



# **2005 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 2005.

## 2. Financial Report

### 2.1. 2005 Audit

2.1.1. A complete copy of the 2005 Audit is included Appendix A of this report. The following tables illustrate the funds and approved levies for 2005 and 2006.

### 2.2. 2005 Budget

2.2.1. In 2005 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. 2006 will be the third year of stormwater utility fee collection for the SWWD. 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.

2005	Fund/Project/Task	Total
<b>Projects</b>		
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	\$ -
<b>PROGRAMS</b>		
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%

## **2.3. 2006 Budget**

- 2.3.1. A summary of the 2006 budget is included below. The SWWD continues to collect the majority of the revenue through the stormwater utility fee. Many of the issues identified in 2004 and 2005 have been eliminated for 2006. The update and coordination with Washington County was much faster in 2006. The SWWD anticipates the planning, design and construction of the Watershed Overflow in the next few years.

# 2006

## Fund/Project/Task

## Total

Projects			
310	Lake Assessments/Strategic Plans	\$	16,000.00
311	Greenways	\$	54,240.00
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	\$	39,000.00
322	Overflow	\$	1,000,000.00
319	East Mississippi	\$	-
PROGRAMS			
200	Surface Water Monitoring	\$	92,290.00
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	\$	45,000.00
General			
101	General	\$	180,432.30
Total		\$	2,640,662.30

### Budget Summary:

Year	Budget	Change from Previous Year
Projected 2007	\$2,559,077.00	0%
Estimated 2006	\$2,542,822.00	0%
Proposed 2006	\$2,642,338.00	3.5%
2005	\$2,534,581.00	-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	<a href="mailto:mmoore@ci.woodbury.mn.us">mmoore@ci.woodbury.mn.us</a>
Consultants	Services	Address	Telephone	E-mail/website
Teresa Buhl	Recording Secretary	6175 25 <sup>th</sup> Street North Oakdale, MN 55128	651-770-7379	<a href="mailto:buhltab@comcast.net">buhltab@comcast.net</a>
Jack W. Clinton, P.A.	Attorney	Suite 200 Currell Centre 7616 Currell Blvd. Woodbury, MN 55125	651-264-3077	<a href="mailto:jwclinton@usinternet.com">jwclinton@usinternet.com</a>
HLB Tautges Redpath, Ltd.	Accounting	4810 White Bear Parkway White Bear Lake, MN 55110	651-426-7000	<a href="http://www.hlbtr.com">www.hlbtr.com</a>
BARR Engineering Company	Engineer	4700 West 77 <sup>th</sup> Street Minneapolis, MN 55435-4803	952-832-2600	<a href="http://www.barr.com">www.barr.com</a>
Bonestroo, Rosene, Anderlik & Assoc.	Engineer	2335 West Highway 36 St. Paul, MN 55113	651-636-4600	<a href="http://www.bonestroo.com">www.bonestroo.com</a>
Emmons & Olivier Resources	Engineer	651 Hale Avenue North Oakdale, MN 55128	651-770-8448	<a href="http://www.eorinc.com">www.eorinc.com</a>

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

### **3.3. 2005 Annual Work Plan**

#### **3.3.1. Lake Assessments**

3.3.1.1.No lake assessments were conducted during 2005.

#### **3.3.2. Greenways**

The SWWD participated with the City of Cottage Grove during the development of the East Ravine AUAR and master plan for the comprehensive plan update. The City is planning for significant greenway/open space and part of the land use plan. A major portion of the land in the greenway is land purchased by the SWWD for flood control. These areas are being planned as open space available for flood control with compatible land uses.

#### **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.

The Washington County South Service Center design has incorporated bioretention areas and rain gardens for the majority of the stormwater management on the site. The SWWD has decided to support the project as a demonstration site. The SWWD continues to monitor the activities and performance of the stormwater infiltration trench system installed at the Math and Science Academy in Woodbury.

#### **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.



Through the coordination of the East Ravine AUAR/Master Plan, the City of Cottage Grove and the SWWD have developed a conceptual regional drainage system to serve both local and regional needs.

#### 3.3.5. Watershed Modeling and Mapping

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 completed 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, establish sub-watershed design criteria and establish intercommunity flow conditions. The resultant model has provide the necessary information for the City of Woodbury to plan future land use and stormwater control. In addition, the model have provide the City of Cottage Grove with additional information regarding future management projects within there boundaries.

As a result of the October 4-5 rainfall event, the SWWD is working with the City of Woodbury on several modeling efforts. The SWWD has taken the lead on the Wilmes Lake sub-watershed. The work involves evaluation of the sub-watershed storage, emergency overflow, and outlet capacity. The SWWD is involved to evaluate potential projects outside of the City of Woodbury.

#### 3.3.6. Overflow

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 system became operable during the October 4-5 storm event. For the first time ever excess stormwater runoff was transferred from CD-P85 to CD-P86 through the SWWD project. Only a minor amount of water was transferred and did not leave the City of Woodbury City limits.

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.

#### 3.3.7. Watershed Management Plan

The SWWD began the update of the 1997 watershed plan in late 2005. The goal is to have a draft watershed plan completed in early 2006.

### **3.4. 2005 Projected Work Plan**

#### 3.4.1. Priority Projects

##### 3.4.1.1. Regional Facilities

The SWWD will continue to plan and design the regional facilities in cooperation with the City of Cottage Grove and the East Ravine. Further definition of the local and regional drainage system, roles and responsibilities and a final preferred route for the watershed overflow will be among the issues clarified.

##### 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. Work on the plan update began in September and continues.

#### 3.4.2.2. Information and Education

The SWWD is supporting the Watershed partners to provide metro wide coverage and information of watershed issues. The Watershed Partners provides an annual report of their activities. The SWWD also developed a web site in 2005 that was launched in March of 2006 [www.swwdmn.org](http://www.swwdmn.org). The website is used to communicate with the advisory committees, provide information to residents of the watershed and increase the identity of the watershed. The SWWD will partner with other watershed organizations in Washington County to create a shared water resources educator position. This position will provide Countywide and watershed specific educational materials.

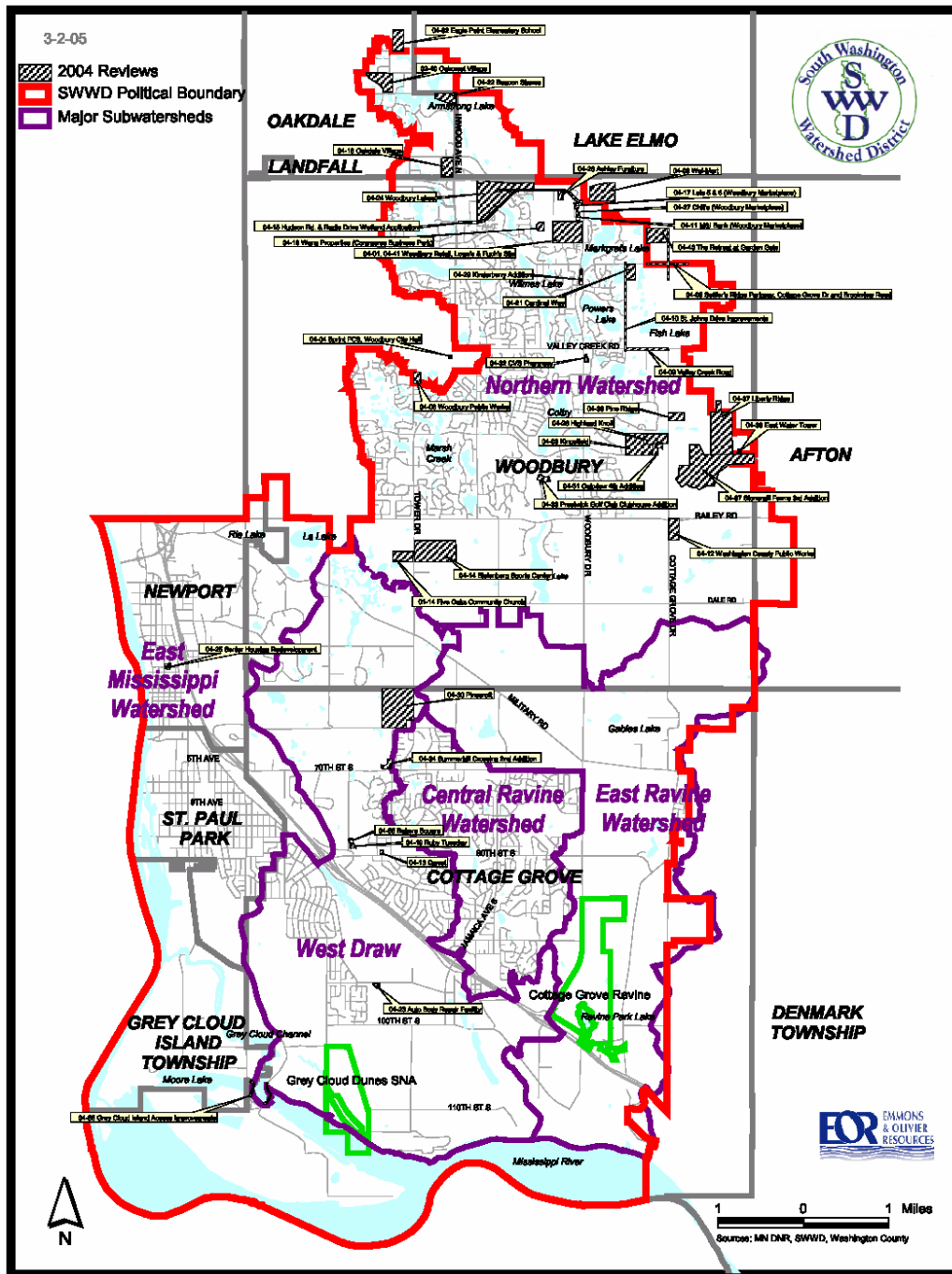
#### 3.4.2.3. Monitoring Program

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 2005. 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 2005 for the calendar years 2006-2007. A copy of the this information is included.

### 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**

## 2005 South Washington Watershed Audit

