

A meeting of the joint Technical Advisory Committee (TAC) of the Shingle Creek and West Mississippi Watershed Management Commissions is scheduled for 8:30 a.m., Thursday, April 25, 2019, at Crystal City Hall, 4141 Douglas Drive North, Crystal, MN.

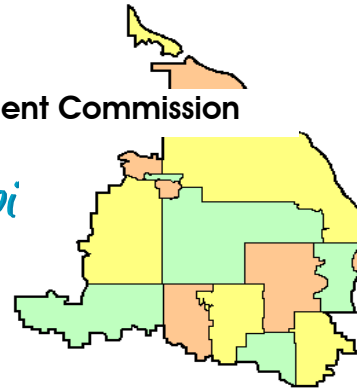
A G E N D A

Meeting docs (*) will be posted on the website at
<http://www.shinglecreek.org/tac-meetings.html>

1. Call to Order.
 - a. Roll Call.
 - b. Approve Agenda.*
 - c. Approve Minutes of Last Meeting.*
2. 2019 CIP.*
3. Potential Minor Plan Amendment for Capital Equipment – discussion.
4. Carp Removal Project – update.
5. HUC-8 Model Overview and Update – presentation.
6. Other Business.
 - a. Upcoming – Maple Grove wetlands district revisions.
7. Next TAC meeting is scheduled for _____.
8. Adjournment.

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*in meeting packet ** available at the meeting



MINUTES
March 14, 2019

A meeting of the Technical Advisory Committee (TAC) of the Shingle Creek and West Mississippi Watershed Management Commissions was called to order by Vice Chairman Mark Ray at 11:32 a.m., Thursday, March 14, 2019, at the Clubhouse at Edinburgh USA, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present were: Andrew Hogg, Brooklyn Center; Mitchell Robinson, Brooklyn Park; Todd Tuominen, Champlin; Mark Ray, Crystal; Derek Asche, Maple Grove; Liz Stout, Minneapolis; Megan Hedstrom, New Hope; Marta Roser, Robbinsdale; Ed Matthiesen, Wenck Associates, Inc.; and Judie Anderson, JASS.

Not represented: Osseo and Plymouth.

Also present were: Burt Orred, Crystal, and Rich Harrison and Laura Scholl, Metro Blooms.

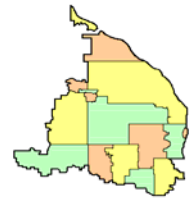
- I. Motion by Ray, second by Asche to **approve the agenda.*** *Motion carried unanimously.*
- II. Motion by Ray, second by Hogg to **approve the minutes** of the January 24, 2019 meeting.* *Motion carried unanimously.*
- III. **Cost Share Applications.** The Commission has on hand approximately \$100,057 (2018 audit hasn't been completed) in the Partnership Cost Share account, with another approximately \$50,500 levied to be received in 2019.

A. Autumn Ridge Apartments.* The City of Brooklyn Park has submitted a Partnership Cost Share application on behalf of Sherman Associates and Metro Blooms for Phase II of improvements on the Autumn Ridge multi-family housing site at 63rd and Boone Avenues North. The amount requested is \$50,000. The proposed project is additional on-site water quality treatment, including 7-8 new rain gardens, additional pollinator habitat, and educational signage. The west half of the multi-family complex drains directly to the Cherokee Wetland and Bass Creek, while the east half drains through storm sewer on 63rd Avenue to a channel that discharges into wetland 639W. Representatives from Metro Blooms were present to describe the proposed project in more detail.

[Tuominen arrived 12:09 pm.]

The application includes an overview of the results of Phase 1, which was partly funded by a \$50,000 Partnership Cost Share grant from the Commission. In Phase 1 five rain gardens and a pollinator garden were added to the site and three ash trees were removed and eight new trees were planted in conjunction with planned stormwater BMPs. These BMPs provide an estimated volume reduction of 62.74% of rainfall runoff annually from a 4.9-acre sub-catchment area.

The project also includes extensive resident education and participation, both in the design process and in installation and planting. In addition, the project includes Smart Salting education and training for the on-site property managers. Staff recommends that the TAC and Commission approve the application.



Motion by Asche, second by Tuominen to approve Staff's recommendation. *Motion carried unanimously.*

B. Speed Thru Car Wash.* The City of New Hope has submitted a Partnership Cost Share application on behalf of LAMA Holdings LLC, Chris Robbins, for a capture and reuse project at the Speed Thru Car Wash at 7201 Bass Lake Road. The amount requested is \$50,000. The proposed project is the installation of five 20,000-gallon storage tanks and a filtration system to capture runoff from the site for reuse as car wash water. The site drains to the Bass Lake Road trunk storm sewer and then to Upper Twin Lake.

Runoff from nearly all impervious surface on site will be collected and routed to the storage tanks which will be treated by aerobic bacteria. All petroleum-based products will be consumed, and the only byproducts are CO₂ and water. After bacteria treatment the water will be further purified using a reverse osmosis system before being dispensed in the car wash tunnel.

To determine whether the system truly has the capacity to retain 1.3" of runoff on site to meet Commission water quality requirements, Staff obtained expected usage volumes from the applicant and analyzed use compared to expected precipitation replenishment. On average, there is a 0.34-inch rainfall every 72 hours, which would generate an estimated 1,385 gallons of runoff every three days. The car wash uses 8 gallons per vehicle with an estimated 100 vehicles per day, using 2,400 gallons every three days. Therefore, every three days on average the volume in the tanks is drawn down by 1,015 gallons. While that, on average, uses more water than is added through rainfall, the larger, less frequent storms would make up those deficits and replenish the tanks. With the tanks drawn down to a nominal 5% full, they have the capacity to capture a 3.1" storm. When the tanks are full, the system will be bypassed into the storm sewer system similar to any other practice designed to capture the first 1.3" and overflow the remainder. The storage tanks are capable of holding 280 days of average precipitation. Staff recommends that the TAC and Commission approve the application.

Motion by Ray, second by Asche to recommend to the Commission denial of this application pending receipt of additional information from the applicant. *Motion carried unanimously.*

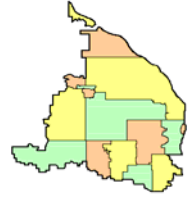
C. Enhanced Street Sweeper.* The TAC has previously debated the use of capital or cost share funds for high performance street sweeping equipment. While the TAC and Commissions are favorable of this idea, it is ultimately the decision of Hennepin County as to whether this meets the state statutes regulating their capital bonding. Staff have been in contact with Karen Galles at Hennepin County Energy and Environment, who is supportive of the idea. She has been discussing this idea with various upper level managers and county attorneys but a decision has not yet been made.

The City of Plymouth is requesting the Shingle Creek Commission to add a regenerative air sweeper to its 2020 CIP. This item is on the City's CIP. According to their application, the City is bringing its street sweeping program in-house in 2019 and is committed to expanding the program to address water quality concerns going forward. All water resources within and downstream of the City of Plymouth could be affected by the enhanced street sweeping effort. Enhanced street sweeping was identified in the Bass, Schmidt and Pomerleau TMDL, the Cedar Island, Pike and Eagle Lake TMDL, and the Pike Lake Subwatershed Assessment as a cost-effective BMP for nutrient reductions.

Motion by Ray, second by Roser to recommend to the Commission approval of this application conditioned that before-and-after performance reporting parameters be developed. *Motion carried unanimously.*

IV. Other Business.

A. Upcoming discussion – Maple Grove wetlands district revisions.



B. The **next meeting** of the Technical Advisory Committee is scheduled for 8:30 a.m., Thursday, April 25, 2019, Crystal City Hall.

C. The meeting was adjourned at 12:09 p.m.

Respectfully submitted,

A handwritten signature in black ink, reading "Judie A. Anderson". The signature is written in a cursive style.

Judie A. Anderson
Recording Secretary

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Technical Memo



Responsive partner.
Exceptional outcomes.

To: Shingle Creek/West Mississippi WMO TAC

From: Ed Matthiesen, P.E.
Diane Spector

Date: April 18, 2019

Subject: Proposed 2019 CIP

**Recommended
Commission Action**

Review each proposed 2019 CIP and make a recommendation as how to proceed.

At the May 9 meeting the Commissions will start the 2019 CIP process by considering which projects would potentially go forward to a public hearing in September, and establish a maximum levy. Any proposed plan amendments and the maximum levy must be reported to Hennepin County by May 15, and will be considered by the County Board in late June 2019.

Tables 1a, 1b, and 1c show the potential maximum levy and Table 3 the current CIP (with the proposed Minor Plan Amendment revisions) for Shingle Creek and Table 2 and Table 4 shows the same information for West Mississippi. Some projects such as the Maple Grove ponds have already been rescheduled to future years at the request of the cities. There are also some placeholder projects for which there may not be anything planned yet that could be rescheduled.

Table 1a. Shingle Creek current 2019 CIP projects.

Project	Total Estimated	City/ Private	Grant	Commission Share
Cost share (city projects)	\$200,000	\$100,000	0	\$100,000
Shingle/Bass Cr Restoration	\$500,000	\$375,000	0	\$125,000
Crystal Lake Management Plan	\$370,500	\$0	0	\$370,500
Partnership cost share (private projects)	\$100,000	\$50,000	0	\$50,000
Subtotal	\$1,170,500	\$525,000	\$ 0	\$645,500
5% additional for legal/admin costs				32,275
TOTAL LEVY (101% for uncollectable)				\$684,550

Table 1b. Shingle Creek recommended 2019 CIP projects and max levy.

Project	Total Estimated	City/ Private	Grant	Commission Share
Cost share (city projects)	\$200,000	\$100,000	0	\$100,000
Crystal Lake Management Plan	\$370,506	\$0	0	\$370,500
Partnership cost share (private projects)	\$100,000	\$50,000	0	\$50,000
Subtotal	\$670,506	\$150,000	\$ 0	\$520,500
5% additional for legal/admin costs				26,025
TOTAL LEVY (101% for uncollectable)				\$551,990

Table 1c. Shingle Creek likely 2019 CIP projects and levy.

Project	Total Estimated	City/ Private	Grant	Commission Share
Cost share (city projects)	\$200,000	\$100,000	0	\$100,000
Crystal Lake Management Plan	\$370,500	\$0	\$216,066	\$154,440
Partnership cost share (private projects)	\$100,000	\$50,000	0	\$50,000
Subtotal	\$670,500	\$150,000	\$216,066	\$304,440
5% additional for legal/admin costs				15,220
TOTAL LEVY (101% for uncollectable)				\$322,860

Table 2. West Mississippi current 2019 CIP Projects.

Project	Total Estimated	City/ Private	Grant	Commission Share
Cost share (city projects)	\$100,000	\$50,000	0	\$50,000
Champlin Woods Tr Rain Gardens	\$180,000	\$135,000	0	\$45,000
Miss Crossings Phase B Infiltration Vault	\$200,000	\$150,000	0	\$50,000
Subtotal	\$480,000	\$335,000	\$ 0	\$145,000
5% additional for legal/admin costs				7,250
TOTAL LEVY (101% for uncollectable)				\$152,250

Table 3. Current Shingle Creek WMC CIP.

CAPITAL IMPROVEMENT PROGRAM	2018	2019	2020	2021	2022
Cost Share Program	200,000	200,000	200,000	200,000	200,000
Commission Contribution	100,000	100,000	100,000	100,000	100,000
Local Contribution	100,000	100,000	100,000	100,000	100,000
Partnership Cost-Share BMP Projects	100,000	100,000	100,000	100,000	100,000
Commission Contribution	50,000	50,000	50,000	50,000	50,000
Local Contribution	50,000	50,000	50,000	50,000	50,000
Lake Internal Load Improvement Project			200,000		200,000
Commission Contribution			200,000		200,000
Local Contribution			0		0
Bass and Pomerleau Lakes Alum Treatment	390,000				
-Commission Contribution	390,000				
-Local Contribution	0				
SRP Reduction Project	124,680				
-Commission Contribution	124,680				
-Local Contribution	0				
Becker Park Infiltration Project	2,500,000				
Commission Contribution	250,000				
Local Contribution	2,250,000				
<u>Crystal Lake Management Plan Project</u>		<u>370,500</u>			
<u>-Commission Contribution</u>		<u>370,500</u>			
<u>-Local Contribution</u>		<u>0</u>			
Shingle Creek or Bass Creek Restoration		500,000			
Commission Contribution		125,000			
Local Contribution		375,000			
Maple Grove Pond P57			648,000		
Commission Contribution			162,000		
Local Contribution			486,000		
Maple Grove Pond P33			574,000		
Commission Contribution			143,500		
Local Contribution			430,500		
Shingle Cr Brookdale Park Habitat Enhance			150,000		
Commission Contribution			37,500		
Local Contribution			112,500		
Mpls Webber Park Stream Restoration			500,000		
Commission Contribution			125,000		
Local Contribution			375,000		
Mpls Flood Area 5 Water Quality Projects			6,000,000		
Commission Contribution			250,000		
Local Contribution			5,750,000		
Maple Grove Pond P55			855,000		
Commission Contribution			213,800		
Local Contribution			641,200		
Shingle Creek, Regent to Brooklyn Blvd			400,000		
Commission Contribution			100,000		
Local Contribution			300,000		
Palmer Creek Estates Bass Creek Restoration				450,000	
Commission Contribution				112,500	
Local Contribution				337,500	
TOTAL PROJECT COST	\$3,314,680	\$1,170,500	\$9,427,000	\$750,000	\$500,000
TOTAL COMMISSION SHARE	914,680	645,500	1,181,800	262,500	350,000
TOTAL CITY SHARE	2,400,000	525,000	8,245,200	487,500	150,000

Table 4. Current West Mississippi WMC CIP.

CAPITAL IMPROVEMENT PROGRAM	2018	2019	2020	2021	2022
Cost Share Program	100,000	100,000	100,000	100,000	100,000
Commission Contribution	50,000	50,000	50,000	50,000	50,000
Local Contribution	50,000	50,000	50,000	50,000	50,000
Mississippi Crossings Phase B Infiltration Vault		200,000			
Commission Contribution		50,000			
Local Contribution					
Champlin Woods Trail Rain Gardens		180,000			
Commission Contribution		45,000			
Local Contribution		135,000			
Wetland Restoration Project			250,000		
Commission Contribution			62,500		
Local Contribution			187,500		
TOTAL PROJECT COST	100,000	480,000	350,000	100,000	100,000
TOTAL COMMISSION SHARE	50,000	145,000	112,500	50,000	50,000
TOTAL CITY SHARE	50,000	335,000	237,500	50,000	50,000