

Appendix A

Stormwater Management and Watershed History

Stormwater management became a significant issue in the 1970's when the watershed encountered steady suburban-type urbanization. Until the early 1980's, the principal institutions responsible for local stormwater management planning and implementation were the cities. Early stormwater management planning in the watershed included the 1979 Woodbury Storm Drainage Plan and the 1984 Cottage Grove Comprehensive Storm Drainage Plan. Both plans included the entire city, which covered most of the area in the SWWD.

The drainage systems presented in the plans accounted for full development of the cities. The general approach used in the Woodbury and Cottage Grove plans is to provide outlets for landlocked basins once urbanization occurs to control water levels in the basins. The connection of numerous landlocked areas within the northern portion of the watershed necessitated planning for a central drainage system. The 1979 Woodbury plan shows the central drainage system as carrying runoff water from the northern portion of the watershed to its southern border. It would then need to be transported downstream to the Mississippi River. The central drainage system shown consists of a gravity system connecting the lakes that lie in the center of the watershed.

The 1984 Cottage Grove plan shows the upstream central drainage flow from Woodbury being carried through the eastern portion of the city to the Mississippi River. The planned stormwater system consisted of gravity connections between landlocked basins and a natural drainage channel to the Mississippi River. The other areas in Cottage Grove in the western and central portions of the city were shown to be conveyed to the Mississippi River through pipes, man-made channels, and natural channels and includes outlets for landlocked areas in the city.

The cities of Oakdale and Lake Elmo prepared or had prepared for them basic stormwater plans that documented existing hydrologic conditions and flows. The City of Afton did not prepare stormwater plans for the portion in the SWWD. The portion of Lake Elmo in the SWWD (which includes areas that are now in Oakdale) was covered by a 1986 Lake Elmo-Cottage Grove Ravine WMO Local Water Management Plan prepared for the City by the Washington County Soil and Water Conservation District. The 1986 Lake Elmo plan does not propose any significant modifications to the existing drainage system except to repair and maintain the drainage way and further study of the 100-year flood plane at the time of any major development in the area.

Pursuant to Minnesota's 1982 Surface Water Management Act, a joint powers Watershed Management Organization (WMO) called the Cottage Grove Ravine WMO was formed in 1984 to manage the water resources of the area that is now the SWWD. The joint powers agreement included the same five cities that are currently included in the SWWD. The boundaries of the two organizations are virtually the same except that the WMO included the eastern half of Grey Cloud Island which is not included in the current SWWD boundaries.

The Cottage Grove Ravine WMO prepared a draft Watershed Management Plan (WMP) in 1988. The WMO draft WMP includes a drainage system generally consistent with the city plans. The central drainage system shown is a series of landlocked basins interconnected and an outlet system to the Mississippi River. The Cottage Grove Ravine WMO draft WMP shows additional ponding north of I-94 not shown in the 1986 Lake Elmo Plan.

The Cottage Grove Ravine WMO draft WMP stresses cooperative efforts by the member cities. The WMO outlined a process where implementation and enforcement of controls would be carried out by the cities once they adopted their Local Municipal Management Plans. The WMO draft WMP was never adopted since the WMO could not obtain a four-fifths majority to adopt the WMP as was required in the joint powers agreement.

With the WMO unable to adopt and implement its WMP, the WMO was dissolved which led to the formation of a Watershed District (WD) in 1993 known as the Cottage Grove Ravine WD. The Cottage Grove Ravine WD decided in 1995 to change its name to the South Washington Watershed District (SWWD) to prevent confusion with the City of Cottage Grove. The SWWD is the entity that has prepared this WMP.

The SWWD is faced with the past issues of addressing intercommunity water resource issues such as preventing flooding due to urbanization as the drainage system continues to be expanded to include new areas. In addition, the SWWD is also responsible to address new concerns over water quality, lakes, wetlands, and loss of natural areas. The SWWD shares the approach used by the WMO to keep as much of the implementation and enforcement as possible at the local level in order to reduce administrative costs. Like the WMO, the SWWD will still maintain oversight to ensure compliance with the standards presented in the WMP.

The majority of the drainage issues and improvements that were needed in the watershed up until now have been implemented by the individual cities. The nature of the improvements up until now have been fairly easy to implement at a local level, even though some improvements have included some portion of intercommunity drainage. The major drainage or flood control issues facing the SWWD at this time are intercommunity drainage improvements that are not easily dealt with at a city level.