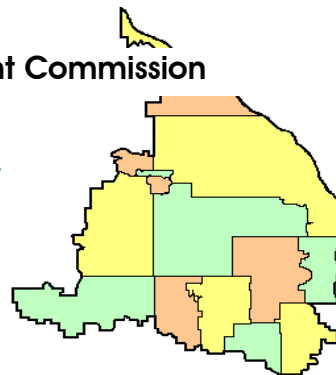


# Shingle Creek Watershed Management Commission



3235 Fernbrook Lane N • Plymouth, MN 55447  
 Tel: 763.553.1144 • Fax: 763.553.9326  
 Email: judie@jass.biz • Website: www.shinglecreek.org

October 1, 2020

Commissioners  
 Shingle Creek and West Mississippi  
 Watershed Management Commissions  
 Hennepin County, Minnesota

The agenda and meeting packet are available to all interested parties on the Commission's web site. The direct path is  
<http://www.shinglecreek.org/minutes--meeting-packets.html>

Dear Commissioners:

Regular meetings of the Shingle Creek and West Mississippi Watershed Management Commissions will be held **Thursday, October 8, 2020, at 12:45 p.m.** **This will be a virtual meeting.**

Until further notice, all meetings will be held online to reduce the spread of COVID-19. **To join a meeting**, click <https://us02web.zoom.us/j/834887565?pwd=N3MvZThacmNRVDFrOWM3cU1KRU5qQT09>, which takes you directly to the meeting.

**OR**, go to [www.zoom.us](http://www.zoom.us) and click **Join A Meeting**. The meeting ID is **834-887-565**. **As of September 27, 2020, meetings require a passcode. The passcode for this meeting is 251571.**

If your computer is not equipped with audio capability, you need to dial into one of these numbers:

+1 929 205 6099 US (New York)	+1 312 626 6799 US (Chicago)
+1 669 900 6833 US (San Jose)	+1 346 248 7799 US (Houston)
+1 253 215 8782 US	+1 301 715 8592 US

Meetings remain open to the public via the instructions above.

Please email me at [judie@jass.biz](mailto:judie@jass.biz) to confirm whether you or your Alternate will be attending the regular meeting. Thank you.

Regards,

Judie A. Anderson  
 Administrator

cc: Alternate Commissioners      Member Cites      Troy Gilchrist      TAC Members  
 Metropolitan Council      Wenck Associates

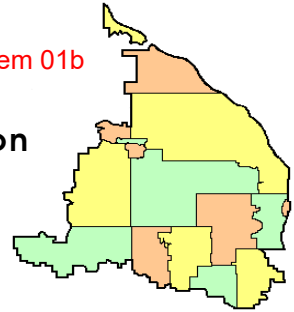
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# Shingle Creek Watershed Management Commission



item 01b



3235 Fernbrook Lane N • Plymouth, MN 55447  
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Email: judie@jass.biz • Website: www.shinglecreek.org

A combined regular meeting of the Shingle Creek (SC) and West Mississippi (WM) Watershed Management Commissions will be convened Thursday, October 8, 2020, at 12:45 p.m. Agenda items are available at <http://www.shinglecreek.org/minutes--meeting-packets.html>. *Black typeface denotes SCWM items, blue denotes SC items, green denotes WM items.*

To join the meeting, click <https://zoom.us/j/834887565> or go to [www.zoom.us](http://www.zoom.us) and click Join A Meeting. **The meeting ID is 834-887-565.**

**Beginning in October, meetings require a passcode. The passcode for this meeting is 251571.**

If your computer is not equipped with audio capability, dial into one of these numbers:

+1 929 205 6099 US (New York)	+1 312 626 6799 US (Chicago)	+1 253 215 8782 US
+1 669 900 6833 US (San Jose)	+1 346 248 7799 US (Houston)	+1 301 715 8592 US

1. Call to Order.
  - SCWM a. Roll Call.
  - ✓ SCWM b. Approve Agenda.\*
  - ✓ SCWM c. Approve Minutes of Last Meeting.\*
2. Reports.
  - ✓ SC a. Treasurer's Report and Claims\*\* - voice vote.
  - ✓ WM b. Treasurer's Report and Claims\*\* - voice vote.
3. Open forum.
4. Project Reviews.
  - ✓ SC a. SC2020-009 Les Hamilton, Bass Lake Shoreline Restoration, Plymouth.\*
  - ✓ SCWM b. Revised Project Review Fee Schedule.\*
5. Watershed Management Plan.
6. Water Quality.
7. Grant Opportunities.
  - SCWM a. BWSR Watershed-Based Implementation Funding.
    - SCWM 1) Notes Meeting #4.\*
    - ✓ SC 2) Accept Grants and Authorize Submittal of Work Plans.\*
8. Education and Public Outreach.\*\*
  - SCWM a. Next WMWA meetings – 8:30 a.m., Tuesday, October 13, and November 10, 2020.  
*Virtual meetings at*  
<https://us02web.zoom.us/j/922390839?pwd=RU95T2ttL3FzQmxHcU9jcFhDdng1QT09>  
Meeting ID: 922 390 839 | Passcode: 545059 | or by phone: +1 301 715 8592.
- SCWM 9. Staff Report.\*
10. Communications.
  - SCWM a. Communications Log.\*
11. Other Business.
12. Adjournment.

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\* In meeting packet or emailed

\*\* Supplemental email / Available at meeting

\*\*\*Previously transmitted \*\*\*\* Available on website ✓ Item requires action



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## MINUTES

### Regular Meeting and Public Hearing

September 10, 2020

(Action by the SCWMC appears in blue, by the WMWMC in green and shared information in black.)

\*indicates items included in the meeting packet.)

I. A joint virtual meeting of the Shingle Creek Watershed Management Commission and the West Mississippi Watershed Management Commission was called to order by Shingle Creek Chairman Andy Polzin at 12:45 p.m. on Thursday, September 10, 2020.

Present for Shingle Creek were: David Vlasin, Brooklyn Center; Steve Chesney, Brooklyn Park; Burton Orred, Jr., Crystal; Karen Jaeger, Maple Grove; Ray Schoch, Minneapolis; Bill Wills, New Hope; John Roach, Osseo; Andy Polzin, Plymouth; Wayne Sicora, Robbinsdale; Ed Matthiesen and Diane Spector, Wenck Associates, Inc.; Troy Gilchrist, Kennedy & Graven; and Judie Anderson and Amy Juntunen, JASS.

Present for West Mississippi were: David Vlasin, Brooklyn Center, Steve Chesney, Brooklyn Park; Gerry Butcher, Champlin; Karen Jaeger, Maple Grove; Harold E. Johnson, Osseo; Ed Matthiesen and Diane Spector, Wenck Associates, Inc.; Troy Gilchrist, Kennedy & Graven; and Judie Anderson and Amy Juntunen, JASS.

Also present were: Andrew Hogg, Brooklyn Center; Mitch Robinson, Brooklyn Park; Mark Ray, Crystal; Derek Asche, Maple Grove; Bob Grant and Megan Hedstrom, New Hope; Ben Scharenbroich, Plymouth; Richard McCoy and Marta Roser, Robbinsdale.

Public present: Jodi Taitt and Richard Buller, Meadow Lake Watershed Association.

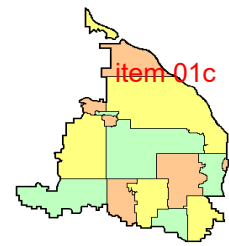
## II. Agendas and Minutes.

Motion by Schoch, second by Jaeger to approve the **Shingle Creek agenda** as amended.\* *Motion carried unanimously.*

Motion by Chesney, second by Jaeger to approve the **West Mississippi agenda** as amended.\* *Motion carried unanimously.*

Motion by Schoch, second by Jaeger to approve the **minutes of the August 13, 2020 regular meeting.**\* *Motion carried unanimously.*

Motion by Johnson, second by Jaeger to approve the **minutes of the August 13, 2020 regular meeting.**\* *Motion carried unanimously.*



**III. Finances and Reports.**

**A.** Motion by Orred, second by Chesney to approve the Shingle Creek **September Treasurer's Report\* and claims** totaling \$64,054.25. Voting aye: Vlasin, Chesney, Orred, Jaeger, Schoch, Grant, Roach, and Polzin; voting nay – none; absent: Robbinsdale.

**B.** Motion by Johnson, second by Jaeger to approve the **West Mississippi September Treasurer's Report\* and claims** totaling \$11,163.35. Voting aye: Vlasin, Chesney, Jaeger, and Johnson; voting nay – none; absent: Champlin.

*[The regular meeting was suspended at 12:53 p.m. in order to conduct a public hearing.]*

**IV. Public Hearing.\***

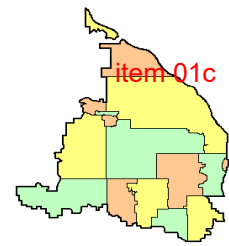
**A.** On August 13, 2020, the Commissions called for a public hearing for today to consider proposed projects to levy in 2020 for collection in 2021. The cities and the county have been notified and notice has been duly published. The purpose of this public hearing is to present the proposed projects and proposed financing and to take comment from the member cities and the public.

**B. Shingle Creek Projects.**

Shingle Creek 2020 CIP Projects (2021 levy).	Total Est Cost	City/Private	Grant	Comm Share	Total Levy
Cost Share (city projects)	\$200,000	\$100,000	0	\$100,000	\$106,050
Connections II Stream Restoration	400,000	0	0	400,000	424,200
Plymouth Street Sweeper	350,000	275,000	0	75,000	79,540
Meadow Lake Management Plan	300,000	0	0	300,000	318,150
Bass Creek Restoration	400,000	0	0	400,000	424,300
Partnership Cost Share (private projects)	100,000	50,000	0	50,000	53,025
<b>Subtotal</b>	<b>\$1,750,000</b>	<b>\$425,000</b>	<b>\$0</b>	<b>\$1,325,000</b>	
<b>5% additional for legal/admin costs</b>				<b>66,250</b>	
<b>Subtotal</b>				<b>1,391,250</b>	
<b>TOTAL LEVY (101% for uncollectable)</b>				<b>\$1,405,165</b>	<b>\$1,405,165</b>

**1. Commission Fund for Retrofit Cost Share (City Projects).** This annual project provides cost sharing to retrofit smaller BMPs. The TAC developed policies and procedures to administer these funds and makes recommendations to the Commissions on which projects should be funded. Brooklyn Park, Brooklyn Center, Minneapolis, Crystal, Robbinsdale, and New Hope have all received matching funds for small voluntary BMP projects. The annual levy is \$100,000, to be matched at least one-to-one by a member city or cities. Applications are open until funds are depleted. Potential cost-share projects for 2021 will be solicited in November-December 2020, but the program is open until all funds have been used.

**2. Priority BMP Retrofits (Private Partnership Projects).** The annual levy is \$50,000, and funding does not require a match. Potential cost-share projects are open year-round until the funds are depleted.



**3. Connections II Stream Restoration.** This project in the cities of Brooklyn Park and Brooklyn Center will restore 1,750 linear feet of stream habitat in Shingle Creek and will reduce sediment and phosphorus pollution originating from this stretch of stream by 75-80%. Stream segments upstream and downstream of this reach have previously been improved. Completing this segment will result in an almost 2.5-mile-long corridor of restored urban stream.

**4. Plymouth Street Sweeper.** The City of Plymouth intends to purchase a regenerative air street sweeper to enhance its street sweeping program and increase the frequency of sweeping in the vicinity of impaired waters. Street sweeping is one of the most cost-effective best management practices for improving water quality and reducing pollutant loading to streams and lakes.

**5. Meadow Lake Management Plan.** This project in the City of New Hope will control invasive fish and plants and regenerate the native seedbank of the lake by completing a whole lake draw-down. The project will also include the installation of some fish barriers, as well as education and outreach. Once the biology is restored, an alum treatment may be completed.

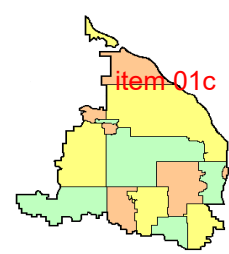
**6. Bass Creek Restoration.** This project will improve 1,500 linear feet of stream by restoring the natural shape of the channel, adding features like gravel riffles, thinning the tree canopy, and restoring understory stream buffer vegetation. This project will also reconnect the stream to its adjacent floodplain to ensure adequate conveyance of flood flows and install a flow-through filter to remove phosphorus from water leaving the upstream wetland and entering Bass Creek. The project runs from Cherokee Drive to I-94/694 in the City of Brooklyn Park.

**C. West Mississippi Projects.**

West Mississippi 2020 CIP Projects (2021 levy).	Total Estimated	City/Private	Grant	Comm Share	Total Levy
Cost Share (city projects)	\$100,000	\$50,000	0	\$50,000	\$53,025
Miss Crossings Phase B Infiltration Vault	400,000	300,000	0	100,000	106,050
River Park Stormwater Improvements	485,000	363,750	0	121,250	128,585
<b>Subtotal</b>	<b>\$985,000</b>	<b>\$713,750</b>	<b>\$0</b>	<b>\$271,250</b>	
<b>5% additional for legal/admin costs</b>				<b>13,560</b>	
<b>Subtotal</b>				<b>284,810</b>	
<b>TOTAL LEVY (101% for uncollectable)</b>				<b>\$287,660</b>	<b>\$287,660</b>

**1. Commission Fund for Retrofit Cost Share (City Projects).** Similar to Shingle Creek, this annual project provides cost sharing to retrofit smaller BMPs. No project applications have been received to date.

**2. Mississippi Crossings Phase B Infiltration Vault.** The City of Champlin will provide regional stormwater treatment for public and private redevelopment for the Mississippi Crossings at TH 169 and the Anoka-Champlin bridge. Runoff from the site will be directed toward a series of infiltration vaults under a common parking lot that serves a mixed residential-commercial development, senior housing complex, public park, amphitheater, public docks, and event center. Private developers on this site will pay a proportionate amount of the costs to construct these vaults. The Commission's share will contribute only to the portion needed to treat the public improvements to the site.



**3. River Park Stormwater Improvements.** The City of Brooklyn Park will incorporate a tiered, natural feeling stormwater pond into the planned improvements to River Park. The pond will treat 250 acres of runoff that currently discharges untreated directly to the Mississippi River. These improvements will remove an estimated 60% of total suspended sediments and 29% of phosphorus currently reaching the Mississippi River from this drainage area.

*[Sicora arrived 12:55 p.m.]*

**D. Open public hearing.** The public hearing was opened at 12:59 p.m.

**1.** No comments on the proposed levy were received from either the member cities or the reviewing agencies.

**2.** Two individuals from the Meadow Lane Watershed Association, named above, were present from the general public. They thanked the Commission for undertaking the Meadow Lake project.

**3.** Also see item XI.B., below.

*Motion by Jaeger, second by Schoch to close the public hearing. Motion carried unanimously.*

*Motion by Jaeger, second by Johnson to close the public hearing. Motion carried unanimously.*

*[The public hearing was closed at 1:00 p.m.]*

**E. Commission Discussion.**

*Motion by Schoch, second by Chesney to adopt **Resolution 2020-01** Ordering 2020 Improvements ... and Certifying Costs to Hennepin County .... \* Motion carried unanimously.*

*Motion by Jaeger, second by Chesney to adopt **Resolution 2020-01** Ordering 2020 Improvements ... and Certifying Costs to Hennepin County .... \* Motion carried unanimously.*

*[The regular meeting resumed at 1:07 p.m.]*

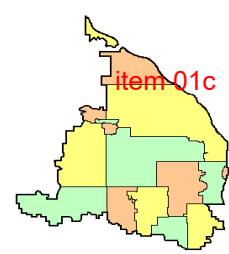
**V. Open Forum.**

**VI. Project Reviews.**

**A. SC2020-007 Middle of the Boulevard, Brooklyn Park.\*** Demolition of two existing structures and construction of a parking area and associated landscaping on 11.5 acres. The project site is three parcels adjacent to 7417 Brooklyn Boulevard, bound by Brooklyn Boulevard and Regent Avenue. Following development, the site will be 85% impervious with 9.8 acres of impervious surface, an increase of 0.25 acres. The grading and erosion control plans were approved at the August meeting. Due to soils data received August 12, 2020, showing peat instead of the assumed sand, the stormwater management plan had to be redesigned and was received August 27, 2020, completing the project review application.

To comply with the Commission's water quality treatment requirement, the site must provide ponding designed to NURP standards with dead storage volume equal to or greater than the volume of runoff from a 2.5" storm event, or BMPs providing a similar level of treatment - 85% TSS removal and 60% TP removal. Infiltrating 1.3-inches of runoff, for example, is considered sufficient to provide a similar level of treatment. If a sump is used the MnDOT Road Sand particle size distribution is acceptable for 80% capture.

Runoff from the northwest portion of the site is proposed to be routed directly to city storm sewer on Regent Avenue. Runoff from the northeast portion of the site is proposed to be routed



directly to Brooklyn Boulevard. Runoff from the southern portion of the site is routed over vegetated soils directly to Shingle Creek. Runoff from the central parking lot area is routed through a sand filtration basin before discharging directly to Shingle Creek. No infiltration is proposed on-site. The applicant used a MIDS model to model TSS and TP load reduction from the entire disturbed impervious area on site and demonstrated that the filtration basin has the capacity to remove 65% of the total TP load and 119% of the total TSS load. The applicant meets Commission water quality treatment requirements.

Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events. Runoff from the site is routed directly northwest to Regent Avenue, northeast to Brooklyn Boulevard, directly to Shingle Creek, and through a filtration basin to Shingle Creek. The applicant meets Commission rate control requirements.

Commission rules require the site to infiltrate 1.0 inch of runoff from new impervious area within 48 hours. The disturbed impervious area on this site is 39,905 SF, requiring infiltration of 3,325 CF within 48 hours. Due to low infiltration capacity of soils on-site, the applicant proposes to provide filtration instead of infiltration. The applicant proposes to construct a filtration basin that has the capacity to filter the required volume within 48 hours. The applicant meets Commission volume control requirements.

The erosion control plan was approved on August 14, 2020. Filtration basin slopes will be seeded with MNDOT 33-261 or equivalent seed mix.

The National Wetlands Inventory does not identify any wetlands on site. The applicant meets Commission wetland requirements. There are no Public Waters on this site.

There is FEMA 100-year floodplain on the southern portion of this site. The FEMA 100-year flood elevation is 859.1 ft. No buildings are proposed within the floodplain. The grading plan was approved on August 14, 2020 and will result in a net storage increase of 722 CY. The applicant meets Commission floodplain requirements.

The site is not located in a Drinking Water Management Area (DWSMA). The applicant meets Commission drinking water protection requirements.

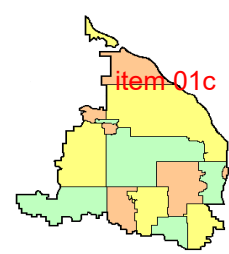
Public hearings on the project have been conducted on May 13, 2020 and May 26, 2020 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

A draft Operations and Maintenance (O&M) agreement between the applicant and the City of Brooklyn Park was provided.

Motion by Jaeger, second by Schoch to advise the City of Brooklyn Park that project SC2020-007 is approved with no conditions. *Motion carried unanimously.*

**B. SC2020-008: Crystal MAC Boardwalk Phase 2, Crystal.\*** Construction of boardwalk, an elevated education platform, and access ramps connecting old and new boardwalk on 0.11 acres located in the Crystal MAC Natural Area at 6001 Regent Avenue North. The entire site is 40 acres and the disturbed area is 0.11 acres. The project does not increase impervious surface on site. A complete project review application was received on August 12, 2020.

The erosion control plan includes two rock construction entrances, sediment control log, and erosion control blanket. The work will be completed in the winter when the wetland is frozen to minimize impacts. The erosion control plan meets Commission requirements.



The National Wetlands Inventory identifies a wetland on site. The DNR is taking jurisdiction on the wetland impacts for this project and has issued a request for comments on the project.

The unnamed creek and wetland on site are DNR Public Waters, and the creek flows south through the site to Twin Lake. The proposed project is not anticipated to negatively impact the creek or wetland. The applicant meets Commission Public Waters requirements.

There is a FEMA-regulated floodplain on this site. Less than 0.1 CY of fill in the floodplain is proposed in the form of helical pilings to support the boardwalk. The applicant meets Commission floodplain requirements.

The site is located in a Drinking Water Management Area (DWSMA), but infiltration is not expected to be impacted as a result of the project. The applicant meets Commission drinking water protection requirements. A public hearing on the project is not required.

Motion by Schoch, second by Chesney to advise the City of Crystal that project SC2020-008 is approved with no conditions. *Motion carried unanimously.*

**C. WM2019-010: Mississippi Crossing, Champlin.\*** Construction of apartment complex on 8.39 acres (Phase 1A, approved), reconstruction of East River Parkway, partial reconstruction of a parking lot (Phase 1B), and construction of a parking lot, event center, restaurant, pavilion, amphitheater, and outdoor plazas and sidewalks (Phase 2). This application includes a resubmittal of Phase 1B and submittal of Phase 2. The site is located at East River Entry and East River Parkway.

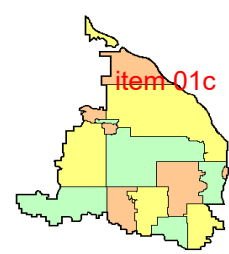
The proposed project consists of two phases. Phase 1 is the construction of an apartment complex with an associated driveway, sidewalk, and plaza. Phase 1 includes two underground stormwater infiltration systems. Phase 2 is the construction of additional driveway, parking areas, and public buildings. Stormwater management features are proposed as part of both phases of the project and are designed to handle stormwater from impervious area associated with the project. The site is 13.6 acres. As of the August 11, 2020 submittal, following development of both phases the site will be 66% impervious with 9.00 acres of impervious surface, an increase of 6.55 acres.

The complete project application was received on September 30, 2019. The project submittal for phase 1A and 1B was approved by the Commission on January 10, 2020, but grading for phase 1B has since been updated. Phase 2 is being reviewed in this submittal.

To comply with the Commission's water quality treatment requirement, the site must provide ponding designed to NURP standards with dead storage volume equal to or greater than the volume of runoff from a 2.5" storm event, or BMPs providing a similar level of treatment, i.e., 85% TSS removal and 60% TP removal. Infiltrating 1.3 inches of runoff, for example, is considered sufficient to provide a similar level of treatment.

Runoff from the site is routed to three separate corrugated metal pipe infiltration systems, permeable paver systems, and infiltration basins with drain tile. These underground infiltration systems have the capacity to infiltrate 1.3 inches of runoff. The MIDS calculation for the entire site indicates an annual TSS load reduction of 87% and annual TP load reduction of 78% from all BMPs, meeting Commission requirements for water quality. In addition, at each inlet to the underground infiltration systems, a 6-ft sump with SAFL Baffle provides pretreatment to stormwater before it enters the system. All proposed SAFL Baffles provide more than 80% removal of suspended solids according to SHSAM calculations. The applicant meets Commission water quality treatment requirements.





Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events. As referenced in the August 11, 2020 resubmitted stormwater report, the City of Champlin and the West Mississippi Commission waived the rate control requirements for the site due to its proximity to the outfall structure to the Mississippi River. The site must instead meet the water quality requirement of infiltrating runoff from the 1.3" rain event on site.

Commission volume control rules require the site to infiltrate 1.0 inch of runoff from new impervious area within 48 hours. However, this site must infiltrate 1.3 inches of runoff to additionally meet water quality requirements. The new impervious area for the entire site as of August 2020 is 6.55 acres, requiring infiltration of 0.71 acre-feet (30,927 CF) within 48 hours. The applicant proposes that three infiltration systems, permeable pavers, and filtration basins will infiltrate 46,072 CF within 48 hours. The applicant meets Commission volume control requirements.

The erosion control plan includes a rock construction entrance, perimeter silt fence and inlet protection. The erosion control plan meets Commission requirements.

The National Wetlands Inventory does not identify any wetlands on site. The applicant meets Commission wetland requirements. There are no Public Waters on this site. The applicant meets Commission Public Waters requirements.

Grading for the amphitheater and fill at the existing boat launch are proposed within the limits of the Mississippi River FEMA floodway. The applicant has demonstrated a no-rise condition of 0.00 feet within the floodway. The applicant meets Commission floodplain requirements.

The site is not located in a Drinking Water Management Area (DWSMA). The applicant meets Commission drinking water protection requirements.

A public hearing on the project was conducted on November 18, 2019 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

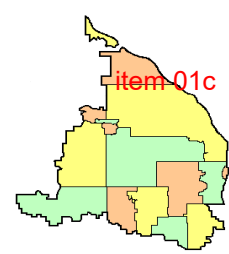
A draft Operations & Maintenance (O&M) agreement between the applicant and the City of Champlin has not been provided. However, the applicant wrote in an email to Sarah Nalven of Wenck Associates on October 22, 2019, "The City and Owner have discussed this agreement, but nothing has been developed yet. They will keep you in the loop when this is developed to make sure the watershed has a copy of the draft."

Motion by Johnson, second by Jaeger to advise the City of Champlin that Project WM2019-010, revised September 2, 2020, is approved with the following conditions:

1. Provide a complete O&M agreement between the applicant and the City of Champlin for all stormwater facilities on the project site.
2. Demonstrate by double ring infiltrometer or witness test that the underground infiltration systems, drain tile systems, and permeable pavers can meet the design infiltration rate of 0.80 inches/hour.

*Motion carried unanimously.*

**D. WM2020-006: Woodspring Suites Hotel, Brooklyn Park.** Construction of a 13,000 SF 4-story hotel and associated parking on a 4.9 acre site located at 9489 Winnetka Avenue North. Following development, the site will be 33.7% impervious with 1.65 acres of impervious surface, an increase of 1.65 acres. A complete project application was received on August 12, 2020.



To comply with the Commission's water quality treatment requirement, the site must provide ponding designed to NURP standards with dead storage volume equal to or greater than the volume of runoff from a 2.5" storm event, or BMPs providing a similar level of treatment - 85% TSS removal and 60% TP removal. Infiltrating 1.3 inches of runoff, for example, is considered sufficient to provide a similar level of treatment. If a sump is used the MnDOT Road Sand particle size distribution is acceptable for 80% capture.

Runoff from the site is proposed to be routed through a series of catch basins in the parking lot to ultimately discharge to the existing regional infiltration pond in the western portion of the site. Pretreatment will be provided by a 3' sump and a hydrodynamic separator prior to discharging to the pond. The applicant meets Commission water quality treatment requirements by providing storage for a 1.3" rainfall off the entire site's impervious surface.

Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events. All runoff from the site is routed through a series of catch basins in the proposed parking lot before discharging to an existing regional infiltration pond on the western portion of the site. The existing pond was designed to infiltrate runoff from the 14.3-acre combined area of the north and west parcels with 75% impervious surface. The proposed 1.65 acres of new impervious will increase the impervious percentage of the area to 66%, which is within the treatment capacity of the pond. The pond only releases stormwater during the 100-yr event (45.4 cfs). Total site runoff to the northern MnDOT Right of Way includes outflow from the pond on-site and runoff from other portions of the Northcross Business Park. The applicant meets Commission rate control requirements.

Commission rules require the site to infiltrate 1.0 inch of runoff from new impervious area within 48 hours. The new impervious area on this site is 1.65 acres, requiring infiltration of 0.14 acre-feet within 48 hours. The applicant proposes to route runoff to a regional infiltration pond that has the capacity to infiltrate the required volume within 48 hours. The applicant meets Commission volume control requirements.

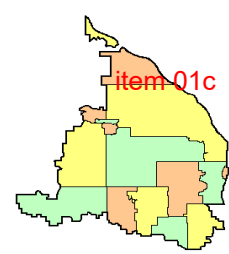
The erosion control plan includes a rock construction entrance, perimeter silt fence, silt fence bordering the infiltration basin, inlet protection, rip rap at inlets, slope checks, and native seed specified on the pond slopes. The erosion control plan meets Commission requirements.

The National Wetlands Inventory does not identify any wetlands on site. The applicant meets Commission wetland requirements. There are no Public Waters on this site. The applicant meets Commission Public Waters requirements. There is no FEMA-regulated floodplain on this site. The applicant meets Commission floodplain requirements.

The site is located in a Drinking Water Management Area, but is outside of the Emergency Response Area. Therefore, infiltration is permitted, but infiltrated water must first filter through one foot of soil, the top four inches of which are amended topsoil and the bottom 8 inches of which are tilled. The applicant proposes to infiltrate runoff from the site in an existing regional basin. The applicant meets Commission drinking water protection requirements.

Public hearings on the project will be conducted on September 9, 2020 and September 14, 2020 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

A draft Operations and Maintenance (O&M) agreement between the applicant and the City of Brooklyn Park was provided.



Motion by Jaeger, second by Chesney to advise the City of Brooklyn Park that Project WM2020-006 is approved conditioned on providing confirmation that the 3' sump is acceptable per MPCA guidance. *Motion carried unanimously.*

**E. WM2020-007: North Park Business Center – DataBank, Brooklyn Park.** Construction of two buildings on 14.4 acres at Lot 2 Block 1, North Park Business Center Third Addition. Following development, the site will be 74 percent impervious with 10.7 acres of impervious surface, an increase of 10.5 acres. A complete project application was received on August 27, 2020.

To comply with the Commission's water quality treatment requirement, the site must provide ponding designed to NURP standards with dead storage volume equal to or greater than the volume of runoff from a 2.5" storm event, or BMPs providing a similar level of treatment - 85% TSS removal and 60% TP removal. Infiltrating 1.3-inches of runoff, for example, is considered sufficient to provide a similar level of treatment. If a sump is used the MnDOT Road Sand particle size distribution is acceptable for 80% capture.

Runoff from the site is proposed to be routed southwest from the site through two stormwater ponds to an infiltration basin, and north to a storm sewer that drains to a wet pond and ultimately to an infiltration basin. The applicant meets Commission water quality treatment requirements.

Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events. The applicant proposes to manage all runoff on-site. The applicant meets Commission rate control requirements.

Commission rules require the site to infiltrate 1.0 inch of runoff from new impervious area within 48 hours. The new impervious area on this site is 10.5 acres, requiring infiltration of 0.9 acre-feet within 48 hours. The applicant proposes to infiltrate all runoff onsite due to highly permeable soils that have the capacity to infiltrate the required volume within 48 hours. The applicant meets Commission volume control requirements.

The erosion control plan includes rock construction entrances, perimeter silt fence, silt fence along pond borders, inlet protection, and native seed specified on the pond slopes. The erosion control plan meets Commission requirements.

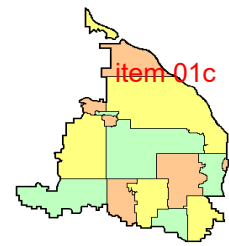
The National Wetlands Inventory does not identify any wetlands on site. There are no Public Waters on this site. There is no FEMA-regulated floodplain on this site.

In a telephone conversation on May 29, 2014 between Erik Megow of Wenck Associates and Dan Bowar of EVS Engineering, Bowar had stated that there is no known groundwater contamination on the project site.

Public hearings on the project are scheduled for September 9, 2020 and September 28, 2020 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

A draft Operations and Maintenance (O&M) agreement between the applicant and the City of Brooklyn Park was not provided, but in an email to Katie Kemmitt, Wenck Associates, on September 3, 2020 Trisha Sieh acknowledged that an agreement will need to be written.

Motion by Jaeger, second by Chesney to advise the City of Brooklyn Park that Project WM2020-007 is approved with the following conditions:



1. Provide a complete O&M agreement between the applicant and the City of Brooklyn Park for all stormwater facilities on the project site.
2. Update grading plans to show pond P-B inlets with rip rap extending to the pond bottom.
3. Provide sand and grit capture at all direct inflows into the pond such as a catch basin sump, Rain Garden or designated capture area within the pond using a rock barrier to define the sedimentation area.

*Motion carried unanimously.*

**VII. Watershed Management Plan.**

**VII. Water Quality.**

Motion by Jaeger, second by Schoch to approve the **Joint Funding Agreement\*** with the US Geological Survey in the amount of \$3,800 for the water year October 1, 2019 – September 30, 2020. *Motion carried unanimously.* The agreement provides for the operation and maintenance of specific conductance and water temperature monitoring at Shingle Creek at Queen Avenue in Minneapolis.

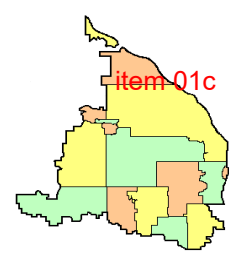
**VIII. Grant Opportunities.**

**A. Bass and Pomerleau Alum Treatment.\*** In 2018 the Commission entered into a cooperative agreement\* with the City of Plymouth regarding the Bass and Pomerleau Alum Treatment project. Plymouth is acting as the lead agency for the alum treatment contracting. The current agreement capped the reimbursement to the City for those contracts at \$195,000. Both the 2019 and 2020 bids came in higher than originally estimated due to an increase in the per gallon price for alum and the City has requested that the cooperative agreement be amended to revise the cap so it can be fully reimbursed for the treatment costs.

The first alum treatment totaled \$111,363 and the second, which was just bid, was \$128,413, totaling \$239,776. It is Staff's recommendation that the cap in the agreement be raised to \$245,000. As the table below shows, there is ample room in the budget to cover the increased cost of treatment. Included in the meeting packet is the First Amendment\* to the original agreement which provides for this increase. Scharenbroich reported that the City Council has approved this amendment.

**Bass and Pomerleau Alum Treatment project estimated costs and funding sources.**

	As Estimated for Grant	Updated at Project Start	Current Estimate
<b>Costs</b>			
Design and pre-monitoring	\$53,400	\$53,400	\$49,879
Alum treatment	195,000	222,000	239,776
Monitoring, coring, SAV surveys	72,000	74,000	87,000
Aquatic vegetation management	50,000	50,000	40,000
Technical Services	40,000	40,000	35,000
<b>Total</b>	<b>410,400</b>	<b>439,400</b>	<b>451,655</b>
<b>Revenues</b>			
Grant	\$267,040	\$267,040	\$267,040
Commission Share	143,360	172,360	184,615
Commission Funds Available	202,300	202,300	202,300
<b>Excess Commission Funds</b>	<b>\$58,940</b>	<b>\$29,940</b>	<b>\$17,685</b>



Motion by Orred, second by Schoch to approve the First Amendment. *Motion carried unanimously.*

*[Butcher arrived 1:40 p.m.]*

**B. BWSR Watershed Based Implementation Funding (WBIF).\*** Included in the meeting packet is the updated WBIF spreadsheet\* showing the projects submitted to date from the eligible parties in the Metro-Mississippi Twin Cities West partnership. The Shingle Creek Commission had previously authorized submitting the Meadow Lake Management Plan and the Connections II projects. Both projects are also being submitted to the BWSR Clean Water Fund grant program. Staff submitted as the grant request the Commission match portion of the project cost. Should both the CWF and WBIF grants be approved, the Commission would be able to fully fund those projects from grants. **No projects from West Mississippi have yet been advanced.**

The grant funds requested for the submitted projects total \$1,217,157 and the available funds are \$874,153. To determine which of these projects will be funded, the partnership has developed a scoring process. Each of the twelve partners will score each project from 1 (low) to 5 (high) for its water quality benefits and secondary benefits. The water quality score will be weighed at 70% of the total score for the project, and the secondary benefits score will be weighed at 30%. The scores will be averaged across the twelve partners, and the projects ranked by total average score.

The partnership had until September 4 to submit projects and to fine-tune the project descriptions. Between September 4 and September 18, the partners will enter rankings into the project matrix, then meet the week of September 21 to review the rankings and make the final grant recommendations.

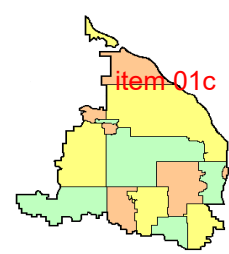
#### **IX. Education and Public Outreach.**

The **West Metro Water Alliance (WMWA)** September meeting was cancelled. WMWA will meet on Tuesday, October 13, 2020. The Zoom number is provided here so that Commissioners and TAC members can participate. It is <https://us02web.zoom.us/j/922390839> or call in at any of these numbers using meeting ID: 922 390 839: (1) +1 301 715 8592 US (Germantown); (2) +1 312 626 6799 US (Chicago); (3) +1 929 205 6099 US (New York); or (4) +1 253 215 8782 US (Tacoma)

#### **X. Staff Report.\***

**A. SRP Reduction Project.** Staff will take samples from each of the three filter media and send to UW-Stout for testing. The tests will estimate how saturated the media are with phosphorus. The filters have been in place for a year and Staff have good data on the volume of flow that has been filtered. This will be helpful in estimating the remaining useful life of each of the media.

**B. Crystal Lake Management Plan.** Staff will be undertaking the carp aging study in September. The age of carp can be reliably estimated from otoliths found in the ear canals. Otoliths are small calcium carbonate structures found in all vertebrates (including humans) that help manage sensory inputs and balance. With age they grow and accumulate rings of calcium carbonate like rings on a tree. Staff will capture up to 50 carp from Crystal Lake and remove their otoliths. The carp must be euthanized to complete this step. The otoliths will be sent to a contractor who will section the structures and read them under a microscope to estimate the individual's age. The data will be used to estimate the age structure of the carp population in Crystal Lake, helping Staff to better understand recruitment and longevity and how they can better manage the population.



**C. Bass and Pomerleau Lakes.** The second round of alum treatment has been bid and the Plymouth City Council will award a contract at its first meeting in September. This second treatment will occur when water temperatures are optimal, likely late September or early October. Phosphorus concentrations in Bass and Pomerleau continue to be well below the state standard at both the surface and bottom samples.

**D. Meadow Lake Drawdown.** Staff are finalizing the water appropriation permit for the drawdown. Staff have consulted with the DNR about the proposed turtle conservation plan and have completed a turtle survey. During the survey Staff were available to talk with residents about their specific concerns. They expect to submit the permit application within a few weeks and are still hopeful that it can be turned around fast enough by the DNR to allow the drawdown to occur this fall. Included in the Staff Report are some photos from the turtle survey and recent fish survey on Meadow Lake. Based on weight/volume, Staff estimates that the bin in pictures 3 and 4 contains about 30,000 fathead minnows.

## XI. Communications.

**A. August Communications Log.\*** No items required action.

**B.** The following email was received in the Administrator's office at 4:10 p.m., Thursday, September 10, 2020, after the Commissions' regular meeting and public hearing had concluded. The email was sent by **Diane Stauner**, a riparian landowner on Meadow Lake.

Judie,

As a riparian owner regarding the full drawdown of Meadow Lake, please enter my comments into the record. Share with commissioners, the technical advisory committee, and legal representative for the Watershed.

1.) Meadow Lake riparian owners did not receive notice required by law of the September 10, 2020 public hearing on the full drawdown of Meadow Lake.

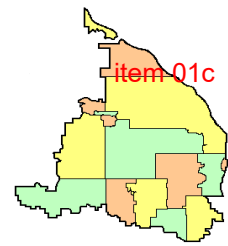
<https://www.revisor.mn.gov/statutes/2019/cite/103G.408>

*"mailed or electronically transmitted to the director, the county auditor, the clerk or mayor of a municipality, the lake improvement district if one exists, the watershed district or water management organization, the soil and water conservation district, and **all riparian owners** of record affected by the application"*

2.) The drawdown was to begin in 2021 after testing in 2020. Instead it's being rushed through in 2020 without results of the testing being communicated to the riparian owners. Riparian owners assent will be based on promises and outdated data. **Riparian owners continue to be left out of the decision making process.** The New Hope stormwater specialist communicates solely with the secretary of the Meadow Lake Watershed Association, and not directly with riparian owners. The Association only forwards the email to its board of directors, there is no mail or electronic communication of information to **riparian owners**. Weeks ago I tried to persuade the Association to communicate with all riparian owners, they say they've never needed to in the past and don't have a list of names and addresses. The failure of the City leaves out the great majority of lakeshore owners and is not in compliance with the law.

Changes to the promised plans have not been communicated to lakeshore owners:

A. One of the stated main goals of the drawdown is to eliminate fathead minnows and replace them with better fish. But the stormwater specialist relayed that the Minnesota DNR has said no other fish species is suited for this shallow lake. Is this to become a fishless lake, or are other species to be stocked? How will changing or eliminating the fish species affect the character and wildlife value of our lake? Riparian owners must be updated before giving assent.



B. A wildlife plan was promised and has not been delivered. A DNR herpetologist for the area was consulted very late in August. Why the delay in fulfilling this promise? What is the plan for a turtle overwintering area?

C. Another stated main goal of the drawdown: is to kill the supposedly dominant curlyleaf pondweed and establish native aquatic vegetation. But this year's aquatic vegetation survey found that curlyleaf was confined to the middle of the lake, surrounded by native aquatic plants, and that native vegetation in Meadow Lake is unusually healthy for a shallow lake. That finding has not been communicated to lakeshore owners.

D. Results of phytoplankton, zooplankton, and sediment core testing have not been shared.

Riparian owners are not being included in this process, and the plan is being hurriedly pushed through based on outdated information.

Diane Stauner

**XII. Other Business.**

**XIII. Adjournment.** There being no further business before the Commissions, the joint meeting was adjourned at 2:10 p.m.

Respectfully submitted,

A handwritten signature in black ink that reads 'Judie A. Anderson'.

Judie A. Anderson  
Recording Secretary

JAA:tim

Z:\Shingle Creek\Meetings\Meetings 2020\September 10 2020 regular meeting and public hearing minutes.docx

September 21, 2020

**SHINGLE CREEK WATERSHED MANAGEMENT COMMISSION****PROJECT REVIEW SC2020-009: Bass Lake Shoreline Restoration**

**Owner:** Les Hamilton  
**Address:** 11710 54<sup>th</sup> Ave N  
Plymouth, MN 55442  
**Engineer:** Ron Cemenski  
**Company:** L&R Suburban Landscaping  
**Address:** 11421 W 47<sup>th</sup> St  
Minnetonka, MN 55343  
**Phone:** 952-935-0389  
**Fax:** 952-935-3699  
**Email:** layla@lrsurbanlandscaping.com

**Purpose:** Shoreline stabilization and repair on a homeowner's property on Bass Lake.

**Location:** 11710 54<sup>th</sup> Ave N, Plymouth, MN 55442 on Bass Lake (Figure 1).

**Exhibits:**

1. Project review application and project review fee of \$300, dated 9/18/2020, received 9/23/2020.
2. Site plan (Figure 2), erosion control plan, and landscaping plans dated undated, received 9/21/2020.

**Findings:**

1. The proposed project is the shoreline restoration of a private property on Bass Lake. Existing shoreline boulders will be moved and lined underneath with MnDOT 3733 fabric liner. A buffer with landscaped wetland vegetation is proposed on the west side of the property. No increase in impervious surface is proposed.
2. The complete project application was received on 9/21/2020. To comply with the 60-day review requirement, the Commission must approve or deny this project no later than the 11/12/2020 meeting. Sixty calendar-days expires on 11/20/2020.
3. The erosion control plan includes a silt fence along the lake shoreline and construction limits. The erosion control plan meets Commission requirements.
4. The site is located on the shoreline of Bass Lake, a DNR Public Water. Bass Lake is impaired for nutrients. The proposed project is not anticipated to negatively impact the lake's impairment status. The applicant meets Commission Public Waters requirements.
5. There is a FEMA-regulated floodplain on this site; however, no floodplain fill is proposed. The applicant meets Commission floodplain requirements.
6. A Project Review Fee of \$300 has been received



**SC2020-009:**

**Recommendation:** Recommend approval with no conditions.

Wenck Associates, Inc.  
Engineers for the Commission

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Ed Matthiesen, P.E.

Date

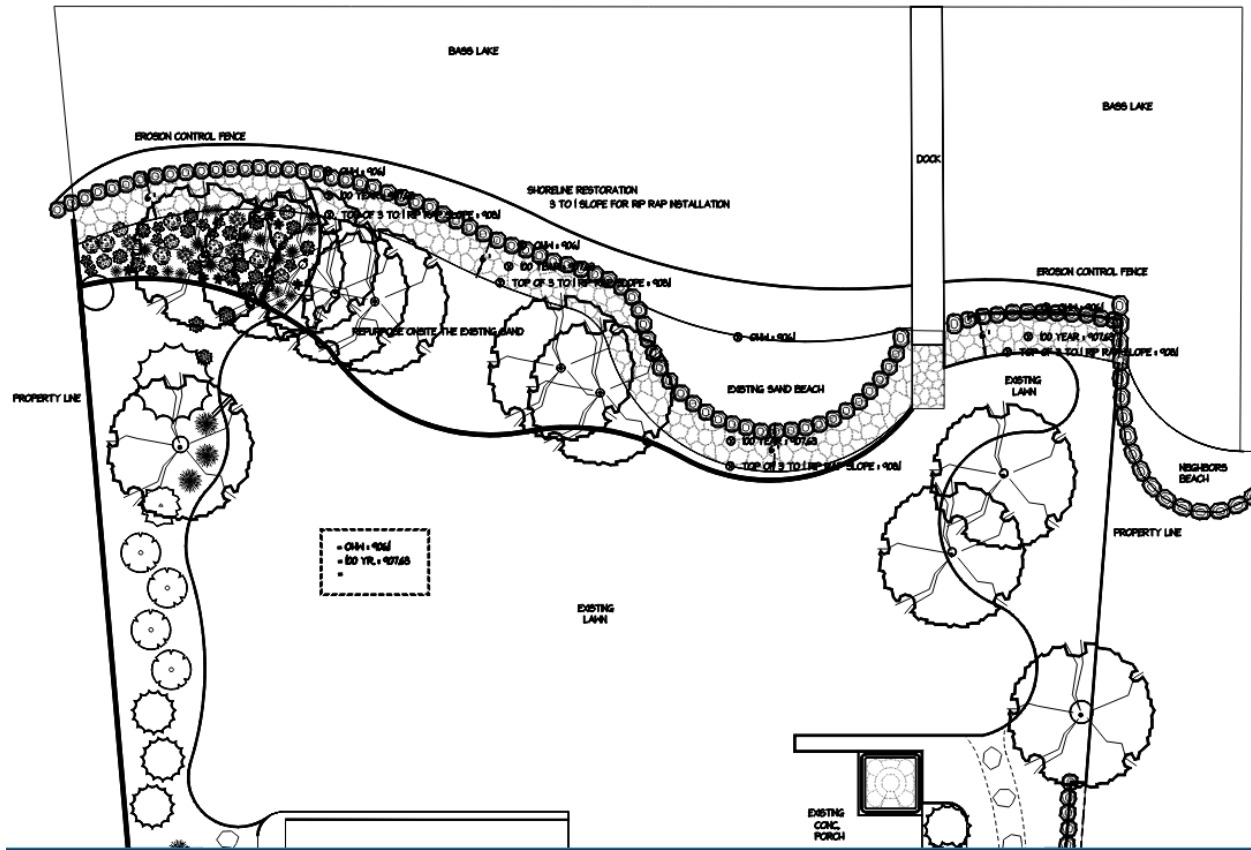
SC2020-009:

Figure 1. Site location.



Figure 2. Site plan.

SC2020-009:





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# Technical Memo

**To:** Shingle Creek/West Mississippi WMO Commissioners

**From:** Ed Matthiesen, P.E.  
Diane Spector

**Date:** October 2, 2020

**Subject:** Project Review Fees- TAC Recommendation

<b>Recommended Commission Action</b>	Adopt the proposed revisions to the project review fee schedule, effective January 1, 2021.
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As we've previously discussed, as part of the 2021 budget process we looked at the project review fees to see if they are adequately covering costs. The review fee structure is intended to *on average* recapture the costs of undertaking the review, which may include meetings with agency or applicant representatives and special analyses such as hydrologic and hydraulic modeling or floodplain calculations. The desire is to both limit undercharging and overcharging individual projects.

The TAC has discussed the project review fee structure a few times, looking at the schedules for Bassett Creek and Elm Creek as well for comparison. Staff also looked more closely at the effort to complete the last few years of reviews where the cost exceeded the fee received or where the fee greatly exceeded the cost to review. There was no one reason why, but projects with floodplain impacts, stream crossings, or complicated, lengthy highway projects generally required more effort to review. In addition, there are just some projects that require the applicant to rework and resubmit details. That can very quickly up the time required. And many of the largest projects at the top tier were in the Arbor Lakes or the Highway 610 corridor, where regional stormwater management simplifies the analysis required for the project review.

The TAC had previously discussed two options: a structure that charges a base fee and then adds additional fees for specialized reviews such as Bassett; and an escrow structure where the applicant pays the actual cost to complete the review such as Elm Creek. The TAC had leaned toward the former.

The following table shows the current fee structure and staff/TAC recommendations.

1. Condense the top two tiers for both residential and commercial sites to a single tier.
2. Separate city street and county/state linear projects into separate tiers. The county and state projects often require one or more meeting with those agencies at various design stages, requiring more work than city projects.
3. Linear projects impacting multiple jurisdictions such as light rail or major highway projects should be determined by negotiation.
4. Add separate add-on fees for projects needing analysis of manufactured treatment devices, floodplain impacts or crossings that may require H & H modeling and verification.

**Table 1. Recommended project review fee revisions.**

<b>Project Fees</b>	<b>Current</b>	<b>Suggested</b>
Single Family Lot	\$300	\$300
Single Family Residential Development, density less than 3 units per acre		
Total Site <15 acres	1,500	1,800
Total Site 15+ acres	1,800	2,000
All Other Development		
Total Site <5 acres	1,700	1,800
Total Site 5-9.99 acres	2,200	2,200
Total Site 10+ acres	2,200	2,500
Variance Escrow	2,000	2,000
City street or utility project	1,100	1,100
County or state highway project		2,000
Linear project impacting multiple jurisdictions		Negotiated fee
<i>Additions to Base Fee</i>		
Projects using Manufactured Treatment Devices (fee per type of device)		500
Projects with floodplain impacts		300
Projects with stream crossings		1,000
<b>Wetlands:</b>		
Wetland delineation review	300	300
Wetland replacement plan escrow	1,500	1,500
Monitoring and reporting deposit	1,500	1,500
Wetland replacement escrow	varies	varies

Note: The project review fees were last revised effective October 2014.

**Metro – Mississippi Twin Cities West  
Watershed-based Implementation Funding (WBIF)  
Meeting #4**

September 23, 2020  
10:00 - 11:30 a.m.

Join Zoom Meeting

<https://us02web.zoom.us/j/89911496374?pwd=aDFhUzlhVEJxekV4WVptSmExSE1hQT09>

**Meeting ID: 899 1149 6374**

**Passcode: 298101**

One tap mobile

+19292056099,,89911496374#,,,,,0#,,298101# US (New York)

+13017158592,,89911496374#,,,,,0#,,298101# US (Germantown)

Dial by your location if joining by phone

+1 929 205 6099 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 669 900 6833 US (San Jose)

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**Purpose of meeting:** To review projects submitted and ranked by partnership. Decide what projects to bring forward in budget request.

**Attendees:** Chris Lord (Anoka Conservation District), Laura Jester (Bassett Creek WMO), Tim Sundby (Carver County), Mike Wanous (Carver SWCD), Amy Juntunen (Elm Creek WMO), Karen Galles (Hennepin County (as SWCD)), Derek Asche (City of Maple Grove), Becky Christopher (Minnehaha Creek WD), Leslie Yetka (City of Minnetonka), Doug Snyder (Mississippi WMO), Diane Spector (Shingle Creek WMO and West Mississippi WMO)

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**Agenda**

10:00 Welcome and Purpose of Meeting

Attendees: Marcey Westrick, Brad Wozney, Steve Christopher, Amy Juntunen, Chris Lord, Derek Asche, Diane Spector, Karen Galles, Laura Jester, Doug Snyder, Tim Sundby

10:10 Consider if allocation approaches are warranted (funding caps, minimum dollar amounts, funding maximums per LGU, etc.)

A. Reviewed project requests and available amounts. Considering funding highest ranked projects until cutoff of funding amount.

B. Christopher asked if an LGU can't implement a project, what is process for replacement? Westrick stated that it is up to the group. BWSR's preference would be to see if a similar project on a similar resource is viable for the LGU. Christopher said that if a project were different in scope or addresses a different resource, the group should reconvene. Jester agreed.

Asche would like a tiered structure to ensure all projects receive some funding. BWR Field staff mentioned that the City of Minnetonka project may be ineligible due to lack of plan connection in the MCWD Plan. BWSR field staff will follow up with City staff.

Westrick raised possibility of full funding for projects ranked as 4 or higher. Other projects would receive at least partial funding. Further discussion amongst group.

Full funding of ranked project list through Elm Creek Restoration. Partial funding of Rush Creek Restoration was discussed. Anoka CD stated they would remove their project due to the uncertainty of project readiness and bring back next funding round. The City of Minnetonka project was also not considered for funding due to eligibility concerns and the project score. The group voted unanimously to support full project funding through Shingle Creek WMO Connections II project and allowing Elmo Creek WMO to decide how to use the remaining funds between the Elm Creek and Rush Creek restoration projects as shown in Table 1.

**Table 1. Mississippi Twin Cities West WBIF Recommendation to move forward in Budget Request**

<b>LGU</b>	<b>High-level Project Description</b>	<b>Requested Funding</b>	<b>Funding Recommendation</b>	<b>Total Score</b>
Shingle Creek WMO	Alum treatment in Meadow Lake	\$ 40,000	\$ 40,000	4.43
Basset Creek WMO	Retrofit 3 lagoons in Theodore Wirth Park	\$ 250,000	\$ 250,000	4.33
Minnehaha Creek WD	Stabilization of ravine in Wolsfeld Woods	\$ 232,157	\$ 232,157	4.22
Anoka SWCD	Water quality improvement retrofits per SWA analysis - one new pond	\$ -	\$ -	3.75
Shingle Creek WMO	Connections II stream restoration -	\$ 70,000	\$ 70,000	3.73
Elm Creek WMO	Elm Creek Restoration	\$300,000	\$ 281,996	3.70
Elm Creek WMO	Rush Creek Restoration	\$200,000		3.61
City of Minnetonka	Add Raingardens to a road construction project	\$25,000	\$ -	2.73
	<b>Total Awarded</b>		\$ 874,153	
	<b>Amount Available</b>		\$ 874,153	

The group discussed that if a project falls through, the group leans toward funding next project on list (Rush Creek, Elm Creek WMO), but some supported reconvening to discuss. Snyder - It would depend on the amount of funds. If a larger project fully falls through then it should go to Rush Creek. The group decided that reconvening if a project falls through should occur even if via email.

There was discussion that in future funding cycles, the notion of a funding cap makes sense and should be considered by the group.

### **Discuss next steps**

Jester asked what the next steps are. Westrick stated the next step is for each LGU to submit a eLINK budget request. Once that is approved by the Board Conservationist, a work plan can be completed. Once the work plan is approved, the grant agreement will be sent out. BWSR will send out information along with the meeting notes. Spector asked if there would be official notification. Westrick stated when she sends out the meeting summary and notes, that would be considered the official notification.





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# Technical Memo

**To:** Shingle Creek/West Mississippi WMO Commissioners

**From:** Ed Matthiesen, P.E.  
Diane Spector

**Date:** October 2, 2020

**Subject:** Watershed Based Implementation Funding Awards

## Recommended Commission Action

Accept grants and authorize submittal of work plans.

The Metro-Mississippi Twin Cities West partnership met on September 23, 2020 to review Watershed Based Implementation Fund (WBIF) grant applications and rankings and to make an award recommendation to the Board of Water and Soil Resources (BWSR). Attached to this memo are the meeting minutes.

Shingle Creek submitted two projects for consideration and West Mississippi submitted none. Nine projects were submitted and eight were ranked (one was withdrawn prior to ranking). Projects were scored on a 1 (low) to 5 (high) scale as to water quality benefits (pollutant removal efficiency (cost-benefit) and effectiveness), and other project benefits (such as habitat enhancement or education/outreach opportunities). The scores were combined by weighting the water quality score 70% and the other benefits score 30%. One applicant withdrew their project after the rankings were complete because they were logistical issues meant they couldn't guarantee it could be completed in time.

The project rankings are in the attached notes. The Meadow Lake Alum Treatment project was ranked number 1 and the Connections II stream restoration project was ranked number 5. Both were recommended for full funding, \$40,000 and \$70,000 respectively. Both projects have also been submitted to the Clean Water Fund grants, and the WBIF request is for the amount of Commission match. If one or both of those projects are also funded from the Clean Water Fund, then those projects will essentially be "free" to the Commission and cities. The Commission has also certified a levy for both projects. Levy funds received that are not necessary to fund the projects will be transferred to the Closed Projects Account and become available to fund other projects.

The next steps will be for staff to submit work plans into BWSR's electronic reporting system eLink. These work plans are relatively simple and both can be completed in under one hour. Once those are approved by BWSR, the agency will generate a grant contract which will come back to the Commission in 1-2 months for approval. After that contract is executed, BWSR will release 50% of the funds, with the balance released as various project milestones are reached.

# Technical Memo



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**To:** Shingle Creek/West Mississippi WMC Commissioners

**From:** Ed Matthiesen, P.E.  
Diane Spector

**Date:** October 2, 2020

**Subject:** September 2020 Monthly Staff Report

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**Monitoring.** The final lake monitoring for the year has been completed. Stream monitoring will continue biweekly through the end October. Stream chloride sampling will continue monthly through the winter. Two DO longitudinal studies have been completed on Bass and Shingle Creeks, one in late July and one in late August. The goal of a longitudinal study is to assess the DO conditions across the entire stream in rapid succession. The field technician at 6 am starts at the most upstream site, in this case Bass Creek just west of I-494, and takes a DO reading, then moves downstream to the next site and takes a reading, and so on until she reaches the confluence with the Mississippi River just after 9 am. These readings are early in the day, after DO has been depleted overnight and the values are at their lowest. Then she returns at 3 pm and repeats the process after photosynthesis in the stream has raised DO and the values are at their highest. This provides both a snapshot of overall conditions as well as an understanding of the daily range of DO concentrations. The state standard for streams such as Shingle Creek is to maintain a minimum concentration of 5 mg/L of D. Except for a few locations, most of the 22 sites tested fell below 5 mg/L in the early morning, with the lowest concentration 0.4 mg/L of DO. All the sites were above 5.0 mg/L by the midafternoon. Staff will be working on the Shingle and Bass Creeks DO and Biotic TMDL 5 Year Review this winter.

## Project Updates

*SRP Reduction Project.* The conditions have been dry these days so not much water sampling. Samples of the media were collected and sent to a lab for P-saturation analysis to see if we could get an idea of whether the media can still adsorb P. The results show none of the media are fully saturated yet

*Crystal Lake Management Plan.* In the past few weeks staff undertook a Twin Lake carp population assessment This is done using a standardized method to sample the population, and an equation to convert the results of the survey into an estimate of population and total biomass. While those final calculations haven't been completed yet, we caught between 20-40 carp on each transect totaling about 60-80 carp in one hour. Most of the fish were 1-4 pounds and appear to be from a similar recruitment year. To refine the estimate and age distribution, 50 of the fish were euthanized and had their otoliths (inner ear structures) extracted for aging analysis. These samples were preserved and have been sent to a subcontractor for an ageing analysis. Once the results come back, we will have an estimate of the biomass, population, and age structure for the carp in Crystal Lake.

*Bass and Pomerleau Lakes.* The second alum treatment will occur the week of October 12 and will be done by the end of the week. Next spring, we will take final sediment cores to determine if we have successfully reduced sediment release to our goal rate. We will also survey the curly-leaf pondweed and complete a third treatment.

*Meadow Lake Drawdown.* Wenck conducted a fisheries and turtle survey, collected zooplankton and phytoplankton samples, and completed the fall SAV survey. The fisheries survey found over 30,000 fathead minnows and no other fish species. Captured as by catch were also a few invasive rusty crayfish and a handful of painted turtles. The SAV survey was encouraging. Elodea (Canadian waterweed) dominated the biomass and was found throughout the lake. We also observed narrowleaf pondweed, coontail, multiple duckweed species, and arrowhead growing along the shore. Staff completed the feasibility report that will be submitted to the DNR with the water appropriation permit and it is as of this writing being reviewed by the city and the lake association.



No flow over the weir, the SRP filters are dry.

**SHINGLE CREEK / WEST MISSISSIPPI WATERSHED MANAGEMENT COMMISSION  
MONTHLY COMMUNICATION LOG  
September 2020**

item 10a



Date	From	To	SC	WM	Description
9-2-2020	Mark Bringham @ USGS	Ed M.	X	X	Comments on USGS data collection and presentation
9-3-2020	Chuck Kendall @ Brooklyn Center Upper Twin Lake resident	Diane S.	X		Options to improve water quality on Upper Twin Lake
9-8-2020	Jerome Adams and Anna Varney @ MnDOT	Ed M.	X	X	TH 252 Environmental Impact Statement Participating Agency
9-14-2020	Will Matzek @ Kimley-Horn	Ed M.		X	New project at Park Place Promenade WM2005-05 in Brooklyn Park
9-16-2020	Steve Mastey Landscape Architect	Ed M.	X		Crescent Cove planting plan
9-16-20	Upper Twin Lake residents	SC WMC	X		Ed M, Diane S, Andrew H, and Mark R met with Upper Twin Lake residents who are formally organizing a lake association. They would like to know more about how to improve the lake water quality. They are also interested in installing a permanent water ski course as well as an aerator in the "channel" on the west side of the island.
9-17-2020	Lee Elfering @ Elfering & Assoc.	Ed M.	X		Parking lot amendment to SC2016-10 Luther Automotive
9-18-2020	Layla @ L&R Landscaping	Ed M.	X	X	Project review question
9-21-2020	Roxy Robertson @ WSB	Ed M.		X	Tilleman's Site in Champlin wetland boundary finding
9-21-20	Stephanie Thulien, Kimley-Horn	SC WMC	X		Courtesy copy of MWMO draft watershed management plan update for informal review
9-21-20	Julie Olsen, BLIA	Sc WMC	X		Invitation to appear at Bass Lake Improvement Association to review post-alum monitoring data on October 5 [Katie will attend]
9-22-2020	Melissa White @ LHB	Ed M.	X	X	Brooklyn Park municipal park improvements infiltration rates
9-22-20	Comm John Roach	Diane S	X	X	Request for previously-prepared background presentation for City Council
9-23-20	Sarah Nalven, formerly of Wenck	Diane S	X		From a former Wenck employee who moved back to Boston: "I'm working with a guy in VHB's [a consulting firm] New Hampshire office on a snow and ice management plan for MassDOT. When I told him I didn't have much experience with chloride work, but that colleagues at my former company wrote the first chloride TMDL, he goes "Ohhh Shingle Creek." I was like "What?! You know Shingle Creek?!" And he's like, "oh of course I know Shingle Creek..." and then told me about how after it came out, for many years in NH they used it as a model for addressing chloride impairments."
9-23-20	Karen Galles, HCEE	Diane S	X	X	She is working with a professor at the U teaching a class called Sustainable Land Use Planning and Policy. She's looking for people willing to be interviewed by students regarding watershed planning.
9-25-20	Marcey Westrick, BWSR	Diane S	X	X	Notification of final Watershed Based Implementation Funding (WBIF) results, including funding Meadow Lake and Connections II grant requests