2004 Annual Report

South Washington Watershed District Board of Managers

- Jack Lavold, President
- Dennis Hanna, Vice-President
- Brian Johnson, Vice-President
- Don Pereira, Secretary
- Mike Pouliot, Treasurer

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1. Introduction

The Cottage Grove Ravine Watershed Management Organization (WMO) was formed in 1984 to manage the resources of the watershed. This WMO was based on a joint powers agreement among the five cities in the watershed. A draft watershed management plan for the WMO was completed in April 1988; however, this plan was never approved or adopted by the WMO.

The WMO was later disbanded, and, in 1993, the Cottage Grove Ravine Watershed District was formed as the 42nd watershed district in Minnesota. The watershed district changed its name to the South Washington Watershed District (SWWD) in 1995. The SWWD was formed under, and operates in accordance with, Minnesota Statutes, Chapter 103B, "Water Planning and Project Implementation," and Chapter 103D, "Watershed Districts."

The SWWD completed development of the watershed plan in 1996, approval of the plan was granted by the State Board of Water and Soil Resources in 1997. Since that time the SWWD has focused its efforts on determining potential flood risk and developing a comprehensive flood relief system. The proposed system is designed in two phases; 1) reduce potential flood damages for existing developed areas of the watershed; 2) develop a comprehensive solution that provides stormwater management and flood control with capacity for the planned growth included in the 2000 comprehensive land use plans.

This report has been prepared in accordance with Minnesota Rules Chapter 8410.0150, Annual Reporting Requirements. Content of this report pertain to the calendar year 2003.

2. Financial Report

2.1. 2004 Audit

2.1.1. A complete copy of the 2004 Audit is included Appendix A of this report. The following tables illustrate the funds and approved levies for 2004 and 2005.

2.2. 2004 Budget

2.2.1. In 2004 the SWWD budgeted to continue acquisition of land for the Central Draw Overflow. In 2004 the SWWD implemented a stormwater utility fee for the majority of project revenue. The utility was implemented to provide the SWWD with sub-watershed financing authority. Sub-watershed financing is used to the implementation of the watershed overflow project which splits the cost 75% sub-watershed and 25% entire watershed. Also with the addition of the East Mississippi Watershed, at the request of Washington County, sub-watershed financing is used for implementation of East Mississippi projects. The SWWD works with the Cities each year to update stormwater utility parcel information for consistency between City and Watershed utility charges. Washington County is the collection agent through property tax collections. The fee is listed on property tax statements as a special assessment.

2004	Item	Total
PROJECTS		
310	Lake Assessments/Strategic Plans	$ 30,900.00
311	Greenways	$ 30,900.00
312	Infiltration	$ 52,736.00
313	Regional Facilities	$ 878,400.00
315	Groundwater Monitoring/Protection	$ 75,000.00
317	Watershed Modeling & Mapping	$ 52,015.00
322	Overflow	$ 952,925.00
319	East Mississippi	$ 66,435.00
PROGRAMS		
200	Surface Water Monitoring	$ 113,918.00
201	Infiltration Monitoring	$ 82,400.00
203	Information and Education	$ 10,300.00
205	Watershed Plan & Rules update	$ 51,500.00
206	Development reviews	$ 61,800.00
210	Stormwater Utility Admin	$ 84,000.00
ADMINISTRATIVE		
101	Administrative	$ 172,854.00
Total		$ 2,716,083.00

Budget Summary:

BREAKDOWN	2003	2004	Change from Previous Year (+/-):
Projects:	$ 2,003,035.00	$ 2,139,311.00	6%
Programs:	$ 279,741.00	$ 403,918.00	31%
Administrative:	$ 165,050.00	$ 172,854.00	4%

Year	Budget	Change from Previous Year (+/-):
Projected 2005	$ 2,798,000.00	3%
2004	$ 2,716,083.00	10%
2003	$ 2,447,826.00	39%
2002	$ 1,488,400.00	10%
2001	$ 1,338,800.00	0%
2000	$ 1,341,717.00	21%
1999	$ 1,060,000.00	1%
1998	$ 1,048,000.00	n/a

2.3. 2005 Budget

2.3.1. The application of the stormwater utility continues for the majority of SWWD revenue. Implementation of the utility fee in 2004 identified some inconsistencies in the calculation of utility fees. The SWWD established an administrative review process to correct the problems. As a result adjustments in the total number of Residential Equivalence Units were made in the 2005 calculations. As a result the 2005 budget was adjusted to maintain level fees between 2004 and 2005.

2005	Fund/Project/Task		Total
Projects			
310	**Lake Assessments/Strategic Plans**	**$**	**34,000.00**
311	**Greenways**	**$**	**54,800.00**
312	**Infiltration**	**$**	**58,800.00**
313	**Regional Facilities**	**$**	**855,800.00**
315	**Groundwater Protection and Monitoring**	**$**	**75,000.00**
317	**Watershed Hydrologic and Hydraulic modeling & mapping**	**$**	**27,000.00**
322	**Overflow**	**$**	**909,582.00**
319	**East Mississippi**	**$**	**-**

PROGRAMS			
200	Surface Water Monitoring	$	91,380.00
201	Infiltration	$	82,800.00
203	Information and Education	$	28,000.00
205	Watershed Plan & Rules update	$	51,500.00
206	Development reviews	$	61,800.00
210	Stormwater Utility Administration	$	50,000.00

General			
101	General	$	168,550.00

Total		$	2,549,012.00

Budget Summary:

BREAKDOWN	2004	2005	Change from Previous Year (+/-):
Projects:	$ 2,139,311.00	$ 2,014,982.00	-6%
Programs:	$ 403,918.00	$ 365,480.00	-10%
Administrative:	$ 172,854.00	$ 168,550.00	-3%

Year	Budget	Change from Previous Year (+/-)
Projected 2007	$2,704,247.00	3%
Projected 2006	$2,625,483.00	3%
Proposed 2005	$2,549,012.00	-6%
2004	$2,716,083.00	10%
2003	$2,447,826.00	39%
2002	$1,488,400.00	10%
2001	$1,338,800.00	0%
2000	$1,341,717.00	21%

3. Annual Activity Report

3.1. Board Members

Manager	Position	Term Expires	City/County
Mr. Jack Lavold 6859 Ideal Avenue South Cottage Grove, MN 55016 651-459-8891	President	05/01/2005	Cottage Grove/Washington
Mr. Dennis Hanna, 9301 Grey Cloud Island Dr. St. Paul Park, MN 55071 651-459-2281	Vice-President	05/01/2007	Woodbury/Washington
Mr. Brian Johnson 4353 Dorchester Drive Woodbury, MN 55129 651-458-3739	Vice-President	05/01/2007	Woodbury/Washington
Mr. Don Pereira 8232 River Acres Road Cottage Grove, MN 55016 651-769-0429	Secretary	05/01/2006	Cottage Grove/Washington
Mr. Mike Pouliot 10406 Lancaster Ln. Woodbury, MN 55129 651-459-6228	Treasurer	05/01/2005	Woodbury/Washington

3.2. Employees and Consultants

Employees	Position	Address	Telephone	E-mail
Matt Moore	Administrator	Mail: 8301 Valley Creek Road Woodbury, MN 55125 Office: 2301 Tower Drive Woodbury, MN 55125	Phone: 651-714-3729 Fax: 651-714-3721	mmoore@ci.woodbury.mn.us
Consultants	**Services**	**Address**	**Telephone**	**E-mail/website**
Teresa Buhl	Recording Secretary	6175 25th Street North Oakdale, MN 55128	651-770-7379	buhltab@comcast.net
Jack W. Clinton, P.A.	Attorney	Suite 200 Currell Centre 7616 Currell Blvd. Woodbury, MN 55125	651-264-3077	jwclinton@usinternet.com
HLB Tautges Redpath, Ltd.	Accounting	4810 White Bear Parkway White Bear Lake, MN 55110	651-426-7000	www.hlbtr.com
BARR Engineering Company	Engineer	4700 West 77th Street Minneapolis, MN 55435-4803	952-832-2600	www.barr.com
Bonestroo, Rosene, Anderlik & Assoc.	Engineer	2335 West Highway 36 St. Paul, MN 55113	651-636-4600	www.bonestroo.com
Emmons & Olivier Resources	Engineer	651 Hale Avenue North Oakdale, MN 55128	651-770-8448	www.eorinc.com

Consultants	Services	Address	Telephone	E-mail/website
HDR Engineering, Inc.	Engineer	6190 Golden Hills Drive Minneapolis, MN 55416	763-591-5400	www.hdrinc.com
Houston Engineering, Inc.	Engineer	10900 73rd Avenue North, Suite 106 Maple Grove, MN 55369-5400	763-493-4522	www.houstonengineeringinc.com
Wenck Associates, Inc.	Engineer	Wenck Associates, Inc. 1800 Pioneer Creek Center P.O. Box 249 Maple Plain, MN 55359-0249	763-479-4200	www.wenck.com

3.3. 2003 Annual Work Plan

3.3.1. Lake Assessments

3.3.1.1.No lake assessments were conducted during 2004.

3.3.2. Greenways

3.3.2.1.Department of Natural Resources Conservation Easement

The SWWD continued to work with the Department of Natural Resources Metro Greenways program to apply conservation easements to basin CD-P86. In 2003 and early 2004 the SWWD completed acquisition of the property comprising CD-P86. The SWWD granted the Minnesota Department of Natural Resources a conservation easement on approximately 44 acres, this is the second conservation easement granted. Total conservation easement area permanently protected is approximately 100 acres of a total 200 acres.

3.3.3. Infiltration

Local stormwater management is critical to the quantity and quality of runoff in the watershed. The SWWD works with development projects to implement management practices beyond traditional techniques. These techniques are directed at volume control and water quality enhancement.

Several development projects in the City of Woodbury have incorporated infiltration into stormwater management designs. This has been accomplished through providing areas within the live storage volume of the ponds to promote infiltration. The concept centralizes infiltration within the public areas and uses the natural infiltration capacity of the soils and geology of the SWWD. The designs have not required additional areas, but simply modified outlet structures to create increased surface contact by runoff water in the pond which will achieve higher infiltration rates.

SWWD participation in the Rivers Edge AUAR development also incorporated infiltration into the stormwater management concept design for the project. This concept includes the use of dry basins in conjunction with wet detention to control a 2-year event.

3.3.4. Regional Facilities

In January 2002 the SWWD Board issued bonds in the amount of $5.8 million for the acquisition land to provide the overflow capacity. Acquisition of approximately 200 total acres was completed in 2004. The acquisition of this property will provide the necessary area, and storage volume to provide stormwater management and flood control to the developed portions of the watershed.

3.3.5. Watershed Modeling and Mapping

The SWWD provided funding to the City of Woodbury, to provide a key regional structure at Hudson Road. The City is incorporated the structure into plans for the Hudson Road upgrade.

The West draw sub-watershed is the last of the major sub-watersheds in the South Washington Watershed to be modeled. In cooperation with the Cities of Cottage Grove and Woodbury the SWWD began modeling of the West Draw. The goal of this project is to develop an existing conditions model, accurately map flood storage areas, evaluate future conditions, and establish sub-watershed design criteria.

3.3.6. Overflow

The SWWD has completed a minor amendment to the 1997 watershed plan to construct regional facilities as part of the watershed overflow. For the next two years the SWWD will be implementing improvements as specified in the plan amendment. Completion of these projects will provide flood protection to the watershed through 2008.

A primary component of the watershed overflow is the conveyance system connecting CD-P85 to CD-P86. In 2004 the SWWD designed and constructed this component of the overflow. This will allow the SWWD to deliver excess stormwater runoff downstream providing the necessary additional storage capacity.

Construction of the 85/86 connection was completed in December, minor clean up will be completed in the spring of 2005. The connection project was designed to provide drawdown capacity for the City of Woodbury in the future for maintenance purposes. The connection was designed to allow for the transfer of water at a lower elevation, from 85 to 86, taking advantage of infiltration capacity in 86. At the overflow elevation, a 4’x6’ box culvert carries the overflow water from 85 to 86.

The City of Cottage Grove has undertaken a master planning effort to direct development of the East Ravine area. The East Ravine will be the location of the regional watershed overflow. The SWWD is working with the City of Cottage Grove to plan, design and construct the watershed overflow as an element of the East Ravine development. This system will

serve as a combined local and regional drainage system. The route and local capacity will be determined by the City of Cottage Grove; the SWWD will then evaluate the local system with regional flows. It is anticipated that the SWWD will be responsible for final design and implementation of the regional system, which will serve as the local drainage on an annual basis.

Comprehensive land use planning, preliminary design and environmental assessment of the East Ravine neighborhood will be completed in late 2004. Information from the East Ravine study will be incorporated into the SWWD watershed plan.

An additional analysis of the watershed is being conducted under a feasibility study by the US Army Corps of Engineers. This analysis will evaluate the conversion of agricultural land use to suburban development, and the impacts on stormwater runoff. This effort will provide valuable information on annual runoff, infiltration capacity, potential groundwater impacts and emergency conditions.

3.3.7. Stormwater Utility

Enlargement of the watershed district boundary and the implementation of the Military Road crossing required the SWWD to begin subwatershed financing. To do this the SWWD worked with Washington County to begin implementation of a stormwater utility for taxes payable 2004. Ad valorem taxes are still being collected for watershed general fund and annual programs. Stormwater utility proceeds are used to pay back bonds, pay for capital projects, pay for the operation and maintenance of regional stormwater/flood control systems, and to pay for projects to improve stormwater runoff quality. Each year the SWWD Board will adjust the rates based on the proposed budget to implement watershed projects. Central Draw overflow projects are financed 75% by the subwatershed, and 25% by the entire watershed.

3.4. 2005 Projected Work Plan

3.4.1. Priority Projects

3.4.1.1. Regional Facilities

Land acquisition has provided the physical space necessary for the storage of excess runoff. Efficient use of this downstream space requires the installation of stormwater infrastructure to convey water within the system. These structures were identified in the 2002 Minor Amendment. An implementation schedule has been established to install the necessary infrastructure over the next 3 years. Projects not completed in 2004 are CR#19 stabilization and the CD-P86 Berm. The SWWD is working with the City of Cottage Grove on the Final design of the CD-P86 Berm as part of the local drainage system for the East Ravine neighborhood #1.

County Road #19 stabilization will be completed in the spring of 2005.

3.4.1.2. Watershed Overflow

In addition to construction of infrastructure within the regional basins which will serve as part of the watershed overflow, the SWWD will continue to coordinate with the City of Cottage Grove on the development of the East Ravine. Stormwater design of the East Ravine neighborhood will provide the corridor and alignment for the SWWD watershed overflow. Future coordination with the City of Cottage Grove will ensure construction of a combine local and regional drainage system.

The City's master planning effort will be finalized during 2005. The SWWD has participated on the technical advisory team for the East Ravine study. It is anticipated that the majority of issues concerning drainage, water quantity and water quality are and will be addressed through the preparation of the AUAR.

3.4.2. Priority Programs

3.4.2.1. Update Plan and Rules

The SWWD watershed plan and rules will be revised to incorporate updated information, include the East Mississippi watershed area, and define Phase II of the watershed overflow through the East Ravine. Standards for stormwater rate, volume control and flood storage on a sub-watershed basis will provide stormwater control throughout the watershed.

3.4.2.2. Information and Education

The SWWD will establish an advisory committee comprised of one member from each of the 8 City planning commissions. This advisory committee will meet two times annually for project review, work plan, and budgeting.

3.4.2.3. Monitoring Program

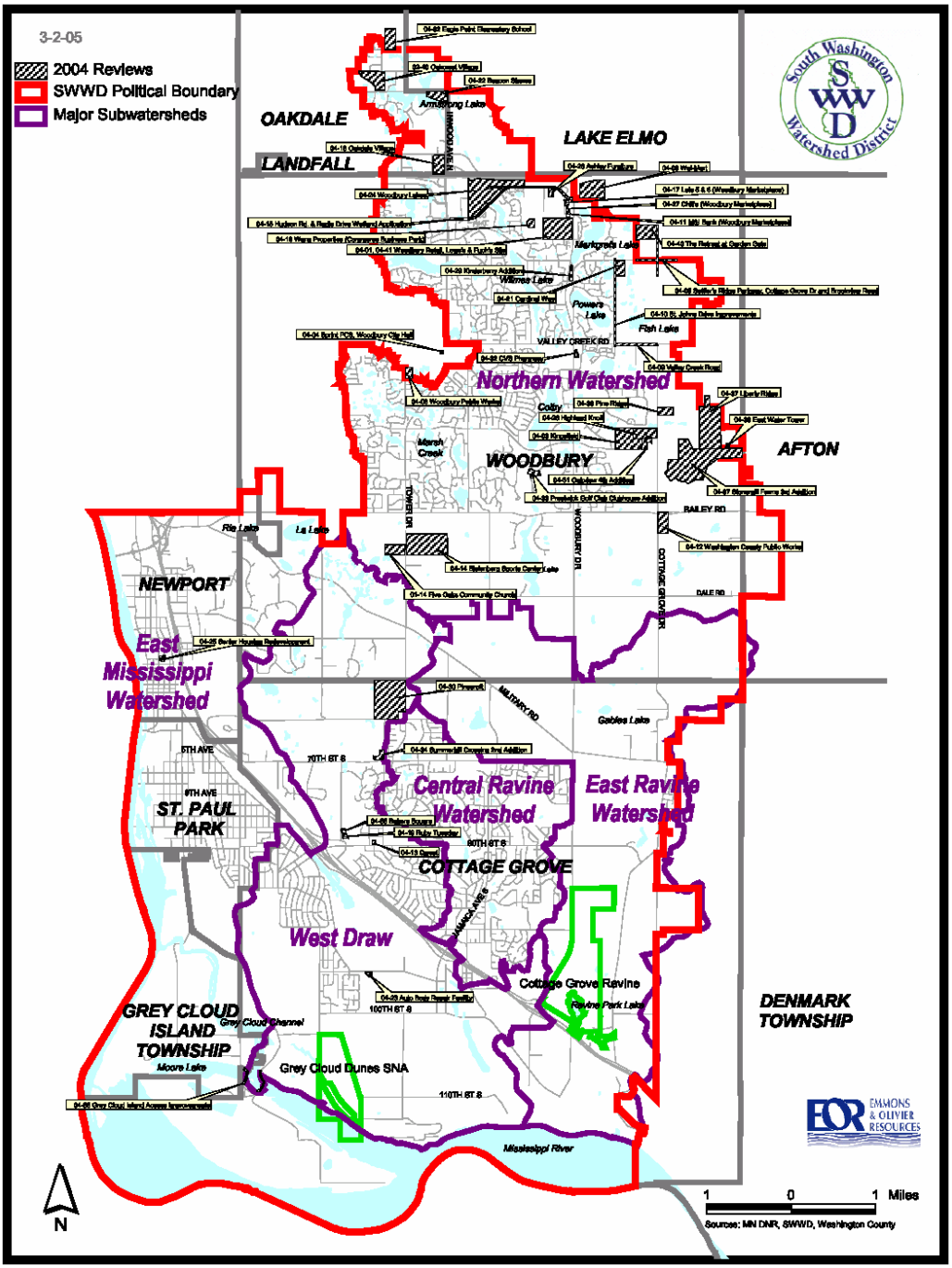
Surface water monitoring is an annual program conducted by the SWWD to evaluate watershed programs and projects. Monitoring stations also provide baseline information for evaluation of future projects.

3.4.2.4.Development Reviews

In conjunction with the 1997 Watershed Plan approval, the SWWD promulgated rules to implement the goals and policies of the plan. However, the SWWD Board has pursued a process to provide comments on projects to be included in the established permit process of the Cities. Since the goal of the SWWD is to NOT

duplicate a permit process, the following map illustrates projects reviewed in 2003. The Board is working to strengthen the review process by working more closely with individual cities. Recent changes to local ordinances will provide greater continuity between City and SWWD standards.

3.4.3. Project Review Map



3.5. Local Plan Implementation Evaluation

3.5.1. Due to the high rate of growth in the watershed, several efforts have been completed by the Cities to plan, model, design and evaluate storm sewer systems. These efforts include sub-watershed evaluations, Alternative Urban Areawide Reviews, lake assessments, and municipal comprehensive plans. In addition, the SWWD has developed a watershed model and design level sub-watershed models provided to the Cities. The SWWD is completing projects to provide Cities with information on hydrology, hydraulics, natural resource management, water resource impacts, and development of performance standards. This information can be used by the Cities in discussions with proposed projects. This approach does not require the SWWD to issue a separate permit for each project. Where conflicts between planned land use and potential impacts to receiving waters occur, the Cities and the SWWD work to reach a compromise. Under this approach, the need for local plans is diminished.

3.6. Biannual Solicitation

3.6.1. Consultant (Accounting, Legal and Engineering) services were solicited in 2003 for the calendar years 2004-2005.

3.7. Wetland Banking

3.7.1. The SWWD is not the Wetland Conservation Act local government unit. The status of wetland banking within the watershed is not a primary role of the SWWD.

Appendix A

2002 South Washington Watershed Audit