

Nine Mile Creek Watershed District Water Management Plan

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4.0 General Statement of Goals and Policies

Nine Mile Creek Watershed District (NMCWD) Vision Statement

It is the NMCWD Board of Managers' vision and intent to manage water resources within the District in a manner that will attain and preserve their highest and best intended beneficial uses. Intended use designations have been made in keeping with records of historical use, applicable state and federal water laws, and in consultation with the District's constituent cities, state and regional resource management agencies, and the general public.

The District seeks a proactive role in watershed runoff regulation that anticipates ultimate watershed land use development. The District also seeks to provide its residents with protection against both flood damage and water quality degradation by conducting diagnostic-feasibility studies of watershed runoff-related problems. Where these studies indicate the need for implementation of remedial measures to mitigate current or likely future problems that interfere with attainment of beneficial use goals, the District will sponsor reasonable cost cooperative projects in response to project petitions from its constituent cities.

Throughout all of its water management planning activities, the District will encourage increased stakeholder involvement in its decision-making, especially by public officials and concerned citizens.

This section of the Plan presents the issues, goals, and policies that pertain to water resources within the NMCWD, organized in the following nine major topic areas:

- Section 4.1 Stormwater Management
- Section 4.2 Surface Water Quality
- Section 4.3 Open Spaces and Recreational Uses
- Section 4.4 Wetlands Management
- Section 4.5 Groundwater Protection
- Section 4.6 Land Use Management
- Section 4.7 Floodplain Management
- Section 4.8 Education and Outreach
- Section 4.9 Administration

In establishing its goals the District recognizes they are the end toward which its efforts and ambitions are directed. The goals are not rules but rather a statement of purposes. As with goals, the District's policies are its chosen courses of action selected from several alternatives, in light of given conditions, to guide present and future management decisions. The policies are not regulations or a program but instead are an effort to prudently manage the affairs of the District. The policies are not static or an end; they are the means to achieve the objectives articulated in the District's goals. This requires a partnership between Federal, State, local governments and citizens to be effective. The purpose of the Plan is to enable a cooperative effort to achieve common goals.

Each of the following subsections, 4.1 through 4.9, is organized in the same manner with a table that summarizes the following (in the order shown):

- Importance of NMCWD involvement in the topic area
- General issues associated with the topic area
- NMCWD goals that relate to the topic area
- NMCWD policies that will be implemented to accomplish its goals
- Legal authority to regulate

Detailed assessments of water resource problems within the District are presented in Section 5.0 of this Plan along with recommended remedial measures, by water body.

4.1 Stormwater Management

<p>4.1.1 Importance</p>	<p>The quality and quantity of surface water is greatly influenced by stormwater runoff. To achieve the NMCWD goals for maintaining and improving water quality, and managing water quantity, stormwater runoff must be carefully and closely managed. The NMCWD manages stormwater runoff by carrying out its permit program, which includes preventative measures so that negative effects of stormwater runoff are addressed (and prevented) at the time of development, not afterwards.</p>
<p>4.1.2 General Issues</p>	<p>The quality and quantity of stormwater runoff, from rainfall and snowmelt, are dependent on the hydrology and the physical conditions of the watershed. Hydrology is dependent on weather, topography, soils, land use/land cover, and other factors. Changes to any of these factors will affect the quality and quantity of stormwater runoff. While some of the factors are difficult to control, changes to land use/land cover can be regulated and/or managed.</p>
<p>4.1.3 Goals</p>	<ol style="list-style-type: none"> 1. To understand each subwatershed and the uniqueness of its related water resources, and to manage each subwatershed to its realistic water quality, quantity, and ecological potential. 2. To utilize both structural and nonstructural measures to reduce runoff rates and non-point source pollutant loading. 3. To manage surface waters collaboratively with cities. 4. To manage both the rate and volume of runoff entering Nine Mile Creek and the lakes and wetlands within the watershed.
<p>4.1.4 Policies to Achieve Goals</p>	<ol style="list-style-type: none"> 1. Stormwater runoff will be managed so that future peak rates of runoff are equal to or below existing rates. Management on a regional basis is recommended. 2. Stormwater volume control requirements will be developed during the rules revision process and adopted to achieve a net reduction. 3. Developers will be required to demonstrate that new and innovative stormwater management techniques have been considered. 4. The NMCWD will work with local government units to adopt/revise ordinances or other regulatory controls to allow for runoff pollution prevention methods through low-impact development. 5. Projects and developments plans will be reviewed to evaluate compliance with NMCWD standards. 6. Local watershed management plans will be reviewed for compliance with this Plan. 7. Presently, the District requires a stormwater management plan, through the grading and land alteration permitting process, for any development and/or redevelopment activities involving more than 100-cubic yards of land alternation.

4.1 Stormwater Management (Continued)

<p>4.1.4 Policies to Achieve Goals (continued)</p>	<ol style="list-style-type: none"> 8. Existing natural retention and detention areas will be used, when feasible, for stormwater management to maintain and improve existing water quality. 9. Stormwater will be managed to minimize erosion. 10. Redevelopment opportunities will be used to enhance existing stormwater management effectiveness. 11. The understanding of the hydrology of Nine Mile Creek and its watershed will be enhanced. 12. Impacts of runoff from development/redevelopment will be minimized by developing stormwater rate and volume control standards. 13. Known flooding/erosion problems will be addressed.
<p>4.1.5 Objectives and Actions</p>	<p>Objective 1—Stormwater runoff will be managed in a manner that ensures that future runoff rates are less than or equal to current rates, and future runoff volumes are reduced.</p> <p>Action 1—The District will develop performance standards for land altering activities to achieve lower runoff rates and volumes following adoption of the plan.</p> <p>Action 2—The District will work with municipalities to adopt, revise, and implement ordinances or other regulatory controls that allow for and encourage innovative stormwater management techniques.</p> <p>Objective 2—Utilize structural and nonstructural approaches to reduce runoff rates and non-point source pollutant loadings.</p> <p>Action 1—The District will work with developers and municipalities to establish Low Impact Development (LID) demonstration development projects.</p> <p>Action 2—These sites will be used for public education purposes.</p> <p>Objective 3—Ensure stormwater management systems are maintained.</p> <p>Action 1—District will develop stormwater management maintenance standards in partnership with the cities of the District.</p> <p>Objective 4—Cooperatively manage surface waters with municipalities and other organizations and have uniformity among the District Plan and local surface water management plans.</p> <p>Action 1—Provide technical assistance to municipalities in updating their local surface water management plans so that they comply with and complement the District watershed Plan to achieve stormwater management goals.</p>

4.1 Stormwater Management (Continued)

4.1.5 Objectives and Actions (continued)	<p>Objective 5—Existing stormwater management effectiveness will be enhanced through redevelopment opportunities</p> <p>Action 1—Work with developers and municipalities to include additional stormwater management techniques to redevelopment sites.</p> <p>Action 2—Identify demonstration sites with the assistance from municipalities and developers.</p> <p>Action 3—Educate developers and the general public about the importance of stormwater management at redeveloping sites.</p>
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4.2 Surface Water Quality

<p>4.2.1 Importance</p>	<p>Water quality is commonly defined by its physical, chemical, biological and aesthetic (e.g., appearance and smell) characteristics. Good water quality is more than these few measurements, especially when considered as part of a healthy environment whose water quality supports a rich and varied community of aquatic organisms and protects public health.</p> <p>The lakes, ponds, streams and wetlands in the District are an important community asset. These resources supply recreational and aesthetic benefits, enhance property values, serve as sources for groundwater recharge, provide nutrient removal, wildlife habitat and fishery resources. The high quality of the watershed’s natural resources makes it an attractive place for people to live. Preserving the high quality of the watershed’s natural resources is critical to the existence of a high quality of life among the citizens residing in the watershed and in the larger metropolitan region.</p> <p>If water quality becomes degraded, a water resource will lose its value. If water quality is not maintained, it is not just the environment that will suffer, but the commercial and recreational value of our water resources will diminish and public health may be compromised.</p>
<p>4.2.2 General Issues</p>	<p>Water quality is closely linked to the surrounding environment and land use. The water quality of a lake, pond, wetland, or stream is dependent on the hydrology and the physical conditions of the resource. Hydrology is dependent on the weather, the topography of the landscape, the soils, the land cover, and other factors. Changes to any of these factors will influence the water quality of a water resource. While some of the factors are difficult to control, changes to land cover can be regulated and/or managed.</p>
<p>4.2.3 Goals</p>	<ol style="list-style-type: none"> 1. To manage and protect our water resources: lakes, ponds, creeks, streams, wetlands, drainages, and groundwater by improving and protecting the quality of water for all water bodies within the District. 2. To protect and enhance surface water quality of the lakes and streams of the District. 3. To maintain and enhance current range of uses for District water resources. 4. To strengthen construction-site permit compliance and reduce non-point source pollution from other land use activities. 5. To establish and maintain water quality monitoring program to systematically assess achievement of all District water quality goals for targeted lakes, streams, and wetlands. 6. To establish and support a citizen monitoring program. 7. Coordinate efforts with regulatory agencies on pollutant spills.

4.2 Surface Water Quality (Continued)

<p>4.2.4 Policies to Achieve Goals</p>	<ol style="list-style-type: none"> 1. All major water bodies 2 acres or more in surface area will be classified for their intended beneficial uses. 2. All major water bodies will be managed for non-degradation of water quality, with allowance for natural variability. The major water bodies will be defined as the following lakes and ponds: <ul style="list-style-type: none"> • N.W. Anderson • S.W. Anderson • S.W. Anderson • Arrowhead • Birch Island • Bryant • Bush • Cornelia • N. Garrison • S. Garrison • Glen • Hawkes • Indianhead • Lake Edina • Lone • Minnetoga • Mirror • Oxboro • Pond- 84th and Quinn • Rose • Shady Oak • Skriebakken • Smetana • Upper and Lower Penn • Valley View • Wing 3. The water quality and habitat of all major water bodies will be monitored to detect changes or trends, and results will be reported. 4. Thresholds will be set to assist in determining appropriate water quality management/improvement actions. 5. Appropriate water quality management/improvement actions will be implemented. 6. Current and future NMCWD water quality improvement systems will be operated and maintained to ensure they provide the designed benefits. 7. The condition of water bodies in the NMCWD included on the Minnesota Pollution Control Agency's Sec. 303(d) Impaired Waters List must be improved so that they can be removed from that list. 8. Local governments and developers will be responsible for effectively managing stormwater in accordance with District runoff management criteria. 9. All stormwater runoff will be managed at the time of development through NMCWD's permitting program. Low impact development, infiltration, and other effective on-site treatment methods will be preferred, while stormwater management ponds will be promoted on a regional basis. 10. Naturally occurring retention and detention areas for stormwater management to maintain or improve existing water quality will be required where practical and feasible by the NMCWD throughout the watershed.
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4.2 Surface Water Quality (Continued)

4.2.4 Policies to Achieve Goals (continued)	<ol style="list-style-type: none">11. Work with the MPCA and other agencies to develop and implement Total Maximum Daily Load (TMDL) studies on all impaired water bodies, including but not limited to those included on the 303(d) 'Impaired Waters' list. When TMDLs are developed, the District will promote the collective consideration of State water quality standards, unless another mutually satisfactory approach is agreed upon.12. Continue and improve the water quality monitoring program for Nine Mile Creek and its tributaries, and lakes in the Watershed.13. Establish implementation programs on a subwatershed basis through establishing water quality goals and evaluating the effectiveness on management activities on affected water bodies.14. Monitor and participate in the management of recreational lakes.15. Minimize water quality impacts from new development, redevelopment, and land disturbing activities.16. Ensure stormwater management systems are maintained.
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4.2 Surface Water Quality (Continued)

<p>4.2.5 Objectives and Actions</p>	<p>Objective 1—Work with the MPCA and other agencies to improve quality of the water bodies on the 303(d) list so that they can be removed from that list.</p> <p>Action 1—Actively participate in the TMDL/UAA process.</p> <p>Action 2—Determine appropriate responsibilities in implementing load reduction measures identified in the TMDL/UAA process.</p> <p>Action 3—Amend UAA studies to better reflect TMDL plans.</p> <p>Objective 2—Continue and improve the water quality monitoring program for Nine Mile Creek and the lakes of the District.</p> <p>Action 1—Expand and enhance water quality monitoring in the Watershed</p> <p>Action 2—Collect, interpret, and report water quality data</p> <p>Action 3—Establish and fund a citizen stream and lake monitoring program for the District.</p> <p>Action 4—Water quality and habitat of all major water bodies will be monitored to detect changes or trends.</p> <p>Objective 3—Minimize water quality impacts for new development/redevelopment and other land disturbing activities.</p> <p>Action 1—Review federal, state, and local agency programs related to water quality and identify where additions or changes are necessary.</p> <p>Action 2—Develop Watershed performance standards during the rules revision process.</p> <p>Action 3—Develop and adopt revised rules for the District. During the rule-revision process, the District will work with local units of government to incorporate District standards into their stormwater management plans, ordinances, and other regulatory controls.</p> <p>Action 4—Require cities to develop stormwater plans and ordinances or other regulatory controls that ensure that the costs for constructing, operating, and maintaining stormwater management systems for new developments and redevelopments are fairly allocated so as not to unduly burden local governments or the District.</p> <p>Objective 4—Advance the understanding of the hydrology and water quality of Nine Mile Creek and its watershed.</p> <p>Action 1—Provide educational workshops and information to general public about Nine Mile Creek and its watershed.</p> <p>Action 2—Implement the Project NEMO education program. Give presentation to planning commissions and city councils.</p> <p>Action 3—Continue to implement storm drain stenciling program</p> <p>Action 4—Host stream and community clean up events in partnership with cities and other organizations.</p> <p>Action 5—Monitoring data will be used to calibrate and refine hydrologic models.</p>
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4.3 Open Spaces and Recreational Uses

<p>4.3.1 Importance</p>	<p>Improving and maintaining water quality in the Nine Mile Creek Watershed District (NMCWD) is the main concern and focus of the District. Improved water quality is essential to enhancing and increasing recreational uses, which are secondary benefits. Increased public access to Nine Mile Creek and the lakes of the NMCWD and providing places that offer a variety of water resource-related experiences can be the long-term results of improved water quality. Recreational and open space uses by the public can enhance people’s understanding of the importance of protecting the natural resources in the NMCWD.</p>
<p>4.3.2 General Issues</p>	<p>Water quality is closely linked to the surrounding environment and land uses. Protecting and enhancing open spaces and natural areas near water resources can aid in improving the water quality of the lakes of the NMCWD and Nine Mile Creek.</p> <p>Providing open spaces and recreational uses of the NMCWD water resources for the public can enhance the public’s understanding of the importance of our water and natural resources to our communities’ vitality and health.</p>
<p>4.3.3 Goals</p>	<p>To maintain or expand current ranges of recreational uses for NMCWD water resources.</p>
<p>4.3.4 Policies to Achieve Goals</p>	<ol style="list-style-type: none"> 1. Develop or improve open space, recreational, and fish and wildlife habitat areas in conjunction with NMCWD water management projects. 2. Conserve natural and open spaces, and creek corridor to enhance access to the resource. 3. Incorporate open space and recreational use features into Basic Water Management Projects. The Natural Heritage database will be reviewed as part of each project undertaken by the District with items listed incorporated into the design of the project.
<p>4.3.5 Objectives and Actions</p>	<p>Objective 1—Increase public awareness of Nine Mile Creek and the lakes in the watershed as a valued resource.</p> <p>Action 1—Implement an education program to educate the public about Nine Mile Creek and the lakes of the NMCWD.</p> <p>Action 2—Provide the public with information on the recreational opportunities throughout the Watershed through producing watershed maps, brochures, etc.</p>

4.3 Open Spaces and Recreational Uses (Continued)

4.3.5 Objectives and Actions (continued)	<p>Objective 2—Maintain natural stream corridor qualities for recreational users and general public.</p> <p>Action 1—Support non-profits and volunteer groups for stream cleanup activities</p> <p>Action 2—Evaluate Nine Mile Creek Corridor for opportunities to restore natural function and scenic values.</p> <p>Action 3—Partner with cities and private landowners to improve stream corridor through buffers, riparian plantings and restoration projects.</p> <p>Objective 3—Partner with others to pursue recreation and natural resource protection and enhancement opportunities.</p> <p>Action 1—Provide annual budget to leverage other funds and collaborate with other entities</p> <p>Action 2—Identify and implement appropriate partnership opportunities (Metropolitan Conservation Corridors)</p>
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4.4 Wetlands Management

<p>4.4.1 Importance</p>	<p>Wetlands are an abundant resource within the NMCWD, 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.</p> <p>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, low stream flow augmentation, enhance property values, serve as sources for groundwater recharge and discharge, provide nutrient cycling, provide wildlife habitat and provide fishery resources.</p> <p>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 providing recreational and educational opportunities for the public.</p>
<p>4.4.2 General Issues</p>	<p>Wetland quality is closely linked to the surrounding environment and land use. The quality of a wetland is dependent on the hydrology and the physical conditions of the resource and its watershed. Hydrology and ecology are dependent on the weather, the topography of the landscape, the soils, the land cover, and other factors. Changes to any of these factors will influence the quality of a wetland.</p> <p>Preservation of wetlands is controlled by various local, state, and federal laws. Effective wetland management depends on an accurate inventory and classification of wetland resources and a local wetland management plan developed with input from community residents and agencies.</p>
<p>4.4.3 Goals</p>	<p>Healthy and well-managed wetland resources will be maintained by pursuing the following NMCWD goals:</p> <ol style="list-style-type: none"> 1. Maintaining and enhancing the functions and values of wetlands within the watershed. 2. Continuing to administer the Wetland Conservation Act (WCA) requirements as the responsible local government unit for wetlands within the cities of Eden Prairie, Edina, Hopkins, and Richfield. Also, provide technical assistance in wetland-related matters in Bloomington and Minnetonka; cities that administer the requirements of WCA. The Minnesota Department of Transportation (Mn/DOT) is the LGU for Mn/DOT transportation projects. 3. Managing wetlands to achieve no net loss of acreage, function, and value; and maintain the complex ecosystems that serve a variety of functions and values, including improving water quality and providing flood storage, wildlife habitat, open space, and aesthetics.

4.4 Wetlands Management (Continued)

4.4.3 Goals (continued)	<ol style="list-style-type: none">4. Practice responsible wetland stewardship by increasing city, government, and citizen knowledge and understanding of wetland ecology and management.5. Protect all rare and high-quality wetland plant communities within the NMCWD.6. Protect current populations and habitats of rare, endangered, and threatened plants and animals.7. Protect and improve wetlands in identified open-space corridors.8. Allow for multiple uses of protected wetlands, while ensuring that functions and values are maintained or enhanced.9. Establish a wetland bank within the District for District-sponsored projects.
4.4.4 Policies to Achieve Goals	<ol style="list-style-type: none">1. Wetland activities will be managed through NMCWD administration of the WCA and the NMCWD rules and regulations.2. Require local governments to develop and implement local wetland management plans.3. Work to achieve no net loss of wetlands in the NMCWD.4. Wetland replacements will occur in the same subwatershed whenever possible. New wetlands will provide at a minimum equal or greater functions and values at a replacement ratio equal to, or great than that dictated by the WCA or the NMCWD rules, whichever is greatest.5. Avoiding direct or indirect wetland disturbance will be encouraged for all developments and land disturbing activities.6. Buffers, acting as filter strips, will be required around wetlands based on its management classification as indicated in each city's local wetland management plan.7. High value wetlands should not be used for stormwater management where other alternatives exist.8. Fragmenting natural areas and corridors will be avoided when feasible, and mitigated when unavoidable at equal value.

4.4 Wetlands Management (Continued)

<p>4.4.4 Policies to Achieve Goals (continued)</p>	<ol style="list-style-type: none"> 9. Impacts to locally and regionally significant natural areas will be avoided when feasible or mitigated when unavoidable at equal or greater value. 10. Cooperate with regulatory agencies to manage invasive species. 11. Require local governments to adopt land use and development ordinances or other regulatory controls to complement existing wetland protection regulations. 12. Identify and pursue wetland restoration opportunities within the watershed. 13. Protect existing fish and wildlife habitat areas and cooperatively promote the development of additional fish and wildlife habitat areas, following MDNR guidelines. 14. Protect sensitive habitats and communities, and rare species, following MDNR guidelines. 15. Assist in public education effort regarding wetlands and other fish and wildlife habitat of the NMCWD.
<p>4.4.5 Objectives and Actions</p>	<p>Objective 1—Require local governments to develop and implement local wetland management plans that include a functions and values assessment.</p> <p>Action 1—Work with and assist local governments in the development and implementation of local wetland management plans.</p> <p>Objective 2—Work with local governments to adopt land use and development ordinances or other regulatory controls to complement existing wetland protection regulations and achieve no net loss of wetlands. Ordinances or other regulatory controls should include establishing standards for wetland buffers and preservation and protection of high-priority wetland areas.</p> <p>Action 1—Assist local governments in the development of the above ordinances or other regulatory controls.</p> <p>Action 2—Implement a public education program regarding the importance and value of wetlands and other fish and wildlife habitat in cooperation with local governments and other agencies.</p> <p>Action 3—Educate the public about the importance of buffer zones around wetlands.</p> <p>Action 4—Establish an Incentive Program for implementation of wetland buffer zones.</p> <p>Objective 3—Identify and implement wetland restoration opportunities within the District.</p> <p>Action 1—Work with natural resource agencies to manage invasive species.</p> <p>Action 2—Protect high-quality wetland areas, sensitive habitats and rare or endangered species.</p>

4.5 Groundwater Protection

<p>4.5.1 Importance</p>	<p>Most NMCWD residents obtain their drinking water from groundwater. This makes it especially important to ensure that these aquifers are uncontaminated, protected from future contamination and provide adequate supplies. NMCWD water bodies also are groundwater-dependent and need an adequate supply of clean groundwater.</p>
<p>4.5.2 General Issues</p>	<p>Groundwater quality and quantity are closely linked to the above ground environment. 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.</p> <p>Groundwater is a finite resource with inputs and outputs. The input is generally rainwater and snowmelt that seeps into the ground. The outputs can be groundwater that is pumped out for human use and groundwater that naturally discharges to lakes, wetlands, and streams.</p> <p>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. Within the NMCWD, groundwater quality is good over the majority of the area; however, there are some locations where contaminants have been found. In these areas, there are added financial and social costs to manage the affected water supply.</p>
<p>4.5.3 Goals</p>	<ol style="list-style-type: none"> 1. To manage and protect our groundwater by understanding the effects of community growth and other activities on it, and focusing on groundwater-surface water interactions. 2. To protect groundwater quality and quantity to preserve it for appropriate and sustainable beneficial uses. 3. Protect groundwater recharge areas.
<p>4.5.4 Policies to Achieve Goals</p>	<ol style="list-style-type: none"> 1. Groundwater level data will continue to be collected to assist in managing the water levels and floodplains of the NMCWD's water resources. 2. These data will be reported, annually, in the District Engineer's Report. 3. The NMCWD encourages the cities and other public water suppliers to adopt wellhead protection programs. These programs will include the identification and sealing of abandoned wells. The wellhead protection plans must be submitted to NMCWD for review.

4.5 Groundwater Protection (Continued)

<p>4.5.4 Policies to Achieve Goals (continued)</p>	<p>4. The NMCWD will cooperate with the cities and other public water agencies to educate the general public concerning the use of best management practices (BMPs) to prevent contamination of groundwater supplies and the importance of these measures in protecting groundwater supplies.</p> <p>5. Negative impacts (e.g., reduced flow to surface water bodies, lowering lake or wetland levels, well interference) to groundwater-dependent resources will be prevented through permit review, community plan review, and education efforts.</p>
<p>4.5.5 Objectives and Actions</p>	<p>Objective 1—Continue collecting groundwater level data and use to assist in managing the District.</p> <p>Action 1—Collect static groundwater levels from observation wells throughout the District and reported annually in the District Engineer’s Report</p> <p>Action 2—Collaborate with other agencies to enhance groundwater monitoring efforts.</p> <p>Objective 2—Support the Minnesota Department of Health (MDH) and other state, regional, and local agencies in implementing wellhead protection programs and plans within District.</p> <p>Action 1—Provide technical assistance to cities that are working on developing or implementing Wellhead Protection Plans</p> <p>Action 2—Work with MDH to expedite the development of Wellhead Protection Plans in cities without such plans.</p> <p>Action 3—Review and comment on Wellhead Protection Plans as they are being completed.</p> <p>Action 4—Support the implementation of best management practices (BMPs) for wellhead protection areas.</p> <p>Objective 3—Distribute educational materials or programs that provide information on groundwater and how land use impacts our drinking water supply.</p> <p>Action 1—Coordinate efforts with cities and other public water agencies to educate the public on BMPs to prevent contamination of groundwater supplies</p> <p>Action 2—Collaborate with others to research infiltration impacts on groundwater and develop a consistent approach to protecting areas sensitive to groundwater contamination</p> <p>Action 3—Promote conservation of groundwater.</p>

4.6 Land Use Management

<p>4.6.1 Importance</p>	<p>Land use management plays a fundamental role in the management and protection of water resources. Municipalities in the NMCWD have the fundamental responsibility for comprehensive land use planning and zoning. These municipalities also have significant challenges in meeting state water quality standards for stormwater management. Cooperative land use and water resource management planning is critical to assuring the long term health of local communities and natural resources.</p>
<p>4.6.2 General Issues</p>	<ol style="list-style-type: none"> 1. Some of the pollutant loadings to resources identified in the District's Plan are best addressed through the guidance and regulation of future land use development and redevelopment, rather than through the construction of capital improvements. 2. The District values its strong working relationship with municipalities, and seeks to integrate its water resource protection goals with the land use plans of the municipalities.
<p>4.6.3 Goals</p>	<ol style="list-style-type: none"> 1. To protect and conserve water resources by integrating water resources management with land use planning, and encouraging low impact development approaches that reduce non-point sources of pollution from urban land uses.
<p>4.6.4 Policies to Achieve Goals</p>	<ol style="list-style-type: none"> 1. The District will work with municipalities to assure comprehensive land use plans that protect and preserve water resources within the watershed. 2. The District will work with municipalities to provide for the adoption of local controls, including Low Impact Development requirements, to define and abate any land uses that might adversely impact the achievement of water quality goals, and provide for the compliance with pollutant loading for specific subwatersheds consistent with local, regional, and state plans to achieve water quality standards. 3. The District will adopt rules revisions to implement this Plan and to further develop the District's program to regulate the use and development of land as it impacts water resources. These rules will regulate the use and development of land when the local government unit (municipality) does not have an approved, adopted, and implemented local water management plan, or enters into a cooperative agreement with the District concerning the District's ongoing regulatory program.

4.6 Land Use Management (Continued)

<p>4.6.4 Policies to Achieve Goals (continued)</p>	<p>4. The District will work with municipalities to coordinate the District's regulatory program with local land use controls to promote the following policies:</p> <ul style="list-style-type: none"> a. The presence of environmentally sensitive natural resource areas should guide land use management decisions. b. The impacts of development on water resources, including cumulative impacts, should be considered for each proposed development before development occurs. c. Stormwater BMPs must be identified as part of the development approval process. d. Development review by the District and municipalities should be coordinated and provide for effective technical input at the earliest possible point in the development process. e. Encourage low impact development techniques and approaches throughout the District. <p>5. The District will assist its constituent municipalities in complying with the requirements of their MS4-NPDES stormwater permits, particularly the Non-Degradation Plan elements of their Stormwater Pollution Prevention Plans (SWPPPs), which mandate that 1988-era runoff water and pollutant loads not be exceeded.</p>
<p>4.6.5 Objectives and Actions</p>	<p>Objective 1—Require developments within the Watershed to address impacts on water resources, including cumulative impacts.</p> <p>Action 1—Assist local governments within the District in developing criteria to consider potential off-site impacts (downstream impacts)</p> <p>Action 2—Encourage use of Low Impact Development (LID) techniques throughout the watershed</p> <p>Action 3—Development/permit review by the District and municipalities will be coordinated and provide for effective technical input at the earliest possible point in the development process (District involvement on the front end)</p> <p>Action 4—Through rules revision process, the District will develop rules to address rate and volume control.</p> <p>Objective 2—Coordinate the implementation of the Nine Mile Creek Watershed Management Plan with the implementation of local government's Comprehensive Plan updates.</p> <p>Action 1—Develop and adopt rate and volume control standards to reduce rates and volumes of runoff throughout the watershed.</p>

4.6 Land Use Management (Continued)

4.6.5 Objectives and Actions (continued)	<p>Objective 3—Coordinate the District’s regulatory program with the local land use controls to minimize impact of developments/redevelopment on water resources.</p> <p>Action 1—Work with municipalities to identify stormwater BMPs as part of the development review and approval process.</p> <p>Action 2—Coordinate development review process with municipalities to provided effective technical input at the earliest possible point in the development process.</p> <p>Action 3—Encourage low impact development techniques and approaches throughout the District.</p> <p>Action 4—The District will assist in the funding of Low Impact Development demonstration projects.</p> <p>Action 5—Assist local governments with the development adoption of rate and volume control ordinances or other regulatory controls.</p>
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4.7 Floodplain Management

4.7.1 Importance	<p>The protection of human life and flood-prone structures and improvements was the first priority of the District and continues to be a primary objective of the District.</p>
4.7.2 General Issues	<p>The District established a 100-year frequency flood envelope along the creek in 1961. The flood envelope was based on runoff from a totally urbanized watershed. The District has been managing/regulating development riparian to the creek based on the flood envelope since 1961.</p>
4.7.3 Goals	<ol style="list-style-type: none"> 1. To manage and protect the floodplains of the watershed from encroachment. 2. To protect human life and permanent improvements that could be damaged by flood events.
4.7.4 Policies to Achieve Goals	<ol style="list-style-type: none"> 1. The natural function of the floodplain as a floodwater storage area will be protected from encroachment. 2. Maintain a no net loss of floodplain storage. 3. Floodplains will be managed to maintain critical 100-year flood storage volumes. 4. Local Water Plans will include provisions that restrict construction of new structures within the flood envelope, and other flood prone areas. 5. Upstream floodwater storage should be maximized. 6. Infiltration in appropriate floodplain areas should be increased through increased vegetated areas and reduced impervious surfaces. 7. Work with constituent cities to establish natural vegetated buffers on all publicly owned lands adjacent to Nine Mile Creek and stormwater detention areas. 8. Low floor elevation of all structures must be 2-feet above the 100-year flood elevation. 9. Place restrictive covenants on titles of properties, if necessary, to ensure floodplain protection. 10. Work with the cities in developing buffer ordinances or other regulatory controls.

4.7 Floodplain Management (Continued)

4.7.5 Objectives and Actions	<p>Objective 1—Require adoption of shoreland and floodplain ordinances that are in compliance with County and State ordinances.</p> <p>Action 1—Review the status of local floodplain and shoreland ordinances.</p> <p>Action 2—Assist municipalities with the development and adoption of floodplain ordinances to be compliant with District, County, and State requirements.</p> <p>Objective 2—Work with municipalities to identify and protect District floodplains.</p> <p>Action 1—Work with municipalities to establish natural vegetated buffers adjacent to Nine Mile Creek on all publicly owned lands.</p> <p>Action 2—Work with municipalities to develop and distribute educational materials on floodplain locations, protection, and floodplain land use restrictions.</p> <p>Objective 3—Prevent floodplain encroachment in order to maintain no net loss of floodplain storage, including the preservation, restoration, and management of floodplain wetlands.</p> <p>Action 1—Require local stormwater management plans to maintain critical 100-year flood storage volume.</p> <p>Action 2—Require local stormwater plans to include provisions that restrict construction of new structures within the flood envelope and other flood prone areas.</p>
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4.8 Education and Outreach

<p>4.8.1 Importance</p>	<p>Public involvement and public information efforts are becoming increasingly important to the NMCWD. It is through these efforts that the District will increase the public's understanding of water resource management and issues in the watershed, and foster long-term public commitment to protecting these resources.</p>
<p>4.8.2 General Issues</p>	<p>NMCWD needs to educate and involve the public to meet the challenges of managing NMCWD's water resources. NMCWD needs public participation and support to balance interests and protect the watershed.</p>
<p>4.8.3 Goals</p>	<ol style="list-style-type: none"> 1. To manage and protect our water resources: lakes, ponds, creeks, streams, wetlands, drainage ditches, and groundwater by: <ol style="list-style-type: none"> a. Promoting open communication with our constituents, both our citizen base and pertinent governmental units. b. Educating the general public and the local government units within the NMCWD on water quality and quantity issues, management and means of improvement. 2. To offer programs, educational opportunities, and information that facilitate an understanding of watershed principles.
<p>4.8.4 Policies to Achieve Goals</p>	<ol style="list-style-type: none"> 1. Awareness of the District's presence and its role in managing water resources will be increased through expanded communications efforts. 2. Interest in and support of District will be increased through expanded cooperative education efforts, recruitment of volunteers, and public involvement in District projects and programs. 3. Awareness of the impacts that behaviors can have on the watershed's water resources will be raised through dissemination of education materials to targeted groups, including developers, and through other public information efforts. 4. Behaviors that have a positive impact on the water resources will be promoted through coordination/cooperation with other groups, and agencies. The District will investigate and develop a plan for an incentive program to encourage implementation of BMPs in the watershed. 5. Assist in distributing materials developed by other organizations and/or develop educational materials, where appropriate. 6. Incorporate water quality education/information regarding the NMCWD into all District activities. 7. Incorporate an educational component related to each goal area in the Plan.

4.8 Education and Outreach (Continued)

<p>4.8.4 Policies to Achieve Goals (continued)</p>	<p>8. Provide information to the public, and provide opportunities for public involvement and input on District policies and programs.</p> <p>9. Coordinate efforts with other agencies and groups to develop and implement education programs related to responsible land use practices. Ensure that elected officials have access to this program.</p> <p>10. Coordinate efforts with government, nonprofit, and other agencies to provide education programs on watershed issues.</p> <p>11. The District’s website (www.ninemilecreek.org)</p> <p>12. Share data and studies with District cities</p> <p>13. Prepare and provide maps to District cities</p>
<p>4.8.5 Objectives and Actions</p>	<p>Objective 1—Develop an education program related to each goal area in the Plan.</p> <p>Action 1—Incorporate water quality education/information regarding the NMCWD into all District activities.</p> <p>Objective 2—Provide information to the public and community groups, and provide opportunities for public involvement and input on District programs and activities.</p> <p>Action 1—Use District’s website to provide information on NMCWD.</p> <ul style="list-style-type: none"> • Post meeting dates, times, locations, on the web <p>Action 2—Establish and support volunteer monitoring programs for Nine Mile Creek and lakes.</p> <p>Action 3—Support and maintain an active Citizens Advisory Committee (CAC).</p> <p>Objective 3—Work with other agencies and groups to develop and implement education programs related to sustainable land use practices.</p> <p>Objective 4—Coordinate efforts with government, nonprofit, and other agencies to provide education programs on watershed issues.</p> <p>Action 1—Conduct a survey of District citizen concerns, periodically.</p>

4.9 Administration

4.9.1 Importance	<p>Effective and efficient operation of the Watershed District's work is essential to ensure public support.</p>
4.9.2 General Issues	<ol style="list-style-type: none"> 1. Oversight of basic water management projects, long-range planning, and other special needs can overburden the engineering and legal resources of the District. In order to assure timely, effective oversight, a District Administrator has been hired to serve at the pleasure of the Board of Managers to perform such duties as may be delegated. 2. The administrative levy of the District will be in accordance with <u>Minn. Stat. §103D.905</u>, Subd. 3. An annual budget will be adopted following public hearing on the proposed budget. <u>Minn. Stat. §103D.911</u>. 3. The District is authorized to levy to pay the cost attributable to the basic water management features of projects initiated by petition of a municipality of the District. <u>Minn. Stat. §103D.915</u>. 4. When projects are properly initiated, the District will expend funds in accordance with priorities and available financial resources. First-priority is given to basic water management projects that are needed for proper and sufficient water quantity and quality management of streams and major lakes within the District. Second-priority is given to ancillary features of basic water management projects that will enhance waters and related land resources within the District. Third-priority is given to land acquisition for special purposes such as preservation of ecologically important or unique areas. 5. The District is a special taxing district governed by a citizen board appointed by county commissioners. Due to the significant costs associated with basic water management projects, the District believes that local elected officials should support implementation of basic water management projects so that District residents may influence elected officials. 6. The District is authorized to levy a tax to pay for the increased costs of preparing a water resources management plan or for projects identified in an approved or adopted plan.
4.9.3 Goals	<p>The goal of the District is to manage its affairs in a fiscally responsible manner and to encourage citizen involvement in District activities.</p>

4.9 Administration (Continued)

<p>4.9.4 Policies to Achieve Goals</p>	<ol style="list-style-type: none"> 1. The District will annually budget its administrative fund in a manner that avoids shortfalls and excessive administrative levies. The District will levy according to its foreseeable needs, only. The 509 Fund, Metropolitan Surface Water Management Act, will be levied to fund the on-going studies and programs that were initiated/developed in the District's 1996 Plan and continued/implemented and expanded as part of this Plan. 2. The District will levy to fund <i>Repair & Maintenance</i> and <i>Survey & Data Acquisition</i> funds, and basic water management projects. Additional projects will be considered based on need and urgency. 3. Subject to available funds and levy authorities, the District will levy to raise funds to contribute directly for the payment of costs attributable to District projects upon the following percentage allocation guidelines: <ul style="list-style-type: none"> First-Priority: (Basic Water Management Projects) Up to 100% of authorized costs Second-Priority: (Ancillary Features of Basic Water Management Projects) Up to 50% of authorized costs Third-Priority: (Land Acquisition for Special Purposes) Up to 25% of authorized costs. 4. Currently subject to available funds, the District will review and administer its permitting programs without additional charge to applicants, using monies in the administrative fund. If necessary, a fee not to exceed actual costs will be implemented. 5. Enforcement of rules and regulations of the District will be by civil action; criminal conduct will be reported to municipal or county authorities for investigation and prosecution. 6. The District prefers to undertake basic water management projects in response to petitions from municipalities, but reserves the discretionary right to initiate projects itself. 7. To oversee the completion of a project, plan, budget, or other need, the District has hired an Administrator to facilitate and expedite projects.
<p>4.9.5 Objectives and Actions</p>	<p>Objective 1—Support and oversee a Citizens Advisory Committee and Technical Advisory Committee.</p>