

June 2, 2022

Technical Advisory Committee
Shingle Creek and West Mississippi
Watershed Management Commissions
Hennepin County, Minnesota

The agendas and meeting packets for both the TAC and regular meetings are available to all interested parties on the Commission's web site at <http://www.shinglecreek.org/tac-meetings.html> and <http://www.shinglecreek.org/minutes--meeting-packets.html>

Dear Members:

A joint regular meeting of the Shingle Creek and West Mississippi Watershed Management Commissions will be held **Thursday, June 9, 2022**, at 12:45 p.m., in the downstairs Community Room in Crystal City Hall, 4141 Douglas Drive..

The Technical Advisory Committee (TAC) will meet prior to the regular meeting at 11:00 a.m.

Meetings remain open to the public via the instructions above.

Please email me at judie@jass.biz to confirm your attendance at the TAC meeting and if you will be staying for lunch. Thank you.

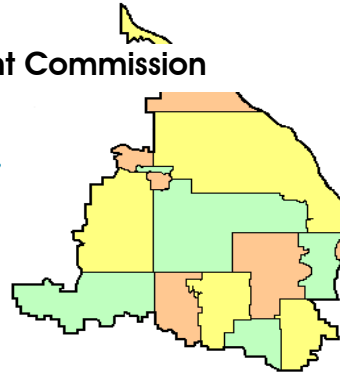
Regards,



Judie A. Anderson
Administrator

cc:	Alternate Commissioners	Member Cites	Troy Gilchrist	TAC Members
	Stantec	BWSR	MPCA	Met Council

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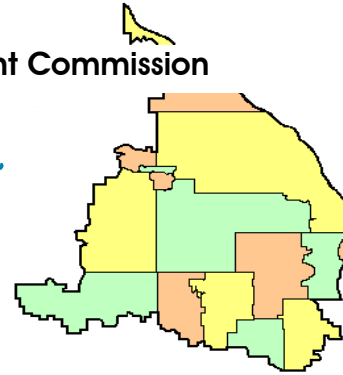
A meeting of the joint Technical Advisory Committee (TAC) of the Shingle Creek and West Mississippi Watershed Management Commissions is scheduled for **11:00 a.m., Thursday, June 9, 2022**, in the Community Room at Crystal City Hall..

June 9, 2022

A G E N D A

1. Call to Order.
 - a. Roll Call.
 - b. Approve Agenda.*
 - c. Approve Minutes of Last Meeting.*
2. Fourth Generation Plan Updates.*
 - a. Boundary Adjustments.*
 - b. Draft Priorities, Goals and Policies.*
 - 1) Third Generation Priorities.*
 - c. Preliminary CIP and Implementation Plan - presentation.
3. Grant Project Updates.*
4. Other Business.
5. Next TAC meeting is scheduled for July 14, 2022 at ____ o'clock.
6. Adjournment.

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MINUTES
May 12, 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 11:35 a.m., Thursday, May 12, 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; Mark Lahtinen, Maple Grove; Liz Stout and Katie Kowalczyk, Minneapolis; Nick Macklem, New Hope; Ben Scharenbroich and Amy Riegel, Plymouth; Richard McCoy and Mike Sorensen, Robbinsdale; Diane Spector, Todd Shoemaker, and Katie Kemmitt, Stantec; and Judie Anderson, JASS.

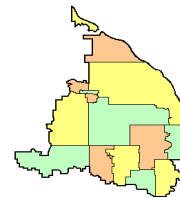
Not represented: Osseo.

Also present: Burt Orred, Jr., Crystal; Karen Jaeger, Maple Grove; Ray Schoch, Minneapolis; and Andy Polzin, Plymouth.

- I. Motion by Ray, second by Macklem to **approve the agenda**.** Motion carried unanimously.*
- II. Motion by Ray, second by Robinson to **approve the minutes*** of the April 14, 2022, meeting. *Motion carried unanimously.*
- III. **Fourth Generation Watershed Management Plan.** Included in Staff's May 6, 2022, memo* were four items:

A. Boundary Adjustments. Staff and the cities have been aware for many years that there are discrepancies between the watershed legal boundary and hydrological boundary. Among the reasons why: (1) the boundaries were initially drawn using 10-foot topo. The more recent 2-foot topo allows a more accurate hydrologic boundary delineation. (2) When the boundaries were drawn, a number of the parcels on the periphery of the watersheds were large lot agriculture or rural residential, and those have since been subdivided and in some cases the hydrology has been changed as a result of mass grading done with development. (3) We do not have a watershed-level hydro boundary for West Mississippi but could assemble one from city H & H models. In response to a series of requests from one property owner in particular, we have had some discussion with local staff and the Commission's attorney about the advisability of updating the boundaries, which also impact Bassett Creek and Elm Creek. At this level we agreed that it was not cost-effective to complete a boundary change to accommodate one parcel. However, a wholesale rewriting of the boundaries (and establishing a hydro boundary for WM) would be a significant undertaking. Staff will continue to research the potential changes.

B. A Diversity, Equity and Inclusion Workshop was held on April 25, 2022, at the Crystal Community Center, hosted by County Commissioner Irene Fernando. There were about 35 attendees, a good mix of Shingle Creek, West Mississippi, and Bassett Creek Commissioners and TAC members, some County staff, and representatives from a few other WMOs. The workshop included presentations by the County, Metro Blooms, and Mississippi WMO staff, personal reflections on Environmental Justice work



by the Executive Director of a nonprofit that serves diverse and underrepresented communities, as well as small group discussions and reflections.

C. Education and Outreach Framework. Many of the city Citizen Advisory Committees (CACs) are identifying the need to provide more education and outreach opportunities within the two watersheds. As noted in the Watershed Based Implementation Funding (WBIF) discussion, the West Metro Water Alliance (WMWA) and Hennepin County have been working together to develop a shared half-time position specifically to provide hands-on outreach to property owners. A very rough framework for education and outreach includes:

1. General education and outreach on key messages shared through the website, social media, written materials, press releases, and WMWA.
2. Youth education through WMWA's Watershed PREP.
3. Adult education and outreach through WMWA's Watershed PREP, focused on tabling and association workshops.
4. Adult education and outreach through new shared outreach coordinator, focused on workshops and hands-on BMPs.
5. Outreach to diverse communities through Metro Blooms and Partnership Grants hands-on BMPs.

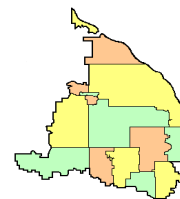
D. Implementation Plan Development. Staff are going to begin sketching out the individual lake and stream resource plans that will help to define both the monitoring program and the implementation plan. They will be identifying where such future work such as (1) lake internal load feasibility studies; (2) subwatershed assessments; and (3) targeted monitoring might be helpful in the coming ten years. They will also be working with the Technical Advisory Committee to start to build the CIP for the coming ten years. They will be collecting this information over the next month and will have a compilation at the June meeting.

IV. 2022-2023 Watershed-Based Implementation Funding (WBIF) Convene Meeting.*

A. The Watershed Based Implementation Funding (WBIF) committee met for its second convene meeting on April 14, 2022, concurrent with the Technical Advisory Committee (TAC) meeting. The group reviewed potential actions identified for possible funding, including projects programmed in the CIP for the next few years, TMDL actions such as lake internal load feasibility studies or aquatic vegetation/rough fish management, and education and outreach options.

B. Spector noted that WMWA (the West Metro Water Alliance) has been working with Hennepin County staff regarding the possibility of a shared staff member who could provide education and outreach within the four WMWA watersheds. The County is fleshing out the possibilities and what the cost would be, which they thought would be in the vicinity of \$100,000 per year. The expectation is that this staff person would be available to provide targeted workshops, on-site consultations, and targeted outreach on various water quality topics.

Hennepin County has drafted a proposed "Education, Outreach, and Technical Assistance Action Plan" that would initially dedicate 0.5 FTE in a 2-year limited duration employee position to implement this initiative across areas of the county that are contributing financially. The purpose would be to develop a pilot program to increase technical assistance, education, and outreach with residents focused on increasing conservation implementation success. This pilot program would be



focused on marketing and promoting workshops, reaching out to underserved communities, potentially delivering workshops, and providing follow-up assistance to workshop participants. It is possible that this could be developed in tandem with Metro Blooms to incorporate their expertise, especially in outreach to underserved groups. A component could also include providing small financial assistance grants to parties installing BMPs, which would be administered by this position. The convene group agreed to dedicate WBIF funds for education and outreach: \$35,501 from the Shingle Creek allocation, and \$10,000 from the West Mississippi allocation.

C. The group also discussed funding actions such as additional subwatershed assessments that would identify more projects that could be incorporated into future capital projects for funding by grants and levy. The convene group agreed to dedicate \$60,000 from the Shingle Creek allocation to subwatershed assessments, with two areas in particular identified: the drainage area to the Gaulke/Memory Lane/Hagemeister Pond system; and the drainage area to Eagle Lake, including an internal load assessment for Eagle Lake.

D. Finally, the group agreed to dedicate the remaining \$65,000 in West Mississippi allocation to continuing to refine and design the high priority Mississippi River streambank stabilization needs in Brooklyn Park, for which the City and Hennepin County have completed a feasibility assessment. The purpose of the WBIF funding would be to take these from conceptual design to 30% design to improve project readiness for future grant funding.

Funding Priority	Amount WBIF	Source of 10% Match	Grantee
Shingle Creek			
Education & outreach contracted coordinator	\$35,501	Operating budget for E & O	SC WMC
Subwatershed assessments	\$60,000	Operating budget for SWAs	SC WMC
TOTAL	\$95,501		
West Mississippi			
Education & outreach contracted coordinator	\$10,000	Operating budget for E & O	WM WMC
Miss R Streambank Stabilization Design	\$65,000	?	?
TOTAL	\$75,000		

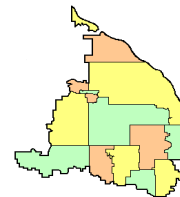
E. Future Actions.

1. Confirm the allocations and identify and confirm the source of the match and the grantees for each of the allocations. These will be presented to the Commissions for review and agreement to serve as the grantees and provide the 10% match as noted. Note that the Hennepin County proposal for the Education and Outreach contracted coordinator is still under development and is still being considered by other WMOs for potential financial contributions from their WBIF allocations. Staff recommends that the TAC consider approving the allocations and funding levels in principle so that the process can move forward.

2. Once all parties participating in the E & O coordinator proposal have agreed to the proposal and the actual contribution amount is known, any modifications to the above will be brought back to the convene committee for review and approval. Staff acting as the convenor will then provide the final recommendation to BWSR for its review and approval. Once that has been secured, Staff will develop and submit work plans so funds can be contracted later this year.

VII. Shingle Creek Maintenance Levy.

Over the past few months, the Commission, TAC, and Staff have discussed options for funding



“maintenance” types of activities that are neither capital projects nor city maintenance, but are often the ongoing remnants of capital projects. These are activities such as ongoing long-term efforts to manage carp or curly-leaf pondweed, which would be the largest need, but also maintenance of fish barriers or BMPs installed as research projects, etc. There is no specific designated funding source for these types of activities.

Since this is not funding for a capital project as a separate line item on the CIP or smaller BMPs funded through the Cost Share programs, it is unclear whether a Minor Plan Amendment is necessary to initiate this new program. In many ways it is like an operating budget line item, but funded from levy rather than city assessments. Staff has been in contact with BWSR to determine if an MPA is necessary before the Commission chooses to certify a levy for this purpose. As of yet, we do not have that determination.

If an MPA is required to modify the Third Generation Plan to reflect this new program, Staff recommend that the TAC direct them to craft an amendment that would be to BWSR’s satisfaction and proceed with the standard MPA process of publishing notice and discussing the proposed MPA at a public meeting on July 14, 2022. At that time you would adopt the MPA and attached policy. If no MPA is necessary, the TAC would simply adopt the guidelines included in the meeting packet and include the requested amount in the notice of maximum levy adopted at the meeting.

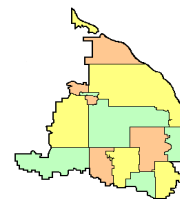
Motion by Riegel, second by McCoy to adopt the Maintenance Funding Guidelines.* Motion carried unanimously.

VIII. Impaired Waters Status.*

Spector attended the MPCA/DNR Mississippi River - Twin Cities HUC 8 Watershed Professional Judgement Group (PJG) – WEST meeting on April 28, 2022. This is a step in the process where the MPCA and DNR’s watershed assessment team reviews water quality and other data to determine which streams and lakes are meeting or exceeding state standards, as well as identifying where more information is needed. The purpose of the PJG meeting is to take local and public input on potential new impairments, new de-listings, those waterbodies that are recognized as nearly or barely impaired, and those that are vulnerable. This includes assessment results from monitoring chemical parameters as well as from biological monitoring of aquatic invertebrates and fish. The MPCA will use this information to develop and submit to the EPA a new draft Impaired Waters list, which is several steps further down the road in the process. There is some good news and some not so good news.

A. In West Mississippi, the MPCA is proposing a new impairment listing (for *E. coli*) on the channel that flows out of the Brooklyn Park **Environmental Preserve** through Mississippi Gateway Regional Park and discharges into the Mississippi River below the Coon Rapids Dam.

B. The MPCA is proposing new impairment listings on **Bass Creek** – DO and *E. coli*. While this is a new impairment listing, recall that DO was a primary biotic stressor and, as such, the Shingle and Bass Creek Biotic and DO TMDL includes non-numeric TMDL implementation actions for Bass Creek such as channel reshaping and adding aeration structures. Such features were included in the Bass Creek Park Restoration Project that is just concluding. The Commission and cities have also been treating the Shingle Creek *E.coli* impairment as a whole-watershed impairment as well. It is not clear whether and when TMDL studies will need to be completed for these new impairments to formally establish load reductions, but there will not likely need to be new implementation actions since the cities and Commission are already in implementation.



C. **Bass Lake** was noted to now be meeting the TP and Secchi standard, but still experiencing elevated chl-a, and there was a question as to whether it should be delisted at this time. Spector was able to provide some background to the PJG about the alum treatment and vegetation management activities that are ongoing, and that there was active management and oversight by the City, lake association, and Commission. That was sufficient for the group to feel comfortable recommending that Bass Lake be proposed for delisting for nutrients.

D. **Pomerleau Lake** now clearly meets state water quality standards for all three eutrophication indicators, and it is recommended for delisting with no questions from the PJG.

E. There are a number of lakes this assessment round being proposed for listing based on non-attainment of the fish IBI standard. All three basins of **Twin Lake** are proposed as is **Eagle Lake**. Spector has a little information about which of the fish metrics seem to contribute to the low score. More complete actual IBI data can be readily obtained when it comes time to figure out what, if anything, to do about it.

F. **Crystal Lake** was diagnosed with moderately elevated chloride concentrations and is classified as vulnerable to a future chloride impairment. No impairment at this time, just for information and consideration.

IX. Other Business.

A. The next TAC meeting is scheduled for 11:00, June 9, 2022, prior to the regular Commission meetings.

B There being no further business, the Technical Advisory Committee meeting was adjourned at 12:37 p.m.

Respectfully submitted,

Judie A. Anderson
Recording Secretary
JAA:tim

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To: Shingle Creek/West Mississippi WMO Commissioners/TAC

From: Todd Shoemaker PE
Diane Spector
Katie Kemmitt

Date: June 3, 2022

Subject: Fourth Generation Plan Update

**Recommended
Commission
Action**

For discussion and input. Each Commission should consider approving the proposed Contract for Professional Services in the amount of \$27,900, to be funded 50% from each Commission from funds reallocated from their respective Cost Share Programs.

There are three topics to discuss today regarding the Fourth Generation Plan:

- Proposal for Professional Services, SCWM Boundary Changes
- Review of Draft Priorities, Goals, and Policies
- Review of Preliminary CIP and Implementation Plan

SCWM Boundary Change

As we had previously discussed, the 4th General Plan is an opportune time to revisit the watershed boundaries to ensure that they accurately reflect the most current information about drainage between the Shingle Creek and West Mississippi drainage areas and the neighboring Elm Creek, Bassett Creek, and Mississippi WMOs. Updated hydrological modeling, more refined 2-foot LIDAR compared to the old 10-foot topography has revealed a disconnect between the legal boundary and the hydrologic boundaries, compounded by subdivisions of larger, formerly agricultural and rural lots into suburban development.

We have prepared the attached Proposal for Professional Services to complete the work necessary to pursue these boundary revisions. This work will require a substantial effort of reviewing drainage patterns, in some cases reviewing the boundary areas lot by lot. These have not been updated since the Commissions were formed in 1985. In West Mississippi's case, there never was more than a simple hydrologic model available, and the Commission never formally established a hydrological boundary. Shingle Creek's has been updated several times, to develop a watershed-wide HydroCAD model, the watershed XP-SWMM model prepared as part of the chloride TMDL, and most recently updated in the HUC 8 flood hazard study.

Should the Commissions choose to proceed with this work, we recommend that the cost be split equally between the two watersheds. We recommend you reallocate funds from each Commission's Cost Share Projects accounts, both of which are carrying balances well above the maximum recommended by the Cost Share Policy (Shingle Creek has about \$270,000 and West Mississippi has about \$300,000). The TAC will review this proposal at its meeting just prior to the Commission meeting and make a recommendation to you.

Review of Draft Priorities, Goals, and Policies

Based on input received to date going all the way back to the Commissions' and TAC's white board exercises brainstorming priorities, we have developed the attached draft Priorities, Goals, and Policies. We're not wedded to the format; we were just trying to get thoughts and ideas down on paper. Also attached for reference are the current goals and policies from the 3rd Gen Plan.

At the 6/9 meeting we would like to walk through these and discuss any additional ideas the Commissioners or TAC may have so we can continue developing this foundational component of the Plan.

Review of Preliminary CIP and Implementation Plan

Staff continues to flesh out the individual lake and stream resource plans that will help to define both the monitoring program and the implementation plan. As a part of this we will be identifying where such future work as 1) lake internal load feasibility studies; 2) subwatershed assessments; and 3) targeted monitoring might be helpful in the coming ten years. We are also working with the TAC to start to build the CIP for the coming ten years. We will present a draft Implementation Plan at the June 9 meeting.



Stantec Consulting Services Inc.
2080 Wooddale Drive, Suite 100
Woodbury MN 55125-2920

June 2, 2022

Project/File: 227704733

Mr. Andy Polzin
Shingle Creek WMC Chair
18605 29th Avenue N
Plymouth, MN 55447

Mr. Gerry Butcher
West Mississippi WMC Chair
11467 Preserve Lane N
Champlin, MN 55316

Dear Andy and Gerry,

Reference: Proposal for Shingle Creek and West Mississippi Legal Boundary Update

The purpose of this letter is to provide the Shingle Creek Watershed Management Commission (SCWMC) and West Mississippi Watershed Management Commission (WMWMC) with a scope of work and budget for professional engineering services related to updating the legal boundary of each watershed. This letter outlines the scope of work and budget necessary to petition the Board of Soil and Water Resources (BWSR) for the change and submit supporting documentation. Following the guidance of SCWMC and WMWMC legal counsel, our process will outline the procedure outlined in state statute 103B.

1.1 Budget, Schedule & Deliverables

- **Fee estimate** The cost for Wenck to complete the scope of work detailed below is \$27,900. Subtotals by task are provided below.
- **Schedule** We will complete a draft of the Legal Boundary Report by July 31, 2022 and present results at the August 11, 2022 Commission Meeting.
- **Deliverables**
 - a. Legal boundary report including map(s) to show current hydrologic boundary, current legal boundary, proposed legal boundary, area added to SCWMC and WMWMC, and area removed from SCWMC and WMWMC.
 - b. Petition to BWSR for the boundary change.

1.2 Scope of Work

- **Task 1: Legal Boundary Analysis & Report, \$19,000**
 - a. Use GIS and the best publicly-available parcel, storm sewer, and topographic data.
 - b. Parcels will be considered within the SCWMC or WMWMC if more than 50% of the parcel's area is inside the boundary.
 - c. We will list parcels that may be added or removed from the SCWMC or WMWMC and then review each individually to confirm the proposed legal boundary.
 - d. We will tabulate the number of parcels and acreage that have changed.

Reference: Proposal for Shingle Creek and West Mississippi Legal Boundary Update

- e. Prepare technical memo or report that identifies methods used to update the boundaries and parcels impacted because of the legal boundary change.
- **Task 2: Coordinate with Member Cities and Adjacent Watersheds, \$4,900**
 - a. Prepare “letter of concurrence” template for member cities and adjacent watershed organizations.
 - b. Submit Legal Boundary Report to SCWMC and WMWMC member cities and adjacent watershed organizations.
 - c. Coordinate with city staff and respond to questions.
- **Task 3: Prepare and Submit Petition, \$4,000**
 - a. Prepare petition and submit to legal counsel for review.
 - b. Present proposed boundary changes, letter of concurrence, and petition at SC/WM WMC meeting.
 - c. Submit petition and Legal Boundary Report to BWSR.
 - d. Coordinate with BWSR staff and respond to questions.

1.3 Study Assumptions

- Official parcel boundary survey and editing of current watershed boundary legal description are not required.
- Parcel, storm sewer, and topographic data provided by Hennepin County or member cities.

1.4 Project Team

The following staff have been selected to execute the Scope of Work.

- Project Manager Todd Shoemaker
- Water Resources Engineers Lucas Clapp, Sarah Kinney
- GIS Specialist Aaron Hyams
- Senior Water Resources Engineer, Planner Ed Matthiesen, Diane Spector

On behalf of Stantec, thank you for this opportunity to continue working with the SCWMC and WMWMC. Should you have any questions or need clarification of anything presented in the attached proposal, please do not hesitate to call or email me.

Reference: Proposal for Shingle Creek and West Mississippi Legal Boundary Update

Regards,

STANTEC CONSULTING SERVICES INC.



Todd Shoemaker PE (MN, IA), CFM
Senior Associate, Senior Water Resources Engineer
Phone: (651) 294-4585
Mobile: 612-414-7166
todd.shoemaker@stantec.com

Attachment: [Attachment]

Reference: Proposal for Shingle Creek and West Mississippi Legal Boundary Update

By signing this proposal, _____ authorizes Stantec to proceed
with the services herein described and the Client acknowledges that it has read and agrees to be bound by
our master services agreement.

This proposal is accepted and agreed on the _____ of _____, _____.
Day Month Year

Per: _____
Client Company Name

Print Name & Title

Signature

Priorities

1. Continue to work aggressively toward achieving TMDL lake and stream goals.
2. Foster completion of TMDL and other implementation projects by identifying improvements, sharing in their cost, and proactively seeking grant funds.
3. Expand the public education and outreach program to reach more stakeholders, including historically underrepresented groups.
4. ?

4th Gen goals and policies and relationship to implementation plan.

Goals	Policies	How Measured	Implementation Actions
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	<ol style="list-style-type: none"> a. Manage the surface water resources of the watershed to meet or exceed state standards. b. Implement load reduction actions sufficient to achieve de-listing from the Impaired Waters list for Eagle, Crystal, and Middle Twin Lakes. c. Make progress toward achieving the state standards in the other lakes and streams in the watersheds. d. Maintain as feasible no net loss of wetland acreage and functions and values. 	<ul style="list-style-type: none"> • Water quality trends • Load reductions achieved through BMPs • IBI metrics • WCA reporting 	<ul style="list-style-type: none"> • Routine flow, water quality, and biologic monitoring • Pre- and post-construction performance monitoring • WCA administration
2. Reduce stormwater runoff rates and volumes to limit flood risk, protect conveyance systems, and the future costs of stormwater management systems.	<ol style="list-style-type: none"> a. Maintain the existing 100-year flood profile throughout the watersheds b. Administer rules and standards requiring new development and redevelopment to control the rate and volume of runoff and loading of pollutants from their sites, and 	<ul style="list-style-type: none"> • Assess change as the H & H models are updated • Annual report of rate, volume, and load reductions 	<ul style="list-style-type: none"> • Periodically update H & H modeling • Review and update rules as needed • Undertake resiliency modeling of various future precipitation pattern scenarios

Goals	Policies	How Measured	Implementation Actions
	<p>update those standards as necessary</p> <p>c. Understand the impacts of climate change on water resources and develop strategies to appropriately manage future impacts.</p> <p>d. Continue current Hennepin County jurisdiction over County Ditch #13</p>		
3. Educate and engage all stakeholders in the watersheds on surface water issues and opportunities	<p>a. Operate a public education and outreach program that meets the NPDES Phase II education requirements for the member cities</p> <p>b. Incorporate equity principles of diversity, equity, inclusion, and access into watershed programs and projects</p>	<ul style="list-style-type: none"> • Number of participants in community events • Website and social media useage 	<ul style="list-style-type: none"> • Continue working with WMWA and expand offerings to include a dedicated shared education and outreach specialist • Supplement WMWA education and outreach activities as necessary to meet the unique needs of the watersheds • Partner with organizations such as Metro Blooms to enhance outreach and engagement to underrepresented groups • Require the preparation of a Community Engagement Plan for each proposed Commission-funded improvement, including a Racial Impact Equity Analysis

Principles

- 1) Share in their cost of TMDL and other implementation projects in accordance with the Cost Share Policies
- 2) Proactively seek grant funds for implementation
- 3) Operate a monitoring program sufficient to characterize water quantity, water quality, and biotic integrity in the watersheds and to evaluate progress toward meeting TMDL goals.
- 4) Periodically update progress toward meeting TMDLs
- 5) Work with the appropriate state agencies to incorporate groundwater assessments as necessary
- 6) Maintain updated hydrologic, hydraulic, and water quality models for the water resources in the watersheds
- 7) Promote the mitigation of proposed wetland impacts within the respective watershed
- 8) Serve as a technical resource for member cities
- 9) Continue research projects on innovative and cost-effective stormwater management practices and technologies.

Priorities from the original whiteboarding exercise:

- 1) Chloride
- 2) Outreach & education
- 3) Delist
- 4) Climate vulnerability
- 5) Feasibility studies through project implementation
- 6) Trying to continue to make progress
- 7) Partnerships with lake assns.
- 8) Commissioner education
- 9) More subwatershed assessments

THIRD GENERATION MANAGEMENT PLAN PRIORITIES

1. Work aggressively toward achieving TMDL lake and stream goals
2. Revise the Rules and Standards to achieve more load and runoff volume reduction
3. Expand the public education and outreach program to reach more stakeholders
4. Retrofit BMPs in developed areas in the most cost-effective way
5. Develop a whole-watershed sustainable water budget.

Goal Area A. Water Quantity

Goal A.1. Maintain the existing 100-year flood profile throughout the watersheds.

Goal A.2. Determine ecological low flows for Shingle and Bass Creeks

Actions:

- a. Maintain and update as necessary a calibrated hydraulic model of Shingle Creek and its tributaries
- b. Maintain rules and standards requiring new development and redevelopment to control the rate and volume of runoff discharged from their sites, and update those standards as necessary.
- c. Develop a sustainable water budget for each watershed and an action plan for management activities necessary for its achievement

Goal Area B. Water Quality

Goal B.1. As lake water quality improves and lakes are removed from the State's Impaired Waters list, implement management strategies to protect lake water quality. It is anticipated that Schmidt, Lower Twin, and Ryan Lakes will be removed in 2014.

Goal B.2. Implement phosphorus and sediment load reduction actions sufficient to achieve delisting from the Impaired Waters list for Bass, Eagle, Crystal, and Middle Twin Lakes.

Goal B.3. Improve water clarity in the balance of the lakes by 10% over the average of the previous ten years.

Goal B.4. Improve at least 30% of the length of Shingle Creek to meet Corridor Study and TMDL design standards.

Goal B.5. Maintain nondegradation of all waterbodies compared to 1985 conditions.

Actions:

- a. Maintain and update as necessary calibrated P8 models for each lakeshed in Shingle Creek and the major drainage areas of West Mississippi.
- b. Maintain rules and standards requiring new development and redevelopment to control the total phosphorus and total suspended solids discharged from their sites, and update those standards as necessary.
- c. Conduct an intensive BMP assessment for at least 25% of that part of the watershed that developed prior to Commission rules in 1984, and achieve 25% of the recommended load reduction within 10 years of the analysis.

- d. Contribute 25% of the cost of TMDL capital implementation projects (up to \$250,000).
- e. Pursue grant and other funding to implement improvement projects and feasibility studies.
- f. Prepare and implement an Annual Monitoring Plan and conduct monitoring necessary to evaluate water quality conditions and trends in the lakes and streams in the two watersheds.
- g. Evaluate progress toward achieving TMDL goals every five years following adoption of the respective Implementation Plans.

Goal Area C. Groundwater

Goal C.1. Infiltrate stormwater runoff from new impervious surface.

Goal C.2. Identify opportunities for and implement projects to infiltrate runoff from existing impervious surface.

Goal C.3. Work with the appropriate state agencies to incorporate groundwater assessment into the sustainable water budget analysis for each watershed

Actions:

- a. Maintain rules and standards requiring new development and redevelopment to abstract or infiltrate stormwater runoff from new impervious surface, and update those standards as necessary.
- b. Conduct an intensive BMP assessment for at least 25% of that part of the watershed that developed prior to Commission rules in 1984, and achieve 25% of the recommended volume reduction within 10 years of the analysis.
- c. Coordinate with the Minnesota DNR and other agencies to develop an action plan addressing surficial groundwater elevation issues in northern Brooklyn Park and the associated impacts on wetlands and Lake Success

Goal Area D. Wetlands

Goal D.1. Maintain the existing functions and values of wetlands identified in the Commissions' Water Quality Plan as high-priority.

Goal D.2. Informed by the sustainable water budget study, improve functions and values of wetlands.

Actions:

- a. Adopt a wetland replacement sequencing policy.
- b. Identify wetland restoration opportunities and implement projects to restore wetland functions and values or to create new wetland acreage.

Goal Area E. Drainage Systems

Goal E.1. Continue current Hennepin County jurisdiction over County Ditch #13

Actions:

- a. Periodically reconsider the appropriate jurisdiction over County Ditch #13.

Goal Area F. Commission Operations and Programming

- Goal F.1. Identify and operate within a sustainable funding level that is affordable to member cities.
- Goal F.2. Foster implementation of TMDL and other implementation projects by sharing in their cost and proactively seeking grant funds.
- Goal F.3. Operate a public education and outreach program that meets the NPDES Phase II education requirements for the member cities.
- Goal F.4. Operate a monitoring program sufficient to characterize water quantity, water quality, and biotic integrity in the watersheds and to evaluate progress toward meeting TMDL goals.
- Goal F.5. Maintain rules and standards for development and redevelopment that are consistent with local and regional TMDLs, federal guidelines, source water and wellhead protection requirements, sustainable water yields, nondegradation, and ecosystem management goals.
- Goal F.6. Serve as a technical resource for member cities.

Actions:

- a. Annually review the budget and Capital Improvement Program.
- b. Maintain an Education and Public Outreach Committee (EPOC) that is charged with developing and implementing an annual education and outreach plan.
- c. Prepare and implement an annual monitoring plan and summarize the results in an annual water quality report.
- d. According to the schedules set forth in TMDL Implementation Plans, every five years evaluate progress toward meeting TMDL water quality goals, and adjust the Implementation Plans as necessary to achieve progress.
- e. Every five years or as necessary review the development rules and standards for adequacy and make revisions as necessary.
- f. Continue research projects on innovative and cost-effective stormwater management practices and technologies.
- g. Coordinate water resources management between the Commissions and the member cities.

To: Shingle Creek WMO Commissioners/TAC

From: Todd Shoemaker, P.E.
Diane Spector
Katie Kemmitt

Date: June 3rd, 2022

Subject: Grant projects update

Recommended Commission Action	Review updates for Crystal Lake Management Plan and Bass Lake Vegetation Improvements grant projects
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Crystal Lake Management Plan

Carp removals on Crystal Lake in 2021 were extremely successful, with over 3,900 carp removed (an estimated ~33% of the lake's population), moving the lake closer to improved water quality. The first of two alum treatments was applied successfully in September 2021. Activities at the lake for 2022 are underway. Netting equipment to capture common carp was set up in the lake on June 2nd, 2022. Up to four carp removal events will occur between now and the end of summer. An updated population estimate will be made with data collected during carp removals. The second of the two alum treatments is planned for Fall 2022. Staff will be working with the City of Robbinsdale to coordinate the second alum treatment.

Bass Lake Vegetation Improvements

The Commission has successfully improved water quality and clarity on Bass Lake in Plymouth, MN through the Bass and Pomerleau Lakes Alum Project. Water quality is the best it has been in decades and both lakes are to be delisted; however, the native aquatic plant community appears to be limited. Curly-leaf pondweed (CLP) is still present in the lake in significant areas, and overall native species diversity is low. The Commission recently was awarded a DNR Conservations Partners Legacy Grant (CPL) to complete vegetation transplanting in the lake that will help restore the native plant community. As of June 2nd, 2022 the grant has been executed and work can begin. Staff will be working with the DNR and the Bass Lake Association to plan and execute two vegetation transplanting events in Summer 2022. Staff will monitor the success of the plantings in Summer 2022 and 2023 using standard survey techniques.