at least periodically updated) to verify that conditions have not changed since previous monitoring. The preferred method of data collection is using a submersible data-logging pressure transducer.

Conservation Easement Assessment

This assessment consists of implementing Policy 4.3 which is to review existing conservation easement studies in an effort to protect, preserve and enhance resource connectivity and identify prime areas for conservation easements. Once the areas have been identified, the District will work collaboratively with the LGUs, USFWS, DNR, and other regulatory agencies to acquire the necessary easements.

Dredge Material Management Plan This implements Strategy 8.2.1, which will continue to implement the COE Dredged Material Management Plan for the dredged areas upstream of the I-35W Bridge. In addition, the District will cooperate with the COE to develop a Plan for the area downstream of the I-35W Bridge.

Dredge Matrial Beneficial Use Plan

This implements Strategy 8.2.2 which will address the issue that the District has a few dredge materials placement sites. Once material is placed in these areas, movement or use of the material is required to free storage space should the COE need it for additional dredge material. The District commissioned the dredge material management plan (DMMP) to review options for managing the Cargill East River (MN-14.2 RMP) site and deposited material and to review the District's financial liability as the local sponsor. Based on the DMMP, provided in Appendix O, the District will maintain its role as the local sponsor, generate funds to operate and manage the Cargill East River (MN-14.2 RMP) site, and purchase additional dredge placements sites, if necessary. The District will also explore partnerships with other entities to implement beneficial uses of the dredge material.

9- Foot Channel Strategic Funding Plan

This implements Strategy 8.3.1. The 9-Foot channel strategic funding plan will be based on the outcome of the dredge material beneficial use plan and governance study. The information from these two studies will determine the following: whether the District will continue in its role as local sponsor for the COE dredging activities; the potential market for the dredge material; and the best way to continue funding 9-Foot channel maintenance through sale of the material, use of the general levy, special assessments, federal or state funding or a combination thereof.

Education and Outreach Program

~~This implements Goal 9 which is being developed concurrently with this Plan by the assistant administrator and the CAC. The vision and mission of the Education and Outreach Program is to educate the public about the Minnesota River, its uniqueness and the importance to it the economies of Minnesota and the Nation. The objectives are to provide education on the history, commercial and recreational navigation, and unique natural resources.~~

4.3.1 Sustainable Lake Management Plans

Sustainable lake management plans (SLMPs) will be developed for trout lakes in the District. These SLMPs will assess the following:

- Aquatic plant coverage and management
- Exotic species issues and management
- Shoreline condition and management
- Nutrient and temperature dynamics and management
- Stormwater runoff and groundwater contributions and management
- Roles and responsibilities for management
- Implementation schedule and plan
- Recreational opportunities (pier, public access, etc.…)

4.3.2 Geomorphic Assessments

The geomorphic assessments will consider changes in trout stream alignment, confluence point(s), or geometry, and 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.

4.3.3 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.

4.3.4 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.

4.3.5 Water Resources Restoration Fund

This broad-based fund implements Goal 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' (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 (CIP) 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, each home rule charter, or statutory city or town located wholly or partly within the District's territory. The District recognizes that failure to mail a notice (or 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 Managers' order.

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

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

Project Name	Description	Project Partner	Estimated Cost	Estimated Timeline
Capital Improvement Projects				
Boundary Assessment Project	This project consists of working with BSWR and neighboring watershed districts and water management organizations to review and possibly modify the District's jurisdictional boundary.	Carver County WMO and Riley – Purgatory Bluff Creek WD	$10,000	2018
Eagle Creek (East Branch) Project	This project would 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 is cutting into three valley walls again contributing significant sediments.	DNR, MN Trout Unlimited and City of Savage.	$12,000	2018
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
Minnesota River Sediment Reduction Strategy	This project consists of collaborating with the MPCA on developing strategies for evaluating and mitigating sediment loads to the Minnesota River.	MPCA and BWSR	$50,000	2018 - 2019
Riley Creek Project (Downstream of Flying Cloud Dr.)	This project consists of providing energy dissipation below the County Road 61/ Flying Cloud Drive bridge and redirecting flows away from outside of the creek meanders.	Hennepin County	$50,000	2018 - 2019
Riley Creek Sediment Reduction Project	This project consists of providing an energy dissipation structure below CR 61 and redirecting flows away from outside creek meanders	Riley-Purgatory Bluff Creek WD	$75,000	2018 - 2019
East Creek Treatment Wetland Project	The East Chaska Creek Restoration feasibility study identified an ideal site to construct a treatment wetland south of the Creek within two vacant lots along Chaska Boulevard. Currently, most of the lots are paved right up to the edge of the Creek bank. Flow could be diverted from the Creek channel into a wetland system to provide for sediment removal, flood storage and bacteria treatment.	City of Chaska and MPCA	$170,000	2018 - 2020
Carver Creek Restoration Project	The project consists of the following activities: stabilize outer bends with toe protection, grade banks to a more stable slope and stabilize the gully	City of Carver, Carver WMO, Carver County SWCD and USFWS	$93,500	2019
East Creek Bank Stabilization Project	This project consists of repairing the scour hole downstream of crosstown boulevard bridge, installing bank armoring, toe protection and grade control structures behind Cuzzy's Brickhouse Restaurant and bank armoring, and installing toe protection on the right bank of East Oak Street This project was identified in the East Chaska Creek Restoration feasibility study. The total cost of the project is $168,500.	City of Chaska, MPCA and BWSR	$50,000	2019

Spring Creek Project	This project consists of retrofitting two (2) catch basins into structural treatment devices in the Lenzen 1st and 2nd additions. The project will treat untreated discharge to Spring Creek at 6th Street from upstream.	City of Carver	$45,000	2019
Minnesota River Corridor Management Project	Using the Minnesota River as the focal point, this project will examine issues facing the River as a complex natural system, a shared resource, and a place where varied interests and other systems converge. The project seeks 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. (Modeled after the Vermillion River Corridor Plan)	All District LGUs	$100,000	2020 - 2021
Minnesota River Study Area 3 (Bluff Stabilization Project)	This project consists of analysis, design, and construction of Minnesota River at Study Area 3 project in Eden Prairie to address the river bank erosion. An October 2008 study of the area was completed for the city of Eden Prairie in cooperation with the District. This project expands the 2008 study with additional data collection and analysis and extends it to final design, permitting, and construction.	City of Eden Prairie	$350,000	2022 - 2023

Project Name	Description	
Capital Improvement Projects		
Gully Erosion Projects	The District has set aside a contingency fund to finance projects which consist of constructing bluff stabilization projects with cooperating partners in those areas identified in the District's gully inventory as having severe erosion that have yet to be constructed or identified specifically in the CIP for this Plan.	LGUs
Mound Springs Gully Project	Mound Springs is an erosion area identified in the Districts gully inventory. The site needs to balance the perennial groundwater stream and the stormwater discharge through the area to prevent erosion to Long Meadow Lake. The gully also includes a trail off 11th Avenue South that is identified in the City of Bloomington Park Master Plan as a trail access point to Mound Springs Park and the Minnesota River Valley Trails. The design may require accommodating unpaved trail access. The primary project sponsor is the City of Bloomington.	City of Bloomington
Seminary Fen Restoration at Engler	This 6-acre portion of the Seminary Fen is a formerly farmed wetland that has been ditched and tiled. This project proposes to restore the natural hydrologic regime by rendering the tile and ditch inaffective in draining the wetland by partial removal and blocking of tile and ditch modifications to eliminate the man made hydrologic scope and affect on the wetland. In addition to an altered hydrologic system, the natural plant community in this wetland has been choked out by the invasive species reed canary grass. The project will restore the native plant community by controlling reed canary grass and re-introducing native plant species. Collection of seed for this project will be from City owned land adjacent to the project site to insure local ecotype seed is utilized. Restoring native vegetaion will offer further vegetative buffering protection to the Seminary Fen, protecting the Fen's native plant diversity.	City of Chaska
Ravine Stabilization at Seminary Fen	Ravine erosion is causing a large area of sedimentation along the north half of the fen. This project is phase 2 of a project that was completed in 2009 by the City of Chaska that involved restoration of a wetland outlet for rate control to the ravine. Stabilization of the ravine is still necessary to reduce the transport of sediment to the Seminary Fen. Annualized sediment transport was modeled using a 1-D bedload sediment transport model by Meyer-Peter and Muller (1948). Under existing conditions sediment transport to the Seminary Fen is estimated at 1.85 million tons per year. The goal of this project is to complete ravine stabilization improvements that are estimated to reduce the transport rate of sediment to 0.68 million tons per year. This represents a 63% reduction in sediment load to Seminary Fen.	City of Chaska
Heritage Hills Park and Gully Restoration Project	A small stream connecting Ancel Glen Pond to South Glen Pond (that flows through Heritage Hills Pond – Middle between the two ponds) is experiencing significant erosion. The area has several small woodchip trails and is surrounded by private residences on both sides. The project would involve stream restoration of the eroded gully area, erosion prevention, and maintenance or replacing the woodchip trail system. The primary project sponsor is the City of Bloomington.	City of Bloomington
Dean Lake Restoration Project	This project will implement the results of the Dean Lake Feasibility Study. This project will consist of financing adjacent septic system connection to city sanitary sewer, construction of sedimentation basins, water quality treatment BMPs in the upstream watershed, improvements to the inlet or outlet, shoreline restoration, and/or in-lake management such as dredging and chemical treatment.	Prior Lake Spring Lake WD and MPCA
Minnesota River Study Area 3 Bluff Stabilization	This project consists of analysis, design, and construction of Minnesota River at Study Area 3 project in Eden Prairie to address the river bank erosion. An October 2008 study of the area was completed for the city of Eden Prairie in cooperation with the District. This project expands the 2008 study with additional data collection and analysis and extends it to final design, permitting, and construction.	City of Eden Prairie
Bluff Creek Restoration	The project consists of the following activities. Provide an energy dissipation structure at the tunnel exit. Apply bank stabilization measures along outside creek bends. Re-direct runoff coming off of the North Highway 101 Bridge. Stabilize the areas around the bridge abutments.	DOT, City of Chanhassen and Riley Purgatory Bluff Creek WD
Long Meadow Outfall Project	This project consists of implementing, in cooperation with the City of Bloomington, one of two alternatives to address water quality improvement downstream of Long Meadow Lake. The two alternatives include: Abandon storm sewer outfall to Long Meadow Lake from Bloomington Central Station area and reroute through a regional infiltration basin likely on the Kelley Farm property during redevelopment. From the Kelley property the storm sewer would discharge to the Bass Ponds area, keeping in mind the trout stream currently being stocked in the Bass Ponds area. Rehabilitate or reconstruct existing storm sewer outfall to Long Meadow Lake from the Bloomington Central Station area incorporating water quality best management practices to provide additional treatment.	City of Bloomington
Wetlands and Fens Assessment	This project consists of completing a floristic quality assessment that provides a replicable, descriptive picture in time of the fens. Used as a baseline indicator of fen condition to be compared against in the future (i.e., track degradation or functional lift). Then update the MLCCS, MnRAM and MLCCS to: provide a complete, accurate baseline dataset of wetland plant communities found in the marshes. Include quality control of existing data and addition of new information.	DNR and BWSR
Brickyard Clayhole Lake – Gully Stabilization	This project consists of stabilizing gullies along the northern bluff of Brickyard Clayhole Lake as noted in the 2010 Watershed Management Plan to deter sedimentation in the lake.	Cities of Chaska and Carver
East Chaska Creek Restoration	The project consists of the following activities. Removing debris jams in the channel reaches would help reduce localized erosion. Outfall A: remove log jam, stabilize right bank at outfall, re-vegetate the stream bank, remove sediment deposit. Outfall B: stabilize outfall with rock, step down the outfall, toe protection 10-ft upstream & 40-ft downstream. Using structures to control steep grades along this reach would help reduce localized erosion. Near Beech St Bridge: apply grade control throughout the reach, along with toe protection and left bank stabilization. Selective clearing, excavation, toe protection, erosion controls (jute mesh) and topsoil placement and grading for approximately 2000 ft.	City of Chaska, Carver County Env. Services and Carver Soil and Water Conservation District (CSWCD)

Project Name	Description	
Carver Creek Restoration	The project consists of the following activities. Stabilize outer bends with toe protection. Grade banks to a more stable slope. Stabilize the gully	City of Carver, Carver WMO, CSWCD and USFWS
Riley Creek Restoration	This project consist of providing an energy dissipation structure below CR 61 and redirecting flows away from outside creek meanders	City of Eden Prairie
Potential Unfunded Projects		
West 3rd Street Ditch – Creek	Currently this is a ditch that conveys water from an existing residentail area in downtown Chaska to the the West Creek flood control diversion. The existing channel is in disrepair and has unnatural amounts of sedimentation. Currently the turf of back and side yards are directly adjacent to the channel. The proposed project would be to replace the existing channel with a storm sewer pipe conveyance system. The channel would be filled in to create a swale to collect local drainge. This swale will allow for infiltration features (rain water gardens) to be installed along the corridor. This project will provide 5 – 10 lbs of phosphorous removal per year for this portion of downtown that currently does not have treatment.	
Clay Hole North Slope Erosion – Site 3	Substantial gullies have begun to form on the hillside located north of the Clayhole and directly east of Trunk Highway 41. These gullies are approximately 1000 feet long. The City of Chaska has completed some work to control erosion in this area include rock check dams and erosion mats. Additional work is necessary to control other erosion areas. This project will reduce erosion entering Clay Hole Lake and remove an existing sediment plume from the lake.	
Chaska Downtown Old 212 at East Creek Water Quality Treatment Site – South Side of 212	This project is proposed in a portion of downtown Chaska that currently does not have treatment. Due to a lack of space for storm water ponds the goal of this project is to treat the small to medium size precipitation events, between 1 and 1.5 inches of precipitation. Due to the lack of space for ponding In-Manhole treatment (V2B1, EcoStorm, etc.) or other below ground treatment techniques will be utilized. The goal of the treatment is to have a 50 - 70% reduction in suspended solids and 60 – 80% reduction in phosphates to East Creek and the Minnesota River.	
Chaska Downtown Beech Street at East Creek Water Quality Treatment Site – North Side	The proposed treatment location Downtown where Stoughton Avenue drainage discharges into east creek. This project is proposed in a portion of downtown that currently does not have treatment. Due to a lack of space for storm water ponds the goal of this project is to treat the small to medium size precipitation events, between 1 and 1.5 inches of precipitation. Due to the lack of space for ponding in downtown Chaska In-Manhole treatment (V2B1, EcoStorm, etc.) or other below ground treatment techniques will be utilized. This goal of the treatment is to have a 50 – 70% reduction in suspended solids and 60 – 80% reduction in phosphates to East Creek and the Minnesota River.	
Chaska Downtown Old 212 at East Creek Water Quality Treatment Site – North Side of 212	The proposed treatment location is in downtown Chaska along old 212 where highway drainage discharges into East Creek. This project is proposed in a portion of downtown that currently does not have treatment. Due to a lack of space for storm water ponds the goal of this project is to treat the small to medium size precipitation events, between 1 and 1.5 inches of precipitation. Due to the lack of space for ponding In-Manhole treatment (V2B1, EcoStorm, etc.) or other below ground treatment techniques will be utilized. This goal of the treatment is to have a 50 - 70% reduction in suspended solids and 60 – 80% reduction in phosphates to East Creek and the Minnesota River.	
Chaska Downtown Beech Street at East Creek Water Quality Treatment Site – South Side	The proposed treatment location is in downtown Chaska where Beech street drainage discharges into east creek. This project is proposed in a portion of downtown that currently does not have treatment. Due to a lack of space for storm water ponds the goal of this project is to treat the small to medium size precipitation events, between 1 and 1.5 inches of precipitation. Due to the lack of space for ponding in downtown Chaska In-Manhole treatment (V2B1, EcoStorm, etc.) or other below ground treatment techniques will be utilized. This goal of the treatment is to have a 50 - 70% reduction in suspended solids and 60 – 80% reduction in phosphates to East Creek and the Minnesota River.	
Chaska Downtown Walnut & 1st Street Water Quality Treatment Site	The proposed treatment location is in downtown Chaska. This project is proposed in a portion of downtown that currently does not have treatment. Due to a lack of space for storm water ponds the goal of this project is to treat the small to medium size precipitation events, between 1 and 1.5 inches of precipitation. In-Manhole treatment (V2B1, EcoStorm, etc.) or other below ground treatment techniques will be utilized. This goal of the treatment is to have a 50 - 70% reduction in suspended solids and 60 – 80% reduction in phosphates to the Minnesota River	
Dred Scott's Fields Storm Water Reuse project	This feasibility study, to be completed in cooperation with the City of Bloomington, consists of collecting runoff from impervious areas, such as parking areas, roadways, etc., and then using it as a source of irrigation water.	
Non-Degradation Volume Reduction	The City of Bloomington was one of 30 municipalities required to meet non-degradation requirements as part of the NPDES MS4 Permit. The non-degradation report evaluated changes in runoff quantity and quality from 1988 to the present, and projected changes from the present to the year 2020. Where significant increases in stormwater runoff occurred or were projected to occur, options to keep pollutant loading of receiving waters at the 1988 levels were discussed. This project would involve a volume reduction to meet the non-degradation requirements and return pollutant loading to 1988 levels.	

~~Project Name~~	~~Description~~
~~Chaska Downtown Sixth Street at East Creek Water Quality Treatment Site~~	~~The proposed treatment location is in downtown Chaska where Sixth Street intersects east creek. This project is proposed in a portion of downtown that currently does not have treatment. Due to a lack of space for storm water ponds the goal of this project is to treat the small to medium size precipitation events, between 1 and 1.5 inches of precipitation. Due to the lack of space for ponding in downtown Chaska In-Manhole treatment (V2B1, EcoStorm, etc.) or other below ground treatment techniques will be utilized. This goal of the treatment is to have a 50 - 70% reduction in suspended solids and 60 – 80% reduction in phosphates to East Creek and the Minnesota River.~~
~~BMP Retrofits at Valley Fair and Port of Savage~~	~~This project is to be completed in cooperation with Scott County and consists of BMP retrofits to increase pervious surfaces and infiltration at Valley Fair and the Port of Savage.~~

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 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) is not 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/political subdivision, or at least 50 resident owners whose property is 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. BWSR will not take formal action, since 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 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 Utility/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.

~~**9-Foot Channel Maintenance**~~

~~A one-time special assessment was done to support the COE initial dredging for the 9-Foot channel. This was supplemented in 1980 by a district-wide ad valorem levy. The balances from these activities~~

~~were kept in a special fund (the 9-Foot Channel Fund). The District can use this fund only for implementation activities that address commercial navigation purposes, such as the purchase or management of dredge material disposal sites. Over the years, the 9-Foot Channel Fund has been depleted. To replenish the fund, the District will use the available funding mechanisms described above in accordance with applicable statutes.~~

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 Water Management District 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 Managers 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, which have been initiated by a petition of a municipality within the watershed. The 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.