Shingle Creek Watershed Management Commission
West Mississippi Watershed Management Commission
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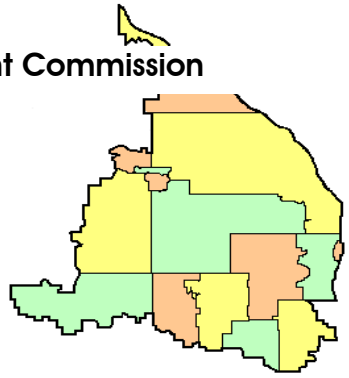


MINUTES
Technical Advisory Committee
July 14, 2022

A meeting of the Technical Advisory Committee (TAC) of the Shingle Creek and West Mississippi Watershed Management Commissions was called to order by Chair Richard McCoy at 11:01 a.m., Thursday, July 14, 2022, at Crystal City Hall, 4141 Douglas Drive, Crystal, MN.

Present: Mike Albers, Brooklyn Center; Mitchell Robinson, Brooklyn Park; Heather Nelson, Champlin; Mark Ray, Crystal; Katie Kowalczyk, Minneapolis; Nick Macklem, New Hope; Amy Riegel, Plymouth; Richard McCoy and Mike Sorensen, Robbinsdale; Diane Spector, Todd Shoemaker, and Katie Kemmitt, Stantec; and Judie Anderson, JASS.

Not represented: Maple Grove and Osseo.

Also present: Andy Polzin, Plymouth.

I. Motion by Ray, second by Robinson to **approve the agenda.*** *Motion carried unanimously.*

II. Motion by Nelson, second by Robinson to **approve the minutes*** of the June 9, 2022, meeting. *Motion carried unanimously.*

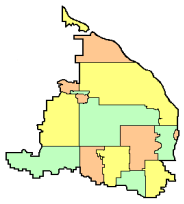
III. **Fourth Generation Watershed Management Plan.** Included in Staff's July 8, 2022, memo* were four items:

A. **Schedule.** Staff are a little behind the original schedule but still on track to have a draft document by the end of August for preliminary review. The final topics for general discussion will be budget, JPA, and opportunities for public review of the Implementation Plan.

B. **SCWM Boundary Change.** Staff is progressing on the boundary analysis. Shoemaker presented some preliminary figures showing some of the changes that will affect the Elm Creek and Bassett Creek watershed boundaries. Stantec has confirmed a good "mesh" of those boundaries and is now updating the legal boundaries.

C. **Review of Draft Priorities, Goals, and Policies.** Based on input received at the June meeting Staff have refined the goals and priorities and placed them into textual context. They also met with Hennepin County to discuss climate resiliency and groundwater and incorporated those discussions into the text. Commissioners are asked to review and refine these priorities, goals, and strategies, which are the foundation of the Implementation Plan. In the Plan, these goals and priorities will be followed by a description of the specific actions the Commissions will take, which will be summarized in the Implementation Plan table. (See details in item B., below.)

D. **Review of Preliminary Implementation Plan Table.** Staff continue to flesh out the individual lake and stream resource plans that will help to define both the monitoring program and the Implementation Plan. They have developed a draft Implementation Plan that incorporates Capital Projects, Project Maintenance, and Other Implementation actions such as special studies. While they have tried to set a schedule that both balances workload and keeps annual budget, levy and other



expenditures relatively stable, there are a few exceptions to that (notably in 2023). They will work with the Commissions and the cities to further refine activities and schedules, so some of these might move around between years, and some of the estimated costs might be further refined. The Third Generation Plan enables the Commissions to make annual adjustments to years and costs without having to amend the Plan; a Minor Plan Amendment is only necessary to add a project or significantly alter a project already on the CIP. That provision will be carried over to the Fourth Generation Plan.

IV. Fourth Generation Priorities and Goals.*

Through the identification and prioritization of issues in the watersheds, the Commissions developed goals that will guide activities over the coming decade. These goals were derived from the Gaps Analysis and a review of the accomplishments and unfinished business from the Third Generation Plan; as well as discussions with Commissioners, Technical Advisory Committee members, state agency staff, other city staff; and citizen input.

The framework to achieve these goals is set forth in the Implementation Plan and Capital Improvement Program detailed in Section xx of this Plan. Member cities supplement and complement these actions with additional policies and programs tailored to their unique priorities and needs. The philosophy of the Joint Powers Agreements and this Plan is that the management plan establishes certain common goals and standards for water resources management in the watersheds, agreed to by the member cities, and implemented by those cities through activities at both Commission and local levels. Successful achievement of the goals in this Plan is dependent on the member cities and their dedication to this effort.

A. Priorities.

1. Achieve lake and stream goals. Continue to work aggressively toward achieving TMDL lake and stream goals.

2. Stimulate implementation. Foster completion of TMDL load reduction and other implementation activities by identifying improvements, sharing in their cost, and proactively seeking grant funds.

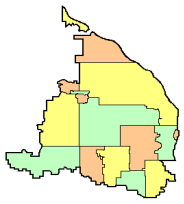
3. Engage and educate. Expand the public education and outreach program to reach more stakeholders, including vulnerable communities and historically underrepresented groups.

4. Develop climate resiliency and sustainability. Anticipate and proactively work to understand and minimize adverse impacts from changing environmental and climatic conditions.

B. Goals.

Water Quality and Ecological Integrity. While the Commissions' First Generation Plans were primarily focused on adopting and implementing standards for development and redevelopment projects to moderate the impacts of stormwater runoff on receiving waters, by the time of the Second Generation Plan water quality monitoring confirmed that several lakes did not meet state water quality standards. Thirteen of the sixteen lakes were subsequently designated as Impaired Waters by the MPCA due to high concentrations of nutrients. The Shingle Creek Commission was an early implementer of Total Maximum Daily Load (TMDL) studies to diagnose the sources of this excess phosphorus and develop implementation plans to reduce nutrient input to the lakes.

Shingle Creek and Bass Creek were also found to be high in chloride concentration, low in dissolved oxygen, and non-supportive of fish and other aquatic life. The Second and Third Generation Plans



focused on implementing capital and other projects and assessing progress. As noted in this Plan's Self-Assessment of Progress, those efforts have paid off: three of the original thirteen lakes (Schmidt, Ryan, and Lower Twin) have been removed from the official Impaired Waters List, and two more (Bass and Pomerleau) are slated to be removed, or "de-listed" in 2024. Monitoring data also shows a significant improvement in some water quality parameters in Shingle and Bass Creeks, but not all: chloride and bacteria remain stubbornly high. The fish and biotic communities remain impaired in the creeks, and several lakes are infested with invasive aquatic vegetation.

Wetlands also perform a key role in the ecological integrity of the watersheds. Much of the original acreage of wetlands in Shingle Creek has either been filled or significantly altered by development. The northern half of West Mississippi developed much later, under the regulation of the Wetland Conservation Act (WCA). While they have not been filled, many of the wetlands in that watershed have been altered by changing hydrology that redirected runoff and reduced surficial groundwater recharge. While there are a few wetlands of higher quality, most have been impacted to some degree.

The Fourth Generation Plan will continue to focus on improving the lakes and streams in the watersheds to meet state water quality and ecological integrity standards and protecting those that meet those standards. The primary implementation strategies will be to:

1. Limit further lake, stream, and wetland impacts from development and redevelopment.
2. Identify and undertake protection and improvement actions such as subwatershed assessments, feasibility studies, and non-structural and capital improvement projects.
3. Achieve state water quality standards in three more lakes – Eagle, Crystal, and Middle Twin Lakes and, if possible, achieve de-listing from the Impaired Waters list.
4. Limit as feasible under the Wetland Conservation Act any further impacts to wetlands in the watersheds.

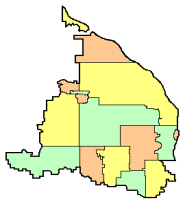
The Commissions will continue to operate a robust monitoring program to track water quality trends and assess progress.

GOAL 1: ***Protect, maintain, and improve the water quality and ecological integrity of the water and natural resources within the watersheds and the downstream receiving waters.***

Strategies:

1.a. Manage the surface water resources of the watershed to meet or exceed state standards.
1.b. Implement load reduction actions sufficient to achieve state water quality standards in Eagle, Crystal, and Middle Twin Lakes.
1.c. Make progress toward achieving the state standards in the other lakes and streams in the watersheds.
1.d. Administer rules and standards requiring new development and redevelopment to control the loading of pollutants from their sites.
1.e. Maintain as feasible no-net loss of wetland acreage and functions and values.

Water Quantity, Groundwater and Drainage. One of the statutory responsibilities of the Commissions is to prevent and mitigate flooding. This has been accomplished primarily by ensuring



that development and redevelopment does not create new volumes and rates of runoff that may cause downstream flooding. Despite the extensive upper watershed development that has occurred since the Commissions were established in 1985, there are few non-localized flooding problems in the two watersheds. Early on the Commissions and member cities identified this as an important issue and enacted the appropriate controls to limit rates and volumes of runoff from new development and redevelopment. A second Commission responsibility is managing or staying abreast of surface water-groundwater interactions, including groundwater recharge, stream baseflow and lake levels, wellhead protection and maintaining adequate hydrology to wetlands. Hennepin County intends to update its Groundwater Plan in the next several years, and the Commissions will provide input to that analysis and assist in implementing County priority actions.

Shingle Creek from approximately Xerxes Avenue North in Brooklyn Park to Webber Park in Minneapolis was ditched and channelized as Hennepin County Ditch #13 in 1910 and remains under the County's jurisdiction. Hennepin County is willing to transfer authority to the Shingle Creek Commission or the member cities, but neither has expressed an interest.

This Fourth Generation Plan will continue to rely on the development rules and standards to limit new rates and volumes of runoff and to require infiltration or other abstraction such as stormwater reuse to protect and replenish surficial groundwater. The Commission also maintains a hydrologic and hydraulic model for the watershed that was updated in 2021 and will be used to track any impacts to flood flows and elevations due to land use change.

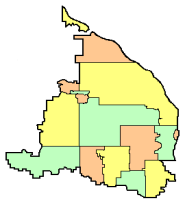
GOAL 2: ***Reduce stormwater runoff rates and volumes to limit flood risk, protect conveyance systems, protect surficial groundwater, and reduce or mitigate impacts that have already occurred.***

Strategies:

2.a. Maintain the existing 100-year flood profile throughout the watersheds.
2.b. Administer rules and standards requiring new development and redevelopment to control the rate and volume of runoff from their sites.
2.c. Continue current Hennepin County jurisdiction over County Ditch #13.
2.d. Work in cooperation with Hennepin County in the development and implementation of local and regional groundwater protection strategies.

Education and Engagement. The Commissions initially established an Education and Outreach Program as part of the Second Generation Plan. At about the same time the member cities were required to develop education and outreach plans as part of their National Pollution Discharge Elimination System (NPDES) stormwater permits. Because these requirements were common across the cities, the member cities requested that the Second Generation Plan be designed to help them fulfill the NPDES Public Education and Outreach requirements, and this was continued in the Third Generation Plan.

The Commissions also collaborate with the Elm Creek and Bassett Creek WMOs as part of the West Metro Water Alliance (WMWA) and participate in Metro-wide education and outreach initiatives such as Blue Thumb, Watershed Partners and Northland NEMO. The WMWA collaboration is an opportunity to pool resources on larger or region-wide initiatives, such as the ongoing Watershed PREP program providing specialized classroom lessons to 4th graders and the shared education and outreach coordinator proposed jointly with Hennepin County in 2023.



Over the past decades the demographics in the watersheds reflect a growing economic, racial, ethnic, and cultural diversity. Residents living in roughly two-thirds of the land area in Shingle Creek were estimated by Hennepin County to be among the most vulnerable to environmental injustice in the county based on race, income, ability, health, and social status, with parts of West Mississippi also experiencing more moderate vulnerability. As a part of this planning process, the watersheds partnered with Bassett Creek WMO to learn and start a conversation about environmental injustice, how other organizations are increasing their outreach to underserved communities, and how to begin building relationships and work toward more equitable environmental outcomes.

The Fourth Generation Plan will continue to expand the education and outreach program to meet both the needs of the member cities' stormwater permits as well as other supplemental topics and will continue to partner with WMWA to expand joint offerings, including realizing a vision of a shared education and outreach coordinator. This expanded effort will also include renewed focus on developing more opportunities to engage all communities in the watersheds, and to require an Equity Impact Analysis be completed for all projects receiving Commission funding.

GOAL 3*:* ***Educate and engage all stakeholders in the Shingle Creek and West Mississippi watersheds on surface water issues and opportunities.***

Strategies:

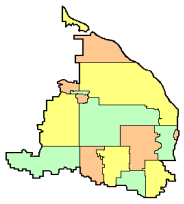
3.a. Operate a public education and outreach program that meets the NPDES Phase II education requirements for the member cities, with special emphasis on topics such as chloride, bacteria/pet waste, and nutrient management.
3.b. Provide supplemental education and outreach engagement on TMDL and other topics of interest to various stakeholders, including ongoing outreach to lake associations.
3.c. Incorporate equity principles of diversity, equity, inclusion, and access into watershed programs and projects.

Climate Resilience and Sustainability. Water and natural resources are directly influenced by climate – precipitation, temperature, and other actors. Our climate is non-static: the Minnesota State Climatology Office has observed and documented changes in our climate since the late 1800's. Research suggests that the state will continue to get warmer and wetter, with more extreme rainfall events. Winters are warming, summers are more humid, and the growing season is expanding.

The highly altered and developed landscape in the watersheds limits options to prevent or mitigate impacts and increases vulnerability to changing conditions. The cumulative impact of development – paving over surfaces that previously could infiltrate precipitation and prevent flooding, loss of woods, grasslands, and wetlands – is a loss of resiliency to adapt to the increasing variability in climate.

The types of changes observed in Minnesota also have the potential to more directly and negatively affect water resources. Increased daily temperatures and a longer growing season may cause shifts in lake aquatic vegetation and result in more frequent algal blooms. Runoff from more frequent, higher intensity rain events increases flows, velocities, and shear forces in streams, increasing erosion and stream instability. Biotic integrity is diminished as lake and stream aquatic species select toward those that are more tolerant to pollution or to highly variable flows.

The Fourth Generation Plan will focus on better understanding the magnitude of those impacts both locally and regionally and identifying appropriate responses. The Commissions' hydrologic and hydraulic models will be used to evaluate how future precipitation patterns may affect the extent



and duration of flood events, and to identify infrastructure that may be at long-term risk of flooding. It will also be used to evaluate the impacts of potential development rules and standards changes.

Because local and regional partnerships will be necessary to combat non-static climate, the Commissions will collaborate with: (1) Hennepin County in implementing and updating its Climate Action Plan; (2) the Metropolitan Council with its Climate Vulnerability Assessment; and (3) the State Climatology office to better understand and quantify impacts and potential responses.

GOAL 4: ***Anticipate and proactively work to withstand adverse impacts from changing environmental and climate conditions.***

Strategies:

4.a. Model the potential impacts of a non-static climate on water resources with the best available predictive data.
4.b. Quantify and qualitatively assess risk and evaluate and implement responses for mitigation.
4.c. Collaborate with other agencies and organizations on joint efforts to manage impacts both locally and regionally.
4.d. Develop strategies to appropriately manage future impacts.

V. Fourth Generation Plan Capital Improvement Programs. Included in the meeting packet were spreadsheets* showing the Shingle Creek and West Mississippi proposed 2023-2032 CIPs. Annual project costs range from $340,000 to $6,480,00 for Shingle Creek and $150,00 to $410,00 for West Mississippi. Commission shares range from $180,000 to $2,035,00 and $100,000 to $225,000, respectively.

VI. Grant Opportunities.*

The Board of Water and Soil Resources (BWSR) is now taking applications for its annual **Clean Water Fund grants**, which are funded thorugh the 2008 Clean Water, Land, and Legacy Amendment (CWLA). This statewide competitive program awards grants from several subprograms, including Projects and Practices, the Projects and Practices Drinking Water sub-program, Multipurpose Drainage Management, and Soil Health and well as specialized loan programs. By far the largest program, funded this year by an estimated $9.7 million from the dedicated sales tax proceeds, is the Projects and Practices program. A description* of this program is included in the meeting packet.

Projects and Practices grants require a 25% local match and must be used to implement priority protection or restoration actions listed in or derived from a current state approved and locally adopted plan, and must have clear, measurable outcomes. Grants would be available in Spring 2023 and must be fully expended by December 31, 2025. Eligible applicants include counties, WMOs, cities, and a few other entities. Applications are due August 22, 2022.

At this time Shingle Creek has no pending projects that are positioned for construction or implementation. The next projects that might benefit from grant funding are the proposed Bass Creek Stabilization from TH 169 to 63rd Avenue, and the Eagle Lake Management Plan. Both those projects require additional planning and feasibility work before they would be ready to request grant funding, perhaps in 2023.

There is one potential project in West Mississippi that Brooklyn Park and Hennepin County have proposed in the past, stabilizing severely eroding Mississippi Riverbanks adjacent to several private properties. The city submitted an application last year, but it was not selected for funding. Presumably

this could be submitted again, noting that the West Mississippi Commission is dedicating a majority of its Watershed Based Implementation Funding as well as Partnership Cost Share to the project.

It was a consensus of the members to recommend this project to the West Mississippi Commission for application.

VII. Other Business.

A. The **next TAC meeting** is scheduled for 11:30, August 11, 2022, prior to the regular Commission meetings.

B There being no further business, the TAC meeting was adjourned at 12:09 p.m.

Respectfully submitted,

Judie A. Anderson
Recording Secretary
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