3 GOALS, POLICIES, AND MANAGEMENT STRATEGIES

The roles of watershed districts have changed since the Lower Minnesota River Watershed District formed in 1960. These roles now reflect new public values, which have reordered priorities within the District. Several of the District's purposes expressed in the original petition for establishment of the District conflict with the present-day purposes set forth in M.S. 103B.201. Overall, today's District goals are consistent with the purposes stated in recent statutes, recognizing that the District must address commercial navigation. The goals, policies, and strategies set forth in this section of the Plan reflect the specific characteristics of this District.

3.1 MISSION AND PURPOSE

The District's mission and purpose are presented below, followed by the goals, policies, and strategies generated through the planning process with the TAC, CAC, Managers, and staff.

3.1.1 Mission

The District's mission is to manage and protect the Minnesota River, lakes, streams, wetlands, and groundwater, and to provide river navigation by:

- Promoting open communications and collaboration with citizens, community organizations, and local, state, and federal agencies.
- Improving and protecting the quality of the Minnesota River and all water bodies in the watershed.
- Minimizing the negative effects of floods and droughts on the Minnesota River and all water bodies in the watershed.
- Collecting and distributing information regarding surface water and groundwater in the watershed; establishing priorities; and developing local plans to improve water resources in the watershed.
- Monitoring and understanding the effects of municipal groundwater appropriations and drought on groundwater levels.
- Working with LGUs to enforce the WCA.
- Assisting and facilitating state and federal agency efforts to maintain the navigation channel.
- Educating stakeholders about the impact they have on the watershed's water resources and changing behaviors that have a negative impact.

3.1.2 Purpose

The Metropolitan Surface Water Management Act states that the District's purposes and other water management programs (quoted from M.S. 103B.201) are as follows:

- Protect, preserve, and use natural surface and groundwater storage and retention systems.
- Minimize public capital expenditures needed to correct flooding and water quality problems.
- Identify and plan for means to effectively protect and improve surface and groundwater quality.

- Establish more uniform local policies and official controls for surface and groundwater management.
- Prevent soil erosion into surface water systems.
- Promote groundwater recharge.
- Protect and enhance fish and wildlife habitat and water recreational facilities.
- Secure other benefits associated with proper surface and groundwater management.

Unlike other water management programs in the state subject to M.S. 103B, the District's additional purpose is to improve navigation. The District's primary role in navigation improvement is to serve as the local sponsor for the COE. In that role, the District is responsible for acquiring and managing dredge material sites.

The mission and purpose of the District, together with the issues and management gaps discussed in the previous section, serve as the foundation for the goals, policies, and strategies summarized below. This Plan streamlines the regulation imposed on LGUs and reduces inconsistencies by incorporating policies and strategies like surrounding WDs and WMOs, where appropriate.

3.1.3 Goal Summary

Table 3-1: Summary of District Issues, Goals, and Strategies

Issues	Goals	Strategies
Issue 1: Unclear Role of the District Issue 2: Outside Influences	Goal 1: Organizational Management	Strategy 1.1.1: Work cooperatively with local, state, and federal government; other agencies; and non-government organizations on issues affecting the District's resources. Strategy 1.2.1: Provide public information services Strategy 1.3.1: Perform periodic assessments and program reviews Strategy 1.3.2: Use short and long-term metrics to measure progress
Issue 3: Water Quality	Goal 2: Surface Water Management	Strategy 1.3.1: Provide strategic resource evaluation and management Strategy 2.1.1: Lower Minnesota River Watershed District – High value resources area overlay district Strategy 2.2.1: Watershed management standards Strategy 2.2.2: Promote disconnected stormwater management and low impact development Strategy 2.2.3: Cost share incentive program Strategy 2.2.4: Water quality restoration programs Strategy 2.3.1: Modify and continue the monitoring program Strategy 2.3.2: Complete detailed data assessments Strategy 2.3.4: Coordinate with other agencies and water quality programs Strategy 4.4.3: Steep Slopes Standard Strategy 7.2.1: Develop a Vegetation Management Standard/Plan

Issues	Goals	Strategies
	Goal 3: Groundwater Management	Strategy 1.3.1: Provide strategic resource evaluation and management Strategy 2.3.1: Modify and continue the monitoring program Strategy 3.1.1: Support wellhead protection efforts Strategy 3.2.1: Infiltration standard Strategy 3.2.2: Promote conservation and wise use of groundwater Strategy 3.3.1: Groundwater monitoring Strategy 3.3.2: Regional modeling
	Goal 4: Unique Natural Resources Management	Strategy 1.3.1: Provide strategic resource evaluation and management Strategy 2.3.1: Modify and continue the monitoring program Strategy 4.2.1: Data acquisition and management Strategy 4.2.2: Provide technical assistance Strategy 4.2.3: Provide educational opportunities Strategy 4.3.1: Develop a mechanism for identifying and acquiring high value conservation easements Strategy 4.4.1: Encourage wildlife connectivity projects which achieve multiple goals, such as water quality improvements and fen and steep slopes protection Strategy 7.2.1: Develop a Vegetation Management Standard/Plan
	Goal 5: Wetland Management	Strategy 1.3.1: Provide strategic resource evaluation and management Strategy 4.3.1: Develop a mechanism for identifying and acquiring high value conservation easements Strategy 5.1.1: Delegate Wetland Conservation Act (WCA) to LGU's Strategy 5.1.2: Require LGU's to conduct wetland inventories and complete wetland management plans Strategy 5.1.3: Review WCA notices as received Strategy 5.1.4: Wetland Standard Strategy 7.2.1: Develop a Vegetation Management Standard/Plan
Issue 4: Flooding and Floodplain Management	Goal 2: Surface Water Management	Strategy 2.1.1: Watershed Management Standards
	Goal 6: Floodplain and Flood Management	Strategy 6.1.1: Floodplain and drainage alteration standard Strategy 6.1.2: Infiltration and peak flow standards Strategy 6.1.3: Manage localized flooding
Issue 5: Erosion and Sediment Control	Goal 6: Floodplain and Flood Management	Strategy 6.2.1: Adopt infiltration and peak flow standards
	Goal 7: Erosion and Sediment Control	Strategy 2.2.1: Watershed management standards Strategy 4.4.3: Steep Slopes Standard

Issues	Goals	Strategies
		Strategy 7.1.1: Support the NPDES general permit Strategy 7.1.2: Erosion and Sediment Control Standard Strategy 7.2.1: Develop a Vegetation Management Standard/Plan Strategy 7.3.1: Provide streambank and mainstem erosion assessment Strategy 7.3.2: Continue gully erosion repair Strategy 7.4.1: Promote and encourage shoreland protection Strategy 7.4.2: Shoreline and streambank standard
Issue 6: Groundwater	Goal 3: Groundwater Management	Strategy 1.3.1: Provide strategic resource evaluation and management Strategy 2.3.1: Modify and continue the monitoring program Strategy 3.1.1: Support wellhead protection efforts Strategy 3.2.1: Stormwater infiltration criteria Strategy 3.2.2: Promote conservation and wise use of groundwater Strategy 3.3.1: Groundwater monitoring Strategy 3.3.2: Regional modeling
Issue 7: Commercial and Recreational Navigation	Goal 8: Commercial and Recreational Navigation	Strategy 8.1.1: Promote safety education Strategy 8.2.1: Manage existing Cargill East River (MN – 14.2 RMP) dredge material site Strategy 8.2.2: Beneficial use plan for dredge materials Strategy 8.3.1: Develop a funding structure to ensure proper maintenance and improvement along the river
Issue 8: Public Education and Outreach	Goal 9: Public Education and Outreach	Strategy 1.2.1: Provide public information services Strategy 4.2.3: Provide educational opportunities Strategy 8.1.1: Promote safety education Strategy 9.1.1: Maintain Citizen Advisory Committee (CAC) Strategy 9.1.2: Develop an outreach program Strategy 9.1.3: Engage volunteers Strategy 9.1.4: Provide opportunity for public input Strategy 9.2.1: Produce scientific studies and work products Strategy 9.2.2: Promote a variety of education programs Strategy 9.2.3: Use multiple outlets to distribute information

3.2 GOAL 1: ORGANIZATIONAL MANAGEMENT TO MANAGE THE DISTRICT'S DIFFERENT ROLES

As mentioned, the roles of watershed districts have changed since the District formed in 1960. These new roles have reordered priorities and how issues are evaluated and addressed. To adequately address assumed roles, the District identified and defined five primary policies which were reaffirmed during the planning process for this Plan.

Policy 1.1: Serve as a Facilitator

Strategy 1.1.1: Work Cooperatively with Local, State, and Federal Government; Other Agencies; and Non-Government Organizations on Issues Affecting District Resources

Under this strategy, the District will continue to work collaboratively with other government and non-government organizations (NGOs) to assess resources, to share costs on projects that protect or enhance these resources, and to lobby the Minnesota State Legislature and the United States Congress to ensure the Minnesota River receives the financial resources necessary to fulfill its mission and purpose.

The District will undertake projects that develop, protect, enhance, and/or restore resources within its authority (such as erosion control, greenbelts, habitat creation, etc.), either independently or jointly with other LGUs or other organizations, as discussed in future sections, or in response to petitions. For independent projects, the District will coordinate with LGUs before project initiation. The District will place a higher priority on projects identified in this Plan and in future resources/implementation plans. Projects under consideration include, but are not limited to, those that benefit navigation (dredge material disposal sites, bank erosion control, etc.), protect fens and steep slopes, address erosion and sediment control, grant public access, and promote public enjoyment of resources in the District.

The District will continue its effort at the Minnesota State Legislature to facilitate the formation of a Minnesota River Basin Commission. The commission would have the authority necessary to manage land use practices and control point and nonpoint source pollution currently affecting the Minnesota River's quality.

Policy 1.2: Serve as an Educator

Strategy 1.3.1: Perform periodic assessments and program reviews

This strategy was modeled after the Scott WMO policy for regular program and progress assessment. The District will regularly assess and review its programs through use of the following:

- Annual reports to BWSR
- Annual financial audits
- Annual water quality monitoring reports

- Annual reports or meetings with the LGUs to track and document local water plan (LWP) implementation
- Periodic review of development plans, targeting 10 percent of permits issued and the program's equivalence with this Plan
- A bi-annual program reviews that benchmarks accomplishments against the strategies and outcome articulated in the Plan

To avoid undue stress on the LGUs, the District will have annual reporting coincide with MS4 Permit Program annual reporting. The District will address the review findings, which will be included in the annual report to improve operations. If reviews identify any needed Plan changes or additions, the District will address them through the Plan amendment process. The District will also use BWSR's Metro Watershed Performance Review and Assistance Program (PRAP) guidance to ensure that it is meeting BWSR's required performance standards.

The District does not wish to duplicate existing regulatory authority of other agencies. The Managers believe that regulations are more properly performed at the local level (cities, townships, counties), rather than by the District. If the District finds that an LGU has failed to enforce its standards and policies, then the District will adopt regulations after taking the appropriate statutory steps to enforce its standards and policies.

Strategy 1.3.2: Use short-term and long-term metrics to measure progress.

This strategy was also modeled after the Scott WMO policy for regular assessment of programs and progress, Strategy 7.6.2. Strategy 1.3.2 provides a set of metrics to help the District evaluate both short and long-term progress. The short-term metrics tend to be programmatic and related to the accomplishment of "activities, the number of activities, or the number of participants." Long-term metrics generally involve resource-based outcomes. Short-term and long-term metrics are presented in Table 3-2.

Table 3-2: Lower Minnesota River Watershed District Short-term and Long-term Metrics

Goal	Short-term Metric	Long-term Metric
Goal 1: Organizational Management	• Completion of scheduled activities • Annual LGU Audits • Amount of dollars leveraged for projects from other agencies and property owners	• Formation of a Minnesota River Basin Commission • Legislative funding support
Goal 2: Surface Water Management	• Number and types of projects completed as part of the Cost Share Incentive Program and Water Quality Restoration Programs • Number of targeted studies and projects completed	• Positive trends in water quality parameters identified for monitoring efforts
Goal 3: Groundwater Management	• Number of targeted studies and projects completed	• Positive trends in water quality parameters identified for monitoring efforts
Goal 4: Unique Natural Resources Management	• Number of targeted studies and projects completed • Development and completion of the Fen Stewardship • Development of groundwater model for fen management	• Number and acreage of unique natural resources protected, restored, or enhanced • Acquisition of high valued easements • Sustained protection of the fens and trout waters
Goal 5: Wetland Management	• Completion of scheduled activities	• Number and acreage of wetlands protected, restored, or enhanced
Goal 6: Floodplain and Flood Management	• Completion of scheduled activities	• Number of structures damaged and value of flood damages • Preservation of floodplain resources
Goal 7: Erosion and Sediment Control	• Completion of scheduled activities • Reduction in streambank and ravine bank and slope failures	• Positive trends in water quality • Protection and preservation of Minnesota River Bluff
Goal 8: Commercial and Recreational Navigation	• Completed of scheduled activities • Number of targeted studies and projects completed	• Secure regular congressional and state legislative funding for the 9-Foot channel
Goal 9: Public Education and Outreach	• Number and types of sponsored events • Number of participants at events • Number of articles, press releases, and pamphlets developed and printed • Number of volunteers	• Same as short-term metrics

3.3 GOAL 2: SURFACE WATER MANAGEMENT TO PROTECT, IMPROVE, AND RESTORE SURFACE WATER QUALITY

Improved water quality in the Minnesota River is a priority with state and federal policy makers, the District's Managers, staff, and advisory committees. Impaired or poor-quality water resources can unfavorably impact recreational uses, aquatic habitat, wildlife, groundwater quality, and other water activities.

More than 16,000 square miles of the Minnesota River watershed are beyond the District's control. Management of in-stream water quality from these tributary areas will be coordinated with other agencies with wider influence and authority. The District is committed to protecting and improving water quality originating within its boundaries and assisting other municipalities and WMOs to reduce point and nonpoint pollutant discharges to the Minnesota River and other water resources.

The following policies and strategies were identified through the planning process to protect and improve surface water resources to meet targeted state of Minnesota water quality standards, pursuant to MN Rule 7050, within the District.

Policy 2.1: Use of High Value Resources Area Overlay District to Manage Water Resources

Strategy 2.1.1: Lower Minnesota River Watershed District - High Value Resources Area Overlay District

This strategy consists of managing water resource projects within the District based on whether a project is located within a high value resources area (HVRA) overlay district. Many unique natural resources located within the District, such as calcareous fens and trout waters, warrant special management. These resources will be managed for specific, identified, natural, and biological communities of special importance or significance, in accordance with existing or future official management plans, such as the DNR Savage Fen Resource Plan and the Eagle Creek Aquatic Management Area Plan. General management goals for these water resources are to understand, preserve, protect, and restore unique natural resources, while evaluating projects which propose to alter fens, buffer areas, shoreland areas, water crossings, or other unique natural resources. Specifically, HRVA overlay districts have protection standards, as presented in Appendix K. The process for identifying resources for placement in HVRA overlay district is provided on the District's website: www.lowermnriverwd.org.

Policy 2.2: Prevent Further Water Quality Degradation

Strategy 2.2.1: Watershed management standards

The District has refined its watershed management standard to focus of managing resources with identified gaps in protection strategies as presented in the District's 2018 Statement of Need and Reasonableness report. The resulting watershed management standards are presented in Appendix K.

Strategy 2.2.2: Promote disconnected stormwater management and low impact development

This strategy promotes disconnected stormwater management, flow de-synchronization, and stormwater volume control practices. The previous standards set the stage for runoff volume control and establish requirements to manage peak runoff rates. These standards also included a number of low impact development (LID) credits that could be used as an effective way to design the site and promote LID, while satisfying the volume control requirement. This strategy continues the current standards and incorporates additional LID practices that can be used for credits including:

- Buffer credit
- Forest/prairie restoration credit
- Grassed channel credit
- Green rooftop credit
- Natural area conservation credit
- Non-rooftop disconnection credit
- Permeable paver credit
- Reuse of stormwater credit.
- Rooftop disconnection credit
- Soil amendment credit

To receive credit, project proposers must request the credit(s), and provide calculations and documentation showing that the criteria set forth in the Minnesota Stormwater Manual are met (Minnesota Stormwater Manual 2005).

Strategy 2.2.3: Cost Share Incentive Program

The purpose of this strategy is to provide educational, technical, and financial assistance to landowners (residential, commercial, industrial...etc.); to implement projects that have water quality, water quantity, channel maintenance, trout stream, fen or wetland restoration, or aquatic habitat benefit within the District; and to help achieve the goals of this Plan. A detailed description of this program can be found in on the District's website: www.lowermnriverwd.org.

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.

Strategy 2.2.4: Water Quality Restoration Program

The purpose of this strategy is to provide financial assistance to non-government organizations and LGUs within the District, implement BMPs, and carry out studies which will protect and improve water resources within the District. This broad-based program implements Goals 2 and 3, which are to protect, improve, and restore surface water and groundwater quality within the District.

The water quality restoration 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. 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._A detailed description of this program can be found on the District's website: www.lowermnriverwd.org.

Policy 2.3: Enable Informed Decisions

The objective here is to collect and analyze data necessary for making informed decisions.

Strategy 2.3.1: Modify and Continue the Monitoring Program

This strategy continues the cooperative relationship with MCES, CAMP, cities, counties, and SWCDs, as described in Section 1.6 (Surface Water Quality and Quantity Monitoring), with some modifications. These modifications initially include:

- Adding the MCES' Quality Assurance (QA) objectives to the monitoring program
- Incorporating regular data analysis to identify trends

The QA objectives consist of the collection of duplicate samples to assess field precision. One duplicate sample will be collected per lake or stream, per year. Given the monthly sampling schedule, this amounts to about 10 percent of samples. The guideline/target for assessing field precision will be the relative difference of less than 30 percent for total phosphorus.

In addition to working toward to the goals of the QA objective of field precision, the District will incorporate accuracy and bias, representativeness, completeness, comparability, and analytical sensitivity objectives as specified in the MCES QA program.

Strategy 2.3.2: Complete Detailed Data Assessments

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 of the 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.

Strategy 2.3.3: Coordinate with Other Agencies and Water Quality Programs

This strategy consists of the District's coordination with the MDA, MPCA, DNR, and Metropolitan Council; to stay informed and collaborate on changes to state standards and best practices for water impairments on the 303(d) listings. District staff will maintain communications with the various agencies, invite them to participate on the TAC, and attend agency-sponsored meetings and training as time allows.

3.4 GOAL 3: GROUNDWATER MANAGEMENT TO PROTECT AND PROMOTE GROUNDWATER QUALITY AND QUANTITY

Groundwater quality and quantity are dependent on the infiltration of surface water/rainfall through the soil, which is dependent on soil type, land cover, weather, and other factors. Changes to any of these factors will influence groundwater. While some of the factors are difficult to control, some activities and changes to land cover can be regulated and/or managed. Groundwater is a finite resource with inputs and outputs. The input is generally rainwater and snowmelt that seep into the ground. The outputs can be groundwater that is pumped out for human use, or groundwater that naturally discharges to lakes, wetlands, and streams.

Maintaining clean, safe groundwater supplies is critical to human and environmental health and to the economic and social vitality of our communities. Groundwater can be contaminated by commercial and industrial waste disposal, landfills, leaking petroleum tanks, septic systems, mining operations, feedlots, and fertilizer/pesticide applications. The quantity and quality of groundwater flows have a direct impact on the resources located in the District, such as floodplains, wetlands, calcareous fens, and trout waters. The District intends to play an active role working with other units of government and groups, and to maintain and/or improve the health of these water resources.

Policy 3.1: Support and Assist in Intercommunity Management of Groundwater

Strategy 3.1.1: Support Wellhead Protection Efforts

This strategy consists of supporting wellhead protection planning efforts with District staff time and technical assistance, or a District consultant when requested by LGUs.

Policy 3.2: Promote Groundwater Recharge

Strategy 3.2.1: Infiltration Standards

This strategy consists of establishing criteria as described previously to protect the quality of groundwater when infiltration practices are used to control stormwater runoff volumes. This might include pretreatment, as necessary, prior to infiltration for some source areas such as those with medium or high groundwater susceptibility, and areas close to wells. It could also include prohibiting infiltration of runoff from certain land uses, or where there is shallow groundwater or poor soils.

The District's infiltration standards are presented in Appendix K.

Strategy 3.2.2: Promote Conservation and Wise Use of Groundwater

This strategy consists of incorporating messages of conservation and wise use of groundwater through information sharing and education initiatives with the Metropolitan Council, Rural Water Utility and other applicable organizations.

Policy 3.3: Protect and Improve Groundwater-Sensitive Water Resources

Strategy 3.3.1: Groundwater Monitoring

This strategy consists of continuing and improving groundwater monitoring in the District. In 2005, the District developed strategies for a groundwater monitoring plan to provide guidance to the District and to increase information available on groundwater quality. This strategy would implement the recommendations of that report.

Strategy 3.3.2: Regional Modeling

The Metropolitan Council recently completed a region model called the Metro Model 2. This strategy works with the Metropolitan Council on model uses.

GOAL 4: UNIQUE NATURAL RESOURCES MANAGEMENT

TO PROTECT AND MANAGE UNIQUE NATURAL RESOURCES

The lower Minnesota River valley is a unique area which supports the critical needs of many fish and wildlife species. It also provides tremendous outdoor recreation and educational opportunities for the MSP metro population. The District's goal is to maintain or improve the quality and quantity of fish and wildlife habitat and outdoor recreational opportunities.

Policy 4.1: Maintain or Improve the Quality and Quantity of Fish and Wildlife Habitat

Strategy 4.1.1: Encourage Protection of Fish and Wildlife Habitat

This strategy consists of working with the DNR, local governments, and NGOs to implement practices that will protect fish and wildlife habitat. These practices include, but are not limited to, limiting disturbance and soil erosion during construction, modifying zoning and subdivision codes, and establishing stream buffers.

Increases in sediment and nutrient load decreases oxygen levels in the river which has an adverse effect on the aquatic habitat in both the river and in floodplain lakes within the District. The District will work with regulatory agencies and upstream watershed entities to reduce sediment and nutrient loads.

Policy 4.2: Advocate for Protection, Education, and Monitoring of Unique Natural Resources

Strategy 4.2.1: Data Acquisition and Management

This strategy consists of providing technical and financial support for data acquisition and management. The District will work with state, federal, and local entities to determine data needs and the best approach to manage the data.

Strategy 4.2.2: Provide Technical Assistance

This strategy consists of providing District staff time to assist LGUs, NGOs, and landowners interested in preserving unique natural resources. This assistance includes providing analysis, design, operation, and coordination on projects.

Strategy 4.2.3: Provide Educational Opportunities

This strategy provides educational opportunities in resource areas such as signage and kiosks for the public. In addition, the District will develop educational material which can be provided to landowners and metro area tourists.

Policy 4.3: Coordinate with LGUs to Identify and Develop Critical Trails and Green Space Corridors for Improvement and Protection

Strategy 4.3.1: Develop a Mechanism for Identifying and Acquiring High Value Conservation Easements

This strategy consists of reviewing studies 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.

Policy 4.4: Protect, Preserve, and Enhance the Connectivity of Wildlife Habitat

Strategy 4.4.1: Encourage Wildlife Connectivity Projects which Achieve Multiple Goals, Such as Water Quality Improvements, and Fen and Bluff Protection

This strategy consists of promoting projects that incorporate connectivity of wildlife resources. Understanding that water quality and water resources management projects are the primary focus; the District will also consider, during review of projects, the potential each project to fragment, maintain, preserve, or restore resource connectivity.

Strategy 4.4.2: Greenways and Open Space Protection

Greenways and open space preserve hydrologic corridors, provide flood protection, and safeguard groundwater resource areas. This strategy consists of supporting the DNR Metro Greenway Program goals. Greenways and open space protection will be considered when evaluating projects which propose to alter wetlands, buffers, floodplains, shorelands, water crossings, and other unique natural resources.

Strategy 4.4.3: Steep Slopes Standard

The District's Steep Slopes Standard, designed to protect the Minnesota River Bluff and water quality, is presented in Appendix K.

3.5 GOAL 5: WETLAND MANAGEMENT TO PROTECT AND PRESERVE WETLANDS

Wetlands are an abundant resource within the District, providing value to the community. Wetlands come in many different shapes, sizes, and types and perform a variety of physical, chemical, and ecological functions. A healthy watershed is one in which wetlands are an integral part of the ecosystem.

Wetlands are among the most productive ecosystems in the world. These resources can support an immense variety of species of microbes, plants, insects, amphibians, reptiles, birds, fish, and mammals. Wetlands supply recreational and aesthetic benefits, flood reduction benefits, biodiversity, and low stream-flow augmentation. They enhance property values, serve as sources for groundwater recharge and discharge, and provide nutrient cycling, wildlife habitat, and fishery resources. Well-planned wetland protection and management efforts can have far-reaching benefits within the watershed and beyond. Active wetland management can improve water quality and wildlife habitat, as well as provide recreational and educational opportunities for the public. The District's goal is to protect and preserve these precious resources.

Policy 5.1: Preserve Wetlands for Water Retention, Recharge, Soil Conservation, Wildlife Habitat, Aesthetics, and Natural Water Quality Enhancements

Strategy 5.1.1: Delegate Wetland Conservation Act (WCA) to LGUs

This strategy consists of LGUs continuing, or taking on, the role of local regulatory authority responsible for administering the WCA and MN Rules 8420. Most of the cities, counties, and townships within the District are designated to administer the WCA. DOT also administers WCA along its ROW within the District. The District will act as the regulatory authority only if an LGU refuses to take on their role as the regulatory authority. LGUs must protect wetlands from impacts in the following order: 1) avoid, 2) minimize, and 3) mitigate. In addition, when wetland impacts are unavoidable, wetland mitigation shall be accomplished through restoration, wetland creation, or other actions specified in WCA to achieve no net loss of wetlands in the District. LGUs must also evaluate the need to establish a wetland banking system per MN Rule 8410.0080 subpart 8.

Strategy 5.1.2: Require LGUs to Conduct Wetland Inventories and Complete Wetland Management Plans

This strategy consists of requiring LGUs to evaluate the function and value of wetlands, either through development of a comprehensive wetland management plan or on a case by case basis, in accordance with MN Rules 8410.0060. LGUs shall use, or require the use of, the Minnesota Routine Assessment Methodology version 3.0 (MnRAM 3.0, as amended) or some other approved methodology to assess the function and values of individual wetlands. As part of the annual program audit discussed under Strategy 1.4.3, compliance will be assessed during the annual audit and documented in the District's annual report.

Strategy 5.1.3: Review WCA Notices as Received

This strategy consists of the District staff reviewing WCA notices from state and federal agencies regarding regulation changes. These notices will be evaluated and forwarded to the managers; LGUs within the District; and posted on the District's website.

3.6 GOAL 6: FLOODPLAIN AND FLOOD MANAGEMENT TO MANAGE FLOODPLAINS AND MITIGATION FLOODING

The natural function of river and stream floodplains is to carry or hold excess water during times of flooding. This function can be greatly hindered by channel restrictions and floodplain encroachments, thereby aggravating the tendency of the river to flood and cause damage. The floodplain also provides habitat for many species of plant and animal life. All communities within the District have DNR-approved floodplain ordinances. Adoption of these ordinances regulate floodplain activities, unless the LGUs give the authority to the District. Landowners are required to obtain the necessary approvals from the appropriate LGU before making alterations to floodplains of the Minnesota River, streams, and other water bodies.

Policy 6.1: Maintain Natural Water Storage Areas and the Minnesota River Floodway

Strategy 6.1.1: Floodplain and Drainage Alteration Standard

The District's floodplain and drainage alteration standards are presented in Appendix K.

Strategy 6.1.2: Infiltration and Peak Flow Standards

The District's infiltration and peak flow standards are presented in Appendix K.

Strategy 6.1.3: Manage Localized Flooding

This strategy consists of requiring LGUs to address mitigation of localized flooding in their LWPs. These areas must include those local flooding areas listed in Table 2-1 and any other areas identified by the LGU.

3.7 GOAL 7: EROSION AND SEDIMENT CONTROL. TO MANAGE EROSION AND CONTROL SEDIMENT DISCHARGE

Policy 7.1: Endorse the NPDES General Permits

Strategy 7.1.1: Support the NPDES General Permits

This strategy formalizes the requirement for LGUs to incorporate NPDES General Permits (Construction Stormwater and Municipal Separate Storm Sewer [MS4]) requirements in their respective local water plans. The District requires LGUs to regulate land-disturbing activities to protect against erosion and sedimentation and to limit the quantity of sediment entering water resources, as described in Appendix K. In addition, LGUs are encouraged to enforce the NPDES General Permit.

Strategy 7.1.2: Erosion and Sediment Control Standard

The District's erosion and sediment control standards are presented in Appendix K.

Policy 7.2: Adopt Vegetation Management Standard

Strategy 7.2.1: Develop a Vegetation Management Standard/Plan

This strategy consists of the District undertaking an effort in partnership with the DNR, USFWS, BWSR, NRCS, and NGOs (e.g. Great River Greening), to develop a vegetation management standard/plan for unique natural resources within the District. This plan would be functional for all who live, work, and invest in the District.

Policy 7.3: Manage Streambank and Mainstem Erosion

Strategy 7.3.1: Continue Work of Addressing Gully Erosion

This strategy consists of the District continuing the work with local partners on repairing gullies that were identified in the gullies inventory project completed in 2006. The District will use funding set aside as part of its Gully Erosion Projects contingency fund to implement projects, if the LGUs where the potential repair projects exist have funding or other resources available to work with the District, to implement a repair project.

Policy 7.4: Maintain Shoreland Integrity

Strategy 7.4.1: Promote and Encourage Shoreland Protection

The District requires all government entities within its authority to identify, rank, and map disturbed shoreland areas. Shoreland areas include streambanks, the banks of the Minnesota River, and lakeshore areas. Along these areas, the District will promote and encourage protection of non-disturbed shoreland and restoration of disturbed shorelines and streambanks to their natural state, to the maximum extent practical. In addition, the District will discourage the removal of streambank and lakeshore vegetation during and after construction projects.

Strategy 7.4.2: Shoreline and Streambank Standard

The District's shoreline and streambank standards are presented in Appendix K.

Policy 7.5: Maintain the Integrity of Minnesota River Bluff Areas

Strategy 7.5.1: Promote and Encourage Bluff Protection

The District requires that all government entities within its authority administer the Steep Slopes Standard for areas identified in the District's Steep Slopes overlay district. Along these areas, the District will promote and encourage protection of non-disturbed bluffs and restoration of disturbed bluffs to their natural state, to the maximum extent practical. In addition, the District will discourage the removal of vegetation from Minnesota River Bluff areas during and after construction projects.

Strategy 7.5.2: Steep Slopes Standard

The District's Steep Slopes Standard, designed to protect the Minnesota River Bluff and water quality, is presented in Appendix K.

3.8 GOAL 8: COMMERCIAL AND RECREATIONAL NAVIGATION TO MAINTAIN AND IMPROVE NAVIGATION AND RECREATIONAL USE OF THE LOWER MINNESOTA RIVER

Since the District's establishment in 1960, the Managers' philosophy has been to participate in the construction and maintenance of the lower Minnesota River's navigation channel as a primary responsibility. The District's goal is to maintain its role as the local sponsor to the COE and to preserve the public's recreational opportunities.

Policy 8.1: Promote Co-Existence of Commercial and Recreational Navigation on the Lower Minnesota River

Strategy 8.1.1: Promote Safety Education

The District will undertake a proactive, focused, educational program in collaboration with the DNR, U.S. Coast Guard, and Coast Guard Auxiliaries regarding best practices for safe use of the river. In the interim, links to existing safety programs and material will be added to the District website.

Strategy 8.1.2: Promote River-Oriented Recreational and Economic Development

As part of its management of a dredge material disposal site, the District will allow, under separate agreement, disposal and transfer of private dredge material as necessary to provide for commercial and recreational land uses facilitated by the navigation channel.

Policy 8.2: Manage Dredge Material

Strategy 8.2.1: Manage Existing Cargill East River (MN – 14.2 RMP) Dredge Material Site

The District will continue its role as the local sponsor responsible for providing placement site(s) for the COE. The purpose is to place dredge material from the Minnesota River and maintain a 9-foot-deep river channel. The District owns and operates the Cargill East River (MN – 14.2 RMP) Dredge Material Site (Site) where the COE temporarily stores dredge material from the river. Dredge material dries at the Site prior to being taken offsite. Additionally, the District will continue to provide for private dredge spoil disposal and transfer at the Site under agreement with private and public commercial and recreational interests making use of the 9-foot navigation channel. No other sites are being investigated at this time.

Strategy 8.2.2: Beneficial Use Plan for Dredge Materials

The District has a few dredge materials placement sites. Once material is placed in these areas, movement or material use is required to free storage space, should the COE need it for additional dredge material. This strategy consists of the District's beneficial use plan for dredge material, which would address the material use. The following approaches will be considered for the plan:

- Locating sites where aquatic habitat can be created using dredged material/concrete rubble from federal and non-federal projects in an environmentally acceptable manner
- Establishing methods/processes, programs, and authorities that can assist with using and distributing the material
- Investigating funding partners and their respective roles
- Exploring alternative construction materials that can be used for containment structures, such as concrete rubble from demolition projects
- Creating a marketing plan to assist in fostering discussions with potential users
- Establishing best management practices for dredged material

Policy 8.3: Provide Funding for Dredge Material Management

Strategy 8.3.1: Develop a Funding Structure to Ensure Proper Maintenance and Improvement the Cargill East River (MN – 14.2 RMP) Dredge Material Site (Site)

This strategy consists of developing a strategic plan for funding necessary activities to facilitate the District's role as local sponsor for the COE's 9-Foot Navigation Channel Project as it related to disposal of dredge materials. The following approaches will be considered for funding:

- Use of ad valorem taxes based on District benefit from the 9-Foot Navigation Channel Project.
- Use of benefit assessments based on individual property benefit from the 9-Foot Navigation Channel Project.

- Pursuit and use of State funding as provided by the Legislature.

3.9 GOAL 9: PUBLIC EDUCATION AND OUTREACH PROGRAM TO INCREASE PUBLIC PARTICIPATION AND AWARENESS OF UNIQUE NATURAL RESOURCES AND THE MINNESOTA RIVER

Policy 9.1: Encourage Public Participation

Strategy 9.1.1: Maintain the Citizen Advisory Committee (CAC)

This strategy consists of starting and maintaining the CAC as an advisory committee to the Managers. The CAC will:

- Act as liaison between the District and residents.
- Increase public awareness by educating District residents about actions to protect and improve water resources and habitat within the District.
- Advise the managers and staff on issues important to residents.

They will be responsible for:

1. Brainstorming ways to inform residents about the District and its resources. Examples include:
    a. Host neighborhood meetings
    b. Organize and promote community fairs and other events
    c. Educate landowners on vegetative buffers
    d. Develop and install educational signs
    e. Stencil storm sewer catch basins
    f. Organize and coordinate tours of District projects
2. Collaborating with local community groups to use as a platform for education and outreach. Examples include:
    a. Boy/Girl Scouts
    b. School groups
    c. Senior citizen groups
    d. Veteran's groups
    e. Non-profit environmental groups
3. Developing an education and outreach plan, incorporating information gathered from tasks 1) and 2), and this Plan

4. Developing and implementing habitat improvement projects
5. Collecting water level and water quality data
6. Advising managers on other issues within the District

The Managers and the CAC will meet regularly with the adjoining WDs/WMOs to determine how to manage shared water resources.

Strategy 9.1.2: Develop an Outreach Program

This strategy consists of developing an education outreach program to familiarize the LGUs and the public with District activities. The outreach program will include:

1. District attendance at meetings of city councils, counties, the Minnesota River Joint Powers Board, public interest groups (such as Friends of the Minnesota River Valley), etc.
2. District presentations to schools, conferences, and seminars regarding activities in the District, water resource issues in the District, etc.
3. Conducting public tours of the watershed to targeted groups, such as city engineers, public officials, environmental groups, and members of the citizen and technical advisory committees.

Sponsorship of and/or participation in grassroots level environmental initiatives, such as streambank cleanup, storm drain stenciling, etc.

6. Coordination with other groups and LGUs in developing education programs or implementing ongoing education efforts to produce targeted educational materials.

Strategy 9.1.3: Engage Volunteers

The District will continue to solicit and empower volunteers to help with water quality monitoring. Currently, the District solicits volunteers and provides modest funding for equipment purchases and the analysis of samples in participation with citizen-assisted monitoring program and the citizen stream-monitoring program.

Strategy 9.1.4: Provide Opportunity for Public Input

The District values input from the public regarding operations and design of its programs, as well as ideas for resource management. This strategy provides opportunities for the public to provide input through open workshops and open house meetings. Actions for this strategy include having these types of meetings as part of the design for any new major programmatic effort.

3.10 GOAL 10: ENCOURAGING OTHER LGUS TO INCLUDE INFORMATION ABOUT THE DISTRICT IN THEIR WATER RESOURCE-RELATED DOCUMENTS.

Policy 10.1: Provide Education and Marketing to Foster Sustainable Behavior and Environmental Stewardship

Strategy 10.1.1: Produce Scientific Studies and Work Products. The District recognizes that scientific studies are technical and are generally not written for the public. This strategy consists of collecting and/or creating specific outreach materials written for the public. The District maintains a library of pamphlets and brochures on water quality, lawn fertilizing, septic system care, etc.; but anticipates the need for additional materials to present the results of scientific studies and of water plan initiatives and strategies.

Strategy 10.1.2: Promote a Variety of Education Programs

The District recognizes that the public is diverse, that different public segments are interested in different topics, and some public segments have activity preferences. The District has therefore chosen to have a variety of education programs. This variety has been on display throughout the discussion of this goal and includes open house meetings, written materials, hands-on stewardship events, workshops, etc. This strategy articulates the District's intent to use a variety of venues for education.

Strategy 10.1.3: Use Multiple Outlets to Distribute Information

The District recognizes that various information outlets reach different audiences. This strategy articulates the District's intention of using multiple outlets to distribute information when possible. Various outlets include literature racks at county offices, community newspapers, websites, e-mail distribution lists, etc.