

Shingle Creek and West Mississippi Watershed Management Commissions

Second Generation Watershed Management Plan

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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 Licensed Professional Engineer under the laws of Minnesota.

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Signature _____

Date May 6, 2004 License No. 16800

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Acknowledgements

This plan was prepared under the guidance of the Shingle Creek and West Mississippi Watershed Management Commissioners and their alternates. Current members are:

Shingle Creek WMC

Brooklyn Center
Brooklyn Park
Crystal
Maple Grove
Minneapolis
New Hope
Osseo
Plymouth
Robbinsdale

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Brooklyn Center
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Champlin
Maple Grove
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Commissioners, city staff, and elected officials participated in the development of this Plan. The current Commissioners wish to acknowledge and thank prior Commissioners and the Commissions' Education and Public Outreach Committee:

City

Brooklyn Center
Crystal
Minneapolis
Plymouth

Participant

Joyce Gulseth
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Margie Vigoren

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Finally, the Commissioners wish to thank the following consulting staff for the preparation of this Plan:

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- Ed Matthiesen, P.E.
- Diane Spector
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- Judie Anderson, JASS

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- Charlie LeFevere, Kennedy & Graven, Chartered

Executive Summary

This watershed management plan describes how the Shingle Creek and West Mississippi Watershed Management Commissions (SCWM WMC) will address activities in the two watersheds in the ten year period 2003-2012.

The Shingle Creek Watershed Management Commission and the West Mississippi Watershed Management Commission are Watershed Management Organizations (WMOs) formed in 1984 using Joint Powers Agreements developed under authority conferred to the member communities by Minnesota Statutes 471.59 and 103B.201 through 103B.251. The watersheds are located in the northwest portion of the Minneapolis-St. Paul seven county metropolitan area and are comprised of all or part of the following ten cities in Hennepin County:

Shingle Creek Watershed		West Mississippi Watershed		Combined
Cities	Area (sq mi)	Cities	Area (sq mi)	Area (sq mi)
Brooklyn Center	5.89	Brooklyn Center	2.47	8.36
Brooklyn Park	11.15	Brooklyn Park	14.20	25.35
		Champlin	5.12	5.12
Crystal	3.92			3.92
Maple Grove	7.73	Maple Grove	0.82	8.55
Minneapolis	3.15			3.15
New Hope	3.32			3.32
Osseo	0.45	Osseo	0.33	0.78
Plymouth	6.56			6.56
Robbinsdale	2.39			2.39
Total	44.56	Total	22.94	67.50

Each Commission is governed by a Board of Commissioners that is comprised of one member appointed from each community by their respective City Councils.

The Commissions' purpose is to preserve and use natural water storage and retention in the Shingle Creek and West Mississippi watersheds to meet Surface Water Management Act goals. Because many of the communities that are members of the Shingle Creek WMO are also members of the West Mississippi WMO the Commissions often work jointly on issues of interest to both, including this Second Generation Plan, and have adopted similar standards.

Second Generation Plan

This Second Generation Plan was developed between March 2001 and May 2003. The SCWM WMC held several citizen, agency, and Commission meetings throughout the planning process where input was actively solicited from those with an interest in the watershed. The Plan includes information required in Minnesota Administrative Rules Chapter 8410, Local Water Management: an updated land and water resources inventory, goals and policies in eight specific areas; an assessment of problems and identification of corrective actions; an implementation program; and a process for amending the Plan.

Issues identified by the public and the Commission during the planning process are as follows:

Shingle Creek and West Mississippi Water Management Issues
<ol style="list-style-type: none">1. Increased impervious surface as watershed becomes fully developed will increase the duration and frequency of bank full conditions and should be addressed and monitored.2. Standards that have prevented flooding potential as watershed developed should be continued or enhanced as development is completed.3. Water quality in Twin Lake, especially Upper Twin, should be improved.4. Phosphorus loading is degrading lake water quality. Nutrient loading has resulted in Impaired Waters listing for ten lakes5. Excessive chloride in Shingle Creek has resulted in Impaired Waters listing.6. Water quality should be maintained or improved to assure safe swimming.7. Redevelopment should have an environmental focus.8. Polluted water should be cleaned up and further pollution should be prevented.9. Recent water quality testing indicates some bacterial levels of concern that should be monitored.10. Water quality in Shingle Creek should be improved.11. The natural beauty and recreational opportunities of the creek and river should be capitalized upon with expanded trails, parks, and access.12. Commission should implement an active program to increase buffers, native plants, rain gardens, native landscaping.13. Native habitat should be evaluated and protected.14. The Commission should become more accessible to citizens.15. Citizens should be educated more on what they can do to improve water quality and protect water resources, and to be more involved.16. Existing wetlands should be protected from encroachment by development.17. Wetlands should be restored and cleaned up.18. Runoff volumes and lack of vegetative border has led to stream degradation and erosion that should be evaluated and improved.

Through the identification of issues in the watersheds, the SCWM WMC developed eight goals to guide their water resources planning and management functions:

Shingle Creek and West Mississippi Water Management Goals, 2003-2012	
1.	Maintain the existing 100-year flood profile throughout the watersheds.
2.	Protect and improve water quality based on practical use.
3.	Strive to provide water quality that supports recreation, fish and wildlife based on practical use.
4.	Establish an education and public outreach program.
5.	Develop an appropriate management strategy for Hennepin County Ditch #13.
6.	Protect and improve groundwater quality and promote groundwater recharge.
7.	Protect and improve wetlands.
8.	Reduce erosion and sedimentation.

Priorities and Strategies

Management strategies and policies for each goal were developed based on the SCWM WMC's goals for resolving watershed issues and a review of existing programs. The purpose of these strategies and policies is to help the SCWM WMC achieve its goals. These become the management framework. To implement this framework, a Work Plan, Budget, and CIP were developed to continue and expand existing activities and establish new activities.

This Work Plan was developed utilizing the following priorities and strategies:

Priorities:

- 1) Control flooding
- 2) Improve public information and education
- 3) Protect wetlands
- 4) Improve water quality in lakes, streams, and rivers
- 5) Improve fish and wildlife habitat
- 6) Restore wetlands
- 7) Research and encourage development strategies that minimize impervious surface and encourage infiltration
- 8) Research and encourage innovative and sustainable maintenance and improvement practices

Strategies:

- a) The Commissions will continue to control peak runoff rates at management sector boundaries and city boundaries, requiring development and redevelopment of certain sizes to adhere to a stormwater management plan that provides rate control and water quality improvements and adding an infiltration requirement. The watershed model will be maintained and the creek's 100 year profile will be reevaluated.
- b) The Commissions' more active education and public outreach program will provide regular information to cities and local media for distribution, useful information on the Commissions' web site, opportunities for participation, and more interaction with schools.
- c) The Commissions' education and public outreach program will meet minimum requirements for NPDES Phase II and the Commissions will help facilitate other NPDES activities, such as facilitating training in good housekeeping methods for city staff, as requested.
- d) Over the first five years of the Second Generation Plan the Commissions will prioritize water resources and develop management plans for those resources by priority or as opportunity provides. These plans will include goals for maintaining or improving water quality based on practical use and implementation strategies that may include maintenance or capital improvements.
- e) The Commissions will promote Shingle Creek and other streams and rivers as greenways, emphasizing streambank improvements and habitat restoration where possible.
- f) The Commissions will prioritize wetlands for preservation and wetlands for potential restoration. Buffers will be required adjacent to wetlands and watercourses as development or redevelopment occurs. Cities that are the LGUs for WCA will perform functions and values analyses on their wetlands in accordance with Commission standards. For those cities where the Commissions are the LGU, the Commissions' engineer will perform those analyses at the city's cost.
- g) The Commissions will create a Construction/Matching Grant Fund that will be used to: match grants for resources management projects or capital improvements; construct capital improvements that are of high watershed priority, are demonstration projects, or have otherwise been designated by the Commissions for construction by the Commissions; and as match or "seed money" to encourage local improvements.

Combination of Commissions

While the two Commissions are governed by separate Boards and separate First Generation management plans, the operating policies and standards of the Commissions are virtually identical and the Commissions often jointly discuss business that is applicable to both. Four out of the five member cities of West Mississippi are also members of Shingle Creek; only Champlin is a member of West Mississippi and not Shingle Creek.

During the Second Generation Plan process it was the consensus of Commissioners, city staff, regulatory agency staff, and public comment that the two Commissions should improve administrative efficiency by combining the administration of the two watersheds under a single Commission. This combination will be recommended to the City Councils for consideration as part of the adoption of the Plan. Such a combination would require the ten cities to amend their Joint Powers Agreements and would also have to be reviewed by the Board of Water and Soil Resources.

Local and Watershed Plan Amendments

Following approval and adoption of the Shingle Creek and West Mississippi Watershed Management Plan local units of government are required by statute to amend their local water management plans so they are consistent with the SCWM WMC Second Generation Plan. This watershed management plan provides direction for SCWM WMC activities through the year 2012. The Commissioners intend the Plan to provide a flexible framework for managing the watersheds and, as such, may initiate amendments to this plan at any time.