



Improving Quality of Water, Quality of Life

2004 MCWD Annual Report and Storm Water Pollution Prevention Program Summary

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Minnesota.

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2004 Minnehaha Creek Watershed District
Annual Report and Storm Water Pollution Prevention Program Summary

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1. Introduction

This report has been prepared to satisfy the annual reporting requirements of the National Pollutant Discharge Elimination System, Phase II rules, emanating from the Clean Water Act legislation of 1972. It also is intended to satisfy the annual reporting requirements set forth in Minnesota Statutes Chapter 103D.351, which requires watershed districts to file an annual report with the Board of Soil and Water Resources.

1.1. National Pollutant Discharge Elimination System – Phase II Annual Report

Prior to 1990, NPDES did not directly address non-point sources of pollutants. The focus of implementing the federal requirements was point-source discharges of wastewater and industrial process water. In 1990, US EPA promulgated rules to include regulation of non-point source discharges from large municipal separate storm sewer systems (MS4s). The Phase I rules required storm water systems permits in large cities like Duluth, St. Paul and Minneapolis. In 2002, the Phase II rules expanded federal regulation to include small MS4s, after a US EPA study concluded continued degradation of the nations waters.

In early 2003, MCWD submitted an application as a regulated MS4 under the Phase II rules, along with a Storm Water Pollution Prevention Program (SWPPP). MCWD is a regulated MS4 under the Phase II rules because the District is the drainage authority for eight public drainage systems. These drainage systems are county and judicial ditches. A number of other Phase II MS4s storm sewers and conveyances discharge into these systems. See Figure No. 1 for the location of the eight public drainage systems.

The Phase II requirements call for an annual summary report on progress toward implementing the provisions of the SWPPP, including any proposed revisions. The first (2003) annual report was submitted in March 2004. This report satisfies the annual report requirements and has been submitted before the March 10th deadline of 2005.

1.2. Minnesota Statutes Chapter 103D.351 Annual Report

The Minnesota Statutes require watershed districts to prepare and file an annual report with the Board of Soil and Water Resources. This annual report is a summary of MCWD financial activity (See Section 9), projects and plans for the coming year (See Section 8 for 2005 activities) and satisfies the requirements of Minnesota Statutes Chapter 103D.351.

2. Summary of Storm Water Pollution Prevention Program and Planned Best Management Practices

The MCWD SWPPP is encompassed in the Notice of Intent and the Phase II MS4 permit application submitted by MCWD in 2003. These documents are included as Appendix 1. An excerpted summary of the SWPPP follows:

“The Minnehaha Creek Watershed District SWPPP is encompassed by the following Minnehaha Creek Watershed District documents:

- *Water Resources Management Plan, January 1997*
- *Operations and Maintenance Manual, November 2000*
- *Ditch Records and Policy Considerations, January 2003*
- *MCWD Rules, published in 1974 and as amended from time to time*

The Water Resources Management Plan establishes District goals and policies related to management of runoff and protection of water quality, erosion and sedimentation control, floodplain management, management of dredging projects, management of projects in protected waters, Best Management Practices, recreation and fish and wildlife, enhancement of public participation, information and education, public ditch systems, groundwater, and wetlands. It provides an assessment of problems and an implementation program.

The Operations and Maintenance Manual establishes inspection and maintenance procedures for District facilities and ditches.

The Ditch Records and Policy Considerations report includes maps and descriptions of the ditches under District authority.

The District Rules establish requirements for permits for erosion control (Rule B), storm water management (Rule N), wetland protection (Rule D), shoreline alteration (Rule F), and others. Applicable BMPs are summarized in the sheets attached to the General Storm Water Permit Application for Small Municipal Separate Storm Sewer Systems (MS4s).”

3. Summary of 2004 Goals

The goals established by MCWD are described in the 2003 SWPPP contained in Appendix 1. For convenience, Table No. 1 is a one-page summary of the SWPPP goals and progress.

4. Actions Taken in 2004 and Best Management Practices Implementation Progress

4.1. Public Education and Outreach – Minimum Control Measure No. 1

In 2004, MCWD published four editions of the WaterPro Newsletter. One edition highlighted the District's Hydrologic and Hydraulic / Pollutant Loading Study. MCWD also issued multiple press releases concerning District activities. The recently-overhauled and improved MCWD web site was updated generally on a weekly basis to include current meeting information, meeting minutes, hydrologic data, rule revision activity, project progress reports and general news items.

MCWD developed a strategic plan for communications in 2003, aimed at image recognition and public education concerning water resources management. The Board of Managers approved the strategic communications plan on October 16, 2003. Implementation of the plan continued in 2004. The strategic communications plan is available for review at the MCWD office.

MCWD participated in the following water related events in 2004:

- 4.1.1. MCWD issued a news release about Hydrodata grades for area lakes and received quite a bit of press with the following media: Fox TV, KARE 11 TV (twice), MPR, WCCO-AM, and various community newspapers.
- 4.1.2. Major articles were published on the MCWD/USACE project on Minnehaha Creek, in newspapers including the Southwest Journal, StarTribune, and Sun Sailor newspapers.
- 4.1.3. Developed monthly columns for Sun Sailor papers by the Board of Managers President.
- 4.1.4. Initiated a monthly column by Water Quality Specialist for the Lakeshore Weekly News.
- 4.1.5. In October, 2004, MCWD staff, with support from the District Engineer, presented "Stormwater Retention Ponds: Maintenance vs. Efficiency" at the Minnesota Section of ASCE Annual Water Resources Conference in Brooklyn Center. District experience with the frequency, methods and cost of maintenance of stormwater ponds was highlighted.
- 4.1.6. At the Minnesota Association of Watershed District's Annual Conference, in Alexandria, Minnesota, the District Engineer and District Administrator presented "The Minnehaha Creek Stream Assessment", focusing on the activities, findings and recommendations developed through the first-ever assessment of Minnehaha Creek.
- 4.1.7. Minnehaha Creek Art Exhibit with Edina Art Center in conjunction with the US Army Corps of Engineers (USACE) project on Minnehaha Creek. The was a public kickoff event for the USACE project.
- 4.1.8. A new Minnehaha Creek 2054 traveling education display was developed for the visioning process.

MCWD produced a new Minnehaha Creek canoe route and watershed map.

4.2. Public Participation and Involvement – Minimum Control Measure No.2

MCWD established the Cynthia Krieg Watershed Stewardship Grant Program in 1999. The grant program is designed to help fund small projects that promote environmental stewardship, in the memory of Cynthia Krieg, who formerly worked for the District in the area of communications and public education. In 2004, four grant applications were approved for a variety of projects. As an example, Park Nicollet Heart Center at Methodist Hospital received a grant to install a monumet sign system to describe the hospital's system of rain gardens to reduce nonpoint source pollution.. The total amount of grant funds approved in 2004 was \$ 33,316 based upon matching funds or in-kind services.

The MCWD Citizens Advisory Committee was active and held six meetings in 2004. MCWD Board members attended approximately one-half of the meetings. The MCWD asked the Citizens Advisory Committee to participate in project development, budget review and other functions.

MCWD staff and consultants held a public meeting in Orono regarding the Stubbs Bay diagnostic study and goal setting for the water quality improvement project. Additional public meetings were held for this and other projects contemplated by the District.

The District has begun a visioning process for prospective improvements to Minnehaha Creek. The process is intended to develop a citizen-driven view of the creek, balancing various interests and functions of the 22-mile Creek. In addition to the citizens group, a group consisting of local elected officials and a group comprised of technical experts from federal, state and local government units also will meet to discuss issues and options related to the creek's future. At the end of the planning process, it's expected that the partnership will have created a common list of goals for the creek as well as strategies for achieving them. Recommendations will be forwarded to the Minnehaha Creek Watershed District Board of Managers for possible inclusion in the District's long-range plans. This project builds on the MCWD Stream Assessment project completed in 2004.

The MCWD held 37 other public meetings in 2004, including 26 regular Board Meetings and 11 Board Workshops. The meetings were noticed to the public in advance. Agendas and minutes of the public meetings were published on the MCWD web page.

MCWD was active in a national program called NEMO (Non-point source Education for Municipal Officials) again in 2004. The District held workshops conducted cooperatively with MPCA, to educate public officials, developers and municipal staff on construction site erosion control techniques. Model erosion control ordinances were also developed for use by municipal planners and fact sheets were prepared on vegetated buffer designs for wetlands, lakes and streams. As part of the program, MCWD completed five NEMO presentations in the District. Three were in Plymouth

to the planning commission, and two in Long lake, mostly discussing options for porous pavements.

4.3. Illicit Discharge Detection and Elimination – Minimum Control Measure No. 3

MCWD is the regulated NPDES, Phase II MS4 for eight public drainage systems (county and/or judicial ditches) that exist in the watershed. During 2003, the available records from Hennepin and Carver Counties were compiled and converted into electronic form. This was the first step in developing policy and management strategies for the public drainage systems. A report was prepared in January 2003, including a GIS database of the ditch records and policy discussion recommendations (Figure No. 1 shows the location of the ditches).

MCWD has monitored lake water quality, stream flow and quality, precipitation and other hydrologic parameters beginning in 1968. In 1997, the monitoring program was coordinated with other agencies collecting monitoring data within the District. The program was expanded and continued in 2002 and 2003 to include more monitoring locations and additional automatic monitoring equipment. The District Engineer has published an electronic data report each year, including water quality grades for major lakes and streams. The report contains a calculation of annual runoff, flow, pollutant loads and precipitation. The report is made available each year on the MCWD web page.

In 2004, the District hired a water quality specialist to conduct the hydrologic and water quality monitoring program. Special monitoring may be undertaken to evaluate the potential of illicit discharges as necessary.

In 2004, MCWD completed a major assessment of the condition of Minnehaha Creek, including bank erosion, channel stability, ecological indicators and hydraulic issues. The assessment included a complete inventory of utility crossings and discharges to the Creek. The assessment was used to develop recommendations for stream resources management and related policy. A similar inventory was completed on five principal Upper Watershed streams in 2004, including part or all of four ditches in the MS4. The inventories have identified reaches with erosion problems and other issues relative to channel function including channel blockages.

MCWD reviewed four local water management plans in 2004; Edina and Victoria were approved, Minnetonka Beach was denied, and the Minneapolis plan is a draft. These municipal plans are required by Minnesota Statutes Chapter 103B.231.

MCWD has undertaken rule revision/writing activities in 2004, including “housekeeping” rule changes developed in 2004 (and adopted in January 2005). The revisions apply to Rules A, B, C, D, E, F, G, and N. (No revisions were made to Rules H, I, J, K, L and M.) Rule A changes were aimed at streamlining the MCWD permit process. Other changes were to update the rules based on recent experiences made by the District in permitting and enforcement. The District rules comprise:

- Rule A: Procedural Requirements
- Rule B: Erosion Control
- Rule C: Floodplain Alteration
- Rule D: Wetland Protection
- Rule E: Dredging
- Rule F: Shoreline & Streambank Improvements
- Rule G: Waterbody Crossings & Structures
- Rule H: Enforcement
- Rule I: Variances
- Rule J: Fees Charged in Certain Cases
- Rule K: Performance Bond or Letter of Credit
- Rule N: Stormwater Management for Land Development Projects

MCWD has implemented a storm drain labeling program for the past several years to help inform the general public of the connection between storm water runoff and the quality of lakes and streams. In 2003, the storm drain labeling funding for a MCWD lead role was reallocated to another program because other MS4s own and operate these conveyances. MCWD continues to promote this educational BMP with municipalities in the District.

4.4. Construction Site Storm Water Runoff Control – Minimum Control Measure No. 4

Construction site erosion has been considered a major issue in rapidly developing areas and for major highway projects. And, the MCWD has seen major increases in permit activity for the past five years.

The permitting activity in MCWD for 2004 is in summary form in Table No. 2. A total of 675 applications were processed, which is an increase of roughly five percent over 2003 (and 25 percent over 2002). The increase since 2002 signifies the increasing land development occurring in the western part of the watershed. In response, MCWD publishes an informational pamphlet informing the public of the need to acquire permits for certain project activity. The pamphlet is entitled “A Guide To Building Or Landscaping Near Water Resources – Mandatory Minnehaha Creek Watershed Permits”.

Of the total permit applications processed in 2004; approximately 69% required a temporary erosion control plan approval. The District dedicates 1 full-time compliance officer to coordinate an enforcement program aimed at controlling construction site erosion; two full-time equivalents and two interns are employed in enforcement. Over 1,400 site inspections were performed during the year, averaging approximately 2.1 inspections per project, and averaging about 3.0 inspections per temporary erosion control plan processed.

Some compliance inspections revealed erosion issues that could not be resolved on a voluntary basis by the permit applicant. A special committee of the Managers processed these situations. The committee met on five occasions and determined further compliance actions required such as site stabilization, stop work orders, surety bonds for performance and other requirements to bring sites into compliance with the MCWD rules. The committee processed a total of 51 compliance actions (after-the-fact permits) and 15 stop-work orders in 2004.

4.5. Post-Construction Storm Water Management – Minimum Control Measure No. 5

The MCWD rules have required long-term storm water management on new land development sites since 1974. Rule N requires long term controls on storm water volume, runoff rates and water quality impacts to downstream receiving waters. In 2003 the District Engineer developed a guidance document for selection of BMPs to meet the requirements of Rule N. This guidance document is entitled **Best Management Practices Performance Criteria and Guidance for MCWD Rule N**, dated November 2003. Appendix 3 is a complete copy of the guidance document.

A total of 72 storm water management plans were approved under Rule N in 2004 for new land development. Fifty-six maintenance agreements and 11 cooperative agreements were executed to assure long-term performance of storm water management facilities. In addition, MCWD employees inspected permitted facilities in 2004 to evaluate site-specific maintenance needs, and will continue in 2005.

A wet-detention pond maintenance interval frequency guidance document was developed by the District Engineer in 2003. During 2004, MCWD identified desirable clarifications and revisions for storm water management plan regulation; the changes were made in early 2005.

4.6. Pollution Prevention and Good Housekeeping – Minimum Control Measure No. 6

A number of roundtable discussions were held in 2003 as part of the NEMO program to address pollution prevention opportunities in the District. However, in 2003 and 2004 one-on-one presentations to individual municipal councils and planning commissions were given instead to minimize costs.

MCWD developed an Operations and Maintenance Manual in November 2000. The manual covers every project completed by MCWD and describes operation and maintenance activities in general throughout the District. The plan is a guide for recommended inspections, maintenance, record keeping and monitoring for approximately 20 projects, monitoring stations and other programs. It includes record drawings of constructed projects; photographs; and copies of maintenance agreements, easements and surveys. The plan includes 700 to 800 hours of inspection, maintenance and reporting activity each year, including:

- Records of inspections performed including; name, date, observations and results;
- Records of repairs performed including costs;
- An annual inspections report; and
- Annual plan updates.

The annual operations and maintenance inspections report is attached as Appendix 2. The report summarizes 2004 activities, which included maintenance dredging of several of the District's stormwater detention ponds.

4.7. Other BMPs

An annual NPDES Phase II MS4 report is being prepared beginning 2003. All records pertaining to the NPDES Phase II permit, including annual reports and correspondence, will be kept at the MCWD office for a minimum of three years beyond expiration of the permit.

4.8. Other Related Activities

4.8.1. Wetland Function and Value Assessment

MCWD completed a District-wide assessment of the functions and values of wetlands in 2003. The assessment data is being used to identify high value wetlands and management criteria needed to protect wetlands as a public water resource. The assessment database has been made available to every city in the District for the purpose of local water management planning. It is also available for review at the MCWD office.

4.8.2. Rule Making

In 2004, MCWD rejected the Draft Rule M requiring vegetated buffers along stream banks and shorelines. Buffers along wetlands and public water wetlands are required by Rule D.

MCWD made several minor changes to rules to clarify meanings in rule and codify policy previously not detailed in rules. These changes, affecting eight rules, were developed in 2004 and enacted in January 2005.

In April 2004, the MCWD Board of Managers delegated permitting authority to District staff, except when a variance is requested, or when members of the public request a public hearing.

4.8.3. Acquisition of Grants

In 2003, MCWD entered into an agreement with the US Army Corps of Engineers to conduct a feasibility analysis of improving the ecological

state of Minnehaha Creek and its watershed. Funding is the responsibility of the US Army Corps of Engineers with local match provided by existing MCWD programs and projects. The feasibility analysis, and implementation funding are being pursued in 2005.

4.8.4. Awards

In 2003, MCWD initiated its “Watershed Heroes” recognition program intended to recognize citizens who performed outstanding public service related to water resources. During 2004, three awards were given Boy Scout troops in South Minneapolis for their efforts in cleaning debris from the Minnehaha Creek stream channel.

4.8.5. Water Quantity and Quality Monitoring

MCWD has conducted routine annual hydrologic monitoring of lakes and streams since 1968. Actual pollutant loads and water budgets are calculated each year along with distribution of results to the public on the MCWD web page. This database is the primary means of determining and assessing water management issues in the District.

In August 2004, the District hired a full-time water quality specialist who will be responsible for the annual hydrodata (water quantity and quality) monitoring and reporting following the 2004 monitoring season. MCWD will complete these monitoring and reporting functions previously performed by the District Engineer.

4.8.6. Communications

MCWD prepared multiple press releases to local/regional newspapers, and wrote regular articles in local newspapers in 2004. (Details are given in Section 4.1.) The strategic communications plan approved by the Managers in 2003 was implemented during 2004 and will continue in 2005. A new Communications and Education Coordinator was hired by MCWD at the end of 2004.

4.8.7. Staffing

MCWD hired a full time staff in two new positions during 2004 reflecting changing emphasis in programs: A Land Conservation Specialist was hired to implement District plans to work to set aside important land areas to help protect sensitive water resources. A Water Quality Specialist was hired to perform the Hydrodata monitoring program “in-house” in the interest of reducing overall program cost. The water quantity/water quality modeler position was eliminated during 2004. An Education and

Communications Coordinator was hired at the end of 2004 to replace the previous staff who departed in during 2004.

4.8.8. Minneapolis Water Quality Task Force

MCWD is participating in a multi-governmental unit Task Force established by a City of Minneapolis Council resolution and led by the Mayor of Minneapolis. The City of Minneapolis, Minneapolis Park and Recreation Board, Minnehaha Creek Watershed District and others are examining ways to protect and improve water quality in Minneapolis lakes and Minnehaha Creek. The Task Force meets on an as-needed basis.

4.8.9. Projects Underway in 2004 and 2005

- Minnehaha Creek Headwaters: Shoreline construction underway, completion in summer of 2005. Design for outlet structure improvement started in 2004 and continues into 2005. Construction anticipated in 2005.
- Stubbs Bay: Feasibility Study completed in 2004. Final design and construction anticipated in 2005-2006.
- Lost Lake/Langdon Lake/Cooks Bay (Mound Downtown Redevelopment): Preliminary design completed. Final design to be initiated in spring of 2005. Construction of Phase 1 (three phase project) in summer 2005.
- Minnehaha Creek Small Site Improvement Project: Small site projects along creek corridor identified. Design/implementation anticipated in 2005.
- Gideon Glen: Wetland restoration and water quality improvement project to benefit Gideon Bay on Lake Minnetonka. Project is to be completed during 2005 in a partnership between MCWD, Hennepin County and the City of Shorewood.
- Land Conservation Program. MCWD initiated a land conservation program with the goal of preserving and high quality, natural areas with the potential for protection and improvement of water resources.
- Jennings Bay / Painter Creek Water Quality Improvement Project. Pilot project to reduce phosphorus loads by wetland hydroperiod management at Pond 937 on Painter Creek.

4.8.10. Studies Underway in 2004 and 2005

- Stream Assessment: Study complete.
- FEMA Mapping: Project (all major MCWD tributaries) initiated with expected completion by Summer 2005.
- Lake Minnetonka Shoreline Study: Expected to be initiated in 2005.
- USACE Feasibility Study: Study underway (looking at feasibility of Federal interest in projects within MCWD) with expected completion in 2007.
- Lake Sediment Diatom / Paleo-Limnologic Study. Eight lakes with known impairments or planned water quality improvement projects are being evaluated to determine the pre-settlement phosphorus levels.

- Alum Effectiveness Index. MCWD is working to develop an effectiveness index for use in predicting the potential benefit and longevity of lake alum treatments to reduce internal loading of phosphorus.
- Southdale Watershed Boundary. Recently it was determined that Southdale drains to Minnehaha Creek and therefore should be included within the MWCD boundary. Boundary changes may be pursued in the next few years.

4.8.11. Planning Activities Underway in 2004 and 2005

- Comprehensive Water Resources Management Plan: On-going policy formation, goal identification and planning. Anticipated completion by 2006.
- 2004 Local Water Resources Management Plans: Approved Edina, Victoria; denied Minnetonka Beach; reviewed Minneapolis (draft)
- Review and comment on Metropolitan Council Regional Development Framework/Systems Plans.
- Lake Nutrient TMDLs. MCWD is preparing TMDLs for eight lakes under an MPCA grant.
- Pilot NPDES Inspection Program. MCWD is conducting erosion control inspections on behalf of MPCA, under an MPCA grant.

5. Progress Toward Achieving Goals

The goals set forth in the MCWD NPDES, Phase II permit (Appendix 1), and progress toward those goals are set forth in summary form in Table No. 1. Progress in 2004 is discussed in more detail in Section 4.

6. Recommended Changes to the SWPPP for 2005

6.1. Water Resources Management Plan, January 1997

The Water Resources Management Plan dated January 1997 is scheduled to be updated during 2005 with approval in early 2006. The scope for the plan update focuses on several important elements, including:

- The plan will maximize use of the H&H hydrologic and nutrient export models to demonstrate the direct relationship between land uses and increased pollutant export into receiving waters.
- Using PLOAD, the plan will demonstrate the efficiency of performance based regulation on a major sub-watershed basis to prevent degradation.
- Municipal Comprehensive Planning, the MCWD Land Conservation Program and multiple existing GIS tools like the MCWD Stream Assessments of 2003 and 2004 will be merged to coordinate water management with eco-system protection.
- A framework of performance based plan elements, organized by major sub-watershed to achieve established and desired goals, will be the first step to articulating a goal-driven regulatory program.
- A plan that meets the requirement of Minnesota Rules Section 8410, and MS 103.

- A Capital Improvements Plan that addresses benefits and costs on a project life-cycle including operation, maintenance, the time value of money, cash flow and organizational demands.
- Goals that are supported by the MCWD Board, MCWD staff and the public, focused on pollutant export reduction and that are measurable and realistic.
- Vigorous public participation in goal development including a Citizens Advisory Committee, a Technical Advisory Committee, Minnehaha Creek Visioning Committee, Public meetings, Regional Team input and guidance by MCWD Board sub-watershed teams.
- A stand-alone plan for each of eleven sub-watersheds and a GIS based Executive Summary Plan for the entire District that graphically covers major features, including the CIP, and is easily made available on the MCWD website.

6.2. Operations and Maintenance Manual, November 2000

The maintenance projects and programs identified in the MCWD Operations and Maintenance Manual are up-to-date through 2000. However, additional projects completed after 2000 are not included in the manual. An updated manual should be incorporated into the SWPPP in 2005.

6.3. Public Drainage System Policy

The District will develop management policies and a long-term action plan for the public drainage systems, as recommended in the report entitled **Ditch and Policy Considerations, January 2003**. This will be addressed through the 509 Plan development process.

6.4. Rule Revisions

No MCWD Rule revisions or changes are anticipated for 2005.

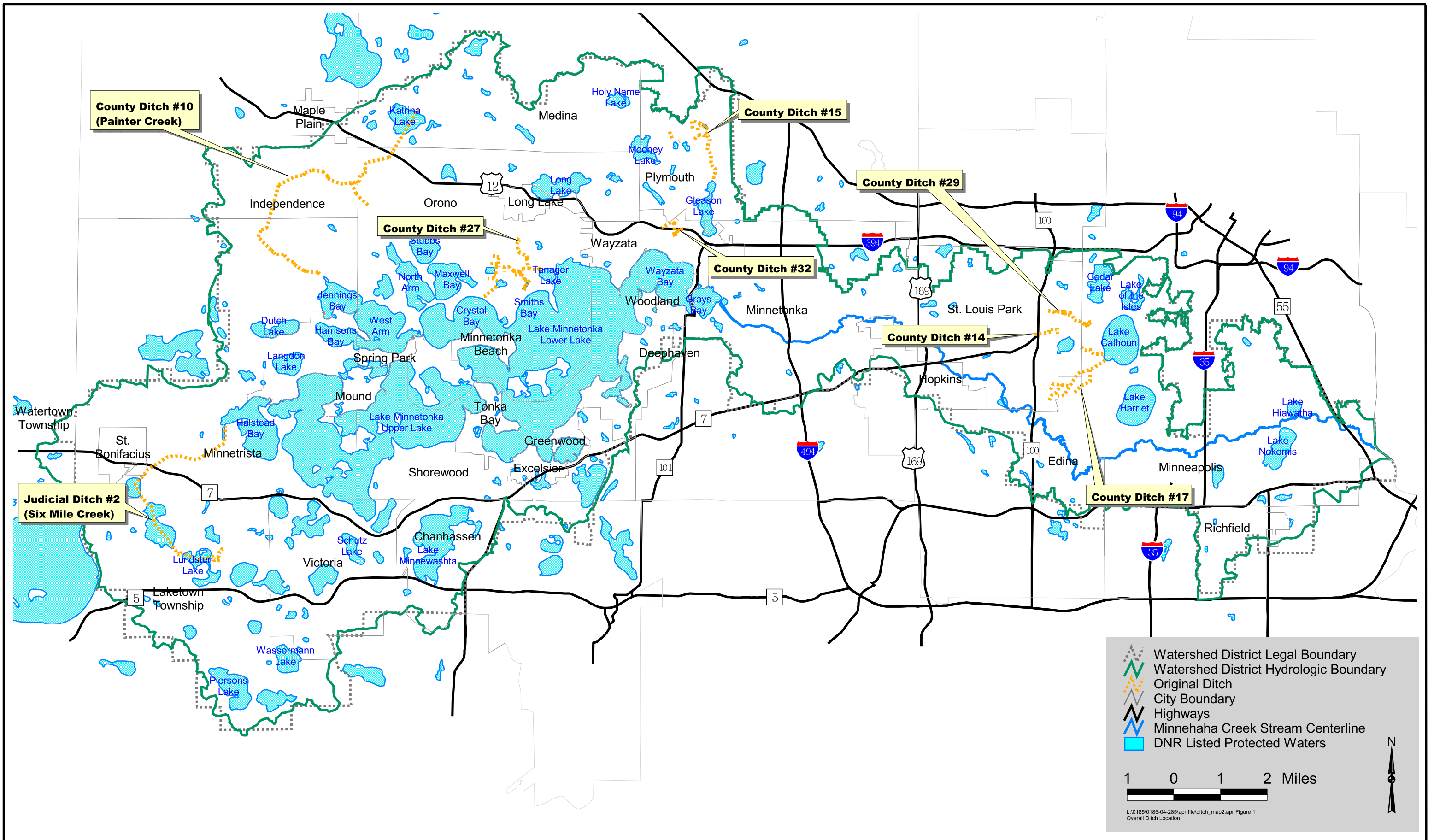
7. MCWD Financial Summary

The 2004 MCWD budget is in summary form in Figure No. 2. A detailed budget is available for public review by contacting the MCWD office.

8. Additional Information

For additional information about MCWD, a list of contacts is included as Table No. 3. Acronyms, abbreviations and definitions are included in Table No. 4.

Figures



MINNEHAHA CREEK WATERSHED DISTRICT

Overall Ditch Location


Wenck
 Wenck Associates, Inc. Environmental Engineers
 1800 Pioneer Creek Center P.O. Box 249
 Maple Plain, MN 55359-0249

DEC 2002
 Figure 1

L:\0185\0185-04-285\apr file\ditch_map2.apr Figure 1
Overall Ditch Location

Figure No. 2 Financial Summary

The Minnehaha Creek Watershed District is funded by an ad valorem tax based on property values. The operating budget and tax levies are approved after public notice and hearing.

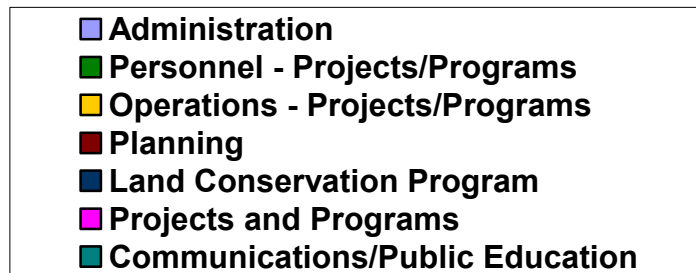
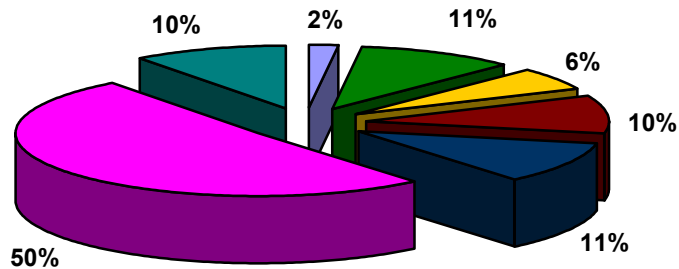
Planned 2004 Revenue

2003 Tax Levy – Hennepin and Carver **\$2,880,313**

2004 Budget

Administration	\$94,808
Personnel - Projects/Programs	\$552,837
Operations - Projects/Programs	\$300,438
Planning	\$512,893
Land Conservation Program	\$552,533
Projects and Programs	\$2,644,782
Communications/Public Education	\$530,334
Total 2004 Budget	\$5,188,625

2004 MCWD Budget Allocations



Tables

Table No. 1 Summary of SWPPP Goals and Progress

Minimum Control Measure No.	Minimum Control Measure Description	BMP Description	Goal	Progress 2004	Person or Department Responsibility
1	Public Education and Outreach	Publish MCWD WaterPro Newsletter	Continue/Increase Distribution		Julie Westerlund, Communication
		Maintain MCWD Web Site	Continue/Increase Web Site Visitors		Julie Westerlund, Communication
		Hold Water Events	Update on a Regular Basis		Julie Westerlund, Communication
2	Public Participation and Involvement	Cynthia Krieg Watershed Stewardship Grants	Continue Funding		Julie Westerlund, Communication
		Citizens Advisory Committee	Consistent Membership		Julie Westerlund, Communication
		Technical Advisory Committee	Regular Meetings		Julie Westerlund, Communication
		Public Meetings	Use on Large Projects		Jim Hafner, Project Manager
3	Illicit Discharge Detection and Elimination	Storm Drain Stenciling	Increase Storm Drains Stenciled		Julie Westerlund, Communication
			Informational Pamphlet Distribution		Julie Westerlund, Communication
		Map of Public Drainage Systems	Complete Using GIS		Jim Hafner, Project Manager
		Hydrologic Data Monitoring Program	Continue		Lorin Hatch, Water Quality Specialist
		Stream Assessment	Complete Minnehaha Creek		Mike Wyatt, Planner
			Schedule Bank Failure Repair Projects		Jim Hafner, Project Manager
		Review SWPPP and Local Water Plans	Review Available Plans Within 60 Days		Mike Wyatt, Planner
		Develop Rule to Disallow Non-Storm Water Discharges	Rule Development 2004		Renae Clark, Technician
	Rule Adoption 2005		Jim Hafner, Project Manager		
4	Construction Site Storm Water Runoff Control	Permit Requirement Guidance Document	Use by Municipalities		Julie Westerlund, Communication
		Temporary Erosion Control Permits	Number of Permits Issued		Renae Clark, Technician
		Compliance of Temporary Erosion Control Permits	Number of Compliance Actions		Jesse Carlson, Technician
5	Post-Construction Storm Water Management	Permit Requirement Guidance Document	Use by Municipalities		Julie Westerlund, Communication
		Storm Water Management Permits	Number of Permits Issued		Renae Clark, Technician
		Maintenance Agreements	Number of Agreements Recorded		Renae Clark, Technician
		Rule N Revision	Revise Rule N and Implement in 2003		Jim Hafner, Project Manager
		Compliance Enforcement	Number of Compliance Actions		Jesse Carlson, Technician
6	Pollution Prevention and Good Housekeeping	Land Use Roundtables	Consistent and Increasing Attendance		Julie Westerlund, Communication
		Implement Operations and Maintenance Plan	Complete Routine Inspections, Repairs and Annual O&M Report		Jim Hafner, Project Manager
		Operations and Maintenance Plan Revisions	Include Staff Training Component		Jim Hafner, Project Manager
			Include NPDES Inspections Component		Jim Hafner, Project Manager
		Update Annually		Jim Hafner, Project Manager	
Other		Annual Report	Complete Annually		Jim Hafner, Project Manager
		Records Retention	NPDES Records Retained and Available		Jim Hafner, Project Manager

- Achieved Goal
- Planned for 2004
- No Longer Planned

The Minnehaha Creek Watershed District (MCWD) received a record 675 permit applications in 2004. Permitting activity for 2004 with respect to erosion control, stormwater management, wetland protection and shoreline stabilization is summarized below.

Table 2. MCWD 2004 Permitting and Inspection Summary by City

City	Total No. of permit applications received	Total No. of permit apps. received for which Rule B: Erosion Control applies (No. of single family home construction applications)	Total No. of permit applications received for which Rule N: Stormwater Management applies	Total No. of permit applications for which Rule D: Wetland Protection Applies	Total No. permit applications for which Rule F: Shoreline Stabilization applies (sandblanket apps.)
Chanhassen*	8	0 (0)	0	0	8 (4)
Deephaven	6	5 (4)	1	0	1 (1)
Greenwood	5	5 (5)	0	0	0 (0)
Edina	23	21 (8)	3	0	2 (0)
Excelsior	5	5 (4)	1	0	0 (0)
Golden Valley	1	1 (1)	0	0	0 (0)
Hopkins	6	6 (0)	5	1	0 (0)
Independence	4	4 (4)	1	2	0 (0)
Laketown Tshp	0	0 (0)	0	1	0 (0)
Long Lake	20	20 (14)	3	1	0 (0)
Maple Plain	0	0 (0)	0	4	0 (0)
Medina	10	10 (8)	2	0	0 (0)
Minneapolis	45	43 (25)	10	1	2 (0)
Minnetonka*	13	4 (1)	0	8	4 (1)
Minnetonka Beach	7	6 (5)	1	0	1 (0)
Minnetrissa	131	122 (116)	3	5	8 (1)
Mound*	32	2 (2)	0	0	27 (4)
Orono	51	45 (32)	8	15	6 (0)
Plymouth	7	7 (2)	5	0	1 (0)
Richfield*	1	1 (0)	1	0	0 (0)
St. Bonifacius	4	4 (2)	2	2	0 (0)
St. Louis Park	18	18 (4)	12	3	2 (0)
Shorewood	33	31 (25)	3	9	2 (1)
Spring Park	6	5 (3)	1	0	1 (1)
Tonka Bay	11	11 (10)	0	1	0 (0)
Victoria	84	81 (116)	10	8	2 (0)
Wayzata*	14	4 (3)	0	2	9 (0)
Woodland	2	2 (2)	0	0	0 (0)
Total	675	463 (396)	72	63	76

Note:

- Number of inspections equals the number of inspection forms that were completed for a site visit and may be an under estimate of actual inspections performed.
- The Cities of Chanhassen, Mound, Minnetonka, Richfield, and Wayzata have assumed permitting authority for erosion control and stormwater management through a Memorandum of Understanding with the MCWD

Table No. 3 List of Contacts

MCWD Board of Managers

	<u>County</u>	<u>Office Held</u>
Lance Fisher	Carver	President
Pamela Blixt	Hennepin	Vice President
Jim Calkins	Hennepin	Secretary
Dick Miller	Hennepin	Treasurer
Ethel Smith	Hennepin	
Lee Keeley	Hennepin	
C. Scott Thomas	Hennepin	

MCWD Employed Staff

Eric Evenson	Administrator	eevenson@minnehahacreek.org
Jim Hafner	Senior Technician	jhafner@minnehahacreek.org
Mike Wyatt	Planner	mwyatt@minnehahacreek.org
Renaee Clark	Permitting Officer	rclark@minnehahacreek.org
Jesse Carlson	Compliance Officer/ District Technicia	jcarlson@minnehahacreek.org
Michael Pressman	Land Conservation Specialist	mpressman@minnehaha.org
Julie Westerlund	Communications and Education Manager	jwesterlund@minnehahacreek.org
Lorin Hatch	Water Quality Specialist	lhatch@minnehahacreek.org
Marci Wallingford	Office Administrator	marciw@minnehahacreek.org
Jane Byron	Permitting Technician	jbyron@minnehahacreek.org

MCWD Office

Minnehaha Creek Watershed District
18202 Minnetonka Blvd.
Deephaven, MN 55391

Ph: 952-471-0590 Fax: 952-471-0682
email: admin@minnehahacreek.org
www.minnehahacreek.org

District Engineer

Mike Panzer, PE, PG
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1800 Pioneer Creek Center
Maple Plain, Minnesota 55359
763-479-4207
mpanzer@wenck.com
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MCWD Counsel

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holtman@smithparker.com

Table No. 4 Acronyms, Abbreviations and Definitions

annual report	yearly report required under NPDES Rules or Minnesota Statutes Chapter 103D.351
ASCE	American Society of Civil Engineers
BMP(s)	Best Management Practice(s)
Board of Managers	seven managers appointed to the MCWD Board under Minnesota Statutes Chapter 103D.311
BWSR	Minnesota Board of Soil and Water Resources
CAC	Citizens Advisory Committee
county ditch	drainage system established under Minnesota Statutes Chapter 103E, located in a single county
Ditch Records	available documents describing the location, construction, easements and benefitted properties associated with a public drainage system
ditch(es)	drainage system(s) established under Minnesota Statutes Chapter 103E
GIS	geographic information system
HHPLS	Hydrologic, Hydraulic and Pollutant Load Study
judicial ditch	drainage system established under Minnesota Statutes Chapter 103E, located in more than one county
MAWD	Minnesota Association of Watershed Districts
MCWD	Minnehaha Creek Watershed District
MPCA	Minnesota Pollution Control Agency
MS4s	Municipal Separate Storm Sewer Systems
NEMO	Non-point Source Pollution Education for Municipal Official
NPDES	National Pollutant Discharge Elimination System
Phase II MS4s	MS4s regulated by NPDES Phase II Rules
public drainage system	drainage system established under Minnesota Statutes Chapter 103E
Rule B	MCWD Rule for Erosion Control
Rule D	MCWD Rule for Wetland Protection
Rule F	MCWD Rule for Shoreline and Streambank Improvement
Rule N	MCWD Rule for Stormwater Management for Land Development Projects
SWPPP	Storm Water Pollution Prevention Program
TAC	Technical Advisory Committee
US EPA	United States Environmental Protection Agency
Watershed District	special district established under Minnesota Statutes Chapter 103D
XPSWMM	proprietary version of the US EPA Storm and Waste Water Management Model

Appendix 1

MCWD SWPPP Notice of Intent and Best Management Practices Descriptions

**Notice of Intent
Minnehaha Creek Watershed District
NPDES Phase II Stormwater Management Program**

A. Owner

Owner: Minnehaha Creek Watershed District
Address: 18202 Minnetonka Boulevard
Deephaven, MN 55391
County: Hennepin County

B. Contact Person

Eric Evenson, Administrator
Minnehaha Creek Watershed District
18202 Minnetonka Boulevard
Deephaven, MN 55391
(952) 471-0590

Signature: _____

C. Background

The Minnehaha Creek Watershed District (MCWD) is the public ditch authority for eight public ditches. These ditches are regulated as a small MS4 under the NPDES Phase II Stormwater program. A number of other small MS4s, not under the control of the MCWD, drain into the MCWD ditch system. The Minnehaha Creek Watershed District's *Stormwater Pollution Prevention Plan* (SWPPP) is encompassed in the District's *Water Resources Management Plan and Operations and Maintenance Manual*.

**D. Stormwater Pollution Prevention Program (SWPPP)
Summary**

The following is a summary of the BMPs determined applicable for each of the six minimum control measures required under the Phase II permit.

a. Minimum Control Measure 1: Public Education and Outreach

- i. BMPs
To address minimum control measure 1:
 - WaterPro newsletter
 - Web site

- Water events

To address minimum control measure 2:

- Provide grants to groups proposing projects and initiatives to protect water quality and promote public awareness of non-point source pollution abatement

To address minimum control measure 3:

- Stormdrain stenciling program

To address minimum control measures 4 and 5:

- Informational pamphlet on District permit requirements

To address minimum control measure 6:

- Land use roundtables with cities

ii. Summary Table

- The attached Table 1 summarizes each educational and outreach BMP and discusses the targeted audience, educational goals, activities used, implementation plans, and performance measures.

iii. Coordination with other local groups:

- MCWD programs make use of non-profit organizations, school districts, cities, and other local groups by providing funding for their educational and public involvement efforts where appropriate, by sharing educational resources, and by working together on educational and demonstration projects when opportunities arise.

iv. Measurable goals:

- Use of grant money
- Number of stormsewer drains stenciled
- Newsletter publication
- Frequency of web-site updates
- Number of pamphlets distributed
- Number of people attending roundtables held
- Number of people attending water event

v. Timeline:

- Continue existing programs as summarized above

vi. Responsible Person: Joanie Ellis

b. Minimum Control Measure 2: Public Participation and Involvement

- i. BMPs:
 - Citizen Advisory Committee
 - Use Technical Advisory Committees on large projects
 - Public meetings held twice monthly to solicit comments on permits and other MCWD activities
- ii. Measurable goals:
 - Active citizen participation in Citizen Advisory Committee
 - Use of Technical Committees
 - Public meetings held as planned
- iii. Timeline
 - Continue these current activities
- iv. Responsible Person: Joanie Ellis

c. Minimum Control Measure 3: Illicit Discharge Detection and Elimination

- i. BMPs:
 - Map of ditch system in report *Ditch Records and Policy Considerations*
 - Monitoring program will detect illegal discharges and assess discharges from wetlands and riparian areas into open ditches
 - Stream assessment project – erosion control
 - Review of city SWPPP and Local water management plans that drain into the District’s ditch systems
 - Develop rule to disallow non-stormwater discharges into the MCWD ditch system
- ii. Measurable goals:
 - Incorporate ditch maps into GIS system
 - Continue monitoring of open ditches
 - Complete stream assessment project and erosion control and streambank stabilization measures
 - Complete reviews of SWPPP and Water Management plans of MS4s that drain into the MCWD system
 - Develop rule disallowing non-stormwater discharges by December 2004
- iii. Timeline:
 - Continue existing monitoring, stream assessment, and plan review programs

- Develop rule disallowing non-stormwater discharges by December 2004

iv. Responsible Person: Jim Hafner

d. Minimum Control Measure 4: Construction Site Stormwater Runoff Control

i. BMPs:

- Require erosion control permits for sites disturbing greater than 5,000 square feet or 50 cubic yards of soil.
- Compliance enforcement

ii. Measurable goals:

- Number of permits issued,
- Number of compliance issues addressed

iii. Timeline:

- Continue enforcement of existing erosion control permit requirements.
- Continue compliance enforcement program

iv. Responsible Person: Mike Wyatt, Renae Schubert

e. Minimum Control Measure 5: Post-Construction Stormwater Management

i. BMPs:

- Require permanent BMPs for stormwater management for new development and redevelopment of commercial, industrial, multi-unit residential, and road construction of any size and for single family housing subdivisions of greater than 2 acres.
- Require maintenance agreements to be filed of record in the county recorder's office to provide for long term maintenance and preservation of BMPs.
- Revise current rule to require permanent BMPs for stormwater management for single family housing subdivisions of greater than 1 acre.
- Compliance enforcement.

ii. Measurable goals:

- Number of permits issued.
- Number of violations identified.
- Number of maintenance agreements recorded.
- Rule N revised and implemented.

- iii. Timeline:
 - Continue enforcement of existing stormwater management permit requirements including the requirement for long-term maintenance agreements.
 - Continue compliance enforcement program.
 - Revise Rule N - Stormwater Management by December 2003.
- iv. Responsible Person: Mike Wyatt, Renae Schubert

f. Minimum Control Measure 6: Pollution Prevention and Good Housekeeping

- i. BMPs:
 - Implement Operations and Maintenance Plan including annual inspections as scheduled.
 - Revise existing O & M Plan to include a training component for MCWD Staff.
 - Revise existing O & M Plan to include the procedural requirements of the NPDES permit.
 - Maintain records of inspection results.
- ii. Measurable goals:
 - Completion of inspections.
 - Completion of training.
 - Revision of existing O & M Plan.
 - Maintenance of records.
- iii. Timeline:
 - Training and inspections begin spring 2003.
 - Plan revision Dec 2004.
- iv. Responsible Person: Jim Hafner

E. Record Retention and Availability

Records relating to this permit application will be kept on file for at least three years following the expiration of the permit. Records will be made available to the public during regular business hours.

F. Annual Report

An annual report summarizing actions taken in the implementation of the SWPPP will be submitted to the Agency by March 10 of each year of the permit term. A public meeting will be held to discuss the annual report prior to submittal to the

Agency. The meeting will be noticed in local newspapers at least 30 days in advance.
The report will be submitted to:

MS4 Storm Water Program
MPCA
520 Lafayette Road North
St. Paul, MN 55155-4194

The annual report will assess and summarize compliance with permit terms, appropriateness of BMPs, progress toward meeting the stated goals, any changes to the BMPs or the SWPPP, and actions planned for the next year.

Appendix 2

MCWD 2004 Annual Operations and Maintenance Report

MEMORANDUM

Date: February 15, 2005

To: MCWD Board of Managers

From: Jim Hafner

RE: 2004 Annual Operations and Maintenance Report

The Minnehaha Creek Watershed District (MCWD) has a variety of facilities for which they have assumed a responsibility to perform regular maintenance. These facilities include:

- Regional detention ponds, including riparian vegetation
- Restored wetland systems
- Canoe landings on Minnehaha Creek
- Grays Bay Dam

Inspections of all facilities are conducted twice per year, in the spring after snow melt/ice out and in the fall after leaf off. A standard form is used to record observations at the time of each inspection at each facility. This record is maintained at the MCWD office.

In January and February 2004 four of the regional ponds were dredged to remove accumulated sediment. The table below itemizes the volumes removed from each of the ponds.

	Long Lake	Twin Lakes	Cedar Meadows	SW Calhoun
Original Pond Wet Volume (cy)	4,356	5,808	18,069	26,781
Volume Excavated (cy)	2,410	3,403	2,750	3,120
Volume Reduction	55%	59%	29%	30%
Cost of Excavation	\$16,578	\$19,945	\$41,574	\$57,417
Total Phosphorus Removed with Sediment [lb]	608	1,833	1,949	2,654

Work on refurbishing the vegetation at these four sites began in late summer and will be completed in spring 2005. A five-year maintenance plan has been established to maintain the vegetation and will begin in 2005.

Washouts at the outlet weirs of the County Road Six and Deer Hill Road ponds were scheduled for repair in 2004. The bid process was completed in December and the notice to proceed was mailed to the contractor before the end of the month. Repairs are to be completed before the end of February 2005 with final clean-up and turf restoration in May/June 2005.

All canoe landings were inspected twice in 2004. They are all in operable condition. Minor repairs are anticipated in early 2005 on such things as protruding nails and loose boards.

Maintenance burns/mowing were performed in fall at the Nokomis wetland/pond sites to maintain the health and vigor of the plants.

The tainter gates at Grays Bay dam were fully operable in 2004. They are scheduled for minor maintenance – change oil in crankcase and grease wheel shafts – in the spring of 2005.

The Independence wetland restoration site was monitored in 2004 as scheduled. A burn was planned to control invading reed canary grass. However, weather conditions prevented this activity. It has been rescheduled for spring 2005.

Repairs were made to the inflatable weir at the outlet of Lake Nokomis. The weir is now fully operable and maintenance responsibility has been turned over to the City of Minneapolis, Public Works Department as of June 2004. This arrangement was part of the cooperative agreement when the structure was built.